

## Attachment 4

FLO-2D Pro Build 16.06.16 Software Validation and Verification Report Software Test  
(3936 pages follow)

**FLO-2D PRO BUILD 16.06.16  
SOFTWARE VALIDATION AND VERIFICATION REPORT  
SOFTWARE TEST**

for the  
**PERRY NUCLEAR POWER PLANT**  
10 Center Road  
North Perry, OH 44081



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Energy Harbor  
168 East Market Street  
Akron, OH 44308

Revision 0

June 1, 2020

	<u>Printed Name</u>	<u>Affiliation</u>	<u>Signature</u>	<u>Date</u>
Preparer:	Anubhav Gaur	ENERCON		<small>Digitally signed by Anubhav Gaur, Project Manager, Enercon Services Inc. Date: 2020.06.01 16:43:23 -05'00'</small>
Verifier:	Lana Lawrence	ENERCON	Lana Lawrence	<small>Digitally signed by Lana Lawrence Date: 2020.06.01 16:39:59 -05'00'</small>
Approver:	Steven Phillippi	ENERCON		<small>Digitally signed by Steven Phillippi Date: 2020.06.01 18:02:17 -04'00'</small>
Approver:		Energy Harbor		



<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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## REVISION HISTORY

<b>Revision</b>	<b>Date</b>	<b>Description</b>
0	June 1, 2020	Initial Issue

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## I. DESCRIPTION

<b>Software Name, Version, and Build Number:</b>	FLO-2D Pro, Build 16.06.16 Computational Engine (FLO-2D-Setup.exe) GDS Pro with VC2005-CON.dll (VC2005-CON.dll)  Storm Water Management Model (SWMM) Version 5.0.022
<b>Supplier:</b>	FLO-2D Software, Inc., P.O. Box 66 Nutrioso, AZ 85932, USA  SWMM - U.S. Environmental Protection Agency (EPA)
<b>File Date and size:</b>	FLO-2D-Setup.exe, Build 16.06.16: September 08, 2017, 878,449 kb  FLOPRO.exe: October 29, 2016, 10,516 kb  VC2005-CON.dll: October 28, 2016, 645 kb The source code is proprietary and not readily available or distributed by the originator.
<b>Software or Service Description:</b>	FLO-2D Pro is a dynamic flood routing model that simulates channel flow, unconfined overland flow and street flow. It can simulate a flood over complex topography and roughness while reporting on volume conservation – the key to accurate flood distribution.

## Summary of Conclusions

Based on the complete set of results for the manual calculations and the FLO-2D Pro calculations, the FLO-2D Pro software is determined to be accurate. The comparison of the results indicates acceptable consistency and accuracy and it is concluded that FLO-2D Pro is acceptable and accurate for its intended use in modeling a flood due to a Local Intense Precipitation (LIP) and lesser flood elevations. Testing of all critical characteristics was deemed to be acceptable, and it is concluded that the FLO-2D Pro software is acceptable and accurate.

## Non-conformances

This section describes all errors, discrepancies, or weaknesses discovered during testing or reported by the software vender and the resolution or explanation of each. The applicable features for FLO-2D were verified to be accurate and acceptable for use by comparing hand calculations and/or benchmark cases to FLO-2D functions. Known deficiencies are corrected through the use of new software builds issued by the software vender by downloading them from the vendor's website (<https://www.flo-2d.com/download/>)

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Software error discovery and notifications will be performed in accordance with NOP-SS-1001 (Reference 10). A condition report will be initiated in accordance with NOP-LP-2001, when an error or failure is discovered (Reference 10).

### **Build 18-12-20**

The newest version of the FLO-2D Pro software as of December 26, 2019 is Build 18.12.20. Changes made to the FLO-2D software as compared to previous versions are documented in the FLO-2D document titled *Revisions, Enhancements and Bug Fixes* (Reference 9) included as Attachment 19. Reference 9 shows that several changes were made in the newest Build 18-12-20 as compared to Build 16.06.16.

### **Unresolved Issues and Work Arounds**

There are five known deficiencies involving the FLO-2D and SWMM 5.0 interaction. The deficiencies and error resolutions are shown below:

- 1) When prompted to save the "SWMMFLO.DAT" file from the Graphical User Interface (GUI), do not save the file but click "close" instead, as shown in Figure 1. The workaround is to make all edits to the "SWMMFLO.DAT" file outside of the GUI in a text editor such as notepad or wordpad. Saving the "SWMMFLO.DAT" file from the GUI corrupts the file and the model will crash immediately when attempting to run the model.



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Storm Drain FLO-2D Inlets

Drain Type: Curb Inlet (no sag)=1; Curb Inlet (w/sag)=2; Grate (gutter) (w/sag)=3; Manhole=5

	Node	Storm Drain ID	Drain Type	Length(1 or 2) Perimeter(3 or 5)	Width(2) Area(3 or 5)	Height(1 or 2) Sag Height(3) Surcharge(5)	Inlet Weir Coeff	Feature	Curb Height
1	71053	A1	3	1.57	0.2	0	3	0	0
2	72017	A10	3	1.57	0.2	0	3	0	0
3	74894	A11	3	1.05	0.09	0	3	0	0
4	75210	A12	3	1.05	0.09	0	3	0	0
5	74578	A13	3	1.05	0.09	0	3	0	0
6	76398	A16	3	0.79	0.05	0	3	0	0
7	78723	A17	3	0.79	0.05	0	3	0	0
8	74915	A18	3	1.05	0.09	0	3	0	0
9	72993	A2	3	1.57	0.2	0	3	0	0
10	71711	A20	3	1.05	0.09	0	3	0	0
11	71061	A21	3	0.79	0.05	0	3	0	0
12	77145	A22	3	1.05	0.09	0	3	0	0
13	77142	A23	3	1.05	0.09	0	3	0	0

Edit Current Selection

Notes:

- i. For Drain Type 1: Width=0
- ii. For Drain Type 3:
  - Perimeter does not include curb side.
  - Area = clear flow area in grate.
  - Height = sag height.
- iii. Weir Drain Coefficients:
  - Type 1, 3, and 5: Range 2.8 to 3.2
  - Type 2: Typically 2.3
- iv. For Drain Type 4: rating table required.
  - Length=0, Width=0, Height=0, Weir Coefficients=0

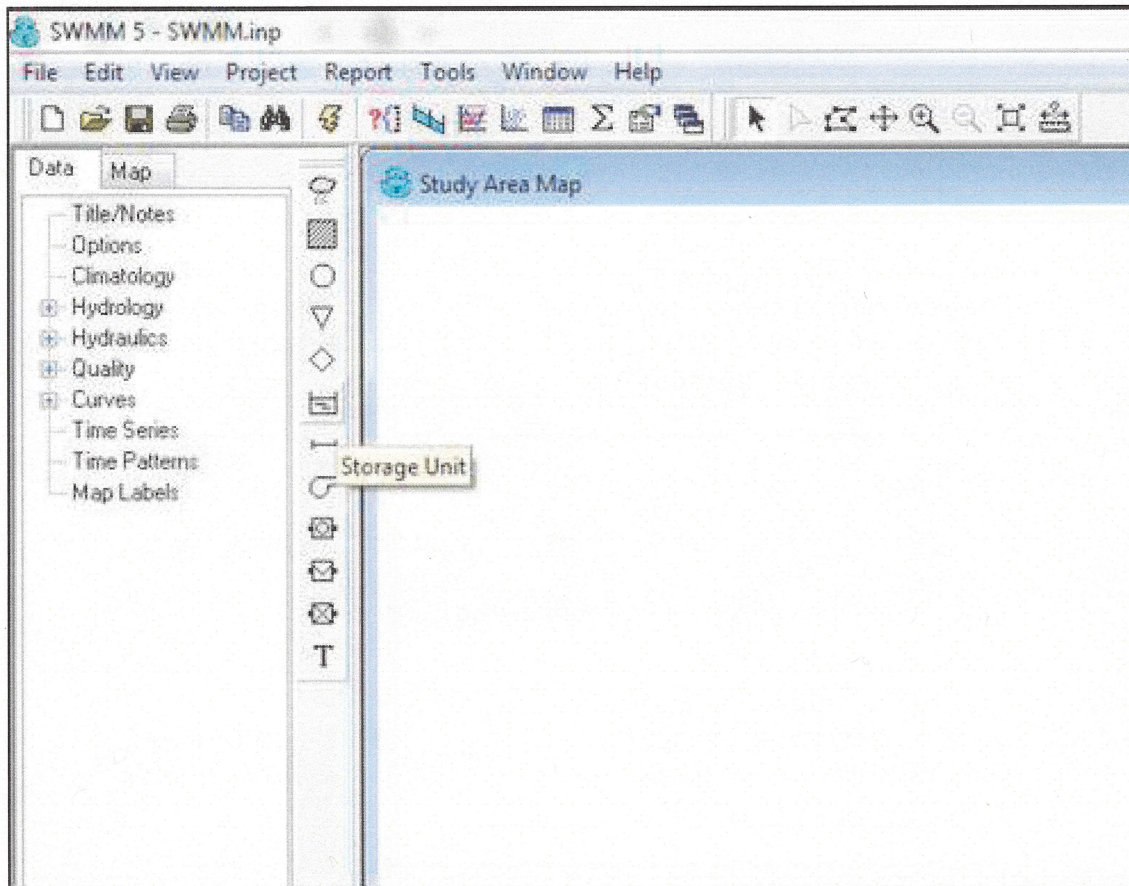
Save to SWMMFLO.DAT      Close

Figure 1: GUI to Save "SWMMFLO.DAT" File

- 2) The program will compute a NAN (Not A Number) values for volume conservation or crash completely when trying to run a model that contains grid cells with completely blocked Area Reduction Factors (ARFs) over storm drains, multiple channels, or other hydraulic features. The workaround is to ensure that no ARFs are applied over grid cells that contain these features.
- 3) Do not use storage node junctions in the SWMM interface of the program when modeling storm drains. Figure 2 illustrates how the storage node junction appears in SWMM. The storage node junction does not compute the flow correctly for flow entering or leaving the node and also affects upstream nodes. The workaround is to not use this particular function with FLO-2D.



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**Figure 2: Storage Unit Node Location in SWMM**

- 4) In addition to checking the ".CHK" (check) files after running a model, be sure to also check the "FPRIMELEV.OUT" file after running a project with storm drains. This file lists the grid cells and elevations that were changed to match the storm drain inlets. The FLO-2D program will automatically change a grid cell elevation to match the elevation of the rim inlet of storm drain. The ground elevations of the catch basins specified on drawings will not always match exactly the ground elevation of the FLO-2D grid elements because the FLO-2D ground elevations are averaged elevations for the specified grid area. In some rare cases, the elevation data point averaging used to assign a grid cell elevation may cause the catch basin inlet rim elevation to be higher than the FLO-2D grid elevation. Therefore, in some instances, it may be necessary to adjust the catch basin depth (lower the catch basin inlet rim to match the ground elevation) to allow overland runoff to enter the storm drain system. Note that lowering the catch basin inlet in modeling space is done to more realistically represent the storm drain inlet. If left unchanged, the FLO-2D model will automatically adjust the grid cell elevation to match the rim elevation of the catch basin inlet. This will create a false high point that would limit water from entering the catch basin from the surrounding overland runoff. The catch basins with the ground elevations below the FLO-2D elevations are generally left unchanged because the catch basins are usually

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somewhat lower compared to the surrounding area to improve hydraulic conditions of the storm drain system (i.e., sump inlet).

- 5) The 'FLOW DEPTH' output in the TIMDEP.HDF5 output file is misidentified. The 'FLOW DEPTH' parameter is the water surface elevation, not the water depth. The workaround is to subtract the cell elevation from the water surface elevation value to determine the water depth. No modification is required for the other output parameters.

### **Software Applicability Statement**

The FLO-2D Pro, Build 16.06.16 (FLO-2D) computer program is a dynamic flood routing model that simulates channel flow, unconfined overland flow, and street flow. It can simulate a flood over complex topography and roughness while reporting on volume conservation – the key to accurate flood distribution.

FLO-2D Pro's main intended use is for calculating stillwater elevations and inundation extents for a flood caused by a LIP and floods caused by lesser precipitation events.

All known deficiencies of the software have been reviewed and have no effect on the accuracy of the data created by this software. By monitoring the software provider's website, notifications of errors (bugs) and updates are evaluated for significance and resolved in accordance with NOP-SS-1001 (Reference 10).

### **Program Access/Security**

The software is maintained on a designated computer as an executable file to prevent unauthorized editing. Access to the computer is password protected to restrict access and deletion. A backup copy of the software is also maintained in a fireproof safe in the document control area.



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## II. SOFTWARE EVALUATION

**What is the safety function of the structure, system, or component (SSC) in which this software or service will be installed or used?**

The FLO-2D Pro computer software must accurately make a determination of the potential flood water levels. Under-prediction of the maximum water surface elevation or flood duration could potentially result in some SSCs being under protected against a LIP external flooding hazard.

**What is the design function of the software or service? Describe how the software/service functions and how the software/service will impact the results.**

The FLO-2D Pro is a combined two-dimensional hydrologic and hydraulic model that is designed to simulate river overbank flows as well as unconfined flows over complex topography and variable roughness, split channel flows, mud/debris flows and urban flooding. Application of the model requires knowledge of the site, the watershed setting, goals of the study and engineering judgment.

The FLO-2D Pro computer program will be used to identify water levels and hydraulic parameters resulting from a flood caused by a LIP or any other rainfall event at areas of interest.

**What are the ways in which the software or service could fail and the effects of these failures? Will these failure modes be obvious?**

Improper performance of the software could result in errors. The errors could lead to suspect or incorrect water levels and hydraulic parameters determined by the software. These false water levels and hydraulic parameters could be reported in the calculations. The errors may not be obvious.

### **Potential Software Errors**

Conceptual Error: obtained results are incorrect/inaccurate for calculations performed within the specified range of use.

Arithmetic Error: obtained results are incorrect/inaccurate for calculations performed within the specific range of use, engineering parameters.

Interface Error: obtained results are incorrect/inaccurate when computer program is installed and interfacing with other programs, hardware or operating systems.

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### III. SOFTWARE CRITICAL CHARACTERISTICS TESTED

**Based on the safety function(s) of the SSCs in which the software/service will be used for, what characteristics are considered critical for ensuring that the software/service will perform its intended safety function? Provide a statement of the engineering judgement used to determine the critical characteristics, and the assigned tolerance, parameter or boundary.**

FLO-2D Pro includes functions for simulation of two-dimensional overland flow, channel flow, channel floodplain interface, street flow, floodplain surface storage, area modification and flow obstructions, levees, breaching, infiltration, sediment transport (mudflow), evaporation and hydraulic structures (culverts). Functions to develop a two-dimensional grid and to simulate two-dimensional overland flow, channel flow, channel floodplain interface, floodplain surface storage, area modification and flow obstructions, levees and hydraulic structures (culverts) are tested. The GDS Pro module does not contain any critical characteristics but is necessary for execution of the FLO-2D Pro engine.

10CFR21 gives the definition of a critical characteristic as “those important design, material, and performance characteristics of a commercial grade item that, once verified, will provide reasonable assurance that the item will perform its intended safety function”. The following software critical characteristics, shown in Table 1 were tested.

**Table 1: Critical Characteristics, Acceptance Criteria, and Method(s) of Acceptance**

Number	Software Critical Characteristic	Acceptance Criteria	Acceptance Data
1	Software revision number	Verify that the Software Build 16.06.16 is during software testing	The software revision number was verified at the time of software testing and was confirmed to be FLO-2D Pro Build 16.06.16
2	Platform compatibility (operating system)	Computer program is compatible with the current operating system	Section V – Platform Compatibility
3	Hardware compatibility	Computer program is compatible with current hardware	Section V – Hardware Compatibility
4	Functions/applications 1. Overland Flow Simulation 2. Channel Flow Simulation 3. Channel-Floodplain Interface 4. Floodplain Surface Storage Area Modification and Flow Obstructions 5. Rainfall-Runoff Simulation 6. Hydraulic Structures 7. Levees 8. Green-Ampt Infiltration 9. EPA SWMM Model Interchange and Pipe Flow 10. Inflow and Outflow Elements 11. Multiple Channels 12. Topography	Outputs are consistent and accurate for various applications.	Section V - Test Case:  1) Test Cases 1a and 2 2) Test Cases 2 and 3 3) Test Case 2 4) Test Cases 2 and 6 5) Test Cases 2 and 6 6) Test Case 3 7) Test Case 7 8) Test Case 5 9) Test Cases 4a and 4b 10) Test Case 1a, 1b, and 3 11) Test Case 1b 12) Test Case 8

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Number	Software Critical Characteristic	Acceptance Criteria	Acceptance Data
5	Range (input variables, limits of application)	Outputs are consistent and accurate over a range of inputs and applications	Test Cases 1 through 8
6	Accuracy	Outputs are mathematically accurate	Test Cases 1 through 8
7	Repeatability and Reproducibility	Outputs are consistent and accurate between multiple tests on the same computer. Software was installed on only one computer.	Since software is installed on only one computer, each test was run twice on the same computer to verify repeatability and reproducibility. Results were identical from two runs.

FLO-2D features that are not tested and validated are listed below. These features were not utilized in flooding calculation for Perry.

- MODFLOW Interface
- Coastal flooding
- Levee and dam failure
- Evaporation
- Sediment transport
- Mud and debris flow

Description of Critical Software Functions (Critical Characteristic #4) listed in the Table 1 are provided below.

#### 1. Overland Flow Simulation including Multiple Channel Flow

This FLO-2D Pro component simulates overland flow and computes flow depth, velocities, impact forces, static pressure, and specific energy for each grid. Predicted flow depth and velocity between grid elements represents average hydraulic flow conditions computed for a small-time step. For unconfined overland flow, FLO-2D Pro applies the equations of motion to compute the average flow velocity across a grid element boundary in eight directions one direction at a time. The eight potential flow directions are the four compass directions and the four diagonal directions. The surface storage area or flow path can be modified for obstructions including buildings. Rainfall and infiltration losses can add or subtract from the flow volume on the floodplain surface. The inflow elements provide inflow input into the model in a form of a hydrograph. The outflow elements allow flow to be removed from the model domain. The outflow elements are assigned to the area with the lowest elevations where flow is naturally discharged from the flood plain or a channel. The purpose of the multiple channel flow component is to simulate the overland flow in rills, gullies, swales rather than as overland sheet flow. Surface water is often conveyed in small channels and simulating multiple channel flow concentrates the discharge with higher depths and velocities to improve the model runoff timing.

#### 2. Channel Flow Simulation

This component simulates channel flow in one-dimension. The channel is represented by natural, rectangular or trapezoidal cross sections. Discharge between channel grid elements are defined by average flow hydraulics of velocity and depth. Flow transition between subcritical and supercritical flow is based on the average condition between two channel elements. River channel

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flow is routed with the dynamic wave approximation of the momentum equation and it is simulated with either rectangular, trapezoidal or surveyed cross sections.

### 3. Channel Floodplain Interface

This FLO-2D Pro component exchanges channel flow with the floodplain grid elements in a separate routine after the channel, street and floodplain flow subroutines have been completed. An overbank discharge is computed when the channel conveyance capacity is exceeded. The channel-floodplain exchange is limited by the available volume in the channel or by the available storage volume on the floodplain. Flow exchange between streets and floodplain are also computed during this subroutine. The diffusive wave equation is used to compute the velocity of either the outflow from the channel or the return flow to the channel.

### 4. Floodplain Surface Storage, Area Modification and Flow Obstructions

This FLO-2D Pro component enhances detail by enabling the simulation of flow problems associated with flow obstructions or loss of flood storage. This is achieved by the application of coefficients (Area reduction factors [ARFs] and width reduction factors [WRFs]) that modify the individual grid elements surface area storage and flow width. ARFs can be used to reduce the flood volume storage on grid elements due to buildings or topography and WRFs can be assigned to any of the eight flow directions in a grid element to partially or completely obstruct flow paths in all eight directions simulating floodwalls, buildings or berms.

Limitation - In addition to ARF and WRF, raised grid cells can be used to model obstructions with a FLO-2D Pro model. Raised grid cell prevent flow from lower grid cells onto the raised cells that have elevations greater than the water surface elevations. Rainfall falling on the raised grid cells may contribute to the ground surface runoff, for example runoff from roof drain system contributing to the surface runoff. However, as a conservative approach a mild slope may be added to the raised cell so that the rainfall from the raised cell contribute to the surface runoff without any delay. This will cause higher than expected localized velocities in these lower grid cells due to difference in elevation between two cells and artificial slope introduced to the raised cell.

### 5. Rainfall-Runoff Simulation

FLO-2D Pro is a physical process model that routes rainfall-runoff and flood hydrographs over unconfined flow surfaces and/or in channels using the dynamic wave approximation to the momentum equation.

### 6. Hydraulic Structures

Generalized culvert equations for inlet and outlet control are available in the FLO-2D Pro model. Equations to compute culvert discharge for round and rectangular culverts by evaluating inlet and outlet control have been implemented in the FLO-2D Pro model. The culvert discharge will be computed using equations based on experimental and theoretical results from the U.S. Department of Transportation procedures for the Hydraulic Design of Highway Culverts; Publication Number FHWA-NHI-01-0260 revised May 2005. The equations include options for box and pipe culverts and take into account different entrance types for box culverts (wingwall flare 30 to 75 degrees, wingwall flare 90 or 15 degrees and wingwall flare 0 degrees) and three

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entrance types for pipe culverts (square edge with headwall, socket end with headwall and socket end projecting).

#### 7. Levees

The FLO-2D Pro model's levee component confines flow on the floodplain surface by blocking one or more of the eight flow directions in a grid cell. A levee crest elevation/height can be assigned. When flow exceeds the levee height, the discharge over the levee is computed using the broad-crested weir flow equation. Weir flow occurs until the tailwater depth is 85% of the headwater depth above. Levee overtopping will not cause levee failure unless that model option is invoked.

#### 8. Green-Ampt Infiltration

Precipitation losses, abstraction (interception) and infiltration are simulated in the FLO-2D Pro model. Infiltration is simulated using the Green-Ampt infiltration method. The infiltration parameters can be assigned global or the spatial variation of infiltration over the gridsystem can be modeled by assigning unique hydraulic conductivity and soil suction values to each grid element.

#### 9. EPA SWMM Model Interchange

This FLO-2D Pro component allows the 2-dimensional surface model (FLO-2D) to be coupled with a 1-dimensional pipe model for the simulation of pressure flow within conduits. This feature relies on the VC2005-CON.dll file.

#### 10. Topography

The topographic data, representing the ground surface, are developed in ArcGIS software program, as a digital surface in the form of an ASCII (text) file. The ASCII file represents the topographical surface in the form of multiple points with x, y, and z coordinates. The ASCII file is used as an input to build a topographic surface in FLO-2D.

Note on Impact Loading and Hydrostatic Loading: The FLO-2D Pro functions to calculate Impact Loading and Hydrostatic Loading are not tested. These functions were intentionally not tested for two reasons:

1. The Hydrostatic Loading function in FLO-2D Pro makes assumptions about the structure on which loads are applied. The assumptions are that the structure is vertical and infinitely tall. These assumptions may not always apply and therefore it is best if loads are calculated outside of FLO-2D Pro, specific to the structure of interest.
2. Loads calculated with both functions are determined for the internally computed time step where loading is at a maximum. A review of the loading calculated as a time series should be performed to verify that numerical oscillations (instabilities) are not artificially influencing the maximum value. As this time series requires external calculation, it is best that the loads be calculated outside of FLO-2D Pro.

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#### **IV. SOFTWARE TESTING METHODOLOGY AND CRITERIA**

All the applicable characteristics of the FLO-2D PRO computer program are tested consistent with the “Method 1 – Special Tests and Inspection” requirements described in EPRI Technical Report 1025243 (Reference 2).

Critical characteristics are examined using simple example problems with the comparison of results with those of hand calculations and known benchmarks. The critical characteristics related to software function were chosen by engineering judgment on the basis that they have the greatest potential impact to the intended use of the program results (determination of maximum water surface elevation and flood duration) and the boundary/tolerance assigned to each critical characteristic would not impact the intended application of the results of the model.

The platform compatibility is verified by examining the requirements of the software provided in the FLO-2D Data Input Manual (Reference 3) and comparing the software requirement to the operating system.

The hardware compatibility is verified by examining the requirements of the software provided in the FLO-2D Data Input Manual (Reference 3) and comparing the software requirement to the computer’s hardware.

The accuracy of the FLO-2D Pro Model was verified using eight test case problems:

##### **Test Case 1a and 1b**

The FLO-2D Pro software is used to simulate normal flow along a straight flume for a constant flow rate. Manning’s equation is used to determine the flow velocity. Results are compared to the hand calculated results.

Test Case 1a and 1b hand calculations are provided in Attachment 3 which calculates flow depth and velocity in a flume for comparison to FLO-2D computer model results. This test case verifies the overland flow components of the model as shown in the Input (“FPLAIN.DAT”) and Output (“DEPTH.OUT” and “VELFP.OUT”) files in Attachments 4a and 4b. This test verifies the overland flow simulation component of the model.

##### **Test Case 1 a and 1b - Acceptance Criteria**

Depth and velocity results from FLO-2D Pro must be within 5% of the hand calculated results to be considered acceptable. 5% is determined to be acceptable based on engineering judgement on the basis that a 5% change in depth or velocity in the model would not adversely affect any intended use application of the result from the model.

##### **Test Case 2**

The FLO-2D Pro software is used to recreate a flood hazard delineation project for the Truckee River in response to recorded flooding of the Truckee River through Reno and the City of Sparks, Nevada between December 31, 1996 and January 6, 1997. The FLO-2D Pro software is used to



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simulate a benchmarking test case using area reduction factors. The area reduction factors are evaluated to confirm that they are performing as documented in the FLO-2D Pro manual. The resulting output is compared to data available from USGS gage data along the reach.

Test Case 2 (Attachment 5 through Attachment 7) is a case study provided in Attachment 5 which calculates water surface elevation, inundation extents, and velocities for an actual watershed during a historic flood event. This test case verifies the rainfall-runoff simulation, overland flow, channel flow, channel-floodplain interface, and floodplain surface area storage area modification and flow obstruction components of the model.

#### Test Case 2 - Acceptance Criteria

Results from FLO-2D Pro must be within 10% of the peak flow rate reference data to be considered acceptable. It has been documented that USGS gage data has some inherent error in discharge readings between 5% to 10% (Reference 6), therefore, results within 10% are deemed acceptable.

#### **Test Case 3**

The FLO-2D Pro software is used to simulate flow through a culvert. The upstream end of the culvert is inundated. The estimated maximum upstream water surface elevation is compared to hand calculated results.

Test Case 3 (Attachment 8 through Attachment 10) is a simple FLO-2D Pro model with a channel and a culvert to verify the Generalized Culvert Routing routine in the model. Input files are in Attachment 9 and results from this model run are in Attachment 10. The results are compared to a hand calculation shown in Attachment 8. This test verifies the hydraulic structures and levees components of the model.

#### Test Case 3 -Acceptance Criteria

The flow depth result from FLO-2D Pro must be within 1% of the hand calculated results to be considered acceptable. 1% is determined to be acceptable based on engineering judgement on the basis that a 1% change in flow depth in the model would not adversely affect any intended use application of the result from the model.

#### **Test Case 4a and 4b**

##### Test Case 4a

The FLO-2D Pro software is used to simulate flow through a storm drain system. A simulation is run where flow is routed from FLO-2D Pro to EPA SWMM 5.0 (storm drain flow) and then back.

Test Case 4a (Attachment 11a and Attachment 11b) is a simple FLO-2D model that has been paired with a Storm Water Management Model version 5.0 (SWMM) to simulate the interaction between a storm water drainage system with overland flow. The test case demonstrates capability of FLO-2D and SWMM programs to communicate properly with each other. The input

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files and results are shown in Attachment 11a and Attachment 11b. This test verifies 2D Floodplain to 1D EPA SWMM model Interchange.

#### Test Case 4a -Acceptance Criteria

The mass continuity error of the run must be preserved within 5%-7%. SWMM User's Manual (Reference 8) states the mass continuity errors for runoff, flow routing, and pollutant routing will be displayed in the output files. These errors represent the percent difference between initial storage + total inflow and final storage + total outflow for the entire drainage system. If they exceed some reasonable level, such as 10%, then the validity of the analysis results must be reviewed, and it may be acceptable due to difference in approach when comparing. Therefore, as a stricter criterion for testing, results within 5%-7%, are deemed acceptable.

#### Test Case 4b

The SWMM software is used to simulate flow through a storm drain system for partial and full flow pipe scenarios. Results are compared to the hand calculated results. Test Case 4b hand calculations are provided in Attachment 12b. Test Case 4b (Attachment 12a) is a simple SWMM model to simulate flow in the storm drain system. The inputs for SWMM model are listed in Section V and output files are shown in Attachment 12a. This test verifies SWMM pipe flow feature.

#### Test Case 4b -Acceptance Criteria

The flow depth result from SWMM must be within 5% of the hand calculated results to be considered acceptable. 5% is determined to be acceptable based on engineering judgement on the basis that a 5% change would not adversely affect any intended use application of the result from the model.

### **Test Case 5**

The FLO-2D Pro software is used to simulate infiltration using the Green- Ampt method. A hand calculation is performed to calculate the same infiltration test case. This test verifies the Green-Ampt infiltration component of the model.

Test Case 5 (Attachment 13 through Attachment 15) is a FLO-2D model which simulates the Green-Ampt infiltration. Input files are in Attachment 14 and results from the model run are in Attachment 15. The results are compared to a hand calculation shown in Attachment 13.

#### Test Case 5 -Acceptance Criteria

The model and hand calculated volume of infiltration must be within 10% to be considered acceptable. Ten percent (10%) is determined to be acceptable based on engineering judgement on the basis that the two-dimensional (2D) interaction by FLO-2D is much more complex than the proposed one-dimensional (1D) hand calculation for infiltration.



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## **Test Case 6**

This test case verifies that FLO-2D Pro model can accurately transform rainfall into surface runoff (Rain feature) and appropriately represents modeling parameters such as ARF and WRF. The input files and results are shown in Attachment 16 and Attachment 17.

### Test Case 6 -Acceptance Criteria

The model and hand calculated rainfall runoff transformation must be within 1% to be considered acceptable. 1% is determined to be acceptable based on engineering judgement on the basis that a 1% change in runoff in the model would not adversely affect any intended use application of the result from the model.

ARF and WRF test cases are verified by reviewing model outputs of the grid cells where ARF, and WRF used in the FLO-2D model. ARF and WRF will be verified if FLO-2D model shows no flow in grids that are blocked with ARF and WRF.

## **Test Case 7**

This test case verifies that levee feature effectively controls flow to the top of the levee and that it allows flow to overtop. The input and output files are shown in Attachment 18b and hand calculations are shown in Attachment 18a.

### Test Case 7 -Acceptance Criteria

For levees, FLO-2D model shows accumulation in cells behind the levee and it overtops when water depth in the grid cell exceeds the height of levee.

The model and hand calculated levee overtopping must be within 5% to be considered acceptable. 5% is determined to be acceptable based on engineering judgement on the basis that a 5% change would not adversely affect any intended use application of the result from the model.

## **Test Case 8**

This test case verifies that FLO-2D Pro model can accurately assign elevations to individual grid cells in the FLO-2D Pro Model. The average elevation assigned to an individual grid by the FLO-2D model was compared to average elevation of individual elevation points in the grid cell from GIS ASCII input files.

### Test Case 8 -Acceptance Criteria

Grid elevations assigned by FLO-2D Pro model must be within 1% of the hand calculated results to be considered acceptable. 1% is determined to be acceptable to account for rounding when performing hand calculations and would not adversely affect any intended use application of the result from the model.

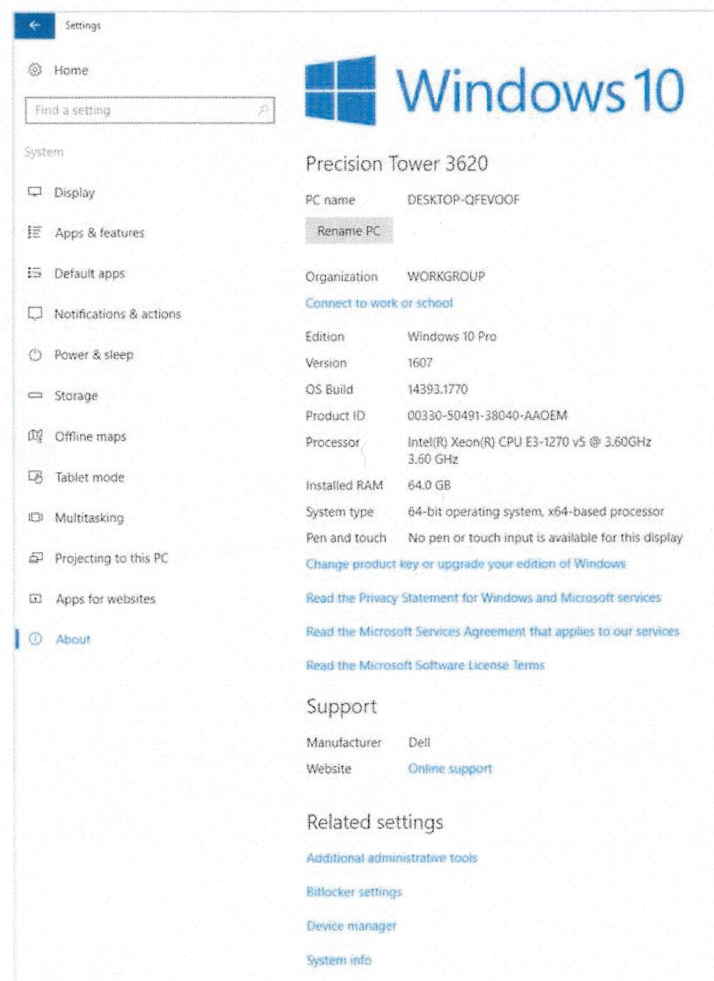
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## V. ACCEPTANCE CRITERIA TESTS AND RESULTS

This section goes over all of the acceptance criteria tests for all of the critical characteristics listed in Section III, Table 1.

### Platform Compatibility

The FLO-2D Pro model is developed for 64-bit multi-core processor computers. It cannot be run on a 32-bit computer (Reference 3). Figure 3 illustrates the operating system installed for FLO-2D Pro Build 16.06.16 testing is a 64-bit operating system. As shown in Figure 3, the operating system meets the requirements.



**Figure 3: Computer Platform and Hardware**

Therefore, the software's critical characteristic for platform compatibility is accepted based on the acceptance criteria that the computer program is compatible with the current operating system.

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## Hardware Compatibility

Recommended minimum computer requirements are at least 4 GB RAM (Reference 3). Figure 3 illustrates the hardware installed for FLO-2D Pro Build 16.06.16 testing has 64 GB RAM.

Therefore, the software's critical characteristic for hardware compatibility is accepted based on the acceptance criteria that the computer program is compatible with the current hardware.

## Test Case 1a – Overland Flow

### Test Case 1a (Overland Flow) Model Setup

For this test case, the method used consists of a comparison of a hand calculation solution for overland flow (Attachment 3) to FLO-2D Pro Model output data (i.e. flow depth and velocity) produced for a simple flume model (Attachment 4a). This test case verifies the overland flow component of the model and shows that the FLO-2D Pro model accurately simulates unconfined overland flow and yields an exact solution for steady, uniform overland flow.

The local intense precipitation (LIP) Calculation specifies that “... *Manning’s n-values for two-dimensional modeling differ from the Manning’s n-values for one-dimensional modeling and are not interchangeable. In a two-dimensional model, the flow resistance is represented by a composite n-value that includes consideration for bed irregularities, obstructions, vegetation, variation in channel geometry, channel expansion and contraction, potential rapidly varying flow, and variable river planform.*”. The range of n-values for 2D application were empirically derived by FLO-2D and/or others and are specified in the FLO-2D Manual. The LIP Calculation applied n-values within the prescribed ranges that has been developed from research experiments.

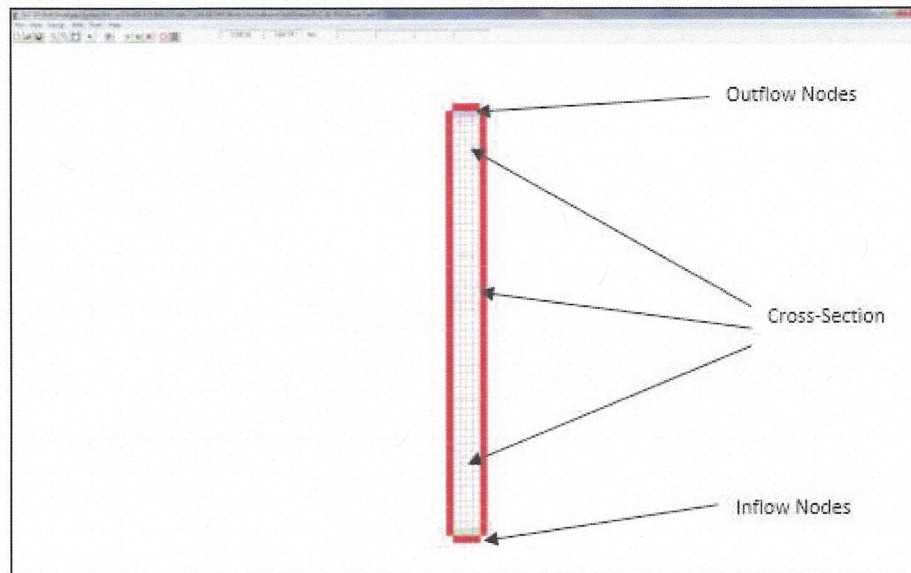
The inputs for both the FLO-2D Pro model and the test case hand calculation are as follows:

1. The simple flume model is 60 elements long by 4 elements wide, each element being 50 ft by 50 ft. (Resulting in a flow width of 4 x 50 ft, or 200 sq.ft);
2. A floodplain slope of 0.003;
3. A uniform Manning’s n-value (roughness coefficient) is 0.05.
4. A steady discharge of 8,000 cfs spread across four inflow nodes (2,000 cfs per inflow element) is used.

These inputs are required by the FLO-2D Pro model to estimate the flow depth and velocity within the lower reach of the flume. Three floodplain cross sections were created in FLO-2D Pro to track flow along the flume (i.e., output locations). The inputs described above are presented in Figure 4 through Figure 6. The data input files are included in Attachment 4a.



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**Figure 4: Test Case 1a (Overland Flow) Model Representation**

Attributes of Grid Element Number 210

Floodplain elevation (feet): 1.05

Manning coefficient: 0.05

Limiting Froude number: 0.0

Element size (feet): Delta X: 50  
Delta Y: 50

Reduction Factors... Multiple Channel...

Levee... Street Element...

Infiltration... ☐ Do not share discharge with the floodplain

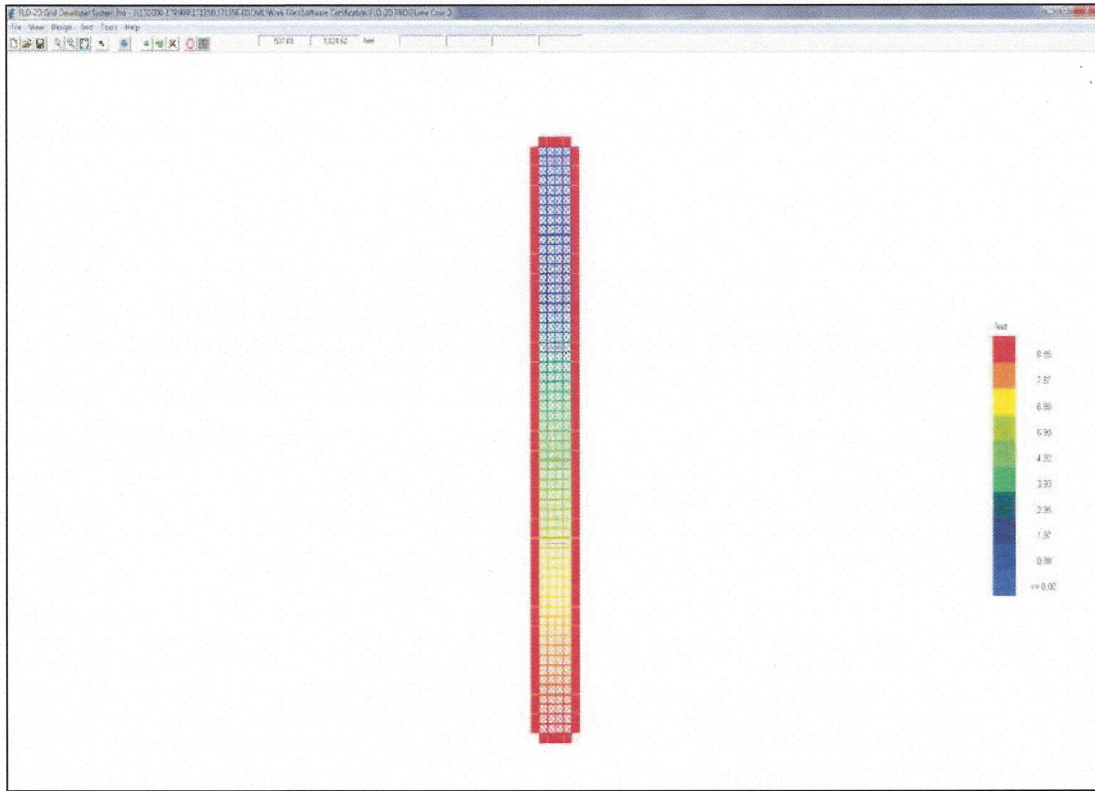
MODFLO-2D...

OK Cancel

**Figure 5: Grid Cell Attributes**



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**Figure 6: Grid Element Ground Surface Elevations**

### **Test Case 1a (Overland Flow) Results**

The FLO-2D results are provided in Attachment 4a. The results from the FLO-2D Pro Model output and the hand calculation are presented in Table 2.

**Table 2: Comparison of Results – Test Case 1a**

<b>Method of Computation</b>	<b>FLO-2 Pro Model</b>	<b>Hand Calculation</b>	<b>Percent Difference</b>
<b>n = 0.05</b>			
Flow Depth (ft)	6.8242	6.8	0.36%
Velocity (ft/s)	5.8959	5.9	0.07%
<b>n = 0.08</b>			
Flow Depth (ft)	9.0349	9.05	0.17%
Velocity (ft/s)	4.4901	4.42	1.56%

Using the average values reported by the FLO-2D Pro Model, the FLO-2D Pro model predicted a flow depth and velocity range within  $\pm 5\%$  of the hand calculation, excluding grid cells 237 through 240. These grid cells are outfall cells outside of the flume boundary and are excluded from the result analysis.

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Inflow and Outflow elements are also verified by comparing the input and outflow in FLO-2D outputs at grid cells 237-240. Limitation- Flow appears with the cells without a velocity vector.

The LIP flooding model represents 2D, unsteady-state flooding simulation with the n-values selected appropriately for such simulation within the ranges specified in the FLO-2D Manual. The test model simulates a scenario equivalent to what is computed in the hand calculation (i.e. a forced replica of a 1D steady state flow pattern). This demonstrates that the number input into the program is processed in the algorithms/calculations of the software with results that can be validated. While n-values for the 1D and 2D simulations are not interchangeable and should be different for the actual model, the approach used to verify the software is appropriate since it demonstrates that the software computational processes are performed accurately.

To demonstrate repeatability of the results, the test run was performed with  $n=0.08$  and the hand calculation was done using the same n-value. As shown in Table 2, The test run results closely match the hand calculation results with the changed n-value. Therefore, accurate repeatability is confirmed.

The results of the test case meet the acceptability criteria specified in Section IV. Therefore, tested software module is determined to function correctly.

## **Test Case 1b – Multiple Channel Feature**

### **Test Case 1b (Multiple Channel) Model Setup**

The Test Case 1a model was slightly modified for the multiple channel feature verification case. The multiple channel was added along the model domain with the flow restricted using area reduction factors (ARFs) to the multiple channel. This is necessary in order to simulate conditions that are possible to verify with a hand calculation using Manning's equation. If flow is not physically restricted to the multiple channel, naturally overland flow elements will share the flow with the multiple channel elements and a steady inflow condition required for the hand calculation will be broken.

For this test case, the method used consists of a comparison of a hand calculation solution for a channel flow (Attachment 3) to FLO-2D Pro Model output data (i.e. flow depth) produced for a simple multiple channel model (Attachment 4a). This test case verifies the multiple channel flow component of the model and shows that the FLO-2D Pro model accurately simulates channel flow and yields an exact solution for steady, uniform channel flow.

The inputs for both the FLO-2D Pro model and the test case hand calculation are as follows:

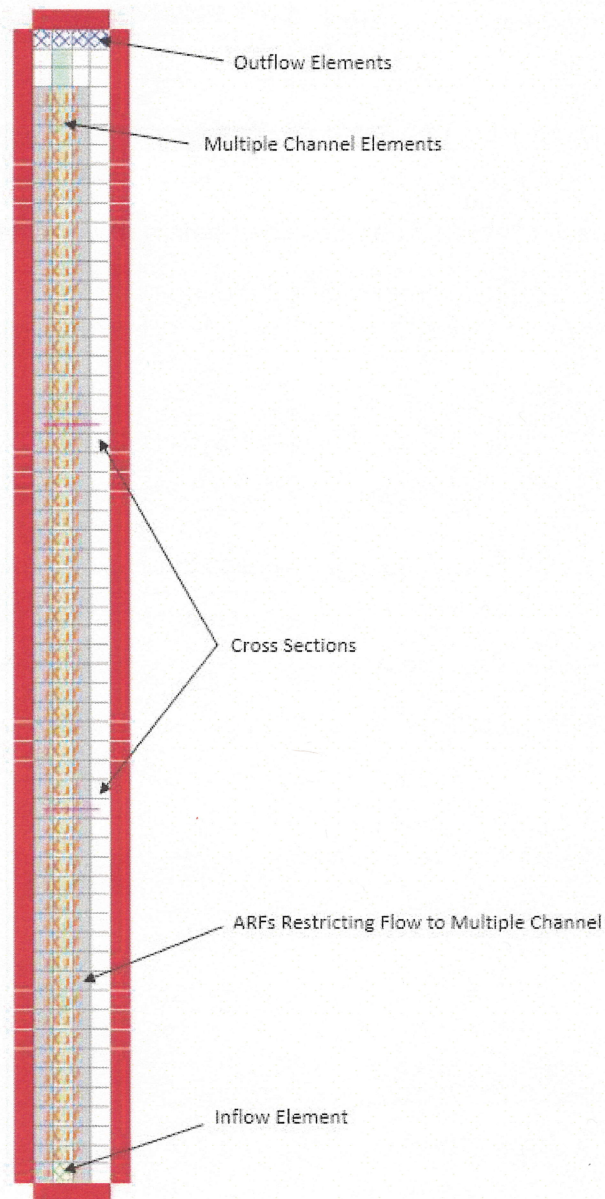
1. The simple flume model is 60 elements long by 4 elements wide, each element being 50 ft by 50 ft. (Resulting in a flow width of 4 x 50 ft, or 200 sq.ft);
2. A floodplain slope of 0.003;
3. A multiple channel is set to 5 ft wide;



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4. A Manning's n-value (roughness coefficient) is 0.05 for the multiple channel elements and 0.1 for the rest of the model.
5. A single inflow element with a steady discharge of 10 cfs is used.

Two floodplain cross sections were used to track flow along the flume (i.e., output locations). The inputs described above are presented in Figure 7. The data input files are included in Attachment 4b.



**Figure 7: Test Case 1b (Multiple Channel) Model Representation**

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### **Test Case 1b (Multiple Channel) Results**

The FLO-2D results are provided in Attachment 4b. The results from the FLO-2D Pro Model output and the hand calculation are presented in Table 3.

**Table 3: Comparison of Results – Test Case 1b**

<b>Method of Computation</b>	<b>FLO-2 Pro Model (Cross Section 1, grid #78)</b>	<b>Hand Calculation</b>	<b>Percent Difference</b>
Flow Depth (ft)	1.30	1.34	3.03 %
Velocity (ft/sec)	1.54	1.48	3.97 %

Using the average values reported by the FLO-2D Pro Model, the FLO-2D Pro model predicted a flow depth range within  $\pm 5\%$  of the hand calculation.

The results of the test case meet the acceptability criteria specified in Section IV. Therefore, tested software module is determined to function correctly.

### **Limitations for the multiple channel feature.**

This feature must be used with careful consideration of the actual conditions. Multiple channels are used to simulate rill and gully flow, usually in a desert environment but also can be used to simulate concentrated flow in urban development. Typically, multiple channels are 3 to 5 ft wide with flow depth generally under 3 ft. Once the flow gets into a rill and gully channel that typical on a desert alluvial fan, the multiple channel will widen when the flow reaches bankfull. There is not much sheet flow on desert environments, which is the intent in creating this component. The feature could be used to also represent urban flow scenarios, but care should be exercised to represent the actual site conditions as close as reasonably possible. Additionally, minor instabilities could be observed at the multiple channel elements. Therefore, the multiple channel elements should be checked for volume conservation errors and unusually high velocities at the end of the simulation

## **Test Case 2 – Truckee River Overland Flow Case Study**

### **Test Case 2 (Truckee River Overland Flow Case) Model Setup**

The FLO-2D model used in the Truckee River Case Study (Truckee River FLO-2D Model) presented in Attachment 5 is one of the benchmark models used by the software vendor for verifying the overland flow, channel flow, flood channel interface, and floodplain storage area modification and flow obstruction components of the model. The Truckee River FLO-2D model was originally created and calibrated by a third-party engineering firm (TetraTech, Inc.) using FLO-2D Version 2009.06 to conduct a flood hazard delineation project for the Truckee River in response to recorded flooding of the Truckee River through Reno and the City of Sparks, Nevada

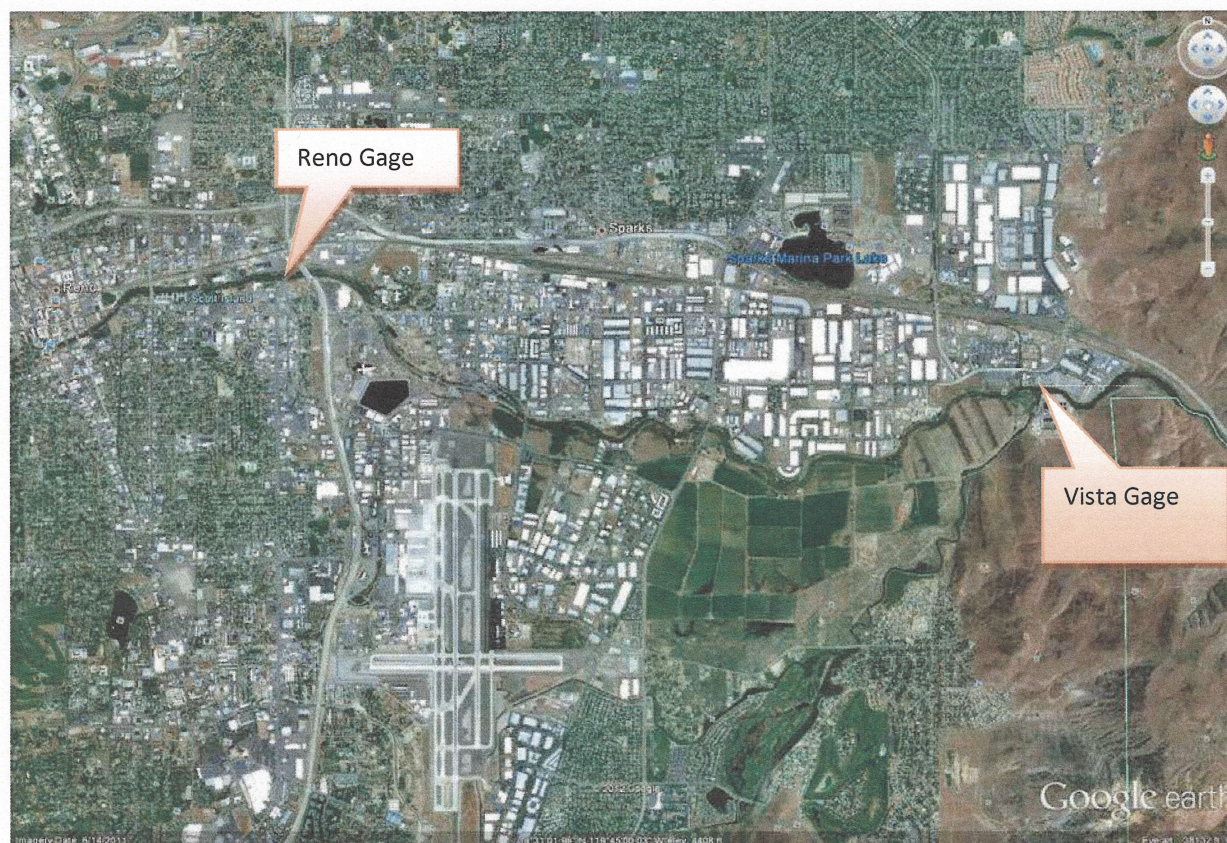


<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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between December 31, 1996 and January 6, 1997. The model simulates 15 miles of the Truckee River as shown in Figure 8.

This model is included in the FLO-2D software package as a sample project when purchased from the software vendor. The FLO-2D input data are included in Attachment 5.

The U.S. Environmental Protection Agency (EPA) (Attachment 1) and the Flood Control District of Maricopa County Arizona (Attachment 2) have performed additional verification test cases for both the SWMM program and the FLO-2D program, respectively, which are detailed more extensively than the test cases presented in this Test Report. The program user is encouraged to review these verification and quality assurance reports for a better understanding of the specific program functions that may not be detailed fully in program user manuals or this Test Report



**Figure 8: Google Earth Image of Sparks Truckee Meadows Area**

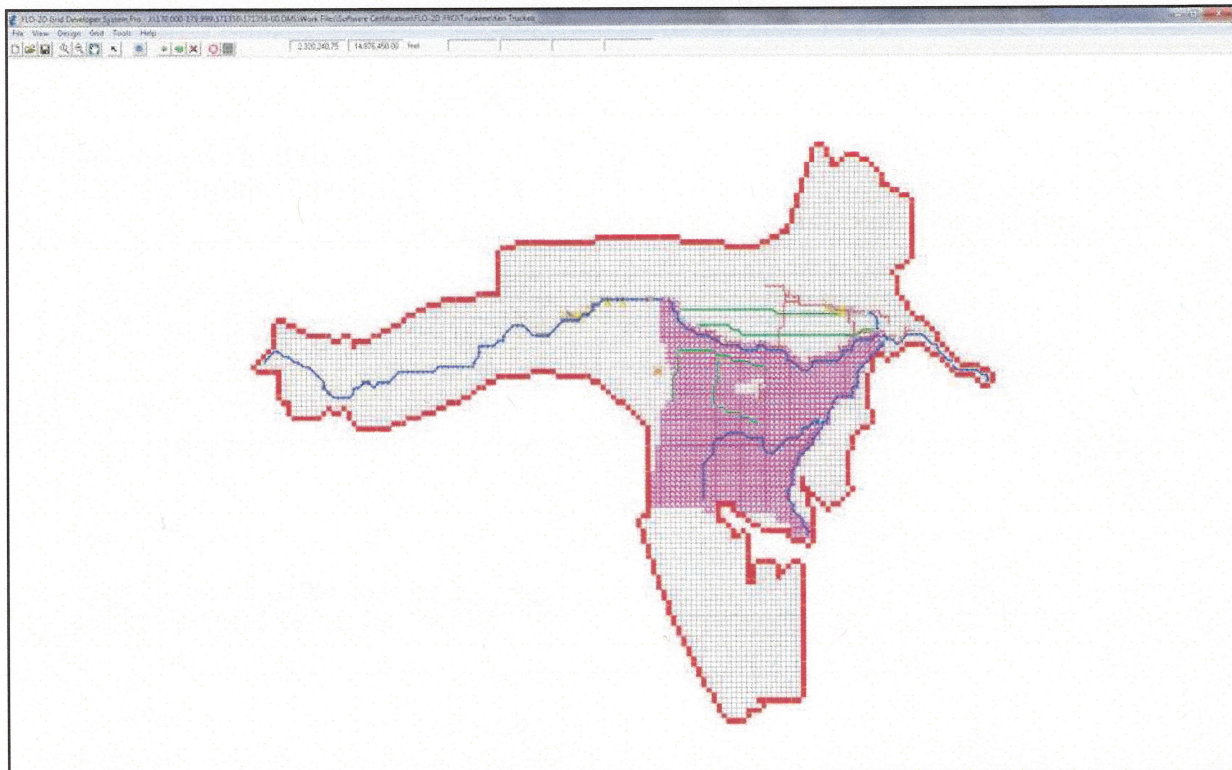
Two U.S. Geological Survey (USGS) stream gages, Vista gage (USGS 10350000 Truckee River at Vista, NV) and Reno gage (USGS 10348000 Truckee River at Reno, NV) are located along the reach of the river included in the model. The New Vista gage is located at the downstream end of the simulated reach. The New Vista gage includes almost all of the return flow from the overbank discharge in the Truckee Meadows area. The Reno gage is located upstream of the Truckee Meadows area. Data for the calibration of the model by others included recorded flood



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stages and discharges from the aforementioned USGS gages and numerous surveyed high-water marks through the inundated area (Attachment 6).

The FLO-2D model is shown in Figure 9.



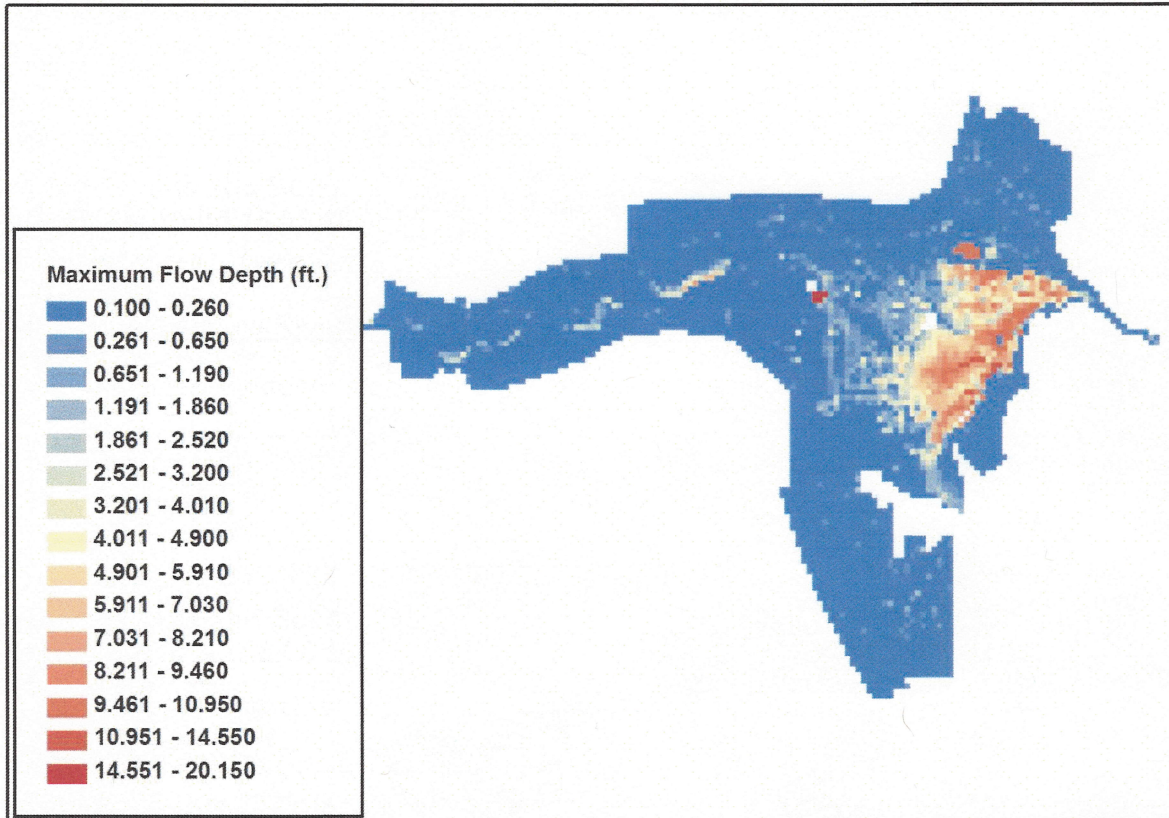
**Figure 9: Truckee River Model Representation**



<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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### **Test Case 2 (Truckee River Overland Flow Case) Results**

The maximum inundated area and depth of flow are presented in Figure 10.



**Figure 10: Maximum Depth of Flow**

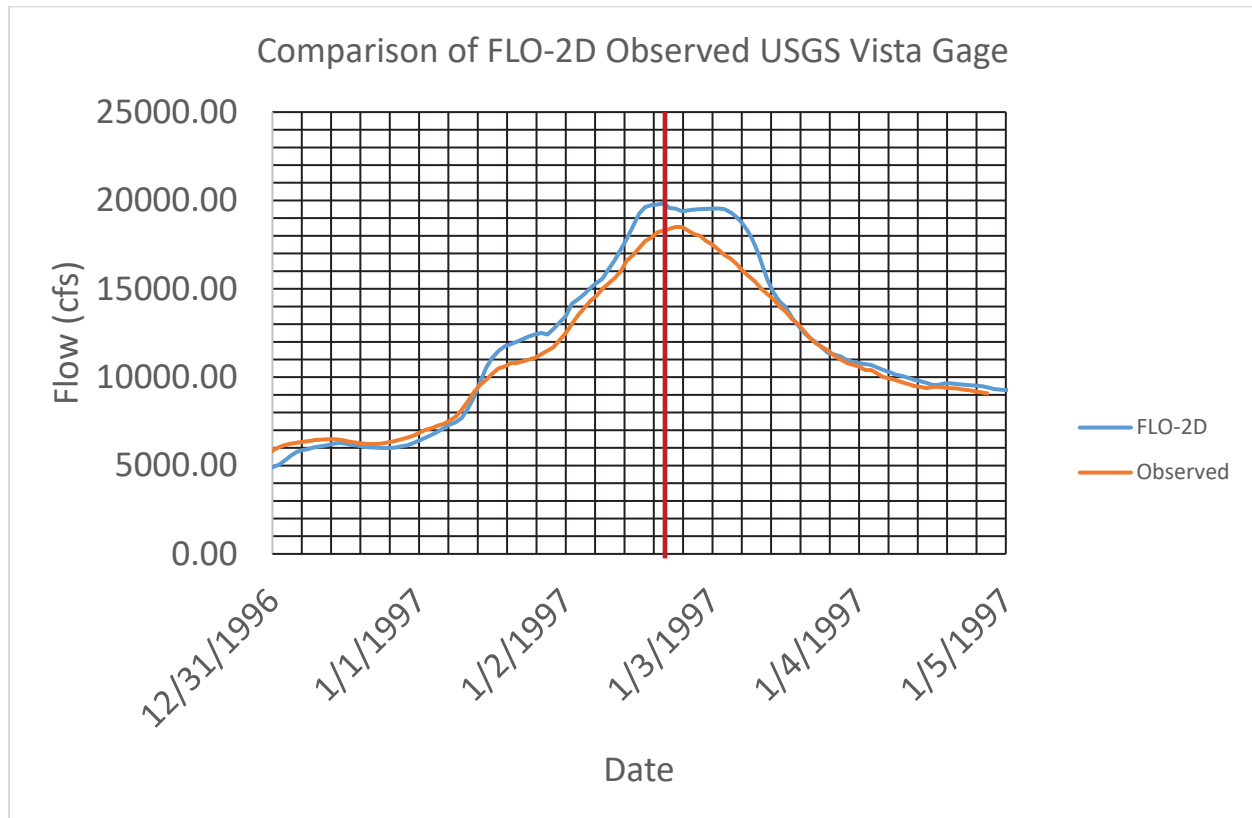
A review of the model calculation mass balance is presented in Table 4, originally from the "SUMMARY.OUT" file. The mass balance ensures that the hydraulic calculations are accurately conserving the volume of water in all routing calculations. FLO-2D recommends a maximum acceptable continuity error of 2%. A review of the Truckee model results suggests the maximum continuity error is within this acceptable range, and therefore the model is accurately solving the flow equations and conserving mass.

**Table 4: Comparison of Results – Test Case 2**

Total Inflow (acre-ft.)	175282.673
Total Outflow and Storage (acre-ft.)	175282.672
Maximum Inundated Area (acres)	20941.385
Maximum Wetted Channel Area (acres)	654.355
Maximum Continuity Error (%)	0.00

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A comparison of the predicted discharge hydrograph resulting from the Truckee River model run using FLO-2D Pro at the Vista gage location (grid cell 4969) and the actual recorded USGS data at the Vista gage are shown in Figure 11. The data from the flow comparison of the USGS Vista gage and FLO-2D Pro gage location (grid cell 4969) is in Attachment 6. The output file containing the flow at the Vista gage location (grid cell 4969) from the FLO-2D model is in Attachment 7.



**Figure 11: FLO-2D Pro Predicated Discharge for the 1997 Flood at Vista Gage**

The simulated discharge at the Vista gage shows that FLO-2D Pro is accurately predicting the channel – floodplain flow interchange. The channel conveyance at the gage is less than half the observed peak flow during the early January 1997 floods. Most of the flood hydrograph is therefore conveyed over the floodplain. In order for the model to accurately predict the discharge at the Vista gage, it has to accurately predict the volume of overbank flow, channel flood routing, the overland flood routing and channel-floodplain exchange.

The maximum discharge of the Vista gage (USGS 10350000) occurs on time step 88 at 1/2/1997 16:00, at a flow of 18,500 cfs. The corresponding flow from the FLO-2D Pro model at the Vista gage location (grid cell 4969) at a flow of 19,826.88 cfs. The results also show that FLO-2D Pro is accurately predicting the contribution of rainfall to the total runoff within 10%.

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The results of the test case meet the acceptability criteria specified in Section IV. Therefore, tested software modules are determined to function correctly.

### **Test Case 3 – Culvert Routing Hand Calculation**

#### **Test Case 3 (Culvert Routing) Model Setup**

For this test case, the method used consists of a comparison of a hand calculation solution for culvert routing presented in Attachment 8 to FLO-2D Pro output data (i.e. flow and flow depth) produced for a simple model with a channel and a culvert. The hand calculation solution is based on the Federal Highway Administration Publication No. FHWA-NHI-01-020, Hydraulic Design Series Number 5 – Hydraulic Design of Highway Culverts (Reference 6). This test case verifies the generalized culvert routing routine of the model and shows that FLO-2D Pro accurately simulates the headwater elevation for a given flow through a culvert.

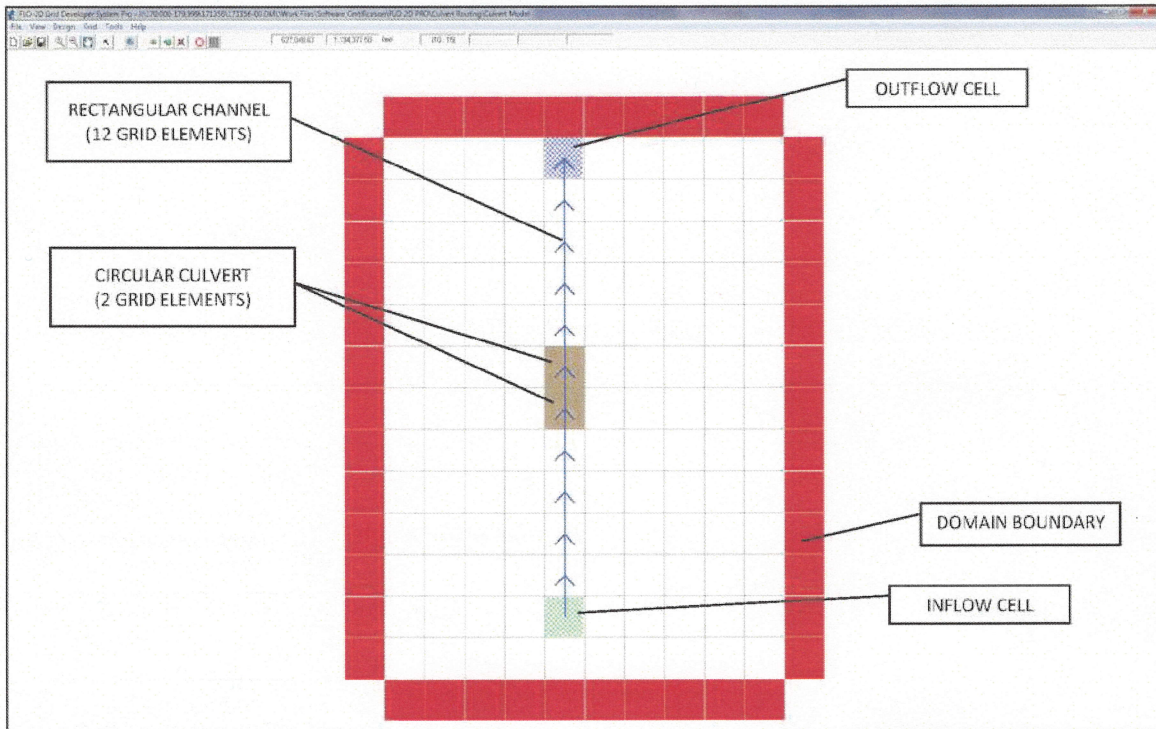
The model inputs are as follows:

1. System and numerical stability control files (Attachment 9, "CONT.DAT" and "TOLER.DAT");
2. File for Images, shape files and polylines to project when open (Attachment 9, "SUPPLEMENT.DAT");
3. The model was 13 grid elements long by 10 grid elements wide (130 total grid elements) with each element having dimensions of 50 feet by 50 feet (Attachment 9, "FPLAIN.DAT", "CADPTS.DAT");
4. A 600-foot-long rectangular channel having dimensions of 6 feet wide and 5 feet deep (12 grid elements) (Attachment 9, "CHAN.DAT" and "CHANBANK.DAT");
5. A uniform Manning's roughness coefficient n-value for both the floodplain and channel was arbitrarily set at 0.04 for the 130 elements (Attachment 9, "MANNINGS\_N.DAT");
6. A channel slope of 0.018 (Attachment 9, "TOPO.DAT");
7. A 100-foot long, 3-foot diameter (2 grid elements) circular culvert (Attachment 9, "HYDSTRUC.DAT");
8. The culvert entrance loss ( $k_e$ ) of 0.9 (Attachment 9, "HYDSTRUC.DAT");
9. A culvert Manning's n roughness coefficient of 0.024 (Attachment 9, "HYSTRUC.DAT");
10. An inflow unsteady discharge with a peak flow rate of 50 cfs (Attachment 9, "INFLOW.DAT") and outflow hydrograph (Attachment 9, "OUTFLOW.DAT").

The inputs described above are presented in Figure 12 through Figure 15.



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**Figure 12: Model Representation**

Attributes of Grid Element Number 73

Floodplain elevation (feet): 263.82

Manning coefficient: 0.04

Limiting Froude number: 0.0

Element size (feet): Delta X: 50, Delta Y: 50

Reduction Factors... Multiple Channel...

Levee... Street Element...

Infiltration... MODFLO-2D...

☐ Do not share discharge with the floodplain

OK Cancel

**Figure 13: Model Grid Cell Attributes**



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**Channel Segment**

Segment control

Maximum Froude number:  Roughness adjustment coefficient:  Compute scour/deposition with sediment transport routine:

Initial flow depth

Initial flow depth for all channel elements:

☐ Initial Flow

First Element with Water Elevation

1st. element:  Starting water elev.:

Last Element with Water Elevation

Last element:  Ending water elev.:

Channel geometry

Number of channel elements in segment:

	Element	Length	LB Elev.	RB Elev.	Width	Depth	X Sect.	Le
1	54	50.0			6	5		
2	55	50.0			6	5		
3	56	50.0			6	5		
4	57	50.0			6	5		
5	58	50.0			6	5		
6	59	50.0			6	5		
7	60	50.0			6	5		
8	61	50.0			6	5		

☐ Total channel segment length:

Left bank elevation:

Right bank elevation:

Average channel width:

Thalweg channel depth:

Cross section number:

Left side slope:

Right side slope:

Right Bank Cell:

Geometry regression relationships

	First relationship		Depth for 2nd. relationship: <input type="text" value="0"/>	
	Coefficient	Exponent	Coefficient	Exponent
Area:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Wetted perimeter:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Top width:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

**Figure 14: Model Channel Attributes**



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**Hydraulic Structures**

Hydraulic System Structures

	Structure Name	Chan/ F/Plain	Rating Table	Inlet Node	Outlet Node	Tail Water	Ref. Elev	Culv. Len.	Culv. Diam.
1	Hunu_Culvert	C	G	59	60	0	0	100	3

Buttons: Add, Change, Delete

**Generalized Culvert**

Type: 2  
Entrance Type: 3  
Roughness: 0.24  
Entr. Loss Coeff: 0.9  
Rect. Width: 0

Buttons: OK, Close

Generalized Culvert Equations

	Type	Entr. Type	Roughness	Entr. Loss Coef.	Rect. Width
1	2	3	.024	.9	0

Buttons: Add, Change, Delete

Structure Rating Table

Buttons: Add, Change, Delete

Storm Drain Capacity

Drain Outlet Cell	Q Capacity
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Buttons: Add, Change, Delete

Buttons: OK, Cancel

**Figure 15: Hydraulic Structure Attributes**

### **Test Case 3 (Culvert Routing) Results**

**Table 5: Comparison of Results – Test Case 3**

Method of Computation	FLO-2D Pro Model (Grid Cell 59)	Hand Calculation	Percent Difference
Flow Depth (ft)	4.62	4.65	0.65%

FLO-2D Pro calculated a maximum flow depth of 4.6178 ft for the grid cell 59 (Attachment 10, "DEPTH.OUT"). The results show that FLO-2D Pro is accurately predicting the flow depth within 1% (consistent with Acceptance Criteria listed in Section IV of this report), as shown in Table 5.

The results of the test case meet the acceptability criteria specified in Section IV. Therefore, tested software modules are determined to function correctly.



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## **Test Cases 4a and 4b – FLO-2D and SWMM Interfacing including Pipe Flow**

### **Test Case 4a (FLO-2D and SWMM Interfacing) Model Setup**

The purpose of this test is to verify that the pairing of a SWMM drainage system with a FLO-2D model overland flow would correctly export from the FLO-2D model and import to the SWMM drainage system and vice versa. To verify the FLO-2D and SWMM interface works correctly a simple volume conservation test was undertaken. A FLO-2D model was set up with two inlets that drain into a simple storm drain system with single outflow. These inlets are encased by cells of higher elevation ensuring that all water flows into each inlet. Also located inside the walls are cells with a given inflow hydrograph. For a visual of the FLO-2D model see Figure 16.

Along with verifying the conservation of volume, the actual flow (time series) from FLO-2D into SWMM needs to be verified. Within the FLO-2D manual, equations are provided to calculate flow into any of the user defined inlets. A two-step check is performed to verify that FLO-2D calculates the correct inlet flow based on the user manual equations and that the time series of inlet flow is correctly transferred to the SWMM model. Based on the time series of flow depth at the cells where the inlets are located, flow into the inlets are hand calculated and compared to the “SWMMQIN.OUT” file that is generated by FLO-2D. This comparison verifies that FLO-2D calculates the inlet flow correctly. The “SWMMQIN.OUT” file’s time series is compared to that of the time series data generated in the “SWMM.RPT” file. This comparison verifies that the correct flow rates are being transferred between FLO-2D and SWMM.

The model inputs are as follows:

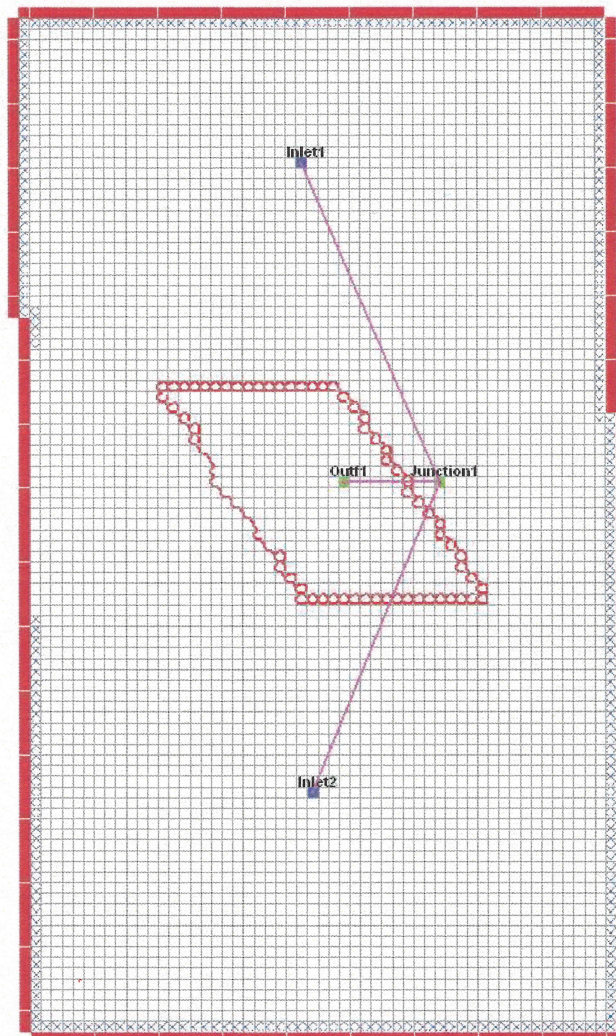
1. System and numerical stability control files (Attachment 11a, “CONT.DAT” and “TOLER.DAT”);
2. File for Images, shape files and polylines to project when open (Attachment 11a, “SUPPLEMENT.DAT”);
3. The model consists of a rectangular shape comprising of 5,216 10-ft-square grid elements (Attachment 11a, “FPLAIN.DAT”, “CADPTS.DAT” and TOPO.DAT”) with one containment area of low elevation that water drains into;
4. A uniform Manning’s roughness coefficient n-value for the model was arbitrarily set at 0.040 for the 5,216 elements (Attachment 11a, “MANNINGS\_N.DAT”);
5. The outlet area is represented with an Area Reduction Factor (ARF) area (Attachment 11a, “ARF.DAT”);
6. Inflow and outflow hydrographs (Attachment 11a, “INFLOW.DAT” and “OUTFLOW.DAT”);
7. Hydraulic structures around the inlets (Attachment 11a, “LEVEE.DAT”);
8. Rainfall in FLO-2D (Attachment 11, “RAIN.DAT”);
9. Inlet parameters for storm drain inlet (open grate inlets) and weir coefficient (3.0) for FLO-2D and SWMM interface (Attachment 11a, “SWMMFLO.DAT”);
10. Lists outfall names and positions in FLO-2D that correspond to SWMM (Attachment 11a, “SWMMOUTF.DAT”);

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11. SWMM file containing pipe hydrology and hydraulic elements involving the culvert analysis (Attachment 11a, "swmm.inp");
12. Rainfall in SWMM (Attachment 11a, "swmm.rain").

The input parameters for both the FLO-2D Pro model and the test case hand calculation are as follows:

1. The model consisted of a rectangular shape comprising of 5,216 10-ft-square grid elements shape with one containment area of low elevation that water drains into, as shown in Figure 16.



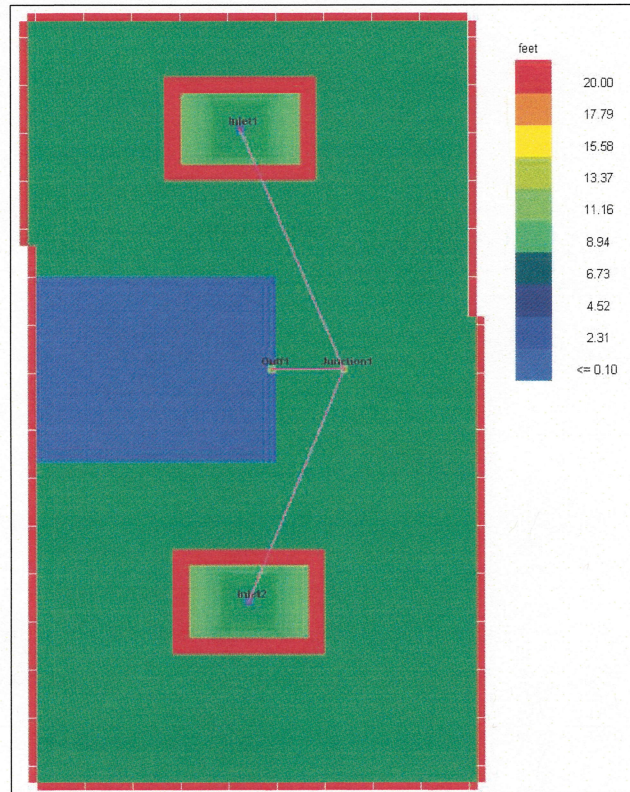
**Figure 16: FLO-2D Model with SWMM Drainage Layout**

2. There are two inlets (grid cell 2485 and grid cell 2521), each with their own inflow hydrograph. These inlets are encircled by high walls so all water flows into each of the



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inlets, and that any surcharge that may occur stays within these walls and is shown in Figure 17.



**Figure 17: FLO-2D Model Elevations with SWMM Drainage Layout**

- The inlets were modeled to be 10 feet x 10 feet, at grade, Type 3 inlets (Grate [gutter] inlet) (Reference 4). The inlets were given a weir coefficient of 3.0. The dialogue box with the inlet parameters are shown in Figure 18. The dialogue box is under: Tools >> Storm Drain >> View Storm Drain Inlets Dialogs. The inlet information is saved to "SWMMFLO.DAT";



SWMM FLO-2D Inlets

Drain Type: Curb Inlet (no sag)=1; Curb Inlet (w/sag)=2; Grate (gutter) (w/sag)=3; Manhole=5

	Node	SWMM Code	Drain Type	Length(1 or 2) Perimeter(3 or 5)	Width(2) Area(3 or 5)	Height(1) Area(2) Surf Slope(5)	Inlet Weir Coeff.	Feature	Curb Height
1	2485	Inlet1	3	30	50	0	3	0	0
2	2521	Inlet2	3	30	50	0	3	0	0

Edit Current Selection

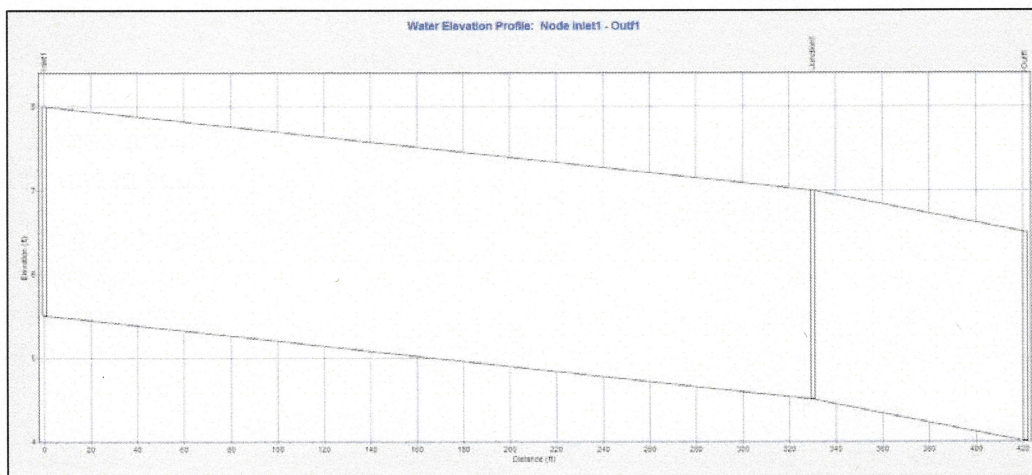
Notes:

- i. For Drain Type 1: Width=0.
- ii. For Drain Type 3:
  - Perimeter does not include curb side.
  - Area = clear flow area in grate.
  - Height = sag height difference.
- iii. Weir Drain Coefficients:
  - Type 1, 3, and 5: Range 2.8 to 3.2
  - Type 2: Typically 2.3
- iv. For Drain Type 4: rating table required.
  - Length=0, Width=0, Height=0, Weir Coefficient=0
- v. For Drain Type 5: Range 0 to 5 (see guidelines)

Save to SWMMFLO.DAT Close

**Figure 18: FLO-2D Inlet Parameters**

4. All pipes are modeled to be 30 inches in diameter, and having an arbitrary Mannings roughness coefficient of 0.025 (Attachment 11a, "swmm.inp");
5. Each inlet has an invert elevation of 5.5 feet, leading to a 330 feet long pipe. These two inlets meet at a junction with an invert elevation of 4.5 feet, and outlet through a 91 feet long pipe with an invert elevation of 4 feet (Attachment 11a, "swmm.inp"). The outlet in FLO-2D Pro is located in grid cell 2835. A drainage profile of Inlet 1 to the outfall in SWMM is shown in Figure 19.



**Figure 19: SWMM Drainage Profile (Inlet 1 to Outfall)**

6. A uniform Manning's n-value (roughness coefficient) for all cells is arbitrarily set at 0.040;
7. An unsteady discharge with a peak flow rate of 8 cfs.



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### Test Case 4a (FLO-2D and SWMM Interfacing) Results

Based on the results (Attachment 11b, "SUMMARY.OUT") shown in Figure 20, 2.645 acre-ft of water entered the FLO-2D model through the two designated inflow cells shown in yellow. The 2.645 acre-ft of water then entered into the SWMM drainage system shown in blue in Figure 20. The 2.643 acre-ft of water then re-entered the FLO-2D model at the SWMM outfall shown in green in Figure 20.

**Table 6: Comparison of Results – Test Case 4a**

<b>Method of Computation</b>	<b>Surface Volume Inflow (acre-ft)</b>	<b>Storm Drain System Inflow (acre-ft)</b>	<b>Percent Difference</b>
Mass Balance (Volume)	2.645	2.643	0.08%

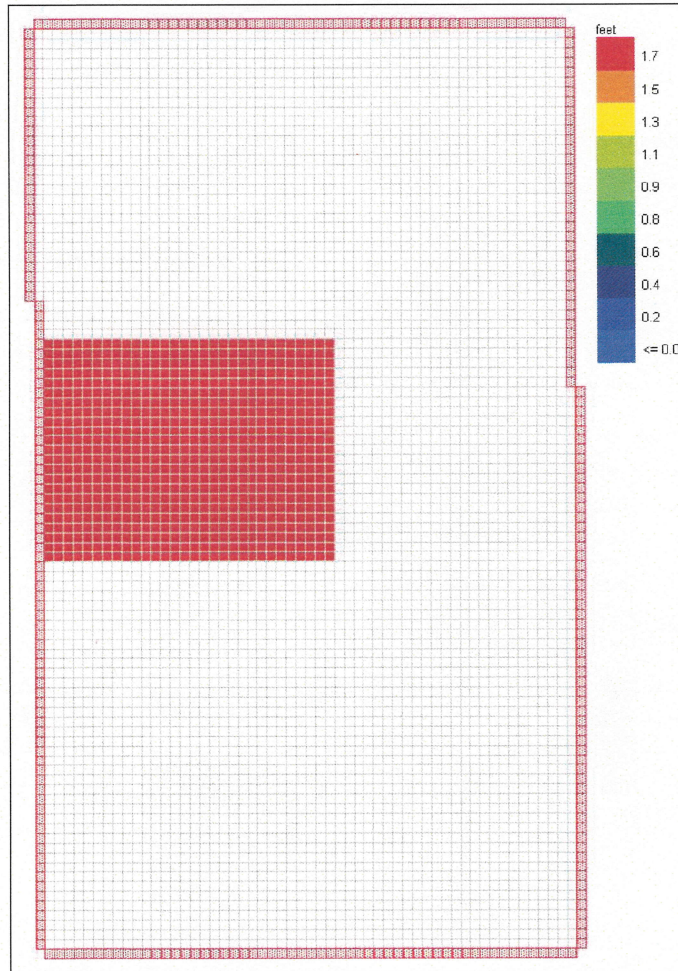
=====	
MASS BALANCE INFLOW - OUTFLOW VOLUME	
=====	
*** INFLOW (ACRE-FeET) ***	
=====	
SURFACE WATER INFLOW HYDROGRAPH	WATER
	2.645
=====	
*** SURFACE OUTFLOW (ACRE-FT) ***	
=====	
OVERLAND FLOW	WATER
FLOODPLAIN STORAGE	2.645
FLOODPLAIN OUTFLOW HYDROGRAPH	0.000
=====	
FLOODPLAIN OUTFLOW AND STORAGE	2.645
TOT FLOODPLAIN STORAGE	0.018
TOTAL SURFACE OUTFLOW AND STORAGE	2.645
=====	
*** FLO-2D STORM DRAIN EXCHANGE VOLUME (ACRE-FT) ***	
=====	
Storm Drain Inflow	
SURFACE TO STORM DRAIN SYSTEM THROUGH INLETS	2.643
SURFACE TO STORM DRAIN THROUGH OUTFALLS	0.000
=====	
TOTAL INFLOW (compare w/SWMM.rpt wet weather Inflow)	2.643

**Figure 20: Portion of FLO-2D "SUMMARY.OUT" Results**

Figure 21 shows the final flow depths for each cell in the FLO-2D model. Based on the SWMM drainage system depicted in Figure 17, it can be concluded that all the water has been transported through the SWMM drainage system and properly discharged into its intended area.



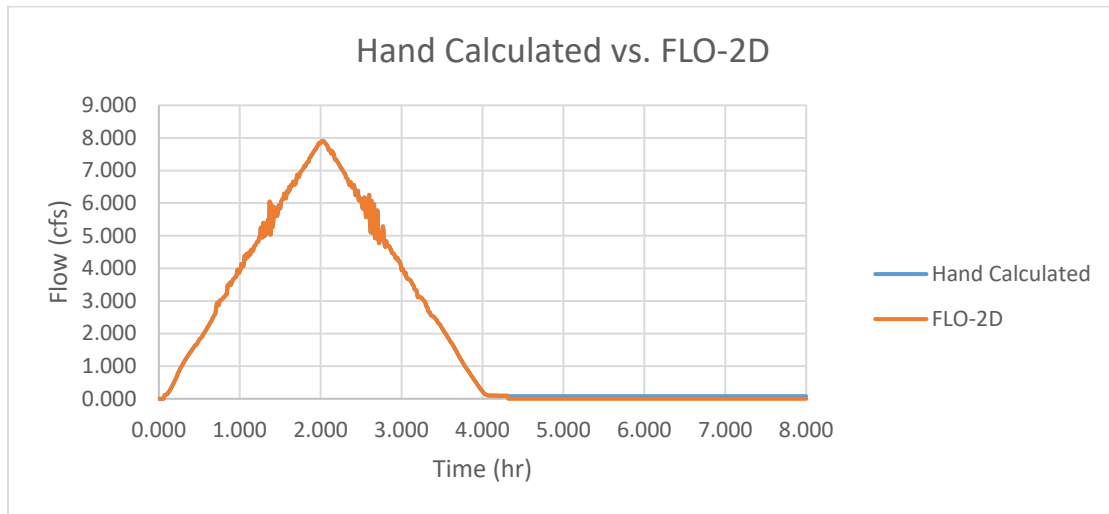
Software Name and Build: FLO-2D Pro Build 16.06.16	Software Test	RFCA Number: PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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**Figure 21: FLO-2D Final Flow Depths**

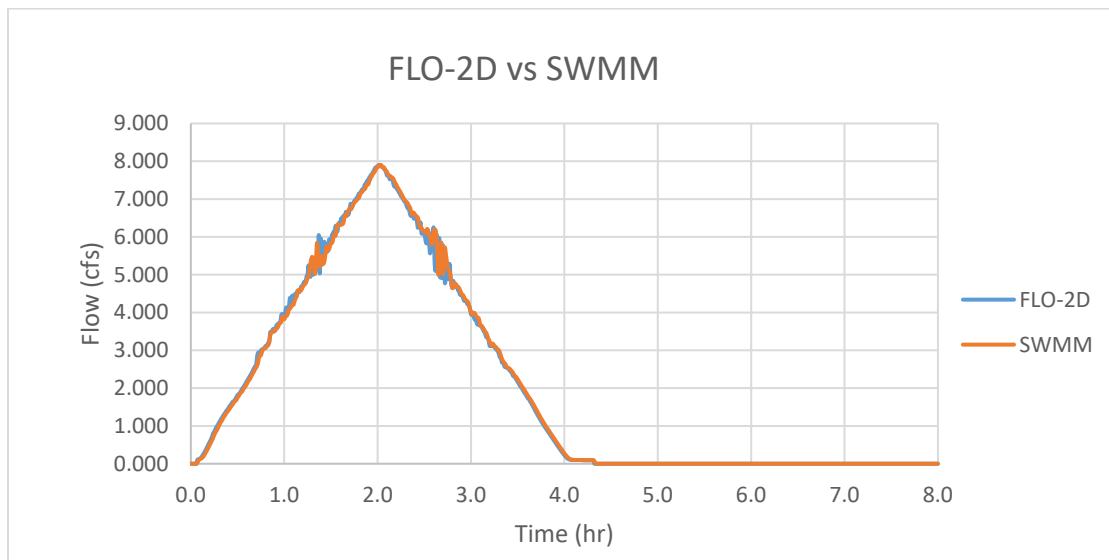
Attachment 11b includes the discharge hydrograph into each storm drain inlet of the pipe network ("SWMMQIN.OUT"), depth of flow time series for grid cell 2486 in FLO-2D/Junction 1 in SWMM ("swmm.RPT") and HandvFLO2D.xlsx files. Using the FLO-2D calculated depths from the "swmm.RPT" file for Junction 1, inlet flow values are hand calculated. These hand calculated flow values are then compared to the inlet flow values reported in the "SWMMQIN.OUT" file generated by FLO-2D. Figure 22 shows a comparison of the two-time series plots for Junction 1. With effectively no difference between the two plots, it is determined that FLO-2D correctly calculates inlet flow.

<b>Software Name and Build:</b> <b>FLO-2D Pro Build 16.06.16</b>	<b>Software Test</b>	<b>RFCA Number:</b> <b>PY20170069 FLO2D, PY20170070</b> <b>SWMM, PY20170071 ArcGIS,</b> <b>PY20170074 Flooding Computer</b>
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**Figure 22: Hand Calculated Flow vs. FLO-2D Calculated Flow for Junction 1**

The “swmm.RPT” file presented in Attachment 11b contains all the output data from the SWMM model. To ensure that FLO-2D properly transfers the time series data, the “SWMMQIN.OUT” flow data is compared to the inflow data in the “swmm.RPT” file to make sure they are identical. Figure 23 shows the plots of the FLO-2D calculated inflow, and the SWMM calculated inflow for Junction 1. It can be seen that there is effectively no difference in the two plots, thereby proving that flow data is passed correctly between FLO-2D and SWMM.



**Figure 23: FLO-2D Inlet Flow vs. SWMM Junction Flow**

Based on the results in Table 6, it is determined that FLO-2D is able to properly and accurately transfer flow into a SWMM model and then have the discharge from the SWMM drainage system back to the FLO-2D model. The results show that FLO-2D Pro is accurately predicting the flow depth within 5%.

<b>Software Name and Build:</b> <b>FLO-2D Pro Build 16.06.16</b>	<b>Software Test</b>	<b>RFCA Number:</b> <b>PY20170069 FLO2D, PY20170070</b> <b>SWMM, PY20170071 ArcGIS,</b> <b>PY20170074 Flooding Computer</b>
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#### **Test Case 4b (SWMM Pipe Flow) Model Setup**

The purpose of this test is to validate pipe hydraulic analyses performed by SWMM. The hydraulic parameters of the pipe flow computed by the SWMM model are compared to the same parameters determined by hand calculations. The compared flow parameters include:

- Ratio of pipe flow to the full-pipe flow and flow velocity (for partial pipe flow scenario)
- Slope of hydraulic grade line for the full-pipe flow condition (for full pipe flow scenario)

A SWMM model was set up with one pipe with input parameters listed below and a layout is presented in Figures 24.

Pipe Invert Elevations:

- upstream = 105 ft,
- downstream-100 ft;

Pipe Length L = 1,000 ft;

Pipe Slope S = 0.5% (0.005 ft / ft);

Pipe Diameter D = 30 in;

SWMM offers the two methods for solving hydraulic equations - dynamic wave or kinematic wave analysis. The dynamic wave analysis solves the complete form of the St. Venant flow equations and therefore produces the most theoretically accurate results. Perry LIP calculation utilizes the dynamic wave approach for analyzing flow in the storm drain system. Therefore, dynamic wave option is selected in SWMM model for both scenarios listed below.

Two scenarios were evaluated:

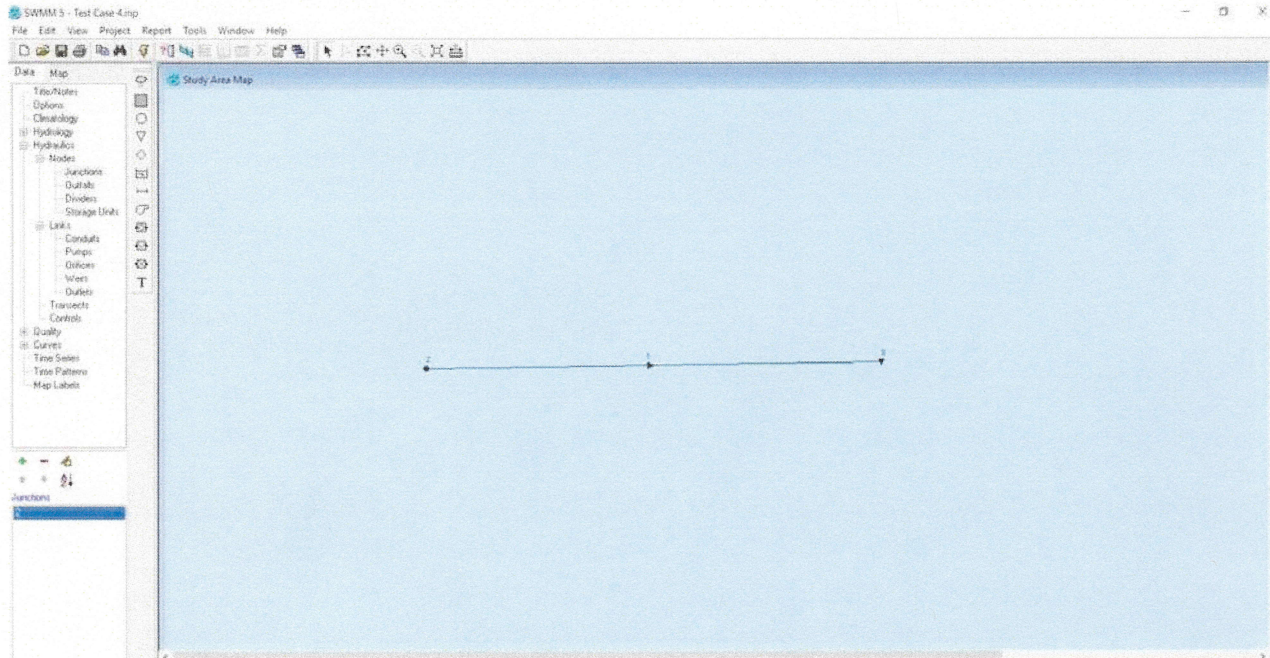
1. Partial-pipe flow
2. Full-pipe flow under a surcharge



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**Software Test**

**RFCA Number:**  
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**SWMM, PY20170071 ArcGIS,**  
**PY20170074 Flooding Computer**



**Figure 24: SWMM Layout**

### Partial-Pipe Flow

A partial-pipe flow is the same as a uniform open-channel flow. Under these conditions, flow has a constant depth and the slope of the hydraulic grade line (HGL) is equal to the pipe slope. The hydraulic parameters of this flow regime can be calculated using Manning's equation (Equation 1):

$$Q = \frac{1.49}{n} A R^{2/3} S^{0.5} \quad \text{Equation 1 (Reference 12)}$$

Where:

Q – Discharge (cfs)

V – Velocity (ft/sec)

R – Hydraulic Radius (ft) = A (area) / P (wetted perimeter)

n – Manning's Roughness Coefficient

S – Slope (ft/ft)

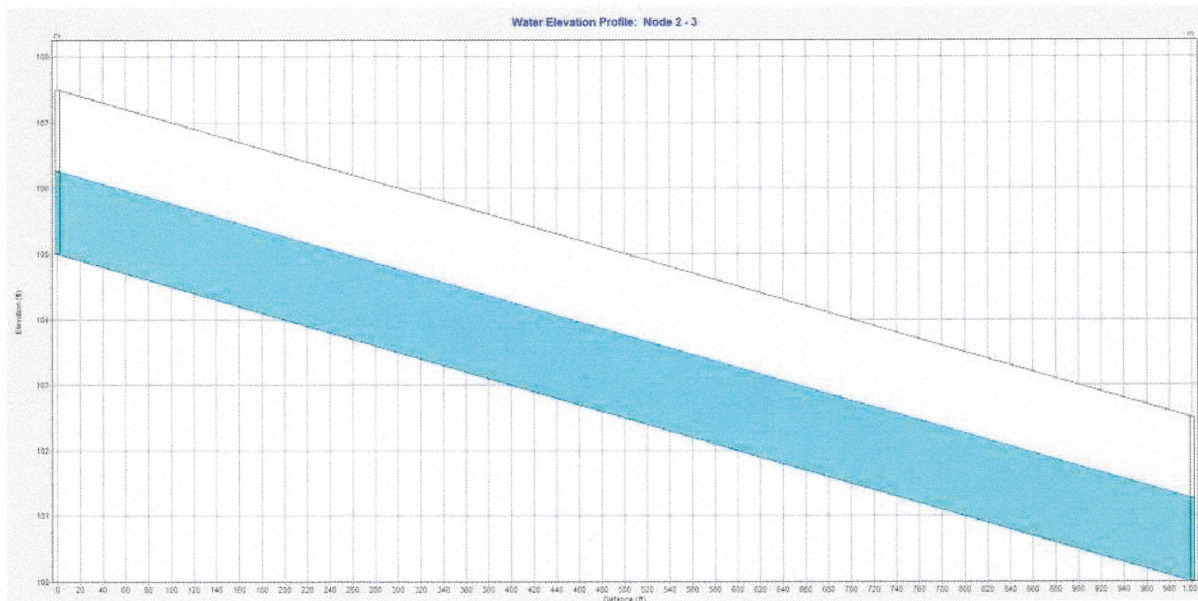
The inputs used for both SWMM model and hand calculation are as follows:

Manning's roughness coefficient  $n = 0.024$ ;

Pipe flow  $Q = 8$  cfs (a steady flow applied in the junction)



The pipe profile is shown in Figure 25 and SWMM output results are shown in Figure 26 and in Attachment 12a.



**Figure 25: Water Surface Profile Partially Full Pipe Test Case**

### Full-Pipe Flow under Surchage

SWMM utilizes Hazen Williams or Darcy-Weisbach equations to calculate hydraulic parameters for the full-pipe flow under pressure (surchage) conditions. Both methods are acceptable to calculate flow under pressure. Perry LIP calculation utilizes Darcy-Weisbach for analyzing flow in the storm drain system. Therefore, Darcy-Weisbach equation (Equation 2) is selected for both SWMM model and hand calculation.

The standard form of the Darcy-Weisbach loss equation (Equation 2) is:

$$S_f = \frac{fU^2}{2gD} \quad \text{Equation 2 (Reference 11, Equation 7-29)}$$

Where:

$S_f$  – Friction Slope (head loss per unit length) (ft/ft)

Friction Slope = (Upstream HGL – Downstream HGL) / Length of pipe

$U$  – Flow Velocity (ft/sec)

$g$  – Gravitational Constant (32.2 ft/sec<sup>2</sup>)

$D$  – Pipe Diameter (in)

<b>Software Name and Build:</b> <b>FLO-2D Pro Build 16.06.16</b>	<b>Software Test</b>	<b>RFCA Number:</b> <b>PY20170069 FLO2D, PY20170070</b> <b>SWMM, PY20170071 ArcGIS,</b> <b>PY20170074 Flooding Computer</b>
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For transition and rough turbulent flow, friction factor can be calculated utilizing Equation 3:

$$f = \frac{0.25}{\left[\log\left(\frac{\epsilon}{3.7D}\right)\right]^2} \quad \text{Equation 3 (Reference 11, Equation 7-37)}$$

Where:

f - Friction Factor

$\epsilon$  – Darcy-Weisbach Surface Roughness Height (ft)

Darcy-Weisbach roughness height is dependent on the pipe material and serves the same purpose as the Manning roughness coefficient or the Hazen-Williams C-factor. For this test, concrete pipe was selected, As listed in the SWMM manual (Reference 12, Table 7-4), Darcy-Weisbach roughness coefficient for concrete is in a range of 0.012-0.12. An average value of 0.066 is utilized for the test run and hand calculation.

The inputs used for both SWMM model and hand calculation are as follows:

Darcy-Weisbach roughness height  $\epsilon = 0.066$  (Reference 11);

Pipe flow Q = 50 cfs (a steady flow applied in the junction)

SWMM model provides the HGL elevation at both upstream and downstream end. Since pipe is flowing full, HGL at downstream end is at top of the pipe (102.5 ft). SWMM output does not provide frictional slope. However, HGL elevation from SWMM model can be utilized to calculate slope of HGL (or frictional slope). Frictional slope from SWMM model is compared with hand calculation to validate SWMM pipe flow feature. SWMM output results are shown in Figure 27 and in Attachment 12a.

### **Test Case 4b (SWMM Pipe Flow) Results**

Results from the SWMM model are included in Attachment 12a and hand calculations are shown in Attachment 12b. Excerpts from SWMM results for partial and full flow pipes are shown in Figure 26 and Figure 27, respectively. Under full flow conditions, there is a water column (surcharge) at the upstream junction. Figure 27 shows water surface elevation profile with the HGL elevation at the upstream end which allows to calculate the hydraulic slope  $S_f$ .

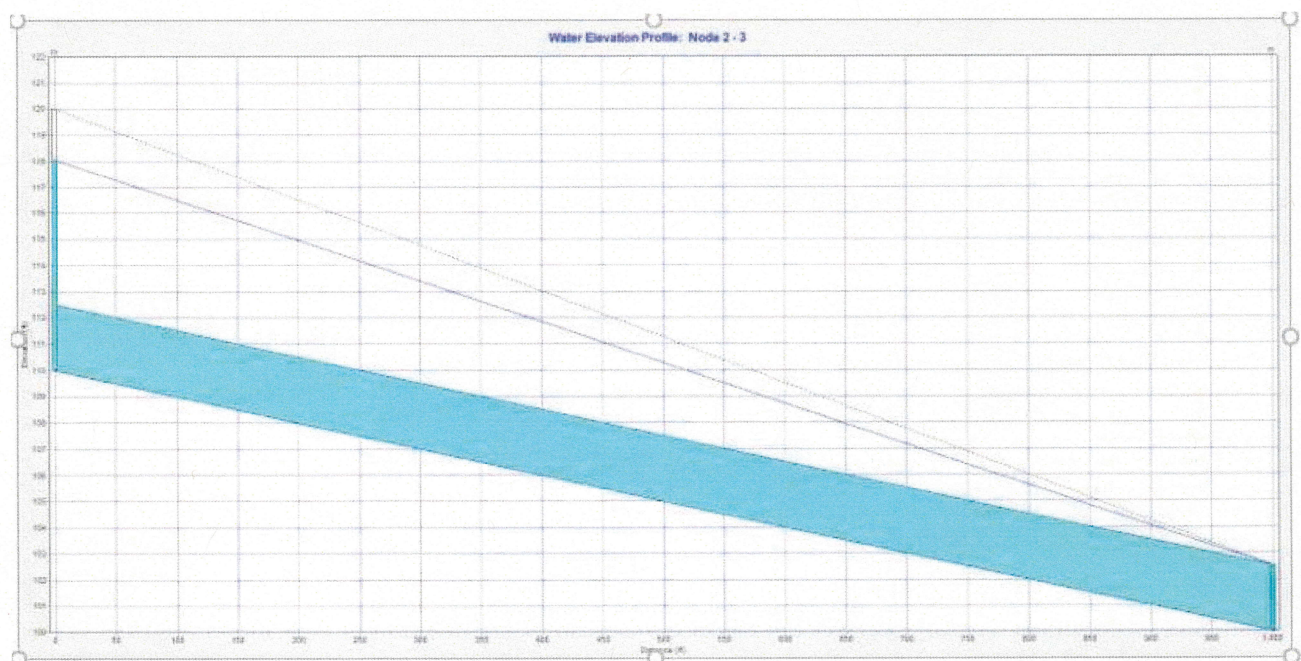


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\*\*\*\*\*  
Link Flow Summary  
\*\*\*\*\*

Link	Type	Maximum [Flow] CFS	Time of Max Occurrence days hr:min	Maximum [Veloc] ft/sec	Max/ Full Flow	Max/ Full Depth
1	CONDUIT	8.00	0 00:55	3.21	0.51	0.51

Figure 26: Partial-Pipe Flow Results from SWMM



#### SUMMARY STATISTICS

```

=====
Object ..... Node 2
Variable ..... Head (ft)
Event Period ..... Variable
Event Statistic ..... Mean (ft)
Event Threshold ..... Head > 0.0000 (ft)
Event Threshold ..... Separation Time >= 6.0 (hr)
Period of Record ..... 05/20/2020 to 05/20/2020

Number of Events ..... 1
Event Frequency* ..... 1.000
Minimum Value ..... 118.058
Maximum Value ..... 118.058
Mean Value ..... 118.058
Std. Deviation ..... 0.000
Skewness Coeff. ..... 0.000

```

Figure 27: Full-Pipe Flow Results from SWMM

<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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**Table 7: Comparison of Results – Test Case 4b**

<b>Method of Computation</b>	<b>SWMM Result</b>	<b>Hand Calculation</b>	<b>Percent Difference</b>
Partial-Pipe Flow	Pipe Flow/ Max Flow – 0.51 Flow Depth / Max Depth – 0.51 Velocity – 3.21 ft/sec	Pipe Flow/ Max Flow – 0.51 Flow Depth / Max Depth – 0.51 Velocity – 3.21 ft/sec	0.00% 0.00% 0.00%
Full-Pipe Flow under Surge	Frictional Slope = (118.06-102.5) / 1000 = 0.01556 ft/ft	Frictional Slope = 0.01548	0.52%

As shown in Table 7, SWMM is able to accurately model pipe flow hydraulics within 5% difference with the hand calculation. Therefore, tested software modules are determined to function correctly.

#### **Test Case 5 – Green-Ampt Infiltration**

##### **Test Case 5 (Green-Ampt Infiltration) Model Setup**

For this test case, the method used consists of a comparison of a hand calculation solution for the Green-Ampt Infiltration (presented in Attachment 13) to FLO-2D Pro output data produced for the infiltration model setup.

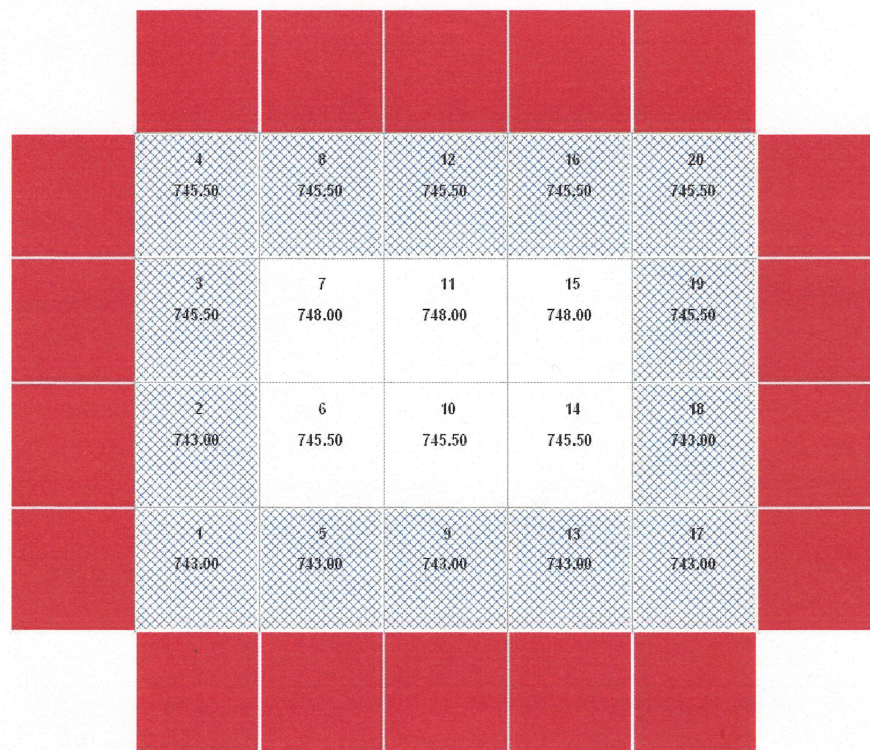
The Green-Ampt Infiltration consisted of 14 grid cells flowing into an adjacent 6 grid cells that compute the depth of infiltration under the influence of routed runoff. Figure 28 illustrates the Green-Ampt model. The grid cells in both models are 100 feet by 100 feet and are both at a 2.5% slope. The model inputs for the Green-Ampt model are presented in Attachment 14.

The model inputs for Green-Ampt are as follow:

1. System and numerical stability control files (Attachment 14, “CONT.DAT” and “TOLER.DAT”);
2. File for Images, shape files and polylines to project when open (Attachment 14, “SUPPLEMENT.DAT”);
3. The model consists of 20 100-ft-square grid elements (Attachment 14, “FPLAIN.DAT”, “CADPTS.DAT” and TOPO.DAT”);
4. A uniform Manning’s roughness coefficient n-value for the model was arbitrarily set at 0.040 for the 20 grid elements (Attachment 14, “MANNINGS\_N.DAT”);
5. Outflow hydrographs (Attachment 14, “OUTFLOW.DAT”);
6. Rainfall in FLO-2D (Attachment 14, “RAIN.DAT”);
7. Infiltration (Attachment 14, “INFIL.DAT”).



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**Figure 28: Green-Ampt Multi grid FLO-2D Model Setup for the Infiltration Model**

The Green-Ampt parameters for the soil porosity, hydraulic conductivity, soil suction and initial saturation are obtained from the FLO-2D Reference Manual (Reference 5), "Table 3 – Green-Ampt Infiltration – Hydraulic Conductivity and Porosity", "Table 4 – Green-Ampt Infiltration – Soil Suction", and Table 5 – Green-Ampt Infiltration-Volumetric Moisture Deficiency, for sand and loamy sand soil classification. The initial abstraction value of 0.025 is selected from the FLO-2D Reference Manual, "Table 2 – Initial Abstraction" (Reference 5), for shrubs. There is no conductivity adjustment factor and soil depth values. An example is shown in Figure 29.



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**Infiltration (Element 11)**

Infiltration Method

☒ Green Ampt    ☐ SCS Curve Number    ☐ Horton

The selected infiltration method(s) will be the same for all grid elements

**Global parameters**

Initial Abstraction (in): 0.025    Initial Saturation: 0.35

Soil Porosity: 0.437    Final Saturation: 1.0

Floodplain Hyd. Cond. (in/hr): 2.675    Soil Suction (in): 2.15

Floodplain and Chan. Hyd. Cond. Adjust Factor (0-10): 0.0    Soil Depth: 0.0

☐ Channel Infiltration    Channel Infiltration...

**Global SCS**

Curve Number: 99.0    Abstraction: 0.0

**Global Horton**

Initial Rate (inch/h): 0.0    Final Rate (inch/h): 0.0    Decay Coeff. (1/sec): 0.0

☐ **Grid element infiltration**

☒ Floodplain Element

Hydraulic Conduct. (in/hr): 0    Capillary Suction (in): 0

Soil Moisture Deficit: 0    Rainfall Abstraction (in): 0

Impervious Area: 0    Soil Depth: 0

☐ Channel Element    Hydraulic Conduct. 0

SCS Curve Number: 0

Horton

Initial Rate (inch/h): 0    Final Rate (inch/h): 0    Decay Coeff. (1/sec): 0

OK    Cancel

**Figure 29: Infiltration Parameters Used (shown for representative grid element)**

### **Test Case 5 (Green-Ampt Infiltration) Results**

The FLO-2D model is run for 1-hour simulation period. The results of the grid elements shown in the FLO-2D model setup (Figure 28) are given in Table 8. The infiltration (ft) at the end of the FLO-2D simulation for each floodplain element is written to the 'FPINFILTRATION.OUT' file with grid element x- and y-coordinates (Attachment 15). In addition, total infiltrated and intercepted (or abstracted) water depth is also given in the 'SUMMARY.OUT' file (Attachment 15). The total

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infiltrated and intercepted depth is the depth of water due to the total infiltrated depth of grids (from 'FPINFILTRATION.OUT') and abstraction (which is considered in this model as 0.025 in.). Note that FLO-2D provides total infiltration depth in feet at the end of simulation period.

The infiltration results computed by the FLO-2D are presented in Table 8. Note that the hand calculation is setup in Microsoft Excel for infiltration component of 1D vertical flow model whereas FLO-2D is a volume conservation 2D model which allows full interaction of all its multiple model components and the difference with hand calculation is anticipated.

**Table 8: FLO-2D Green-Ampt Model Results**

<b>Grid Cell No.</b>	<b>X-Coordinate</b>	<b>Y-Coordinate</b>	<b>Final Infiltration Depth (ft)</b>	<b>Final Infiltration Depth (in)</b>	<b><sup>(1)</sup> Overland infiltrated and intercepted Water (in)</b>
6	1224516	480293.31	0.2941	3.529	3.504
7	1224516	480393.31	0.2430	2.916	2.891
10	1224616	480293.31	0.3042	3.650	3.625
11	1224616	480393.31	0.2496	2.995	2.970
14	1224716	480293.31	0.2941	3.529	3.504
15	1224716	480393.31	0.2430	2.916	2.891
<b>Average infiltration of the grids</b>			<b>0.2710</b>	<b>3.256</b>	<b>3.231<sup>(1)</sup></b>
<i><sup>(1)</sup> Overland infiltrated and intercepted water is the sum of the average infiltration of the 6 grid cells and the abstraction (0.025 in), i.e. the total grids infiltration depth, 3.256 - 0.025 = 3.231 inches (Attachment 15)</i>					

### **Hand Calculation of infiltration**

The governing equations used to verify the FLO-2D model of the Green-Ampt infiltration model are given in Equation 4 and Equation 5, originally from the City of Seattle Stormwater Manual (CSSWM), Appendix F: Hydrologic Analysis and Design as Equation 1 and Equation 2 on page F-5 and F-6 (Reference 1).

$$F_{t+\Delta t} = F_t + K\Delta t + \psi\Delta\theta \ln \left[ \frac{F_{t+\Delta t} + \psi\Delta\theta}{F_t + \psi\Delta\theta} \right] \quad \text{Equation 4 (Reference 1)}$$

$$f_t = K \left( \frac{\psi\Delta\theta}{F_t} + 1 \right) \quad \text{Equation 5 (Reference 1)}$$

Where;

$f_t$  = infiltration rate (in/hr)

$\psi$  = initial matric potential of the soil (inches)



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$\Delta\theta$  = difference of soil water content after infiltration with initial water content

K = hydraulic conductivity (in/hr)

$F_t$  = cumulative infiltration at time t (inches)

$F_{t+\Delta t}$  = cumulative infiltration at time (t+  $\Delta t$ ) (inches)

$\Delta t$  = time incremental (hours)

A 1-hour rainfall with a time step of 1-minute is used to verify the model output from Table 8 and Table 9. As suggested in the FLO-2D Reference Manual (Reference 5), the initial abstraction is filled prior to simulating infiltration. Then based on Equation 4 and Equation 5 and the rainfall magnitude, the actual infiltration rate and the cumulative infiltration depth is calculated. The calculation procedure is given below and shown in Attachment 13.

**Step 1:** The input parameters used in the FLO-2D Infiltration model are used for the hand calculation from Figure 29. The parameter of the model and intermediate computational values are shown in Table 9.

**Table 9: Green-Ampt Parameters and Intermediate Calculations**

No.	Parameters	Symbol	Values
1	Hydraulic conductivity (in/hr)	K	2.675
2	Suction Head (in)	$\psi$	2.15
3	Initial soil moisture (%)	$\Theta_i$	35
4	Saturation (%)	$\Theta_s$	100
5	Porosity (dimensionless)	$\phi$	0.437
<b>Intermediate Calculation and Initial Values</b>			
6	$\Delta\theta = (\Theta_s - \Theta_i) * \phi$	=	0.284
7	$A = (\psi * \Delta\theta)$	=	0.611
8	$F_o$ = initial F (in)	=	0.040
9	$F_p$ = Initial Ponding (in/hr)	=	0.025
10	$F_p$ = Initial Ponding (in/min)	=	0.00042
11	$\Delta t$ = time interval (hr)	=	0.017
12	$K * \Delta t$ (in)	=	0.045

**Step 2:** The value of 0.025 in/hr is assumed initial interception (abstraction) from the rainfall consistent with the FLO-2D mode setup. FLO-2D abstracts the initial rainfall prior to infiltration simulation. Consistent to the FLO-2D model procedure, a rainfall excess is created by subtracting the initial abstraction from the rainfall intensity.



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1. For time step 1-minute, Rainfall event ( $P_t$ ) = 0.62 in (per minute) (Column 4, Attachment 13);
2. The abstraction  $0.025 \text{ in/hr} = 0.025/60 = 0.00042 \text{ in (per minute)}$ ;
3. Excess Rainfall ( $\text{in/min}$ ) =  $0.62 - 0.00042 = 0.62 \text{ in}$  (Column 5, Attachment 13).  
this is calculated for all 60 values of the rainfall until the end of the hour.

**Step 3:** The Cumulative Infiltration capacity is calculated using Equation 4. An initial value  $F_t$  is assumed (Column 6, Attachment 13) and compared with the computed values of  $F_t'$  (Column 7, Attachment 13). The final cumulative  $F_t$  is solved using solver iteration algorithm embedded in Excel.

$F_t = 0.001$ ,  $K \Delta t = 0.045 \text{ in}$ ,  $A = (\psi \Delta \Theta) = 0.611 \text{ in}$ . Assume  $F_1 = 0.1$ ,  $F_{0+1} = 0.001 + 0.045 + 0.611 \ln [(0.1 + 0.611)/(0.001 + 0.611)] = 0.137 \text{ in}$ , the difference between the assumed  $F_1$  and computed  $F_1 = 0.037 \text{ in}$ . using Microsoft Excel solver, iteration results  $F_1 = 0.26 \text{ in}$ , the difference between the assumed and computed values is  $0.000 \text{ in}$  (Column 8, Attachment 13). likewise, the cumulative infiltration capacity is determined until the end of the hour.

**Step 4:** Compute the infiltration capacity rate  $f_t$  (in/hr) using Equation 5. Start from the first infiltration rate ( $f_1$ ) by using the values of  $K = 2.675 \text{ in/hr}$ ,  $A = (\psi \Delta \Theta) = 0.611 \text{ in}$  and  $F_1$  from Step 2 (Column 9, Attachment 13).

**Step 5:** Compute actual infiltration rate (in/hr) by comparing with the rainfall intensity obtained in Step 1. If rainfall excess is less than or equal to the infiltration rate, the actual infiltration rate is equal to the rainfall excess else the infiltration is equal to the potential rate (Column 10, Attachment 13).

For example, at time = 1 min, Rainfall excess (RE) is 0.62 in. (Column 5, Attachment 13) and the infiltration capacity is 0.15 in. (Column 9, Attachment 13), so the infiltration capacity is less than the rainfall excess, so the actual infiltration is ( $f_a$ ) is 0.15 in. (Column 10, Attachment 13). Likewise the actual infiltration is determined until the end of the hour.

**Step 6:** the actual cumulative infiltration is the summation of previous time step actual infiltration and the current infiltration rate (i.e.  $F_{a1} = F_{a0} + f_{a1}$ ) (Column 11, Attachment 13).

For example, at time  $t = 1\text{-min}$ , the accumulated actual infiltration depth at the end of time step 1 is  $0.0 + 0.15 = 0.15 \text{ in}$ . in this way the cumulative infiltration ( $F_a$ ) is computed. The total cumulative depth of actual infiltration at the end of the hour is 3.4348 in. (0.2862 ft.). the full computation of the hand calculation in Excel is shown in Attachment 13.

### **Comparison of Results and Conclusion**

FLO-2D results of Green-Ampt infiltration model are compared with the hand calculated infiltration model results computed using the Green-Ampt Equation 4 and Equation 5, in the previous section.

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**Table 10: Comparison of Results – Test Case 5**

<b>Method of Computation</b>	<b>Hand Calculated (in)</b>	<b>FLO-2D Computed (in)</b>	<b>Percent Difference</b>
Infiltration Volume	3.4348	3.231	5.93%

As shown in Table 10, the difference between the final infiltration depth between Green-Ampt FLO-2D model setup and hand calculation is 5.93%. Based on these results it was determined that FLO-2D is able to properly and accurately (within 10%) calculate the Green-Ampt infiltration in the FLO-2D model.

The results of the test case meet the acceptability criteria specified in Section IV. Therefore, tested software module is determined to function correctly.

### **Test Case 6 –Rain, ARF, and WRF**

#### **Test Case 6 (Rain, ARF, and WRF) Model Setup**

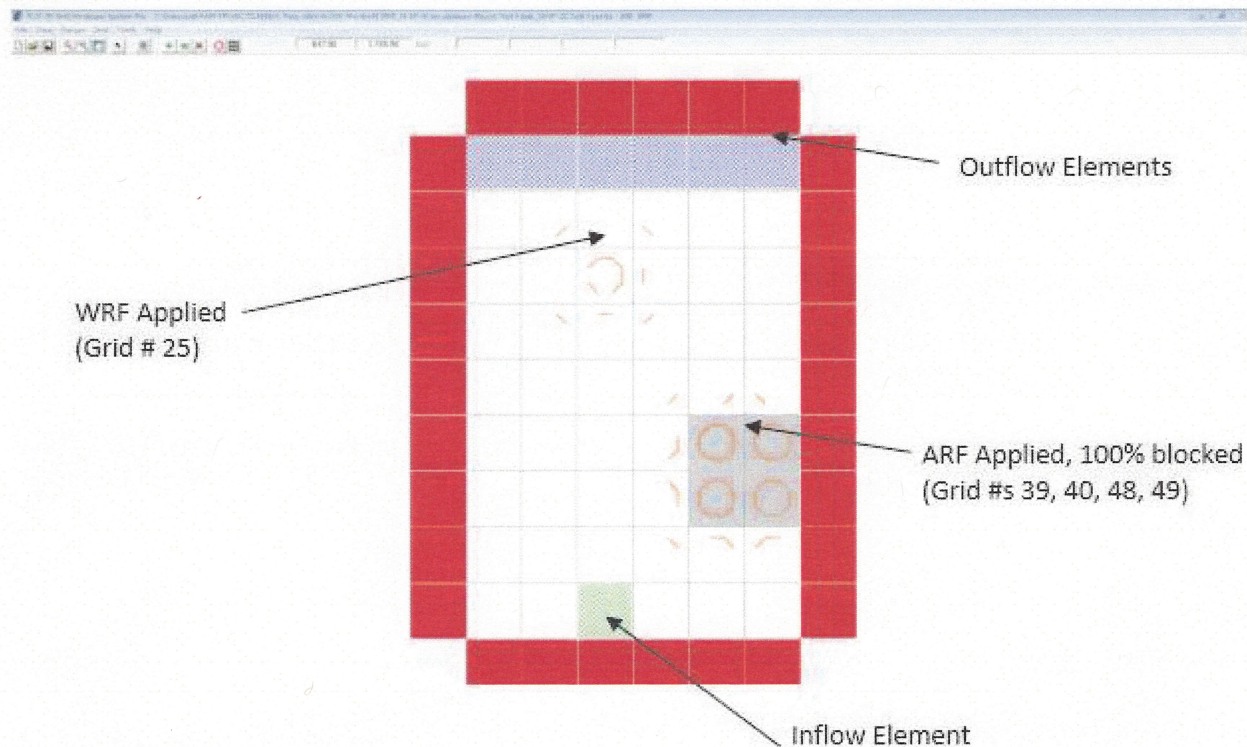
This test case verifies that the FLO-2D Pro model accurately transforms rainfall into surface runoff and appropriately represents modeling parameters such as Area Reduction Factors (ARF), and Width Reduction Factors (WRF).

The inputs for both the FLO-2D Pro model and the test case hand calculation are as follows:

1. The simple flume model is 8 elements long by 6 elements wide, each element being 50 ft by 50 ft with 6 grid elements designated as outflow cells.
2. A floodplain slope of 2% (0.02 ft/ft);
3. A uniform Manning's n-value (roughness coefficient) is 0.05.
4. A total rainfall of 3.0 inches over 2-hour period.
5. A steady inflow of 2,000 cfs is used.

The inputs described above are presented in Figure 30, Figure 31, and Figure 32. The data input and output files are included in Attachments 16 and 17 for rain, ARF, and WRF features.

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**Figure 30: Test Case 6 Model Representation**

Attributes of Grid Element Number 17

Floodplain elevation	101	Tolerance	0
Manning coefficient	0.05	Spatial shallow	
Limiting Froude	0.0		
Element size	Delta X: 50		
	Delta Y: 50		
Reduction Factor		Multiple Channel...	
Levee...		Street Element...	
Infiltration...		<input type="checkbox"/> discharge with the	
MODFLO-2D...		Gutters	
OK		Close	

**Figure 31: Grid Cell Attributes**



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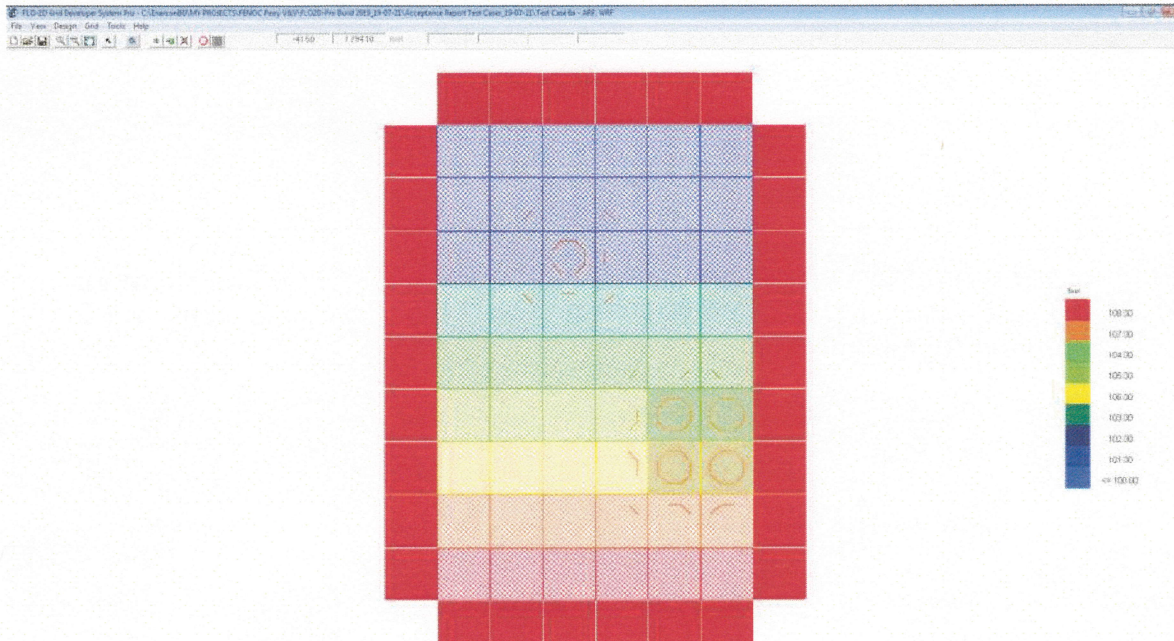


Figure 32: Grid Element Ground Surface Elevations

### Test Case 6 (Rain) Results

#### Rainfall to runoff transformation

The rainfall is applied over the simple model of 8 x 6 grid elements, 50 sq.ft. each with the total project area of 120,000 sq.ft. The total rainfall of 3 inches is applied to the model. Then, the total volume of water is calculated as:

$$[120,000 \text{ sq.ft.} \times (3.0 \text{ in} / 12 \text{ in/ft})] / 43,560 \text{ sq.ft.} / \text{acre} = 0.6887 \text{ acre-ft}$$

The applied volume to the model is shown in SUMMARY.OUT (Attachment 16) file with an excerpt presented below:

```
=====
*** INFLOW (ACRE-FEET) ***

TOTAL POINT RAINFALL:                2.9982 INCHES

                                     WATER

RAINFALL VOLUME                      0.688

SURFACE WATER INFLOW HYDROGRAPH      0.000
-----
INFLOW HYDROGRAPHS + RAINFALL        0.688
=====
```



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The results from the FLO-2D Pro Model output and the hand calculation are presented in Table 11.

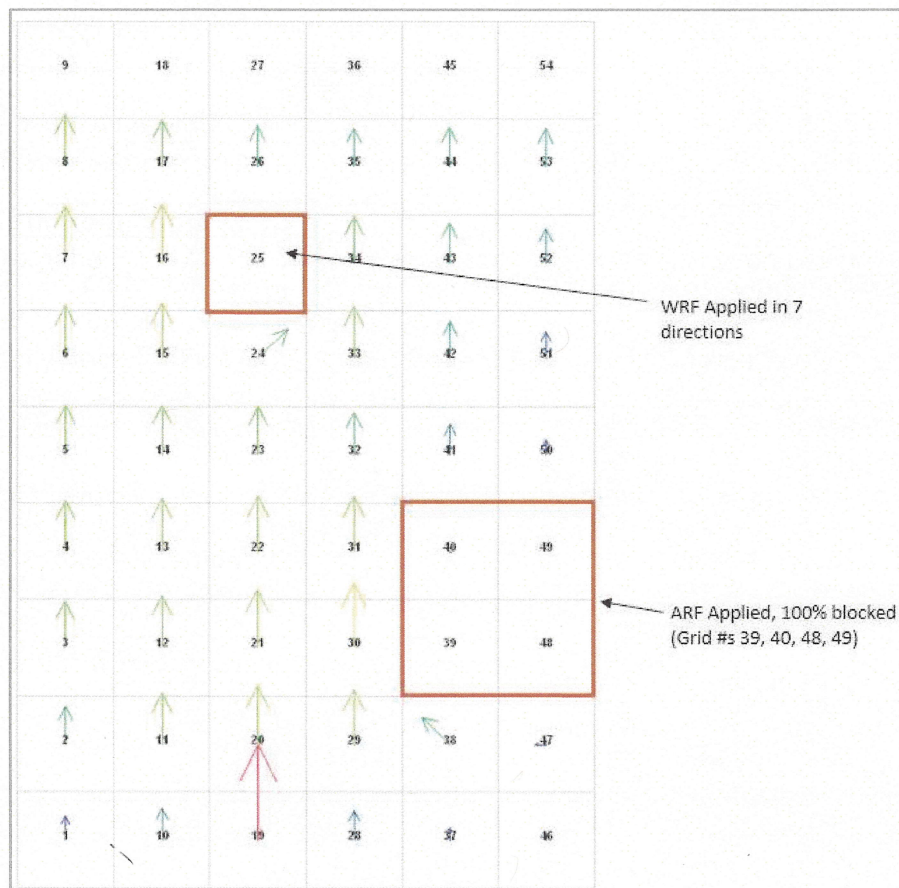
**Table 11: Comparison of Results – Test Case 6**

<b>Method of Computation</b>	<b>FLO-2 Pro Model</b>	<b>Hand Calculation</b>	<b>Percent Difference</b>
Rainfall volume	0.688 acre-ft	0.6887 acre-ft	0.0%

Based on the results shown in Table 11, FLO-2D model accurately converts rainfall volume into surface runoff volume.

### **Area and Width Reduction Factors**

To check FLO-2D performance for the area and width reduction factors, the rainfall was turned on and inflow hydrograph was introduced to the model with a steady inflow of 2000 cfs. The resulting velocity vectors (Figure 33) show that FLO-2D model appropriately takes into account the area and width reduction factors.



**Figure 33: Grid Element Maximum Velocity**



<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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The final floodplain depths are listed in DEFPF.OUT (Attachment 17) and an excerpt is shown in Figure 34. The partially blocked grid 25 has inflow from the adjacent grid 16. As such, the flow depth in grid 25 is close to the flow depth in grid 16, as expected. However, the flow depth in grids 39,40,48, and 49 are zero since these grids are blocked completely. Note that grid 50 has a reduced flow depth (appropriate) compared to other grids since it is significantly blocked from the flow propagation by the upstream completely blocked grids.

DEFPF.OUT - Notepad

File	Edit	Format	View	Help
1	250.00	1300.00	1.1445	
2	250.00	1350.00	1.5621	
3	250.00	1400.00	1.7706	
4	250.00	1450.00	1.8513	
5	250.00	1500.00	1.8853	
6	250.00	1550.00	1.9711	
7	250.00	1600.00	2.0077	
8	250.00	1650.00	1.8310	
9	250.00	1700.00	1.7463	
10	300.00	1300.00	1.6280	
11	300.00	1350.00	1.8483	
12	300.00	1400.00	1.8581	
13	300.00	1450.00	1.8688	
14	300.00	1500.00	1.8747	
15	300.00	1550.00	2.0325	
16	300.00	1600.00	2.0258	
17	300.00	1650.00	1.6639	
18	300.00	1700.00	1.6401	
19	350.00	1300.00	2.6872	
20	350.00	1350.00	2.0436	
21	350.00	1400.00	2.0245	
22	350.00	1450.00	1.8903	
23	350.00	1500.00	1.8422	
24	350.00	1550.00	2.0173	
25	350.00	1600.00	2.0211	
26	350.00	1650.00	1.4313	
27	350.00	1700.00	1.4808	
28	400.00	1300.00	1.7041	
29	400.00	1350.00	2.1079	
30	400.00	1400.00	2.2048	
31	400.00	1450.00	1.8654	
32	400.00	1500.00	1.6445	
33	400.00	1550.00	1.8180	
34	400.00	1600.00	1.5866	
35	400.00	1650.00	1.3504	
36	400.00	1700.00	1.3763	
37	450.00	1300.00	1.2932	
38	450.00	1350.00	2.1219	
39	450.00	1400.00	0.0000	
40	450.00	1450.00	0.0000	
41	450.00	1500.00	1.1587	
42	450.00	1550.00	1.3346	
43	450.00	1600.00	1.4025	
44	450.00	1650.00	1.3497	
45	450.00	1700.00	1.3426	
46	500.00	1300.00	1.2052	
47	500.00	1350.00	2.1675	
48	500.00	1400.00	0.0000	
49	500.00	1450.00	0.0000	
50	500.00	1500.00	0.5851	
51	500.00	1550.00	1.0204	
52	500.00	1600.00	1.2498	
53	500.00	1650.00	1.3296	
54	500.00	1700.00	1.3395	

**Figure 34: Grid Element Maximum Flow Depth**



<b>Software Name and Build:</b> <b>FLO-2D Pro Build 16.06.16</b>	<b>Software Test</b>	<b>RFCA Number:</b> <b>PY20170069 FLO2D, PY20170070</b> <b>SWMM, PY20170071 ArcGIS,</b> <b>PY20170074 Flooding Computer</b>
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### **Test Case 7 – Levees**

This test case verifies the ability of the FLO-2D model to accurately calculate flow over a levee when the levee is overtopped. The modeled flow over the levee is compared to the hand-calculated levee overtopping flow. A broad-crested weir discharge equation (Equation 5) is used for the hand calculation.

This test also demonstrates that the FLO-2D model appropriately adjusts the discharge over a levee if Width Reduction Factors (WRFs) are used to reduce the length of the levee. The same hand calculation is used to calculate the discharge over the reduced-length levee.

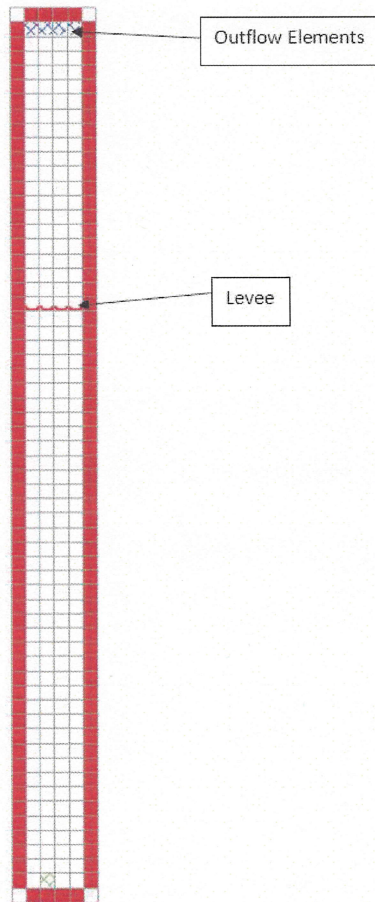
Three scenarios were considered to test flow over a levee:

1. Scenario 1 - Levee is not blocked (WRF= 0.0);
2. Scenario 2 - Levee is partially blocked: 100% (WRF= 1.0) in two directions (southwest and southeast) and 50% (WRF= 0.5) in one direction (south);
3. Scenario 3 - Levee is partially blocked: 100% (WRF= 1.0) in two directions (southwest and southeast) and open (WRF= 0.0) in one direction (south).

A simple model, 60 elements long and 4 elements wide, was generated for the levee test case. Each element is 50 ft x 50 ft. A levee was placed across the model through grid #s 161, 162, 163, and 164 as shown in Figure 35. The FLO-2D Pro model parameters are as follows:

1. A floodplain slope is 0.003 ft/ft;
2. A uniform Manning's n-value (roughness coefficient) is 0.10.
3. A single inflow element with a steady discharge of 300 cfs is used.

<b>Software Name and Build:</b> <b>FLO-2D Pro Build 16.06.16</b>	<b>Software Test</b>	<b>RFCA Number:</b> <b>PY20170069 FLO2D, PY20170070</b> <b>SWMM, PY20170071 ArcGIS,</b> <b>PY20170074 Flooding Computer</b>
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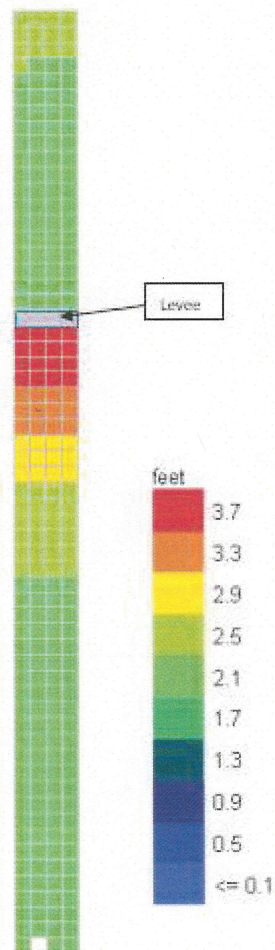


**Figure 35: Levee Placement**

The maximum flow depths for the levee simulation are presented in Figure 36 where the resulting water depths clearly show water accumulation upstream of the levee.



Software Name and Build: FLO-2D Pro Build 16.06.16	Software Test	RFCA Number: PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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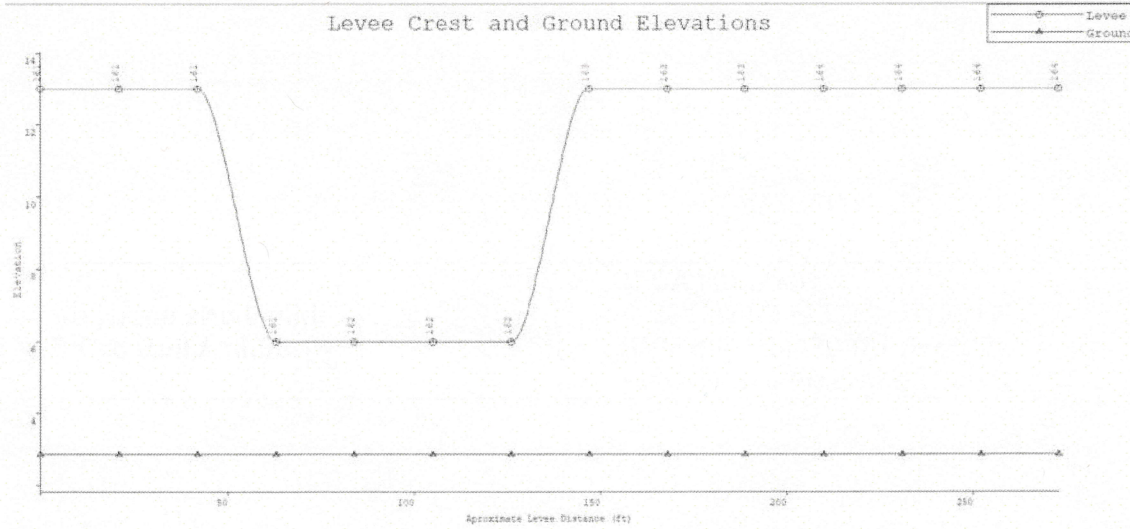


**Figure 36: Levee Simulation Maximum Flow Depths**

### **Flow Over Levee**

A uniform levee crest elevation of 13 ft was assigned to three levee elements (grid #s 161, 163, and 164) and a lower crest elevation of 6 ft was assigned to one levee element (grid # 162). This setup forces levee overtopping though the lower portion of the levee. The levee profile is shown in Figure 37.





**Figure 37: Levee Elevation Profile**

The FLO-2D utilizes broad-crested weir equation to calculate flow over a levee.

$$Q = CLH_d^{1.5}$$

Equation 5 (Reference 11)

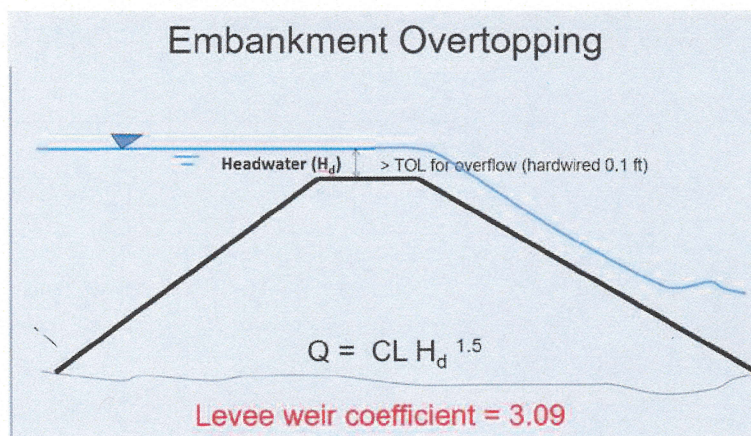
Where:

Q – discharge (cfs)

C – Weir coefficient, C = 3.09 (Figure 38)

L – Length of weir (ft)

H<sub>d</sub> = Headwater depth (ft) The length of the levee in FLO-2D is calculated based on the grid size. Each FLO-2D grid discharges flow into 8 directions and the length of each direction is 0.4214 times the grid size (Reference 5). In this case, the grid size is 50 ft x 50 ft. Therefore, the length of the levee for 1 flow direction is 21.07 ft (50 x 0.4214).



**Figure 38: FLO-2D Broad Crested Weir**



<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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### Test Case 7 (Levee) Results

The FLO-2D resulting maximum water surface elevation at each grid is shown in MAXWSELEV.OUT (Attachment 18b). The maximum water surface elevation at the grid element immediately upstream of the levee opening (Grid #158) was utilized to calculate the headwater depth over the levee. The headwater depth from the FLO-2D run was utilized in the hand calculation to calculate flow over a levee utilizing a broad-crested weir equation.

Table 12 provides comparison of the FLO-2D and hand calculation results. Figure 39 through Figure 41 provide excerpt of the maximum water surface elevation (MAXWSELEV.OUT) and levee discharge flow (LEVOVERTOPMAX.OUT) for all three scenarios listed in Table 12. The hand calculations are presented in Attachment 18a and the output results from the FLO-2D model are presented in Attachment 18b.

MAXWSELEV.OUT - Notepad				
File	Edit	Format	View	Help
151		100.00	1850.00	7.4451
152		150.00	1850.00	7.4514
153		0.00	1900.00	7.4533
154		50.00	1900.00	7.4204
155		100.00	1900.00	7.4243
156		150.00	1900.00	7.4336
157		0.00	1950.00	7.4029
158		50.00	1950.00	7.3952
159		100.00	1950.00	7.4032
160		150.00	1950.00	7.4199
161		0.00	2000.00	4.4756
162		50.00	2000.00	4.8731
163		100.00	2000.00	4.3883
164		150.00	2000.00	4.3054
LEVOVERTOP.OUT - Notepad				
File	Edit	Format	View	Help
MAXIMUM LEVEE OVERTOPPING DISCHARGE BY GRID ELEMENT				
162	2.389	311.41		

**Figure 39: Scenario 1 Results (No WRF)**



<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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MAXWSELEV.OUT - Notepad

File	Edit	Format	View	Help
151		100.00	1850.00	9.7730
152		150.00	1850.00	9.7953
153		0.00	1900.00	9.7932
154		50.00	1900.00	9.7568
155		100.00	1900.00	9.7765
156		150.00	1900.00	9.7681
157		0.00	1950.00	9.7380
158		50.00	1950.00	9.7242
159		100.00	1950.00	9.7589
160		150.00	1950.00	9.7717
161		0.00	2000.00	4.2334
162		50.00	2000.00	4.6108
163		100.00	2000.00	4.1489
164		150.00	2000.00	4.0661

LEVOVERTOP.OUT - Notepad

File	Edit	Format	View	Help
MAXIMUM LEVEE OVERTOPPING DISCHARGE BY GRID ELEMENT				
162		2.497	229.97	

**Figure 40: Scenario 2 Results (WRF= 1.0 on 2 sides and WRF= 0.5 on 1 side)**

MAXWSELEV.OUT - Notepad

File	Edit	Format	View	Help
151		100.00	1850.00	8.7828
152		150.00	1850.00	8.7821
153		0.00	1900.00	8.7510
154		50.00	1900.00	8.7750
155		100.00	1900.00	8.7633
156		150.00	1900.00	8.7782
157		0.00	1950.00	8.7435
158		50.00	1950.00	8.7327
159		100.00	1950.00	8.7609
160		150.00	1950.00	8.7573
161		0.00	2000.00	4.4127
162		50.00	2000.00	4.8050
163		100.00	2000.00	4.3245
164		150.00	2000.00	4.2417

LEVOVERTOP.OUT - Notepad

File	Edit	Format	View	Help
MAXIMUM LEVEE OVERTOPPING DISCHARGE BY GRID ELEMENT				
162		2.488	289.09	

**Figure 41: Scenario 3 Results (WRF= 1.0 on 2 sides and WRF= 0.0 on 1 side)**



<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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**Table 12: Comparison of Results – Test Case 7**

<b>Scenario</b>	<b>Max. WSE at Grid 158 from FLO-2D (ft) (1)</b>	<b>Headwater Depth over Levee (ft) (2) = (1) - 6 ft</b>	<b>Max. Flow over Levee from FLO-2D (cfs)</b>	<b>Max. Flow over Levee from Hand Calc. (cfs)</b>	<b>Percent Difference</b>
Scenario 1 - No WRF	7.3952	1.3952	311.41	316.38	1.58%
Scenario 2 - WRF=1.0 in two directions and WRF = 0.5 in one direction	9.7242	3.7242	229.97	229.96	0.00%
Scenario 3 - WRF=1.0 in two directions and no WRF in one direction	8.7327	2.7327	289.09	289.09	0.00%

As shown in Table 12, the difference between the FLO-2D and hand calculation results are < 2% for Scenario 1 and 0% for Scenarios 2 and 3. Based on these results, it was determined that FLO-2D can properly and accurately (within 5%) calculate discharge over a levee with and without WRFs applied.

The results of the test case meet the acceptability criteria specified in Section IV. Therefore, tested software module is determined to function correctly.

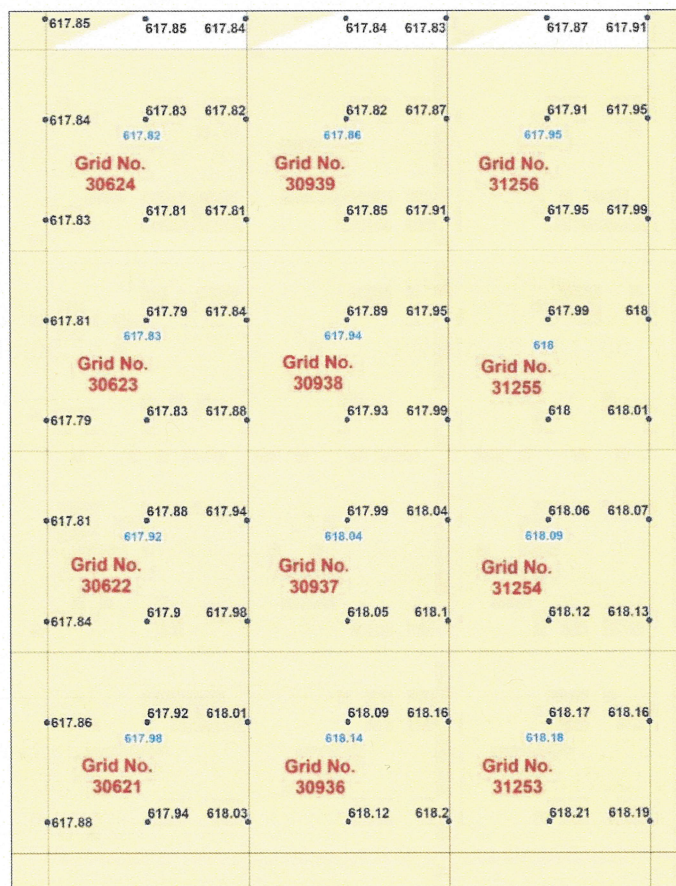
## **Test Case 8 – Topography**

### **Test Case 8 (Topography) Model Setup**

The FLO-2D Grid Developer System (GDS) is a GIS integrated software tool used to facilitate the creation of all required data to run the FLO-2D model. GDS simplifies construction of the finite difference grid system and allows graphical editing of its attributes and components. The GDS will overlay the grid system on a digital terrain map or a Digital Terrain Model (DTM) set of points and will interpolate and assign elevations to the grid elements.

An ASCII file representing the topographical surface in the form of multiple points with x, y, and z coordinates is imported in the FLO-2D GDS to build a topographic surface in FLO-2D. Figure 42 shows grid cells as rectangles and average grid elevation assigned by the FLO-2D is shown in the middle of the grid in blue text for each grid. Each grid contains four elevation points imported from an ASCII file. The number of ASCII points within the grid can vary and depends on size of grid and resolution of the original topographic data. GIS ASCII data is shown Table 13.

<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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**Figure 42: FLO-2D Grid Elevations**

\* Blue Text represents elevation data from FLO-2D model and black text represents elevation data from ArcGIS ASCII file.

**Table 13: GIS ASCII Data for Grid Cells**

FLO-2D Grid No.	ArcGIS FID	ArcGIS ASCII Data		
		x	y	z
30621	335657	2337189.944	779521.5339	617.920227
	335658	2337194.944	779521.5339	618.0071411
	336398	2337189.944	779516.5339	617.9429932
	336399	2337194.944	779516.5339	618.0299683
Average z value for Grid 30621				<b>617.9751</b>
30622	334195	2337189.944	779531.5339	617.8753052
	334196	2337194.944	779531.5339	617.9362183
	334924	2337189.944	779526.5339	617.8977661
	334925	2337194.944	779526.5339	617.9846802
Average z value for Grid 30622				<b>617.9235</b>
30623	332739	2337189.944	779541.5339	617.793396
	332740	2337194.944	779541.5339	617.8391724



<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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FLO-2D Grid No.	ArcGIS FID	ArcGIS ASCII Data		
		x	y	z
	333469	2337189.944	779536.5339	617.8266602
	333470	2337194.944	779536.5339	617.880249
<b>Average z value for Grid 30623</b>				<b>617.83</b>
30624	331293	2337189.944	779551.5339	617.8292236
	331294	2337194.944	779551.5339	617.8244629
	332014	2337189.944	779546.5339	617.8113403
	332015	2337194.944	779546.5339	617.8065185
<b>Average z value for Grid 30624</b>				<b>617.8179</b>
30936	335659	2337199.944	779521.5339	618.0941162
	335660	2337204.944	779521.5339	618.1552734
	336400	2337199.944	779516.5339	618.1168823
	336401	2337204.944	779516.5339	618.2038574
<b>Average z value for Grid 30936</b>				<b>618.1425</b>
30937	334197	2337199.944	779531.5339	617.9897461
	334198	2337204.944	779531.5339	618.043335
	334926	2337199.944	779526.5339	618.0457153
	334927	2337204.944	779526.5339	618.0993042
<b>Average z value for Grid 30937</b>				<b>618.0445</b>
30938	332741	2337199.944	779541.5339	617.8927612
	332742	2337204.944	779541.5339	617.9462891
	333471	2337199.944	779536.5339	617.9337769
	333472	2337204.944	779536.5339	617.9873657
<b>Average z value for Grid 30938</b>				<b>617.94</b>
30939	331295	2337199.944	779551.5339	617.8197022
	331296	2337204.944	779551.5339	617.8654785
	332016	2337199.944	779546.5339	617.852356
	332017	2337204.944	779546.5339	617.9058838
<b>Average z value for Grid 30939</b>				<b>617.8609</b>
31253	335661	2337209.944	779521.5339	618.1727295
	335662	2337214.944	779521.5339	618.1605835
	336402	2337209.944	779516.5339	618.2092285
	336403	2337214.944	779516.5339	618.1938477
<b>Average z value for Grid 31253</b>				<b>618.1841</b>
31254	334199	2337209.944	779531.5339	618.06073
	334200	2337214.944	779531.5339	618.0704346
	334928	2337209.944	779526.5339	618.1166992
	334929	2337214.944	779526.5339	618.1264038
<b>Average z value for Grid 31254</b>				<b>618.0936</b>
31255	332743	2337209.944	779541.5339	617.9907837
	332744	2337214.944	779541.5339	618.0048828
	333473	2337209.944	779536.5339	618.0046997
	333474	2337214.944	779536.5339	618.0144043
<b>Average z value for Grid 31255</b>				<b>618.0037</b>
31256	331297	2337209.944	779551.5339	617.9099731
	331298	2337214.944	779551.5339	617.9525757

<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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FLO-2D Grid No.	ArcGIS FID	ArcGIS ASCII Data		
		x	y	z
		332018	2337209.944	779546.5339
	332019	2337214.944	779546.5339	617.992981
<b>Average z value for Grid 31256</b>				<b>617.9515</b>

### **Test Case 8 (Topography) Results**

Table 13 shows that there are 4 ASCII points in each grid cell. Average value of elevation from 4 points in a grid cell is compared to the corresponding elevation from FLO-2D model. The results from the FLO-2D Pro Model and the ArcGIS ASCII files are presented in Table 14.

**Table 14: Comparison of Results – Test Case 8**

Grid No.	FLO-2 Pro Model Elevation (ft)	Average Elevation from GIS ASCII Data (ft)	Percent Difference
30621	617.98	617.9751	0.00%
30622	617.92	617.9235	0.00%
30623	617.83	617.8349	0.00%
30624	617.82	617.8179	0.00%
30936	618.14	618.1425	0.00%
30937	618.04	618.0445	0.00%
30938	617.94	617.94	0.00%
30939	617.86	617.8609	0.00%
31253	618.18	618.1841	0.00%
31254	618.09	618.0936	0.00%
31255	618.00	618.0037	0.00%
31256	617.95	617.9515	0.00%

Table 14 indicates that the FLO-2D Pro model accurately assigns the grid elevations from ASCII files. The results of the test case meet the acceptability criteria specified in Section IV. Therefore, tested software module is determined to function correctly.



<b>Software Name and Build:</b> <b>FLO-2D Pro Build 16.06.16</b>	<b>Software Test</b>	<b>RFCA Number:</b> <b>PY20170069 FLO2D, PY20170070</b> <b>SWMM, PY20170071 ArcGIS,</b> <b>PY20170074 Flooding Computer</b>
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2. Electric Power Research Institute (EPRI) Technical Report, Plant Engineering: Guideline for the Acceptance of the Commercial-Grade Design and Analysis Computer Programs Used in Nuclear Safety-Related Applications, Report 1025243, June 2012.
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4. FLO-2D Software, Inc., FLO-2D Storm Drain Manual.
5. FLO-2D Software, Inc., FLO-2D Reference Manual.
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9. Revisions, Enhancements and Bug Fixes to the FLO-2D Pro Model and Processor Programs Since October 1, 2012. Updated February 12, 2019.
10. FENOC Procedure NOP-SS-1001, FENOC Administrative Program for Computer Related Activities, Revision 17, March 13, 2018.
11. Michael R. Lindeburg, Civil Engineering Reference Manual, Fifteenth Edition.

<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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## **VII. ATTACHMENTS**

**Attachment 1 – SWMM Quality Assurance Report: Dynamic Wave Flow Routing**

**Attachment 2 – FLO-2D Verification Report (provided as a separate document)**

**Attachment 3 – Test Cases 1a and 1b Hand Calculations**

**Attachment 4a – Test Case 1a FLO-2D Pro Input and Output Files**

**Attachment 4b – Test Case 1b FLO-2D Pro Multiple Channel Feature Input and Output Files**

**Attachment 5 – Test Case 2 FLO-2D Pro Input Files**

**Attachment 6 – Test Case 2 Flow Comparison**

**Attachment 7 – Test Case 2 FLO2D Pro “HYCHAN.DAT” Output File for Grid Element 4969**

**Attachment 8 – Test Case 3 Hand Calculations**

**Attachment 9 – Test Case 3 FLO-2D Pro Input Files**

**Attachment 10 – Test Case 3 FLO-2D Pro “DEPTH.OUT” Files**

**Attachment 11a – Test Case 4a FLO-2D Pro Input Files**

**Attachment 11b – Test Case 4a FLO-2D Pro Output Files**

**Attachment 12a – Test Case 4b SWMM Output Files**

**Attachment 12b – Test Case 4b Hand Calculations**

**Attachment 13 – Test Case 5 Hand Calculations**



<b>Software Name and Build:</b> FLO-2D Pro Build 16.06.16	<b>Software Test</b>	<b>RFCA Number:</b> PY20170069 FLO2D, PY20170070 SWMM, PY20170071 ArcGIS, PY20170074 Flooding Computer
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**Attachment 14 – Test Case 5 FLO-2D Pro Green-Ampt Input Files**

**Attachment 15 – Test Case 5 FLO-2D Pro Green-Ampt Output Files**

**Attachment 16 – Test Case 6 FLO-2D Pro Rain Feature Input and Output Files**

**Attachment 17 – Test Case 6 FLO-2D Pro ARF and WRF Feature Input and Output Files**

**Attachment 18a – Test Case 7 Hand Calculations**

**Attachment 18b – Test Case 7 FLO-2D Pro Levee Feature Input and Output Input Files**

**Attachment 19 – FLO-2D Revisions, Enhancements, and Bug Fixes**

## **Attachment 1 – SWMM Quality Assurance Report: Dynamic Wave Flow Routing**





**EPA/600/R-06/097**  
**September 2006**

# **STORM WATER MANAGEMENT MODEL**

## **QUALITY ASSURANCE REPORT:**

### **Dynamic Wave Flow Routing**

By

Lewis A. Rossman  
Water Supply and Water Resources Division  
National Risk Management Research Laboratory  
Cincinnati, OH 45268

NATIONAL RISK MANAGEMENT RESEARCH LABORATORY  
OFFICE OF RESEARCH AND DEVELOPMENT  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
CINCINNATI, OH 45268

## **DISCLAIMER**

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## FOREWORD

The U.S. Environmental Protection Agency is charged by Congress with protecting the Nation's land, air, and water resources. Under a mandate of national environmental laws, the Agency strives to formulate and implement actions leading to a compatible balance between human activities and the ability of natural systems to support and nurture life. To meet this mandate, EPA's research program is providing data and technical support for solving environmental problems today and building a science knowledge base necessary to manage our ecological resources wisely, understand how pollutants affect our health, and prevent or reduce environmental risks in the future.

The National Risk Management Research Laboratory is the Agency's center for investigation of technological and management approaches for reducing risks from threats to human health and the environment. The focus of the Laboratory's research program is on methods for the prevention and control of pollution to the air, land, water, and subsurface resources; protection of water quality in public water systems; remediation of contaminated sites and ground water; and prevention and control of indoor air pollution. The goal of this research effort is to catalyze development and implementation of innovative, cost-effective environmental technologies; develop scientific and engineering information needed by EPA to support regulatory and policy decisions; and provide technical support and information transfer to ensure effective implementation of environmental regulations and strategies.

Water quality impairment due to runoff from urban and developing areas continues to be a major threat to the ecological health of our nation's waterways. The EPA Storm Water Management Model is a computer program that can assess the impacts of such runoff and evaluate the effectiveness of mitigation strategies. This report documents the Quality Assurance testing that was performed on the dynamic wave flow routing portion of the recently modernized and updated version 5.0 of the model. As a result of this testing, users can have confidence that the updated model is performing correctly.

Sally C. Gutierrez, Director  
National Risk Management Research Laboratory

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## 1. Introduction

The Storm Water Management Model (SWMM) was originally developed in 1971 as a computer-based tool for simulating storm water runoff quantity and quality from primarily urban areas (Metcalf & Eddy, Inc., et al., 1971). Since then it has undergone several major updates, the last of these being Version 4.4 (Huber and Dickinson, 1992) which is available through an Oregon State University web site (<http://ccee.oregonstate.edu/swmm/>). Throughout each of these updates the general block nature of the overall program as well as the basic structure of its Fortran source code has remained more or less intact.

In 2002, the U.S. Environmental Protection Agency's Water Supply and Water Resources Division partnered with the consulting firm CDM to develop a completely re-written version of SWMM. The goal of this project was to apply modern software engineering techniques to produce a more maintainable, extensible, and easier to use model. The result of this effort, SWMM 5 (Rossman, 2005), consists of a platform-independent computational engine written in C as well as a graphical user interface for the Microsoft Windows operating system written in Delphi. A rigorous Quality Assurance (QA) program was developed to insure that the numerical results produced from the new SWMM 5 model would be compatible with those obtained from SWMM 4.4 (Schade, 2002). The new SWMM 5 software was released to the public in October of 2004.

The most numerically challenging sub-model to implement within SWMM 5 was the dynamic wave flow routing routine known as Extran (for Extended Transport). It routes non-steady flows through a general network of open channels, closed conduits, storage facilities, pumps, orifices and weirs. In contrast to simpler routing methods, this procedure can model such phenomena as backwater effects, flow reversals, pressurized flow, and entrance/exit energy losses. Rather than simply encode a line-for-line copy of Extran, SWMM 5 restructured the code in a more readable and maintainable fashion. It also employed a slightly modified computational scheme with the intent of producing more numerically stable solutions in less time.

This report documents the Quality Assurance testing program that was used to compare the dynamic wave flow routing procedures of SWMM 4.4 and SWMM 5 with one another. Before describing the tests made and the results obtained it will be useful to contrast the way in which each version of the model implements dynamic wave flow routing.



## 2. Routing Models

It should be noted that SWMM 4.4 (hereafter referred to as simply SWMM 4) actually contains three different procedures that can be used for dynamic wave flow routing. The choice is determined by the value of the ISOL parameter provided by the user in SWMM 4's input data file. The Explicit Method (ISOL = 0) is the default and will be the method compared against in this report. Appendix A discusses this decision in more detail.

### Governing Equations

Both SWMM 4 and 5 solve the same form of the conservation of mass and momentum equations that govern the unsteady flow of water through a drainage network of channels and pipes. These equations, known as the Saint Venant equations, can be expressed in the following form for flow along an individual conduit:

$$\frac{\partial A}{\partial t} + \frac{\partial Q}{\partial x} = 0 \quad \text{Continuity} \quad (1)$$

$$\frac{\partial Q}{\partial t} + \frac{\partial (Q^2 / A)}{\partial x} + gA \frac{\partial H}{\partial x} + gAS_f + gAh_L = 0 \quad \text{Momentum} \quad (2)$$

where  $x$  is distance along the conduit,  $t$  is time,  $A$  is cross-sectional area,  $Q$  is flow rate,  $H$  is the hydraulic head of water in the conduit (elevation head plus any possible pressure head),  $S_f$  is the friction slope (head loss per unit length),  $h_L$  is the local energy loss per unit length of conduit, and  $g$  is the acceleration of gravity. Note that for a known cross-sectional geometry, the area  $A$  is a known function of flow depth  $y$  which in turn can be obtained from the head  $H$ . Thus the dependent variables in these equations are flow rate  $Q$  and head  $H$ , which are functions of distance  $x$  and time  $t$ .

The friction slope  $S_f$  can be expressed in terms of the Manning equation as:

$$S_f = \frac{n^2 V |V|}{k^2 R^{4/3}}$$

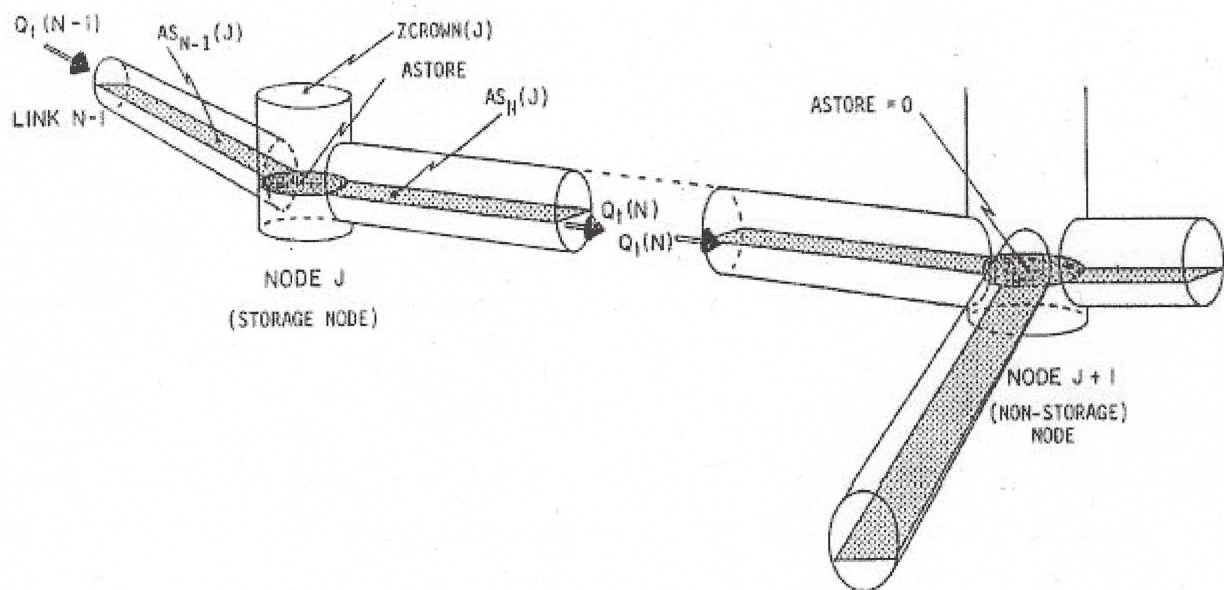
where  $n$  is the Manning roughness coefficient,  $V$  is the flow velocity (equal to the flow rate  $Q$  divided by the cross-sectional area  $A$ ),  $R$  is the hydraulic radius of the flow's cross-section, and  $k = 1.49$  for US units or 1.0 for metric units. The local loss term  $h_L$  can be expressed as  $\frac{KV^2}{2gL}$  where  $K$  is a local loss coefficient at location  $x$  and  $L$  is the conduit length.

To solve equations (1) and (2) over a single conduit, one needs a set of initial conditions for  $H$  and  $Q$  at time 0 as well as boundary conditions at  $x = 0$  and  $x = L$  for all times  $t$ .

When analyzing a network of conduits, an additional continuity relationship is needed for the junction nodes that connect two or more conduits together (see Figure 1.1). In SWMM a continuous water surface is assumed to exist between the water elevation at the node and in the conduits that enter and leave the node (with the exception of free fall drops should they occur). The change in hydraulic head  $H$  at the node with respect to time can be expressed as:

$$\frac{\partial H}{\partial t} = \frac{\sum Q}{A_{store} + \sum A_s} \quad (3)$$

where  $A_{store}$  is the surface area of the node itself,  $\sum A_s$  is the surface area contributed by the conduits connected to the node, and  $\sum Q$  is the net flow into the node (inflow – outflow) contributed by all conduits connected to the node as well as any externally imposed inflows. Note that the flow depth at the end of a conduit connected to a node can be computed as the difference between the head at the node and the invert elevation of the conduit.



**Figure 1.1 Node-Link Representation of a Drainage System in SWMM (from Roesner et al, 1992).**

### General Solution for Conduits

Equations (1), (2), and (3) are solved in SWMM by converting them into an explicit set of finite difference formulas that compute the flow in each conduit and head at each node for time  $t + \Delta t$  as functions of known values at time  $t$ . The equation solved for the flow in each conduit is:

$$Q_{t+\Delta t} = \frac{Q_t + \Delta Q_{gravity} + \Delta Q_{inertial}}{1 + \Delta Q_{friction} + \Delta Q_{losses}} \quad (4)$$

The individual  $\Delta Q$  terms have been named for the type of force they represent and are given by the following expressions:

$$\Delta Q_{gravity} = g\bar{A}(H_1 - H_2)\Delta t / L$$

$$\Delta Q_{inertial} = 2\bar{V}(\bar{A} - A_t) + \bar{V}^2(A_2 - A_1)\Delta t / L$$

$$\Delta Q_{friction} = \frac{gn^2|\bar{V}|\Delta t}{k^2\bar{R}^{4/3}}$$

$$\Delta Q_{losses} = \frac{\sum_i K_i |V_i| \Delta t}{2L}$$

where:

$\bar{A}$  = average cross-sectional flow area in the conduit,

$\bar{R}$  = average hydraulic radius in the conduit,

$\bar{V}$  = average flow velocity in the conduit,

$V_i$  = local flow velocity at location  $i$  along the conduit,

$K_i$  = local loss coefficient at location  $i$  along the conduit,

$H_1$  = head at upstream node of conduit,

$H_2$  = head at downstream node of conduit,

$A_1$  = cross-sectional area at the upstream end of the conduit,

$A_2$  = cross-sectional area at the downstream end of the conduit.

The equation solved for the head at each node is:

$$H_{t+\Delta t} = H_t + \frac{\Delta Vol}{(A_{store} + \sum As)_{t+\Delta t}} \quad (5)$$

where  $\Delta Vol$  is the net volume flowing through the node over the time step as given by:

$$\Delta Vol = 0.5[(\sum Q)_t + (\sum Q)_{t+\Delta t}] \Delta t$$

SWMM 4 solves equations (4) and (5) using the modified Euler method (equivalent to a 2<sup>nd</sup> order Runge-Kutta method). First Eq. (4) is solved for new flows in each conduit over a half time step  $\Delta t/2$  using the heads, areas, and velocities last computed for time  $t$ . The resulting flows are substituted into Eq. (5) to compute heads, using a time step of  $\Delta t/2$ .



Then full-step flows are found by evaluating Eq. (4) again, this time using the full time step  $\Delta t$  and using the heads, areas, and velocities found for the half-step solution. Finally, new heads for the full time step  $\Delta t$  are found by solving Eq. (5) once more with the full-step flows.

SWMM 5 solves equations (4) and (5) using a method of successive approximations with under relaxation. The procedure goes as follows:

1. A first estimate of flow in each conduit at time  $t + \Delta t$  is made by solving Eq. (4) using the heads, areas, and velocities found at the current time  $t$ . Then the same is done for heads by evaluating Eq. (5) using the flows just computed. These solutions are denoted as  $Q^{last}$  and  $H^{last}$ .
2. Eq. (4) is solved once again, using the heads, areas, and velocities that belong to the  $Q^{last}$  and  $H^{last}$  values just computed. A relaxation factor  $\Omega$  is used to combine the new flow estimate  $Q^{new}$ , with the previous estimate  $Q^{last}$  according to the equation  $Q^{new} = (1 - \Omega)Q^{last} + \Omega Q^{new}$  to produce an updated value of  $Q^{new}$ .
3. Eq. (5) is solved once again for heads, using the flows  $Q^{new}$ . As with flow, this new solution for head,  $H^{new}$ , is weighted with  $H^{last}$  to produce an updated estimate for heads,  $H^{new} = (1 - \Omega)H^{last} + \Omega H^{new}$ .
4. If  $H^{new}$  is close enough to  $H^{last}$  then the process stops with  $Q^{new}$  and  $H^{new}$  as the solution for time  $t + \Delta t$ . Otherwise,  $H^{last}$  and  $Q^{last}$  are replaced with  $H^{new}$  and  $Q^{new}$ , respectively, and the process returns to step 2.

In implementing this procedure, SWMM 5 uses a constant relaxation factor  $\Omega$  of 0.5, a convergence tolerance of 0.005 feet on nodal heads, and limits the number of trials to four.

#### Computation of Average Conduit Conditions

Evaluation of the flow updating Eq. (4) requires values for the average area ( $\bar{A}$ ), hydraulic radius ( $\bar{R}$ ), and velocity ( $\bar{V}$ ) throughout the conduit in question. Both SWMM 4 and 5 compute these values using the heads  $H_1$  and  $H_2$  at either end of the conduit from which corresponding flow depth values  $y_1$  and  $y_2$  can be derived. An average depth  $\bar{y}$  is then computed by averaging these values and is used with the conduit's cross-section geometry to compute the average area  $\bar{A}$  and hydraulic radius  $\bar{R}$ . The average velocity  $\bar{V}$  is found by dividing the most current flow value by the average area. SWMM 5 follows SWMM 4's practice of limiting this velocity to be no higher than 50 ft/sec in absolute value, so as not to allow the frictional flow adjustment term in Eq. (4) to become unbounded.

When the conduit has a free-fall discharge into either of its end nodes (meaning that the water elevation in the node is below the invert elevation of the conduit), the depth at that end of the conduit is set equal to the smaller of the critical depth and the normal flow depth for the current flow through the conduit.

### Computation of Surface Area

The surface area  $A_s$  that conduits contribute to their end nodes is computed the same way in both SWMM 4 and 5 and depends on the flow condition within the conduit. Under normal conditions it equals half the conduit's length times the average of the top width at the end- and mid-points of the conduit. These widths are evaluated before the next updated flow solution is found, using the flow depths  $y_1$ ,  $y_2$ , and  $\bar{y}$  discussed previously. If the conduit's inflow to a node is in free-fall (i.e., the conduit invert is above the node's water surface), then the conduit contributes nothing to the node's surface area.

For conduits with closed cross-sectional shapes (such as circular pipes) that are greater than 96 percent full, SWMM 4 utilizes a constant top width equal to the width when 96 percent full. This prevents the head adjustment term in Eq. (5) from blowing up as the actual top width and corresponding surface area go to 0 as the conduit approaches being full. This same practice is followed in SWMM 5.

Both programs assign a minimum surface area  $A_{store_{min}}$  to all nodes, including junctions that normally have no storage volume, to prevent Eq. (5) from becoming unbounded. The default value for this minimum area is 12.57 ft<sup>2</sup> (i.e., the area of a 4-foot diameter manhole) but can be overridden by a user-supplied value.

### Surcharge Conditions

SWMM defines a node to be in a surcharged condition when its water level exceeds the crown of the highest conduit connected to it. Under this condition the surface area contributed by any closed conduits would be zero and Eq. (3) would no longer be applicable. To accommodate this situation, SWMM uses an alternative nodal continuity condition, namely that the total rate of outflow from a surcharged node must equal the total rate of inflow,  $\sum Q = 0$ . By itself, this equation is insufficient to update nodal heads at the new time step since it only contains flows. In addition, because the flow and head updating equations for the system are not solved simultaneously, there is no guarantee that the condition will hold at the surcharged nodes after a flow solution has been reached.

To enforce the flow continuity condition, it can be expressed in the form of a perturbation equation:

$$\sum \left[ Q + \frac{\partial Q}{\partial H} \Delta H \right] = 0$$

where  $\Delta H$  is the adjustment to the node's head that must be made to achieve flow continuity. Solving for  $\Delta H$  yields:

$$\Delta H = \frac{-\sum Q}{\sum \partial Q / \partial H} \quad (6)$$

where from Eq. (4),

$$\frac{\partial Q}{\partial H} = \frac{-g \bar{A} \Delta t / L}{1 + \Delta Q_{friction} + \Delta Q_{losses}}$$

( $\partial Q / \partial H$  has a negative sign in front of it because when evaluating  $\Sigma Q$ , flow directed out of a node is considered negative while flow into the node is positive.)

Every time that Eq. (6) is applied to update the head at a surcharged node, Eq. (4) is re-evaluated to provide flow updates for the conduits that connect to the node. This process continues until some convergence criterion is met. SWMM 4 enters this iterative mode for surcharged nodes at both the half-step and full-step portions of its solution method. The user sets a convergence tolerance on the maximum fractional difference for flows found between iterations as well as the maximum number of iterations allowed. For SWMM 5, these surcharge iterations are folded into its normal set of iterations outlined previously. That is, whenever heads need to be computed in the successive approximation scheme, Eq. (6) is used in place of Eq. (5) if a node is surcharged, and no under-relaxation of the resulting head value is performed.

#### Normal Flow Condition

Both SWMM 4 and SWMM 5 limit the flow in non-surcharged conduits to be no greater than the normal Manning's flow for the current flow depth at the upstream end of the conduit whenever one of the following conditions occur:

1. The water surface slope is less than the conduit slope.
2. The Froude number, based on the water depth at either end of the conduit, is greater than 1.0.

Each condition indicates a flow regime that is supercritical. The user specifies which of these two criteria should apply.

#### Pumps, Orifices, and Weirs

Both programs model pumps, orifices, and weirs as links that connect a pair of nodes together. The flow through these links is computed as a function of the heads at their end nodes. These flows are computed during the flow evaluation step of both the SWMM 4 and 5 procedures after the flows through all of the conduits are computed.

SWMM 4 and 5 model pumps in a similar fashion, requiring the user to specify a pump curve along which the pump must operate. The pump curve can specify flow as a function of inlet node volume, inlet node depth, or the head difference between the inlet and outlet nodes. Both programs also limit the pump's flow to the inflow to the inlet node during a given time step should the pump curve flow be high enough to completely drain the inlet node during the time step.



SWMM 4 models an orifice (i.e., an enclosed opening oriented either vertically or horizontally to the flow direction) as an equivalent pipe. The length  $L$  of the equivalent pipe is computed as  $2.7 \sqrt{\gamma \Delta}$  where  $D$  is the height of the orifice opening. Its roughness coefficient is set equal to  $R^{2/3} / C_d \sqrt{2Lg}$  where  $R$  is the hydraulic radius of the full orifice opening and  $C_d$  is the discharge coefficient of the orifice. Flow through the orifice is then computed in the same fashion as for any conduit. SWMM 5 takes a more direct approach. It uses the classical orifice equation  $C_d A \sqrt{2gh}$  to compute flow when the orifice is fully submerged and a modified weir equation  $C_d A \sqrt{2gD} f^{1.5}$  when the orifice is submerged a fraction  $f$ . In these formulas,  $A$  is the area and  $D$  is the height of the full orifice opening, while  $h$  is the head across the orifice. Both programs compute a surface area contribution of the orifice to its end nodes, based on the equivalent pipe length  $L$  and the depth of water in the orifice.

SWMM 5 models weirs (i.e., an unrestricted opening oriented either transversely or parallel to the flow direction) in the same fashion as SWMM 4. An equation of the general form  $C_w L_w h^n$  is used to compute flow as a function of head  $h$  across the weir when the weir is not fully submerged.  $C_w$  is the weir's discharge coefficient,  $L_w$  is the length of its opening, and  $n$  is an exponent that depends on the type of weir being modeled (e.g., transverse, side-flow, V-notch, or trapezoidal). When the weir becomes completely submerged, both programs switch to using the orifice equation to predict flow as a function of the head across it. Weirs do not contribute any surface area to their end nodes.

### 3. Testing Procedure

The testing procedure used for this study involved running both SWMM 4 and 5 on an identical set of dynamic wave flow routing test problems and then comparing the results. Equivalent sets of analysis options, such as routing time step and minimum nodal surface area, were used with each program to maintain comparability (see below). The results produced by each program were inspected in the following ways:

- For examples that included a runoff calculation, the overall flow balances for runoff were compared to make sure that both versions of SWMM produced the same total inflow quantities to the flow routing computation.
- The flow balance error for the routing portion of each example was checked to insure that both versions of SWMM maintained acceptable flow continuity.
- Scatter plots were used to visually compare the peak flows computed for all conduits in each example by each of the programs.
- Time series plots of flows and water depths at critical locations in each example were visually compared, paying particular attention to any evidence of numerical instability exhibited by either program.

The critical locations chosen for time series plots typically included system outfalls, other significant system elements (such as orifices, weirs, storage units and pump stations), and locations that exhibited significant differences in peak flows between the two programs.

The test case examples used in this evaluation were divided into three distinct categories. The first category is the Extran Manual Test Cases. These consist of the ten Extran example data sets that were presented in the last SWMM 4.4 Users Manual (Roesner et al., 1992). They serve as a useful benchmark to compare against and model such elements as surcharged conduit flow, bottom and side orifices, weirs, storage units, pumps, and a variety of cross-sectional shapes.

The second test case category is the Challenge Test Cases. These are five examples from a suite of test cases compiled by Robert E. Dickinson of CDM. They all consist of several circular conduits connected in series that present different types of challenges to modeling dynamic flows, such as flat slopes, pipe constrictions, steep drops, adverse slopes, and inlet offsets.

The third test category is the User Submitted Test Cases. These contain five real-world data sets contributed by SWMM users. They include models of either storm sewer systems, combined sewer systems or natural channel systems and range in size from 59 conduits up to 273 conduits. Each of these user examples includes a runoff component that generates the flows supplied to the routing component of the model.

The versions of SWMM used in this comparison study were SWMM 4.4h (July 4, 2005) and SWMM 5.0.006 (September 2005). Unless otherwise indicated, the option settings listed in Table 3.1 were used in all runs to maintain computational compatibility between the two versions of SWMM. Note that the SWMM 4 ITMAX and SURTOL settings are not directly comparable to the SWMM 5 settings for maximum iterations and

convergence tolerance since the former apply only to surcharge iterations while the latter are used throughout SWMM 5's successive approximation routine.

**Table 3.1. Computational Settings Used for the Test Case Comparisons.**

<i>SWMM 4</i>			<i>SWMM 5</i>	
Setting	Meaning	Value	Setting	Value
ISOL	Solution method	0	Inertial terms	Keep
KSUPER	Normal flow limit criterion	0	Normal flow limit criterion	Slope
NEQUAL	Lengthen short conduits	0	Lengthen short conduits	No
AMEN	Minimum surface area, ft <sup>2</sup>	12.57	Minimum surface area, ft <sup>2</sup>	12.57
ITMAX	Maximum iterations (for surcharge only)	30	Maximum iterations (fixed internally)	4
SURTOL	Surcharge tolerance, expressed as a fractional flow difference	0.05	Convergence tolerance, expressed as an absolute head difference in feet (fixed internally)	0.005

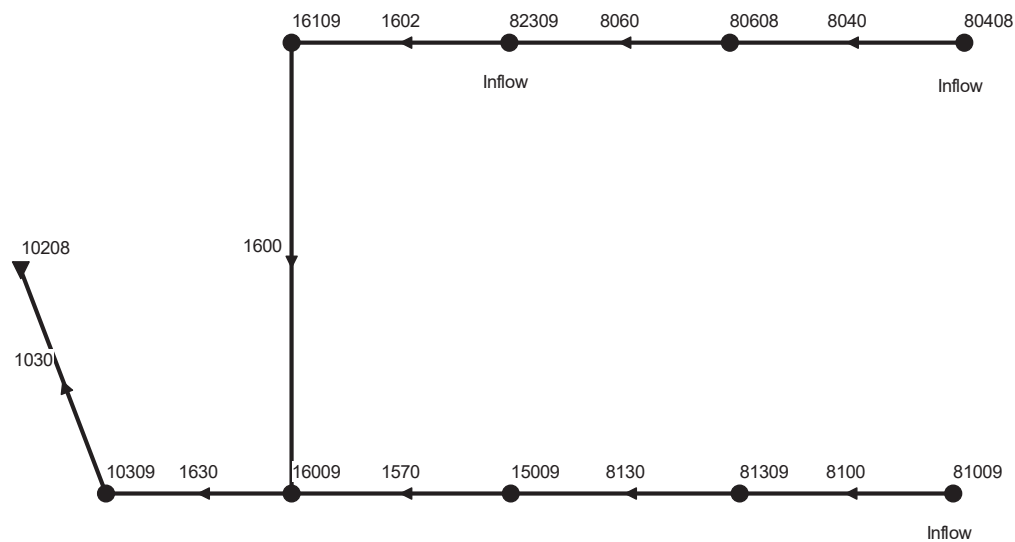


## 4. Extran Manual Test Cases

### Example EXTRAN1

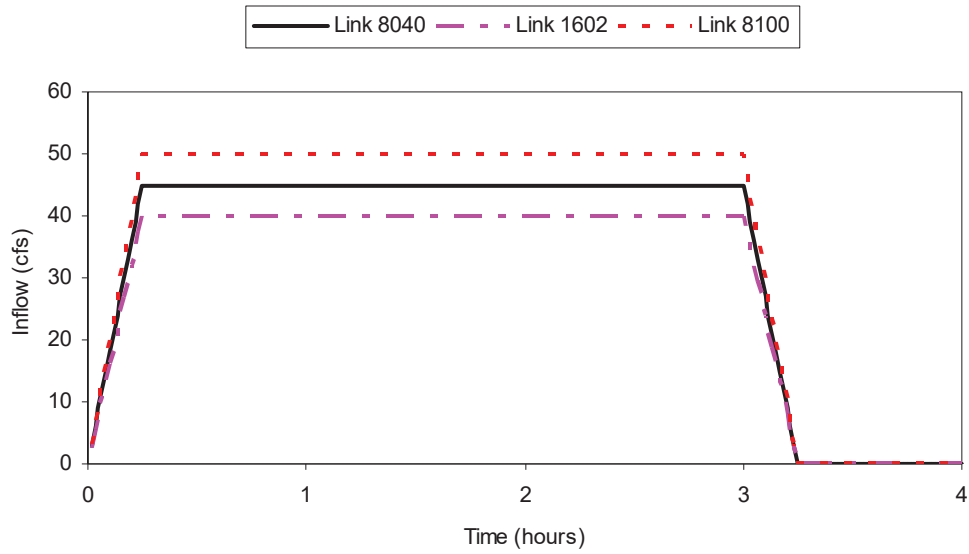
The drainage network used in this example is displayed in Figure 4.1. It contains 7 circular conduits arranged in 2 branches that converge into a pair of trapezoidal channels with a free outfall. Three locations as shown in the figure are subjected to the inflow hydrographs shown in Figure 4.2. The system was designed so that conduits 8040, 8060, and 1602 along the top branch become surcharged and flooding occurs at node 80608. It was analyzed using a 20 second time step over an 8 hour simulation period.

SWMM 4 and 5 produced essentially identical results for this example. Comparison plots for flow in selected conduits and water depth at selected nodes are shown in Figures 4.3 through 4.6. The maximum flow at each conduit and the maximum water elevation at each node are compared in Figures 4.7 and 4.8, respectively.

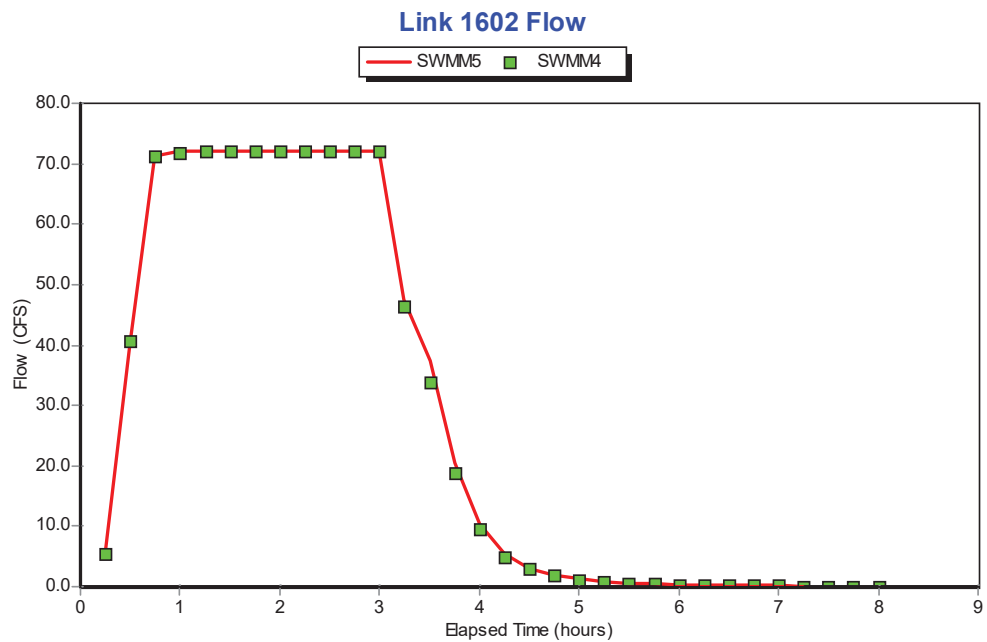


**EXAMPLE 1 OF EXTRAN MANUAL**

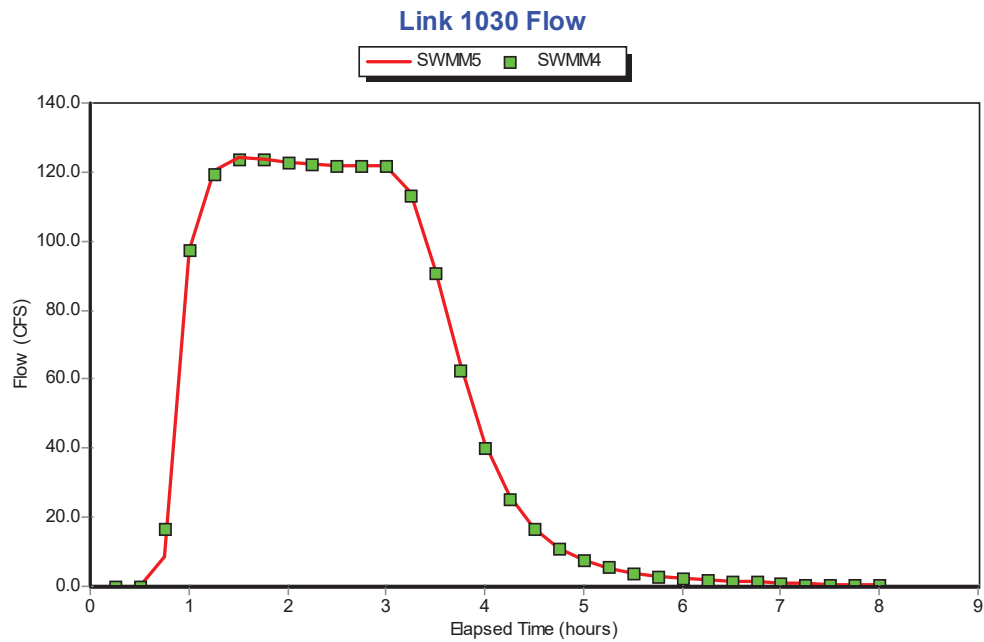
**Figure 4.1. Schematic of the Drainage Network Used for Example EXTRAN1.**



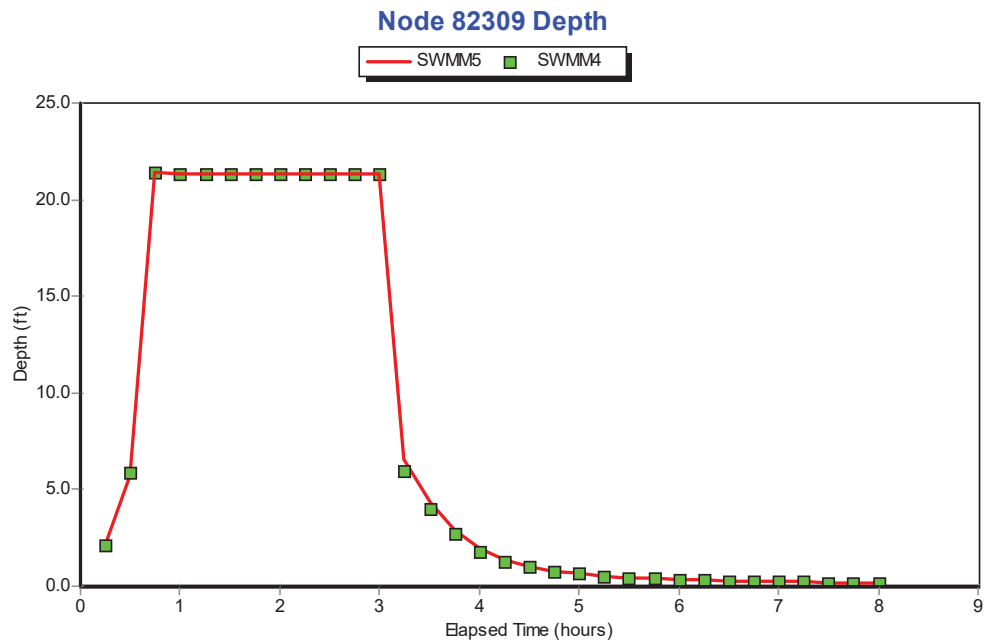
**Figure 4.2. External Inflows for Example EXTRAN1.**



**Figure 4.3. Flow Comparison for Link 1602 of Example EXTRAN1.**

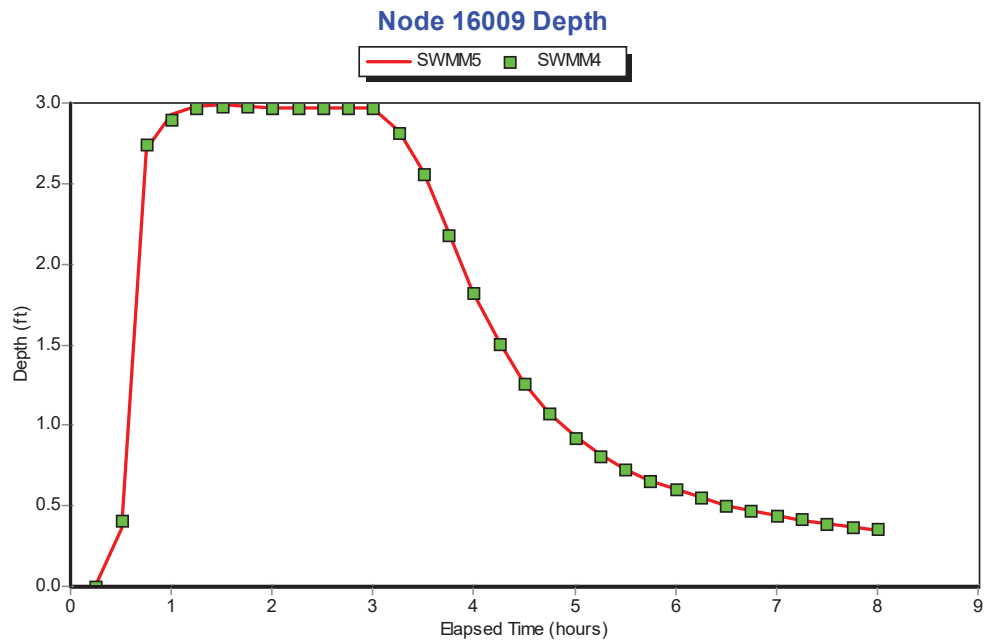


**Figure 4.4. Flow Comparison for Link 1030 of Example EXTRAN1.**

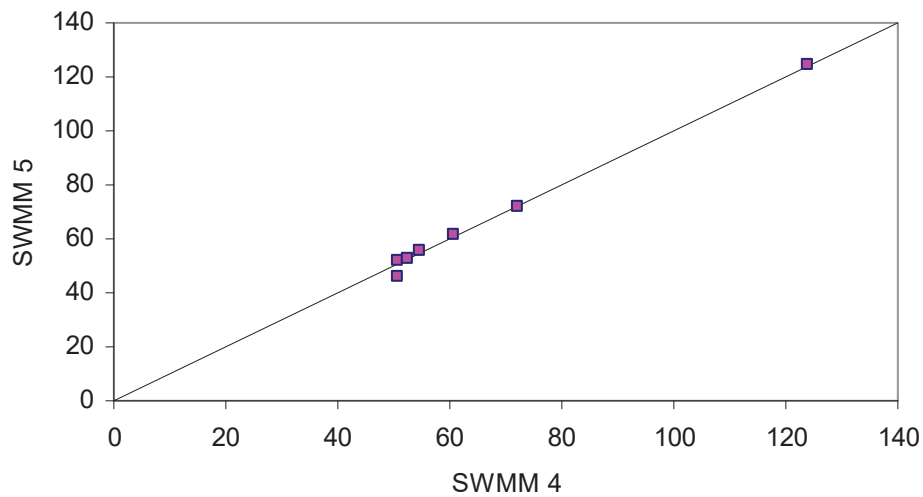


**Figure 4.5. Water Depth Comparison for Node 82309 of Example EXTRAN1.**

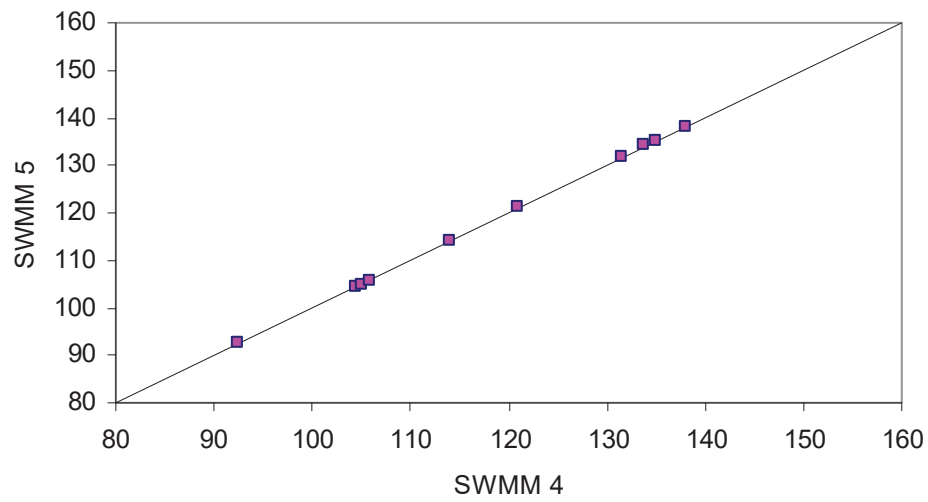




**Figure 4.6. Water Depth Comparison for Node 16009 of Example EXTRAN1.**



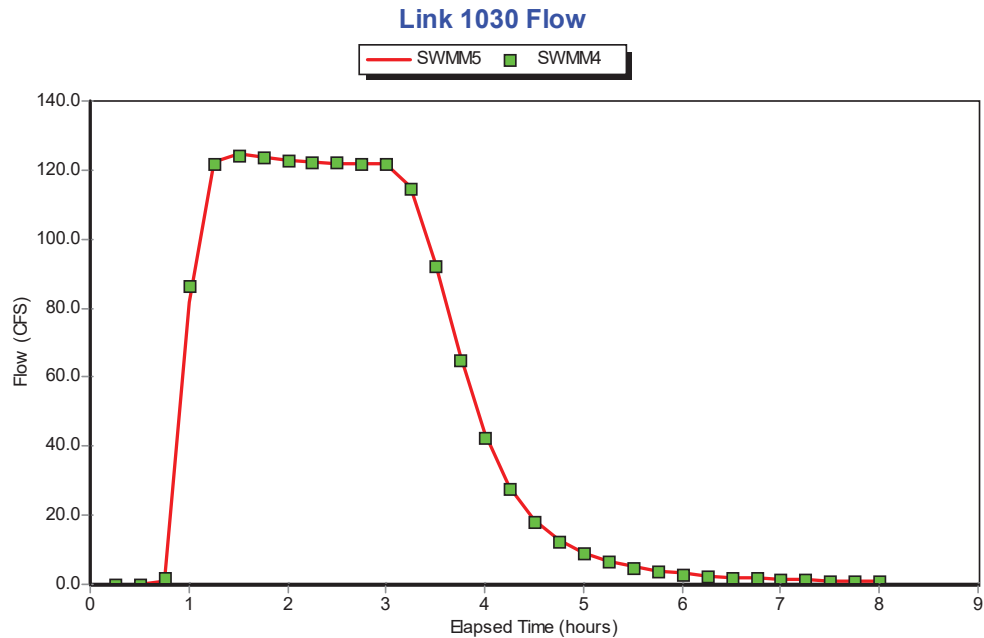
**Figure 4.7. Comparison of Peak Flows (cfs) Computed for the Conduits in Example EXTRAN1.**



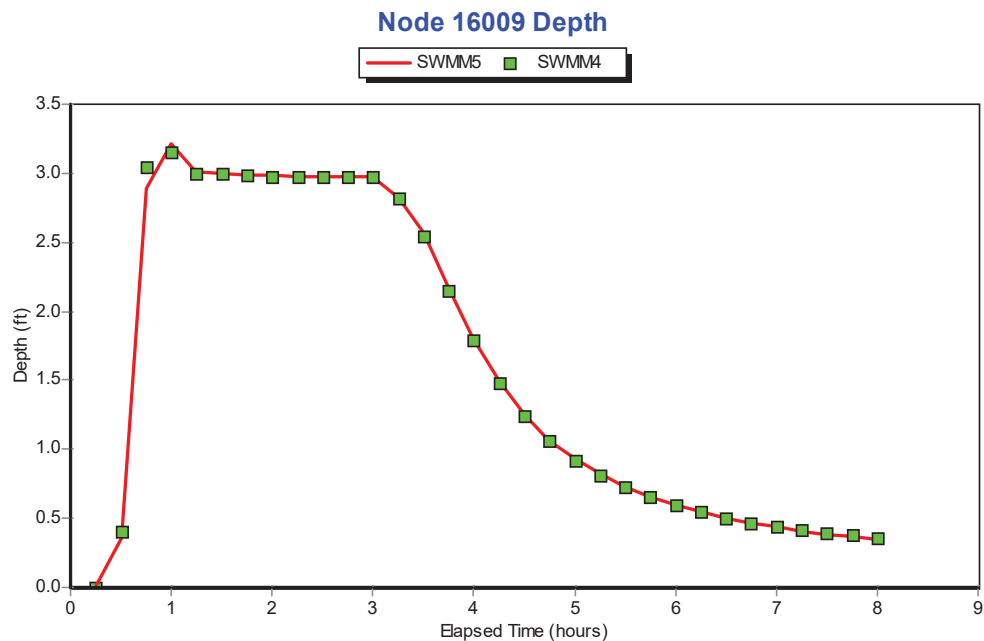
**Figure 4.8. Comparison of Maximum Water Elevations (ft) for the Nodes of Example EXTRAN1.**

### Example EXTRAN2

This example is identical to EXTRAN1 except that the free outfall at node 10208 is replaced with a fixed-elevation outfall that includes a tide gate. Again, the agreement between SWMM 4 and 5 is very good as shown in Figures 4.9 through 4.12.

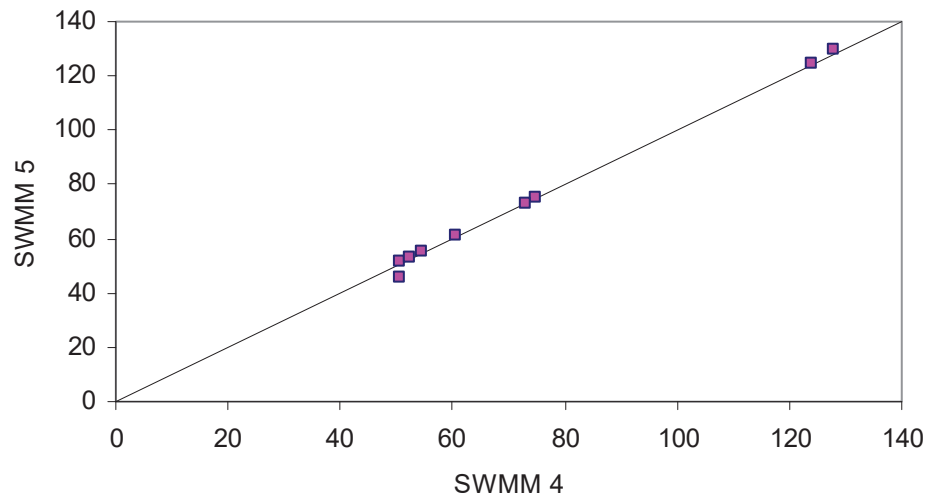


**Figure 4.9. Flow Comparison for Link 1030 of Example EXTRAN2.**

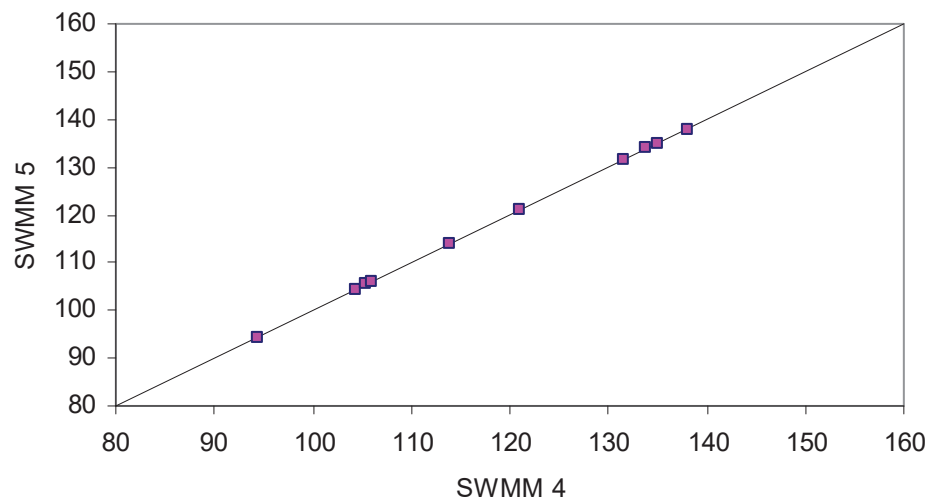


**Figure 4.10. Water Depth Comparison for Node 16009 of Example EXTRAN2.**





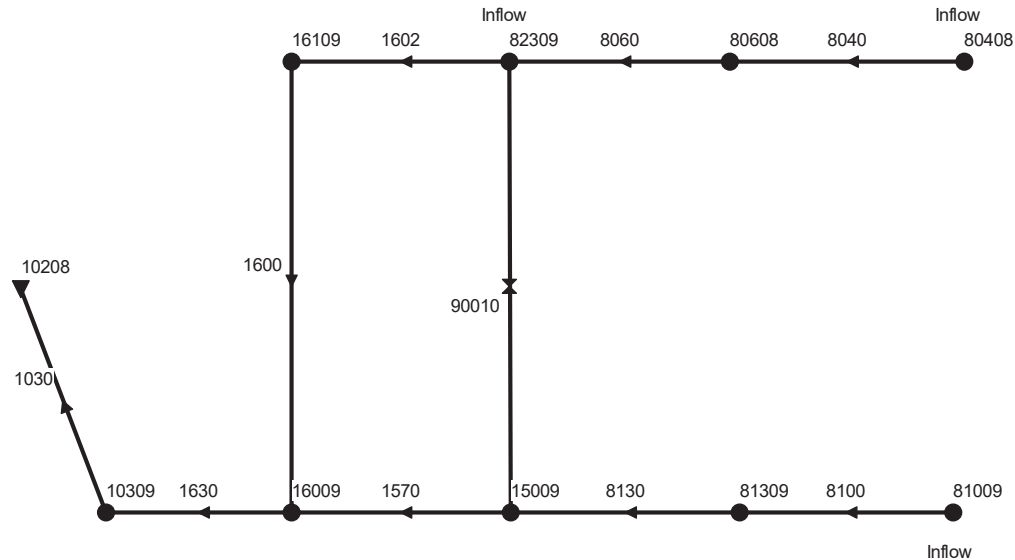
**Figure 4.11. Comparison of Peak Flows (cfs) for the Conduits of Example EXTRAN2.**



**Figure 4.12. Comparison of Maximum Water Elevations (ft) for the Nodes of Example EXTRAN2.**

Example EXTRAN3

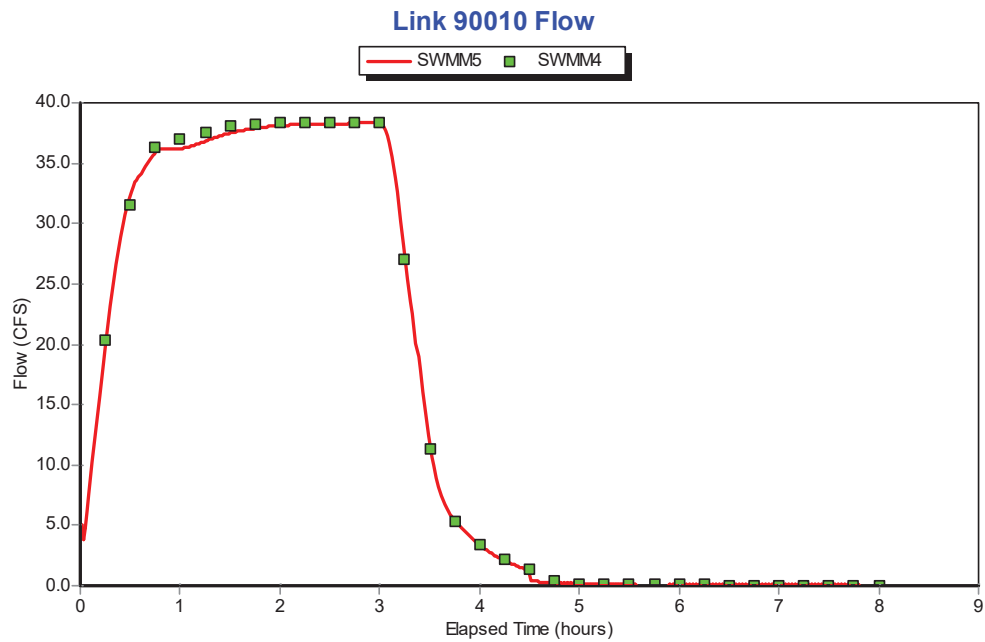
This example is also identical to EXTRAN1 except that a bottom circular orifice is placed between nodes 82309 and 15009 to eliminate upstream flooding. The modified network is shown in Figure 4.13, where the orifice has been labeled 90010.



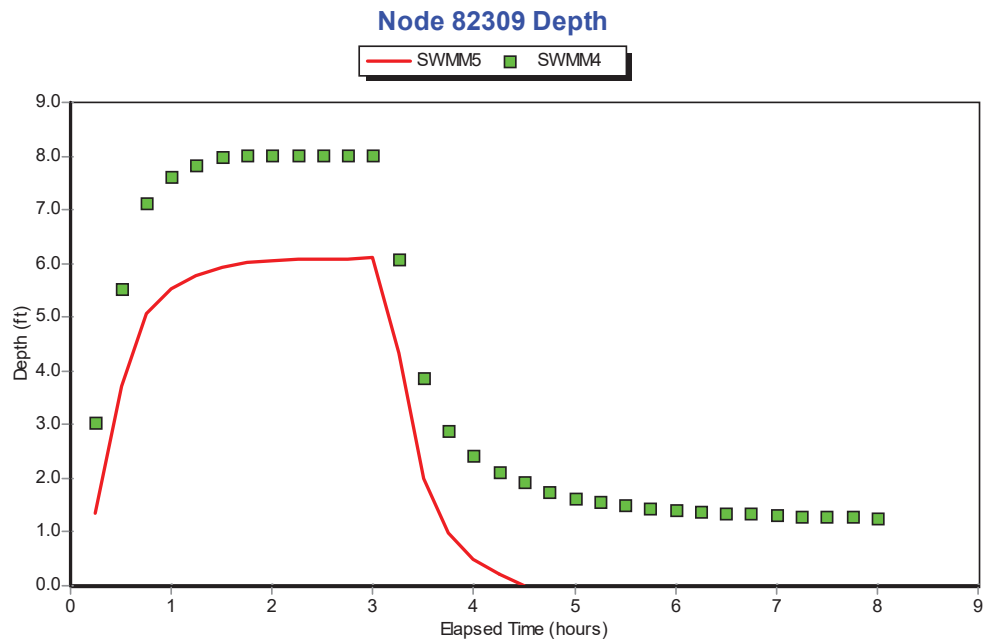
**EXAMPLE 3 OF EXTRAN MANUAL**

**Figure 4.13. Schematic of the Drainage Network Used for Example EXTRAN3.**

Figure 4.14 compares the flow computed by SWMM 4 and SWMM 5 through the orifice while Figure 4.15 compares the depth of water above the orifice at its inlet node. Although the flow through the orifice is the same between the two programs, there is clearly a difference in the depth of water above the orifice opening. This can be attributed to the different ways in which each program models an orifice. SWMM 4 uses an equivalent pipe while SWMM 5 uses the classical orifice equation directly. However this difference does not appear to affect downstream conditions as evidenced by the comparison of flow in conduit 1570 shown in Figure 4.16 and the depth at node 15009 shown in Figure 4.17.

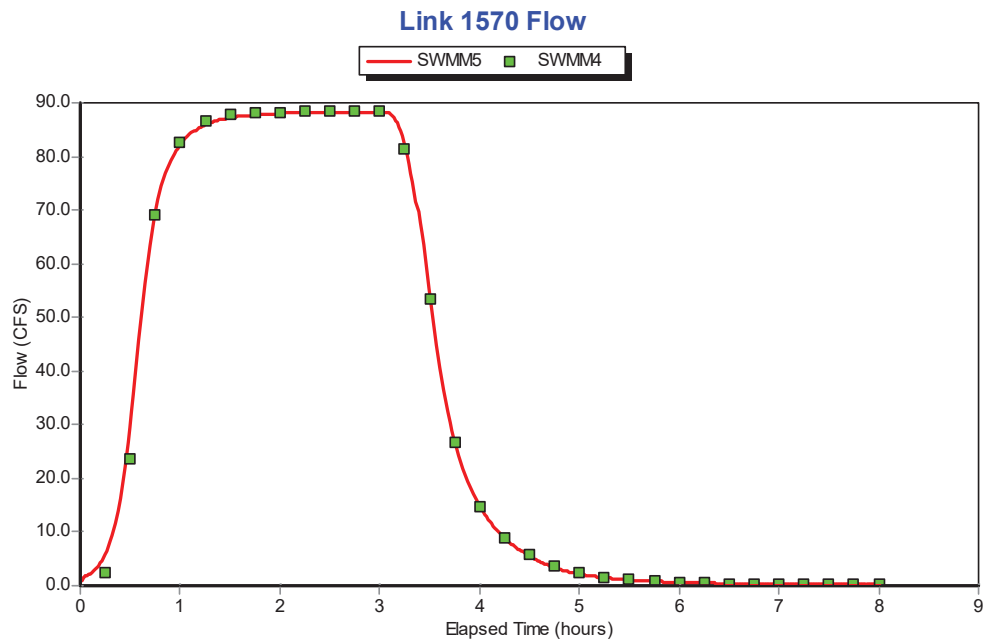


**Figure 4.14. Comparison of Flow Through the Bottom Orifice of Example EXTRAN3.**

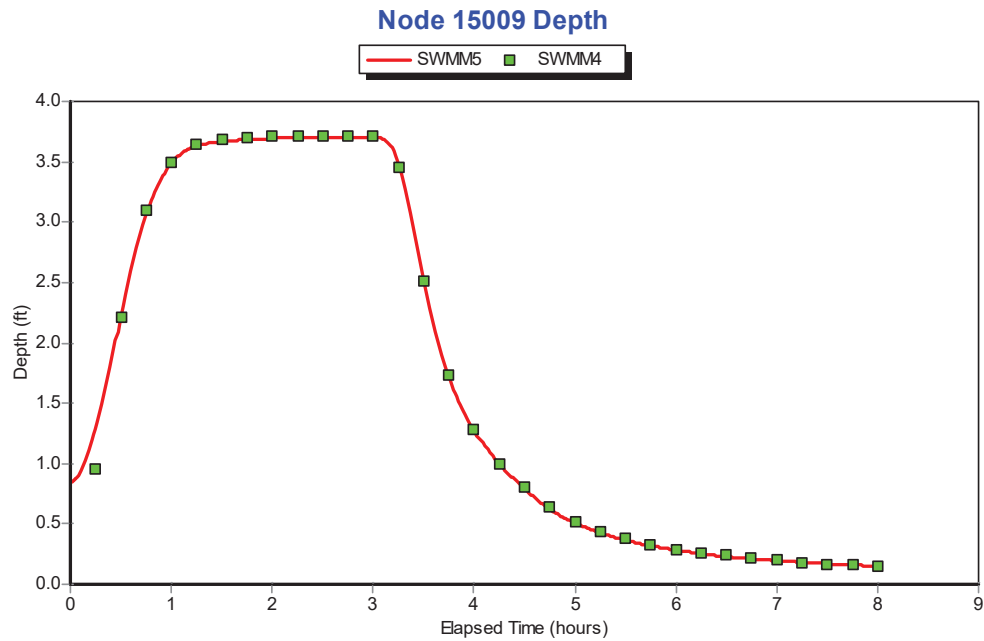


**Figure 4.15. Comparison of Water Depth at the Inlet Node of the Orifice in Example EXTRAN3.**

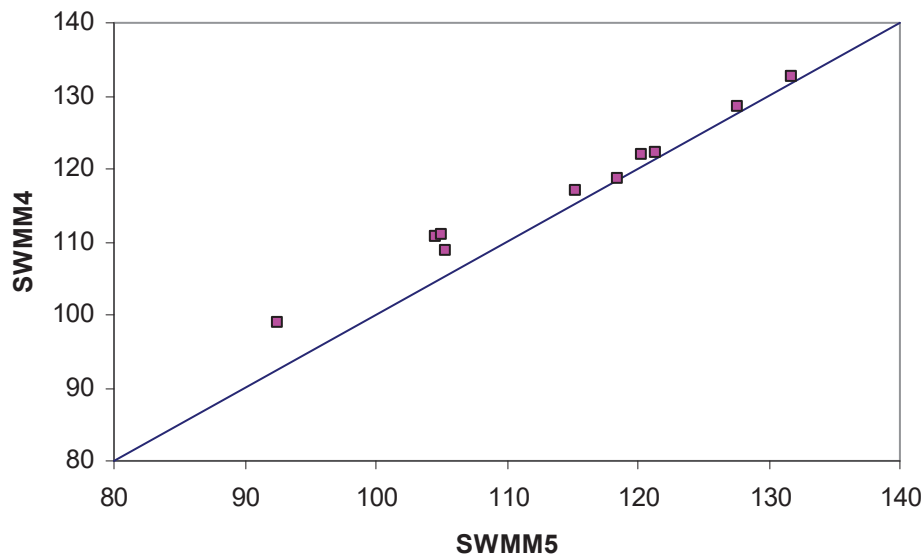




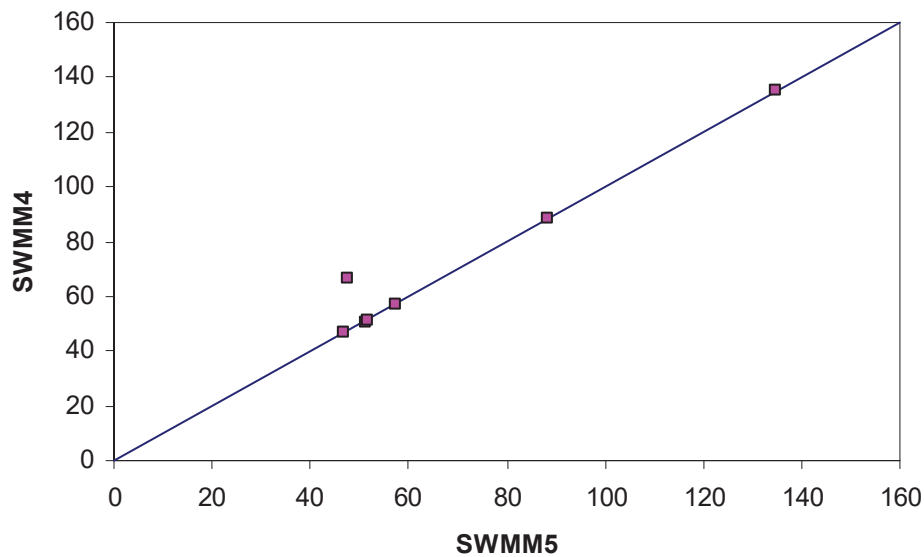
**Figure 4.16. Flow Comparison for Link 1570 of Example EXTRAN3.**



**Figure 4.17. Water Depth Comparison for Node 15009 of Example EXTRAN3.**



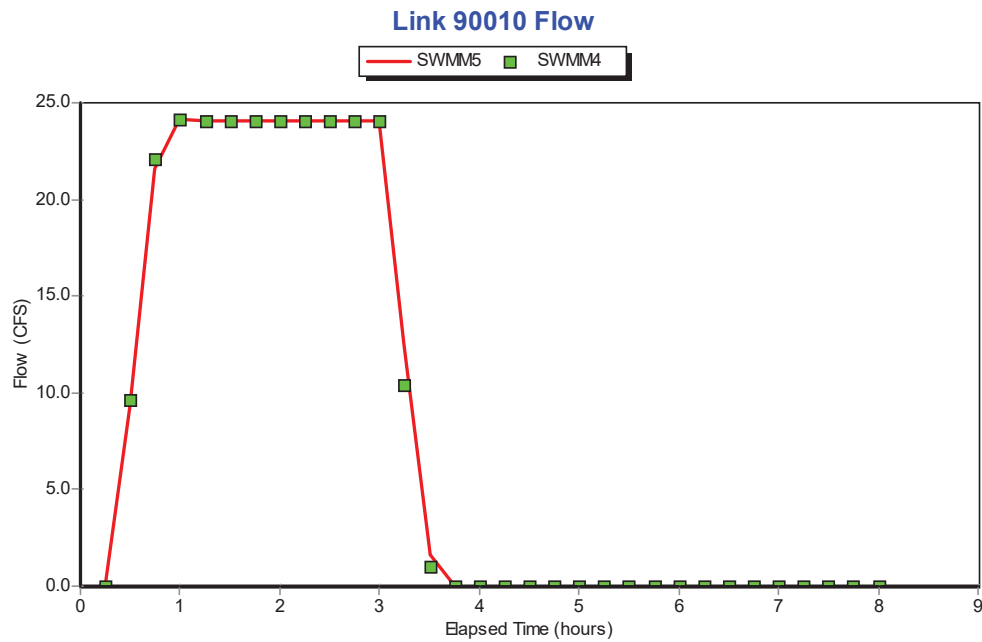
**Figure 4.18. Comparison of Peak Flows (cfs) for the Conduits of Example EXTRAN3.**



**Figure 4.19. Comparison of Maximum Water Elevations (ft) for the Nodes of Example EXTRAN3.**

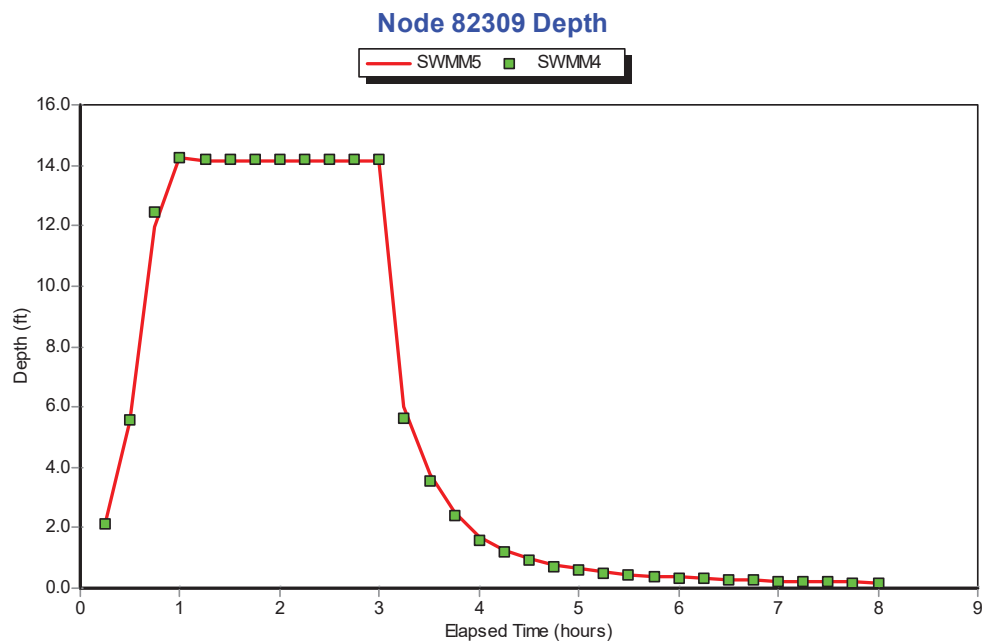
Example EXTRAN4

This example is identical to EXTRAN3, except that the bottom orifice 90010 is replaced by a transverse weir. The weir opening is 3-ft high by 3-ft long and its crest is 3-ft above the invert of Node 82309. Figure 4.20 compares the flow through the weir computed by SWMM 4 and SWMM 5 while Figure 4.21 compares the water depths at the weir's upstream node. The two programs produce nearly identical results. This was true as well for the remaining elements in the network. Figure 4.22 compares the maximum flow in all conduits and Figure 4.23 compares the maximum water elevations at all nodes.

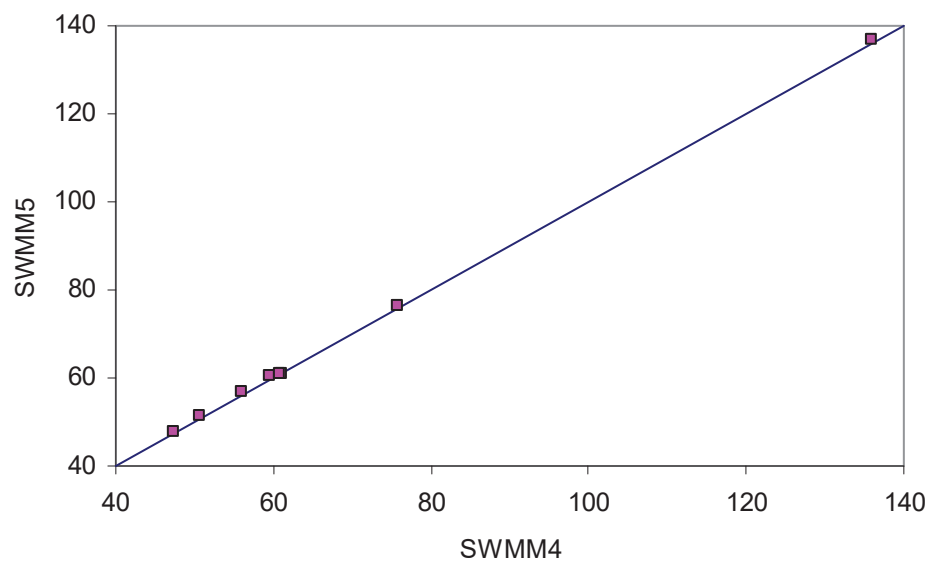


**Figure 4.20. Comparison of Flow Through the Transverse Weir of Example EXTRAN4.**

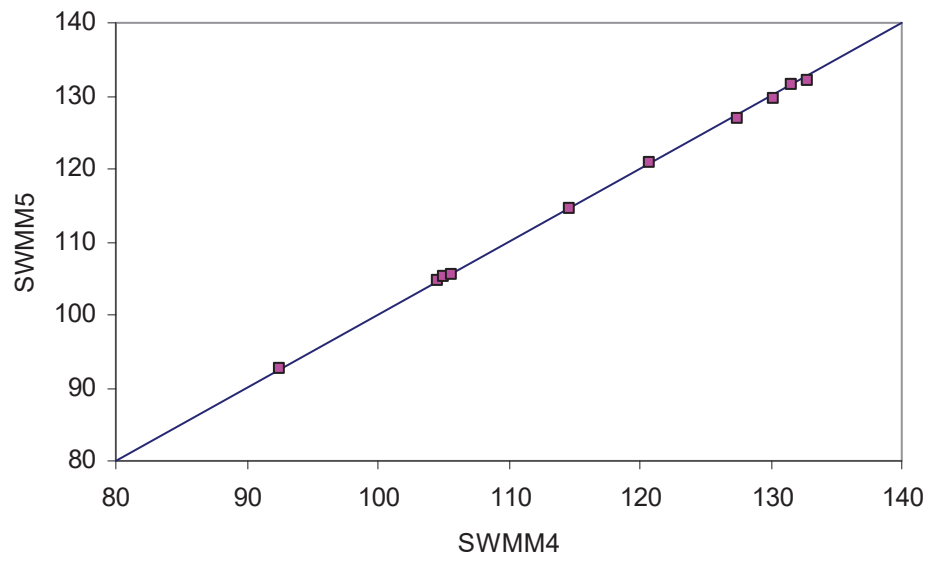




**Figure 4.21. Comparison of Water Depth at the Inlet Node of the Weir in Example EXTRAN4.**



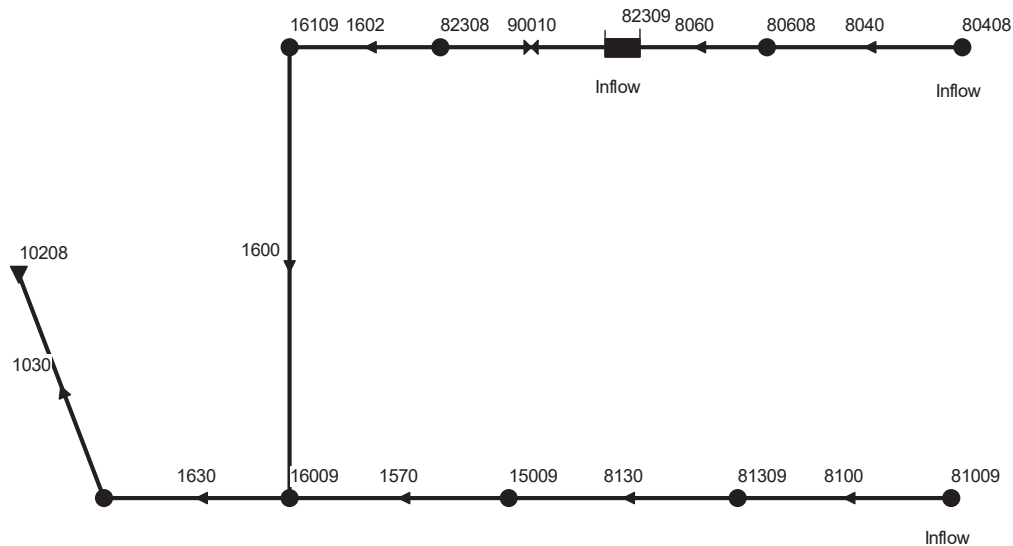
**Figure 4.22. Comparison of Peak Flows (cfs) for the Conduits of Example EXTRAN4.**



**Figure 4.23. Comparison of Maximum Water Elevations (ft) for the Nodes of Example EXTRAN4.**

### Example EXTRAN5

Example EXTRAN5 modifies EXTRAN1 by replacing the node downstream of the node that floods with a storage unit that has a side outlet orifice. The modified schematic is shown in Figure 4.24. Node 82309 was converted into a 40.5 ft. high storage unit with a constant 800 sq. ft. of surface area. A new node, 82308, was added to connect the outlet orifice to the original conduit 1602.



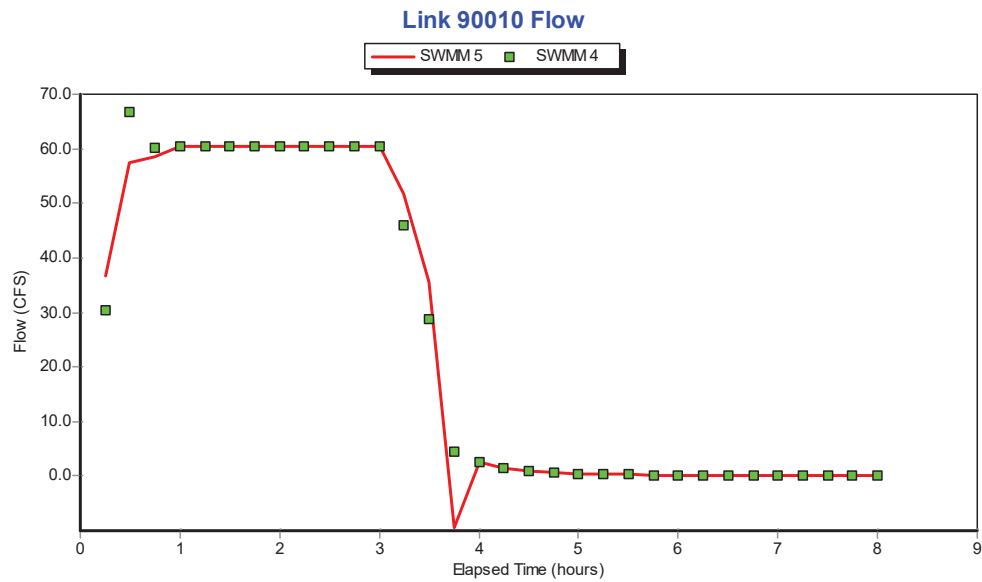
**EXAMPLE 5 OF EXTRAN MANUAL**

**Figure 4.24. Schematic of the Drainage Network Used for Example EXTRAN5.**

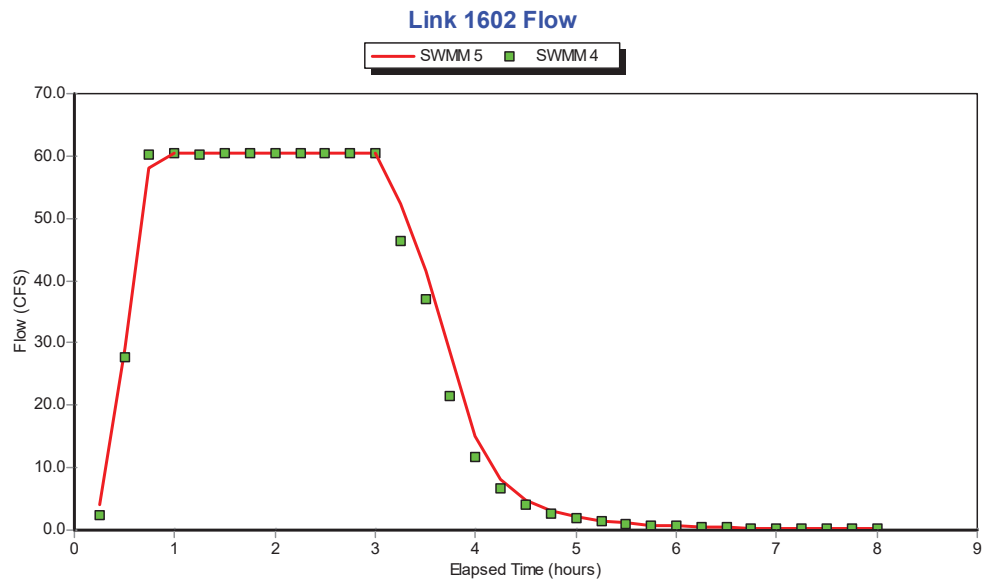
Figure 4.25 compares the orifice flows computed by both SWMM 4 and SWMM 5. With the exception of a few points in time, there is good agreement between the two programs even though the orifice is modeled differently by each. Figure 4.26 compares flows in conduit 1602 immediately downstream of the orifice. Whatever differences in flow that existed through the orifice have been essentially eliminated leaving almost perfect agreement between SWMM 4 and 5.

A comparison of the water depth at the storage unit node 82309 is shown in Figure 4.26. Depth comparisons for the nodes both immediately upstream and downstream of the storage node are shown in Figures 4.27 and 4.28, respectively. There is good agreement at all time points. Good agreement is also obtained for the peak flows and water elevations in all conduits and nodes as shown in Figures 4.29 and 4.30, respectively.

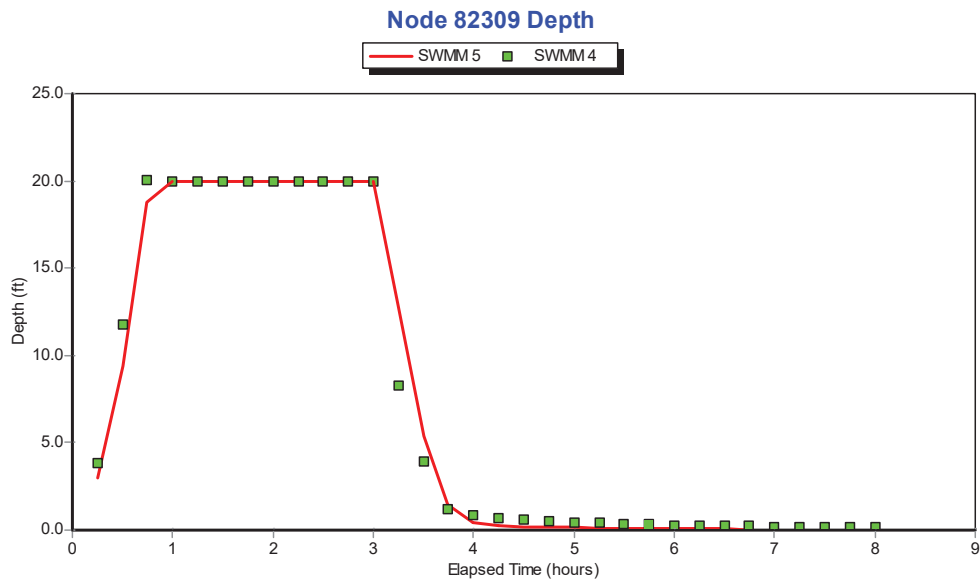




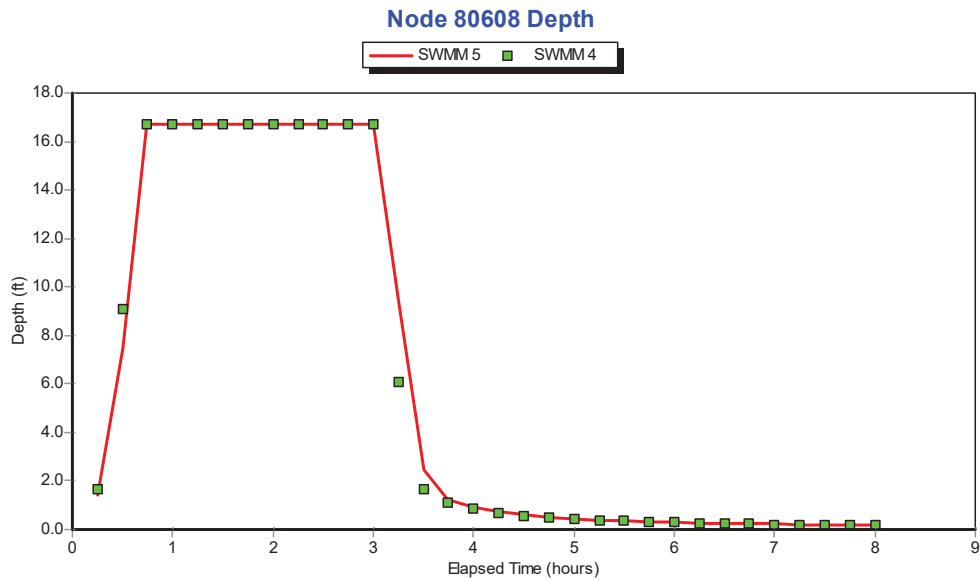
**Figure 4.25. Comparison of Flow Through the Outlet Orifice of Example EXTRAN5.**



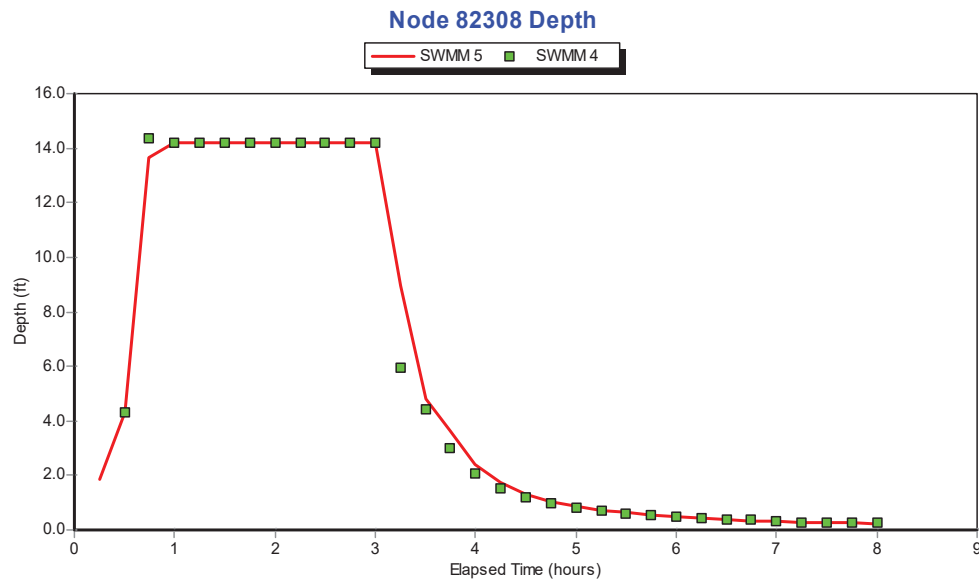
**Figure 4.26. Comparison of Flow Through the Conduit Immediately Downstream of the Outlet Orifice of Example EXTRAN5.**



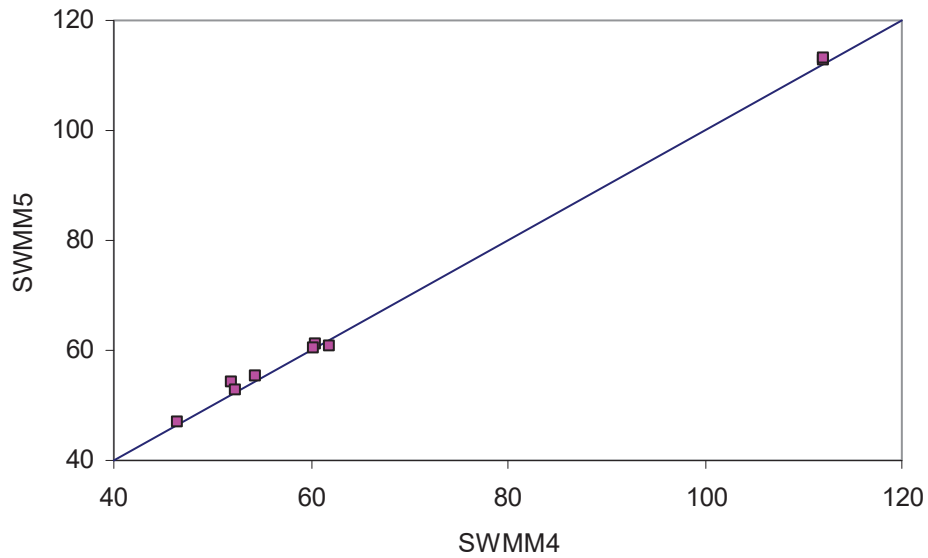
**Figure 4.27. Comparison of Water Depth at the Storage Node in Example EXTRAN5.**



**Figure 4.27. Comparison of Water Depth at the Node Immediately Upstream of the Storage Node in Example EXTRAN5.**

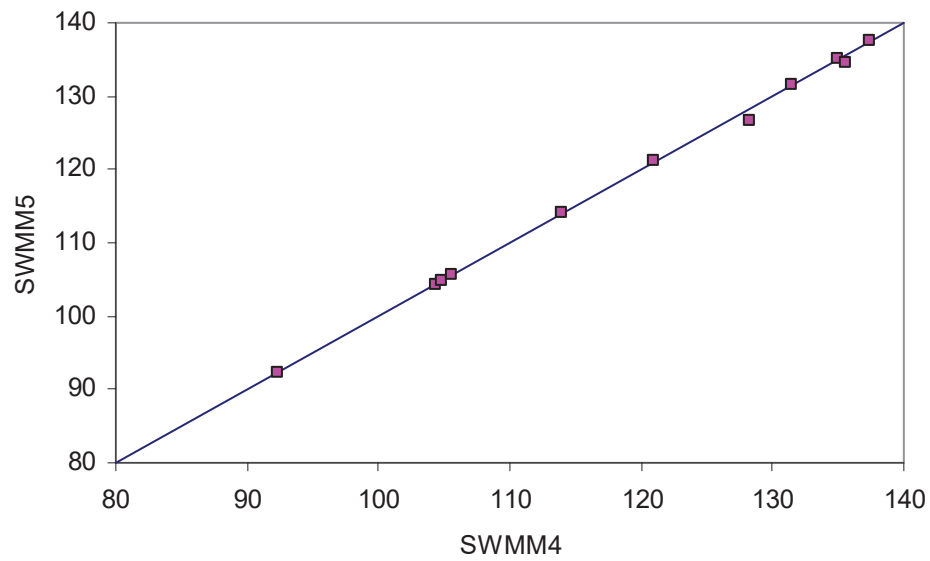


**Figure 4.28. Comparison of Water Depth at the Node Immediately Downstream of the Storage Node in Example EXTRAN5.**



**Figure 4.29. Comparison of Peak Flows (cfs) for the Conduits of Example EXTRAN5.**

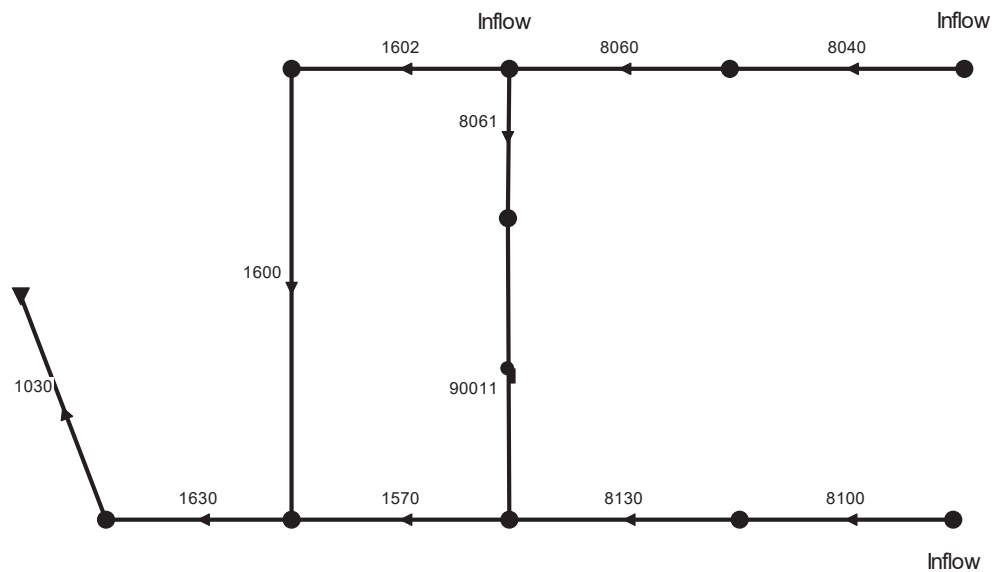




**Figure 4.30. Comparison of Maximum Water Elevations (ft) for the Nodes of Example EXTRAN5.**

### Example EXTRAN6

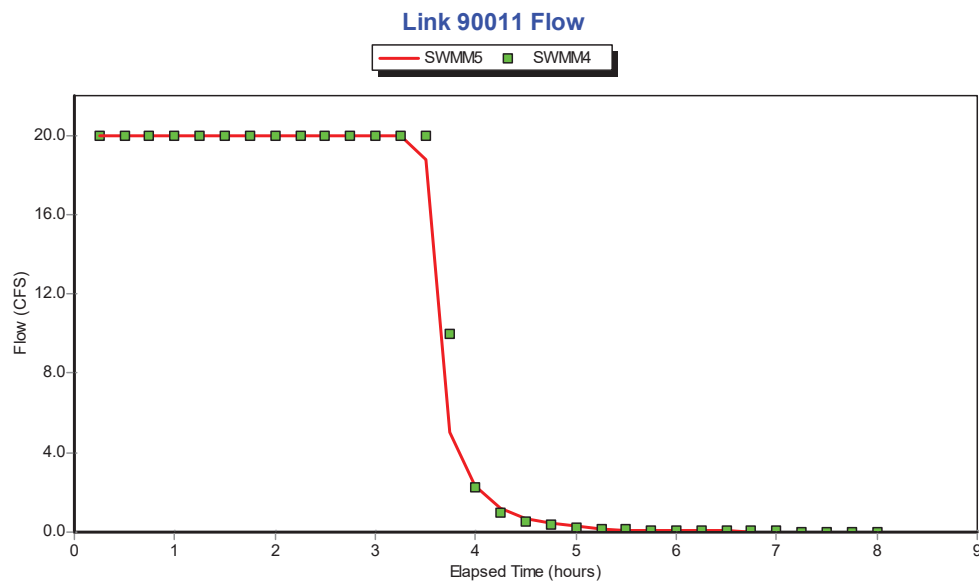
Example EXTRAN6 modifies EXTRAN1 by adding an off-line pumping station with wet well between nodes 82309 and 15009. The new wet well node, 82310, is connected to node 82309 by a new conduit 8061 which is 300 feet of 4-foot diameter pipe. The pump, link 90011, is represented by a Type 1 pump curve which describes pumping rate as a function of wet well volume. The highest point on this curve is 20 cfs at 1200 cubic feet. The latter number implicitly sets the maximum volume of the wet well node 82310. The resulting schematic of this network is displayed in Figure 4.31.



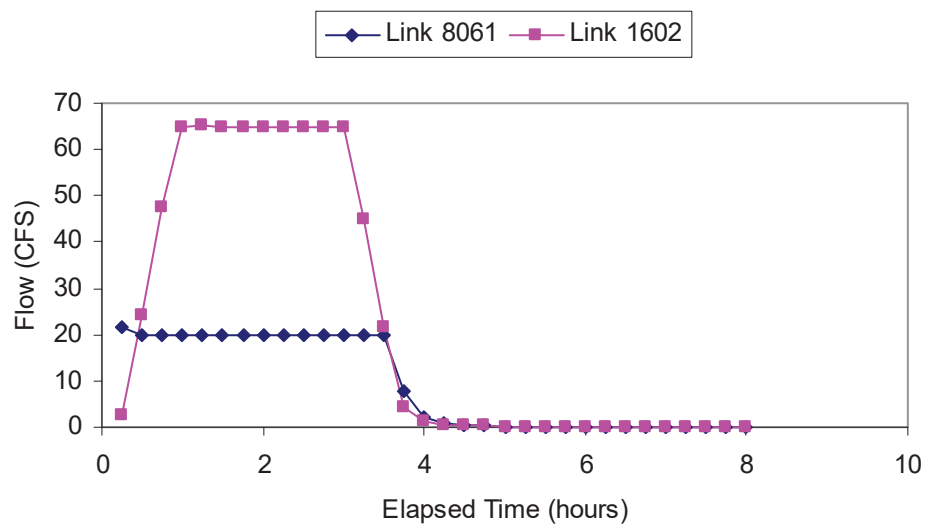
**EXAMPLE 6 OF EXTRAN MANUAL**

**Figure 4.31. Schematic of the Drainage Network Used for Example EXTRAN6.**

As shown in Figure 4.32, the flow through the pump computed by SWMM 4 and SWMM 5 is essentially the same. However, there is a significant difference in the way that the two programs handle the flow into the wet well coming from conduit 8061. SWMM 4 internally restricts the flow coming into the wet well so that the wet well does not flood. SWMM 5 allows the system to behave as designed, and allows the wet well to flood if more volume flows in than can be pumped. The resulting differences in the two programs are illustrated in Figures 4.33 and 4.34 which compares flow in conduit 8061, conduit 1602, and the flooding at the wet well node 82310. Figure 4.35 compares the flow in the outlet channel 1030 of this system. The mass balance report for SWMM 5 shows that the reduction in flow volume leaving the system as compared to SWMM 4 exactly equals the volume of flooding experienced at the pump's wet well.

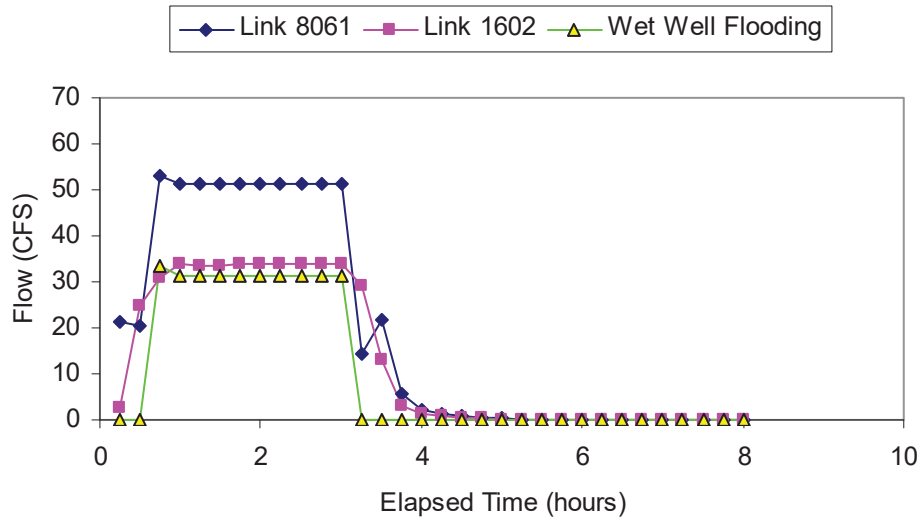


**Figure 4.32. Comparison of Flow Through the Pump of Example EXTRAN6.**

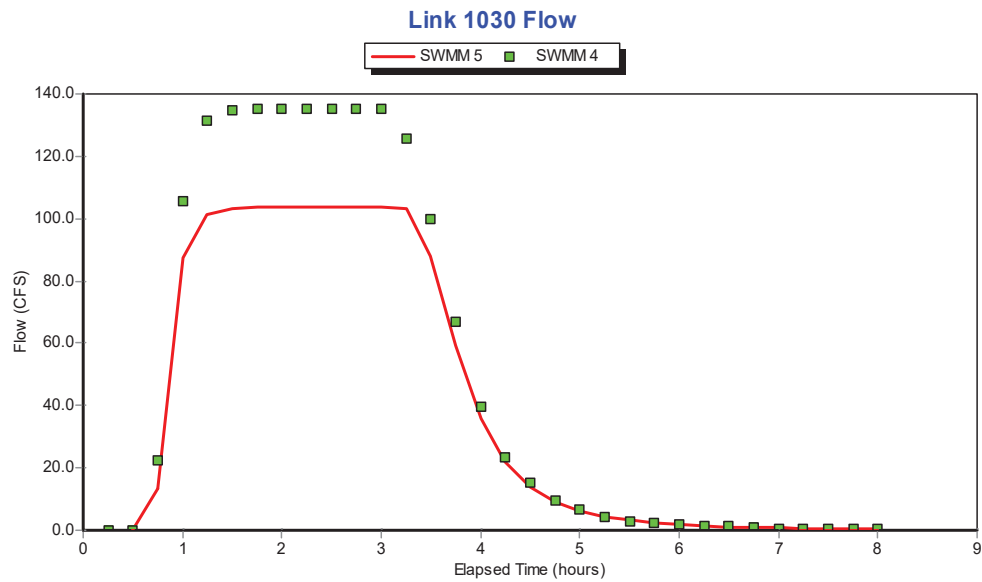


**Figure 4.33. SWMM 4 Flows Leaving Node 82309 for Example EXTRAN6.**





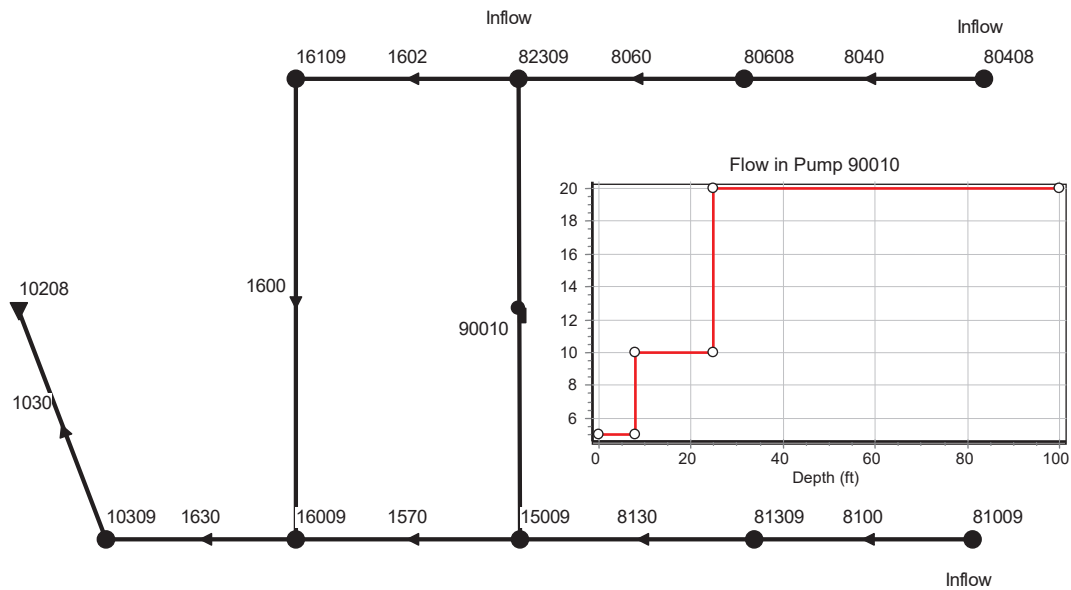
**Figure 4.34. SWMM 5 Flows Leaving Node 82309 for Example EXTRAN6.**



**Figure 4.35. Comparison of Outfall Flows for Example EXTRAN6.**

Example EXTRAN7

This example replaces the off-line pump used in example EXTRAN6 with an in-line Type 2 pump directly connecting nodes 82309 and 15009 as shown in Figure 4.36. The operating curve for this pump, which relates pumping rate to water depth, is super-imposed on the figure.



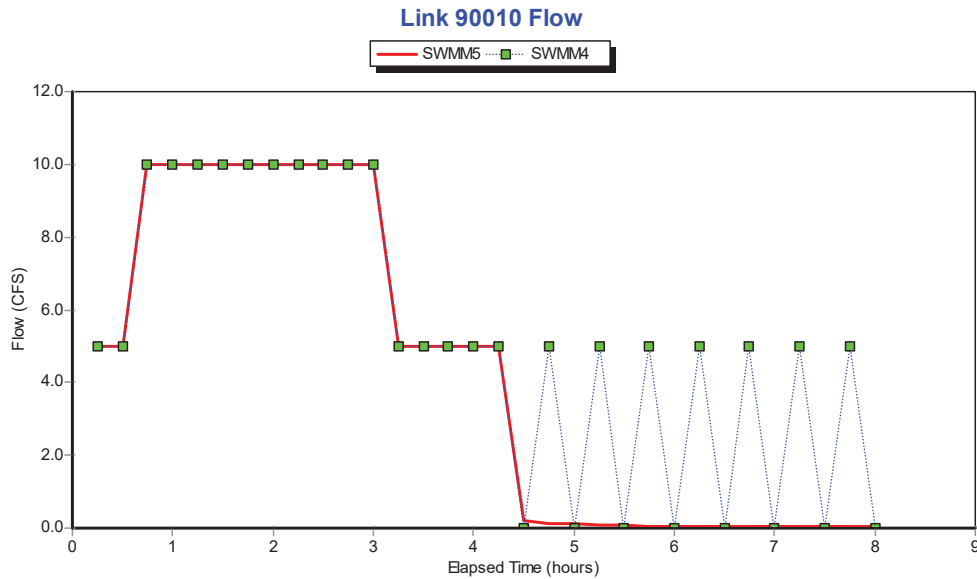
**EXAMPLE 7 OF EXTRAN MANUAL**

**Figure 4.36. Schematic of the Drainage Network Used for Example EXTRAN7.**

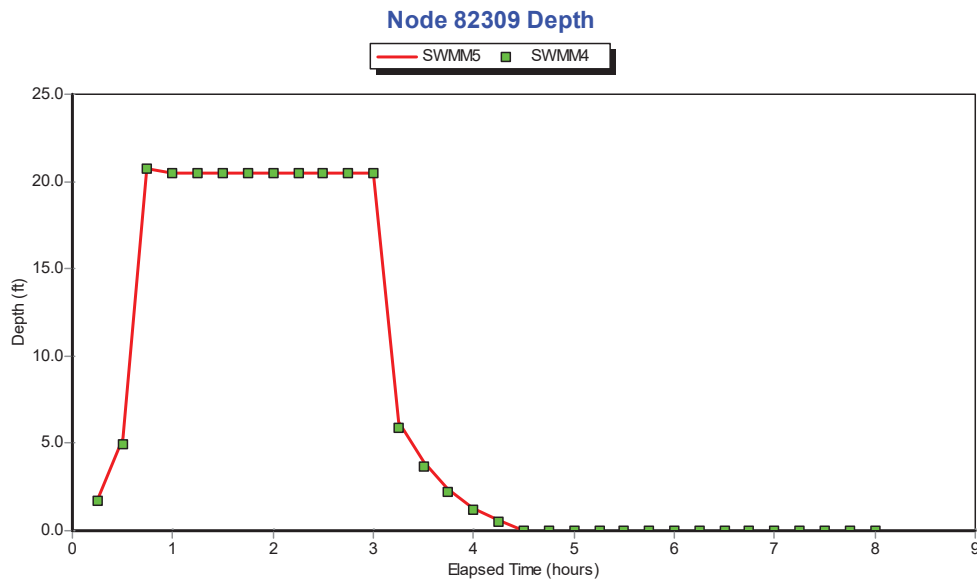
Figure 4.37 compares the flow through the pump computed by both SWMM 4 and 5. Figure 4.38 does the same for the water depth at the pump's inlet node. SWMM 4 appears to have some flow instability at the pump when the inlet water depth falls to zero, while SWMM 5 produces a much smoother response. (Both programs limit the pumping rate to the inflow flow rate if the pump curve rate would cause the node to be pumped dry.) The overall higher pumping volume produced by SWMM 4 probably contributes to its larger continuity error (-6.87 percent) as compared to that of SWMM 5 (0.24 percent).

Looking downstream of the pump, the water depths at the pump outlet node 15009 are compared in Figure 4.39. SWMM 4 maintains a higher water depth at this node than does SWMM 5 after the inflow hydrograph has passed through due to the cycling of the pump. There is also an anomalously high depth at the start of the simulation with SWMM 4

which is difficult to explain. Even with these discrepancies, the final outfall flows through channel 1030 for the two programs are very close as shown in Figure 4.40. Also, the peak flows and maximum water elevations are essentially identical as shown in Figures 4.41 and 4.42, respectively.

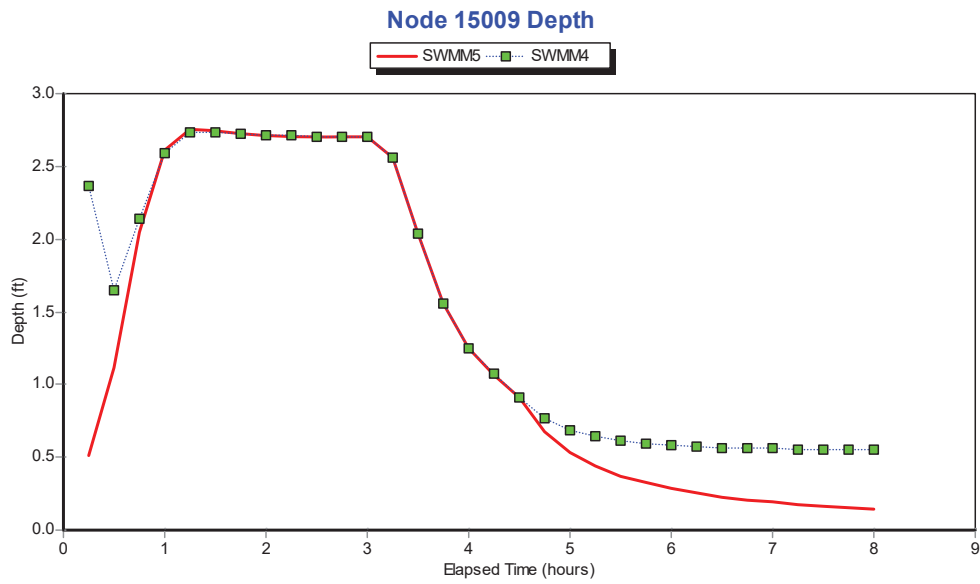


**Figure 4.37. Comparison of Flow Through the Pump of Example EXTRAN7.**

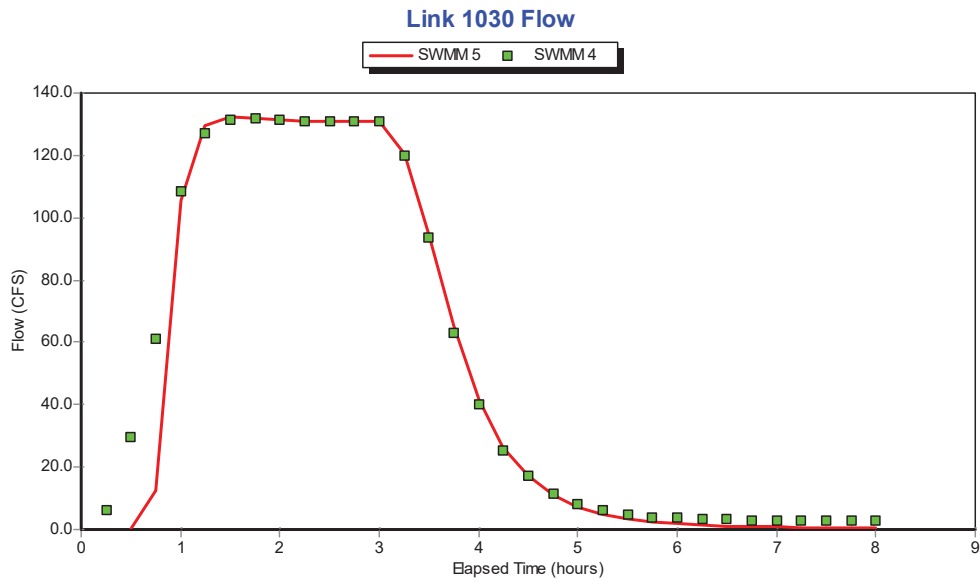


**Figure 4.38. Comparison of Water Depth at the Inlet Node of the Pump in Example EXTRAN7.**

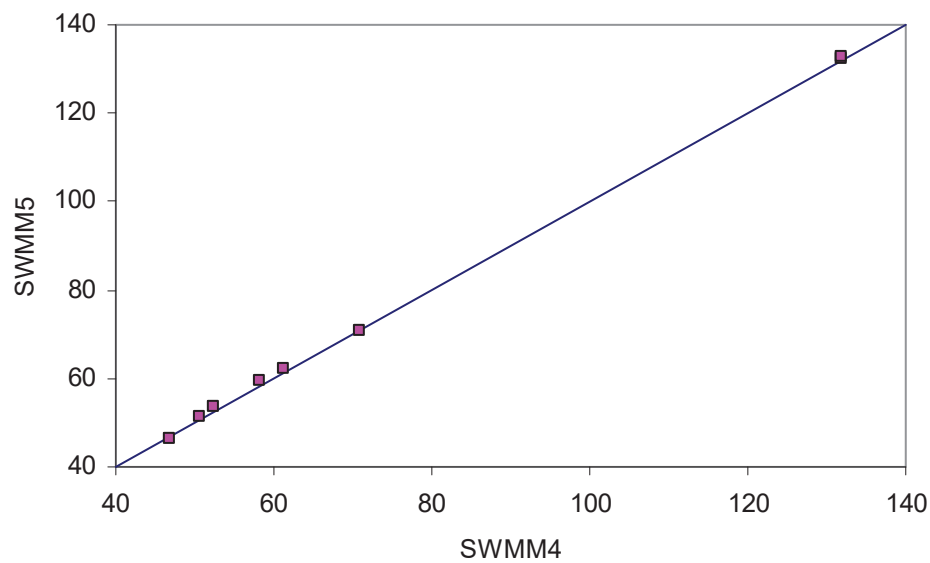




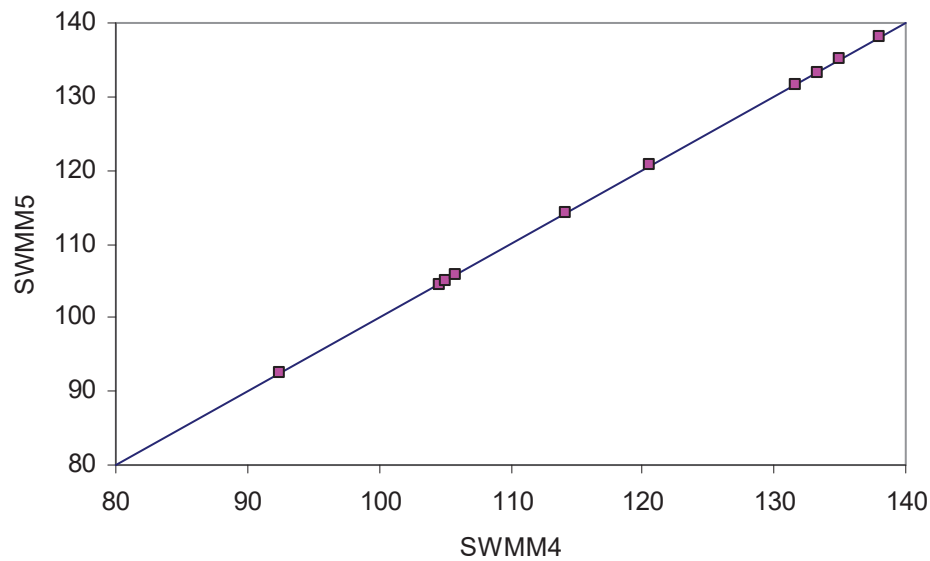
**Figure 4.39. Comparison of Water Depth at the Outlet Node of the Pump in Example EXTRAN7.**



**Figure 4.40. Comparison of Outfall Flows for Example EXTRAN7.**



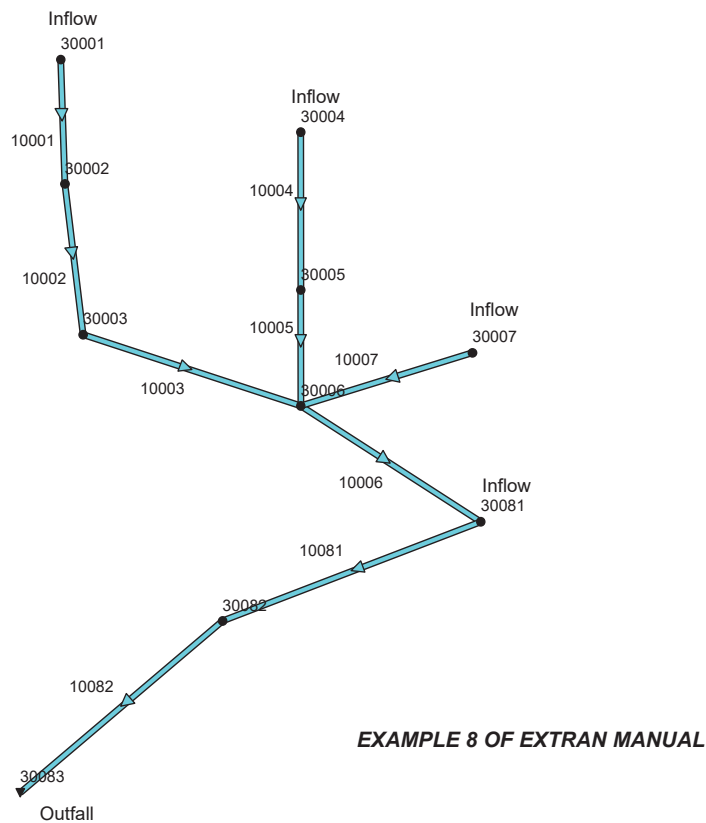
**Figure 4.41. Comparison of Peak Flows (cfs) for the Conduits of Example EXTRAN7.**



**Figure 4.42. Comparison of Maximum Water Elevations (ft) for the Nodes of Example EXTRAN7.**

### Example EXTRAN8

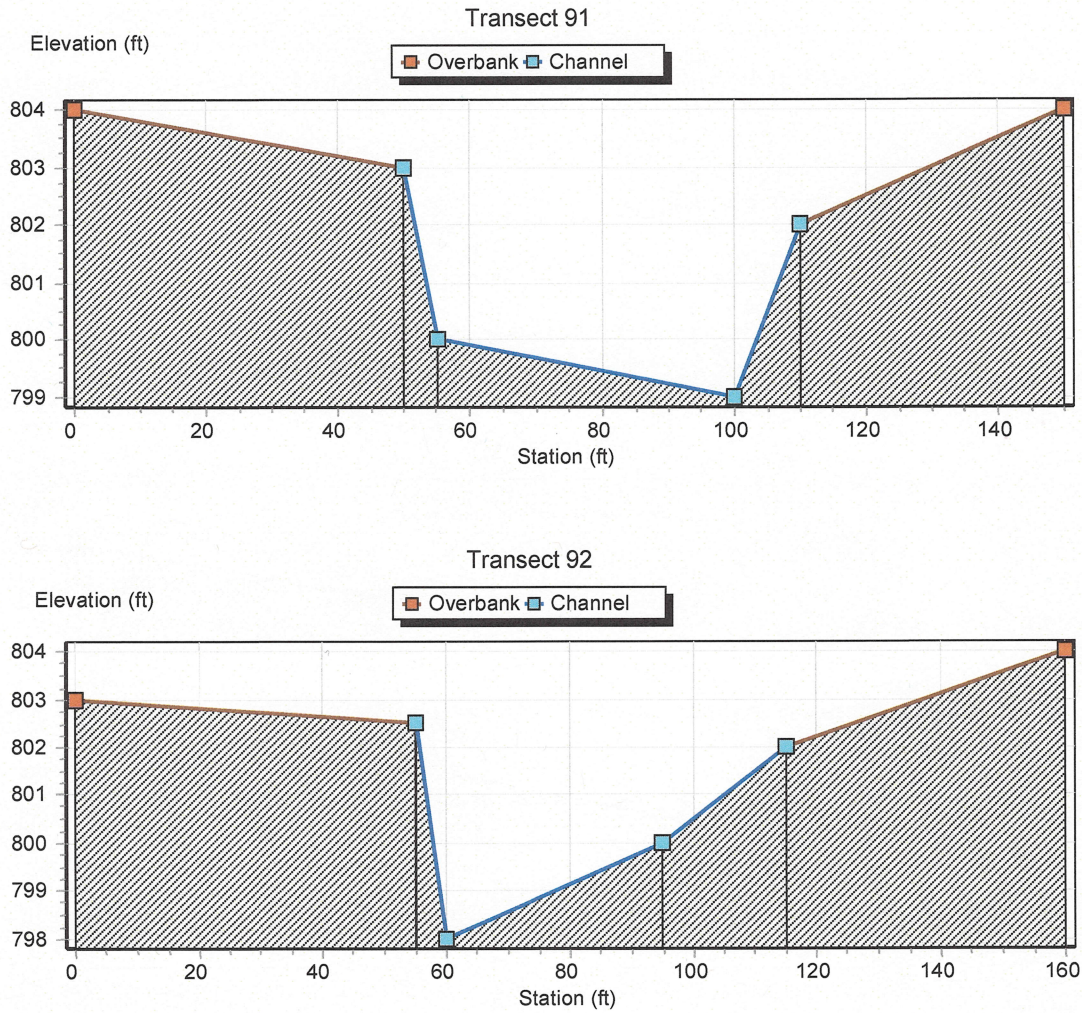
The schematic for example EXTRAN8 is shown in Figure 4.43. This example utilizes various cross-sectional shapes for its conduits as listed in Table 4.1. The geometries of the two irregular-shaped channels, 10081 and 10082, are depicted in Figure 4.44.



**Figure 4.43. Schematic of the Drainage Network Used for Example EXTRAN8.**

**Table 4.1. Cross-Sectional Shapes Used in Example EXTRAN8.**

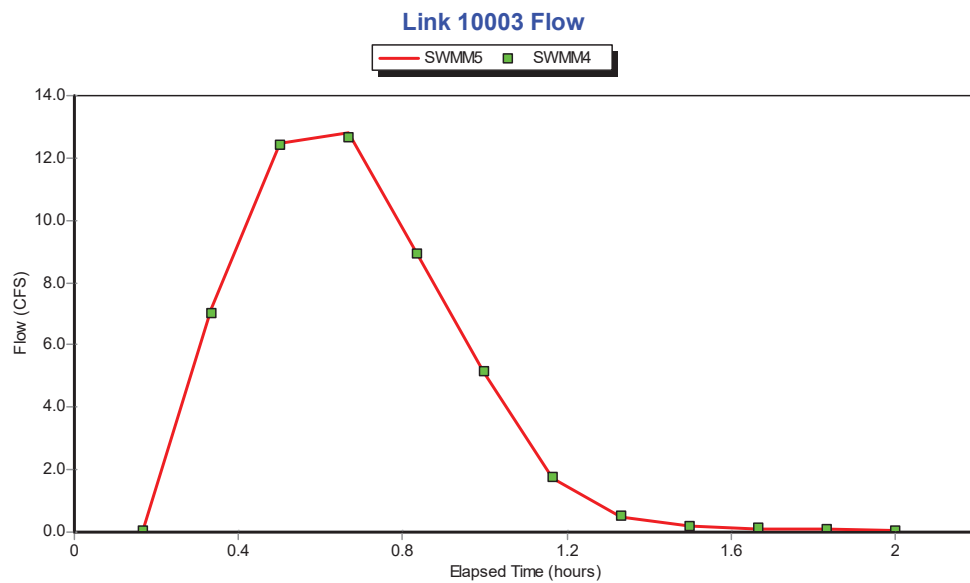
<i>Conduit</i>	<i>Shape</i>
10001	Circular
10002	Rectangular
10003	Horseshoe
10004	Egg
10005	Baskethandle
10006	Trapezoidal
10007	Parabolic
10081	Irregular
10082	Irregular



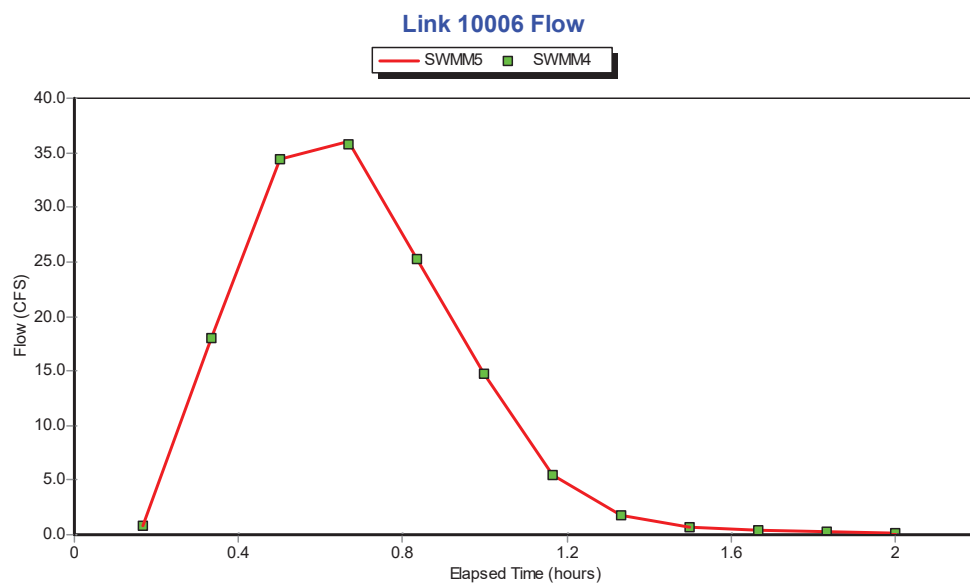
**Figure 4.44. Geometry of Channels 10081 and 10082 in Example EXTRAN8.**

The inflows at nodes 30001, 30004, and 30007 are all triangular hydrographs with a base time of 1 hour and peak flow of 15 cfs, 18 cfs, and 9 cfs, respectively. The inflow at node 30081 is a constant 20 cfs. The water surface elevation at the outfall node 30083 is a fixed value. Following the protocol used in the SWMM 4 Extran Manual, this example was first run for a 1-hour duration with just the constant 20 cfs inflow to create a hot start file with the two natural channels 10081 and 10082 flowing at 20 cfs. Then the system was run using this hot start file and the three inflow hydrographs for a period of 2 hours. The results at selected locations are depicted in Figures 4.45 – 4.50 and show perfect agreement between the two programs.

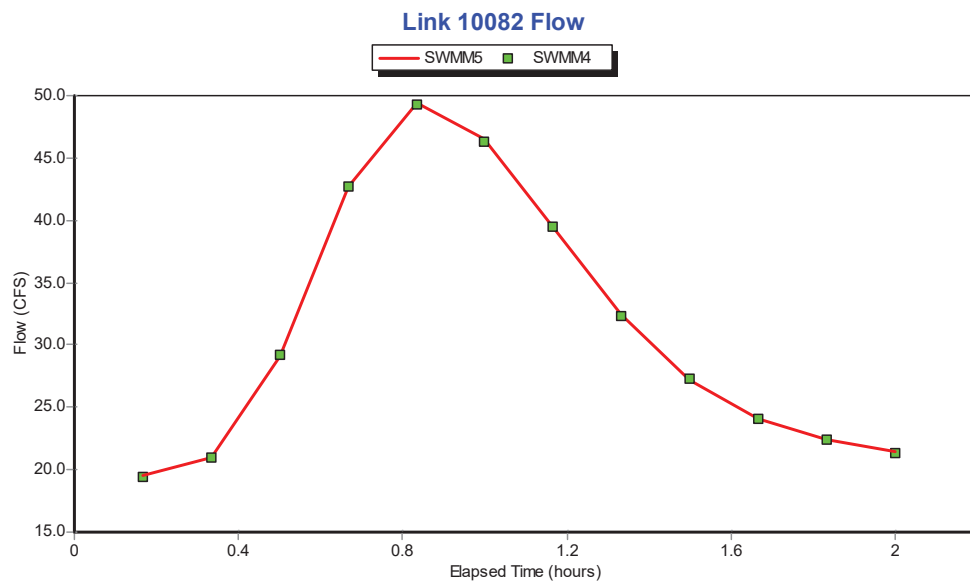




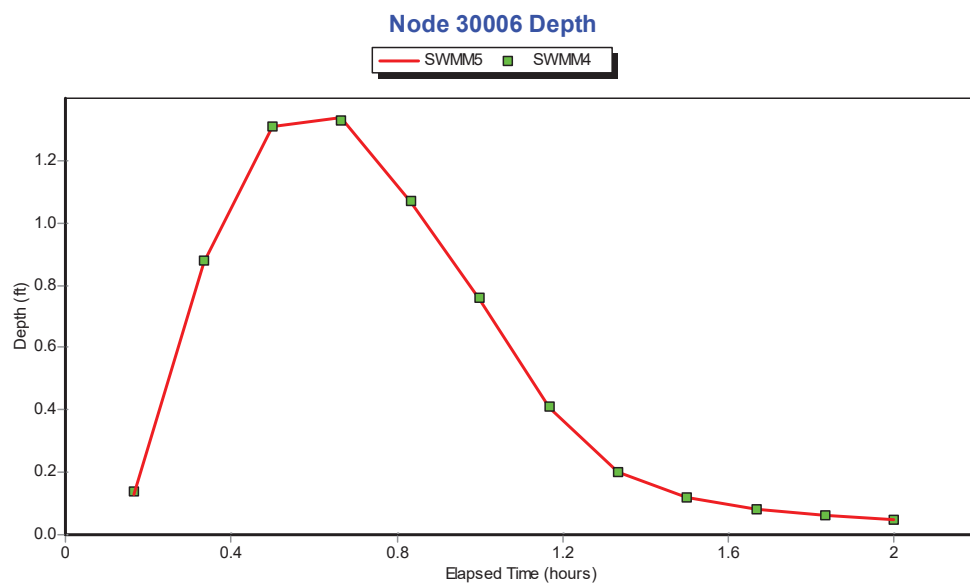
**Figure 4.45. Flow Comparison for Link 10003 of Example EXTRAN8.**



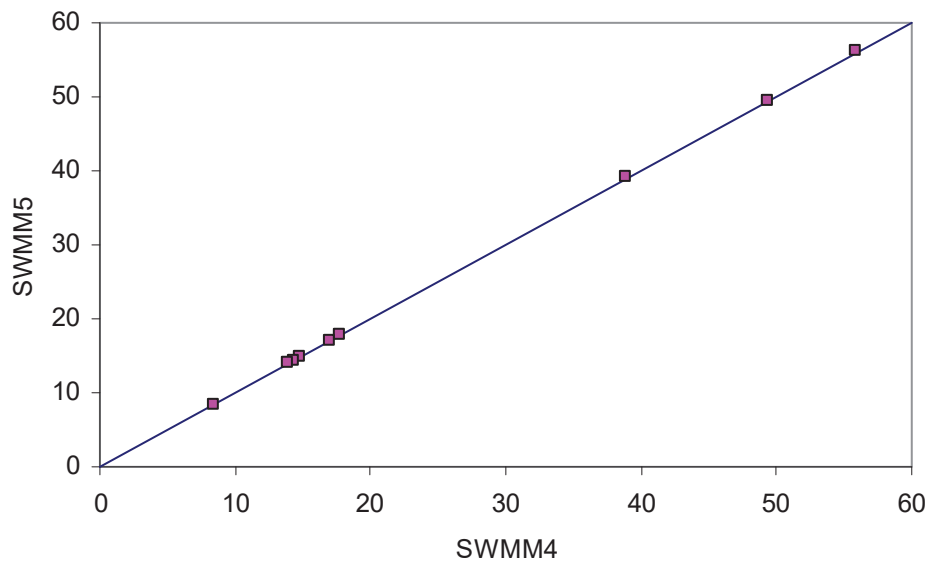
**Figure 4.46. Flow Comparison for Link 10006 of Example EXTRAN8.**



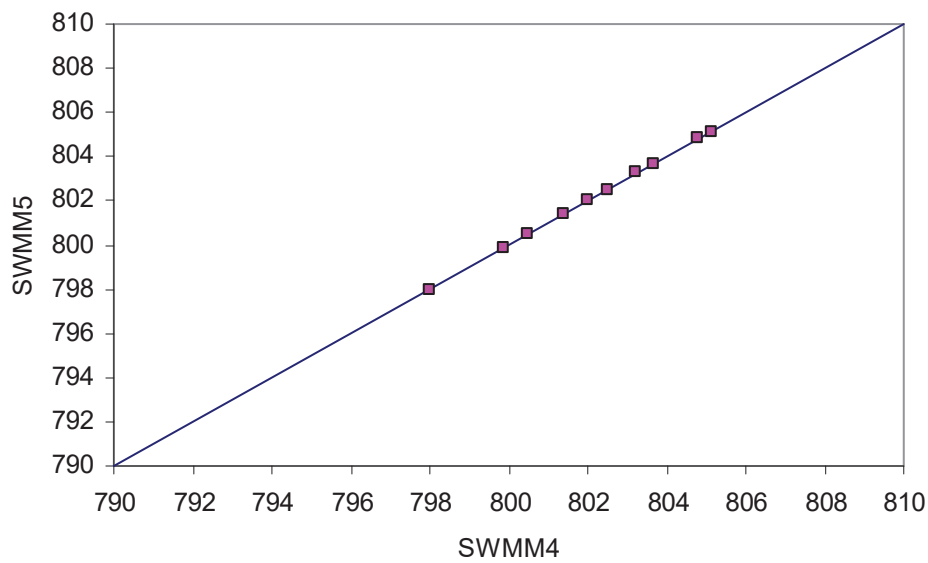
**Figure 4.47. Flow Comparison for Outfall Link 10082 of Example EXTRAN8.**



**Figure 4.48. Water Depth Comparison for Node 30006 of Example EXTRAN8.**



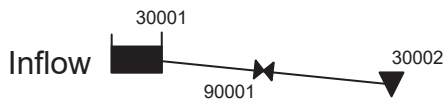
**Figure 4.49. Comparison of Peak Flows (cfs) for the Conduits of Example EXTRAN8.**



**Figure 4.50. Comparison of Maximum Water Elevations (ft) for the Nodes of Example EXTRAN8.**

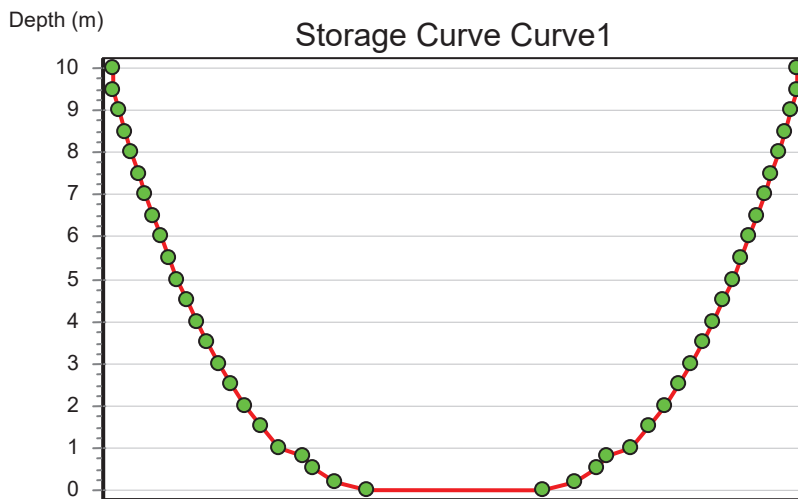
### Example EXTRAN9

This example illustrates hydrograph routing through a variable-area storage unit with a side outlet orifice discharging to a free outfall. A schematic of the system is shown in Figure 4.51. The inflow hydrograph is triangular with a 5 hour time base and peak flow of  $1.2 \text{ m}^3/\text{s}$ . The storage unit is shaped as shown in Figure 4.52. Comparisons of SWMM 4 and SWMM 5 results for depth in the storage unit and outflow through the orifice are shown in Figures 4.53 and 4.54, respectively. The results from the two programs are essentially the same.



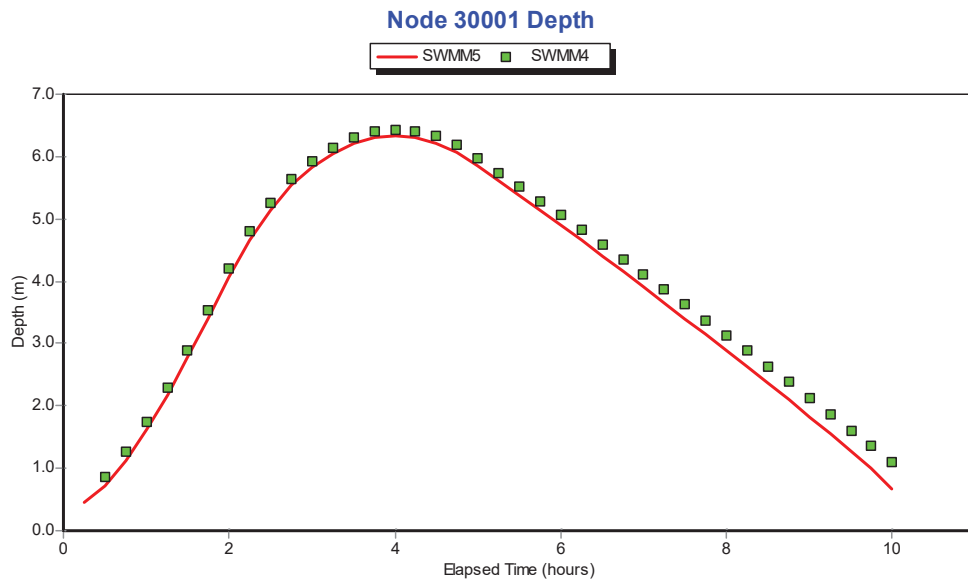
### EXTRAN EXAMPLE 9

**Figure 4.51. Schematic of Example EXTRAN9**

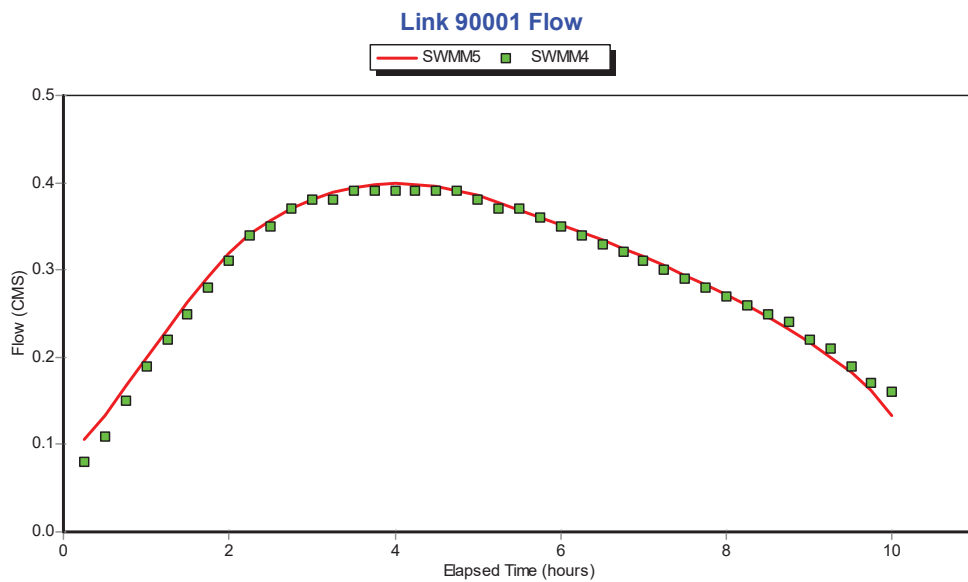


**Figure 4.52. Storage Unit Shape for Example EXTRAN9.**





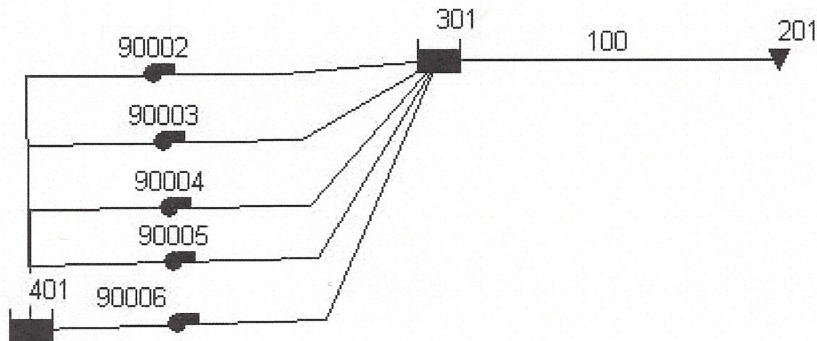
**Figure 4.53. Water Depth Comparison for the Storage Unit of Example EXTRAN9.**



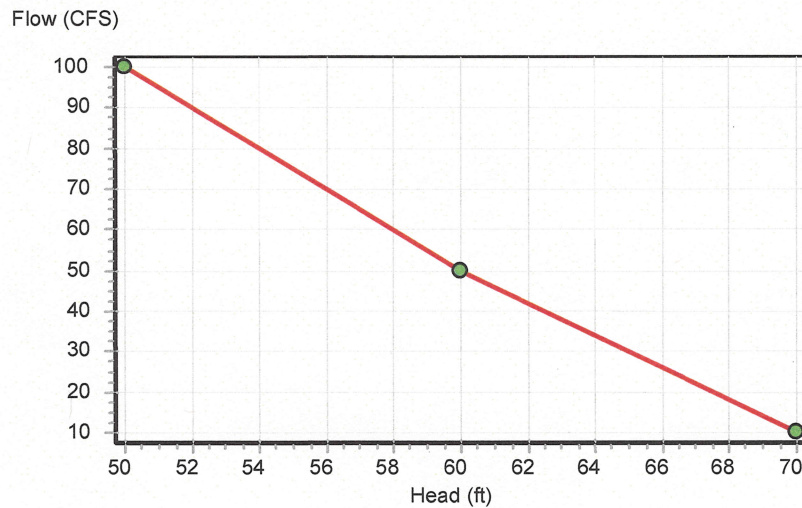
**Figure 4.54. Flow Comparison for the Side Orifice of Example EXTRAN9.**

### Example EXTRAN10

This example illustrates a 5-pump pumping station that moves water up a 50-foot hill from one storage unit to another. The schematic is shown in Figure 4.55. Each pump is a Type 3 pump that all share the same operating curve as shown in Figure 4.56. However each pump has a different operating range as shown in Table 4.2. These ranges are entered directly on the H1 lines of the SWMM 4 input data file and are converted into a set of Control Rules for the SWMM 5 input. As an example, the operating condition for pump 9002 can be expressed through the following set of control rules in SWMM 5:



**Figure 4.55. Schematic of Example EXTRAN10.**



**Figure 4.56. Operating Curve for Pumps of Example EXTRAN 10**

**Table 4.2. Operating Ranges for the Pumps of Example EXTRAN10 (Pump turns on when clear well depth exceeds high level and shuts down when depth reaches low level.)**

<i>Pump</i>	<i>Low Level (feet)</i>	<i>High Level (feet)</i>
90002	2	6
90003	3	7
90004	4	8
90005	5	9
90006	6	10

```

RULE 90002A
IF NODE 401 DEPTH >= 6
AND PUMP 90002 STATUS = OFF
THEN PUMP 90002 STATUS = ON

```

```

RULE 90002B
IF NODE 401 DEPTH <= 2
AND PUMP 90002 STATUS = ON
THEN PUMP 90002 STATUS = OFF

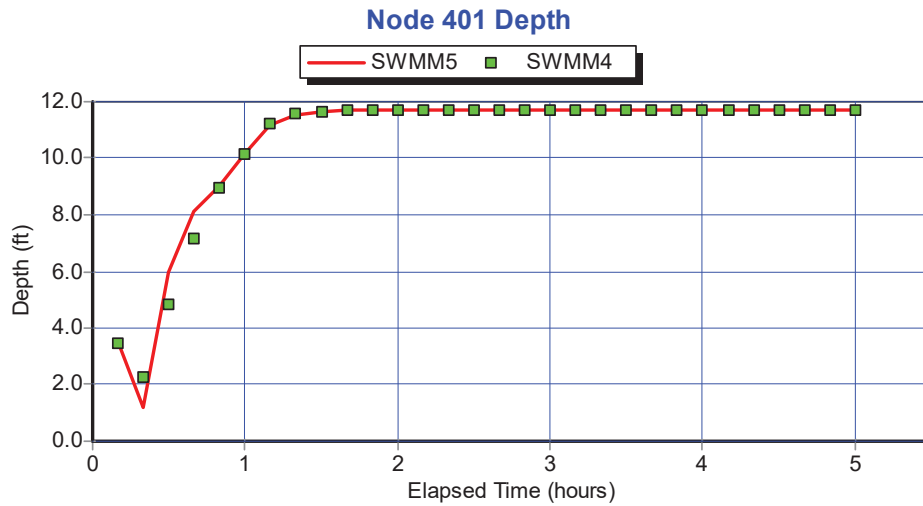
```

The upstream storage unit 401 is subjected to an external inflow that ramps up from 0 to 100 cfs over a period of an hour after which it remains constant at this rate. The system was solved using a 1 minute time step over a total duration of 5 hours.

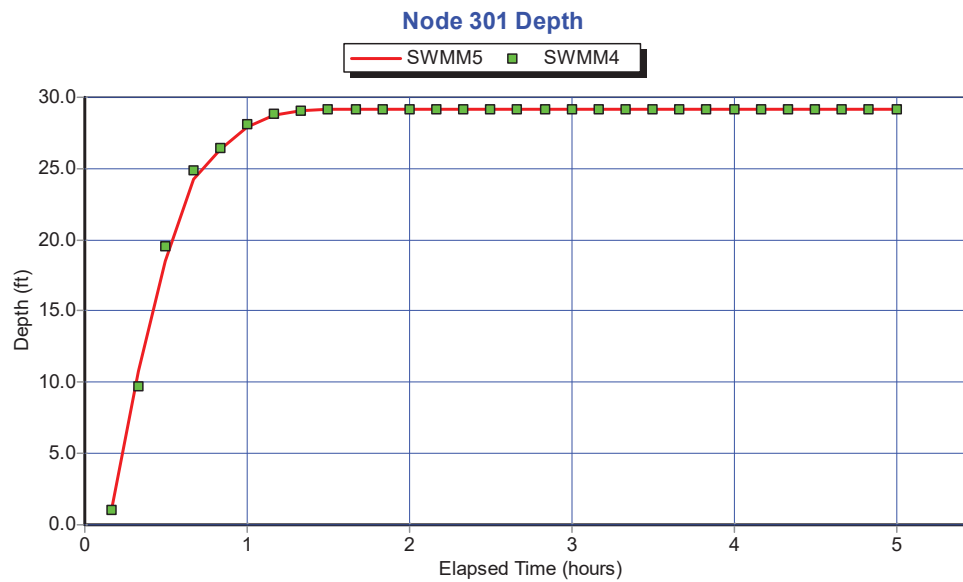
Figures 4.57 and 4.58 compare water depths in the two storage units computed by both SWMM 4 and SWMM 5. Figure 4.59 compares the outflow rate from the system through conduit 100. These figures show almost perfect agreement between SWMM 4 and 5. As for the 5 pumps, 90002, 90005, and 90006 also show almost perfect agreement. As an example, the flow for 90002 is shown in Figure 4.60. There are some differences in flow for Pumps 90003 and 90004 at 40 minutes into the simulation, as shown in Figure 4.61 for pump 90004. Table 4.3 compares the pump flows at 40 minutes for the two programs. For the three pumps that are on, 90002, 90003, and 90004, SWMM 5 produces the same flow rate which should be the case since each pump has the same operating curve and end nodes. SWMM 4, however, produces slightly different flow rates, suggesting that something is not quite right with how its computing pump flows.

**Table 4.3. Pumping Rates for Example EXTRAN10 at Elapsed Time of 40 Minutes**

<i>Pump</i>	<i>SWMM 5 Flow (cfs)</i>	<i>SWMM 4 Flow (cfs)</i>
90002	25.7	23.0
90003	25.7	22.5
90004	25.7	21.0
90005	0	0
90006	0	0

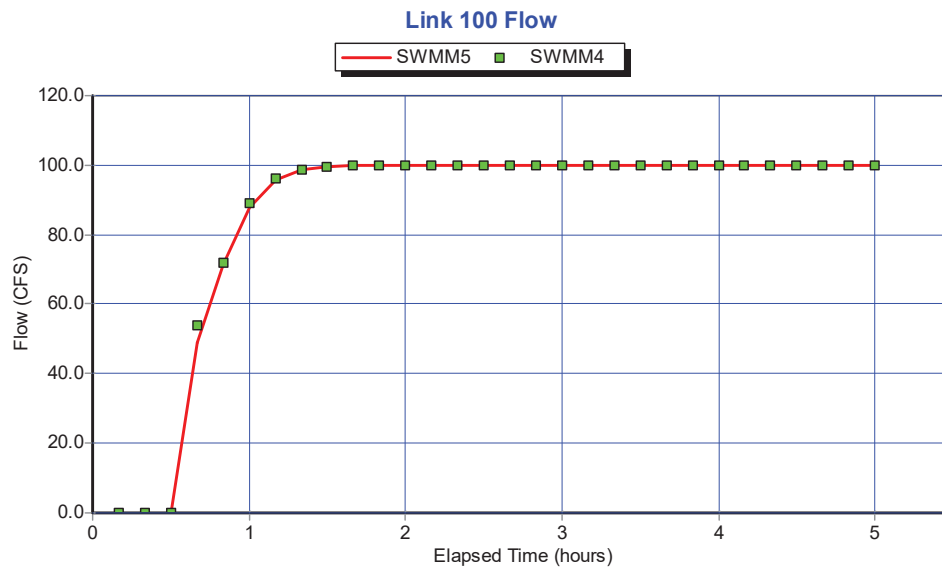


**Figure 4.57. Water Depth Comparison for the Storage Unit 401 of Example EXTRAN10.**

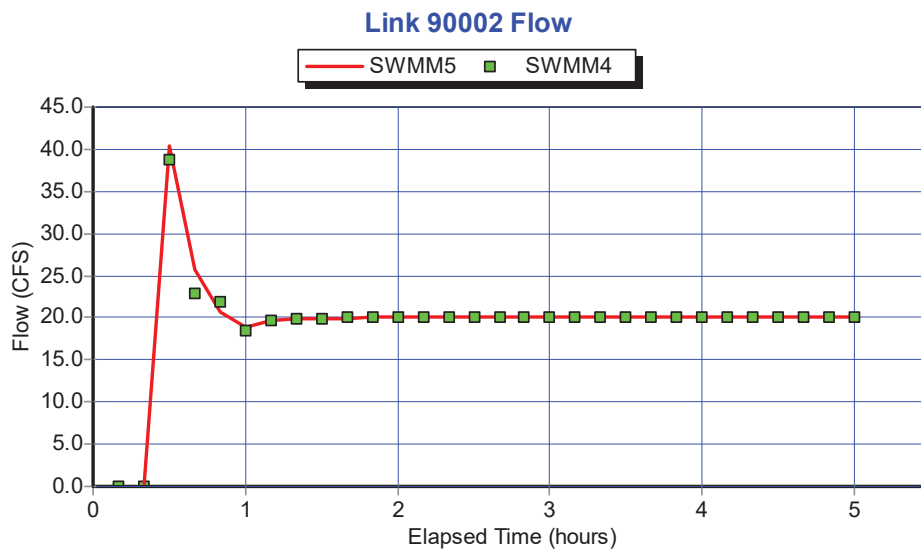


**Figure 4.58. Water Depth Comparison for the Storage Unit 301 of Example EXTRAN10.**

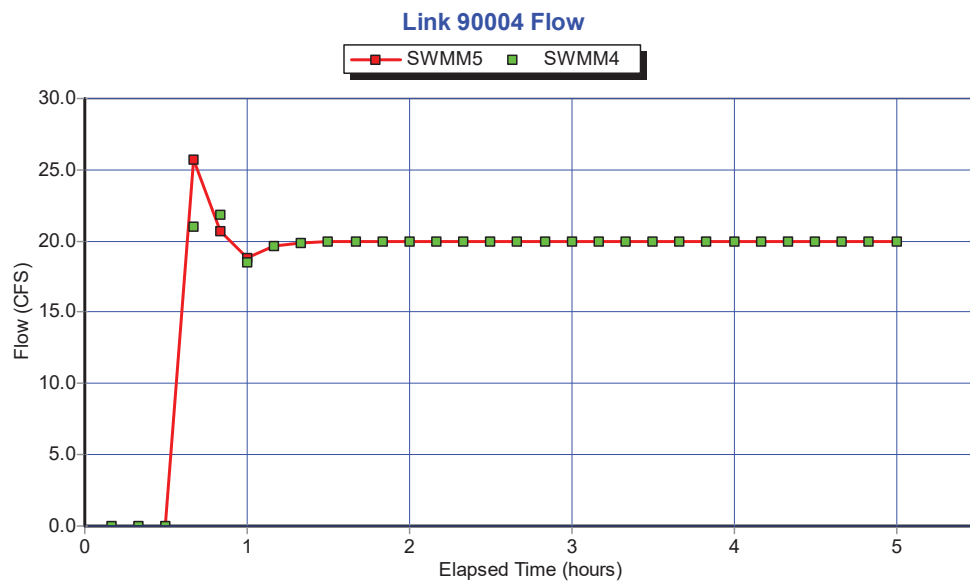




**Figure 4.59. Flow Comparison for Outflow Conduit 100 of Example EXTRAN10.**



**Figure 4.60. Flow Comparison for Pump 90002 of Example EXTRAN10.**



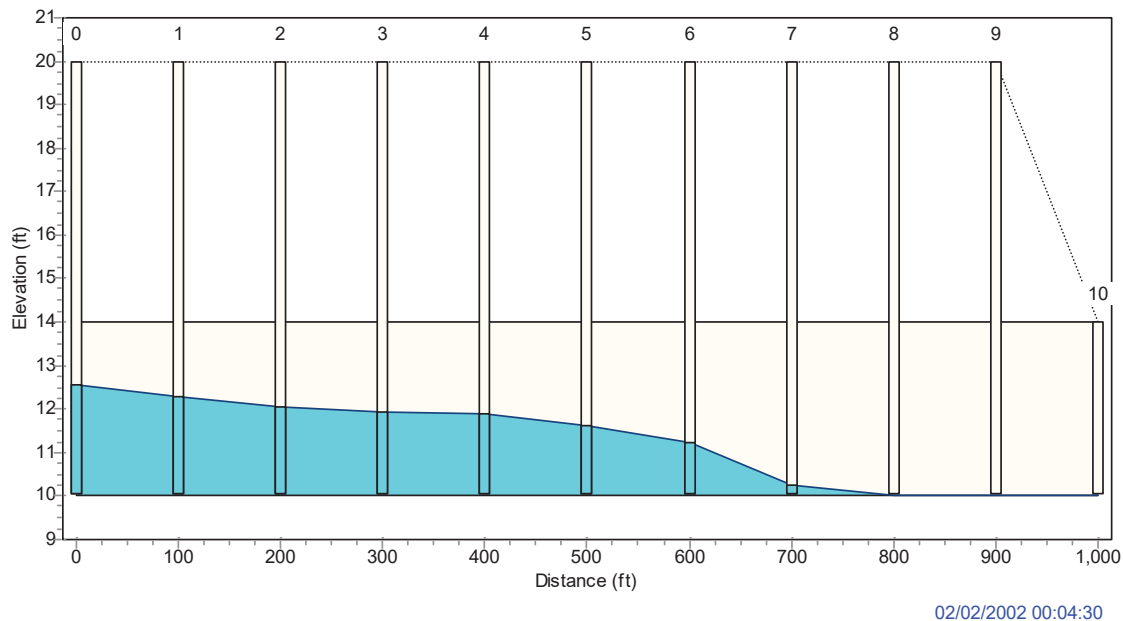
**Figure 4.61. Flow Comparison for Pump 90004 of Example EXTRAN10.**

## 5. Challenge Test Cases

### Example TEST1

The first challenge example compares the two programs in modeling a flat run of pipe. The profile of the pipe layout is displayed in Figure 5.1. It consists of ten, 100-foot lengths of 4-foot diameter circular pipe placed on a flat (0%) slope. The system was subjected to a 3-hour square wave inflow hydrograph of 100 cfs magnitude at the upstream end and was run for a 5 hour simulation period using a 5 second routing time step (larger time steps caused instability in both programs).

Figure 5.2 compares flows produced by SWMM 4 and 5 in selected conduits while Figure 5.3 does the same for depth at selected nodes. Overall there is a very good agreement between the two programs, with SWMM 5 providing a slightly more stable solution for depth than SWMM 4.



**Figure 5.1. Profile View of Example TEST1.**

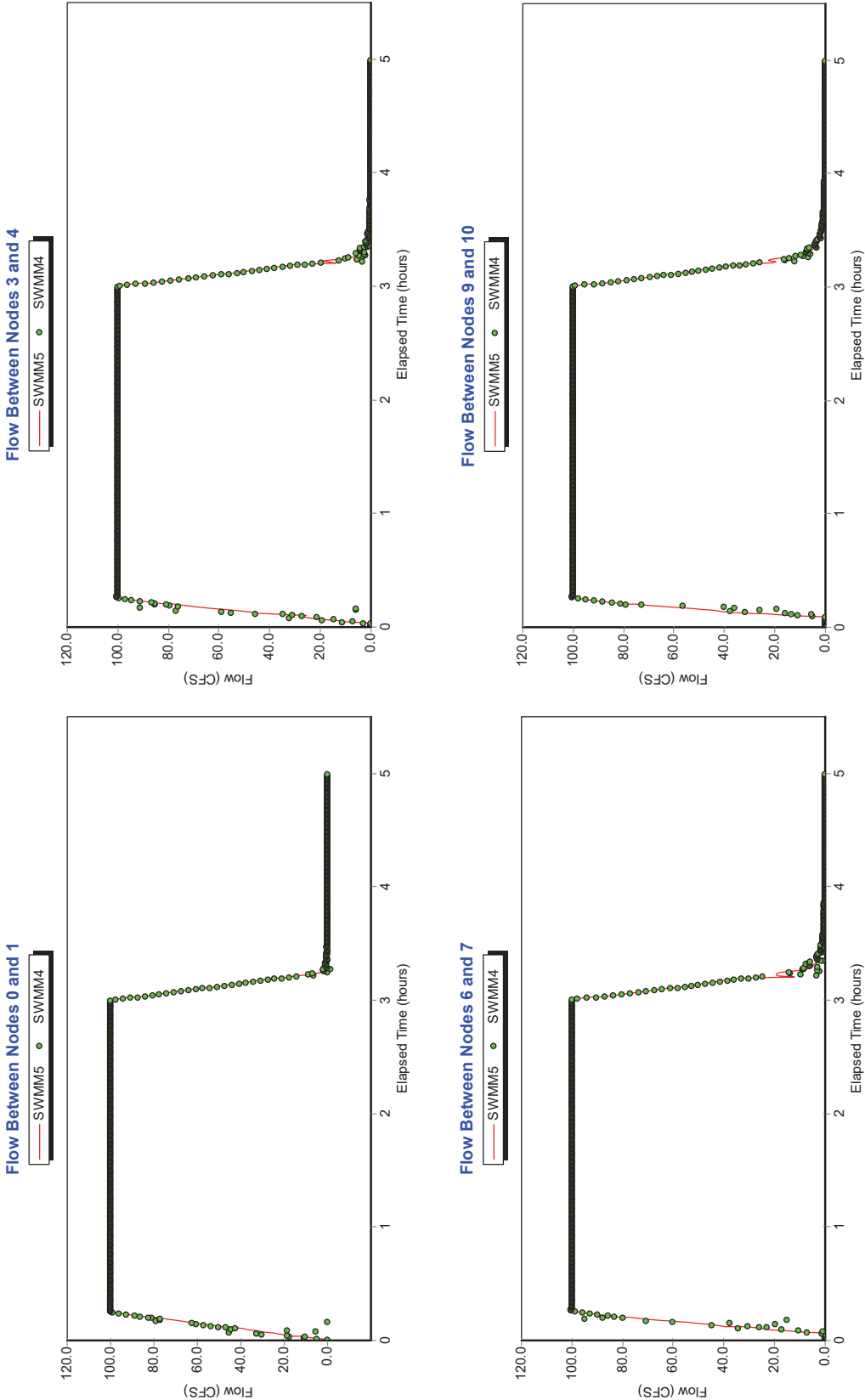


Figure 5.2. Flow Comparisons for Selected Conduits for Example TEST1.



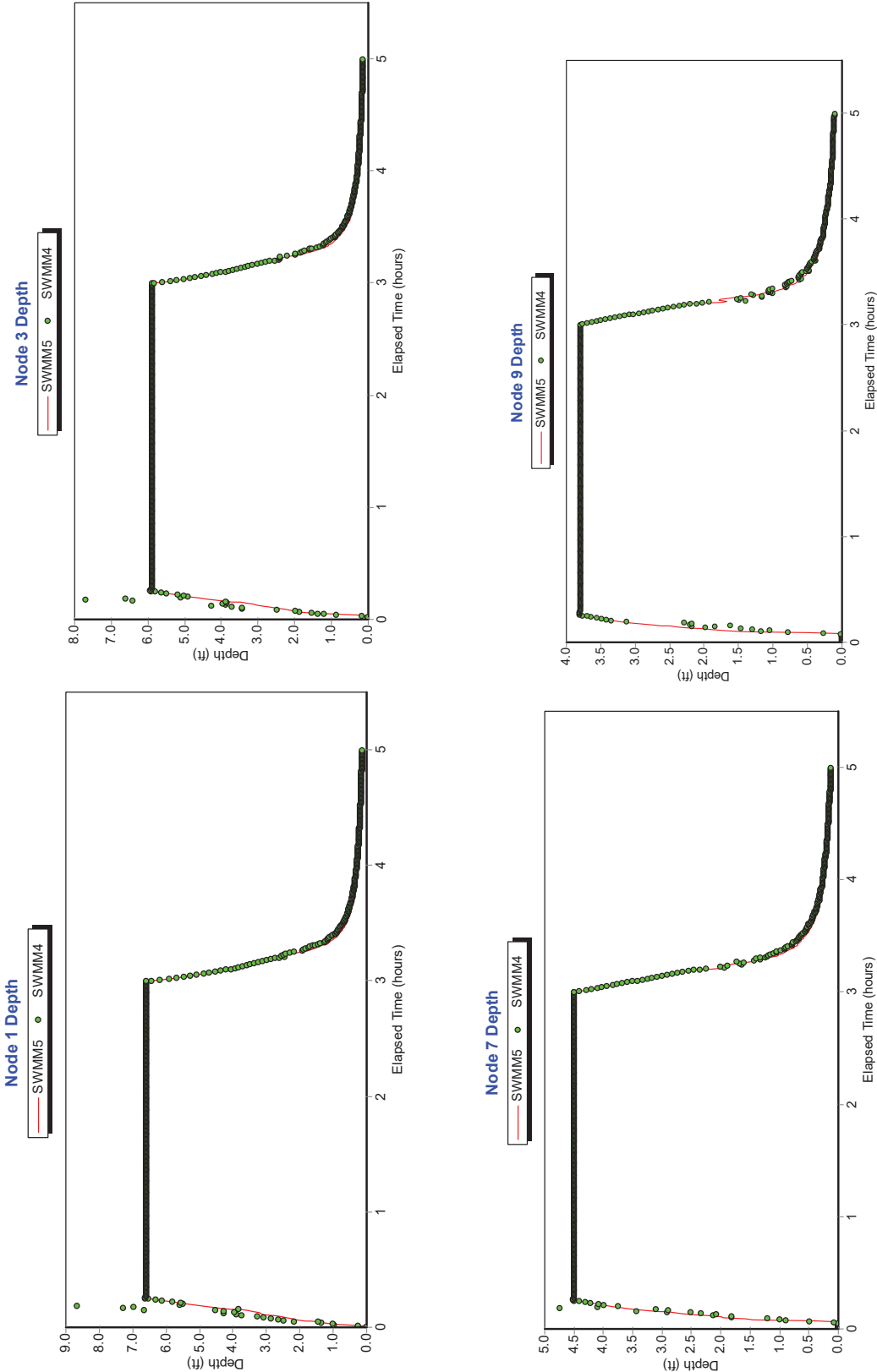
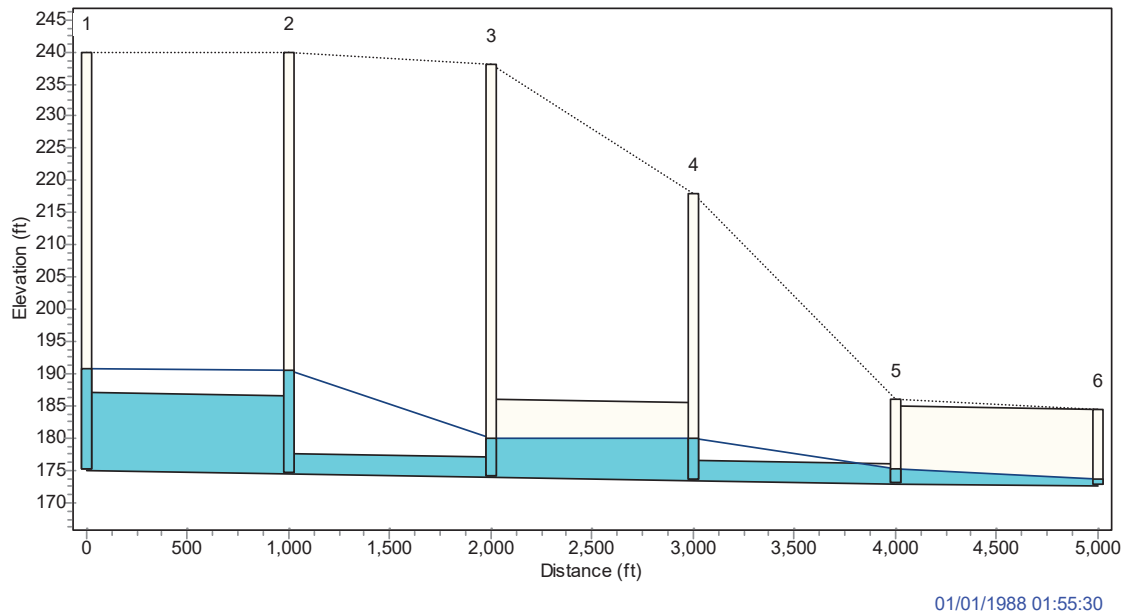


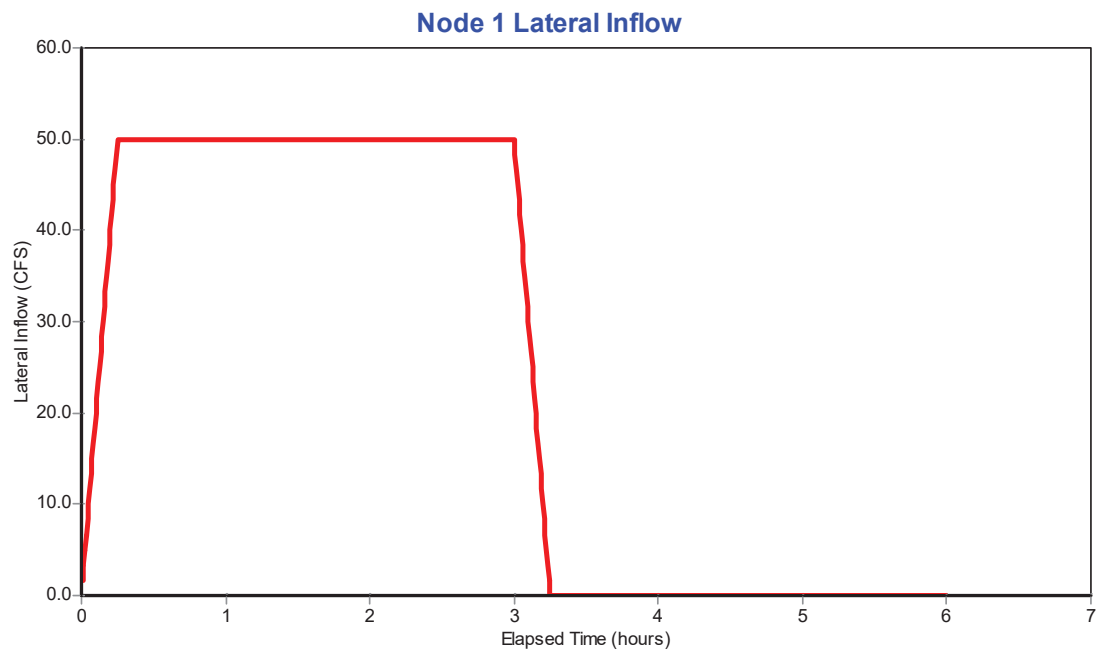
Figure 5.3. Depth Comparisons for Selected Nodes for Example TEST1.

Example TEST2

The next challenge test example models a pipe constriction that is subjected to surcharging. The profile of the system is shown in Figure 5.4. It consists of alternating sections of 12-foot diameter circular pipe flowing into a 3-foot diameter pipe. Each section is 1000 feet long and has a slope of 0.05%. The inflow hydrograph to the system is a 50 cfs, 3-hour square wave pattern as is shown in Figure 5.5. The system was run for a 6-hour duration using a 5 second routing time step.



**Figure 5.4. Profile View of Example TEST2.**



**Figure 5.5. Inflow Hydrograph for Example TEST2.**

Comparisons of flow for various links are displayed in Figure 5.6 while those for water depths in various nodes are given in Figure 5.7. Note how much the constriction influences the shape of the inflow hydrograph as it moves downstream. SWMM 4 has the upstream pipe segments reaching a surcharged state about 10 minutes faster than does SWMM 5 and shows a slightly higher degree of flow oscillation in the large 12-foot pipe between nodes 3 and 4. The flow continuity error for both programs was 0.4%.

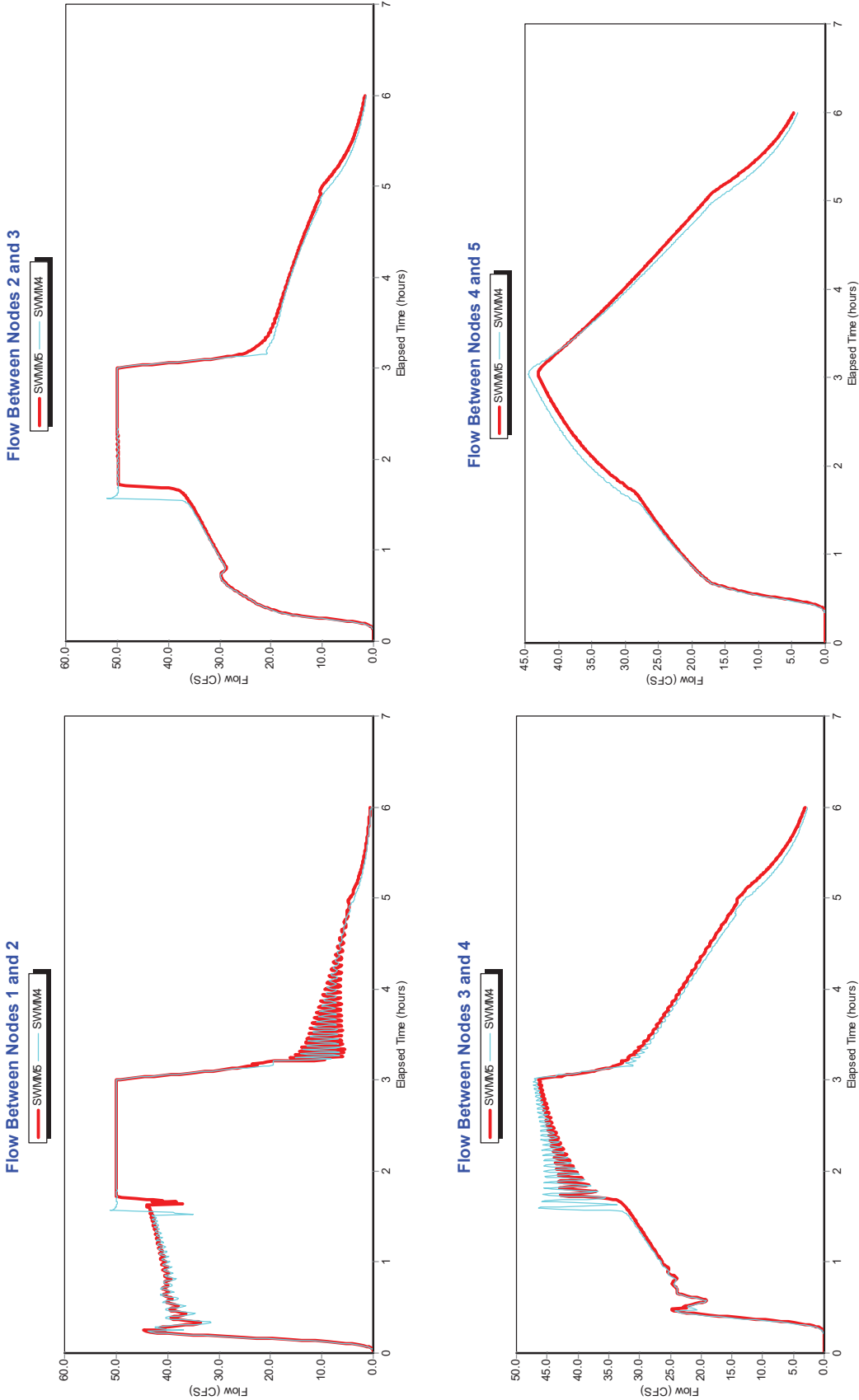


Figure 5.6. Comparisons of Flow in Selected Conduits of Example TEST2.



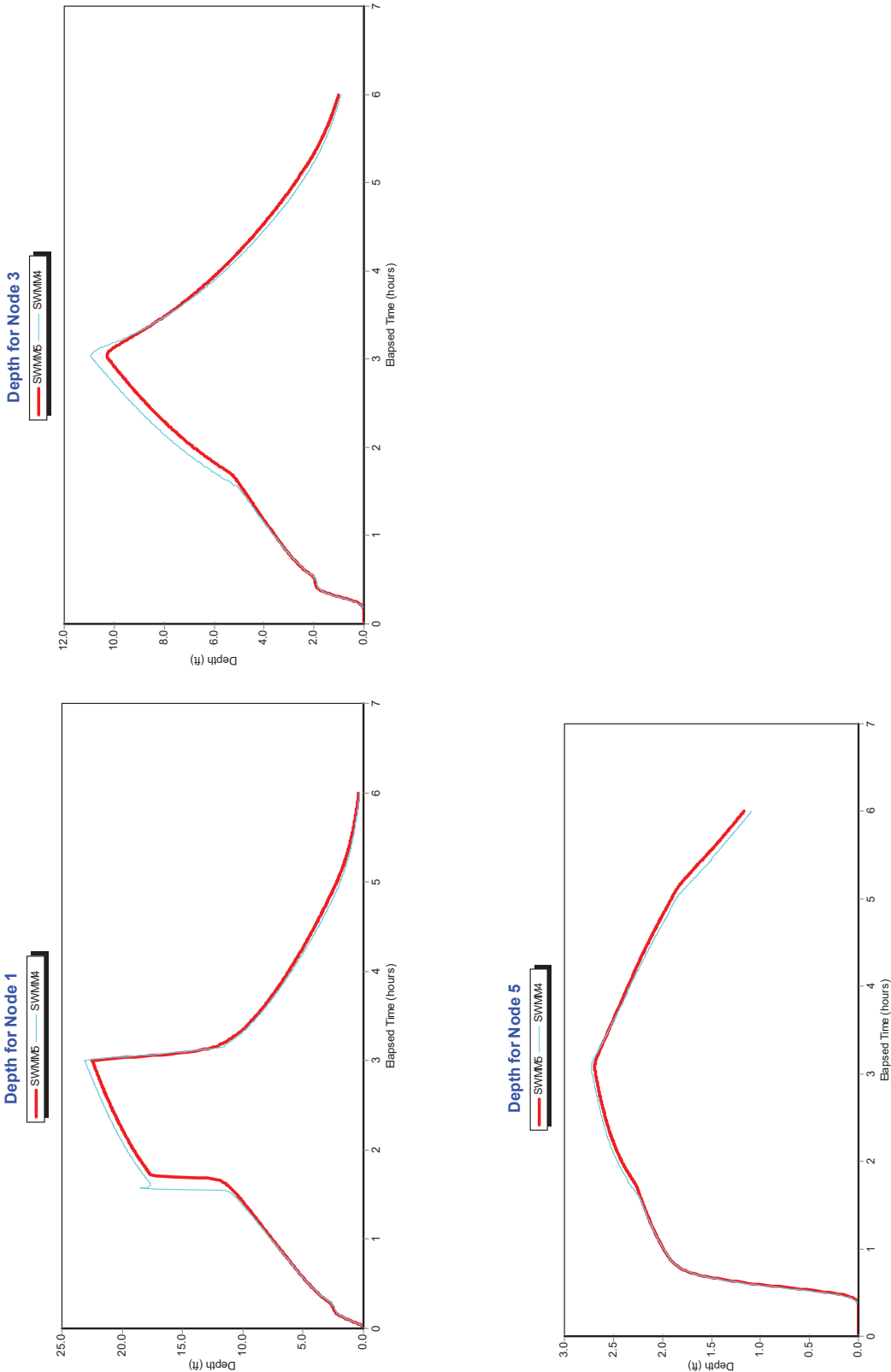
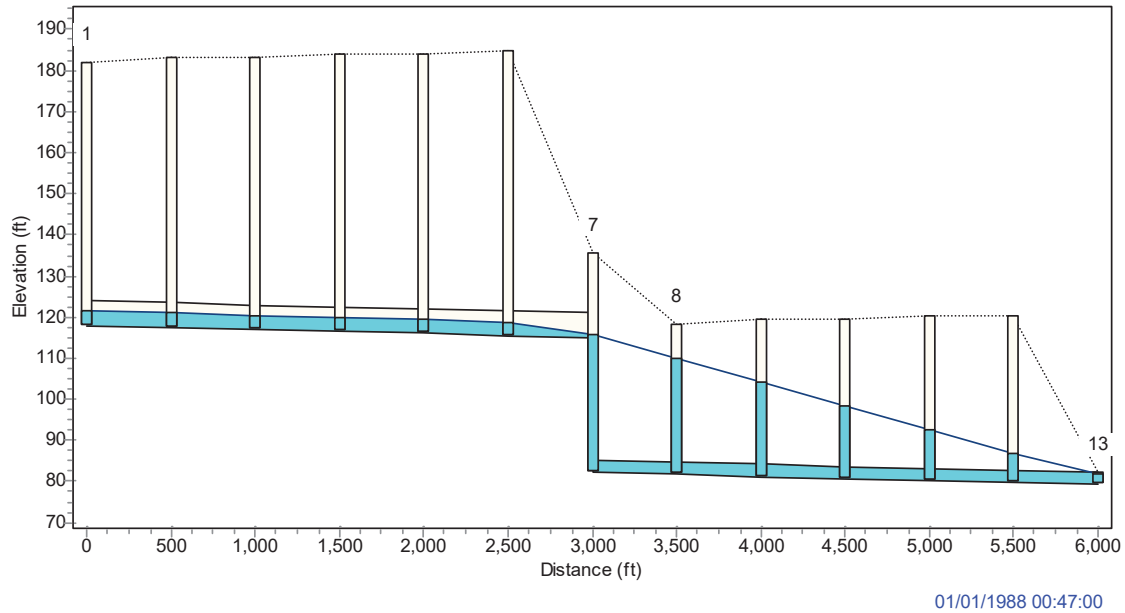


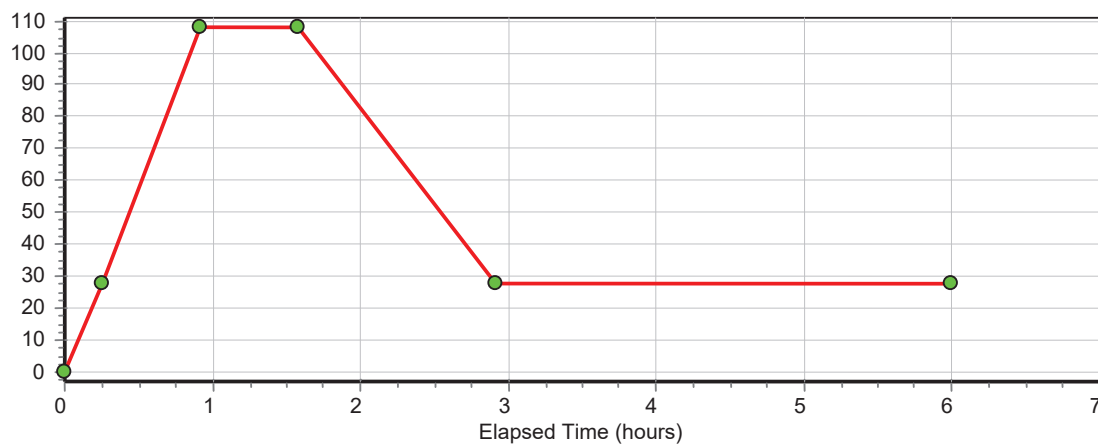
Figure 5.7. Water Depth Comparisons for Selected Nodes of Example TEST2.

Example TEST3

This example consists of six sections of 6-foot diameter circular pipe that drop 40 feet to connect with another six sections of 3-foot diameter pipe. Each section is 500 feet long with a slope of 0.10%. The profile for this example is shown in Figure 5.8 and the inflow hydrograph is shown in Figure 5.9. Both SWMM 4 and 5 were run at a 5 second routing time step over a 6 hour simulation period.



**Figure 5.8. Profile View of Example TEST3.**



**Figure 5.9. Inflow Hydrograph (cfs) for Example TEST3.**

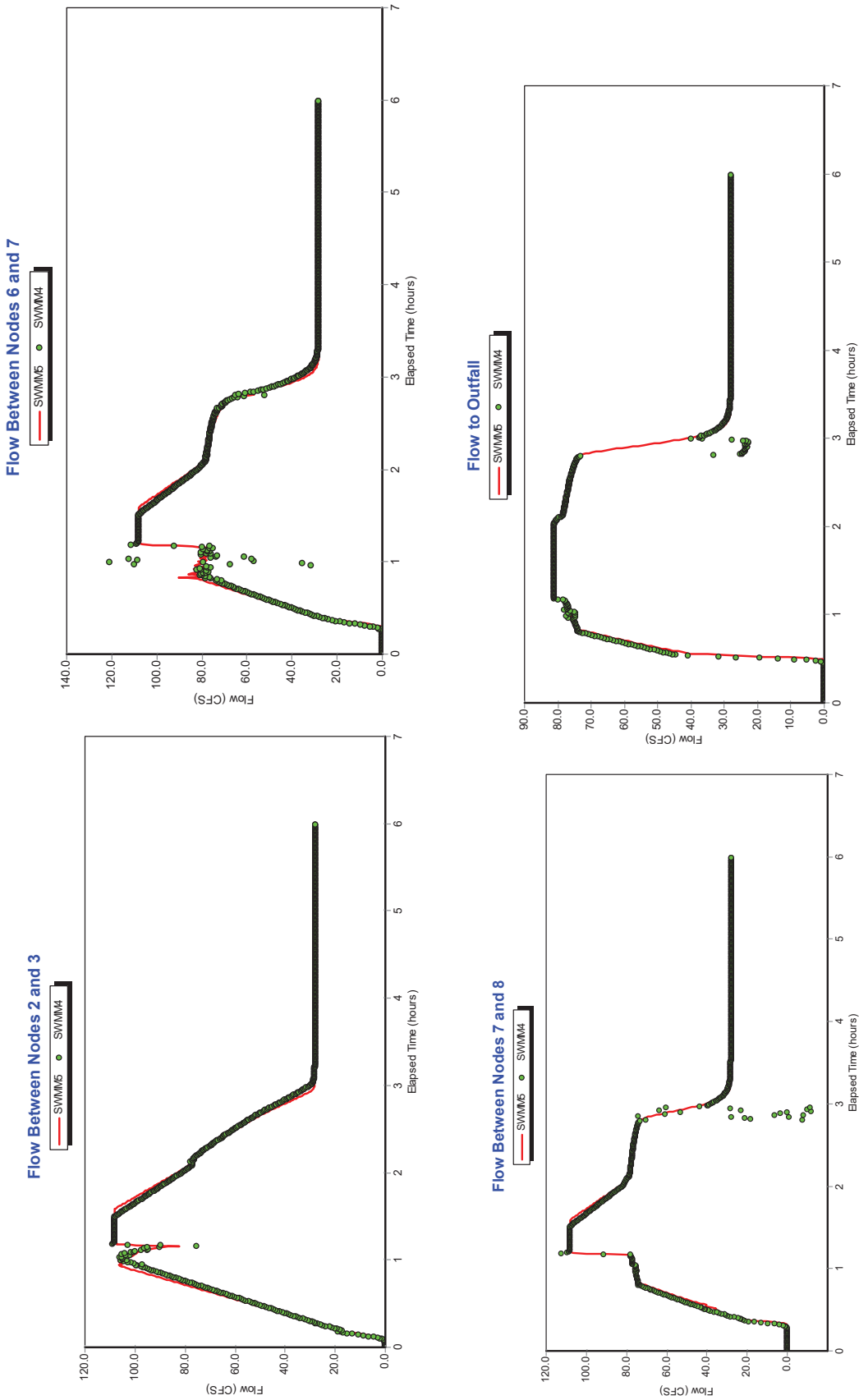


Figure 5.10. Comparisons of Flow in Selected Conduits of Example TEST3.

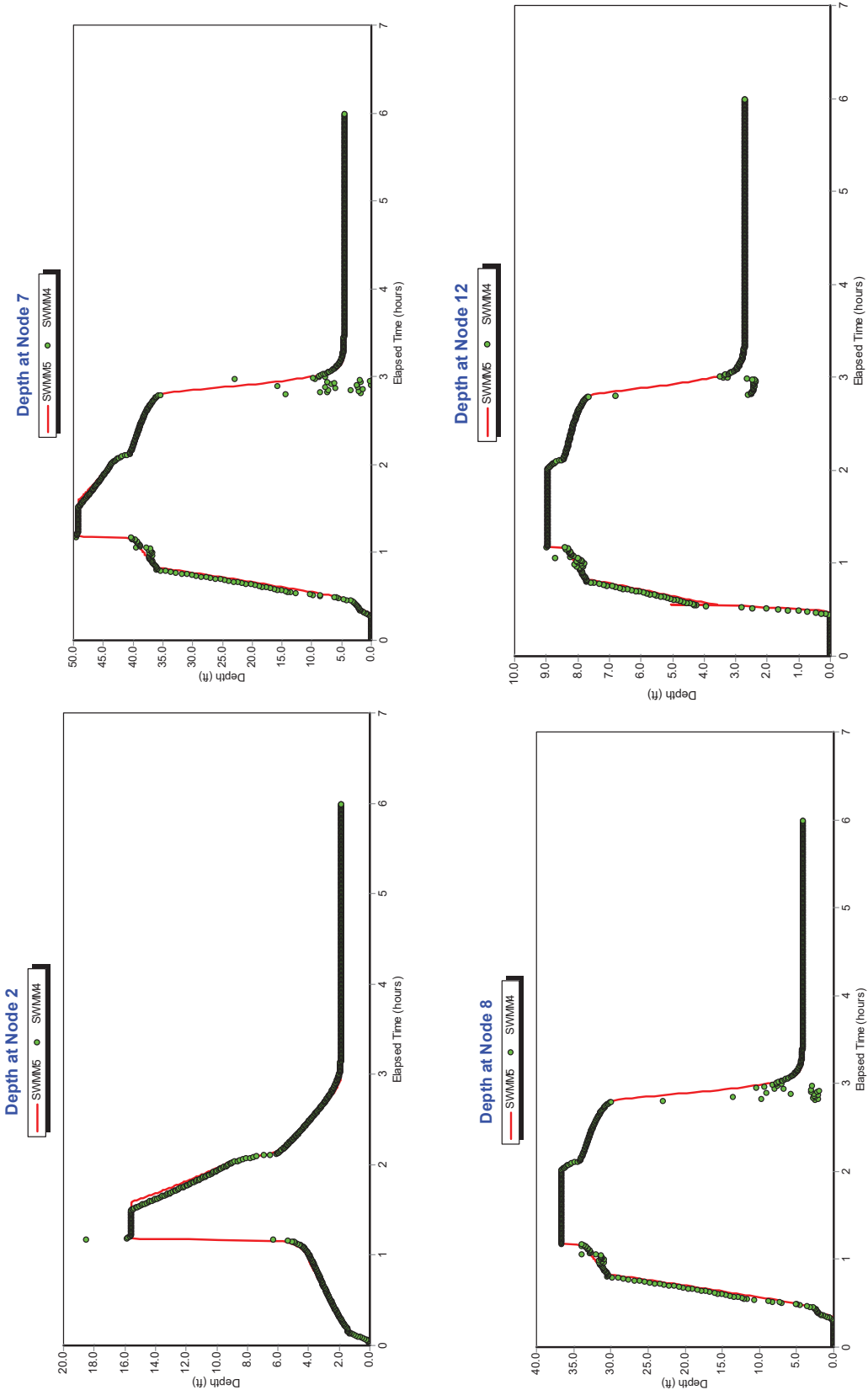
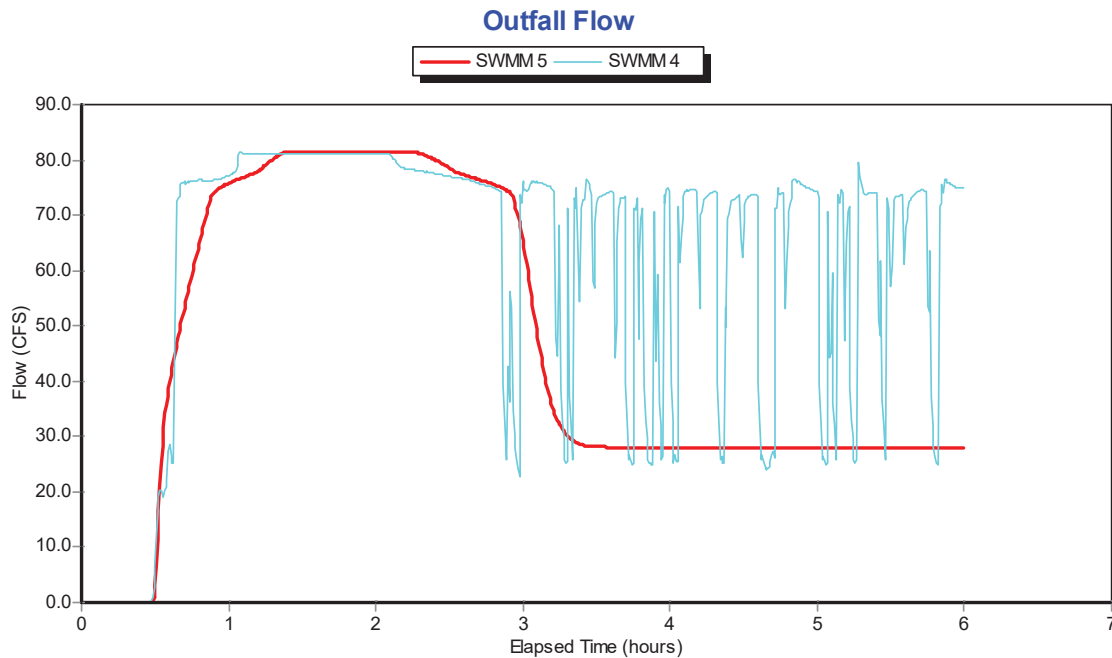


Figure 5.11 Water Depth Comparisons for Selected Nodes of Example TEST3.



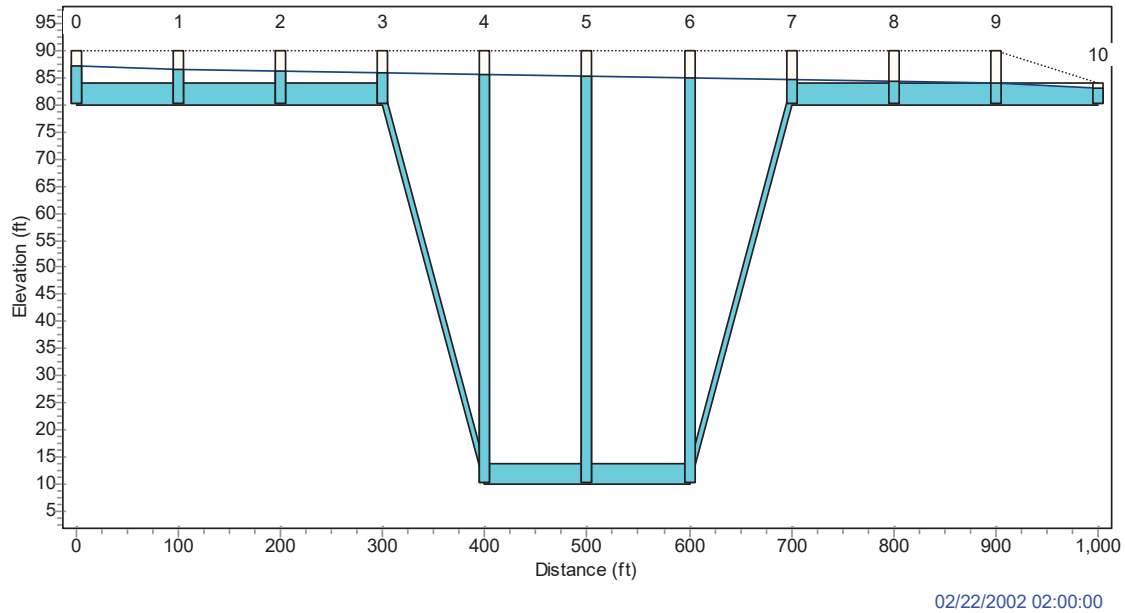
Figure 5.10 shows flow comparisons between SWMM 4 and 5 at selected conduits while Figure 5.11 does the same for node water depth. Overall, the shapes of the hydrographs and the depth profiles look similar. SWMM 4 exhibits some instabilities for short periods of time, particularly around the drop location, that are not present with SWMM 5. Figure 5.12 illustrates what happens at the outfall when the routing time step is increased from 5 to 30 seconds. SWMM 5 is still able to produce a stable solution while SWMM 4 becomes highly unstable. The system flow continuity errors at this larger time step were 0.02 percent for SWMM 5 and 34.4 percent for SWMM 4.



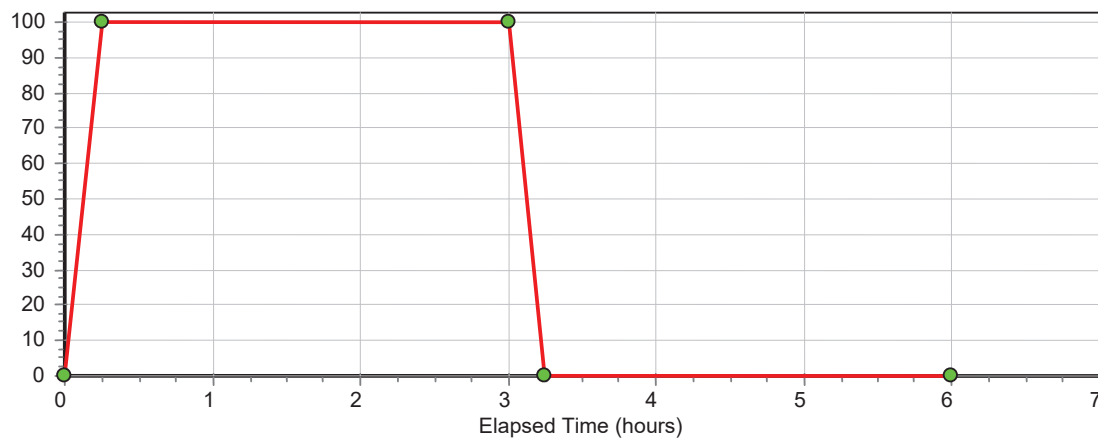
**Figure 5.12. Outfall Flow Comparison for Example TEST3 at a 30 Second Time Step.**

### Example TEST4

Example TEST4 is an inverted siphon. The profile is shown in Figure 5.12. All conduits are 100-foot lengths of 4-foot diameter circular pipe. The inflow hydrograph, shown in Figure 5.13, is a 3-hour square wave of 100 cfs magnitude. SWMM 4 and 5 were run using a 5 second time step for a period of 5 hours.



**Figure 5.12. Profile View of Example TEST4.**



**Figure 5.13. Inflow Hydrograph (cfs) for Example TEST4.**

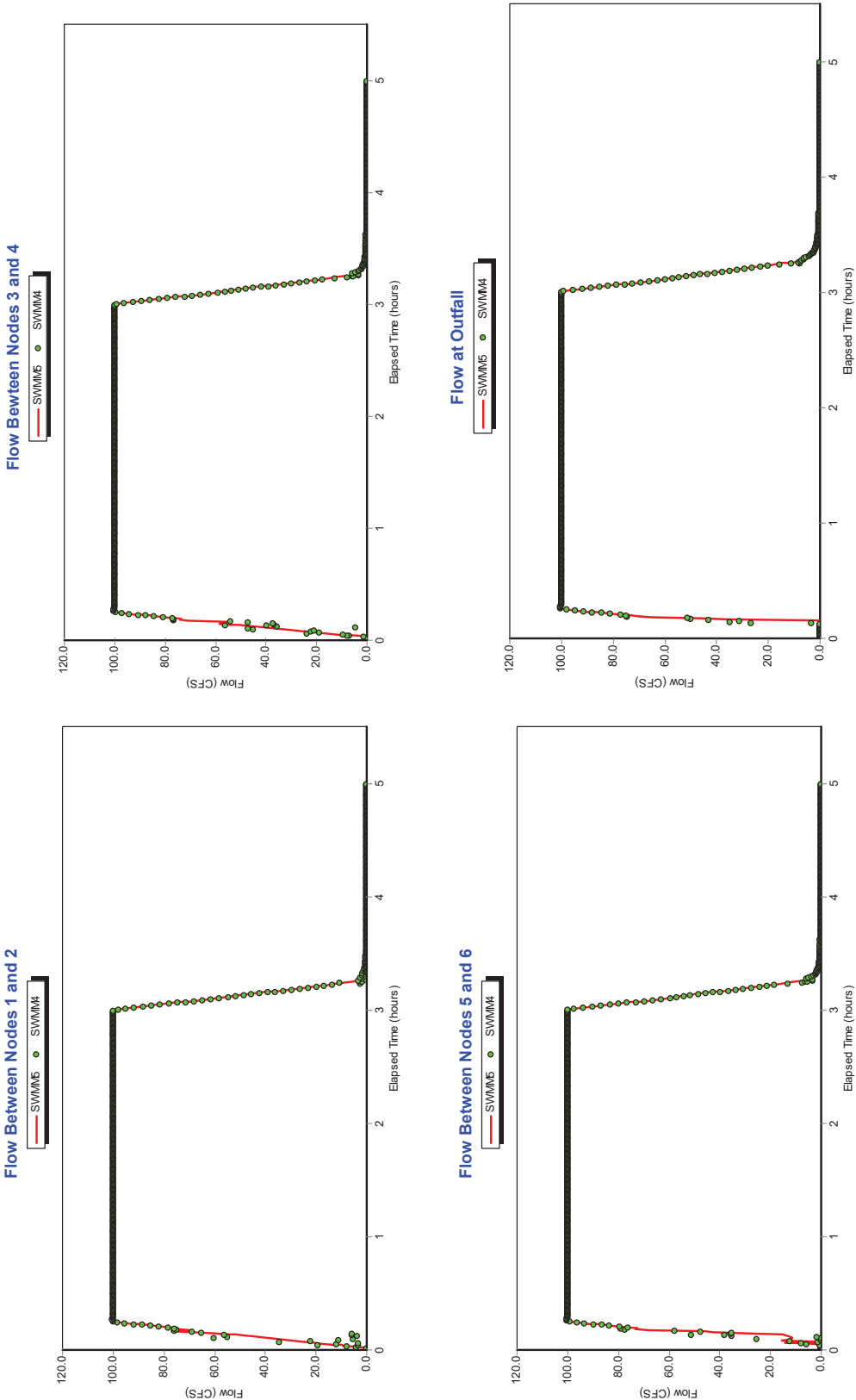


Figure 5.14. Comparisons of Flow in Selected Conduits of Example TEST4.

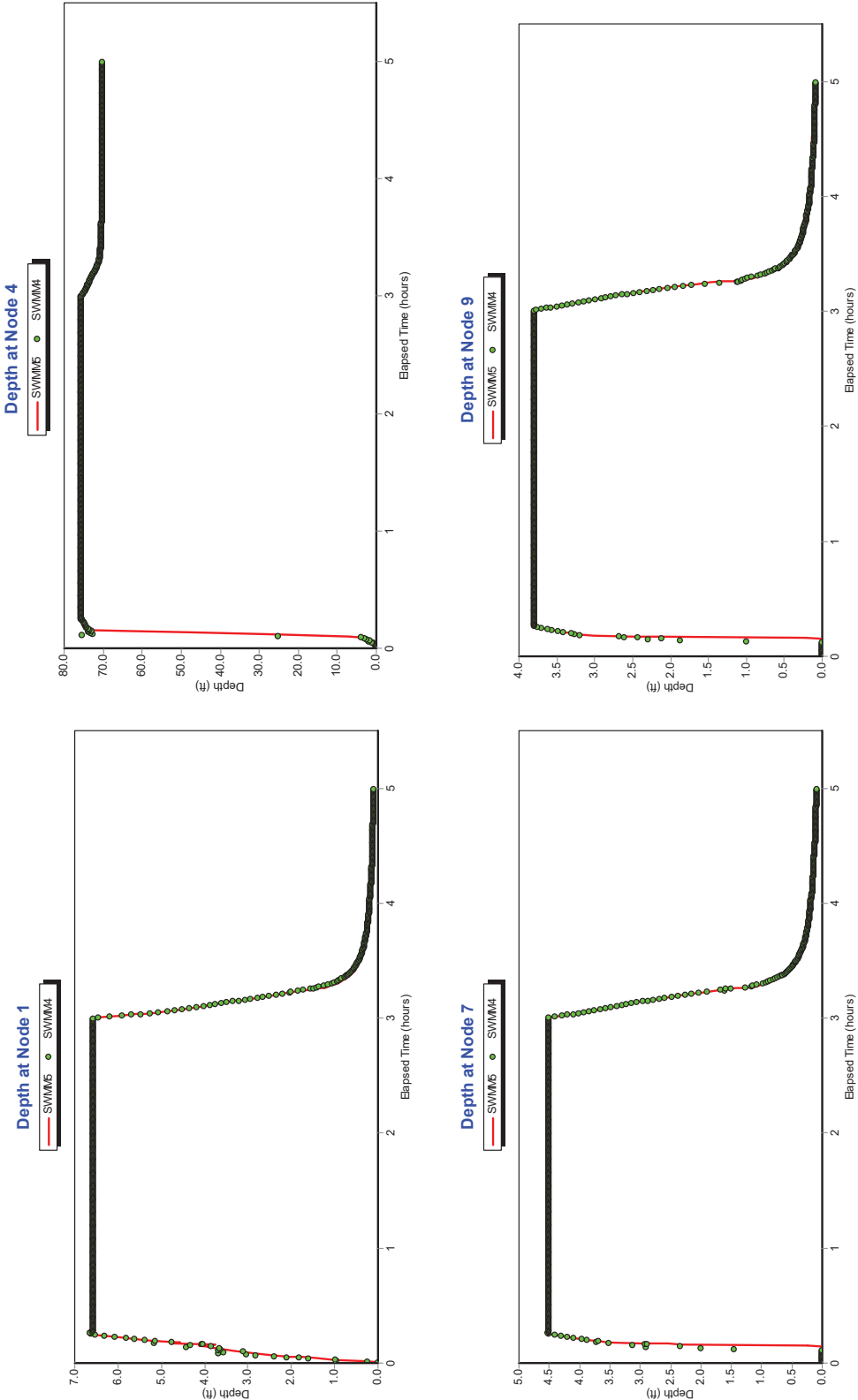
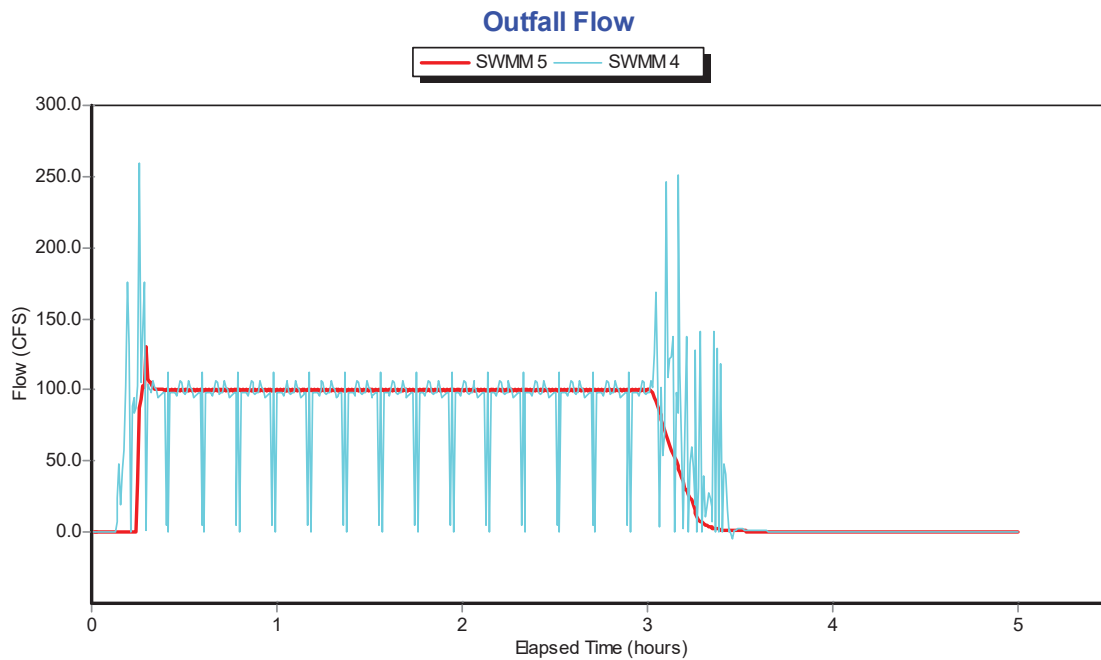


Figure 5.15. Water Depth Comparisons for Selected Nodes of Example TEST4.



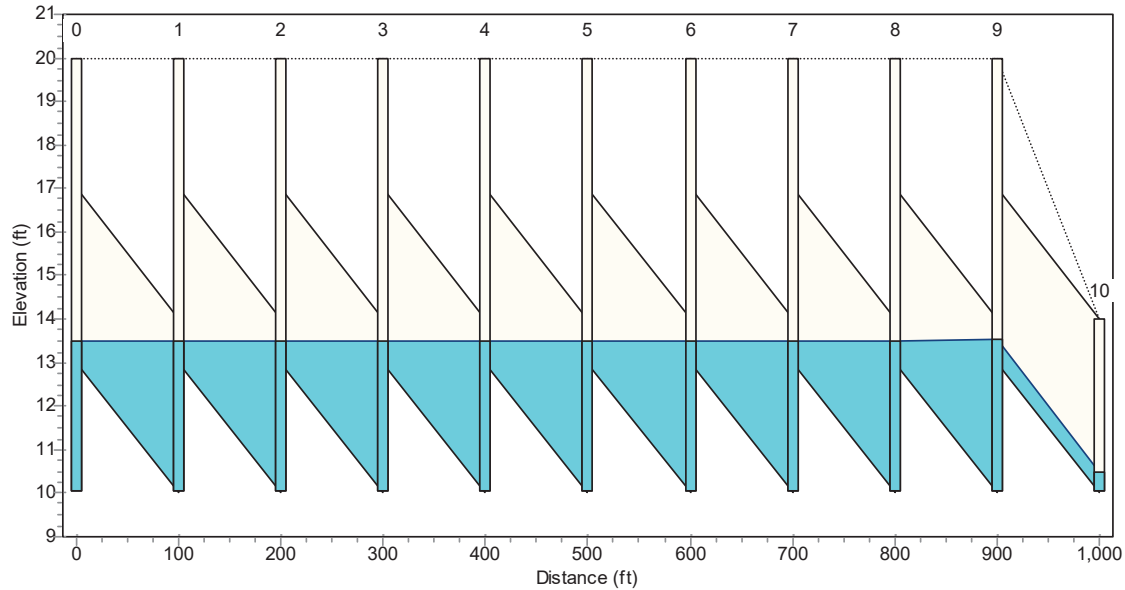
Comparisons of flows in selected conduits are shown in Figure 5.14 while those for depths at selected nodes are shown in Figure 5.15. There is very good agreement between the two programs. Figure 5.16 illustrates what happens at the outfall when the routing time step is increased to 10 seconds. The solution produced by SWMM 4 becomes highly unstable at this time step while SWMM 5 still produces reasonable results.



**Figure 5.16. Outfall Flow Comparison for Example TEST4 at a 10 Second Time Step.**

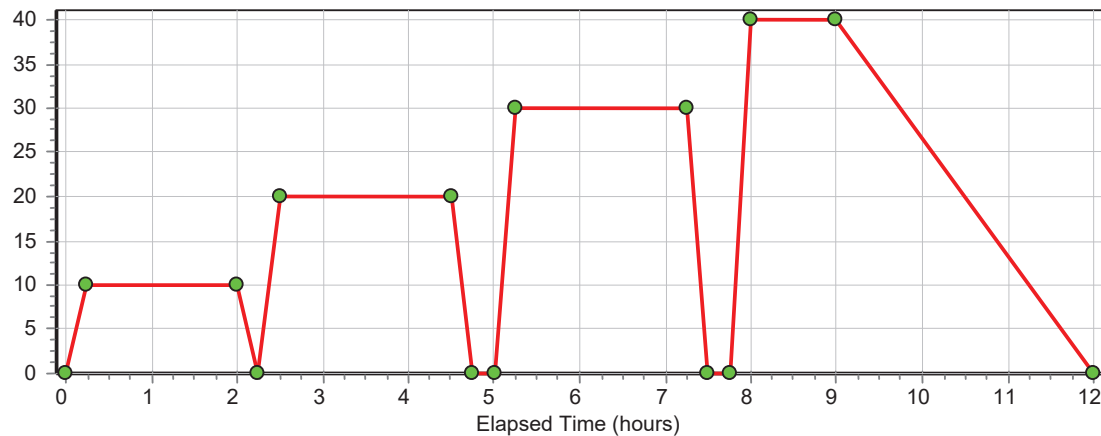
### Example TEST5

The final challenge test example is a sequence of conduits each of which has a 3-foot offset from the invert of its inlet node. Each conduit is a 100-foot length of 4-foot diameter circular pipe at a 3% slope. The profile of this layout is shown in Figure 5.17. The inflow hydrograph applied at the upstream end of this system is shown in Figure 5.18. SWMM 4 and 5 were run using a 5 second time step for a period of 12 hours.



02/22/2002 00:21:00

**Figure 5.17. Profile View of Example TEST5.**



**Figure 5.18. Inflow Hydrograph (cfs) for Example TEST5.**

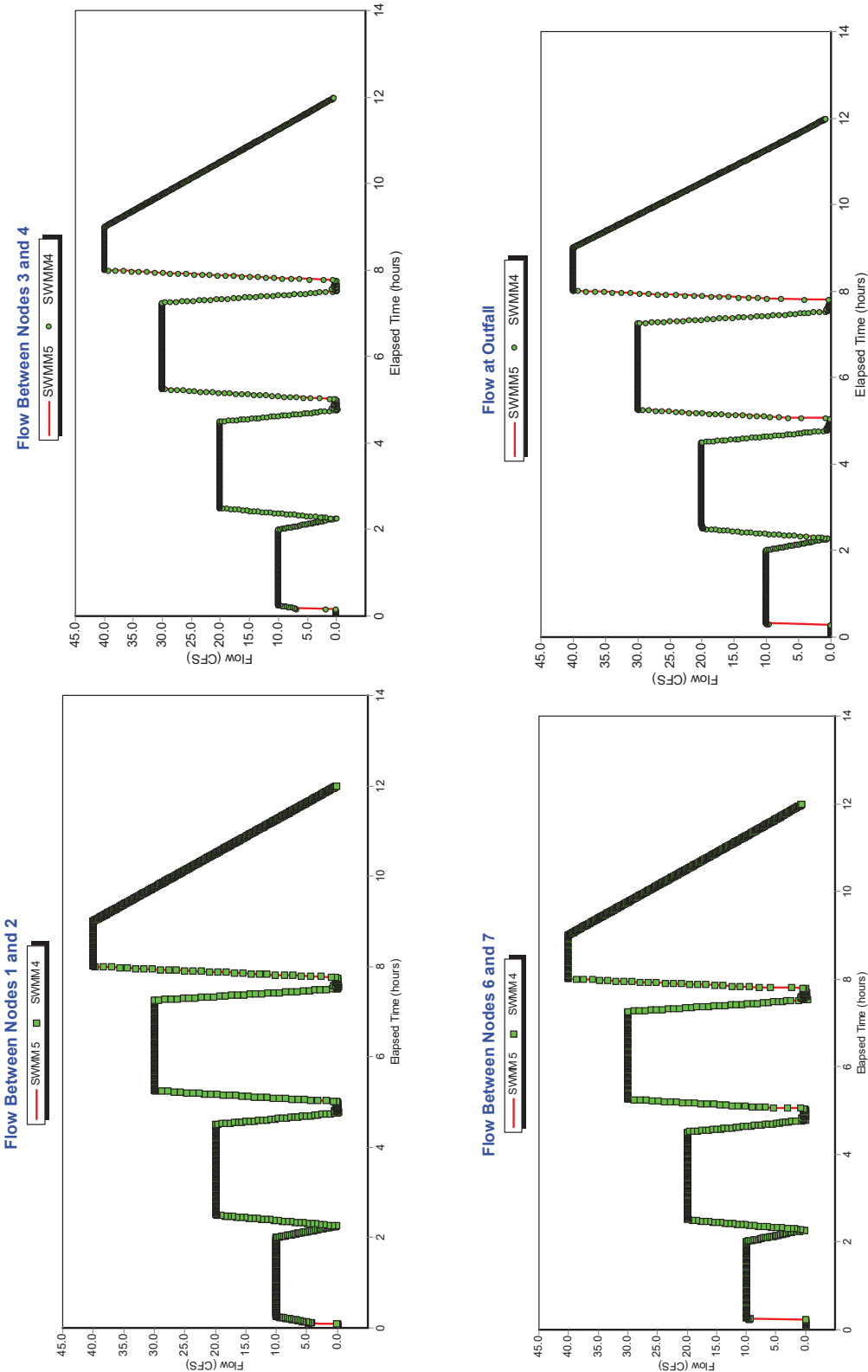


Figure 5.19. Comparisons of Flow in Selected Conduits of Example TEST5.

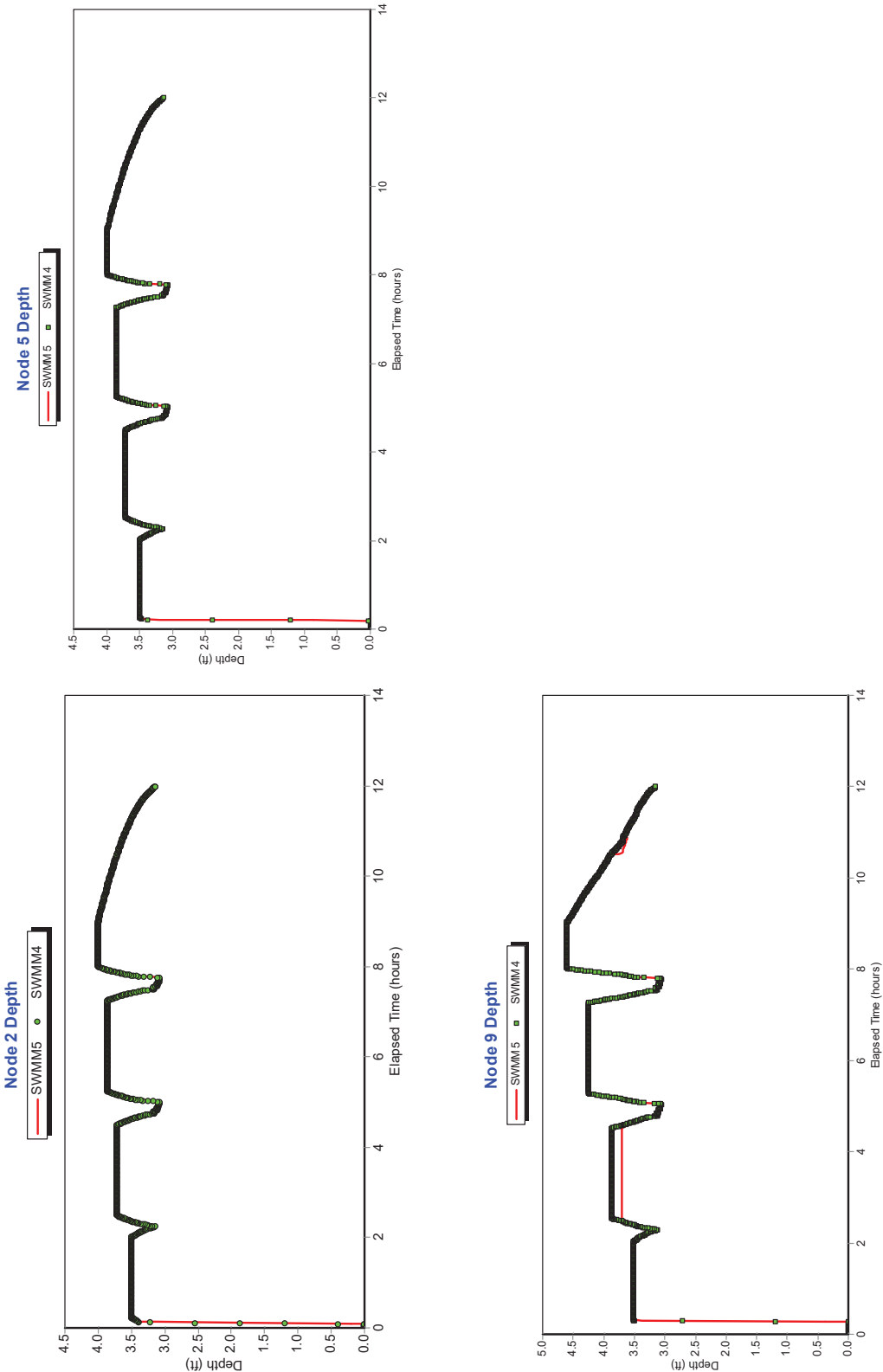
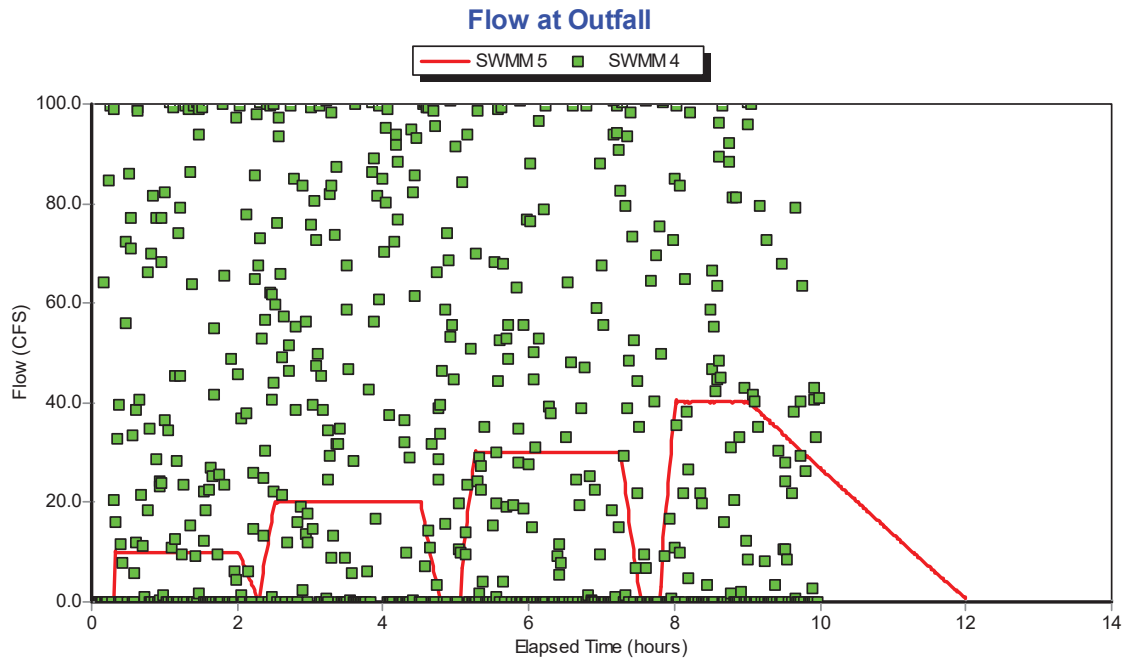


Figure 5.20. Water Depth Comparisons for Selected Nodes of Example TEST5.



Figure 5.19 shows flow comparisons between SWMM 4 and 5 at selected conduits while Figure 5.20 does the same for node water depth. The results are seen to be identical between the two programs. When the routing time step is increased to 10 seconds, the SWMM 5 solution remains the same while SWMM 4 becomes highly unstable. Figure 5.21 illustrates this result by comparing outfall flows between the two programs run at the higher time step. The system flow continuity error for SWMM 4 was greater than 800 percent compared with only 0.05 percent for SWMM 5.

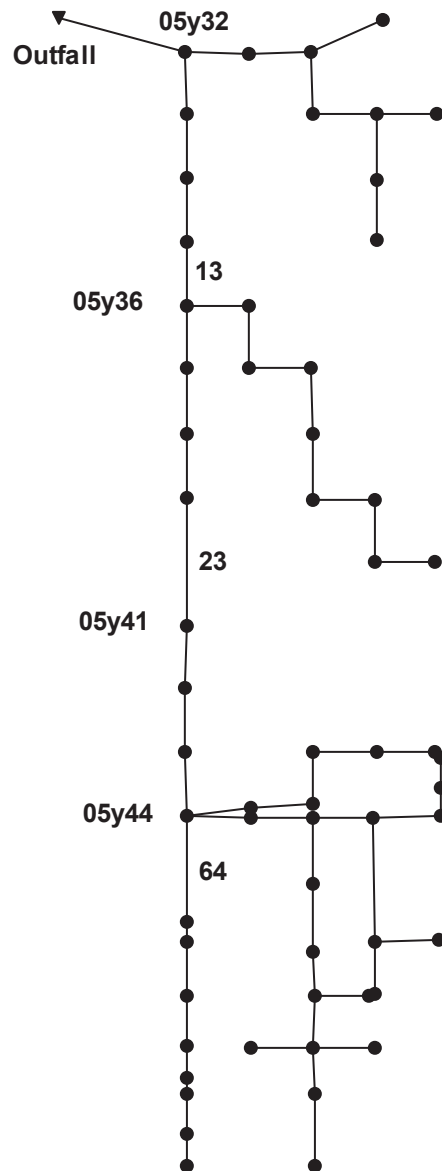


**Figure 5.21. Outfall Flow Comparison for Example TEST5 at a 10 Second Time Step.**

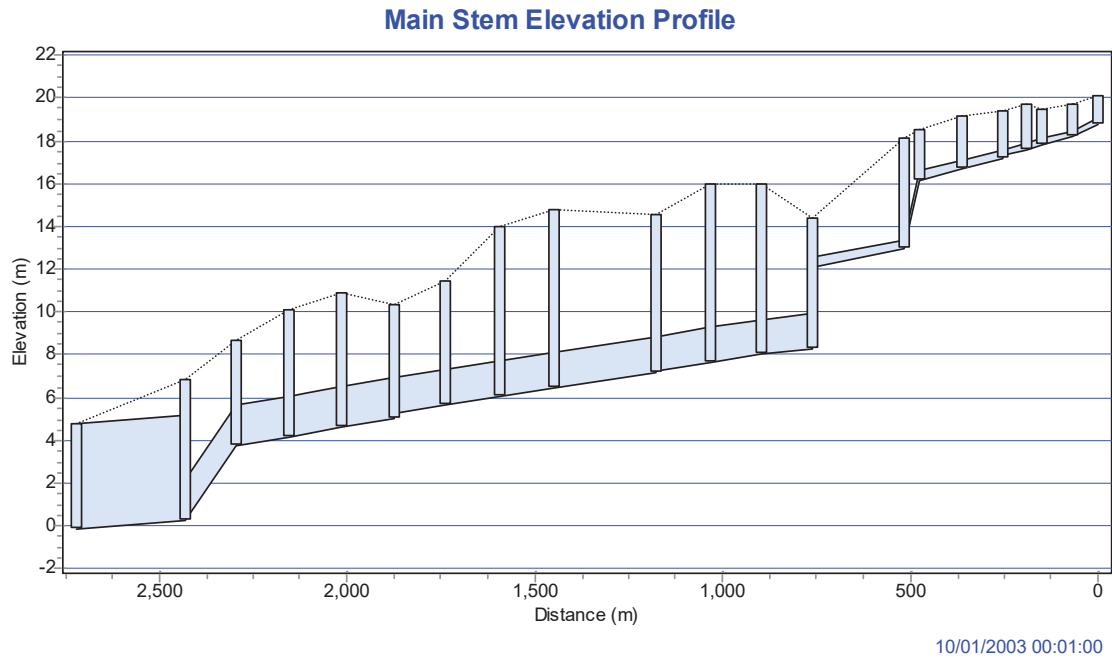
## 6. User-Supplied Test Cases

### Example USER1

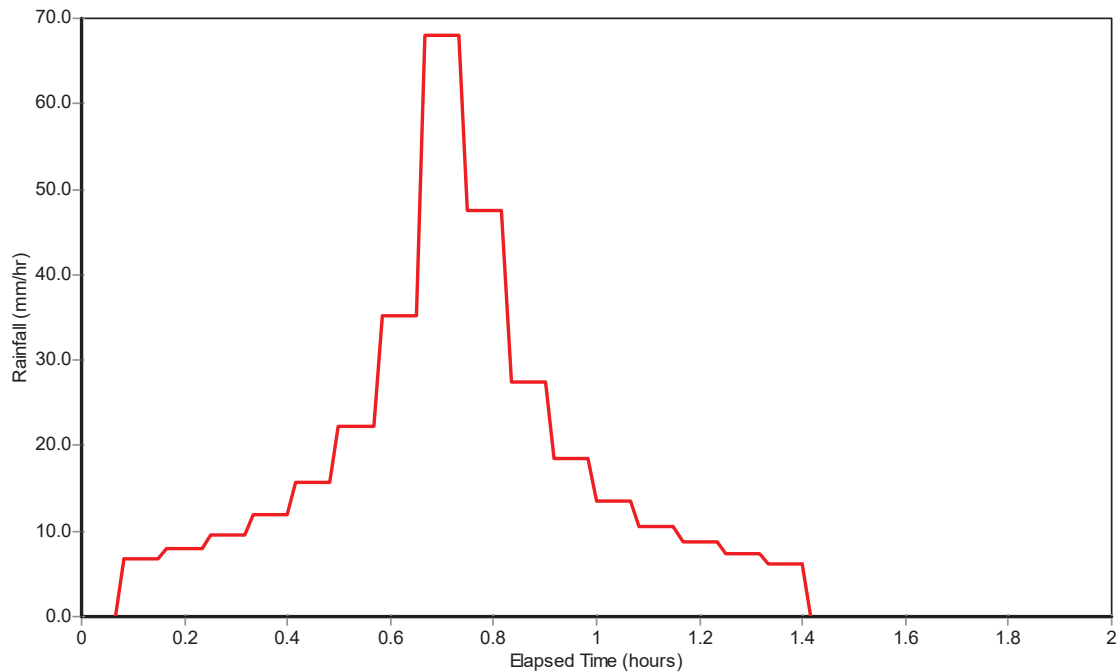
Example USER1 consists of a 175 hectare drainage area divided into 58 subcatchments. As shown in Figure 6.1, the conveyance system contains 59 circular conduits connected to 59 junctions and a single outfall. The elevation profile of the main stem drops almost 19 meters over a distance of 2.5 km (see Figure 6.2). The storm event used for the simulation is depicted in Figure 6.3. The system was solved using a 5 second flow routing time step for a 7 hour duration with a 1 minute reporting time step.



**Figure 6.1. Schematic of the Drainage Network for Example USER1.**



**Figure 6.2. Elevation Profile of the Main Stem of the Drainage Network for Example USER1.**

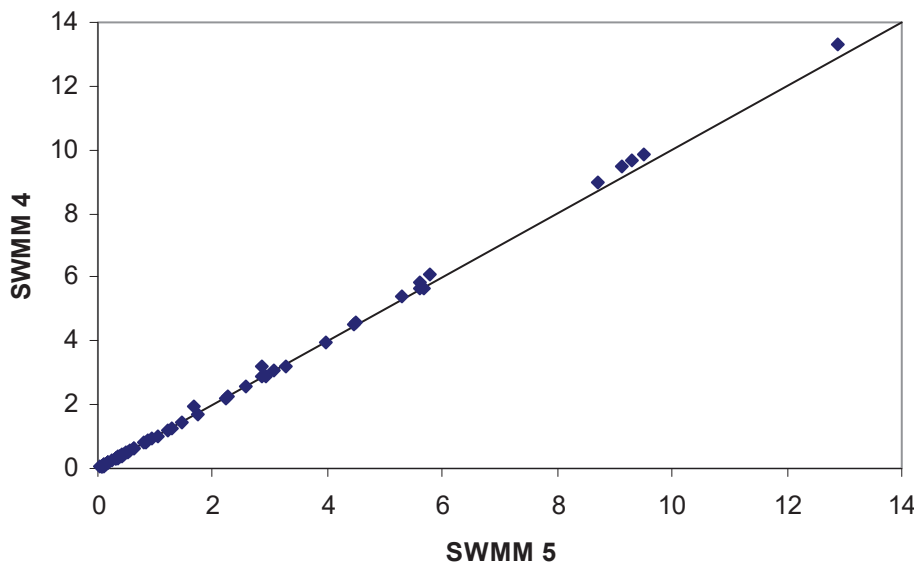


**Figure 6.3. Rainfall Hyetograph for the Design Storm Used for Example USER1.**

Table 6.1 compares the runoff computation made by both SWMM 5 and SWMM 4 for this example. SWMM 5 produces slightly more runoff than does SWMM 4 and has a smaller continuity error. Figure 6.4 compares the peak flows estimated by both SWMM 5 and SWMM 4 for all conduits in this example. SWMM 4 tends to produce slightly higher peaks than SWMM 5 but the average difference is only 2.2%. Comparisons for flows at selected locations are displayed in Figure 6.5. These locations include the outfall and conduits 13, 23, and 64 which are all identified on the system schematic in Figure 6.1. The plots show an almost perfect match between SWMM 4 and 5. Comparisons were also made of water depths at nodes 05y32, 05y36, 05y41, and 05y44 whose locations are also identified in the schematic of Figure 6.1. These results are shown in Figure 6.6. The SWMM 5 depths match those of SWMM 4 very well except for the peak time at node 05y44. The peak SWMM 4 depth here is about a meter higher than that of SWMM 5. However, it appears that this might be a result of some numerical instability in the SWMM 4 solution and not a true difference.

**Table 6.1. System-Wide Runoff Results for Example USER1.**

	<i>SWMM 5</i>	<i>SWMM 4</i>
Precipitation (mm)	26.448	26.360
Evaporation (mm)	0.000	0.000
Infiltration (mm)	7.257	7.243
Runoff (mm)	19.189	18.461
Final Storage (mm)	0.097	0.121
Continuity Error (%)	-0.358	2.028



**Figure 6.4. Comparison of Peak Flows (cms) for All Conduits in Example USER1.**



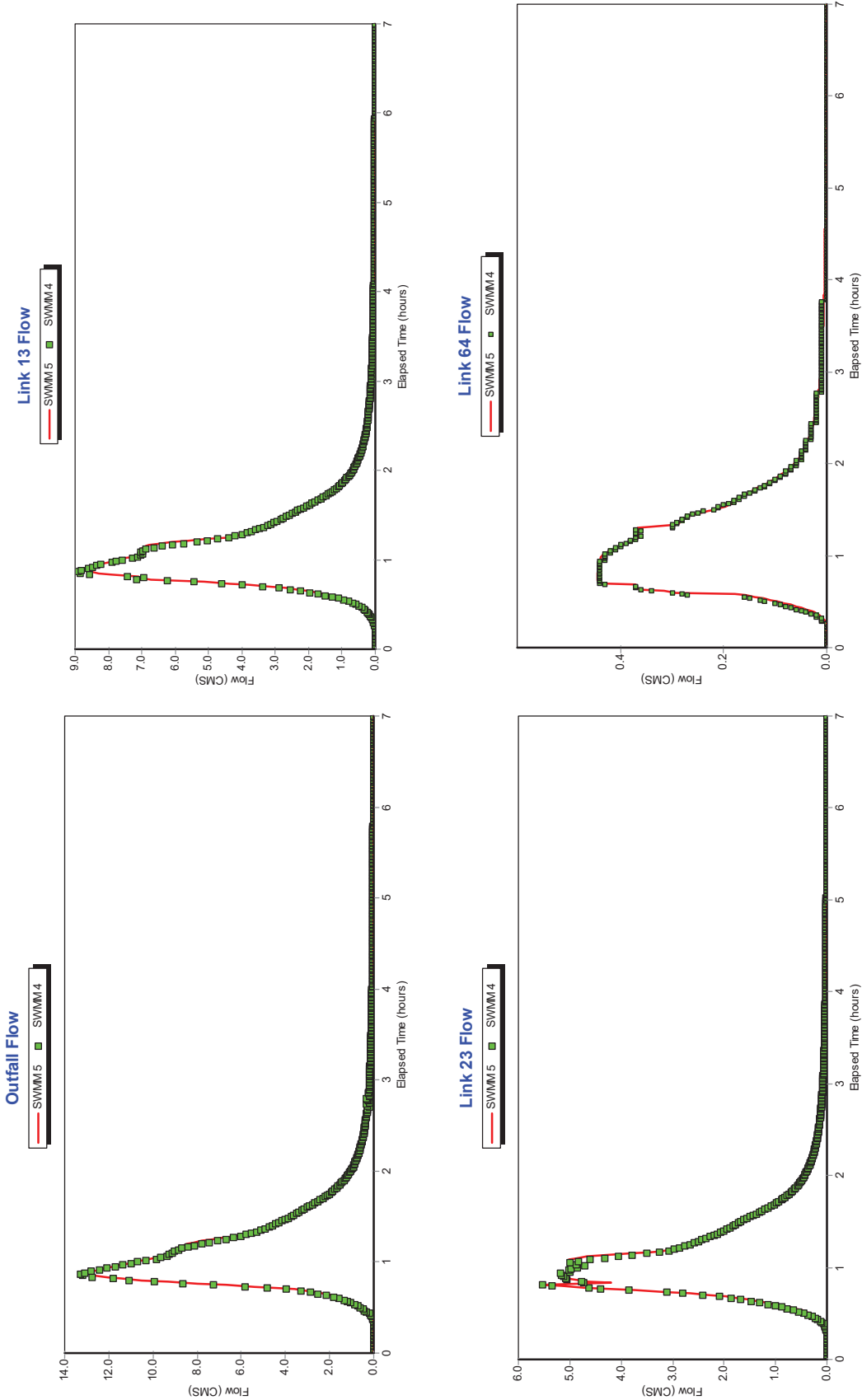


Figure 6.5. Comparison of Flows at Select Locations for Example USER1.

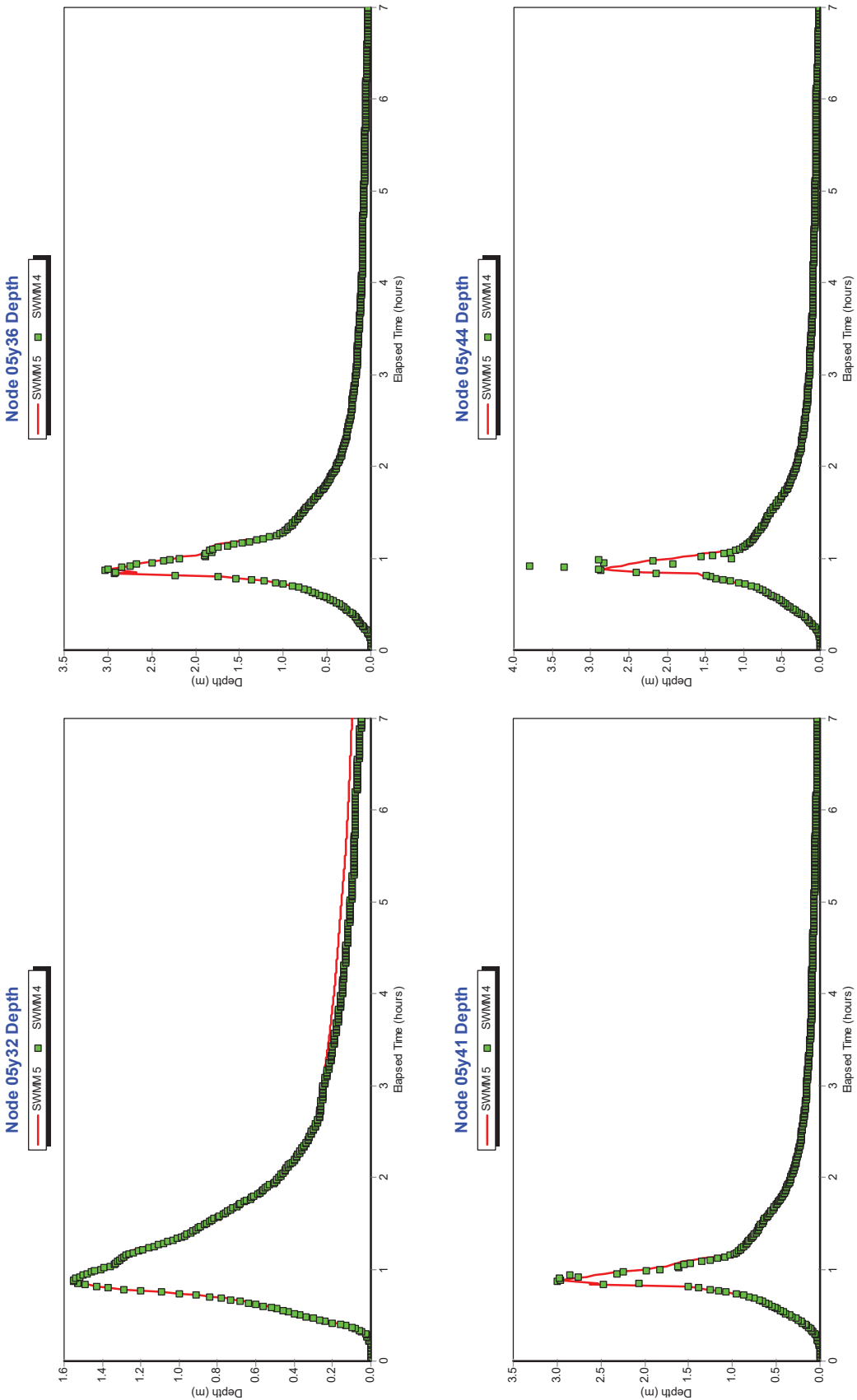
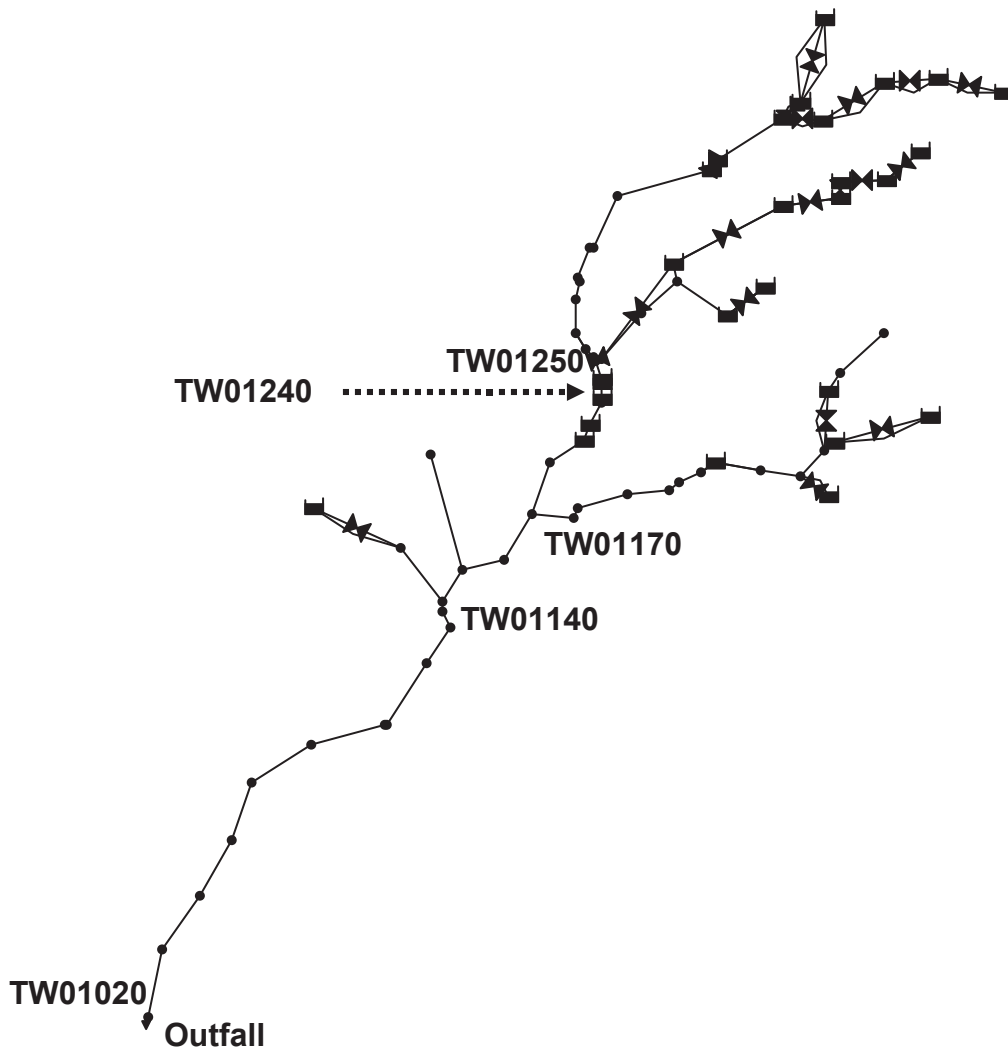


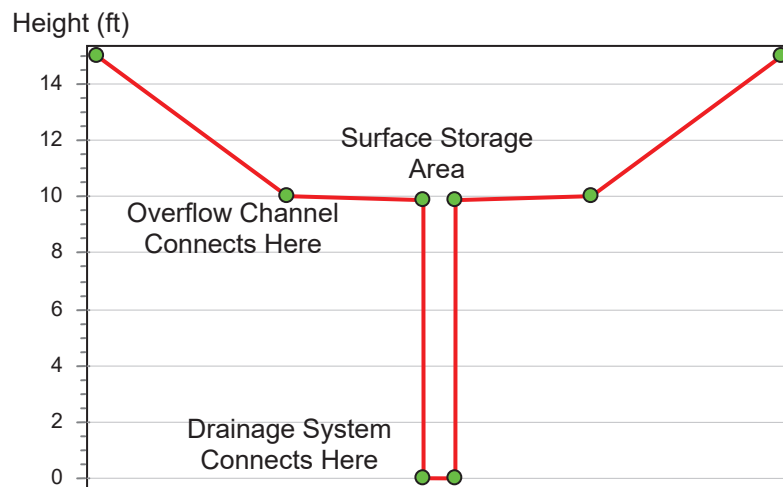
Figure 6.6. Comparison of Water Depths at Select Locations for Example USER1.

Example USER2

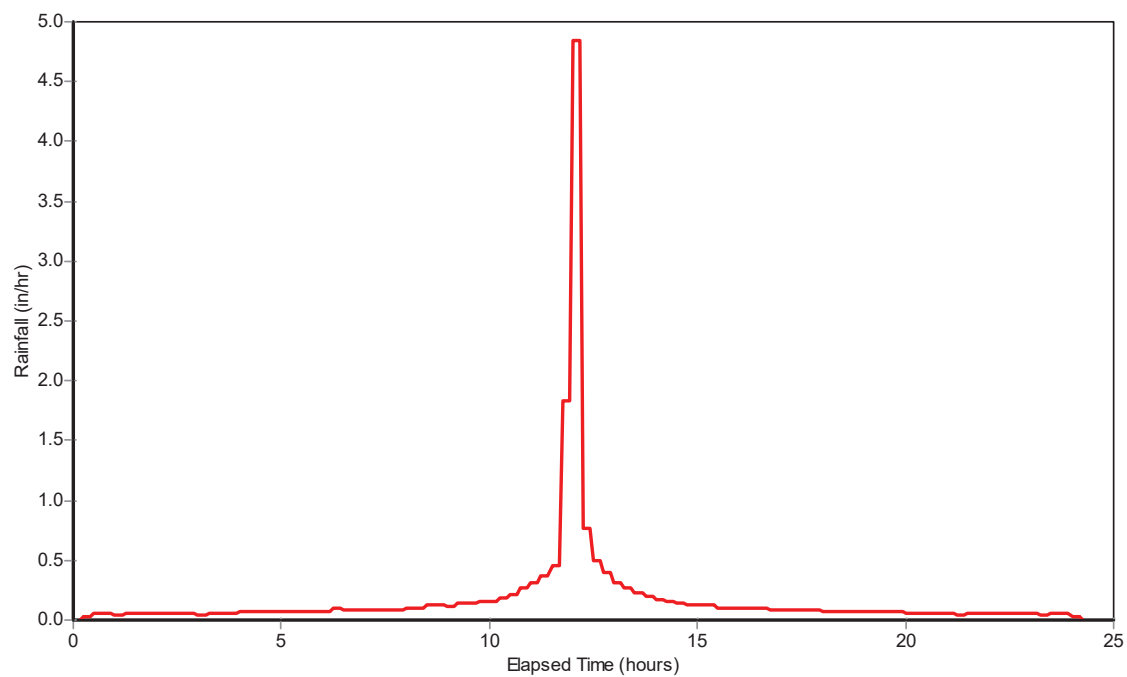
This example models a 3.5 square mile drainage area broken into 17 subcatchments. The conveyance system, shown in Figure 6.6, contains 83 conduits that are a mixture of irregular natural channels, open channels and closed pipes of various shapes. There are 28 storage units along with 19 weirs. Many of these storage units and weirs represent junctions with above-ground surface storage coupled with road overflows. A typical arrangement is shown in Figure 6.7. A 4.4 inch, 24-hour design storm, depicted in Figure 6.8, was applied to the system over a 36-hour simulation period using a 5 second flow routing time step and a 5 minute reporting time step.



**Figure 6.6. Schematic of the Drainage Network for Example USER2.**



**Figure 6.7. Configuration of Surface Storage Units with Road Overflows Used Throughout Example USER2.**



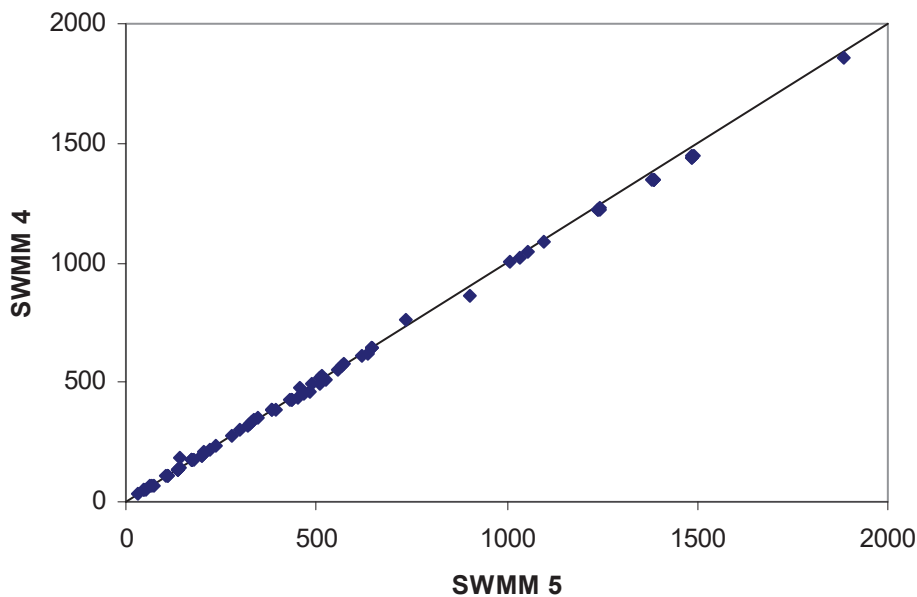
**Figure 6.8. Rainfall Hyetograph for the Design Storm Used for Example USER2.**



Table 6.2 compares the runoff computations between the two programs. The results are almost identical. Figure 6.9 compares the peak flows computed by the two programs in the system's conduits. The agreement is very good with the average difference being less than 2 percent. Figure 6.10 compares flows produced by the two programs at the four locations pictured in Figure 6.6. Figure 6.11 does the same for node water depths at these same locations. Finally, Figure 6.12 depicts the behavior of the two programs at one of the surface storage – road overflow locations, TW01240.

**Table 6.2. System-Wide Runoff Results for Example USER2**

	<i>SWMM 5</i>	<i>SWMM 4</i>
Precipitation (in)	4.391	4.391
Evaporation (in)	0.014	0.014
Infiltration (in)	1.161	1.162
Runoff (in)	3.125	3.123
Final Storage (in)	0.091	0.091



**Figure 6.9. Comparison of Peak Flows (cfs) for the Conduits in Example USER2.**

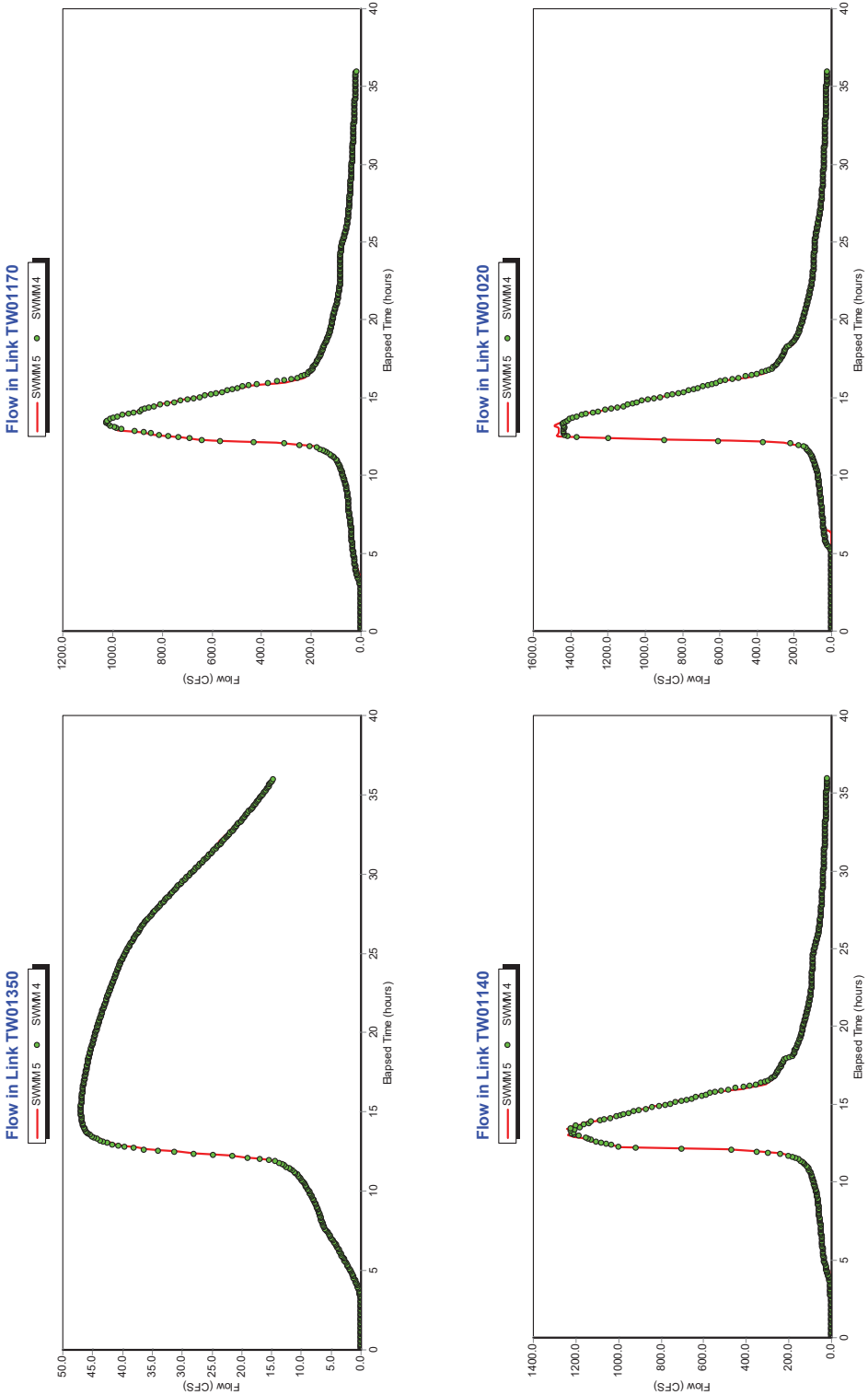


Figure 6.10. Flow Comparisons for Example USER2 at Selected Locations

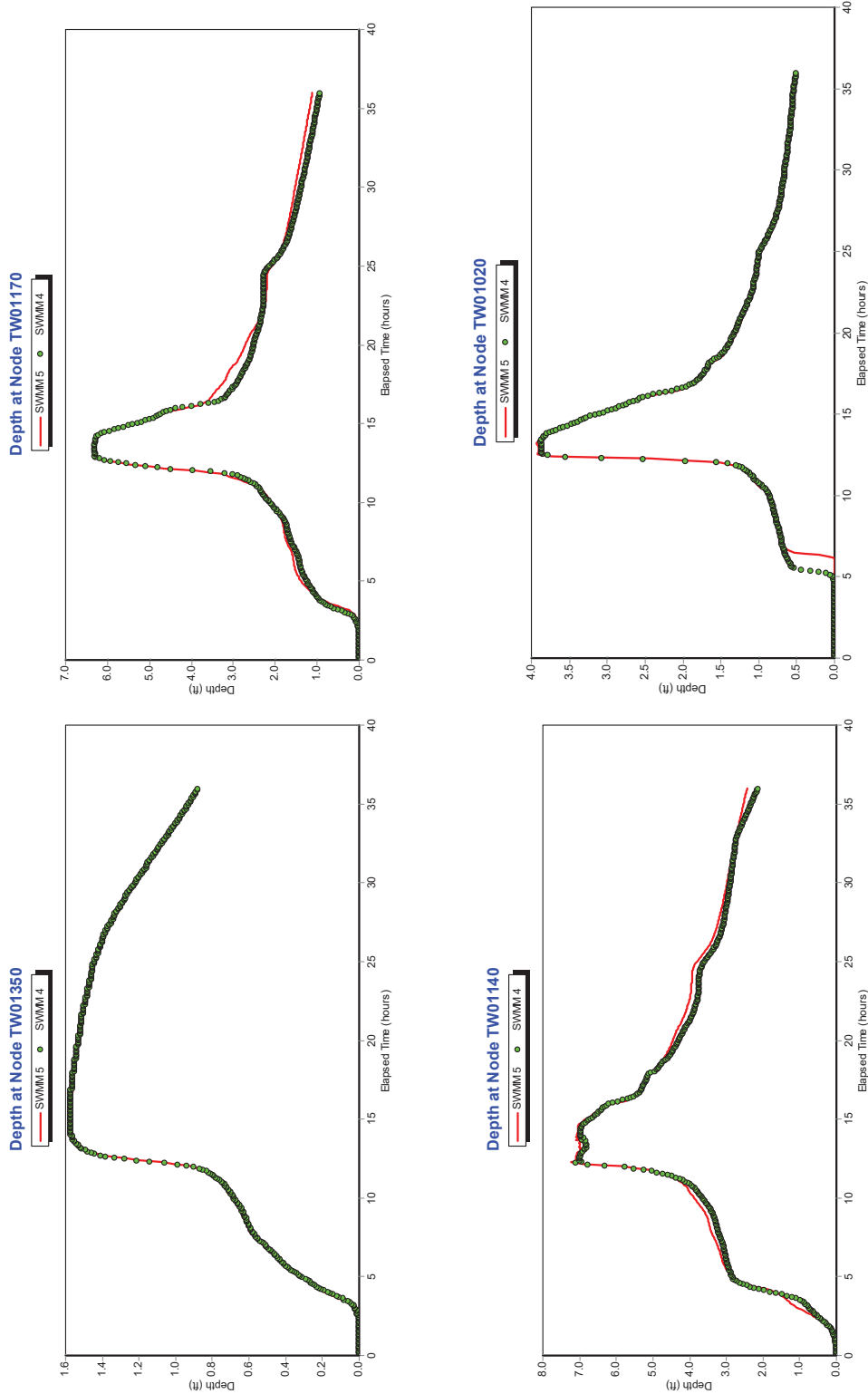
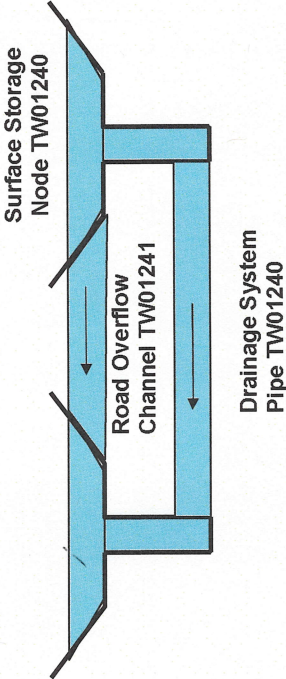
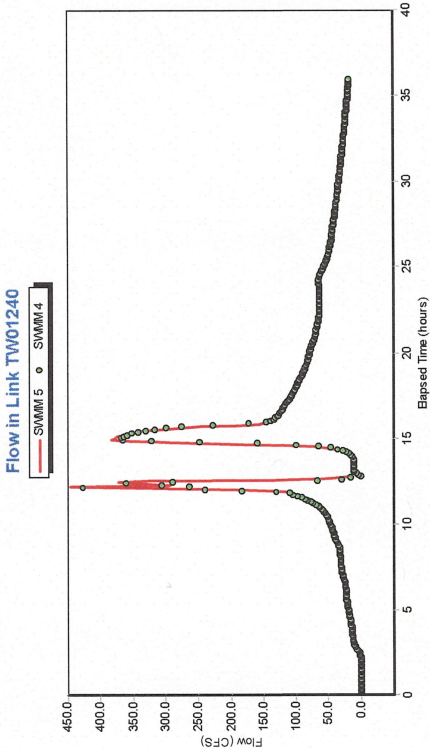


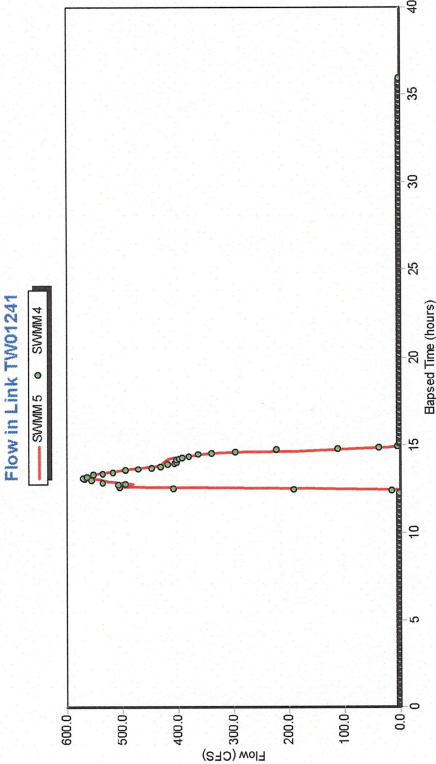
Figure 6.11. Depth Comparisons for Selected Nodes in Example USER2.



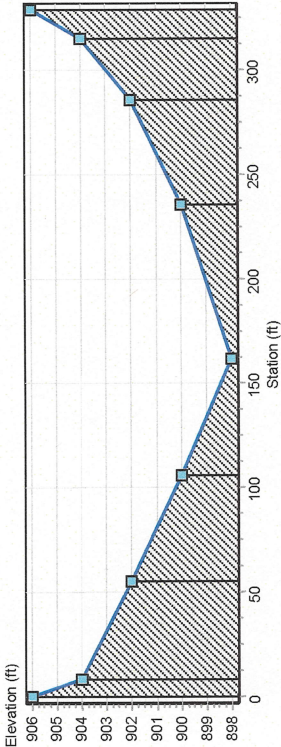
A. Schematic of Node – Link Arrangement



C. Flow in Main Drainage Pipe



B. Cross-Section Geometry of Overflow Channel



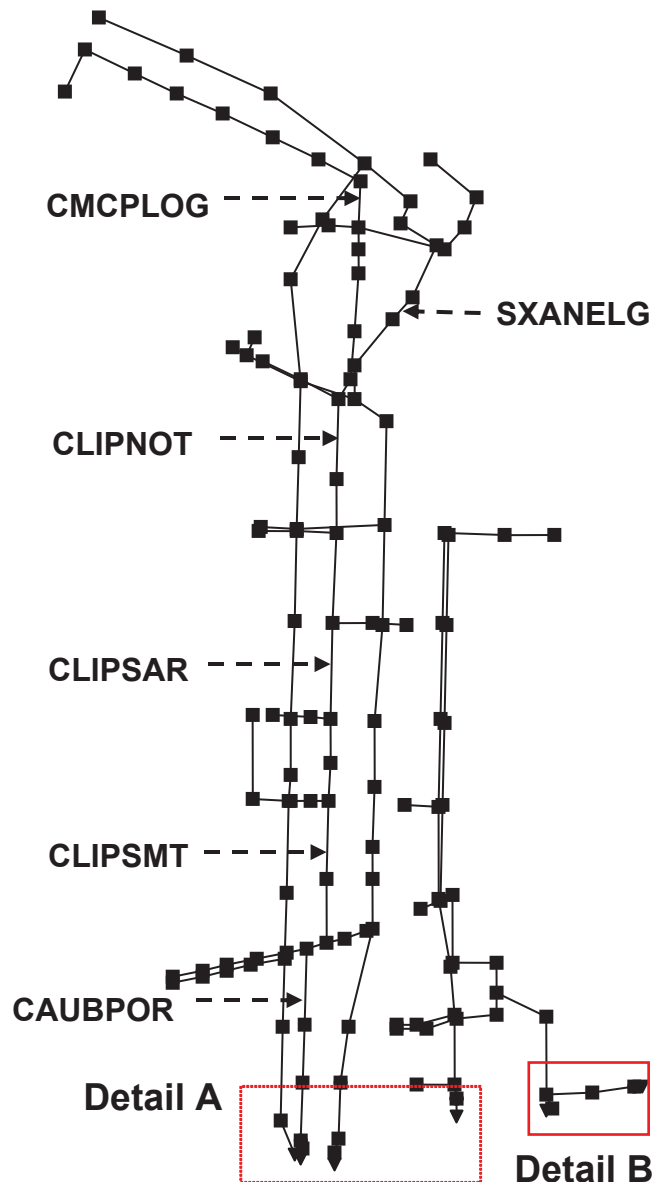
D. Flow in Overflow Channel

Figure 6.12. Comparison of Surface Storage – Road Overflow Arrangement at Location TW01240

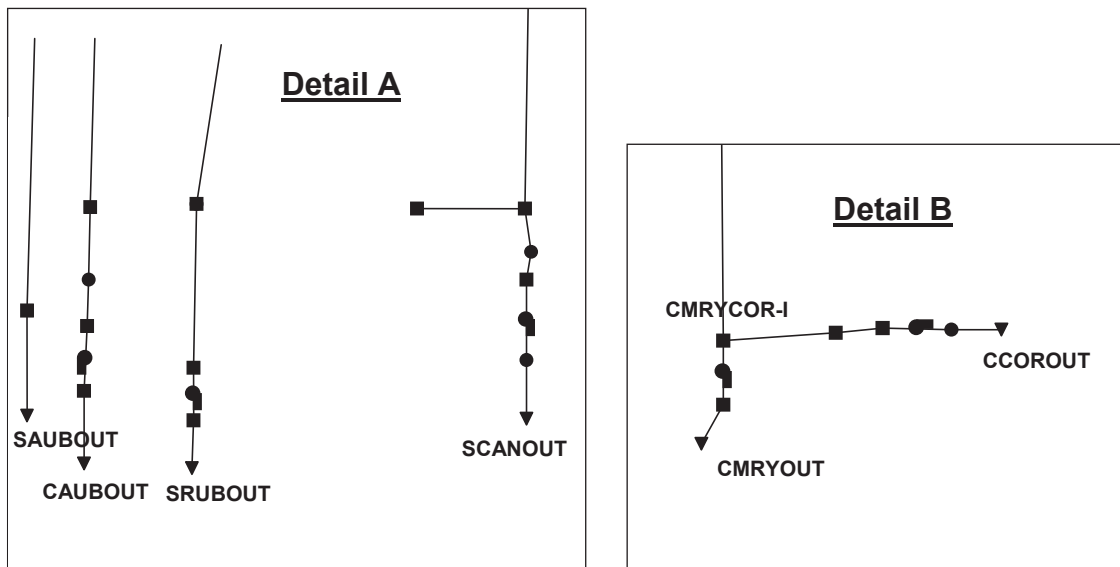


Example USER3

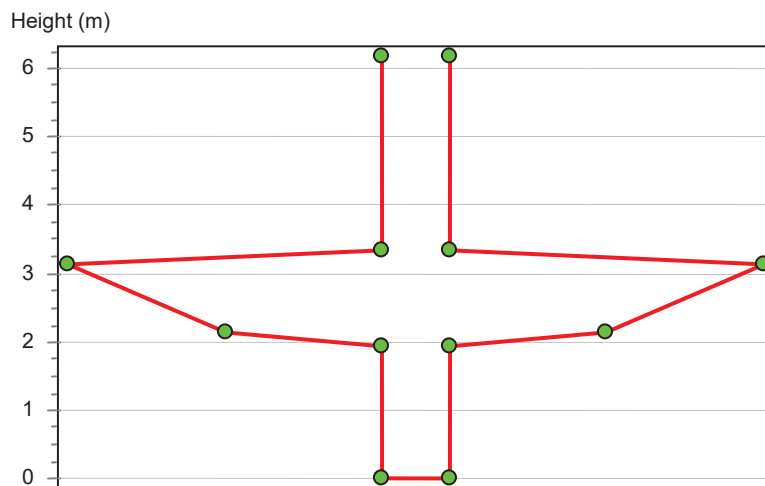
The USER3 data set is a combined sewer system containing 168 subcatchments that encompasses an area of 6 square kilometers. The network schematic is shown in Figure 6.13. The system contains 134 pipes which have mostly circular or egg-shaped cross sections. Of the 141 nodes in the network, 6 are outfalls (see Figure 6.14 for a detail drawing) and 130 are manhole or catch basin structures that are represented as small storage units (see Figure 6.15 for a representative profile). There are 5 pumps in the model that discharge directly to the system's outfalls. The 3-hour, 42 mm design storm used in the simulation is shown in Figure 6.16. This system was analyzed using a 0.5 second routing step, a 1 minute reporting time step and a 6 hour total duration.



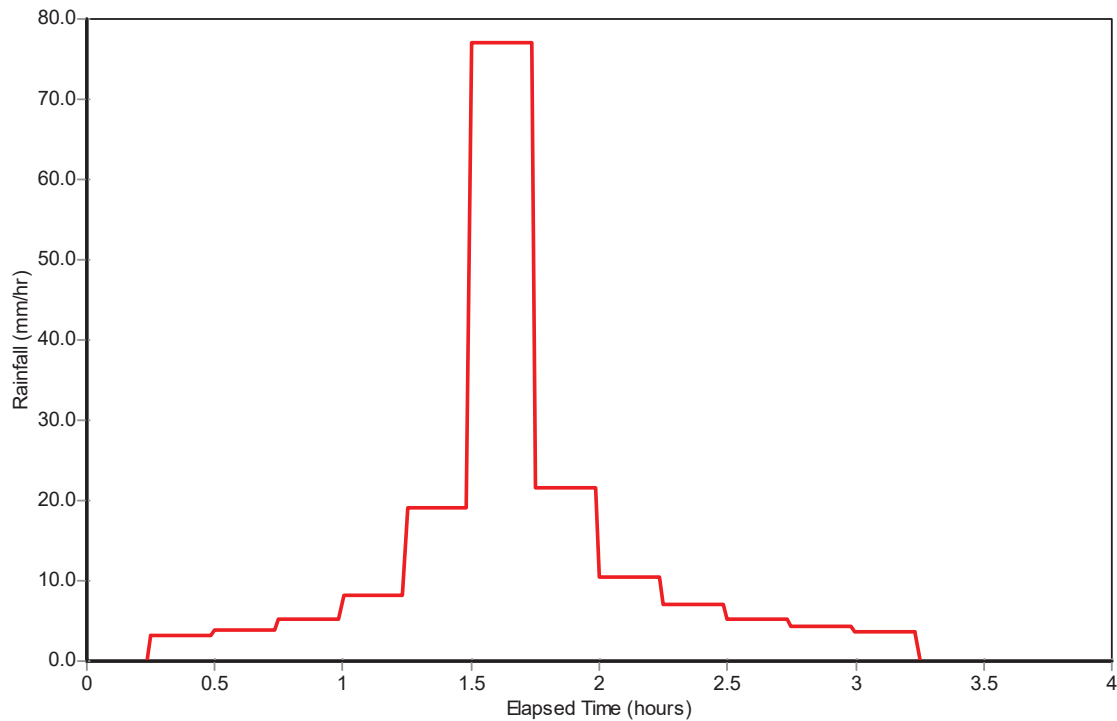
**Figure 6.13. Schematic of the Drainage Network for Example USER3.**



**Figure 6.14. Detailed Schematics of the Outfalls for Example USER3.**



**Figure 6.15. Profile View of a Typical Manhole Structure in Example USER3.**



**Figure 6.16. Rainfall Hyetograph for the Design Storm Used for Example USER3.**

Table 6.2 shows the overall results of the runoff calculations. Both programs produce essentially the same amounts of runoff. Table 6.3 compares the flow balances for the routing calculations and shows a reasonable match between the two programs. The peak flows in each conduit are compared in Figure 6.17. SWMM 4 is clearly producing higher peak flows in many of the conduits than is SWMM 5 in this example. Flow comparisons for the system's outfalls are shown in Figures 6.18 and 6.19. The general shapes of these hydrographs are similar, but SWMM 4 tends to produce a higher peak flow. Figure 6.20 compares flows in several of the pipes shown along the main trunk line between locations CMCPLG and CAUBPOR. The SWMM 4 results shown in this figure suggest that numerical instabilities might be causing the higher peak flows as compared with SWMM 5.

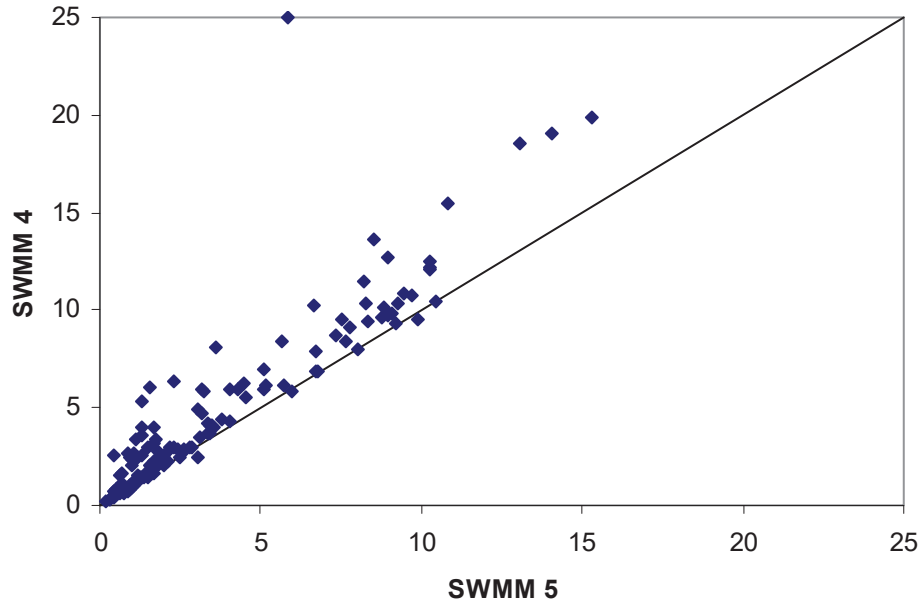
One possible cause of SWMM 4's stability problem might be the shape of the manhole storage units used throughout the model. Figure 6.21 compares the SWMM 4 and 5 flow results for conduit SXANELG using the original set of storage nodes along its trunk line while Figure 6.22 does the same for a simulation where these nodes were converted into simple junctions. Note the reduced amount of instability in the SWMM 4 solution and the closer match it gives to the SWMM 5 hydrograph. Finally, Figure 6.23 gives evidence of how SWMM 5 is able to maintain the stability of its solution even when the flow routing time step is raised from 0.5 to 5 seconds.

**Table 6.2. System-Wide Water Balances for Runoff in Example USER3 (all quantities are in millimeters).**

<i>System Total</i>	<i>SWMM 5</i>	<i>SWMM 4</i>
Precipitation (mm)	42.20	42.20
Evaporation (mm)	0.54	0.53
Infiltration (mm)	17.89	17.92
Surface Runoff (mm)	23.06	23.00

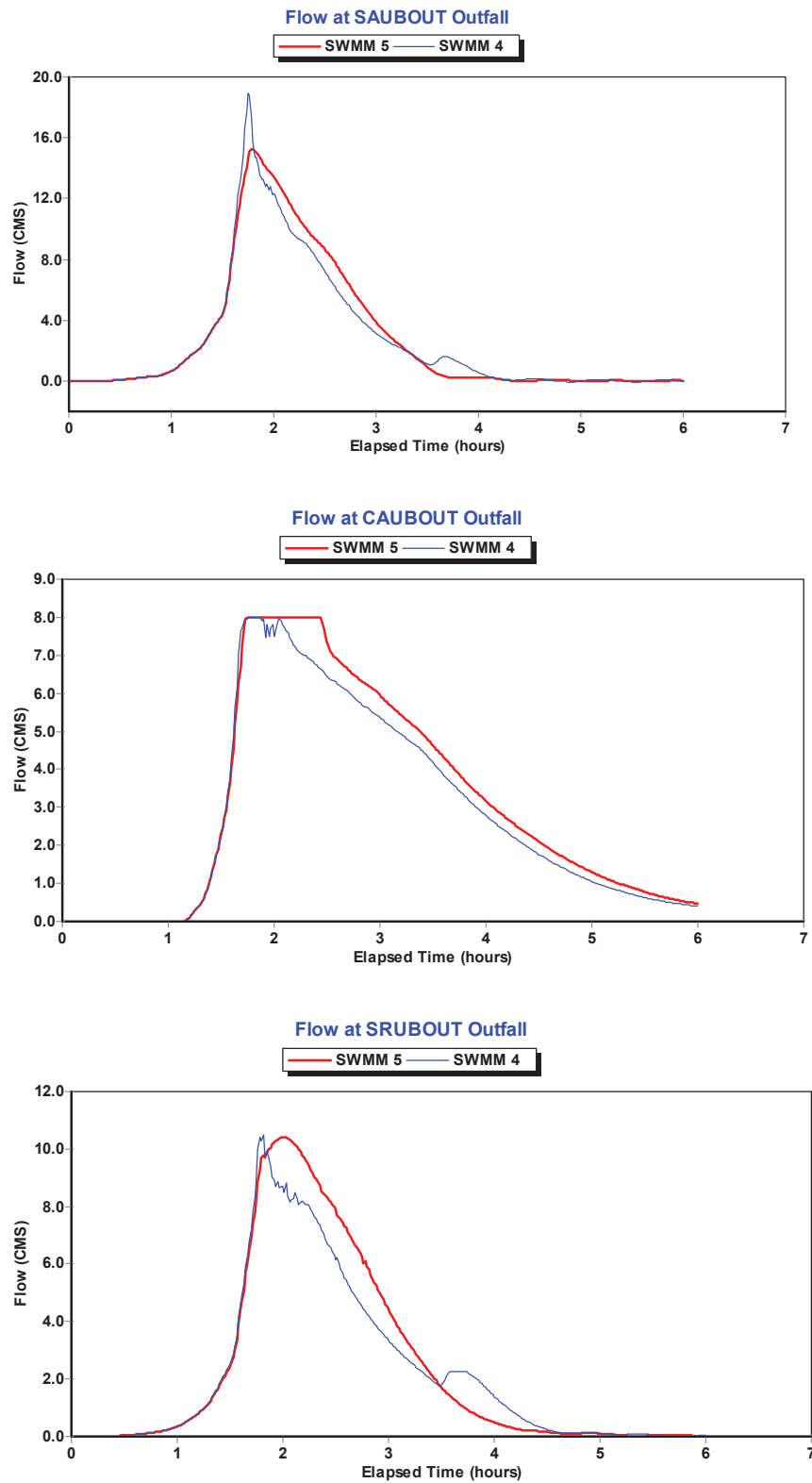
**Table 6.3. System-Wide Water Balances for Flow Routing in Example USER3 (all quantities are in thousands of cubic meters).**

<i>System Total</i>	<i>SWMM 5</i>	<i>SWMM 4</i>
Initial Storage	23.0	23.1
Total Inflow	290.0	289.6
Total Outflow	287.7	285.7
Final Storage	25.1	24.9

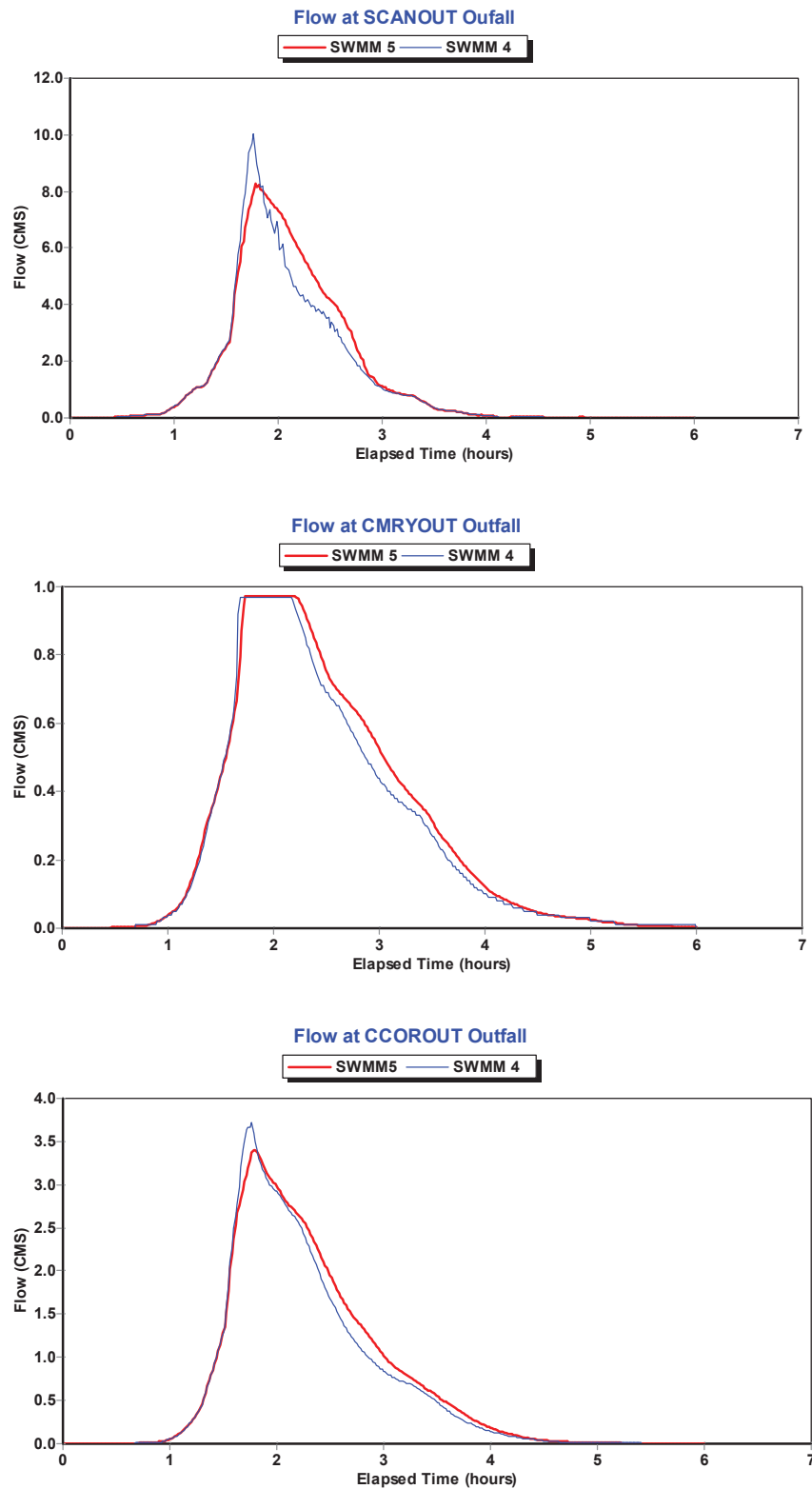


**Figure 6.17. Comparison of Peak Flows (cfs) for the Conduits in Example USER3.**





**Figure 6.18. Comparisons of Flows at Outfalls SAUBOUT, CAUBOUT, AND SRUBOUT for Example USER3.**



**Figure 6.19. Comparisons of Flows at Outfalls SCANOUT, CMRYOUT, and CCOROUT for Example USER3.**

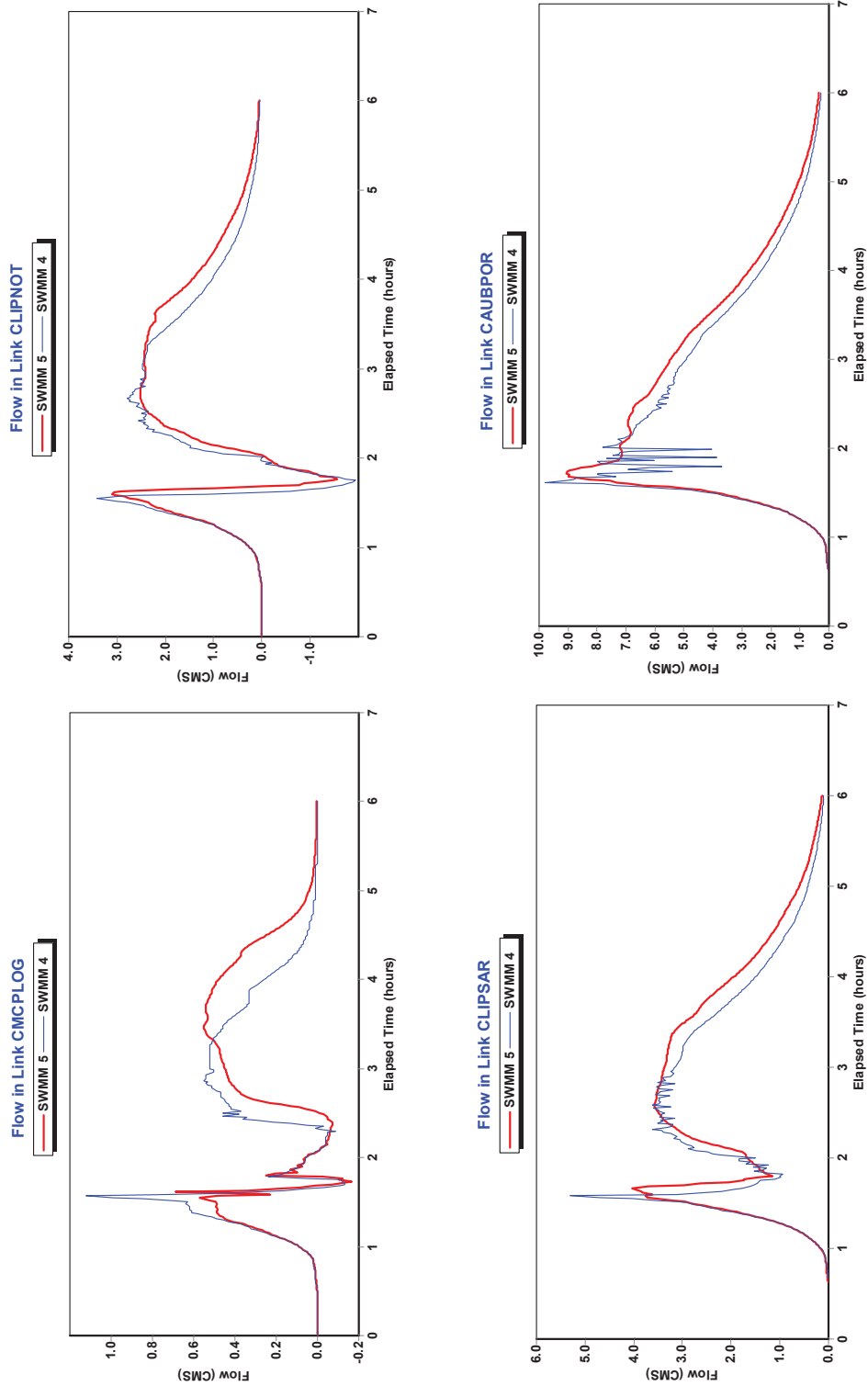
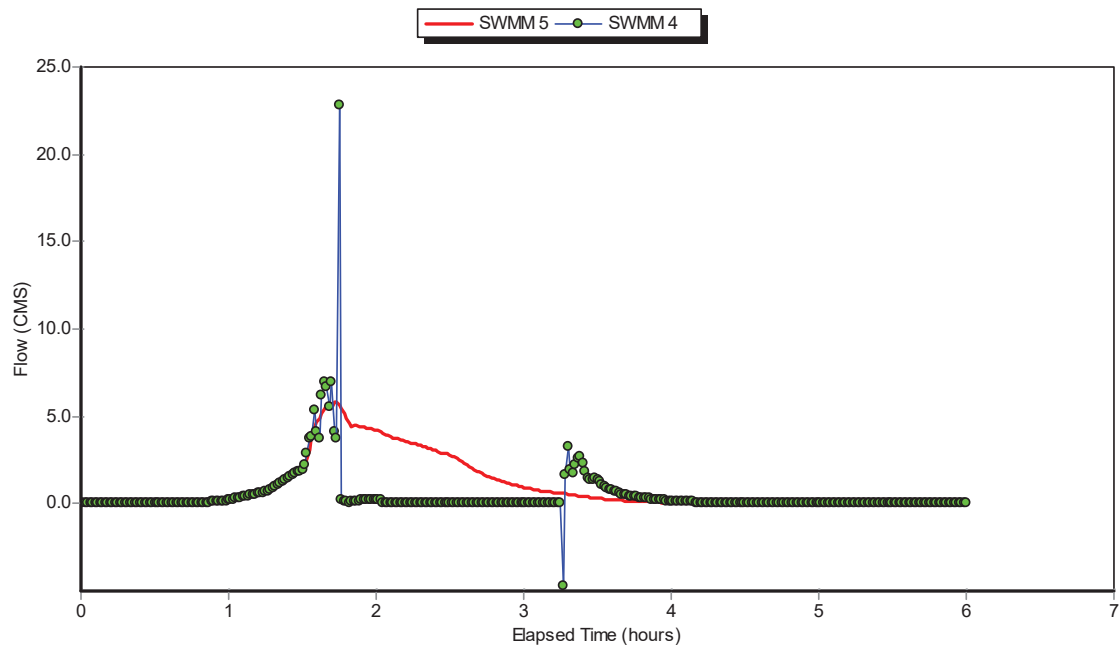
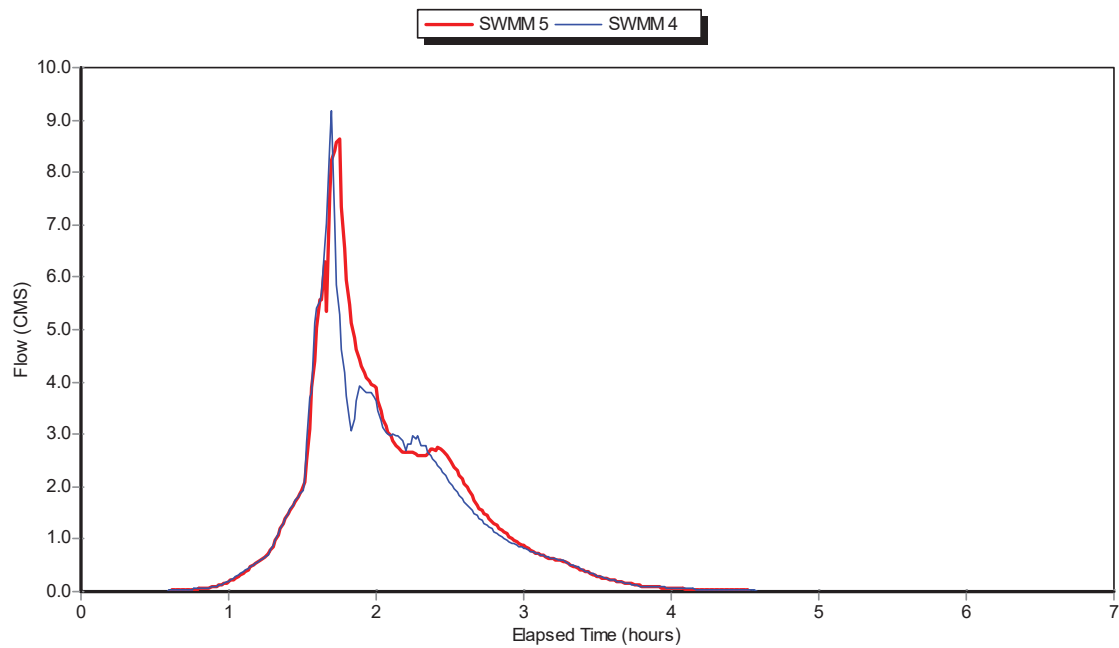


Figure 6.20. Comparison of Flows Along a Main Trunk Line of Example USER3

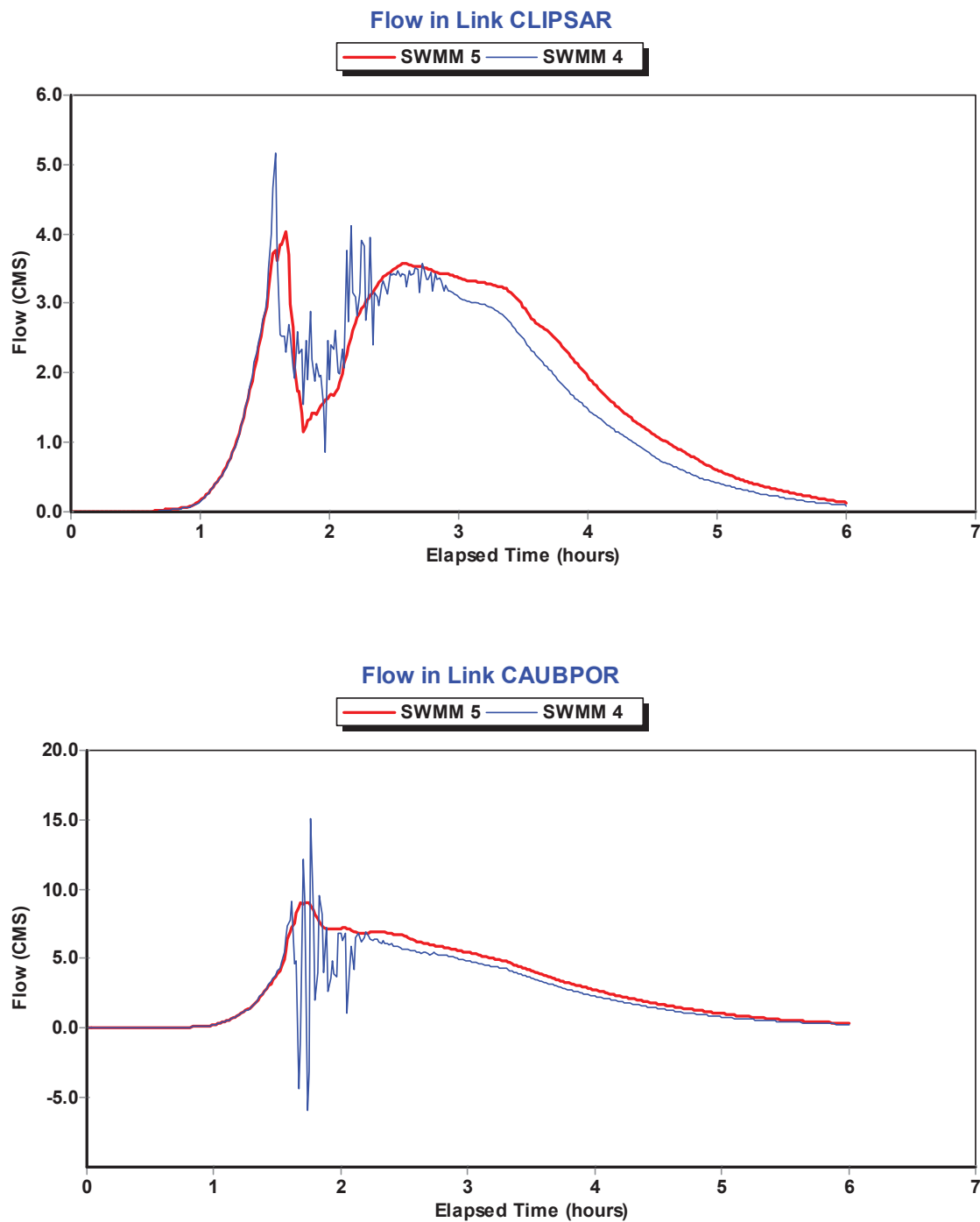


**Figure 6.21. Flow in Conduit SXANELG in the Original Model for Example USER3.**



**Figure 6.22. Flow in Conduit SXANELG After Converting Storage Nodes to Junctions Along its Trunk Line**

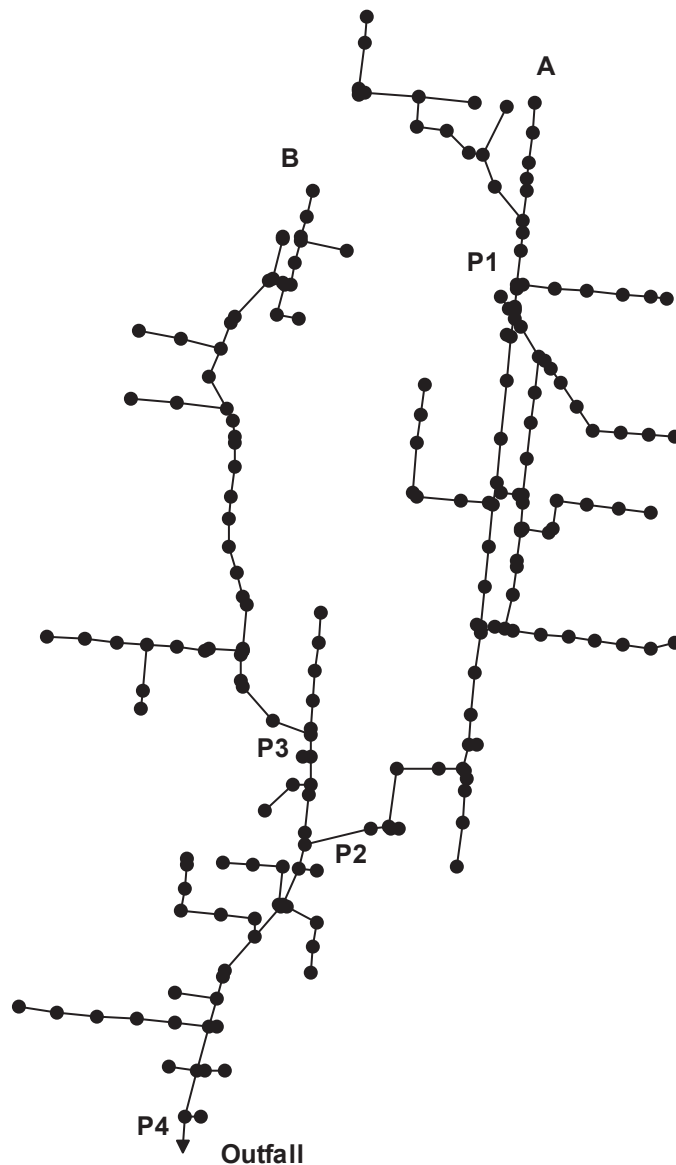




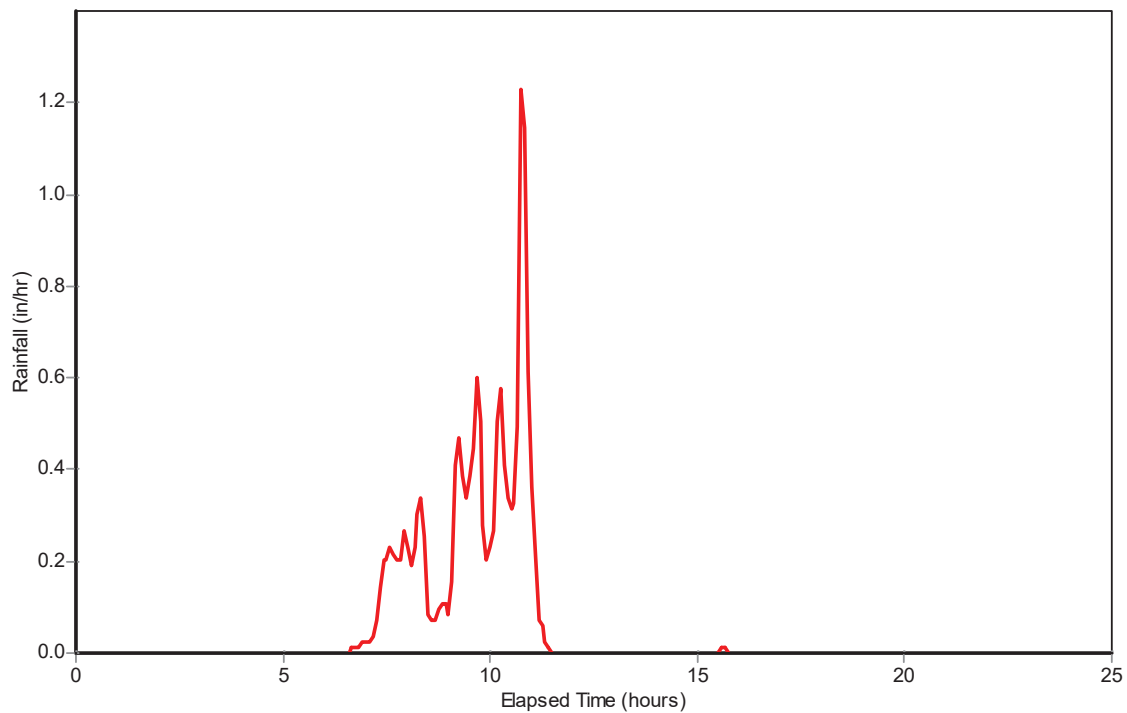
**Figure 6.23. Flow Comparisons for Selected Conduits of Example USER3 for a 5 Second Routing Time Step**

### Example USER4

Example USER4 is a combined sewer system covering 528 acres divided into 112 subcatchments. Its schematic is shown in Figure 6.24. There are 209 circular conduits connecting 209 junctions and one outfall. Each subcatchment contributes both a dry weather sanitary flow (modeled as an external time series inflow applied to the subcatchment's outlet node) as well as a wet weather flow produced for the storm shown in Figure 6.25. The basin is fairly steep as shown by the profiles plotted in Figure 6.26. The system was analyzed over a 24 hour simulation period using a 5 second flow routing time step and a 5 minute reporting time step.

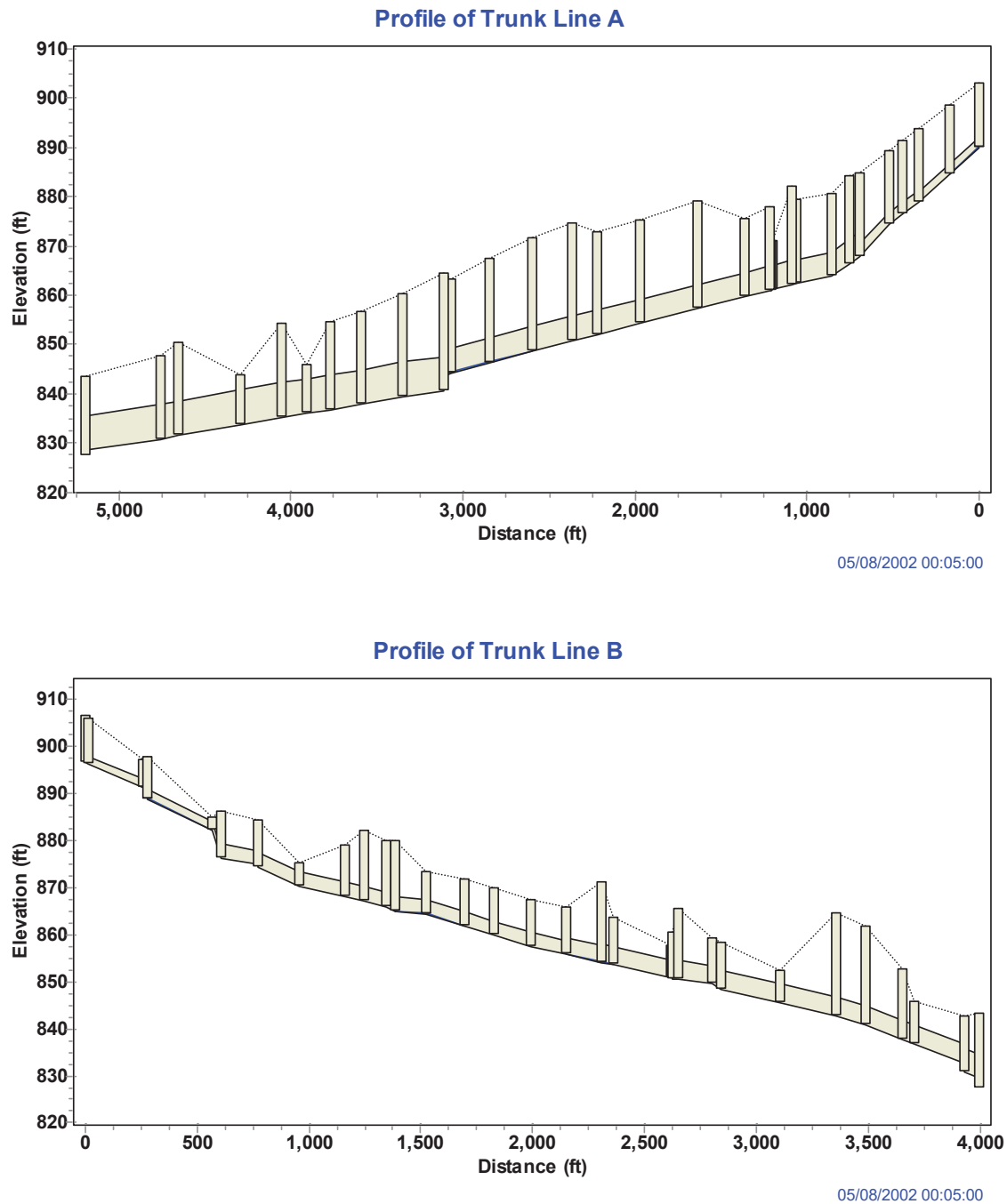


**Figure 6.24. Schematic of the Drainage System for Example USER4.**



**Figure 6.25. Rainfall Hyetograph for Example USER4.**

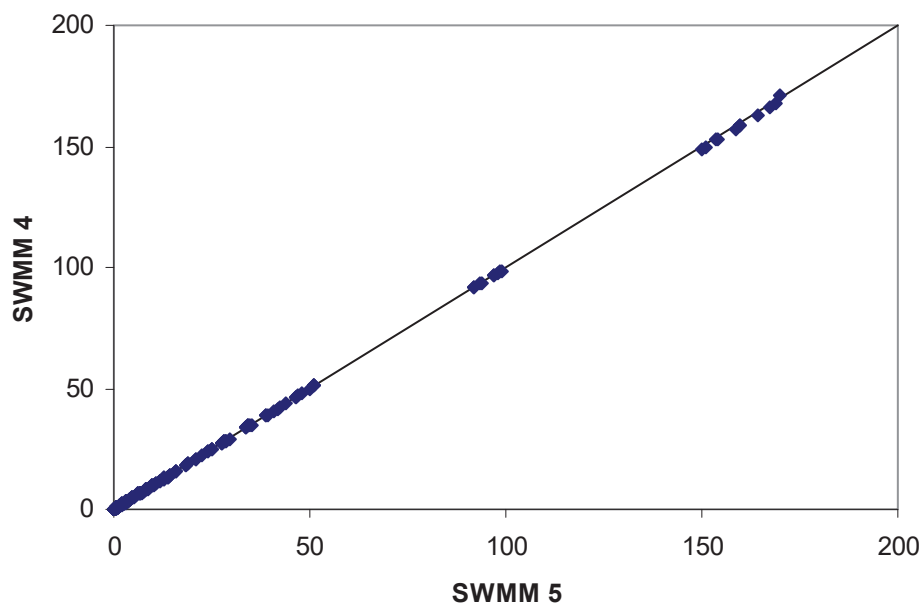
The runoff calculations for both SWMM 4 and 5 are summarized in Table 6.4. Both programs produce essentially the same amount of runoff. The peak flows in each conduit are compared in Figure 6.27. Again, there is excellent agreement between the two programs. Flow hydrographs for conduits P1, P2, P3 and P4 are compared in Figure 6.28 while water depths at the upstream end of these conduits are compared in Figure 6.29. Note how these results reflect the steep-sloped nature of the drainage system, wherein the runoff hydrographs entering the system are essentially translated downstream with little delay or change in shape.



**Figure 6.26. Elevation Profiles of Trunk Lines A and B for Example USER4.**

**Table 6.4. System-Wide Water Balances for Runoff in Example USER4 (all quantities are in inches).**

<i>System Total</i>	<i>SWMM 5</i>	<i>SWMM 4</i>
Precipitation	1.29	1.28
Evaporation	0.04	0.06
Infiltration	0.78	0.77
Surface Runoff	0.46	0.45
Final Surface Storage	0.02	0.00



**Figure 6.27. Comparison of Peak Flows (cfs) for the Conduits in Example USER4.**



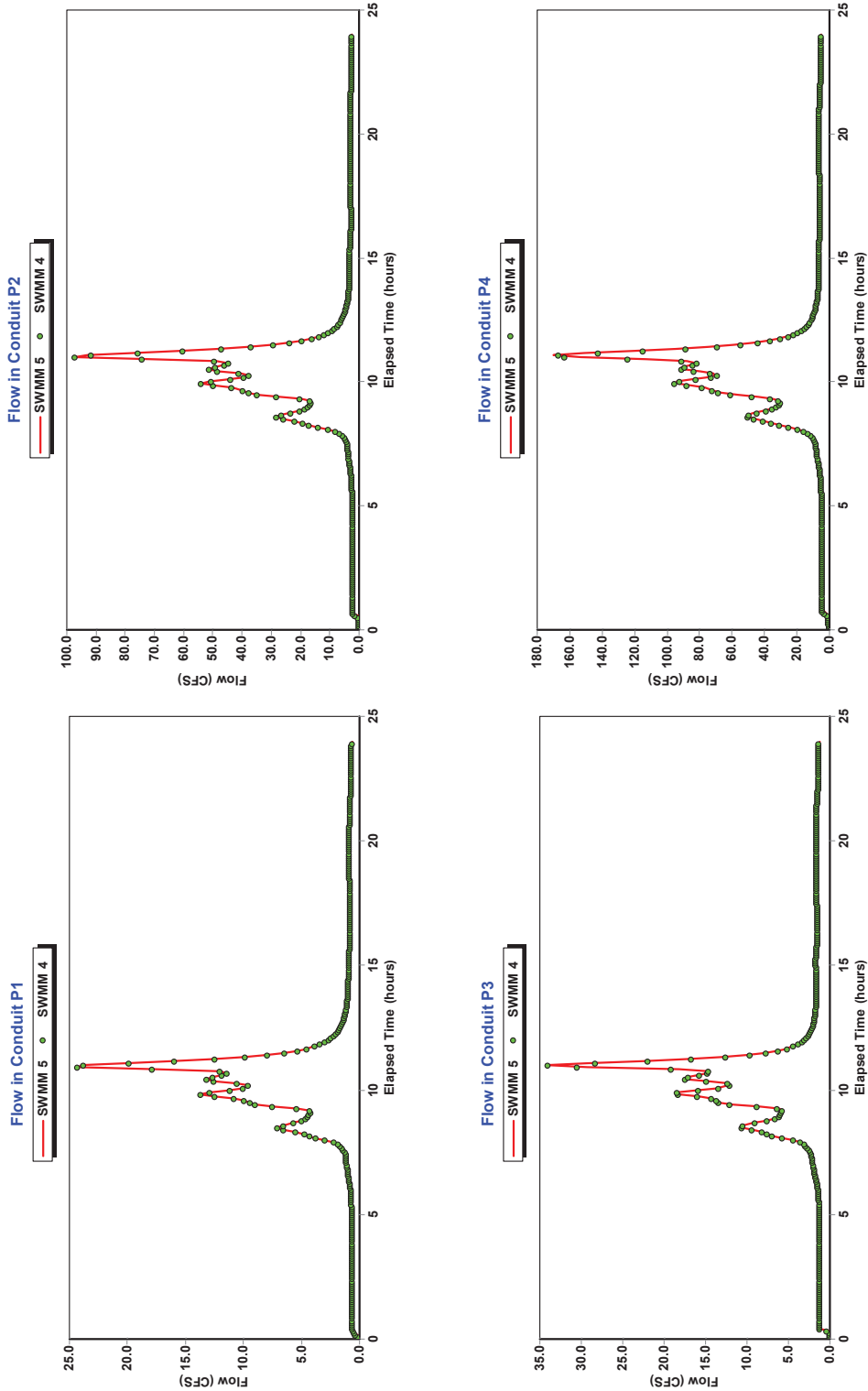


Figure 6.28. Comparison of Flows in Selected Conduits for Example USER4.

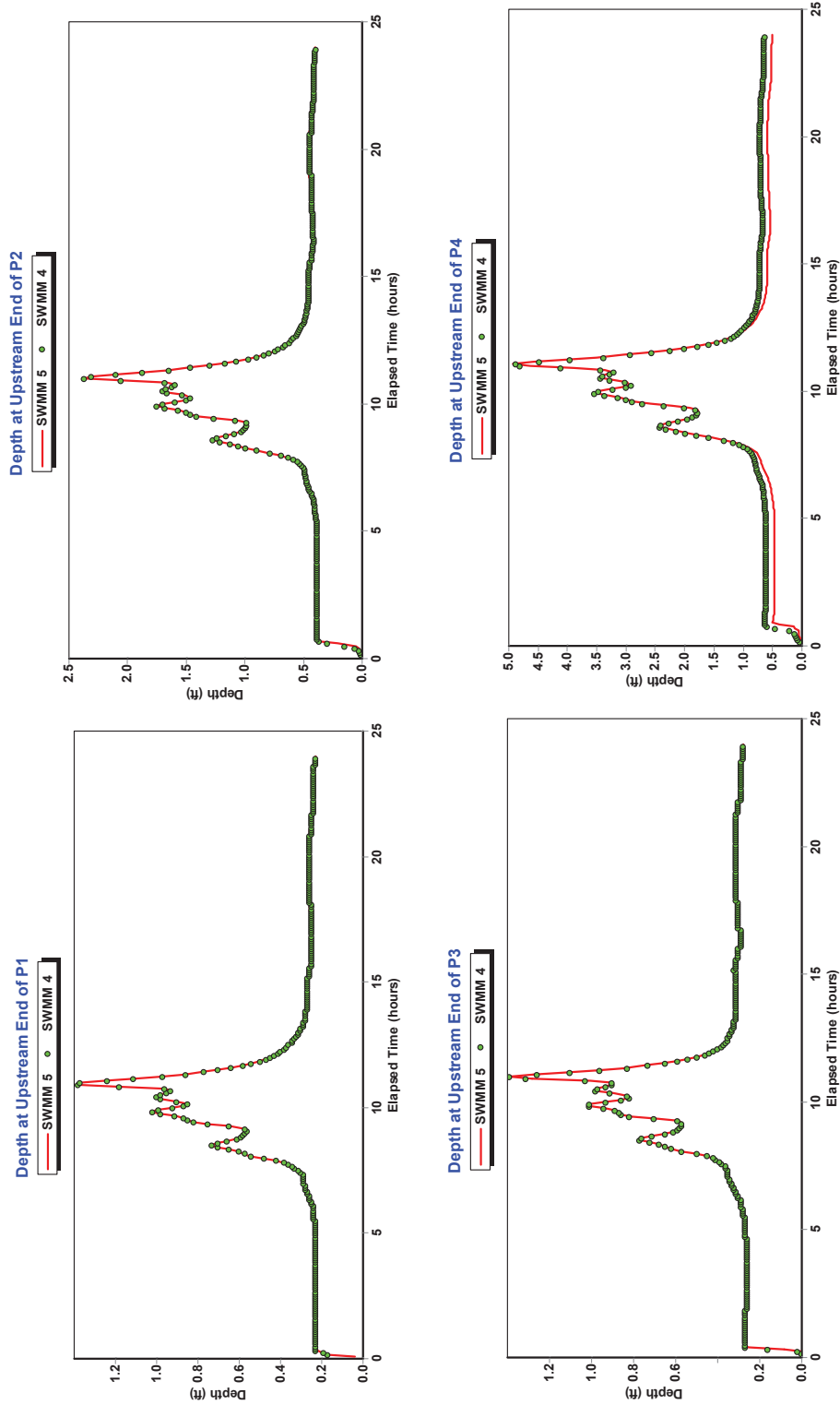
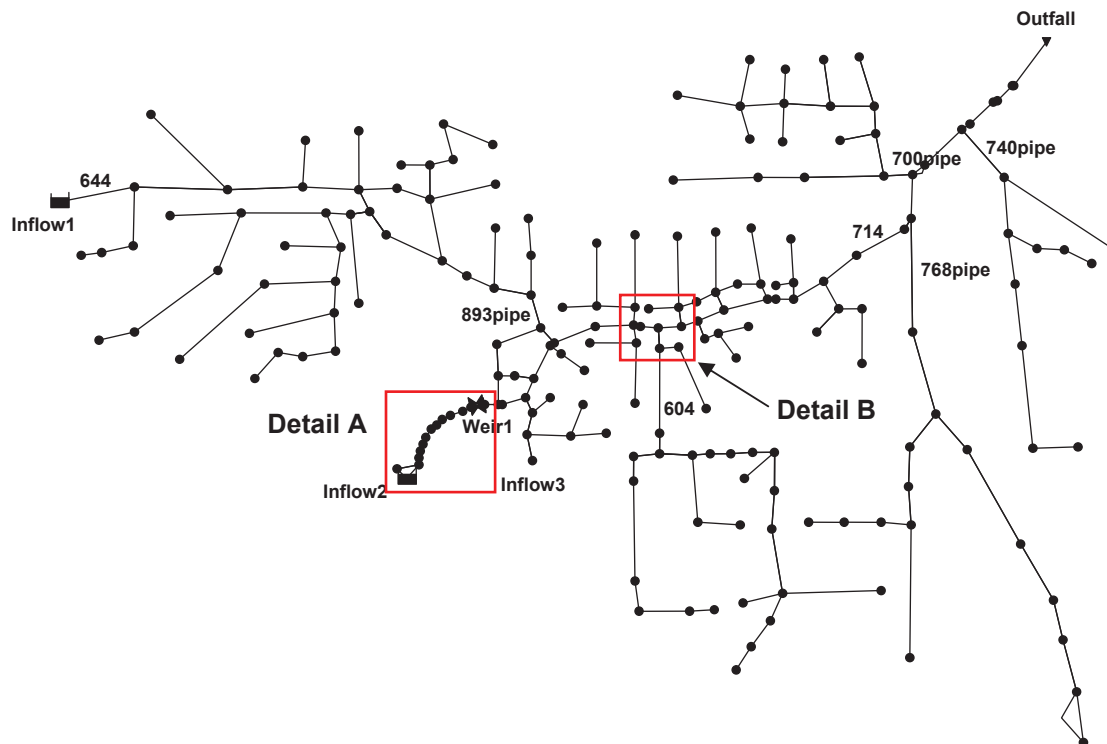


Figure 6.29. Comparison of Water Depths at the Upstream Nodes of Selected Conduits for Example USER4.

### Example User5

The final user-supplied example, USER5, models a 1,177 acre watershed using 145 subcatchments draining to 273 conduits, the majority of which are irregular natural channels. The drainage system schematic is shown in Figure 6.30. The design storm event is displayed in Figure 6.31. In addition, the system receives inflows at 3 locations from upper portions of the watershed that were modeled separately. The inflow hydrographs for these locations are shown in Figure 6.32. The system was analyzed over a 4 hour period using a 1 minute reporting time step and a 0.5 second flow routing time step. Larger routing time steps caused SWMM 4 (but not 5) to become highly unstable.



**Figure 6.30. Drainage System Schematic for Example USER5.**

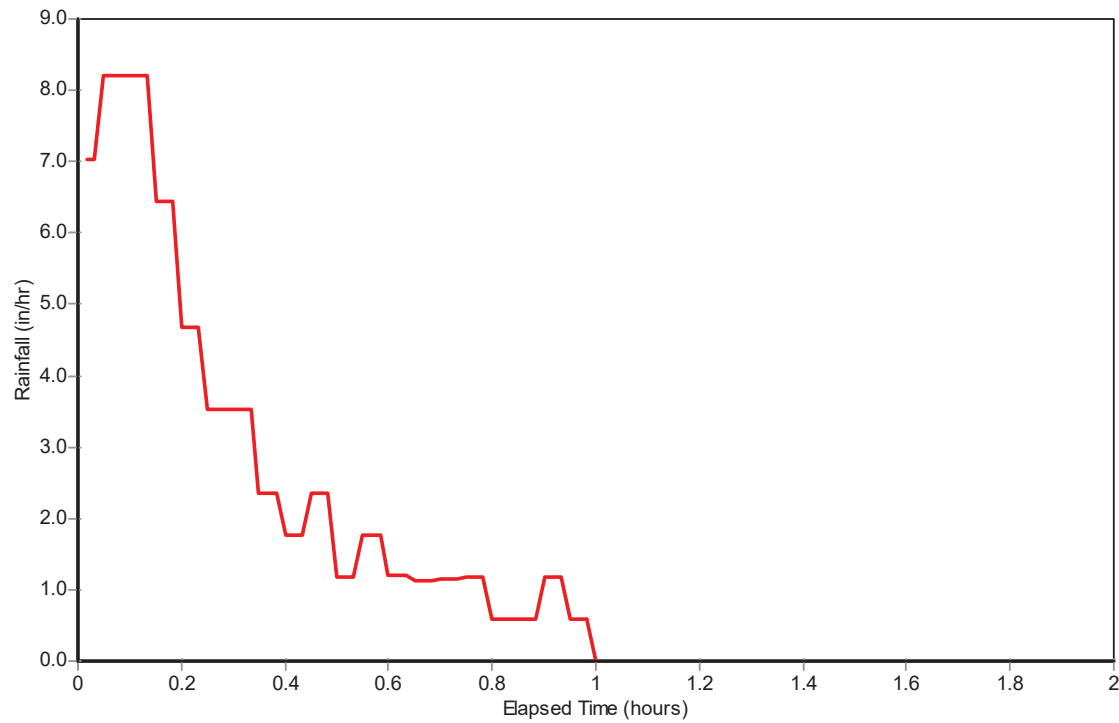


Figure 6.31. Design Storm Hyetograph Used in Example USER5.

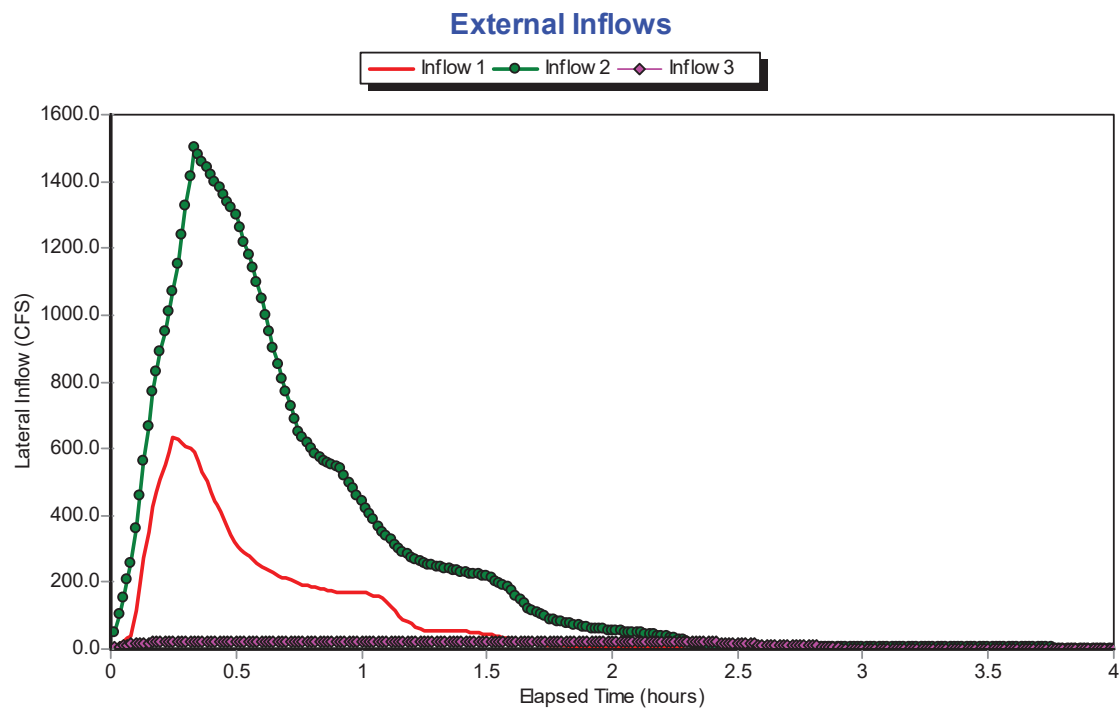


Figure 6.32. External Lateral Inflows for Example USER5.

Table 6.5 lists the water balances obtained by both SWMM 5 and 4 for the overall runoff computations for this example. The runoff results are very similar with SWMM 5 having a smaller mass balance error than SWMM 4. A comparison of the peak flows computed in the conduits by each program is shown in Figure 6.33. Absent from this figure are the conduits contained in the portion of the drainage system marked as Detail A. These will be discussed separately. For the remaining conduits there appears to be good agreement for peak flows with a few exceptions. An example of one of these exceptions is conduit *746\_modify* which is located within the area marked Detail B on the system schematic. The time series of flows in this conduit computed by each program is shown in Figure 6.34. The difference in peak flows can be attributed to the larger instability produced by SWMM 4 around the peak flow period. Similar behavior was observed at the other conduits where peak flow differences were large.

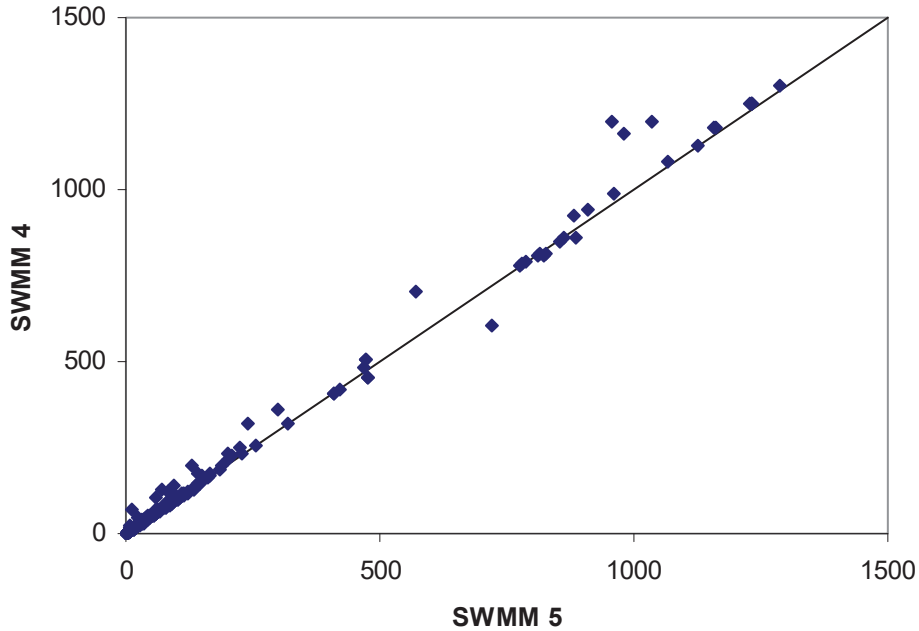
The majority of conduits had similar flow profiles under both SWMM 4 and 5. Some examples are shown in Figures 6.35 and 6.36 for the conduits labeled on the system schematic. Water depth profiles at the upstream nodes of these same conduits are compared in Figures 6.37 and 6.38.

One area of this system which showed considerable differences between SWMM 4 and 5 is the one marked Detail A in Figure 6.30. The schematic of this portion of the system is shown in Figure 6.39. It consists of a 130-foot wide, flat channel that is fed by both a diversion box culvert and the outlet from a 3.2 acre detention basin. The downstream end of the channel flows into an outflow structure that consists of three weir openings at different heights. The channel is divided into 10 individual segments whose elevation profile is shown in Figure 6.40. Figure 6.41 through 6.43 displays the time histories of the flow entering the channel as well as the flows in the first and third sections of the channel. Both SWMM 4 and 5 produce an oscillatory flow motion in these sections due to the outflow control exercised at its downstream end. The magnitude of this oscillation seems suspiciously high in SWMM 4 when compared against the inflow to the channel. Interestingly, the oscillation appears to be caused by the inertial terms of the momentum equation (those involving changes in flow area with respect to space and time). Figure 6.44 shows what happens in the third channel section when these terms are dropped from SWMM 5 using its “Ignore Inertial Terms” option.

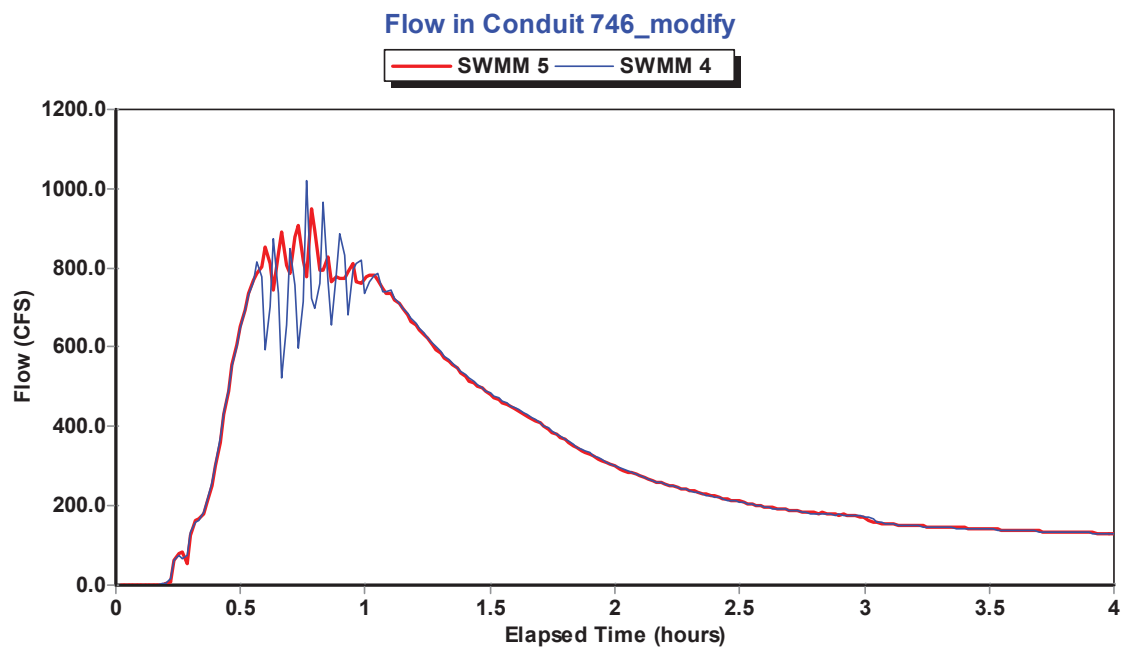
**Table 6.5      System-Wide Water Balances for Runoff in Example USER5 (all quantities are in inches).**

<i>System Total</i>	<i>SWMM 5</i>	<i>SWMM 4</i>
Precipitation	2.93	2.93
Evaporation	0.02	0.02
Infiltration	1.00	1.00
Surface Runoff	1.77	1.72
Final Surface Storage	0.15	0.15
Continuity Error (percent)	0.10	1.45





**Figure 6.33. Comparison of Peak Flows (cfs) Produced by SWMM 4 and 5 for Example USER5.**



**Figure 6.34. Comparison of Flows in Conduit 746\_modify for Example USER5.**

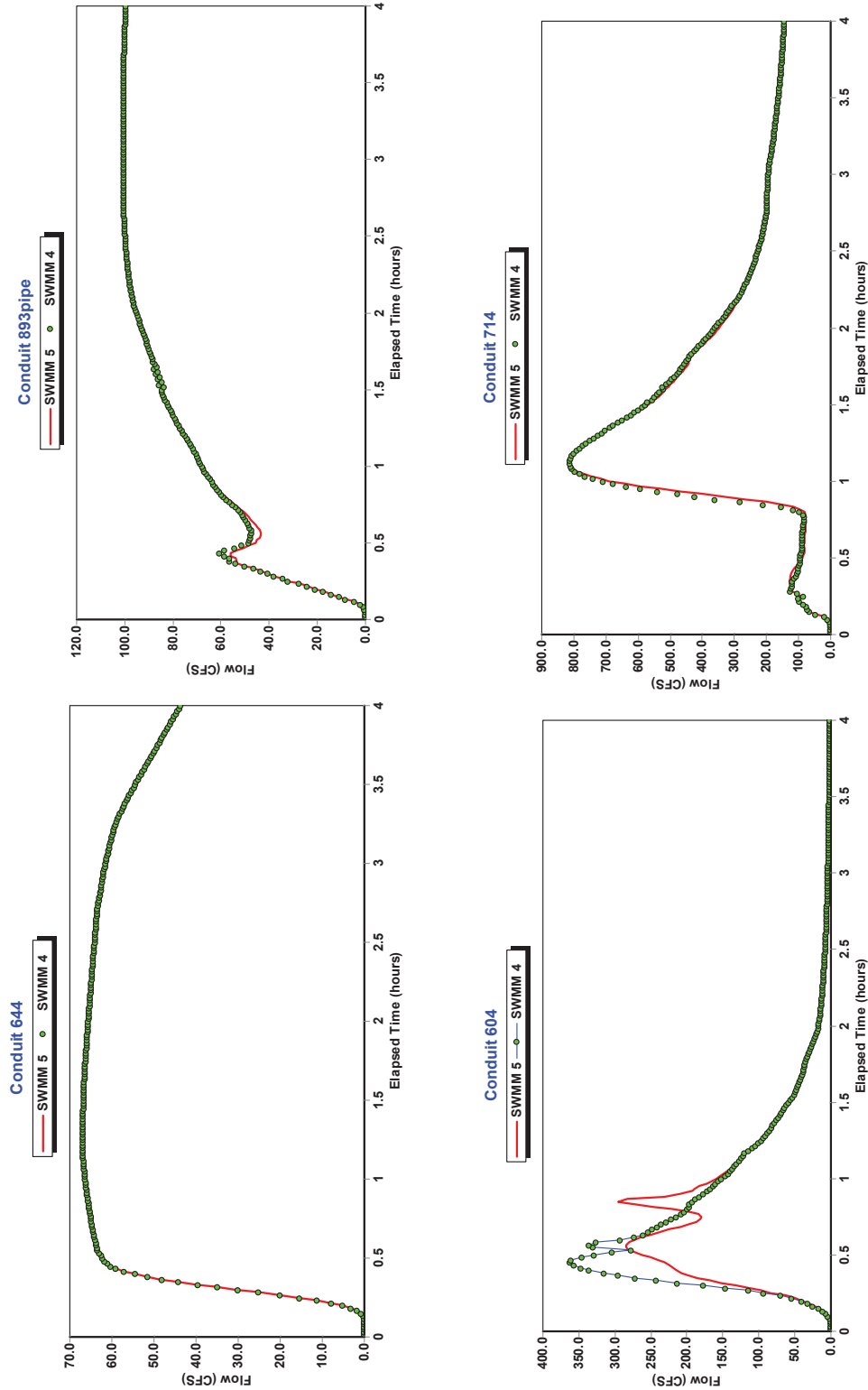


Figure 6.35. Comparison of Flows in Selected Conduits for Example USER5.

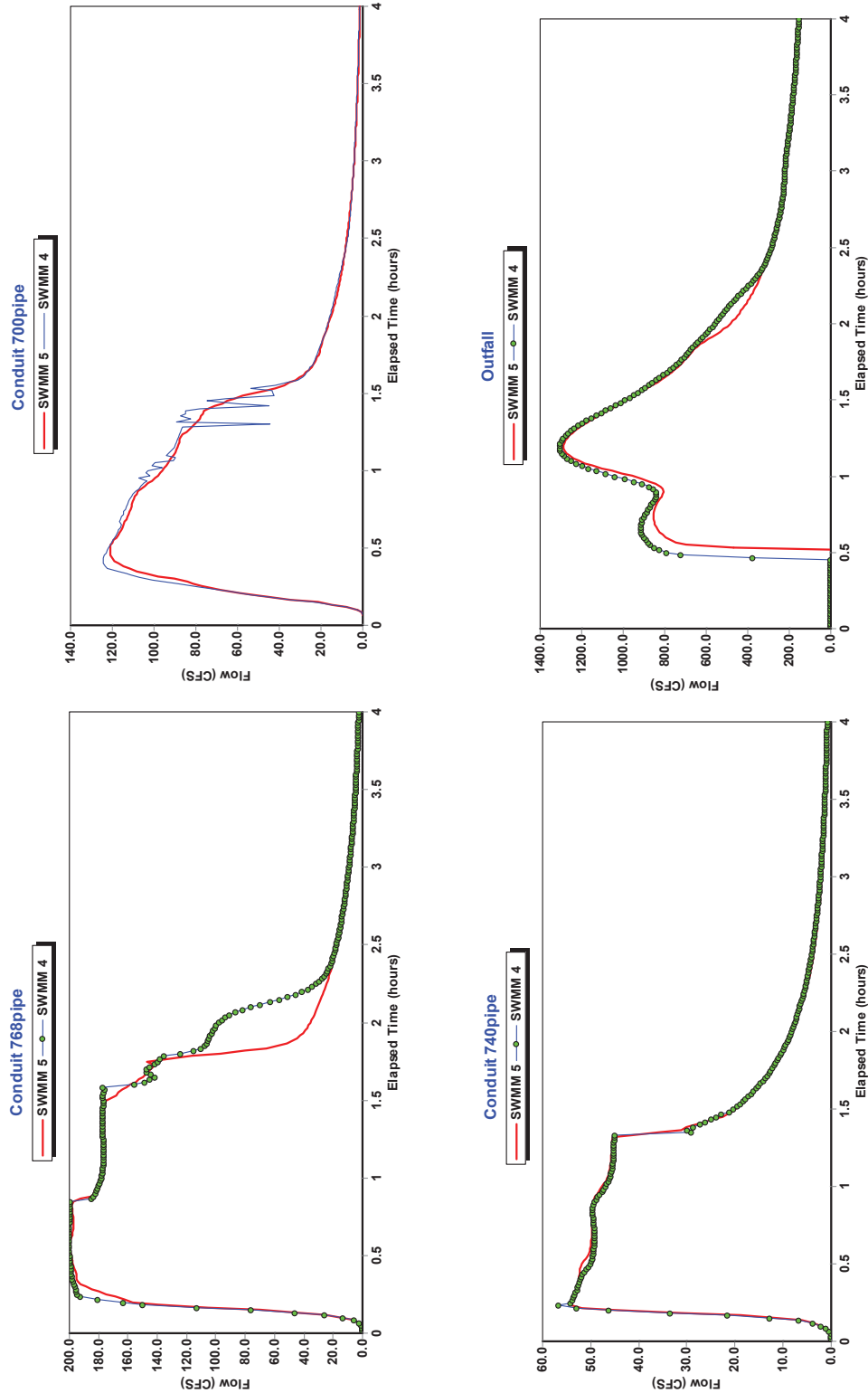


Figure 6.36. Comparison of Flows in Selected Conduits for Example USER5.

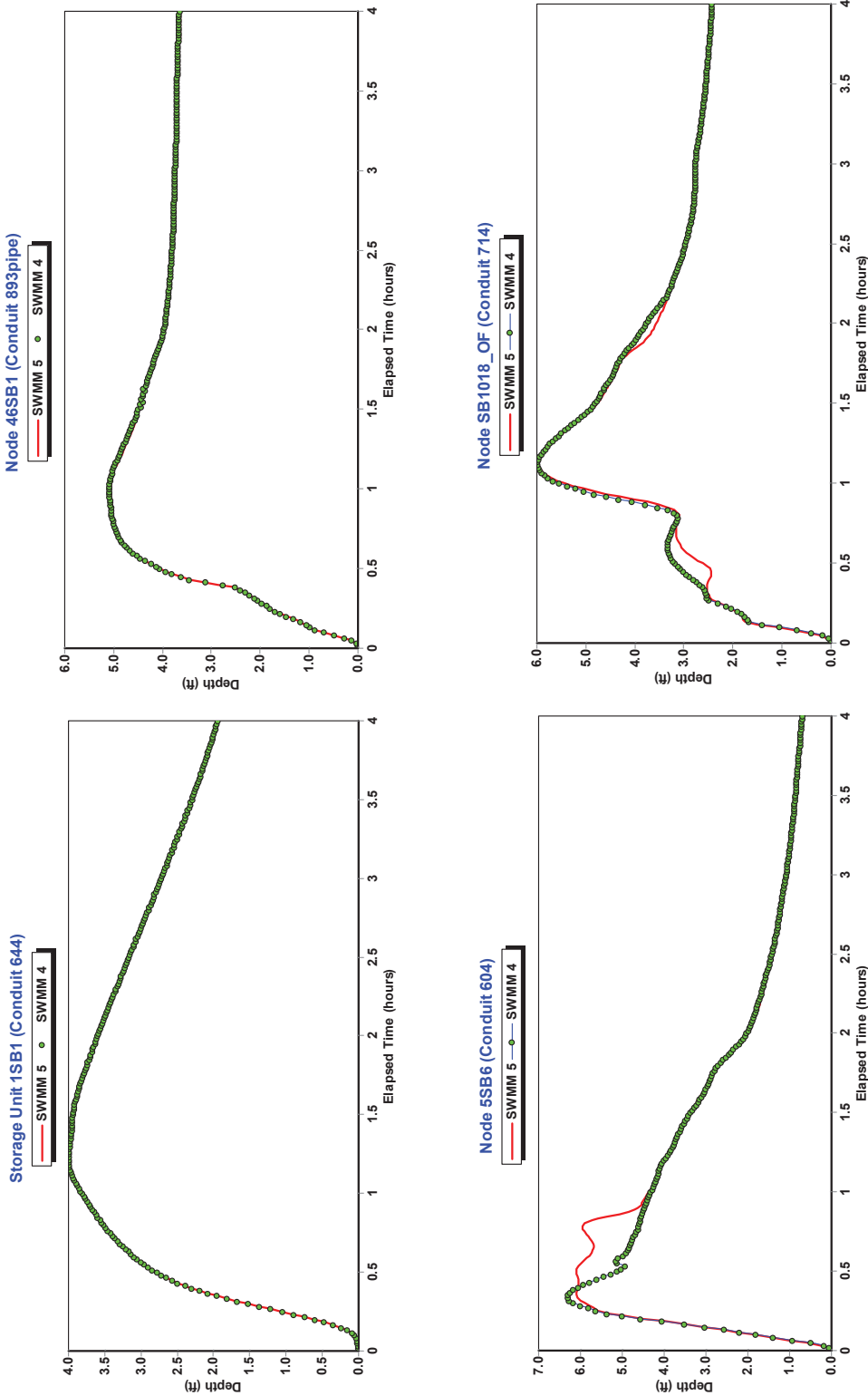


Figure 6.37. Comparison of Water Depths at the Upstream Nodes of Selected Conduits for Example USER5.

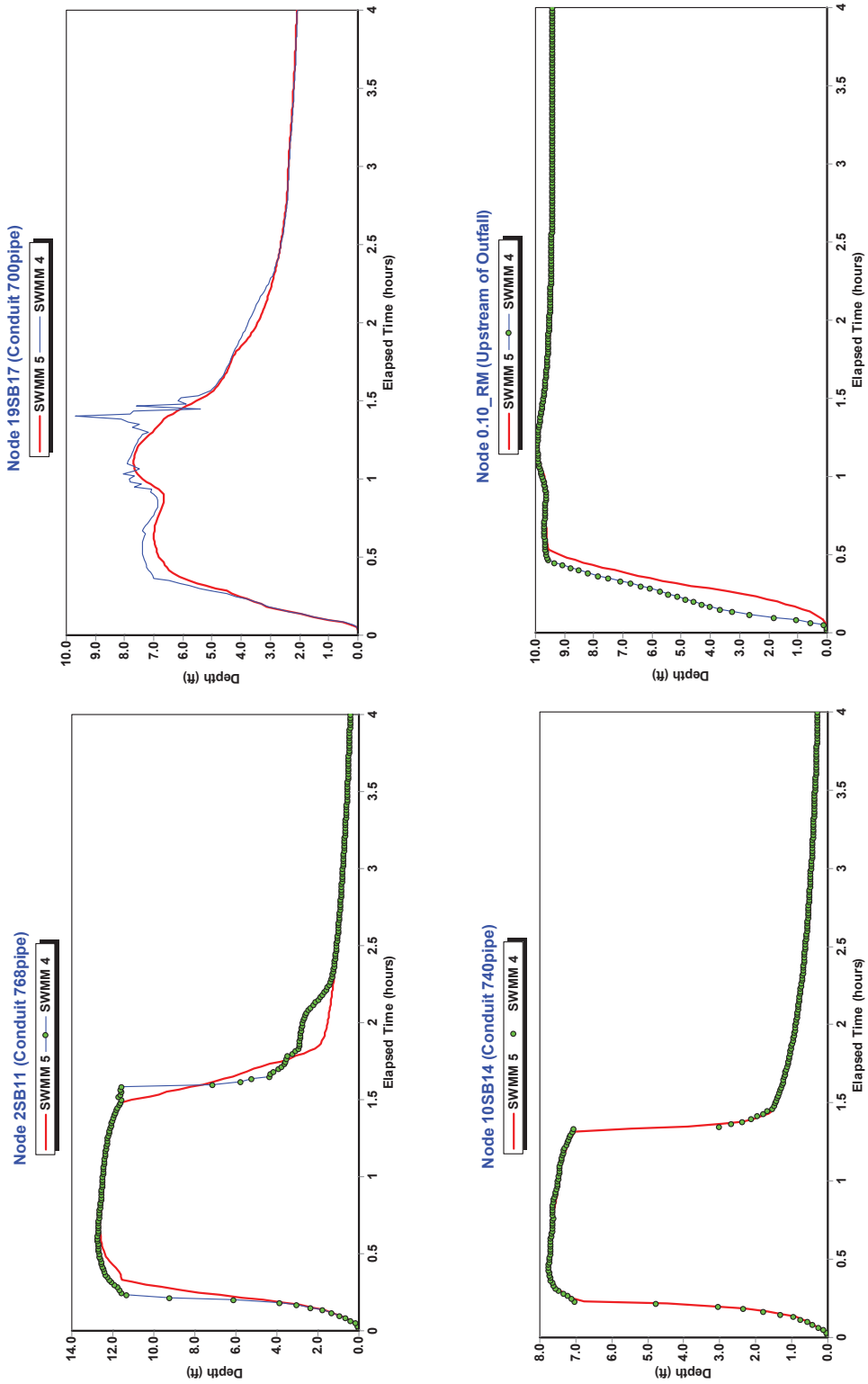


Figure 6.38. Comparison of Water Depths at the Upstream Nodes of Selected Conduits for Example USER5.



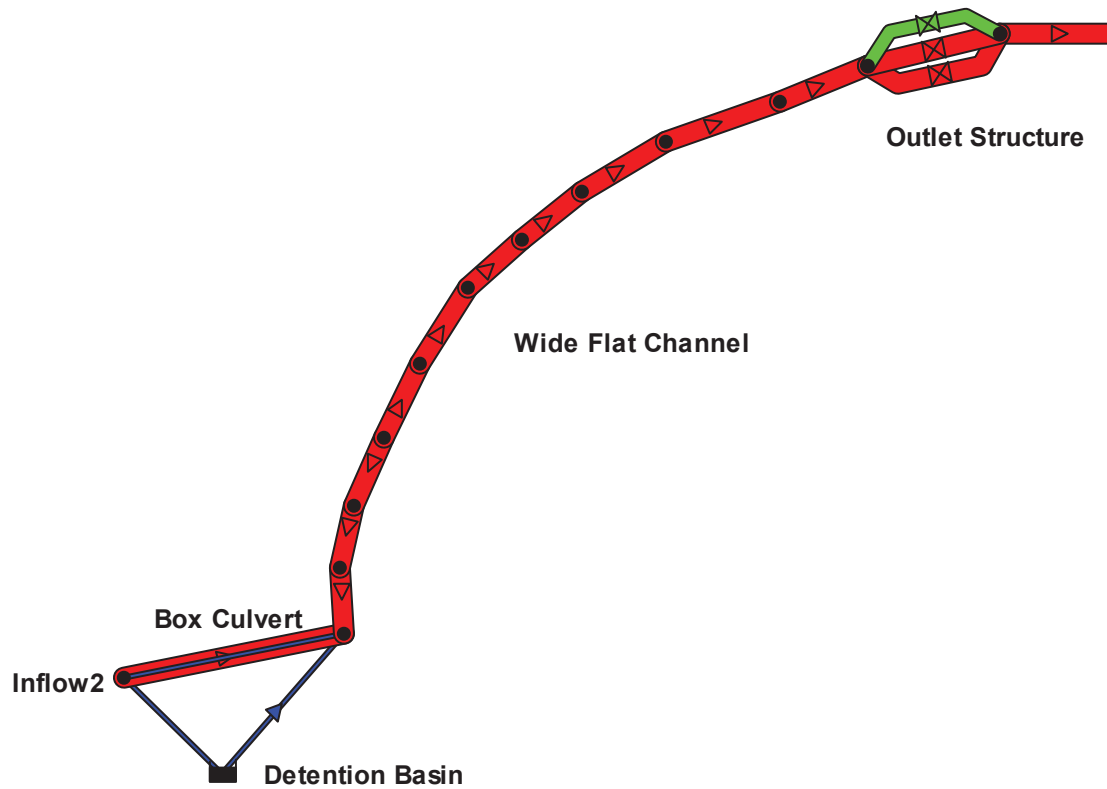
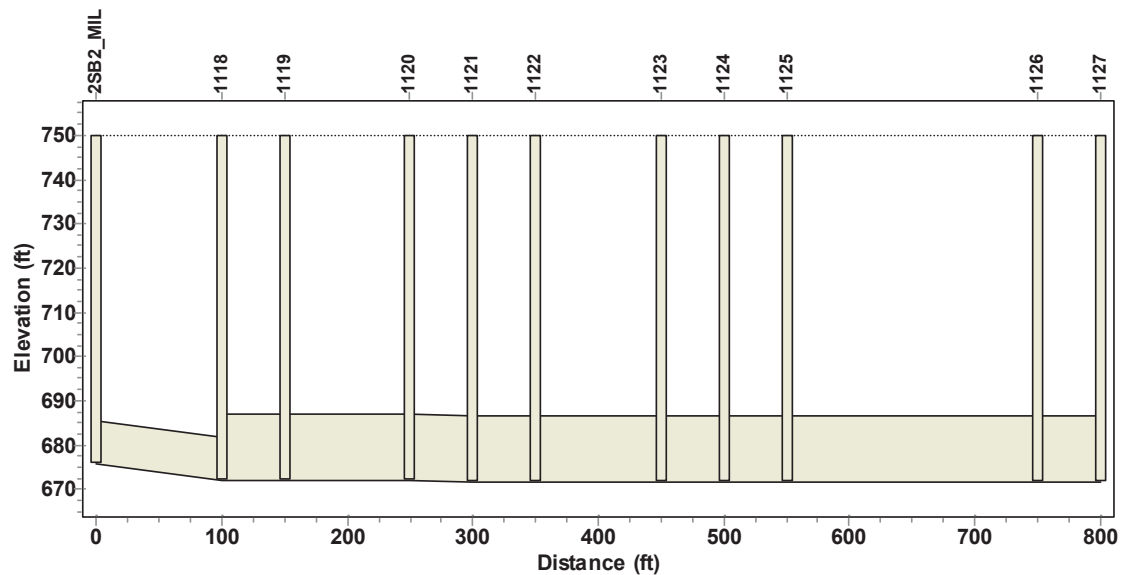


Figure 6.39. Schematic of Detail A Portion of Example USER5.



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Figure 6.40. Elevation Profile of the Channels in the Detail A Portion of Example USER5.

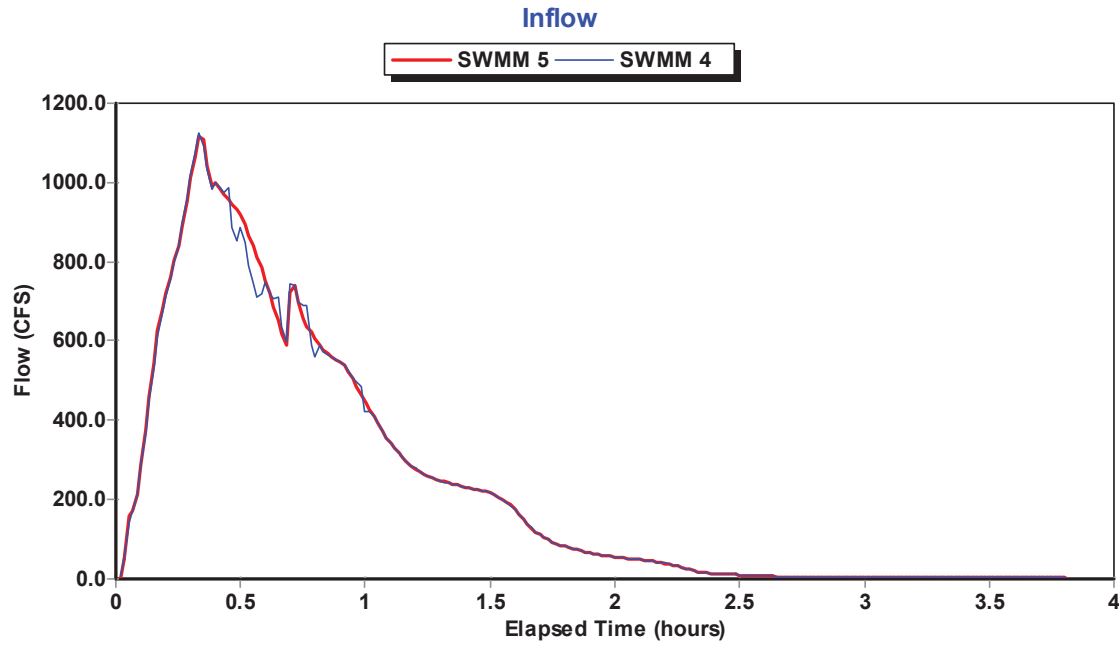


Figure 6.41. Inflow to the Channel of Detail A for Example USER5.

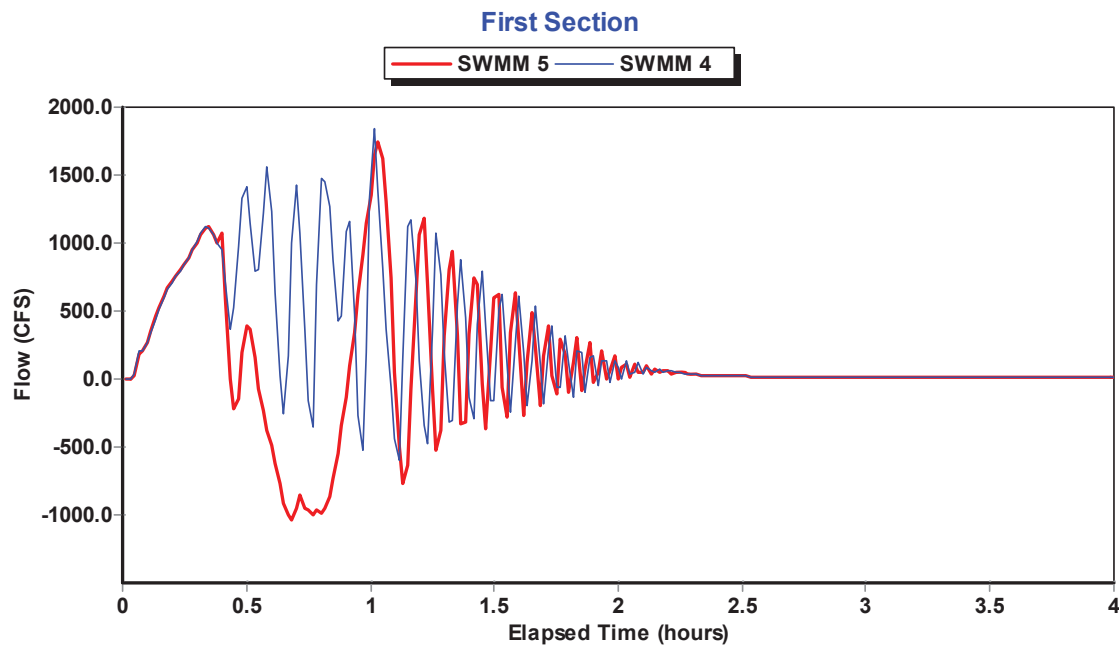
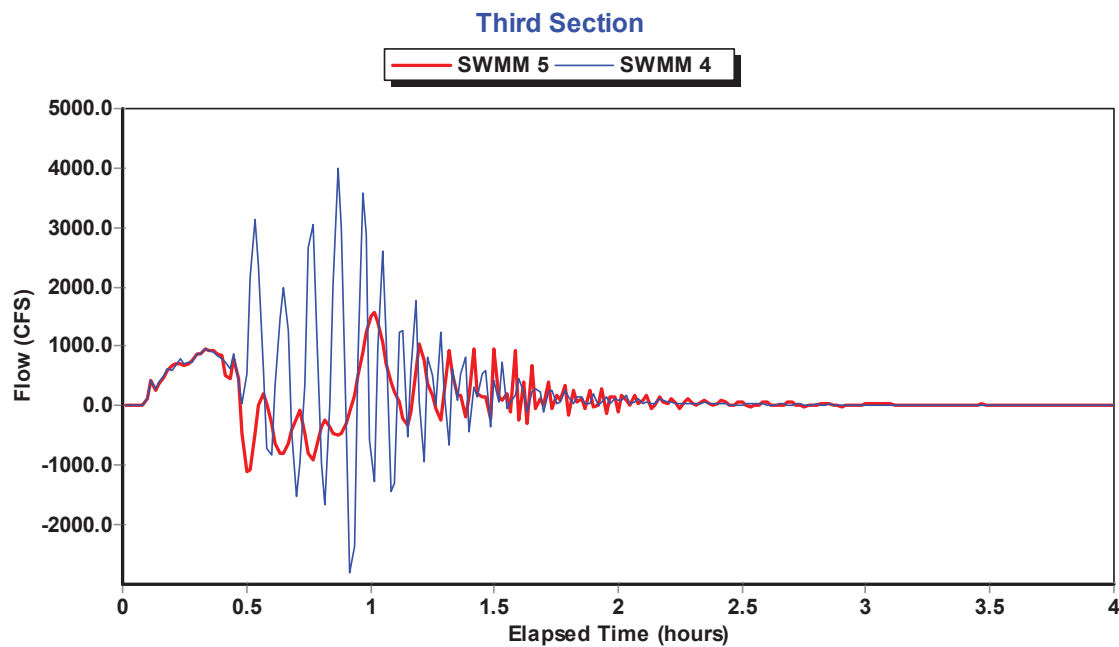
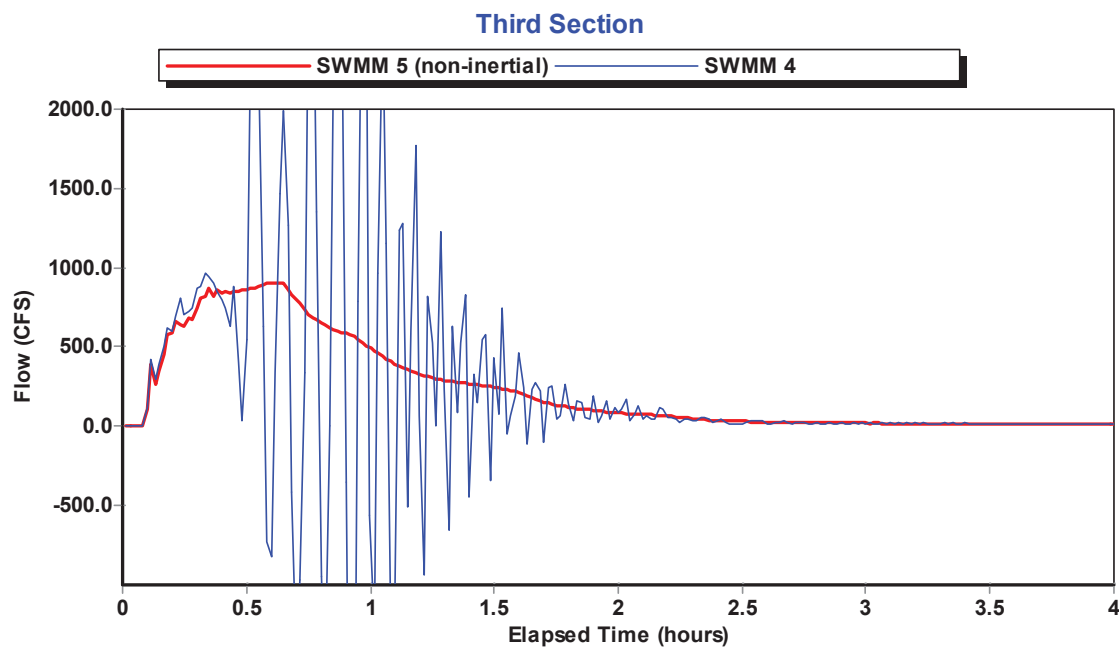


Figure 6.42. Flow in the First Section of the Channel of Detail A for Example USER5.

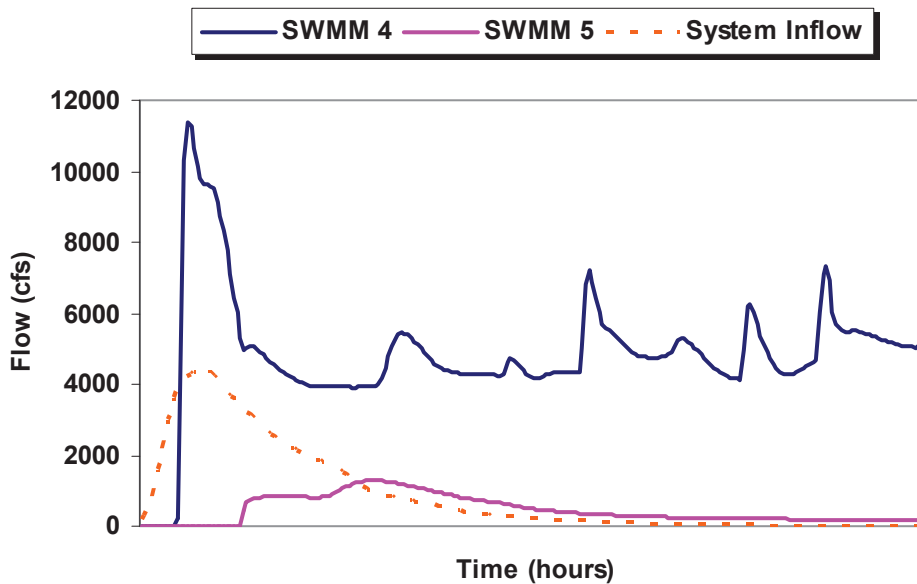


**Figure 6.43. Flow in the Third Section of the Channel of Detail A for Example USER5.**



**Figure 6.44. Flow in the Third Section of the Channel of Detail A for Example USER5 with Inertial Terms Ignored in SWMM 5.**

As a final note on this example, both SWMM 4 and 5 were run with the routing time step increased from 0.5 to 5 seconds. SWMM 5 produced essentially the same results, with an overall continuity error of 1.29 percent. The continuity error produced by SWMM 4 was 619 percent with most flow time histories being clearly in error. As an example, Figure 6.45 compares the flow at the outfall produced by the two programs and also plots the total inflow into the system. The SWMM 5 outflow matches that of the run using the smaller time step (see the last plot in Figure 6.36, although a visual comparison is difficult due to the vast difference in the vertical axis scales in the two plots). As reflected in its extremely high continuity error, the SWMM 4 outflow is an order of magnitude too high for this system at the larger time step.



**Figure 6.45. Flow Computed at the Outfall of Example USER5 Using a 5 Second Routing Time Step.**

## 7. Summary and Conclusions

The dynamic wave flow routing computations in SWMM 5 (version 5.0.006) and SWMM 4 (version 4.4h) were compared against one another on a total of 20 test examples. These examples included:

- 10 examples from the original SWMM Extran Users Manual that modeled various types of drainage system elements, such as orifices, weirs, pumps, irregular-shaped channels, and storage units
- 5 examples that tested the ability to model flat slopes, pipe constrictions, steep drops, adverse slopes, and inlet offsets.
- 5 real-world systems ranging in size from 59 to 273 conduits that modeled a variety of storm sewer, combined sewer, and natural channel drainage systems.

For the most part the time histories of flows and water depths produced by SWMM 5 closely matched those of SWMM 4. There were some exceptions however. In two cases these were due to differences in the assumptions used to model specific elements between the two programs - bottom orifices and Type 1 pump wet wells. In some of the User Supplied test cases differences arose due to numerical instabilities in the SWMM 4 solution, even with as low a time step as 0.5 seconds. These instabilities were most apparent in the examples that included odd-shaped storage units and oscillatory flows due to significant inertial effects. In contrast SWMM 5 had no problem in handling these features.

SWMM 5 was generally able to produce stable solutions using a much higher routing time step than was SWMM 4. This was the case for 50 percent of the Challenge and User-Supplied test examples. SWMM 5 also executed slightly faster than SWMM 4 as shown by the run times for the User-Supplied examples compared in Table 7.1.

**Table 7.1. Execution Times for the User-Supplied Test Examples (in seconds).**

<b>Example</b>	<b>SWMM 4</b>	<b>SWMM 5</b>
USER1	4	2
USER2	17	10
USER3	52	34
USER4	30	22
USER5	56	75

Overall, the Quality Assurance testing conducted in this study indicates that the updated SWMM 5.0 program performs dynamic wave flow routing as good as or better than SWMM 4.4.



## 8. References

- Huber, W. C. and Dickinson, R.E., “Storm Water Management Model, Version 4: User’s Manual”, EPA/600/3-88/001a, Environmental Research Laboratory, U.S. Environmental Protection Agency, Athens, GA, October 1992.
- Metcalf & Eddy, Inc., University of Florida, Water Resources Engineers, Inc. “Storm Water Management Model, Volume I – Final Report”, 11024DOC07/71, Water Quality Office, Environmental Protection Agency, Washington, DC, July 1971.
- Roesner, L.A., Aldrich, J.A., and Dickinson, R.E., “Storm Water Management Model User’s Manual Version 4: Extran Addendum”, EPA/600/3-88/001b, Environmental Research Laboratory, U.S. Environmental Protection Agency, Athens, GA, October 1992.
- Rossman, L.A. “Storm Water Management Model User’s Manual Version 5.0”, EPA/600/R-05/040, National Risk Management Research Laboratory, U.S. Environmental Protection Agency, Cincinnati, OH, June 2005.
- Schade, T., “Quality Assurance Project Plan SWMM Redevelopment”, National Risk Management Research Laboratory, U.S. Environmental Protection Agency, Cincinnati, OH, November 2002.

## Appendix A. SWMM 4 Routing Models

As mentioned at the beginning of Section 2 of this report, SWMM 4.4 offers the user three different options for solving its dynamic wave flow routing model. The Explicit Method was discussed in some detail in Section 2. The Enhanced Explicit Method is identical to the Explicit Method except that it uses an alternate way to express the inertial terms of the momentum equation in finite difference form. The resulting flow updating equation that is used in place of Eq. (4) is:

$$Q_{t+\Delta t} = \frac{Q_t + \Delta Q_{gravity}}{1 + \Delta Q_{friction} + \Delta Q_{losses} - \Delta Q'_{inertial}} \quad (A.1)$$

where

$$\Delta Q'_{inertial} = 2(\bar{A} - A_t)/\bar{A} + (Q_t/A_t)(A_2 - A_1)/\bar{A}(\Delta t/L) \quad (A.2)$$

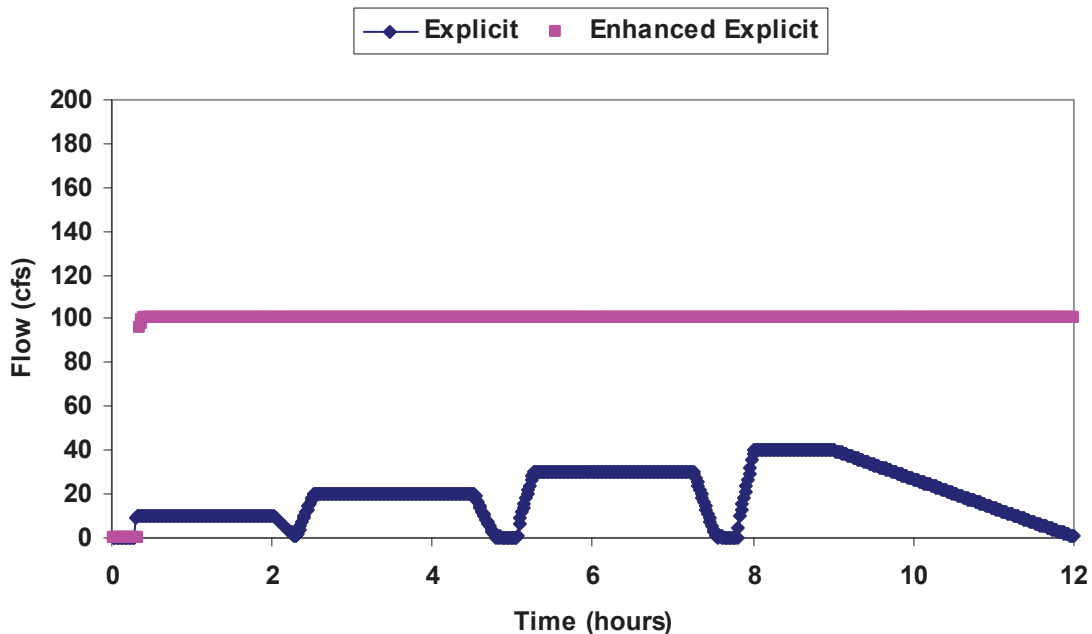
and the other terms have the same definitions as before.

The third solution method, called the Iterative Method, also uses the above form of the flow updating formula. However, it replaces the Modified Euler integration method with a successive approximation method that is similar in nature to SWMM 5's method. It also replaces the surcharge algorithm with a "Preissmann Slot" approach. This is a narrow wedge of additional flow area added to the top of a closed conduit once it pressurizes. In addition, it employs a variable routing time step that is adjusted during the simulation to try to satisfy the Courant stability criterion as the simulation unfolds. One must consult the SWMM 4.4 Fortran code itself to unravel all of the details of the Iterative Method as the description of it in the SWMM Extran Manual (Roesner, et al., 1992) is somewhat out of date.

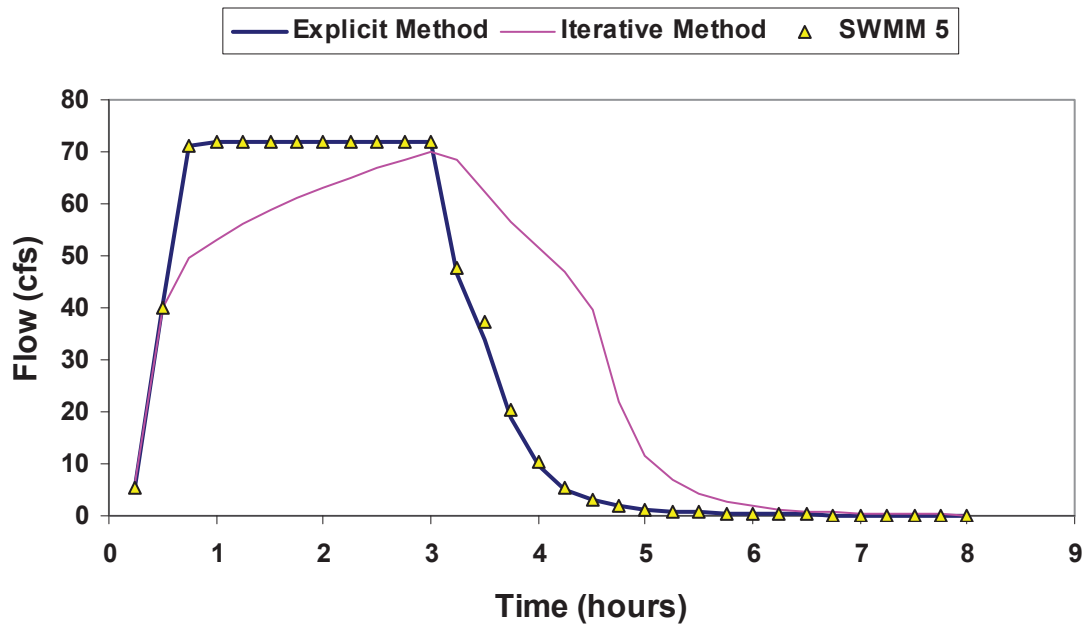
For the Quality Assurance testing of SWMM 5 against SWMM 4 it was decided that the Explicit Method would be used in all of the SWMM 4 runs. This decision was based on a preliminary comparison of the three SWMM 4 solution methods on a subset of the same test data sets that would be used in the full testing. This comparison revealed the following results:

1. The Enhanced Explicit method appeared to offer no consistent advantage over the Explicit method in the test cases studied. In most cases it produced identical results. In at least one case (TEST5 described on page 68), it produced a clearly incorrect solution (see Figure A.1 below) with a continuity error of -397 percent when compared with both the SWMM 4 Explicit method as well as SWMM 5. It also did not produce more stable solutions than the Explicit method when both were run at higher routing time steps.

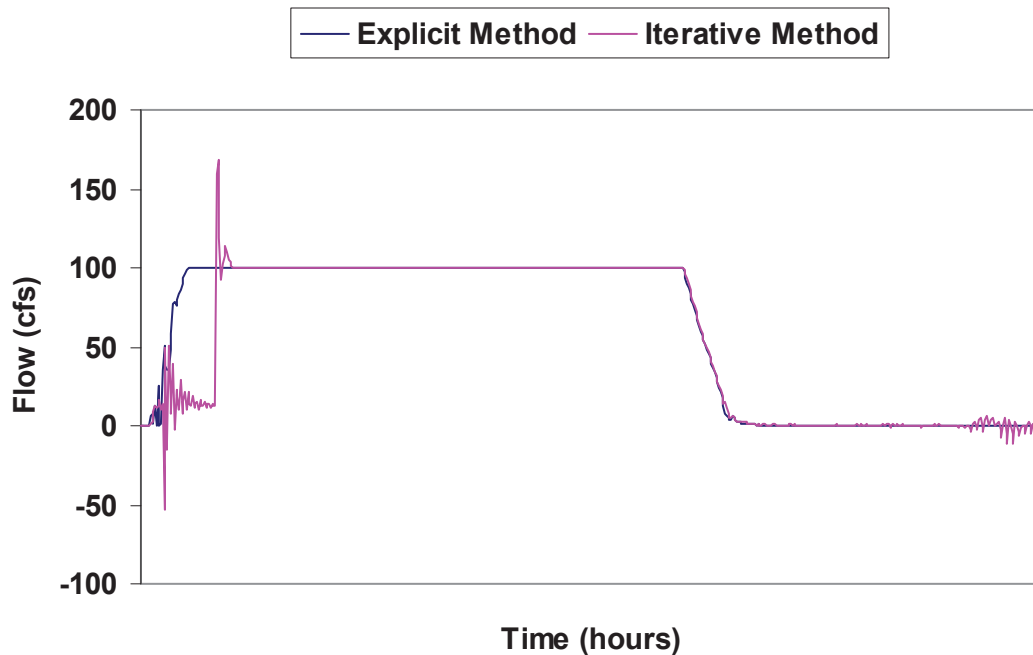
2. The Iterative method failed to perform acceptably in a consistent fashion. There were a number of examples where its flow solution was either markedly different or clearly inferior to that of the Explicit method. These include:
  - a. Example EXTRAN1 (the simple 2-branch network described on page 15). As seen in Figure A.2, the Iterative method produced a flow hydrograph in surcharged pipe 1602 whose shape is considerably different than both the SWMM 4 Explicit method and the SWMM 5 solution.
  - b. Example TEST4 (the inverted siphon example described on page 64). The Iterative method produced a solution that was much more unstable than that produced by the Explicit method (see Figure A.3).
  - c. Example USER1 (the 59 conduit storm sewer system described on page 72). The flow continuity error produced by the Iterative method was -3150 percent compared with only 0.19 percent for the Explicit method.
  - d. Example USER2 (the 83 conduit drainage system described on page 77). The Iterative method took 8.75 minutes to execute and produced a flow continuity error of -317 percent compared to 0.5 minutes and 0.4 percent, respectively, with the Explicit method.



**Figure A.1 Comparison of the SWMM 4 Explicit and Enhanced Explicit Methods for the Outfall Flow in Example TEST5.**



**Figure A.2** Comparison of the SWMM 4 Explicit and Iterative Methods and SWMM 5 Results for Conduit 1602 of Example EXTRAN1.



**Figure A.3** Comparison of the SWMM 4 Explicit and Iterative Methods for Conduit 6 of Example TEST4.

## Appendix B. Test Data Sets

All twenty test data sets used in this study are available in electronic format at the EPA SWMM web site [www.epa.gov/ednnrmrl/swmm](http://www.epa.gov/ednnrmrl/swmm). Each data set includes:

- The SWMM 4 Extran input file and, for the user-supplied test cases, the corresponding SWMM 4 Runoff input file.
- The equivalent SWMM 5 input file.
- Calibration files that contain the SWMM 4 time series results for node depth and conduit flow that were used to generate the comparison plots in this report.

The SWMM 4 input data files are named with a “.dat” extension (e.g., extran1.dat) while the SWMM 5 input files have a “.inp” extension (e.g., extran1.inp). The calibration files are named “xxxx\_y.dat” for node depth results or “xxxx\_q.dat” for link flow results, where xxxx is the name of the test case.



**Attachment 2 – FLO-2D Verification Report**  
**(Secured file cannot be combined and provided as a  
separate document)**

## **Attachment 3 – Test Cases 1a and 1b Hand Calculations**

Hand Calculation, Test 1a

Given a steady discharge of 8,000 cfs spread across the 4 inflow nodes (2,000 cfs per inflow element), the velocity and depth were computed using Manning's equation within the lower reach of the flume. The flow accelerated to a steady flow condition since the inflow elements had no convective acceleration component in the down-slope direction. There was also no local acceleration term in the full dynamic wave momentum equation due to the steady flow condition and for this prismatic channel case, the momentum equation collapses to the kinetic wave equation. The unknown hydraulic variables of velocity and depth were computed by hand using Manning's equation and continuity.

$$Q = VA = \frac{1.486}{n} R^{\frac{2}{3}} S_f^{\frac{1}{2}} A$$

Where: A = flow area = width\*depth = 200ft \* flow depth d  
 V = depth average velocity  
 n = 0.05  
 S<sub>f</sub> = friction slope = S<sub>o</sub> = bed slope using the kinematic wave equation = 0.003  
 R = hydraulic radius ≈ flow depth d for a wide shallow channel  
 Q = discharge 8,000 cfs

Substituting and solving for d:

$$Q = 8,000 \text{ cfs} = (1.486/0.05) * d^{2/3} * (0.003)^{1/2} * 200\text{ft} * d$$

$$d = (8,000/325.57)^{3/5}$$

$$d = 6.8 \text{ ft}$$

Solving for V:

$$V = Q/A = 8,000 \text{ cfs} / (6.83\text{ft} * 200 \text{ ft})$$

$$V = 5.9 \text{ fps}$$

**Solving for n=0.08 for Repeatability**

**Other inputs remain same as listed below and Manning's roughness coefficient is changed to 0.08**

Substituting and solving for d:

$$Q = 8,000 \text{ cfs} = (1.486/0.08) * d^{2/3} * (0.003)^{1/2} * 200 \text{ ft} * d$$

$$d = (8,000/203.48)^{3/5}$$

$$\mathbf{d = 9.05 \text{ ft}}$$

Solving for V:

$$V = Q/A = 8,000 \text{ cfs} / (9.05 \text{ ft} * 200 \text{ ft})$$

$$\mathbf{V = 4.42 \text{ fps}}$$

### Hand Calculation, Test 1b

A similar calculation is done for the multiple channel test with the inflow of 10 cfs, channel width of 5 ft, channel slope of 0.003 ft/ft, and channel Manning's coefficient of 0.05. The approximation in Test 1a of hydraulic radius being approximately the same as the flow depth is no longer applicable since the flow regime in Test 1b is not a wide shallow channel flow. Therefore, flow depth is solved iteratively (either manually or using MS Excel Solver feature).

Solving for d:

$$Q = 10 \text{ cfs} = (1.486/0.05) * d^{2/3} * (0.003)^{1/2} * 5 \text{ ft} * d$$

$$\mathbf{d = 1.34 \text{ ft}}$$

Solving for V:

$$V = Q/A = 10 \text{ cfs} / (1.34 \text{ ft} * 5 \text{ ft})$$

$$\mathbf{V = 1.48 \text{ fps}}$$

## **Attachment 4a – Test Case 1a FLO-2D Pro Input and Output Files**



				FPLAIN.DAT		
1	5	2	0	0	0.050	8.85
2	6	3	0	1	0.050	8.85
3	7	4	0	2	0.050	8.85
4	8	0	0	3	0.050	8.85
5	9	6	1	0	0.050	8.70
6	10	7	2	5	0.050	8.70
7	11	8	3	6	0.050	8.70
8	12	0	4	7	0.050	8.70
9	13	10	5	0	0.050	8.55
10	14	11	6	9	0.050	8.55
11	15	12	7	10	0.050	8.55
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14	18	15	10	13	0.050	8.40
15	19	16	11	14	0.050	8.40
16	20	0	12	15	0.050	8.40
17	21	18	13	0	0.050	8.25
18	22	19	14	17	0.050	8.25
19	23	20	15	18	0.050	8.25
20	24	0	16	19	0.050	8.25
21	25	22	17	0	0.050	8.10
22	26	23	18	21	0.050	8.10
23	27	24	19	22	0.050	8.10
24	28	0	20	23	0.050	8.10
25	29	26	21	0	0.050	7.95
26	30	27	22	25	0.050	7.95
27	31	28	23	26	0.050	7.95
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36	40	0	32	35	0.050	7.65
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42	46	43	38	41	0.050	7.35
43	47	44	39	42	0.050	7.35
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47	51	48	43	46	0.050	7.20
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49	53	50	45	0	0.050	7.05
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51	55	52	47	50	0.050	7.05
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56	60	0	52	55	0.050	6.90
57	61	58	53	0	0.050	6.75
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62	66	63	58	61	0.050	6.60
63	67	64	59	62	0.050	6.60

FPLAIN.DAT					
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68	72	0	64	67	0.050 6.45
69	73	70	65	0	0.050 6.30
70	74	71	66	69	0.050 6.30
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83	87	84	79	82	0.050 5.85
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FPLAIN.DAT					
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180	184	0	176	179	0.050 2.25
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182	186	183	178	181	0.050 2.10
183	187	184	179	182	0.050 2.10
184	188	0	180	183	0.050 2.10
185	189	186	181	0	0.050 1.95
186	190	187	182	185	0.050 1.95
187	191	188	183	186	0.050 1.95
188	192	0	184	187	0.050 1.95
189	193	190	185	0	0.050 1.80

FPLAIN.DAT					
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196	200	0	192	195	0.050 1.65
197	201	198	193	0	0.050 1.50
198	202	199	194	197	0.050 1.50
199	203	200	195	198	0.050 1.50
200	204	0	196	199	0.050 1.50
201	205	202	197	0	0.050 1.35
202	206	203	198	201	0.050 1.35
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204	208	0	200	203	0.050 1.35
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219	223	220	215	218	0.050 0.75
220	224	0	216	219	0.050 0.75
221	225	222	217	0	0.050 0.60
222	226	223	218	221	0.050 0.60
223	227	224	219	222	0.050 0.60
224	228	0	220	223	0.050 0.60
225	229	226	221	0	0.050 0.45
226	230	227	222	225	0.050 0.45
227	231	228	223	226	0.050 0.45
228	232	0	224	227	0.050 0.45
229	233	230	225	0	0.050 0.30
230	234	231	226	229	0.050 0.30
231	235	232	227	230	0.050 0.30
232	236	0	228	231	0.050 0.30
233	237	234	229	0	0.050 0.15
234	238	235	230	233	0.050 0.15
235	239	236	231	234	0.050 0.15
236	240	0	232	235	0.050 0.15
237	0	238	233	0	0.050 0.00
238	0	239	234	237	0.050 0.00
239	0	240	235	238	0.050 0.00
240	0	0	236	239	0.050 0.00

		DEPTH.OUT	
1	0.00	0.00	6.8248
2	50.00	0.00	6.8248
3	100.00	0.00	6.8248
4	150.00	0.00	6.8248
5	0.00	50.00	6.8248
6	50.00	50.00	6.8248
7	100.00	50.00	6.8248
8	150.00	50.00	6.8248
9	0.00	100.00	6.8248
10	50.00	100.00	6.8248
11	100.00	100.00	6.8248
12	150.00	100.00	6.8248
13	0.00	150.00	6.8248
14	50.00	150.00	6.8248
15	100.00	150.00	6.8248
16	150.00	150.00	6.8248
17	0.00	200.00	6.8248
18	50.00	200.00	6.8248
19	100.00	200.00	6.8248
20	150.00	200.00	6.8248
21	0.00	250.00	6.8248
22	50.00	250.00	6.8248
23	100.00	250.00	6.8248
24	150.00	250.00	6.8248
25	0.00	300.00	6.8247
26	50.00	300.00	6.8247
27	100.00	300.00	6.8247
28	150.00	300.00	6.8247
29	0.00	350.00	6.8247
30	50.00	350.00	6.8247
31	100.00	350.00	6.8247
32	150.00	350.00	6.8247
33	0.00	400.00	6.8247
34	50.00	400.00	6.8247
35	100.00	400.00	6.8247
36	150.00	400.00	6.8247
37	0.00	450.00	6.8247
38	50.00	450.00	6.8247
39	100.00	450.00	6.8247
40	150.00	450.00	6.8247
41	0.00	500.00	6.8247
42	50.00	500.00	6.8247
43	100.00	500.00	6.8247
44	150.00	500.00	6.8247
45	0.00	550.00	6.8247
46	50.00	550.00	6.8247
47	100.00	550.00	6.8247
48	150.00	550.00	6.8247
49	0.00	600.00	6.8246
50	50.00	600.00	6.8246
51	100.00	600.00	6.8246
52	150.00	600.00	6.8246
53	0.00	650.00	6.8246
54	50.00	650.00	6.8246
55	100.00	650.00	6.8246
56	150.00	650.00	6.8246
57	0.00	700.00	6.8246
58	50.00	700.00	6.8246
59	100.00	700.00	6.8246
60	150.00	700.00	6.8246
61	0.00	750.00	6.8246
62	50.00	750.00	6.8246
63	100.00	750.00	6.8246



		DEPTH.OUT	
64	150.00	750.00	6.8246
65	0.00	800.00	6.8246
66	50.00	800.00	6.8246
67	100.00	800.00	6.8246
68	150.00	800.00	6.8246
69	0.00	850.00	6.8245
70	50.00	850.00	6.8245
71	100.00	850.00	6.8245
72	150.00	850.00	6.8245
73	0.00	900.00	6.8245
74	50.00	900.00	6.8245
75	100.00	900.00	6.8245
76	150.00	900.00	6.8245
77	0.00	950.00	6.8245
78	50.00	950.00	6.8245
79	100.00	950.00	6.8245
80	150.00	950.00	6.8245
81	0.00	1000.00	6.8245
82	50.00	1000.00	6.8245
83	100.00	1000.00	6.8245
84	150.00	1000.00	6.8245
85	0.00	1050.00	6.8244
86	50.00	1050.00	6.8244
87	100.00	1050.00	6.8244
88	150.00	1050.00	6.8244
89	0.00	1100.00	6.8244
90	50.00	1100.00	6.8244
91	100.00	1100.00	6.8244
92	150.00	1100.00	6.8244
93	0.00	1150.00	6.8244
94	50.00	1150.00	6.8244
95	100.00	1150.00	6.8244
96	150.00	1150.00	6.8244
97	0.00	1200.00	6.8244
98	50.00	1200.00	6.8244
99	100.00	1200.00	6.8244
100	150.00	1200.00	6.8244
101	0.00	1250.00	6.8243
102	50.00	1250.00	6.8243
103	100.00	1250.00	6.8243
104	150.00	1250.00	6.8243
105	0.00	1300.00	6.8243
106	50.00	1300.00	6.8243
107	100.00	1300.00	6.8243
108	150.00	1300.00	6.8243
109	0.00	1350.00	6.8243
110	50.00	1350.00	6.8243
111	100.00	1350.00	6.8243
112	150.00	1350.00	6.8243
113	0.00	1400.00	6.8243
114	50.00	1400.00	6.8243
115	100.00	1400.00	6.8243
116	150.00	1400.00	6.8243
117	0.00	1450.00	6.8242
118	50.00	1450.00	6.8242
119	100.00	1450.00	6.8242
120	150.00	1450.00	6.8242
121	0.00	1500.00	6.8242
122	50.00	1500.00	6.8242
123	100.00	1500.00	6.8242
124	150.00	1500.00	6.8242
125	0.00	1550.00	6.8242
126	50.00	1550.00	6.8242

		DEPTH.OUT	
127	100.00	1550.00	6.8242
128	150.00	1550.00	6.8242
129	0.00	1600.00	6.8241
130	50.00	1600.00	6.8241
131	100.00	1600.00	6.8241
132	150.00	1600.00	6.8241
133	0.00	1650.00	6.8241
134	50.00	1650.00	6.8241
135	100.00	1650.00	6.8241
136	150.00	1650.00	6.8241
137	0.00	1700.00	6.8241
138	50.00	1700.00	6.8241
139	100.00	1700.00	6.8241
140	150.00	1700.00	6.8241
141	0.00	1750.00	6.8241
142	50.00	1750.00	6.8241
143	100.00	1750.00	6.8241
144	150.00	1750.00	6.8241
145	0.00	1800.00	6.8240
146	50.00	1800.00	6.8240
147	100.00	1800.00	6.8240
148	150.00	1800.00	6.8240
149	0.00	1850.00	6.8240
150	50.00	1850.00	6.8240
151	100.00	1850.00	6.8240
152	150.00	1850.00	6.8240
153	0.00	1900.00	6.8240
154	50.00	1900.00	6.8240
155	100.00	1900.00	6.8240
156	150.00	1900.00	6.8240
157	0.00	1950.00	6.8239
158	50.00	1950.00	6.8239
159	100.00	1950.00	6.8239
160	150.00	1950.00	6.8239
161	0.00	2000.00	6.8239
162	50.00	2000.00	6.8239
163	100.00	2000.00	6.8239
164	150.00	2000.00	6.8239
165	0.00	2050.00	6.8239
166	50.00	2050.00	6.8239
167	100.00	2050.00	6.8239
168	150.00	2050.00	6.8239
169	0.00	2100.00	6.8239
170	50.00	2100.00	6.8239
171	100.00	2100.00	6.8239
172	150.00	2100.00	6.8239
173	0.00	2150.00	6.8238
174	50.00	2150.00	6.8238
175	100.00	2150.00	6.8238
176	150.00	2150.00	6.8238
177	0.00	2200.00	6.8238
178	50.00	2200.00	6.8238
179	100.00	2200.00	6.8238
180	150.00	2200.00	6.8238
181	0.00	2250.00	6.8238
182	50.00	2250.00	6.8238
183	100.00	2250.00	6.8238
184	150.00	2250.00	6.8238
185	0.00	2300.00	6.8238
186	50.00	2300.00	6.8238
187	100.00	2300.00	6.8238
188	150.00	2300.00	6.8238
189	0.00	2350.00	6.8237

		DEPTH.OUT	
190	50.00	2350.00	6.8237
191	100.00	2350.00	6.8237
192	150.00	2350.00	6.8237
193	0.00	2400.00	6.8237
194	50.00	2400.00	6.8237
195	100.00	2400.00	6.8237
196	150.00	2400.00	6.8237
197	0.00	2450.00	6.8237
198	50.00	2450.00	6.8237
199	100.00	2450.00	6.8237
200	150.00	2450.00	6.8237
201	0.00	2500.00	6.8237
202	50.00	2500.00	6.8237
203	100.00	2500.00	6.8237
204	150.00	2500.00	6.8237
205	0.00	2550.00	6.8236
206	50.00	2550.00	6.8236
207	100.00	2550.00	6.8236
208	150.00	2550.00	6.8236
209	0.00	2600.00	6.8236
210	50.00	2600.00	6.8236
211	100.00	2600.00	6.8236
212	150.00	2600.00	6.8236
213	0.00	2650.00	6.8236
214	50.00	2650.00	6.8236
215	100.00	2650.00	6.8236
216	150.00	2650.00	6.8236
217	0.00	2700.00	6.8236
218	50.00	2700.00	6.8236
219	100.00	2700.00	6.8236
220	150.00	2700.00	6.8236
221	0.00	2750.00	6.8236
222	50.00	2750.00	6.8236
223	100.00	2750.00	6.8236
224	150.00	2750.00	6.8236
225	0.00	2800.00	6.8236
226	50.00	2800.00	6.8236
227	100.00	2800.00	6.8236
228	150.00	2800.00	6.8236
229	0.00	2850.00	6.8236
230	50.00	2850.00	6.8236
231	100.00	2850.00	6.8236
232	150.00	2850.00	6.8236
233	0.00	2900.00	6.8236
234	50.00	2900.00	6.8236
235	100.00	2900.00	6.8236
236	150.00	2900.00	6.8236
237	0.00	2950.00	6.8236
238	50.00	2950.00	6.8236
239	100.00	2950.00	6.8236
240	150.00	2950.00	6.8236

		VELFP.OUT	
1	0.00	0.00	5.9874
2	50.00	0.00	5.9874
3	100.00	0.00	5.9874
4	150.00	0.00	5.9874
5	0.00	50.00	5.9828
6	50.00	50.00	5.9828
7	100.00	50.00	5.9828
8	150.00	50.00	5.9828
9	0.00	100.00	5.9781
10	50.00	100.00	5.9781
11	100.00	100.00	5.9781
12	150.00	100.00	5.9781
13	0.00	150.00	5.9734
14	50.00	150.00	5.9734
15	100.00	150.00	5.9734
16	150.00	150.00	5.9734
17	0.00	200.00	5.9688
18	50.00	200.00	5.9688
19	100.00	200.00	5.9688
20	150.00	200.00	5.9688
21	0.00	250.00	5.9641
22	50.00	250.00	5.9641
23	100.00	250.00	5.9641
24	150.00	250.00	5.9641
25	0.00	300.00	5.9595
26	50.00	300.00	5.9595
27	100.00	300.00	5.9595
28	150.00	300.00	5.9595
29	0.00	350.00	5.9548
30	50.00	350.00	5.9548
31	100.00	350.00	5.9548
32	150.00	350.00	5.9548
33	0.00	400.00	5.9501
34	50.00	400.00	5.9501
35	100.00	400.00	5.9501
36	150.00	400.00	5.9501
37	0.00	450.00	5.9454
38	50.00	450.00	5.9454
39	100.00	450.00	5.9454
40	150.00	450.00	5.9454
41	0.00	500.00	5.9411
42	50.00	500.00	5.9411
43	100.00	500.00	5.9411
44	150.00	500.00	5.9411
45	0.00	550.00	5.9370
46	50.00	550.00	5.9370
47	100.00	550.00	5.9370
48	150.00	550.00	5.9370
49	0.00	600.00	5.9331
50	50.00	600.00	5.9331
51	100.00	600.00	5.9331
52	150.00	600.00	5.9331
53	0.00	650.00	5.9294
54	50.00	650.00	5.9294
55	100.00	650.00	5.9294
56	150.00	650.00	5.9294
57	0.00	700.00	5.9258
58	50.00	700.00	5.9258
59	100.00	700.00	5.9258
60	150.00	700.00	5.9258
61	0.00	750.00	5.9223
62	50.00	750.00	5.9223
63	100.00	750.00	5.9223

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		VELFP.OUT	
64	150.00	750.00	5.9223
65	0.00	800.00	5.9190
66	50.00	800.00	5.9190
67	100.00	800.00	5.9190
68	150.00	800.00	5.9190
69	0.00	850.00	5.9157
70	50.00	850.00	5.9157
71	100.00	850.00	5.9157
72	150.00	850.00	5.9157
73	0.00	900.00	5.9126
74	50.00	900.00	5.9126
75	100.00	900.00	5.9126
76	150.00	900.00	5.9126
77	0.00	950.00	5.9095
78	50.00	950.00	5.9095
79	100.00	950.00	5.9095
80	150.00	950.00	5.9095
81	0.00	1000.00	5.9065
82	50.00	1000.00	5.9065
83	100.00	1000.00	5.9065
84	150.00	1000.00	5.9065
85	0.00	1050.00	5.9035
86	50.00	1050.00	5.9035
87	100.00	1050.00	5.9035
88	150.00	1050.00	5.9035
89	0.00	1100.00	5.9006
90	50.00	1100.00	5.9006
91	100.00	1100.00	5.9006
92	150.00	1100.00	5.9006
93	0.00	1150.00	5.8977
94	50.00	1150.00	5.8977
95	100.00	1150.00	5.8977
96	150.00	1150.00	5.8977
97	0.00	1200.00	5.8949
98	50.00	1200.00	5.8949
99	100.00	1200.00	5.8949
100	150.00	1200.00	5.8949
101	0.00	1250.00	5.8921
102	50.00	1250.00	5.8921
103	100.00	1250.00	5.8921
104	150.00	1250.00	5.8921
105	0.00	1300.00	5.8892
106	50.00	1300.00	5.8892
107	100.00	1300.00	5.8892
108	150.00	1300.00	5.8892
109	0.00	1350.00	5.8864
110	50.00	1350.00	5.8864
111	100.00	1350.00	5.8864
112	150.00	1350.00	5.8864
113	0.00	1400.00	5.8835
114	50.00	1400.00	5.8835
115	100.00	1400.00	5.8835
116	150.00	1400.00	5.8835
117	0.00	1450.00	5.8807
118	50.00	1450.00	5.8807
119	100.00	1450.00	5.8807
120	150.00	1450.00	5.8807
121	0.00	1500.00	5.8778
122	50.00	1500.00	5.8778
123	100.00	1500.00	5.8778
124	150.00	1500.00	5.8778
125	0.00	1550.00	5.8749
126	50.00	1550.00	5.8749

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		VELFP.OUT	
127	100.00	1550.00	5.8749
128	150.00	1550.00	5.8749
129	0.00	1600.00	5.8720
130	50.00	1600.00	5.8720
131	100.00	1600.00	5.8720
132	150.00	1600.00	5.8720
133	0.00	1650.00	5.8692
134	50.00	1650.00	5.8692
135	100.00	1650.00	5.8692
136	150.00	1650.00	5.8692
137	0.00	1700.00	5.8664
138	50.00	1700.00	5.8664
139	100.00	1700.00	5.8664
140	150.00	1700.00	5.8664
141	0.00	1750.00	5.8638
142	50.00	1750.00	5.8638
143	100.00	1750.00	5.8638
144	150.00	1750.00	5.8638
145	0.00	1800.00	5.8615
146	50.00	1800.00	5.8615
147	100.00	1800.00	5.8615
148	150.00	1800.00	5.8615
149	0.00	1850.00	5.8608
150	50.00	1850.00	5.8608
151	100.00	1850.00	5.8608
152	150.00	1850.00	5.8608
153	0.00	1900.00	5.8608
154	50.00	1900.00	5.8608
155	100.00	1900.00	5.8608
156	150.00	1900.00	5.8608
157	0.00	1950.00	5.8607
158	50.00	1950.00	5.8607
159	100.00	1950.00	5.8607
160	150.00	1950.00	5.8607
161	0.00	2000.00	5.8607
162	50.00	2000.00	5.8607
163	100.00	2000.00	5.8607
164	150.00	2000.00	5.8607
165	0.00	2050.00	5.8607
166	50.00	2050.00	5.8607
167	100.00	2050.00	5.8607
168	150.00	2050.00	5.8607
169	0.00	2100.00	5.8607
170	50.00	2100.00	5.8607
171	100.00	2100.00	5.8607
172	150.00	2100.00	5.8607
173	0.00	2150.00	5.8606
174	50.00	2150.00	5.8606
175	100.00	2150.00	5.8606
176	150.00	2150.00	5.8606
177	0.00	2200.00	5.8606
178	50.00	2200.00	5.8606
179	100.00	2200.00	5.8606
180	150.00	2200.00	5.8606
181	0.00	2250.00	5.8606
182	50.00	2250.00	5.8606
183	100.00	2250.00	5.8606
184	150.00	2250.00	5.8606
185	0.00	2300.00	5.8605
186	50.00	2300.00	5.8605
187	100.00	2300.00	5.8605
188	150.00	2300.00	5.8605
189	0.00	2350.00	5.8605

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		VELFP.OUT	
190	50.00	2350.00	5.8605
191	100.00	2350.00	5.8605
192	150.00	2350.00	5.8605
193	0.00	2400.00	5.8605
194	50.00	2400.00	5.8605
195	100.00	2400.00	5.8605
196	150.00	2400.00	5.8605
197	0.00	2450.00	5.8604
198	50.00	2450.00	5.8604
199	100.00	2450.00	5.8604
200	150.00	2450.00	5.8604
201	0.00	2500.00	5.8604
202	50.00	2500.00	5.8604
203	100.00	2500.00	5.8604
204	150.00	2500.00	5.8604
205	0.00	2550.00	5.8603
206	50.00	2550.00	5.8603
207	100.00	2550.00	5.8603
208	150.00	2550.00	5.8603
209	0.00	2600.00	5.8603
210	50.00	2600.00	5.8603
211	100.00	2600.00	5.8603
212	150.00	2600.00	5.8603
213	0.00	2650.00	5.8602
214	50.00	2650.00	5.8602
215	100.00	2650.00	5.8602
216	150.00	2650.00	5.8602
217	0.00	2700.00	5.8602
218	50.00	2700.00	5.8602
219	100.00	2700.00	5.8602
220	150.00	2700.00	5.8602
221	0.00	2750.00	5.8601
222	50.00	2750.00	5.8601
223	100.00	2750.00	5.8601
224	150.00	2750.00	5.8601
225	0.00	2800.00	5.8601
226	50.00	2800.00	5.8601
227	100.00	2800.00	5.8601
228	150.00	2800.00	5.8601
229	0.00	2850.00	5.8600
230	50.00	2850.00	5.8600
231	100.00	2850.00	5.8600
232	150.00	2850.00	5.8600
233	0.00	2900.00	5.8599
234	50.00	2900.00	5.8599
235	100.00	2900.00	5.8599
236	150.00	2900.00	5.8599
237	0.00	2950.00	0.0000
238	50.00	2950.00	0.0000
239	100.00	2950.00	0.0000
240	150.00	2950.00	0.0000

## FPLAIN.DAT (n = 0.08)

1	5	2	0	0	0.080	8.85
2	6	3	0	1	0.080	8.85
3	7	4	0	2	0.080	8.85
4	8	0	0	3	0.080	8.85
5	9	6	1	0	0.080	8.70
6	10	7	2	5	0.080	8.70
7	11	8	3	6	0.080	8.70
8	12	0	4	7	0.080	8.70
9	13	10	5	0	0.080	8.55
10	14	11	6	9	0.080	8.55
11	15	12	7	10	0.080	8.55
12	16	0	8	11	0.080	8.55
13	17	14	9	0	0.080	8.40
14	18	15	10	13	0.080	8.40
15	19	16	11	14	0.080	8.40
16	20	0	12	15	0.080	8.40
17	21	18	13	0	0.080	8.25
18	22	19	14	17	0.080	8.25
19	23	20	15	18	0.080	8.25
20	24	0	16	19	0.080	8.25
21	25	22	17	0	0.080	8.10
22	26	23	18	21	0.080	8.10
23	27	24	19	22	0.080	8.10
24	28	0	20	23	0.080	8.10
25	29	26	21	0	0.080	7.95
26	30	27	22	25	0.080	7.95
27	31	28	23	26	0.080	7.95
28	32	0	24	27	0.080	7.95
29	33	30	25	0	0.080	7.80
30	34	31	26	29	0.080	7.80
31	35	32	27	30	0.080	7.80
32	36	0	28	31	0.080	7.80
33	37	34	29	0	0.080	7.65
34	38	35	30	33	0.080	7.65
35	39	36	31	34	0.080	7.65
36	40	0	32	35	0.080	7.65
37	41	38	33	0	0.080	7.50
38	42	39	34	37	0.080	7.50
39	43	40	35	38	0.080	7.50
40	44	0	36	39	0.080	7.50
41	45	42	37	0	0.080	7.35
42	46	43	38	41	0.080	7.35
43	47	44	39	42	0.080	7.35
44	48	0	40	43	0.080	7.35
45	49	46	41	0	0.080	7.20
46	50	47	42	45	0.080	7.20
47	51	48	43	46	0.080	7.20
48	52	0	44	47	0.080	7.20
49	53	50	45	0	0.080	7.05

## FPLAIN.DAT (n = 0.08)

50	54	51	46	49	0.080	7.05
51	55	52	47	50	0.080	7.05
52	56	0	48	51	0.080	7.05
53	57	54	49	0	0.080	6.90
54	58	55	50	53	0.080	6.90
55	59	56	51	54	0.080	6.90
56	60	0	52	55	0.080	6.90
57	61	58	53	0	0.080	6.75
58	62	59	54	57	0.080	6.75
59	63	60	55	58	0.080	6.75
60	64	0	56	59	0.080	6.75
61	65	62	57	0	0.080	6.60
62	66	63	58	61	0.080	6.60
63	67	64	59	62	0.080	6.60
64	68	0	60	63	0.080	6.60
65	69	66	61	0	0.080	6.45
66	70	67	62	65	0.080	6.45
67	71	68	63	66	0.080	6.45
68	72	0	64	67	0.080	6.45
69	73	70	65	0	0.080	6.30
70	74	71	66	69	0.080	6.30
71	75	72	67	70	0.080	6.30
72	76	0	68	71	0.080	6.30
73	77	74	69	0	0.080	6.15
74	78	75	70	73	0.080	6.15
75	79	76	71	74	0.080	6.15
76	80	0	72	75	0.080	6.15
77	81	78	73	0	0.080	6.00
78	82	79	74	77	0.080	6.00
79	83	80	75	78	0.080	6.00
80	84	0	76	79	0.080	6.00
81	85	82	77	0	0.080	5.85
82	86	83	78	81	0.080	5.85
83	87	84	79	82	0.080	5.85
84	88	0	80	83	0.080	5.85
85	89	86	81	0	0.080	5.70
86	90	87	82	85	0.080	5.70
87	91	88	83	86	0.080	5.70
88	92	0	84	87	0.080	5.70
89	93	90	85	0	0.080	5.55
90	94	91	86	89	0.080	5.55
91	95	92	87	90	0.080	5.55
92	96	0	88	91	0.080	5.55
93	97	94	89	0	0.080	5.40
94	98	95	90	93	0.080	5.40
95	99	96	91	94	0.080	5.40
96	100	0	92	95	0.080	5.40
97	101	98	93	0	0.080	5.25
98	102	99	94	97	0.080	5.25

## FPLAIN.DAT (n = 0.08)

99	103	100	95	98	0.080	5.25
100	104	0	96	99	0.080	5.25
101	105	102	97	0	0.080	5.10
102	106	103	98	101	0.080	5.10
103	107	104	99	102	0.080	5.10
104	108	0	100	103	0.080	5.10
105	109	106	101	0	0.080	4.95
106	110	107	102	105	0.080	4.95
107	111	108	103	106	0.080	4.95
108	112	0	104	107	0.080	4.95
109	113	110	105	0	0.080	4.80
110	114	111	106	109	0.080	4.80
111	115	112	107	110	0.080	4.80
112	116	0	108	111	0.080	4.80
113	117	114	109	0	0.080	4.65
114	118	115	110	113	0.080	4.65
115	119	116	111	114	0.080	4.65
116	120	0	112	115	0.080	4.65
117	121	118	113	0	0.080	4.50
118	122	119	114	117	0.080	4.50
119	123	120	115	118	0.080	4.50
120	124	0	116	119	0.080	4.50
121	125	122	117	0	0.080	4.35
122	126	123	118	121	0.080	4.35
123	127	124	119	122	0.080	4.35
124	128	0	120	123	0.080	4.35
125	129	126	121	0	0.080	4.20
126	130	127	122	125	0.080	4.20
127	131	128	123	126	0.080	4.20
128	132	0	124	127	0.080	4.20
129	133	130	125	0	0.080	4.05
130	134	131	126	129	0.080	4.05
131	135	132	127	130	0.080	4.05
132	136	0	128	131	0.080	4.05
133	137	134	129	0	0.080	3.90
134	138	135	130	133	0.080	3.90
135	139	136	131	134	0.080	3.90
136	140	0	132	135	0.080	3.90
137	141	138	133	0	0.080	3.75
138	142	139	134	137	0.080	3.75
139	143	140	135	138	0.080	3.75
140	144	0	136	139	0.080	3.75
141	145	142	137	0	0.080	3.60
142	146	143	138	141	0.080	3.60
143	147	144	139	142	0.080	3.60
144	148	0	140	143	0.080	3.60
145	149	146	141	0	0.080	3.45
146	150	147	142	145	0.080	3.45
147	151	148	143	146	0.080	3.45



## FPLAIN.DAT (n = 0.08)

148	152	0	144	147	0.080	3.45
149	153	150	145	0	0.080	3.30
150	154	151	146	149	0.080	3.30
151	155	152	147	150	0.080	3.30
152	156	0	148	151	0.080	3.30
153	157	154	149	0	0.080	3.15
154	158	155	150	153	0.080	3.15
155	159	156	151	154	0.080	3.15
156	160	0	152	155	0.080	3.15
157	161	158	153	0	0.080	3.00
158	162	159	154	157	0.080	3.00
159	163	160	155	158	0.080	3.00
160	164	0	156	159	0.080	3.00
161	165	162	157	0	0.080	2.85
162	166	163	158	161	0.080	2.85
163	167	164	159	162	0.080	2.85
164	168	0	160	163	0.080	2.85
165	169	166	161	0	0.080	2.70
166	170	167	162	165	0.080	2.70
167	171	168	163	166	0.080	2.70
168	172	0	164	167	0.080	2.70
169	173	170	165	0	0.080	2.55
170	174	171	166	169	0.080	2.55
171	175	172	167	170	0.080	2.55
172	176	0	168	171	0.080	2.55
173	177	174	169	0	0.080	2.40
174	178	175	170	173	0.080	2.40
175	179	176	171	174	0.080	2.40
176	180	0	172	175	0.080	2.40
177	181	178	173	0	0.080	2.25
178	182	179	174	177	0.080	2.25
179	183	180	175	178	0.080	2.25
180	184	0	176	179	0.080	2.25
181	185	182	177	0	0.080	2.10
182	186	183	178	181	0.080	2.10
183	187	184	179	182	0.080	2.10
184	188	0	180	183	0.080	2.10
185	189	186	181	0	0.080	1.95
186	190	187	182	185	0.080	1.95
187	191	188	183	186	0.080	1.95
188	192	0	184	187	0.080	1.95
189	193	190	185	0	0.080	1.80
190	194	191	186	189	0.080	1.80
191	195	192	187	190	0.080	1.80
192	196	0	188	191	0.080	1.80
193	197	194	189	0	0.080	1.65
194	198	195	190	193	0.080	1.65
195	199	196	191	194	0.080	1.65
196	200	0	192	195	0.080	1.65

## FPLAIN.DAT (n = 0.08)

197	201	198	193	0	0.080	1.50
198	202	199	194	197	0.080	1.50
199	203	200	195	198	0.080	1.50
200	204	0	196	199	0.080	1.50
201	205	202	197	0	0.080	1.35
202	206	203	198	201	0.080	1.35
203	207	204	199	202	0.080	1.35
204	208	0	200	203	0.080	1.35
205	209	206	201	0	0.080	1.20
206	210	207	202	205	0.080	1.20
207	211	208	203	206	0.080	1.20
208	212	0	204	207	0.080	1.20
209	213	210	205	0	0.080	1.05
210	214	211	206	209	0.080	1.05
211	215	212	207	210	0.080	1.05
212	216	0	208	211	0.080	1.05
213	217	214	209	0	0.080	0.90
214	218	215	210	213	0.080	0.90
215	219	216	211	214	0.080	0.90
216	220	0	212	215	0.080	0.90
217	221	218	213	0	0.080	0.75
218	222	219	214	217	0.080	0.75
219	223	220	215	218	0.080	0.75
220	224	0	216	219	0.080	0.75
221	225	222	217	0	0.080	0.60
222	226	223	218	221	0.080	0.60
223	227	224	219	222	0.080	0.60
224	228	0	220	223	0.080	0.60
225	229	226	221	0	0.080	0.45
226	230	227	222	225	0.080	0.45
227	231	228	223	226	0.080	0.45
228	232	0	224	227	0.080	0.45
229	233	230	225	0	0.080	0.30
230	234	231	226	229	0.080	0.30
231	235	232	227	230	0.080	0.30
232	236	0	228	231	0.080	0.30
233	237	234	229	0	0.080	0.15
234	238	235	230	233	0.080	0.15
235	239	236	231	234	0.080	0.15
236	240	0	232	235	0.080	0.15
237	0	238	233	0	0.080	0.00
238	0	239	234	237	0.080	0.00
239	0	240	235	238	0.080	0.00
240	0	0	236	239	0.080	0.00

DEPTH.OUT (n = 0.08)

1	0.00	0.00	9.0437
2	50.00	0.00	9.0437
3	100.00	0.00	9.0437
4	150.00	0.00	9.0437
5	0.00	50.00	9.0435
6	50.00	50.00	9.0435
7	100.00	50.00	9.0435
8	150.00	50.00	9.0435
9	0.00	100.00	9.0433
10	50.00	100.00	9.0433
11	100.00	100.00	9.0433
12	150.00	100.00	9.0433
13	0.00	150.00	9.0430
14	50.00	150.00	9.0430
15	100.00	150.00	9.0430
16	150.00	150.00	9.0430
17	0.00	200.00	9.0428
18	50.00	200.00	9.0428
19	100.00	200.00	9.0428
20	150.00	200.00	9.0428
21	0.00	250.00	9.0425
22	50.00	250.00	9.0425
23	100.00	250.00	9.0425
24	150.00	250.00	9.0425
25	0.00	300.00	9.0423
26	50.00	300.00	9.0423
27	100.00	300.00	9.0423
28	150.00	300.00	9.0423
29	0.00	350.00	9.0420
30	50.00	350.00	9.0420
31	100.00	350.00	9.0420
32	150.00	350.00	9.0420
33	0.00	400.00	9.0417
34	50.00	400.00	9.0417
35	100.00	400.00	9.0417
36	150.00	400.00	9.0417
37	0.00	450.00	9.0415
38	50.00	450.00	9.0415
39	100.00	450.00	9.0415
40	150.00	450.00	9.0415
41	0.00	500.00	9.0412
42	50.00	500.00	9.0412
43	100.00	500.00	9.0412
44	150.00	500.00	9.0412
45	0.00	550.00	9.0409
46	50.00	550.00	9.0409
47	100.00	550.00	9.0409
48	150.00	550.00	9.0409
49	0.00	600.00	9.0406

DEPTH.OUT (n = 0.08)

50	50.00	600.00	9.0406
51	100.00	600.00	9.0406
52	150.00	600.00	9.0406
53	0.00	650.00	9.0403
54	50.00	650.00	9.0403
55	100.00	650.00	9.0403
56	150.00	650.00	9.0403
57	0.00	700.00	9.0400
58	50.00	700.00	9.0400
59	100.00	700.00	9.0400
60	150.00	700.00	9.0400
61	0.00	750.00	9.0397
62	50.00	750.00	9.0397
63	100.00	750.00	9.0397
64	150.00	750.00	9.0397
65	0.00	800.00	9.0393
66	50.00	800.00	9.0393
67	100.00	800.00	9.0393
68	150.00	800.00	9.0393
69	0.00	850.00	9.0390
70	50.00	850.00	9.0390
71	100.00	850.00	9.0390
72	150.00	850.00	9.0390
73	0.00	900.00	9.0387
74	50.00	900.00	9.0387
75	100.00	900.00	9.0387
76	150.00	900.00	9.0387
77	0.00	950.00	9.0384
78	50.00	950.00	9.0384
79	100.00	950.00	9.0384
80	150.00	950.00	9.0384
81	0.00	1000.00	9.0380
82	50.00	1000.00	9.0380
83	100.00	1000.00	9.0380
84	150.00	1000.00	9.0380
85	0.00	1050.00	9.0377
86	50.00	1050.00	9.0377
87	100.00	1050.00	9.0377
88	150.00	1050.00	9.0377
89	0.00	1100.00	9.0374
90	50.00	1100.00	9.0374
91	100.00	1100.00	9.0374
92	150.00	1100.00	9.0374
93	0.00	1150.00	9.0370
94	50.00	1150.00	9.0370
95	100.00	1150.00	9.0370
96	150.00	1150.00	9.0370
97	0.00	1200.00	9.0367
98	50.00	1200.00	9.0367

DEPTH.OUT (n = 0.08)

99	100.00	1200.00	9.0367
100	150.00	1200.00	9.0367
101	0.00	1250.00	9.0363
102	50.00	1250.00	9.0363
103	100.00	1250.00	9.0363
104	150.00	1250.00	9.0363
105	0.00	1300.00	9.0360
106	50.00	1300.00	9.0360
107	100.00	1300.00	9.0360
108	150.00	1300.00	9.0360
109	0.00	1350.00	9.0356
110	50.00	1350.00	9.0356
111	100.00	1350.00	9.0356
112	150.00	1350.00	9.0356
113	0.00	1400.00	9.0352
114	50.00	1400.00	9.0352
115	100.00	1400.00	9.0352
116	150.00	1400.00	9.0352
117	0.00	1450.00	9.0349
118	50.00	1450.00	9.0349
119	100.00	1450.00	9.0349
120	150.00	1450.00	9.0349
121	0.00	1500.00	9.0345
122	50.00	1500.00	9.0345
123	100.00	1500.00	9.0345
124	150.00	1500.00	9.0345
125	0.00	1550.00	9.0342
126	50.00	1550.00	9.0342
127	100.00	1550.00	9.0342
128	150.00	1550.00	9.0342
129	0.00	1600.00	9.0338
130	50.00	1600.00	9.0338
131	100.00	1600.00	9.0338
132	150.00	1600.00	9.0338
133	0.00	1650.00	9.0335
134	50.00	1650.00	9.0335
135	100.00	1650.00	9.0335
136	150.00	1650.00	9.0335
137	0.00	1700.00	9.0331
138	50.00	1700.00	9.0331
139	100.00	1700.00	9.0331
140	150.00	1700.00	9.0331
141	0.00	1750.00	9.0328
142	50.00	1750.00	9.0328
143	100.00	1750.00	9.0328
144	150.00	1750.00	9.0328
145	0.00	1800.00	9.0324
146	50.00	1800.00	9.0324
147	100.00	1800.00	9.0324



DEPTH.OUT (n = 0.08)

148	150.00	1800.00	9.0324
149	0.00	1850.00	9.0321
150	50.00	1850.00	9.0321
151	100.00	1850.00	9.0321
152	150.00	1850.00	9.0321
153	0.00	1900.00	9.0317
154	50.00	1900.00	9.0317
155	100.00	1900.00	9.0317
156	150.00	1900.00	9.0317
157	0.00	1950.00	9.0314
158	50.00	1950.00	9.0314
159	100.00	1950.00	9.0314
160	150.00	1950.00	9.0314
161	0.00	2000.00	9.0311
162	50.00	2000.00	9.0311
163	100.00	2000.00	9.0311
164	150.00	2000.00	9.0311
165	0.00	2050.00	9.0307
166	50.00	2050.00	9.0307
167	100.00	2050.00	9.0307
168	150.00	2050.00	9.0307
169	0.00	2100.00	9.0304
170	50.00	2100.00	9.0304
171	100.00	2100.00	9.0304
172	150.00	2100.00	9.0304
173	0.00	2150.00	9.0301
174	50.00	2150.00	9.0301
175	100.00	2150.00	9.0301
176	150.00	2150.00	9.0301
177	0.00	2200.00	9.0298
178	50.00	2200.00	9.0298
179	100.00	2200.00	9.0298
180	150.00	2200.00	9.0298
181	0.00	2250.00	9.0296
182	50.00	2250.00	9.0296
183	100.00	2250.00	9.0296
184	150.00	2250.00	9.0296
185	0.00	2300.00	9.0293
186	50.00	2300.00	9.0293
187	100.00	2300.00	9.0293
188	150.00	2300.00	9.0293
189	0.00	2350.00	9.0290
190	50.00	2350.00	9.0290
191	100.00	2350.00	9.0290
192	150.00	2350.00	9.0290
193	0.00	2400.00	9.0288
194	50.00	2400.00	9.0288
195	100.00	2400.00	9.0288
196	150.00	2400.00	9.0288

DEPTH.OUT (n = 0.08)

197	0.00	2450.00	9.0286
198	50.00	2450.00	9.0286
199	100.00	2450.00	9.0286
200	150.00	2450.00	9.0286
201	0.00	2500.00	9.0283
202	50.00	2500.00	9.0283
203	100.00	2500.00	9.0283
204	150.00	2500.00	9.0283
205	0.00	2550.00	9.0282
206	50.00	2550.00	9.0282
207	100.00	2550.00	9.0282
208	150.00	2550.00	9.0282
209	0.00	2600.00	9.0280
210	50.00	2600.00	9.0280
211	100.00	2600.00	9.0280
212	150.00	2600.00	9.0280
213	0.00	2650.00	9.0278
214	50.00	2650.00	9.0278
215	100.00	2650.00	9.0278
216	150.00	2650.00	9.0278
217	0.00	2700.00	9.0277
218	50.00	2700.00	9.0277
219	100.00	2700.00	9.0277
220	150.00	2700.00	9.0277
221	0.00	2750.00	9.0276
222	50.00	2750.00	9.0276
223	100.00	2750.00	9.0276
224	150.00	2750.00	9.0276
225	0.00	2800.00	9.0275
226	50.00	2800.00	9.0275
227	100.00	2800.00	9.0275
228	150.00	2800.00	9.0275
229	0.00	2850.00	9.0274
230	50.00	2850.00	9.0274
231	100.00	2850.00	9.0274
232	150.00	2850.00	9.0274
233	0.00	2900.00	9.0274
234	50.00	2900.00	9.0274
235	100.00	2900.00	9.0274
236	150.00	2900.00	9.0274
237	0.00	2950.00	9.0274
238	50.00	2950.00	9.0274
239	100.00	2950.00	9.0274
240	150.00	2950.00	9.0274

## VELFP.OUT (n = 0.08)

1	0.00	0.00	4.5915
2	50.00	0.00	4.5915
3	100.00	0.00	4.5915
4	150.00	0.00	4.5915
5	0.00	50.00	4.5869
6	50.00	50.00	4.5869
7	100.00	50.00	4.5869
8	150.00	50.00	4.5869
9	0.00	100.00	4.5821
10	50.00	100.00	4.5821
11	100.00	100.00	4.5821
12	150.00	100.00	4.5821
13	0.00	150.00	4.5774
14	50.00	150.00	4.5774
15	100.00	150.00	4.5774
16	150.00	150.00	4.5774
17	0.00	200.00	4.5726
18	50.00	200.00	4.5726
19	100.00	200.00	4.5726
20	150.00	200.00	4.5726
21	0.00	250.00	4.5678
22	50.00	250.00	4.5678
23	100.00	250.00	4.5678
24	150.00	250.00	4.5678
25	0.00	300.00	4.5629
26	50.00	300.00	4.5629
27	100.00	300.00	4.5629
28	150.00	300.00	4.5629
29	0.00	350.00	4.5581
30	50.00	350.00	4.5581
31	100.00	350.00	4.5581
32	150.00	350.00	4.5581
33	0.00	400.00	4.5532
34	50.00	400.00	4.5532
35	100.00	400.00	4.5532
36	150.00	400.00	4.5532
37	0.00	450.00	4.5482
38	50.00	450.00	4.5482
39	100.00	450.00	4.5482
40	150.00	450.00	4.5482
41	0.00	500.00	4.5432
42	50.00	500.00	4.5432
43	100.00	500.00	4.5432
44	150.00	500.00	4.5432
45	0.00	550.00	4.5381
46	50.00	550.00	4.5381
47	100.00	550.00	4.5381
48	150.00	550.00	4.5381
49	0.00	600.00	4.5335

## VELFP.OUT (n = 0.08)

50	50.00	600.00	4.5335
51	100.00	600.00	4.5335
52	150.00	600.00	4.5335
53	0.00	650.00	4.5289
54	50.00	650.00	4.5289
55	100.00	650.00	4.5289
56	150.00	650.00	4.5289
57	0.00	700.00	4.5244
58	50.00	700.00	4.5244
59	100.00	700.00	4.5244
60	150.00	700.00	4.5244
61	0.00	750.00	4.5200
62	50.00	750.00	4.5200
63	100.00	750.00	4.5200
64	150.00	750.00	4.5200
65	0.00	800.00	4.5157
66	50.00	800.00	4.5157
67	100.00	800.00	4.5157
68	150.00	800.00	4.5157
69	0.00	850.00	4.5114
70	50.00	850.00	4.5114
71	100.00	850.00	4.5114
72	150.00	850.00	4.5114
73	0.00	900.00	4.5071
74	50.00	900.00	4.5071
75	100.00	900.00	4.5071
76	150.00	900.00	4.5071
77	0.00	950.00	4.5028
78	50.00	950.00	4.5028
79	100.00	950.00	4.5028
80	150.00	950.00	4.5028
81	0.00	1000.00	4.4986
82	50.00	1000.00	4.4986
83	100.00	1000.00	4.4986
84	150.00	1000.00	4.4986
85	0.00	1050.00	4.4944
86	50.00	1050.00	4.4944
87	100.00	1050.00	4.4944
88	150.00	1050.00	4.4944
89	0.00	1100.00	4.4901
90	50.00	1100.00	4.4901
91	100.00	1100.00	4.4901
92	150.00	1100.00	4.4901
93	0.00	1150.00	4.4859
94	50.00	1150.00	4.4859
95	100.00	1150.00	4.4859
96	150.00	1150.00	4.4859
97	0.00	1200.00	4.4815
98	50.00	1200.00	4.4815

## VELFP.OUT (n = 0.08)

99	100.00	1200.00	4.4815
100	150.00	1200.00	4.4815
101	0.00	1250.00	4.4772
102	50.00	1250.00	4.4772
103	100.00	1250.00	4.4772
104	150.00	1250.00	4.4772
105	0.00	1300.00	4.4728
106	50.00	1300.00	4.4728
107	100.00	1300.00	4.4728
108	150.00	1300.00	4.4728
109	0.00	1350.00	4.4683
110	50.00	1350.00	4.4683
111	100.00	1350.00	4.4683
112	150.00	1350.00	4.4683
113	0.00	1400.00	4.4637
114	50.00	1400.00	4.4637
115	100.00	1400.00	4.4637
116	150.00	1400.00	4.4637
117	0.00	1450.00	4.4591
118	50.00	1450.00	4.4591
119	100.00	1450.00	4.4591
120	150.00	1450.00	4.4591
121	0.00	1500.00	4.4544
122	50.00	1500.00	4.4544
123	100.00	1500.00	4.4544
124	150.00	1500.00	4.4544
125	0.00	1550.00	4.4495
126	50.00	1550.00	4.4495
127	100.00	1550.00	4.4495
128	150.00	1550.00	4.4495
129	0.00	1600.00	4.4446
130	50.00	1600.00	4.4446
131	100.00	1600.00	4.4446
132	150.00	1600.00	4.4446
133	0.00	1650.00	4.4396
134	50.00	1650.00	4.4396
135	100.00	1650.00	4.4396
136	150.00	1650.00	4.4396
137	0.00	1700.00	4.4346
138	50.00	1700.00	4.4346
139	100.00	1700.00	4.4346
140	150.00	1700.00	4.4346
141	0.00	1750.00	4.4295
142	50.00	1750.00	4.4295
143	100.00	1750.00	4.4295
144	150.00	1750.00	4.4295
145	0.00	1800.00	4.4246
146	50.00	1800.00	4.4246
147	100.00	1800.00	4.4246



## VELFP.OUT (n = 0.08)

148	150.00	1800.00	4.4246
149	0.00	1850.00	4.4206
150	50.00	1850.00	4.4206
151	100.00	1850.00	4.4206
152	150.00	1850.00	4.4206
153	0.00	1900.00	4.4204
154	50.00	1900.00	4.4204
155	100.00	1900.00	4.4204
156	150.00	1900.00	4.4204
157	0.00	1950.00	4.4202
158	50.00	1950.00	4.4202
159	100.00	1950.00	4.4202
160	150.00	1950.00	4.4202
161	0.00	2000.00	4.4200
162	50.00	2000.00	4.4200
163	100.00	2000.00	4.4200
164	150.00	2000.00	4.4200
165	0.00	2050.00	4.4198
166	50.00	2050.00	4.4198
167	100.00	2050.00	4.4198
168	150.00	2050.00	4.4198
169	0.00	2100.00	4.4195
170	50.00	2100.00	4.4195
171	100.00	2100.00	4.4195
172	150.00	2100.00	4.4195
173	0.00	2150.00	4.4193
174	50.00	2150.00	4.4193
175	100.00	2150.00	4.4193
176	150.00	2150.00	4.4193
177	0.00	2200.00	4.4190
178	50.00	2200.00	4.4190
179	100.00	2200.00	4.4190
180	150.00	2200.00	4.4190
181	0.00	2250.00	4.4187
182	50.00	2250.00	4.4187
183	100.00	2250.00	4.4187
184	150.00	2250.00	4.4187
185	0.00	2300.00	4.4185
186	50.00	2300.00	4.4185
187	100.00	2300.00	4.4185
188	150.00	2300.00	4.4225
189	0.00	2350.00	4.4182
190	50.00	2350.00	4.4182
191	100.00	2350.00	4.4182
192	150.00	2350.00	4.4233
193	0.00	2400.00	4.4178
194	50.00	2400.00	4.4178
195	100.00	2400.00	4.4186
196	150.00	2400.00	4.4655

## VELFP.OUT (n = 0.08)

197	0.00	2450.00	4.4175
198	50.00	2450.00	4.4175
199	100.00	2450.00	4.4175
200	150.00	2450.00	4.4175
201	0.00	2500.00	4.4172
202	50.00	2500.00	4.4194
203	100.00	2500.00	4.4754
204	150.00	2500.00	4.5203
205	0.00	2550.00	4.4414
206	50.00	2550.00	4.4368
207	100.00	2550.00	4.4853
208	150.00	2550.00	4.5534
209	0.00	2600.00	4.4621
210	50.00	2600.00	4.4567
211	100.00	2600.00	4.4843
212	150.00	2600.00	4.5619
213	0.00	2650.00	4.4161
214	50.00	2650.00	4.5060
215	100.00	2650.00	4.5565
216	150.00	2650.00	4.6060
217	0.00	2700.00	4.5422
218	50.00	2700.00	4.5380
219	100.00	2700.00	4.5630
220	150.00	2700.00	4.5922
221	0.00	2750.00	4.5264
222	50.00	2750.00	4.5108
223	100.00	2750.00	4.5471
224	150.00	2750.00	4.6330
225	0.00	2800.00	4.5396
226	50.00	2800.00	4.5472
227	100.00	2800.00	4.6056
228	150.00	2800.00	4.6308
229	0.00	2850.00	4.5747
230	50.00	2850.00	4.5538
231	100.00	2850.00	4.6098
232	150.00	2850.00	4.6571
233	0.00	2900.00	4.4140
234	50.00	2900.00	4.4140
235	100.00	2900.00	4.4140
236	150.00	2900.00	4.4140
237	0.00	2950.00	0.0000
238	50.00	2950.00	0.0000
239	100.00	2950.00	0.0000
240	150.00	2950.00	0.0000

## **Attachment 4b – Test Case 1b FLO-2D Pro Multiple Channel Feature Input and Output Files**

## ARF.DAT

```

S  0
  3 1  0  0  0  1  0  0  0  1
  2 0  0  1  0  1  0  0  0  1
  6 0  0  1  0  1  0  1  1  1
  7 1  0  0  0  1  0  0  0  1
 10 0  0  1  0  1  0  1  1  1
 11 1  0  0  0  1  0  0  0  1
 14 0  0  1  0  1  0  1  1  1
 15 1  0  0  0  1  0  0  0  1
 18 0  0  1  0  1  0  1  1  1
 19 1  0  0  0  1  0  0  0  1
 22 0  0  1  0  1  0  1  1  1
 23 1  0  0  0  1  0  0  0  1
 26 0  0  1  0  1  0  1  1  1
 27 1  0  0  0  1  0  0  0  1
 30 0  0  1  0  1  0  1  1  1
 31 1  0  0  0  1  0  0  0  1
 34 0  0  1  0  1  0  1  1  1
 35 1  0  0  0  1  0  0  0  1
 38 0  0  1  0  1  0  1  1  1
 39 1  0  0  0  1  0  0  0  1
 42 0  0  1  0  1  0  1  1  1
 43 1  0  0  0  1  0  0  0  1
 46 0  0  1  0  1  0  1  1  1
 47 1  0  0  0  1  0  0  0  1
 50 0  0  1  0  1  0  1  1  1
 51 1  0  0  0  1  0  0  0  1
 54 0  0  1  0  1  0  1  1  1
 55 1  0  0  0  1  0  0  0  1
 58 0  0  1  0  1  0  1  1  1
 59 1  0  0  0  1  0  0  0  1
 62 0  0  1  0  1  0  1  1  1
 63 1  0  0  0  1  0  0  0  1
 66 0  0  1  0  1  0  1  1  1
 67 1  0  0  0  1  0  0  0  1
 70 0  0  1  0  1  0  1  1  1
 71 1  0  0  0  1  0  0  0  1
 74 0  0  1  0  1  0  1  1  1
 75 1  0  0  0  1  0  0  0  1
 78 0  0  1  0  1  0  1  1  1
 79 1  0  0  0  1  0  0  0  1
 82 0  0  1  0  1  0  1  1  1
 83 1  0  0  0  1  0  0  0  1
 86 0  0  1  0  1  0  1  1  1
 87 1  0  0  0  1  0  0  0  1
 90 0  0  1  0  1  0  1  1  1
 91 1  0  0  0  1  0  0  0  1
 94 0  0  1  0  1  0  1  1  1
 95 1  0  0  0  1  0  0  0  1

```

## ARF.DAT

```

98 0 0 1 0 1 0 1 1 1
99 1 0 0 0 1 0 0 0 1
102 0 0 1 0 1 0 1 1 1
103 1 0 0 0 1 0 0 0 1
106 0 0 1 0 1 0 1 1 1
107 1 0 0 0 1 0 0 0 1
110 0 0 1 0 1 0 1 1 1
111 1 0 0 0 1 0 0 0 1
114 0 0 1 0 1 0 1 1 1
115 1 0 0 0 1 0 0 0 1
118 0 0 1 0 1 0 1 1 1
119 1 0 0 0 1 0 0 0 1
122 0 0 1 0 1 0 1 1 1
123 1 0 0 0 1 0 0 0 1
126 0 0 1 0 1 0 1 1 1
127 1 0 0 0 1 0 0 0 1
130 0 0 1 0 1 0 1 1 1
131 1 0 0 0 1 0 0 0 1
134 0 0 1 0 1 0 1 1 1
135 1 0 0 0 1 0 0 0 1
138 0 0 1 0 1 0 1 1 1
139 1 0 0 0 1 0 0 0 1
142 0 0 1 0 1 0 1 1 1
143 1 0 0 0 1 0 0 0 1
146 0 0 1 0 1 0 1 1 1
147 1 0 0 0 1 0 0 0 1
150 0 0 1 0 1 0 1 1 1
151 1 0 0 0 1 0 0 0 1
154 0 0 1 0 1 0 1 1 1
155 1 0 0 0 1 0 0 0 1
158 0 0 1 0 1 0 1 1 1
159 1 0 0 0 1 0 0 0 1
162 0 0 1 0 1 0 1 1 1
163 1 0 0 0 1 0 0 0 1
166 0 0 1 0 1 0 1 1 1
167 1 0 0 0 1 0 0 0 1
170 0 0 1 0 1 0 1 1 1
171 1 0 0 0 1 0 0 0 1
174 0 0 1 0 1 0 1 1 1
175 1 0 0 0 1 0 0 0 1
178 0 0 1 0 1 0 1 1 1
179 1 0 0 0 1 0 0 0 1
182 0 0 1 0 1 0 1 1 1
183 1 0 0 0 1 0 0 0 1
186 0 0 1 0 1 0 1 1 1
187 1 0 0 0 1 0 0 0 1
190 0 0 1 0 1 0 1 1 1
191 1 0 0 0 1 0 0 0 1
194 0 0 1 0 1 0 1 1 1

```



## ARF.DAT

```

195 1 0 0 0 1 0 0 0 1
198 0 0 1 0 1 0 1 1 1
199 1 0 0 0 1 0 0 0 1
202 0 0 1 0 1 0 1 1 1
203 1 0 0 0 1 0 0 0 1
206 0 0 1 0 1 0 1 1 1
207 1 0 0 0 1 0 0 0 1
210 0 0 1 0 1 0 1 1 1
211 1 0 0 0 1 0 0 0 1
214 0 0 1 0 1 0 1 1 1
215 1 0 0 0 1 0 0 0 1
218 0 0 1 0 1 0 1 1 1
219 1 0 0 0 1 0 0 0 1
1 1 0 1 0 0 0 0 0
5 1 0 1 0 0 0 1 0
9 1 0 1 0 0 0 1 0
13 1 0 1 0 0 0 1 0
17 1 0 1 0 0 0 1 0
21 1 0 1 0 0 0 1 0
25 1 0 1 0 0 0 1 0
29 1 0 1 0 0 0 1 0
33 1 0 1 0 0 0 1 0
37 1 0 1 0 0 0 1 0
41 1 0 1 0 0 0 1 0
45 1 0 1 0 0 0 1 0
49 1 0 1 0 0 0 1 0
53 1 0 1 0 0 0 1 0
57 1 0 1 0 0 0 1 0
61 1 0 1 0 0 0 1 0
65 1 0 1 0 0 0 1 0
69 1 0 1 0 0 0 1 0
73 1 0 1 0 0 0 1 0
77 1 0 1 0 0 0 1 0
81 1 0 1 0 0 0 1 0
85 1 0 1 0 0 0 1 0
89 1 0 1 0 0 0 1 0
93 1 0 1 0 0 0 1 0
97 1 0 1 0 0 0 1 0
101 1 0 1 0 0 0 1 0
105 1 0 1 0 0 0 1 0
109 1 0 1 0 0 0 1 0
113 1 0 1 0 0 0 1 0
117 1 0 1 0 0 0 1 0
121 1 0 1 0 0 0 1 0
125 1 0 1 0 0 0 1 0
129 1 0 1 0 0 0 1 0
133 1 0 1 0 0 0 1 0
137 1 0 1 0 0 0 1 0
141 1 0 1 0 0 0 1 0

```

## ARF.DAT

145	1	0	1	0	0	0	1	0	0
149	1	0	1	0	0	0	1	0	0
153	1	0	1	0	0	0	1	0	0
157	1	0	1	0	0	0	1	0	0
161	1	0	1	0	0	0	1	0	0
165	1	0	1	0	0	0	1	0	0
169	1	0	1	0	0	0	1	0	0
173	1	0	1	0	0	0	1	0	0
177	1	0	1	0	0	0	1	0	0
181	1	0	1	0	0	0	1	0	0
185	1	0	1	0	0	0	1	0	0
189	1	0	1	0	0	0	1	0	0
193	1	0	1	0	0	0	1	0	0
197	1	0	1	0	0	0	1	0	0
201	1	0	1	0	0	0	1	0	0
205	1	0	1	0	0	0	1	0	0
209	1	0	1	0	0	0	1	0	0
213	1	0	1	0	0	0	1	0	0
217	1	0	1	0	0	0	1	0	0
221	1	0	1	0	0	0	1	0	0
222	0	0	1	0	1	0	1	1	1
223	1	0	0	0	1	0	0	0	1
226	0	0	1	0	1	0	1	1	0
225	1	0	1	0	0	0	1	0	0
227	1	0	0	0	1	0	0	0	0

## CADPTS.DAT

1	0.000	0.000
2	50.000	0.000
3	100.000	0.000
4	150.000	0.000
5	0.000	50.000
6	50.000	50.000
7	100.000	50.000
8	150.000	50.000
9	0.000	100.000
10	50.000	100.000
11	100.000	100.000
12	150.000	100.000
13	0.000	150.000
14	50.000	150.000
15	100.000	150.000
16	150.000	150.000
17	0.000	200.000
18	50.000	200.000
19	100.000	200.000
20	150.000	200.000
21	0.000	250.000
22	50.000	250.000
23	100.000	250.000
24	150.000	250.000
25	0.000	300.000
26	50.000	300.000
27	100.000	300.000
28	150.000	300.000
29	0.000	350.000
30	50.000	350.000
31	100.000	350.000
32	150.000	350.000
33	0.000	400.000
34	50.000	400.000
35	100.000	400.000
36	150.000	400.000
37	0.000	450.000
38	50.000	450.000
39	100.000	450.000
40	150.000	450.000
41	0.000	500.000
42	50.000	500.000
43	100.000	500.000
44	150.000	500.000
45	0.000	550.000
46	50.000	550.000
47	100.000	550.000
48	150.000	550.000
49	0.000	600.000

## CADPTS.DAT

50	50.000	600.000
51	100.000	600.000
52	150.000	600.000
53	0.000	650.000
54	50.000	650.000
55	100.000	650.000
56	150.000	650.000
57	0.000	700.000
58	50.000	700.000
59	100.000	700.000
60	150.000	700.000
61	0.000	750.000
62	50.000	750.000
63	100.000	750.000
64	150.000	750.000
65	0.000	800.000
66	50.000	800.000
67	100.000	800.000
68	150.000	800.000
69	0.000	850.000
70	50.000	850.000
71	100.000	850.000
72	150.000	850.000
73	0.000	900.000
74	50.000	900.000
75	100.000	900.000
76	150.000	900.000
77	0.000	950.000
78	50.000	950.000
79	100.000	950.000
80	150.000	950.000
81	0.000	1000.000
82	50.000	1000.000
83	100.000	1000.000
84	150.000	1000.000
85	0.000	1050.000
86	50.000	1050.000
87	100.000	1050.000
88	150.000	1050.000
89	0.000	1100.000
90	50.000	1100.000
91	100.000	1100.000
92	150.000	1100.000
93	0.000	1150.000
94	50.000	1150.000
95	100.000	1150.000
96	150.000	1150.000
97	0.000	1200.000
98	50.000	1200.000

## CADPTS.DAT

99	100.000	1200.000
100	150.000	1200.000
101	0.000	1250.000
102	50.000	1250.000
103	100.000	1250.000
104	150.000	1250.000
105	0.000	1300.000
106	50.000	1300.000
107	100.000	1300.000
108	150.000	1300.000
109	0.000	1350.000
110	50.000	1350.000
111	100.000	1350.000
112	150.000	1350.000
113	0.000	1400.000
114	50.000	1400.000
115	100.000	1400.000
116	150.000	1400.000
117	0.000	1450.000
118	50.000	1450.000
119	100.000	1450.000
120	150.000	1450.000
121	0.000	1500.000
122	50.000	1500.000
123	100.000	1500.000
124	150.000	1500.000
125	0.000	1550.000
126	50.000	1550.000
127	100.000	1550.000
128	150.000	1550.000
129	0.000	1600.000
130	50.000	1600.000
131	100.000	1600.000
132	150.000	1600.000
133	0.000	1650.000
134	50.000	1650.000
135	100.000	1650.000
136	150.000	1650.000
137	0.000	1700.000
138	50.000	1700.000
139	100.000	1700.000
140	150.000	1700.000
141	0.000	1750.000
142	50.000	1750.000
143	100.000	1750.000
144	150.000	1750.000
145	0.000	1800.000
146	50.000	1800.000
147	100.000	1800.000

## CADPTS.DAT

148	150.000	1800.000
149	0.000	1850.000
150	50.000	1850.000
151	100.000	1850.000
152	150.000	1850.000
153	0.000	1900.000
154	50.000	1900.000
155	100.000	1900.000
156	150.000	1900.000
157	0.000	1950.000
158	50.000	1950.000
159	100.000	1950.000
160	150.000	1950.000
161	0.000	2000.000
162	50.000	2000.000
163	100.000	2000.000
164	150.000	2000.000
165	0.000	2050.000
166	50.000	2050.000
167	100.000	2050.000
168	150.000	2050.000
169	0.000	2100.000
170	50.000	2100.000
171	100.000	2100.000
172	150.000	2100.000
173	0.000	2150.000
174	50.000	2150.000
175	100.000	2150.000
176	150.000	2150.000
177	0.000	2200.000
178	50.000	2200.000
179	100.000	2200.000
180	150.000	2200.000
181	0.000	2250.000
182	50.000	2250.000
183	100.000	2250.000
184	150.000	2250.000
185	0.000	2300.000
186	50.000	2300.000
187	100.000	2300.000
188	150.000	2300.000
189	0.000	2350.000
190	50.000	2350.000
191	100.000	2350.000
192	150.000	2350.000
193	0.000	2400.000
194	50.000	2400.000
195	100.000	2400.000
196	150.000	2400.000



## CADPTS.DAT

197	0.000	2450.000
198	50.000	2450.000
199	100.000	2450.000
200	150.000	2450.000
201	0.000	2500.000
202	50.000	2500.000
203	100.000	2500.000
204	150.000	2500.000
205	0.000	2550.000
206	50.000	2550.000
207	100.000	2550.000
208	150.000	2550.000
209	0.000	2600.000
210	50.000	2600.000
211	100.000	2600.000
212	150.000	2600.000
213	0.000	2650.000
214	50.000	2650.000
215	100.000	2650.000
216	150.000	2650.000
217	0.000	2700.000
218	50.000	2700.000
219	100.000	2700.000
220	150.000	2700.000
221	0.000	2750.000
222	50.000	2750.000
223	100.000	2750.000
224	150.000	2750.000
225	0.000	2800.000
226	50.000	2800.000
227	100.000	2800.000
228	150.000	2800.000
229	0.000	2850.000
230	50.000	2850.000
231	100.000	2850.000
232	150.000	2850.000
233	0.000	2900.000
234	50.000	2900.000
235	100.000	2900.000
236	150.000	2900.000
237	0.000	2950.000
238	50.000	2950.000
239	100.000	2950.000
240	150.000	2950.000

```

                                CONT.DAT
2.000  0.100    2    0    0    Pro Model - Build No. 16.06.16
  0    0    0    1    1
  0    0    0    0    0    0    0
  0    0    0
0.000  0.00  0.000  0.000  0.400 0.100
      0          0.00
    1      0.10
0.10

```

## FPLAIN.DAT

1	5	2	0	0	0.100	8.85
2	6	3	0	1	0.100	8.85
3	7	4	0	2	0.100	8.85
4	8	0	0	3	0.100	8.85
5	9	6	1	0	0.100	8.70
6	10	7	2	5	0.100	8.70
7	11	8	3	6	0.100	8.70
8	12	0	4	7	0.100	8.70
9	13	10	5	0	0.100	8.55
10	14	11	6	9	0.100	8.55
11	15	12	7	10	0.100	8.55
12	16	0	8	11	0.100	8.55
13	17	14	9	0	0.100	8.40
14	18	15	10	13	0.100	8.40
15	19	16	11	14	0.100	8.40
16	20	0	12	15	0.100	8.40
17	21	18	13	0	0.100	8.25
18	22	19	14	17	0.100	8.25
19	23	20	15	18	0.100	8.25
20	24	0	16	19	0.100	8.25
21	25	22	17	0	0.100	8.10
22	26	23	18	21	0.100	8.10
23	27	24	19	22	0.100	8.10
24	28	0	20	23	0.100	8.10
25	29	26	21	0	0.100	7.95
26	30	27	22	25	0.100	7.95
27	31	28	23	26	0.100	7.95
28	32	0	24	27	0.100	7.95
29	33	30	25	0	0.100	7.80
30	34	31	26	29	0.100	7.80
31	35	32	27	30	0.100	7.80
32	36	0	28	31	0.100	7.80
33	37	34	29	0	0.100	7.65
34	38	35	30	33	0.100	7.65
35	39	36	31	34	0.100	7.65
36	40	0	32	35	0.100	7.65
37	41	38	33	0	0.100	7.50
38	42	39	34	37	0.100	7.50
39	43	40	35	38	0.100	7.50
40	44	0	36	39	0.100	7.50
41	45	42	37	0	0.100	7.35
42	46	43	38	41	0.100	7.35
43	47	44	39	42	0.100	7.35
44	48	0	40	43	0.100	7.35
45	49	46	41	0	0.100	7.20
46	50	47	42	45	0.100	7.20
47	51	48	43	46	0.100	7.20
48	52	0	44	47	0.100	7.20
49	53	50	45	0	0.100	7.05

## FPLAIN.DAT

50	54	51	46	49	0.100	7.05
51	55	52	47	50	0.100	7.05
52	56	0	48	51	0.100	7.05
53	57	54	49	0	0.100	6.90
54	58	55	50	53	0.100	6.90
55	59	56	51	54	0.100	6.90
56	60	0	52	55	0.100	6.90
57	61	58	53	0	0.100	6.75
58	62	59	54	57	0.100	6.75
59	63	60	55	58	0.100	6.75
60	64	0	56	59	0.100	6.75
61	65	62	57	0	0.100	6.60
62	66	63	58	61	0.100	6.60
63	67	64	59	62	0.100	6.60
64	68	0	60	63	0.100	6.60
65	69	66	61	0	0.100	6.45
66	70	67	62	65	0.100	6.45
67	71	68	63	66	0.100	6.45
68	72	0	64	67	0.100	6.45
69	73	70	65	0	0.100	6.30
70	74	71	66	69	0.100	6.30
71	75	72	67	70	0.100	6.30
72	76	0	68	71	0.100	6.30
73	77	74	69	0	0.100	6.15
74	78	75	70	73	0.100	6.15
75	79	76	71	74	0.100	6.15
76	80	0	72	75	0.100	6.15
77	81	78	73	0	0.100	6.00
78	82	79	74	77	0.100	6.00
79	83	80	75	78	0.100	6.00
80	84	0	76	79	0.100	6.00
81	85	82	77	0	0.100	5.85
82	86	83	78	81	0.100	5.85
83	87	84	79	82	0.100	5.85
84	88	0	80	83	0.100	5.85
85	89	86	81	0	0.100	5.70
86	90	87	82	85	0.100	5.70
87	91	88	83	86	0.100	5.70
88	92	0	84	87	0.100	5.70
89	93	90	85	0	0.100	5.55
90	94	91	86	89	0.100	5.55
91	95	92	87	90	0.100	5.55
92	96	0	88	91	0.100	5.55
93	97	94	89	0	0.100	5.40
94	98	95	90	93	0.100	5.40
95	99	96	91	94	0.100	5.40
96	100	0	92	95	0.100	5.40
97	101	98	93	0	0.100	5.25
98	102	99	94	97	0.100	5.25

## FPLAIN.DAT

99	103	100	95	98	0.100	5.25
100	104	0	96	99	0.100	5.25
101	105	102	97	0	0.100	5.10
102	106	103	98	101	0.100	5.10
103	107	104	99	102	0.100	5.10
104	108	0	100	103	0.100	5.10
105	109	106	101	0	0.100	4.95
106	110	107	102	105	0.100	4.95
107	111	108	103	106	0.100	4.95
108	112	0	104	107	0.100	4.95
109	113	110	105	0	0.100	4.80
110	114	111	106	109	0.100	4.80
111	115	112	107	110	0.100	4.80
112	116	0	108	111	0.100	4.80
113	117	114	109	0	0.100	4.65
114	118	115	110	113	0.100	4.65
115	119	116	111	114	0.100	4.65
116	120	0	112	115	0.100	4.65
117	121	118	113	0	0.100	4.50
118	122	119	114	117	0.100	4.50
119	123	120	115	118	0.100	4.50
120	124	0	116	119	0.100	4.50
121	125	122	117	0	0.100	4.35
122	126	123	118	121	0.100	4.35
123	127	124	119	122	0.100	4.35
124	128	0	120	123	0.100	4.35
125	129	126	121	0	0.100	4.20
126	130	127	122	125	0.100	4.20
127	131	128	123	126	0.100	4.20
128	132	0	124	127	0.100	4.20
129	133	130	125	0	0.100	4.05
130	134	131	126	129	0.100	4.05
131	135	132	127	130	0.100	4.05
132	136	0	128	131	0.100	4.05
133	137	134	129	0	0.100	3.90
134	138	135	130	133	0.100	3.90
135	139	136	131	134	0.100	3.90
136	140	0	132	135	0.100	3.90
137	141	138	133	0	0.100	3.75
138	142	139	134	137	0.100	3.75
139	143	140	135	138	0.100	3.75
140	144	0	136	139	0.100	3.75
141	145	142	137	0	0.100	3.60
142	146	143	138	141	0.100	3.60
143	147	144	139	142	0.100	3.60
144	148	0	140	143	0.100	3.60
145	149	146	141	0	0.100	3.45
146	150	147	142	145	0.100	3.45
147	151	148	143	146	0.100	3.45

## FPLAIN.DAT

148	152	0	144	147	0.100	3.45
149	153	150	145	0	0.100	3.30
150	154	151	146	149	0.100	3.30
151	155	152	147	150	0.100	3.30
152	156	0	148	151	0.100	3.30
153	157	154	149	0	0.100	3.15
154	158	155	150	153	0.100	3.15
155	159	156	151	154	0.100	3.15
156	160	0	152	155	0.100	3.15
157	161	158	153	0	0.100	3.00
158	162	159	154	157	0.100	3.00
159	163	160	155	158	0.100	3.00
160	164	0	156	159	0.100	3.00
161	165	162	157	0	0.100	2.85
162	166	163	158	161	0.100	2.85
163	167	164	159	162	0.100	2.85
164	168	0	160	163	0.100	2.85
165	169	166	161	0	0.100	2.70
166	170	167	162	165	0.100	2.70
167	171	168	163	166	0.100	2.70
168	172	0	164	167	0.100	2.70
169	173	170	165	0	0.100	2.55
170	174	171	166	169	0.100	2.55
171	175	172	167	170	0.100	2.55
172	176	0	168	171	0.100	2.55
173	177	174	169	0	0.100	2.40
174	178	175	170	173	0.100	2.40
175	179	176	171	174	0.100	2.40
176	180	0	172	175	0.100	2.40
177	181	178	173	0	0.100	2.25
178	182	179	174	177	0.100	2.25
179	183	180	175	178	0.100	2.25
180	184	0	176	179	0.100	2.25
181	185	182	177	0	0.100	2.10
182	186	183	178	181	0.100	2.10
183	187	184	179	182	0.100	2.10
184	188	0	180	183	0.100	2.10
185	189	186	181	0	0.100	1.95
186	190	187	182	185	0.100	1.95
187	191	188	183	186	0.100	1.95
188	192	0	184	187	0.100	1.95
189	193	190	185	0	0.100	1.80
190	194	191	186	189	0.100	1.80
191	195	192	187	190	0.100	1.80
192	196	0	188	191	0.100	1.80
193	197	194	189	0	0.100	1.65
194	198	195	190	193	0.100	1.65
195	199	196	191	194	0.100	1.65
196	200	0	192	195	0.100	1.65



## FPLAIN.DAT

197	201	198	193	0	0.100	1.50
198	202	199	194	197	0.100	1.50
199	203	200	195	198	0.100	1.50
200	204	0	196	199	0.100	1.50
201	205	202	197	0	0.100	1.35
202	206	203	198	201	0.100	1.35
203	207	204	199	202	0.100	1.35
204	208	0	200	203	0.100	1.35
205	209	206	201	0	0.100	1.20
206	210	207	202	205	0.100	1.20
207	211	208	203	206	0.100	1.20
208	212	0	204	207	0.100	1.20
209	213	210	205	0	0.100	1.05
210	214	211	206	209	0.100	1.05
211	215	212	207	210	0.100	1.05
212	216	0	208	211	0.100	1.05
213	217	214	209	0	0.100	0.90
214	218	215	210	213	0.100	0.90
215	219	216	211	214	0.100	0.90
216	220	0	212	215	0.100	0.90
217	221	218	213	0	0.100	0.75
218	222	219	214	217	0.100	0.75
219	223	220	215	218	0.100	0.75
220	224	0	216	219	0.100	0.75
221	225	222	217	0	0.100	0.60
222	226	223	218	221	0.100	0.60
223	227	224	219	222	0.100	0.60
224	228	0	220	223	0.100	0.60
225	229	226	221	0	0.100	0.45
226	230	227	222	225	0.100	0.45
227	231	228	223	226	0.100	0.45
228	232	0	224	227	0.100	0.45
229	233	230	225	0	0.100	0.30
230	234	231	226	229	0.100	0.30
231	235	232	227	230	0.100	0.30
232	236	0	228	231	0.100	0.30
233	237	234	229	0	0.100	0.15
234	238	235	230	233	0.100	0.15
235	239	236	231	234	0.100	0.15
236	240	0	232	235	0.100	0.15
237	0	238	233	0	0.100	0.00
238	0	239	234	237	0.100	0.00
239	0	240	235	238	0.100	0.00
240	0	0	236	239	0.100	0.00

INFLOW.DAT

0	2	
F	0	2
H	0.0	0.0
H	0.5	10.0
H	2.0	10.0

## MANNINGS\_N.DAT

1	0.100
2	0.100
3	0.100
4	0.100
5	0.100
6	0.100
7	0.100
8	0.100
9	0.100
10	0.100
11	0.100
12	0.100
13	0.100
14	0.100
15	0.100
16	0.100
17	0.100
18	0.100
19	0.100
20	0.100
21	0.100
22	0.100
23	0.100
24	0.100
25	0.100
26	0.100
27	0.100
28	0.100
29	0.100
30	0.100
31	0.100
32	0.100
33	0.100
34	0.100
35	0.100
36	0.100
37	0.100
38	0.100
39	0.100
40	0.100
41	0.100
42	0.100
43	0.100
44	0.100
45	0.100
46	0.100
47	0.100
48	0.100
49	0.100

## MANNINGS\_N.DAT

50	0.100
51	0.100
52	0.100
53	0.100
54	0.100
55	0.100
56	0.100
57	0.100
58	0.100
59	0.100
60	0.100
61	0.100
62	0.100
63	0.100
64	0.100
65	0.100
66	0.100
67	0.100
68	0.100
69	0.100
70	0.100
71	0.100
72	0.100
73	0.100
74	0.100
75	0.100
76	0.100
77	0.100
78	0.100
79	0.100
80	0.100
81	0.100
82	0.100
83	0.100
84	0.100
85	0.100
86	0.100
87	0.100
88	0.100
89	0.100
90	0.100
91	0.100
92	0.100
93	0.100
94	0.100
95	0.100
96	0.100
97	0.100
98	0.100

## MANNINGS\_N.DAT

99	0.100
100	0.100
101	0.100
102	0.100
103	0.100
104	0.100
105	0.100
106	0.100
107	0.100
108	0.100
109	0.100
110	0.100
111	0.100
112	0.100
113	0.100
114	0.100
115	0.100
116	0.100
117	0.100
118	0.100
119	0.100
120	0.100
121	0.100
122	0.100
123	0.100
124	0.100
125	0.100
126	0.100
127	0.100
128	0.100
129	0.100
130	0.100
131	0.100
132	0.100
133	0.100
134	0.100
135	0.100
136	0.100
137	0.100
138	0.100
139	0.100
140	0.100
141	0.100
142	0.100
143	0.100
144	0.100
145	0.100
146	0.100
147	0.100

## MANNINGS\_N.DAT

148	0.100
149	0.100
150	0.100
151	0.100
152	0.100
153	0.100
154	0.100
155	0.100
156	0.100
157	0.100
158	0.100
159	0.100
160	0.100
161	0.100
162	0.100
163	0.100
164	0.100
165	0.100
166	0.100
167	0.100
168	0.100
169	0.100
170	0.100
171	0.100
172	0.100
173	0.100
174	0.100
175	0.100
176	0.100
177	0.100
178	0.100
179	0.100
180	0.100
181	0.100
182	0.100
183	0.100
184	0.100
185	0.100
186	0.100
187	0.100
188	0.100
189	0.100
190	0.100
191	0.100
192	0.100
193	0.100
194	0.100
195	0.100
196	0.100



## MANNINGS\_N.DAT

197	0.100
198	0.100
199	0.100
200	0.100
201	0.100
202	0.100
203	0.100
204	0.100
205	0.100
206	0.100
207	0.100
208	0.100
209	0.100
210	0.100
211	0.100
212	0.100
213	0.100
214	0.100
215	0.100
216	0.100
217	0.100
218	0.100
219	0.100
220	0.100
221	0.100
222	0.100
223	0.100
224	0.100
225	0.100
226	0.100
227	0.100
228	0.100
229	0.100
230	0.100
231	0.100
232	0.100
233	0.100
234	0.100
235	0.100
236	0.100
237	0.100
238	0.100
239	0.100
240	0.100

OUTFLOW.DAT

0	237
0	238
0	239
0	240

TOLER.DAT

0.1000 0.100 0.00  
C 0.600  
T 1.000

TOPO.DAT

0.00	0.00	8.85
50.00	0.00	8.85
100.00	0.00	8.85
150.00	0.00	8.85
0.00	50.00	8.70
50.00	50.00	8.70
100.00	50.00	8.70
150.00	50.00	8.70
0.00	100.00	8.55
50.00	100.00	8.55
100.00	100.00	8.55
150.00	100.00	8.55
0.00	150.00	8.40
50.00	150.00	8.40
100.00	150.00	8.40
150.00	150.00	8.40
0.00	200.00	8.25
50.00	200.00	8.25
100.00	200.00	8.25
150.00	200.00	8.25
0.00	250.00	8.10
50.00	250.00	8.10
100.00	250.00	8.10
150.00	250.00	8.10
0.00	300.00	7.95
50.00	300.00	7.95
100.00	300.00	7.95
150.00	300.00	7.95
0.00	350.00	7.80
50.00	350.00	7.80
100.00	350.00	7.80
150.00	350.00	7.80
0.00	400.00	7.65
50.00	400.00	7.65
100.00	400.00	7.65
150.00	400.00	7.65
0.00	450.00	7.50
50.00	450.00	7.50
100.00	450.00	7.50
150.00	450.00	7.50
0.00	500.00	7.35
50.00	500.00	7.35
100.00	500.00	7.35
150.00	500.00	7.35
0.00	550.00	7.20
50.00	550.00	7.20
100.00	550.00	7.20
150.00	550.00	7.20
0.00	600.00	7.05

TOPO.DAT

50.00	600.00	7.05
100.00	600.00	7.05
150.00	600.00	7.05
0.00	650.00	6.90
50.00	650.00	6.90
100.00	650.00	6.90
150.00	650.00	6.90
0.00	700.00	6.75
50.00	700.00	6.75
100.00	700.00	6.75
150.00	700.00	6.75
0.00	750.00	6.60
50.00	750.00	6.60
100.00	750.00	6.60
150.00	750.00	6.60
0.00	800.00	6.45
50.00	800.00	6.45
100.00	800.00	6.45
150.00	800.00	6.45
0.00	850.00	6.30
50.00	850.00	6.30
100.00	850.00	6.30
150.00	850.00	6.30
0.00	900.00	6.15
50.00	900.00	6.15
100.00	900.00	6.15
150.00	900.00	6.15
0.00	950.00	6.00
50.00	950.00	6.00
100.00	950.00	6.00
150.00	950.00	6.00
0.00	1000.00	5.85
50.00	1000.00	5.85
100.00	1000.00	5.85
150.00	1000.00	5.85
0.00	1050.00	5.70
50.00	1050.00	5.70
100.00	1050.00	5.70
150.00	1050.00	5.70
0.00	1100.00	5.55
50.00	1100.00	5.55
100.00	1100.00	5.55
150.00	1100.00	5.55
0.00	1150.00	5.40
50.00	1150.00	5.40
100.00	1150.00	5.40
150.00	1150.00	5.40
0.00	1200.00	5.25
50.00	1200.00	5.25

TOPO.DAT

100.00	1200.00	5.25
150.00	1200.00	5.25
0.00	1250.00	5.10
50.00	1250.00	5.10
100.00	1250.00	5.10
150.00	1250.00	5.10
0.00	1300.00	4.95
50.00	1300.00	4.95
100.00	1300.00	4.95
150.00	1300.00	4.95
0.00	1350.00	4.80
50.00	1350.00	4.80
100.00	1350.00	4.80
150.00	1350.00	4.80
0.00	1400.00	4.65
50.00	1400.00	4.65
100.00	1400.00	4.65
150.00	1400.00	4.65
0.00	1450.00	4.50
50.00	1450.00	4.50
100.00	1450.00	4.50
150.00	1450.00	4.50
0.00	1500.00	4.35
50.00	1500.00	4.35
100.00	1500.00	4.35
150.00	1500.00	4.35
0.00	1550.00	4.20
50.00	1550.00	4.20
100.00	1550.00	4.20
150.00	1550.00	4.20
0.00	1600.00	4.05
50.00	1600.00	4.05
100.00	1600.00	4.05
150.00	1600.00	4.05
0.00	1650.00	3.90
50.00	1650.00	3.90
100.00	1650.00	3.90
150.00	1650.00	3.90
0.00	1700.00	3.75
50.00	1700.00	3.75
100.00	1700.00	3.75
150.00	1700.00	3.75
0.00	1750.00	3.60
50.00	1750.00	3.60
100.00	1750.00	3.60
150.00	1750.00	3.60
0.00	1800.00	3.45
50.00	1800.00	3.45
100.00	1800.00	3.45



TOPO.DAT

150.00	1800.00	3.45
0.00	1850.00	3.30
50.00	1850.00	3.30
100.00	1850.00	3.30
150.00	1850.00	3.30
0.00	1900.00	3.15
50.00	1900.00	3.15
100.00	1900.00	3.15
150.00	1900.00	3.15
0.00	1950.00	3.00
50.00	1950.00	3.00
100.00	1950.00	3.00
150.00	1950.00	3.00
0.00	2000.00	2.85
50.00	2000.00	2.85
100.00	2000.00	2.85
150.00	2000.00	2.85
0.00	2050.00	2.70
50.00	2050.00	2.70
100.00	2050.00	2.70
150.00	2050.00	2.70
0.00	2100.00	2.55
50.00	2100.00	2.55
100.00	2100.00	2.55
150.00	2100.00	2.55
0.00	2150.00	2.40
50.00	2150.00	2.40
100.00	2150.00	2.40
150.00	2150.00	2.40
0.00	2200.00	2.25
50.00	2200.00	2.25
100.00	2200.00	2.25
150.00	2200.00	2.25
0.00	2250.00	2.10
50.00	2250.00	2.10
100.00	2250.00	2.10
150.00	2250.00	2.10
0.00	2300.00	1.95
50.00	2300.00	1.95
100.00	2300.00	1.95
150.00	2300.00	1.95
0.00	2350.00	1.80
50.00	2350.00	1.80
100.00	2350.00	1.80
150.00	2350.00	1.80
0.00	2400.00	1.65
50.00	2400.00	1.65
100.00	2400.00	1.65
150.00	2400.00	1.65

TOPO.DAT

0.00	2450.00	1.50
50.00	2450.00	1.50
100.00	2450.00	1.50
150.00	2450.00	1.50
0.00	2500.00	1.35
50.00	2500.00	1.35
100.00	2500.00	1.35
150.00	2500.00	1.35
0.00	2550.00	1.20
50.00	2550.00	1.20
100.00	2550.00	1.20
150.00	2550.00	1.20
0.00	2600.00	1.05
50.00	2600.00	1.05
100.00	2600.00	1.05
150.00	2600.00	1.05
0.00	2650.00	0.90
50.00	2650.00	0.90
100.00	2650.00	0.90
150.00	2650.00	0.90
0.00	2700.00	0.75
50.00	2700.00	0.75
100.00	2700.00	0.75
150.00	2700.00	0.75
0.00	2750.00	0.60
50.00	2750.00	0.60
100.00	2750.00	0.60
150.00	2750.00	0.60
0.00	2800.00	0.45
50.00	2800.00	0.45
100.00	2800.00	0.45
150.00	2800.00	0.45
0.00	2850.00	0.30
50.00	2850.00	0.30
100.00	2850.00	0.30
150.00	2850.00	0.30
0.00	2900.00	0.15
50.00	2900.00	0.15
100.00	2900.00	0.15
150.00	2900.00	0.15
0.00	2950.00	0.00
50.00	2950.00	0.00
100.00	2950.00	0.00
150.00	2950.00	0.00

Time Step	Grid #	Depth (ft)	Velocity (fps)	Velocity Vector X	Velocity Vector Y	WSE (ft)
	78	0	0	0	0	0
	78	0	0	0	0	0
	78	0	0	0	0	0
	78	0	0	0	0	0
	78	0.857	1.204	0	1.204	1.857
	78	1.113	1.395	0	1.395	2.113
	78	1.267	1.525	0	1.525	2.267
	78	1.297	1.537	0	1.537	2.297
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3
	78	1.3	1.538	0	1.538	2.3

## TIMDEP.OUT

0.000

1	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	0.000	0.000	0.000	0.000	0.000
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	0.000	0.000	0.000	0.000	0.000
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	0.000	0.000	0.000	0.000	0.000
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

49	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	0.000	0.000	0.000	0.000	0.000
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	0.000	0.000	0.000	0.000	0.000
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	0.000	0.000	0.000	0.000	0.000
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	0.000	0.000	0.000	0.000	0.000
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	0.000	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	0.000	0.000	0.000	0.000	0.000
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	0.000	0.000	0.000	0.000	0.000
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	0.000	0.000	0.000	0.000	0.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

98	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	0.000	0.000	0.000	0.000	0.000
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	0.000	0.000	0.000	0.000	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	0.000	0.000	0.000	0.000	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	0.000	0.000	0.000	0.000	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	0.000	0.000	0.000	0.000	0.000
195	0.000	0.000	0.000	0.000	0.000

	TIMDEP.OUT				
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	0.000	0.000	0.000	0.000	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	0.000	0.000	0.000	0.000	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	0.000	0.000	0.000	0.000	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	0.000	0.000	0.000	0.000	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	0.000	0.000	0.000	0.000	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	0.000	0.000	0.000	0.000	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	0.000	0.000	0.000	0.000	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	0.000	0.000	0.000	0.000	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	0.000	0.000	0.000	0.000	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.000	0.000	0.000	0.000	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.000	0.000	0.000	0.000	0.000
238	0.000	0.000	0.000	0.000	0.000
239	0.000	0.000	0.000	0.000	0.000
240	0.000	0.000	0.000	0.000	0.000
0.100					
1	0.000	0.000	0.000	0.000	0.000
2	0.418	0.901	0.000	0.901	4.268
3	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	0.527	0.962	0.000	0.962	4.227
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	0.464	0.610	0.000	0.610	4.014
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	0.051	0.000	0.000	0.000	3.451
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	0.000	0.000	0.000	0.000	0.000
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	0.000	0.000	0.000	0.000	0.000
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	0.000	0.000	0.000	0.000	0.000
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

53	0.000	0.000	0.000	0.000	0.000
54	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	0.000	0.000	0.000	0.000	0.000
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	0.000	0.000	0.000	0.000	0.000
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	0.000	0.000	0.000	0.000	0.000
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	0.000	0.000	0.000	0.000	0.000
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	0.000	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	0.000	0.000	0.000	0.000	0.000
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	0.000	0.000	0.000	0.000	0.000
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	0.000	0.000	0.000	0.000	0.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

102	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	0.000	0.000	0.000	0.000	0.000
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	0.000	0.000	0.000	0.000	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	0.000	0.000	0.000	0.000	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	0.000	0.000	0.000	0.000	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	0.000	0.000	0.000	0.000	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	0.000	0.000	0.000	0.000	0.000
199	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	0.000	0.000	0.000	0.000	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	0.000	0.000	0.000	0.000	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	0.000	0.000	0.000	0.000	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	0.000	0.000	0.000	0.000	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	0.000	0.000	0.000	0.000	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	0.000	0.000	0.000	0.000	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	0.000	0.000	0.000	0.000	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	0.000	0.000	0.000	0.000	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.000	0.000	0.000	0.000	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.000	0.000	0.000	0.000	0.000
238	0.000	0.000	0.000	0.000	0.000
239	0.000	0.000	0.000	0.000	0.000
240	0.000	0.000	0.000	0.000	0.000
0.200					
1	0.000	0.000	0.000	0.000	0.000
2	0.772	1.000	0.000	1.000	4.622
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	0.766	1.002	0.000	1.002	4.466
7	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	0.798	0.980	0.000	0.980	4.348
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	0.750	0.911	0.000	0.911	4.150
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	0.646	0.860	0.000	0.860	3.896
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	0.635	0.885	0.000	0.885	3.735
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	0.762	0.869	0.000	0.869	3.712
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	0.566	0.721	0.000	0.721	3.366
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	0.096	0.000	0.000	0.000	2.746
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	0.000	0.000	0.000	0.000	0.000
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	0.000	0.000	0.000	0.000	0.000
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	0.000	0.000	0.000	0.000	0.000
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

57	0.000	0.000	0.000	0.000	0.000
58	0.000	0.000	0.000	0.000	0.000
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	0.000	0.000	0.000	0.000	0.000
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	0.000	0.000	0.000	0.000	0.000
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	0.000	0.000	0.000	0.000	0.000
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	0.000	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	0.000	0.000	0.000	0.000	0.000
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	0.000	0.000	0.000	0.000	0.000
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	0.000	0.000	0.000	0.000	0.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

106	0.000	0.000	0.000	0.000	0.000
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	0.000	0.000	0.000	0.000	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	0.000	0.000	0.000	0.000	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	0.000	0.000	0.000	0.000	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	0.000	0.000	0.000	0.000	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	0.000	0.000	0.000	0.000	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	0.000	0.000	0.000	0.000	0.000
203	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	0.000	0.000	0.000	0.000	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	0.000	0.000	0.000	0.000	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	0.000	0.000	0.000	0.000	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	0.000	0.000	0.000	0.000	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	0.000	0.000	0.000	0.000	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	0.000	0.000	0.000	0.000	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	0.000	0.000	0.000	0.000	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.000	0.000	0.000	0.000	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.000	0.000	0.000	0.000	0.000
238	0.000	0.000	0.000	0.000	0.000
239	0.000	0.000	0.000	0.000	0.000
240	0.000	0.000	0.000	0.000	0.000
0.300					
1	0.000	0.000	0.000	0.000	0.000
2	0.982	1.210	0.000	1.210	4.832
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	0.989	1.192	0.000	1.192	4.689
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	0.959	1.167	0.000	1.167	4.509
11	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	0.926	1.160	0.000	1.160	4.326
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	0.926	1.170	0.000	1.170	4.176
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	0.966	1.159	0.000	1.159	4.066
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	0.932	1.110	0.000	1.110	3.882
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	0.866	1.094	0.000	1.094	3.666
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	0.871	1.092	0.000	1.092	3.521
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	0.857	1.070	0.000	1.070	3.357
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	0.826	1.071	0.000	1.071	3.176
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	0.886	1.149	0.000	1.149	3.086
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.229	1.140	0.000	1.140	3.279
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	0.719	0.776	0.000	0.776	2.619
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	0.089	0.000	0.000	0.000	1.839
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

61	0.000	0.000	0.000	0.000	0.000
62	0.000	0.000	0.000	0.000	0.000
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	0.000	0.000	0.000	0.000	0.000
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	0.000	0.000	0.000	0.000	0.000
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	0.000	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	0.000	0.000	0.000	0.000	0.000
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	0.000	0.000	0.000	0.000	0.000
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	0.000	0.000	0.000	0.000	0.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	0.000	0.000	0.000	0.000	0.000
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

110	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	0.000	0.000	0.000	0.000	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	0.000	0.000	0.000	0.000	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	0.000	0.000	0.000	0.000	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	0.000	0.000	0.000	0.000	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	0.000	0.000	0.000	0.000	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	0.000	0.000	0.000	0.000	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	0.000	0.000	0.000	0.000	0.000
207	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	0.000	0.000	0.000	0.000	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	0.000	0.000	0.000	0.000	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	0.000	0.000	0.000	0.000	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	0.000	0.000	0.000	0.000	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	0.000	0.000	0.000	0.000	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	0.000	0.000	0.000	0.000	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.000	0.000	0.000	0.000	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.000	0.000	0.000	0.000	0.000
238	0.000	0.000	0.000	0.000	0.000
239	0.000	0.000	0.000	0.000	0.000
240	0.000	0.000	0.000	0.000	0.000
0.400					
1	0.000	0.000	0.000	0.000	0.000
2	1.155	1.378	0.000	1.378	5.005
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.157	1.362	0.000	1.362	4.857
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.130	1.349	0.000	1.349	4.680
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.111	1.347	0.000	1.347	4.511
15	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.120	1.355	0.000	1.355	4.370
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.152	1.335	0.000	1.335	4.252
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.114	1.301	0.000	1.301	4.064
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.061	1.291	0.000	1.291	3.861
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.052	1.299	0.000	1.299	3.702
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.073	1.314	0.000	1.314	3.573
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.107	1.294	0.000	1.294	3.457
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.074	1.254	0.000	1.254	3.274
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.006	1.223	0.000	1.223	3.056
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	0.980	1.225	0.000	1.225	2.880
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	0.995	1.249	0.000	1.249	2.745
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.049	1.241	0.000	1.241	2.649
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

65	0.000	0.000	0.000	0.000	0.000
66	1.009	1.189	0.000	1.189	2.459
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	0.945	1.191	0.000	1.191	2.245
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	0.995	1.266	0.000	1.266	2.145
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.460	1.425	0.000	1.425	2.460
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.164	0.857	0.000	0.857	2.014
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	0.202	0.144	0.000	0.144	0.902
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	0.002	0.000	0.000	0.000	0.552
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	0.000	0.000	0.000	0.000	0.000
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

114	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	0.000	0.000	0.000	0.000	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	0.000	0.000	0.000	0.000	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	0.000	0.000	0.000	0.000	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	0.000	0.000	0.000	0.000	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	0.000	0.000	0.000	0.000	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	0.000	0.000	0.000	0.000	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	0.000	0.000	0.000	0.000	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	0.000	0.000	0.000	0.000	0.000
211	0.000	0.000	0.000	0.000	0.000

	TIMDEP.OUT				
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	0.000	0.000	0.000	0.000	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	0.000	0.000	0.000	0.000	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	0.000	0.000	0.000	0.000	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	0.000	0.000	0.000	0.000	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	0.000	0.000	0.000	0.000	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.000	0.000	0.000	0.000	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.000	0.000	0.000	0.000	0.000
238	0.000	0.000	0.000	0.000	0.000
239	0.000	0.000	0.000	0.000	0.000
240	0.000	0.000	0.000	0.000	0.000
0.500					
1	0.000	0.000	0.000	0.000	0.000
2	1.302	1.528	0.000	1.528	5.152
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.309	1.519	0.000	1.519	5.009
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.294	1.504	0.000	1.504	4.844
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.269	1.499	0.000	1.499	4.669
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.265	1.504	0.000	1.504	4.515
19	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.288	1.507	0.000	1.507	4.388
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.304	1.487	0.000	1.487	4.254
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.254	1.453	0.000	1.453	4.054
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.213	1.451	0.000	1.451	3.863
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.210	1.465	0.000	1.465	3.710
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.242	1.483	0.000	1.483	3.592
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.287	1.464	0.000	1.464	3.487
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.244	1.417	0.000	1.417	3.294
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.166	1.395	0.000	1.395	3.066
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.149	1.409	0.000	1.409	2.899
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.178	1.436	0.000	1.436	2.778
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.239	1.432	0.000	1.432	2.689
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

69	0.000	0.000	0.000	0.000	0.000
70	1.214	1.385	0.000	1.385	2.514
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.132	1.352	0.000	1.352	2.282
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.112	1.358	0.000	1.358	2.112
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.122	1.363	0.000	1.363	1.972
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.132	1.367	0.000	1.367	1.832
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.155	1.370	0.000	1.370	1.705
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.167	1.328	0.000	1.328	1.567
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.083	1.276	0.000	1.276	1.333
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.031	1.285	0.000	1.285	1.131
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.073	1.347	0.000	1.347	1.023
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.488	1.688	0.000	1.688	1.288
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.774	1.153	0.000	1.153	1.424
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

118	0.429	0.237	0.000	0.237	0.000
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	0.008	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	0.000	0.000	0.000	0.000	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	0.000	0.000	0.000	0.000	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	0.000	0.000	0.000	0.000	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	0.000	0.000	0.000	0.000	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	0.000	0.000	0.000	0.000	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	0.000	0.000	0.000	0.000	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	0.000	0.000	0.000	0.000	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	0.000	0.000	0.000	0.000	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	0.000	0.000	0.000	0.000	0.000
215	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	0.000	0.000	0.000	0.000	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	0.000	0.000	0.000	0.000	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	0.000	0.000	0.000	0.000	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	0.000	0.000	0.000	0.000	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.000	0.000	0.000	0.000	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.000	0.000	0.000	0.000	0.000
238	0.000	0.000	0.000	0.000	0.000
239	0.000	0.000	0.000	0.000	0.000
240	0.000	0.000	0.000	0.000	0.000
0.600					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.301	1.538	0.000	1.538	5.001
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.301	1.538	0.000	1.538	4.851
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.301	1.541	0.000	1.541	4.401
23	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.310	1.542	0.000	1.542	4.260
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.316	1.533	0.000	1.533	4.116
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.297	1.526	0.000	1.526	3.947
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.280	1.529	0.000	1.529	3.780
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.279	1.545	0.000	1.545	3.629
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.303	1.572	0.000	1.572	3.503
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.359	1.585	0.000	1.585	3.409
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.383	1.550	0.000	1.550	3.283
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.315	1.520	0.000	1.520	3.065
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.274	1.524	0.000	1.524	2.874
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.274	1.543	0.000	1.543	2.724
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.306	1.571	0.000	1.571	2.606
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

73	0.000	0.000	0.000	0.000	0.000
74	1.377	1.589	0.000	1.589	2.527
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.395	1.554	0.000	1.554	2.395
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.307	1.492	0.000	1.492	2.157
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.247	1.496	0.000	1.496	1.947
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.253	1.518	0.000	1.518	1.803
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.307	1.547	0.000	1.547	1.707
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.354	1.519	0.000	1.519	1.604
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.277	1.454	0.000	1.454	1.377
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.208	1.457	0.000	1.457	1.158
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.214	1.484	0.000	1.484	1.014
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.271	1.502	0.000	1.502	0.921
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.308	1.474	0.000	1.474	0.808
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

122	1.231	1.416	0.000	1.416	0.581
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.184	1.415	0.000	1.415	0.384
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.197	1.404	0.000	1.404	0.247
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.168	1.395	0.000	1.395	0.068
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.149	1.408	0.000	1.408	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.184	1.464	0.000	1.464	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.578	1.868	0.000	1.868	0.028
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	2.237	1.380	0.000	1.380	0.537
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.615	0.462	0.000	0.462	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.017	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	0.000	0.000	0.000	0.000	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	0.000	0.000	0.000	0.000	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	0.000	0.000	0.000	0.000	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	0.000	0.000	0.000	0.000	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	0.000	0.000	0.000	0.000	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	0.000	0.000	0.000	0.000	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	0.000	0.000	0.000	0.000	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	0.000	0.000	0.000	0.000	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	0.000	0.000	0.000	0.000	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	0.000	0.000	0.000	0.000	0.000
219	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	0.000	0.000	0.000	0.000	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	0.000	0.000	0.000	0.000	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	0.000	0.000	0.000	0.000	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.000	0.000	0.000	0.000	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.000	0.000	0.000	0.000	0.000
238	0.000	0.000	0.000	0.000	0.000
239	0.000	0.000	0.000	0.000	0.000
240	0.000	0.000	0.000	0.000	0.000
0.700					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.301	1.538	0.000	1.538	4.251
27	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.301	1.538	0.000	1.538	4.101
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.301	1.537	0.000	1.537	3.951
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.299	1.538	0.000	1.538	3.799
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.299	1.539	0.000	1.539	3.649
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.302	1.543	0.000	1.543	3.502
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.314	1.543	0.000	1.543	3.364
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.319	1.532	0.000	1.532	3.219
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.297	1.525	0.000	1.525	3.047
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.279	1.527	0.000	1.527	2.879
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.278	1.537	0.000	1.537	2.728
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.291	1.559	0.000	1.559	2.591
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.329	1.592	0.000	1.592	2.479
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

77	0.000	0.000	0.000	0.000	0.000
78	1.392	1.586	0.000	1.586	2.392
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.376	1.546	0.000	1.546	2.226
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.296	1.500	0.000	1.500	1.996
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.255	1.502	0.000	1.502	1.805
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.254	1.513	0.000	1.513	1.654
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.270	1.541	0.000	1.541	1.520
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.315	1.584	0.000	1.584	1.415
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.386	1.568	0.000	1.568	1.336
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.349	1.523	0.000	1.523	1.149
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.281	1.518	0.000	1.518	0.931
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.270	1.529	0.000	1.529	0.770
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.287	1.556	0.000	1.556	0.637
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

126	1.349	1.573	0.000	1.573	0.549
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.360	1.549	0.000	1.549	0.410
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.307	1.545	0.000	1.545	0.207
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.297	1.555	0.000	1.555	0.047
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.314	1.577	0.000	1.577	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.367	1.608	0.000	1.608	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.417	1.587	0.000	1.587	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.350	1.519	0.000	1.519	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.263	1.491	0.000	1.491	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.243	1.504	0.000	1.504	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.262	1.533	0.000	1.533	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.332	1.552	0.000	1.552	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.341	1.520	0.000	1.520	0.000

## TIMDEP.OUT

175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.273	1.514	0.000	1.514	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.300	1.608	0.000	1.608	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.938	2.038	0.000	2.038	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	2.326	1.274	0.000	1.274	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	0.446	0.214	0.000	0.214	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	0.006	0.000	0.000	0.000	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	0.000	0.000	0.000	0.000	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	0.000	0.000	0.000	0.000	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	0.000	0.000	0.000	0.000	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	0.000	0.000	0.000	0.000	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	0.000	0.000	0.000	0.000	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	0.000	0.000	0.000	0.000	0.000
223	0.000	0.000	0.000	0.000	0.000



	TIMDEP.OUT				
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	0.000	0.000	0.000	0.000	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	0.000	0.000	0.000	0.000	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.000	0.000	0.000	0.000	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.000	0.000	0.000	0.000	0.000
238	0.000	0.000	0.000	0.000	0.000
239	0.000	0.000	0.000	0.000	0.000
240	0.000	0.000	0.000	0.000	0.000
0.800					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.301	1.538	0.000	1.538	3.951
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.301	1.538	0.000	1.538	3.351
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.302	1.538	0.000	1.538	3.202
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.537	0.000	1.537	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.298	1.537	0.000	1.537	2.898
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.298	1.540	0.000	1.540	2.748
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.303	1.545	0.000	1.545	2.603
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.320	1.545	0.000	1.545	2.470
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.325	1.531	0.000	1.531	2.325
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

81	0.000	0.000	0.000	0.000	0.000
82	1.299	1.522	0.000	1.522	2.149
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.276	1.523	0.000	1.523	1.976
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.273	1.533	0.000	1.533	1.823
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.281	1.551	0.000	1.551	1.681
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.309	1.573	0.000	1.573	1.559
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.361	1.601	0.000	1.601	1.461
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.403	1.585	0.000	1.585	1.353
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.355	1.527	0.000	1.527	1.155
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.278	1.494	0.000	1.494	0.928
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.246	1.498	0.000	1.498	0.746
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.248	1.506	0.000	1.506	0.598
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.259	1.523	0.000	1.523	0.459
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

130	1.285	1.552	0.000	1.552	0.335
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.334	1.599	0.000	1.599	0.234
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.413	1.603	0.000	1.603	0.163
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.383	1.551	0.000	1.551	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.293	1.525	0.000	1.525	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.281	1.541	0.000	1.541	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.318	1.549	0.000	1.549	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.334	1.531	0.000	1.531	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.296	1.522	0.000	1.522	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.279	1.527	0.000	1.527	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.286	1.539	0.000	1.539	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.311	1.542	0.000	1.542	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.325	1.528	0.000	1.528	0.000

## TIMDEP.OUT

179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.297	1.517	0.000	1.517	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.273	1.517	0.000	1.517	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.268	1.525	0.000	1.525	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.274	1.537	0.000	1.537	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.289	1.550	0.000	1.550	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.317	1.588	0.000	1.588	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.372	1.640	0.000	1.640	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.446	1.632	0.000	1.632	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.407	1.563	0.000	1.563	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.306	1.529	0.000	1.529	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.286	1.544	0.000	1.544	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.414	1.829	0.000	1.829	0.000
227	0.000	0.000	0.000	0.000	0.000

	TIMDEP.OUT				
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.875	1.920	0.000	1.920	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.721	1.576	0.000	1.576	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.721	0.000	0.000	0.000	-9.279
238	6.149	0.000	0.000	0.000	1.149
239	0.721	0.000	0.000	0.000	-9.279
240	0.000	0.000	0.000	0.000	0.000
0.900					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.301	1.538	0.000	1.538	3.201
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.301	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.301	1.538	0.000	1.538	2.601
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.302	1.538	0.000	1.538	2.452
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.303	1.537	0.000	1.537	2.303
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.299	1.536	0.000	1.536	2.149
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

85	0.000	0.000	0.000	0.000	0.000
86	1.296	1.538	0.000	1.538	1.996
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.297	1.543	0.000	1.543	1.847
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.308	1.549	0.000	1.549	1.708
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.333	1.543	0.000	1.543	1.583
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.326	1.526	0.000	1.526	1.426
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.293	1.518	0.000	1.518	1.243
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.272	1.520	0.000	1.520	1.072
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.271	1.526	0.000	1.526	0.921
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.277	1.542	0.000	1.542	0.777
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.298	1.564	0.000	1.564	0.648
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.344	1.603	0.000	1.603	0.544
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.404	1.595	0.000	1.595	0.454
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

134	1.384	1.547	0.000	1.547	0.284
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.299	1.495	0.000	1.495	0.049
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.251	1.494	0.000	1.494	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.246	1.501	0.000	1.501	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.250	1.514	0.000	1.514	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.265	1.531	0.000	1.531	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.290	1.559	0.000	1.559	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.339	1.610	0.000	1.610	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.435	1.636	0.000	1.636	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.436	1.571	0.000	1.571	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.321	1.491	0.000	1.491	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.247	1.489	0.000	1.489	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.237	1.497	0.000	1.497	0.000

## TIMDEP.OUT

183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.246	1.507	0.000	1.507	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.258	1.523	0.000	1.523	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.278	1.545	0.000	1.545	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.313	1.576	0.000	1.576	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.377	1.608	0.000	1.608	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.413	1.579	0.000	1.579	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.333	1.525	0.000	1.525	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.279	1.526	0.000	1.526	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.276	1.539	0.000	1.539	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.296	1.559	0.000	1.559	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.335	1.575	0.000	1.575	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.109	1.558	0.000	1.558	0.000
231	0.000	0.000	0.000	0.000	0.000

			TIMDEP.OUT		
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.579	1.264	0.000	1.264	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.579	0.000	0.000	0.000	-9.421
238	111.451	0.000	0.000	0.000	106.451
239	0.579	0.000	0.000	0.000	-9.421
240	0.000	0.000	0.000	0.000	0.000
1.000					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.301	1.538	0.000	1.538	2.451
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.301	1.538	0.000	1.538	2.301
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.539	0.000	1.539	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.302	1.539	0.000	1.539	1.702
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.305	1.537	0.000	1.537	1.555
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.302	1.535	0.000	1.535	1.402
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.296	1.536	0.000	1.536	1.246
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.294	1.540	0.000	1.540	1.094
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.549	0.000	1.549	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.322	1.553	0.000	1.553	0.822
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.347	1.548	0.000	1.548	0.697
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.321	1.520	0.000	1.520	0.521
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.284	1.514	0.000	1.514	0.334
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.266	1.517	0.000	1.517	0.166
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

138	1.265	1.527	0.000	1.527	0.015
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.276	1.535	0.000	1.535	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.294	1.555	0.000	1.555	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.332	1.605	0.000	1.605	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.402	1.608	0.000	1.608	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.402	1.563	0.000	1.563	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.321	1.496	0.000	1.496	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.254	1.493	0.000	1.493	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.243	1.498	0.000	1.498	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.248	1.504	0.000	1.504	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.257	1.522	0.000	1.522	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.278	1.540	0.000	1.540	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.313	1.584	0.000	1.584	0.000



## TIMDEP.OUT

187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.390	1.652	0.000	1.652	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.471	1.618	0.000	1.618	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.390	1.528	0.000	1.528	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.273	1.480	0.000	1.480	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.232	1.484	0.000	1.484	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.232	1.494	0.000	1.494	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.244	1.506	0.000	1.506	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.261	1.527	0.000	1.527	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.295	1.564	0.000	1.564	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.346	1.619	0.000	1.619	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.162	1.612	0.000	1.612	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.619	1.268	0.000	1.268	0.000
235	0.000	0.000	0.000	0.000	0.000

	TIMDEP.OUT				
236	0.000	0.000	0.000	0.000	0.000
237	0.619	0.000	0.000	0.000	-9.381
238	218.360	0.000	0.000	0.000	213.360
239	0.619	0.000	0.000	0.000	-9.381
240	0.000	0.000	0.000	0.000	0.000
1.100					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

93	0.000	0.000	0.000	0.000	0.000
94	1.301	1.538	0.000	1.538	1.701
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.301	1.538	0.000	1.538	1.551
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.539	0.000	1.539	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.302	1.540	0.000	1.540	0.952
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.307	1.538	0.000	1.538	0.807
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.305	1.535	0.000	1.535	0.655
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.296	1.534	0.000	1.534	0.496
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.291	1.537	0.000	1.537	0.341
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.293	1.547	0.000	1.547	0.193
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.308	1.559	0.000	1.559	0.058
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

142	1.342	1.557	0.000	1.557	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.352	1.541	0.000	1.541	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.309	1.515	0.000	1.515	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.275	1.512	0.000	1.512	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.265	1.516	0.000	1.516	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.266	1.525	0.000	1.525	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.274	1.539	0.000	1.539	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.293	1.554	0.000	1.554	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.330	1.599	0.000	1.599	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.407	1.615	0.000	1.615	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.415	1.565	0.000	1.565	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.321	1.493	0.000	1.493	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.252	1.489	0.000	1.489	0.000

## TIMDEP.OUT

191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.239	1.496	0.000	1.496	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.244	1.506	0.000	1.506	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.256	1.515	0.000	1.515	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.273	1.533	0.000	1.533	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.305	1.575	0.000	1.575	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.373	1.646	0.000	1.646	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.478	1.637	0.000	1.637	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.416	1.543	0.000	1.543	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.284	1.483	0.000	1.483	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	1.921	1.487	0.000	1.487	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.546	1.190	0.000	1.190	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.546	0.000	0.000	0.000	-9.454
238	326.598	0.000	0.000	0.000	321.598
239	0.546	0.000	0.000	0.000	-9.454

	TIMDEP.OUT				
240	0.000	0.000	0.000	0.000	0.000
1.200					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.301	1.538	0.000	1.538	0.951
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.301	1.538	0.000	1.538	0.801
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.301	1.538	0.000	1.538	0.651
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.299	1.539	0.000	1.539	0.349
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.301	1.540	0.000	1.540	0.201
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.307	1.540	0.000	1.540	0.057
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.311	1.535	0.000	1.535	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

146	1.300	1.532	0.000	1.532	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.289	1.533	0.000	1.533	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.286	1.541	0.000	1.541	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.295	1.556	0.000	1.556	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.321	1.570	0.000	1.570	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.363	1.564	0.000	1.564	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.355	1.532	0.000	1.532	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.299	1.508	0.000	1.508	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.267	1.507	0.000	1.507	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.258	1.513	0.000	1.513	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.261	1.522	0.000	1.522	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.271	1.538	0.000	1.538	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.293	1.560	0.000	1.560	0.000

	TIMDEP.OUT				
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.333	1.603	0.000	1.603	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.413	1.621	0.000	1.621	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.421	1.568	0.000	1.568	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.323	1.502	0.000	1.502	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.252	1.488	0.000	1.488	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.239	1.494	0.000	1.494	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.244	1.502	0.000	1.502	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.254	1.514	0.000	1.514	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	1.990	1.542	0.000	1.542	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.582	1.226	0.000	1.226	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.582	0.000	0.000	0.000	-9.418
238	436.188	0.000	0.000	0.000	431.188
239	0.582	0.000	0.000	0.000	-9.418
240	0.000	0.000	0.000	0.000	0.000
1.300					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150

## TIMDEP.OUT

3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.538	0.000	1.538	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.301	1.538	0.000	1.538	0.801
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.300	1.538	0.000	1.538	0.650
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.300	1.538	0.000	1.538	0.350
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.301	1.538	0.000	1.538	0.201
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.301	1.538	0.000	1.538	0.051
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.301	1.537	0.000	1.537	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.300	1.537	0.000	1.537	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

150	1.299	1.538	0.000	1.538	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.300	1.540	0.000	1.540	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.306	1.543	0.000	1.543	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.317	1.538	0.000	1.538	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.309	1.530	0.000	1.530	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.291	1.529	0.000	1.529	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.281	1.534	0.000	1.534	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.282	1.547	0.000	1.547	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.299	1.566	0.000	1.566	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.336	1.582	0.000	1.582	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.377	1.570	0.000	1.570	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.352	1.537	0.000	1.537	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.295	1.506	0.000	1.506	0.000

## TIMDEP.OUT

199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.263	1.506	0.000	1.506	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.258	1.511	0.000	1.511	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.261	1.520	0.000	1.520	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.270	1.527	0.000	1.527	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.288	1.552	0.000	1.552	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.335	1.607	0.000	1.607	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.384	1.615	0.000	1.615	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.124	1.575	0.000	1.575	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.597	1.238	0.000	1.238	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.597	0.000	0.000	0.000	-9.403
238	542.997	0.000	0.000	0.000	537.997
239	0.597	0.000	0.000	0.000	-9.403
240	0.000	0.000	0.000	0.000	0.000
1.400					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000

## TIMDEP.OUT

7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.538	0.000	1.538	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.300	1.538	0.000	1.538	0.800
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.300	1.538	0.000	1.538	0.650
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.300	1.538	0.000	1.538	0.350
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.300	1.538	0.000	1.538	0.200
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.301	1.538	0.000	1.538	0.051
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.301	1.538	0.000	1.538	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.300	1.538	0.000	1.538	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.300	1.538	0.000	1.538	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

154	1.300	1.538	0.000	1.538	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.301	1.538	0.000	1.538	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.303	1.537	0.000	1.537	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.301	1.537	0.000	1.537	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.298	1.537	0.000	1.537	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.298	1.540	0.000	1.540	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.302	1.544	0.000	1.544	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.316	1.545	0.000	1.545	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.326	1.534	0.000	1.534	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.305	1.524	0.000	1.524	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.280	1.524	0.000	1.524	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.275	1.531	0.000	1.531	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.279	1.544	0.000	1.544	0.000

## TIMDEP.OUT

203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.296	1.562	0.000	1.562	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.334	1.590	0.000	1.590	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.389	1.592	0.000	1.592	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.376	1.547	0.000	1.547	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.305	1.499	0.000	1.499	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.256	1.499	0.000	1.499	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	1.944	1.509	0.000	1.509	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.560	1.194	0.000	1.194	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.560	0.000	0.000	0.000	-9.440
238	654.095	0.000	0.000	0.000	649.095
239	0.560	0.000	0.000	0.000	-9.440
240	0.000	0.000	0.000	0.000	0.000
1.500					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850



## TIMDEP.OUT

11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.538	0.000	1.538	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.300	1.538	0.000	1.538	0.800
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.300	1.538	0.000	1.538	0.650
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.300	1.538	0.000	1.538	0.350
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.300	1.538	0.000	1.538	0.200
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.300	1.538	0.000	1.538	0.050
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.300	1.538	0.000	1.538	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.300	1.538	0.000	1.538	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.300	1.538	0.000	1.538	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.300	1.538	0.000	1.538	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

158	1.301	1.538	0.000	1.538	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.301	1.538	0.000	1.538	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.300	1.538	0.000	1.538	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.300	1.538	0.000	1.538	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.300	1.538	0.000	1.538	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.301	1.539	0.000	1.539	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.304	1.538	0.000	1.538	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.302	1.536	0.000	1.536	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.298	1.536	0.000	1.536	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.296	1.538	0.000	1.538	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.298	1.544	0.000	1.544	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.312	1.550	0.000	1.550	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.335	1.541	0.000	1.541	0.000

			TIMDEP.OUT		
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.324	1.526	0.000	1.526	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.292	1.518	0.000	1.518	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.272	1.521	0.000	1.521	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.269	1.530	0.000	1.530	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.278	1.544	0.000	1.544	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.035	1.571	0.000	1.571	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.594	1.243	0.000	1.243	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.594	0.000	0.000	0.000	-9.406
238	762.529	0.000	0.000	0.000	757.529
239	0.594	0.000	0.000	0.000	-9.406
240	0.000	0.000	0.000	0.000	0.000
1.600					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700

## TIMDEP.OUT

15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.538	0.000	1.538	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.300	1.538	0.000	1.538	0.800
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.300	1.538	0.000	1.538	0.650
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.300	1.538	0.000	1.538	0.350
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.300	1.538	0.000	1.538	0.200
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.300	1.538	0.000	1.538	0.050
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.300	1.538	0.000	1.538	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.300	1.538	0.000	1.538	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.300	1.538	0.000	1.538	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.300	1.538	0.000	1.538	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.300	1.538	0.000	1.538	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

162	1.300	1.538	0.000	1.538	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.300	1.538	0.000	1.538	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.300	1.538	0.000	1.538	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.300	1.538	0.000	1.538	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.301	1.538	0.000	1.538	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.301	1.538	0.000	1.538	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.300	1.538	0.000	1.538	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.300	1.538	0.000	1.538	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.300	1.538	0.000	1.538	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.301	1.539	0.000	1.539	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.305	1.539	0.000	1.539	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.305	1.536	0.000	1.536	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.298	1.535	0.000	1.535	0.000

	TIMDEP.OUT				
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.294	1.537	0.000	1.537	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.294	1.543	0.000	1.543	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.311	1.553	0.000	1.553	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.327	1.548	0.000	1.548	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.046	1.529	0.000	1.529	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.577	1.217	0.000	1.217	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.577	0.000	0.000	0.000	-9.423
238	868.987	0.000	0.000	0.000	863.987
239	0.577	0.000	0.000	0.000	-9.423
240	0.000	0.000	0.000	0.000	0.000
1.700					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550

## TIMDEP.OUT

19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.538	0.000	1.538	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

117	0.000	0.000	0.000	0.000	0.000
118	1.300	1.538	0.000	1.538	0.800
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.300	1.538	0.000	1.538	0.650
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.300	1.538	0.000	1.538	0.350
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.300	1.538	0.000	1.538	0.200
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.300	1.538	0.000	1.538	0.050
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.300	1.538	0.000	1.538	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.300	1.538	0.000	1.538	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.300	1.538	0.000	1.538	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.300	1.538	0.000	1.538	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.300	1.538	0.000	1.538	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.300	1.538	0.000	1.538	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

166	1.300	1.538	0.000	1.538	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.300	1.538	0.000	1.538	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.300	1.538	0.000	1.538	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.300	1.538	0.000	1.538	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.300	1.538	0.000	1.538	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.300	1.538	0.000	1.538	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.300	1.538	0.000	1.538	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.300	1.538	0.000	1.538	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.301	1.538	0.000	1.538	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.301	1.538	0.000	1.538	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.301	1.538	0.000	1.538	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.300	1.538	0.000	1.538	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.300	1.538	0.000	1.538	0.000



## TIMDEP.OUT

215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.300	1.540	0.000	1.540	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.307	1.540	0.000	1.540	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.304	1.537	0.000	1.537	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.019	1.536	0.000	1.536	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.578	1.220	0.000	1.220	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.578	0.000	0.000	0.000	-9.422
238	978.538	0.000	0.000	0.000	973.538
239	0.578	0.000	0.000	0.000	-9.422
240	0.000	0.000	0.000	0.000	0.000
1.800					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400

## TIMDEP.OUT

23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.538	0.000	1.538	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.300	1.538	0.000	1.538	0.800
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

121	0.000	0.000	0.000	0.000	0.000
122	1.300	1.538	0.000	1.538	0.650
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.300	1.538	0.000	1.538	0.350
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.300	1.538	0.000	1.538	0.200
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.300	1.538	0.000	1.538	0.050
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.300	1.538	0.000	1.538	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.300	1.538	0.000	1.538	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.300	1.538	0.000	1.538	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.300	1.538	0.000	1.538	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.300	1.538	0.000	1.538	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.300	1.538	0.000	1.538	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.300	1.538	0.000	1.538	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

170	1.300	1.538	0.000	1.538	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.300	1.538	0.000	1.538	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.300	1.538	0.000	1.538	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.300	1.538	0.000	1.538	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.300	1.538	0.000	1.538	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.300	1.538	0.000	1.538	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.300	1.538	0.000	1.538	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.300	1.538	0.000	1.538	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.301	1.538	0.000	1.538	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.300	1.538	0.000	1.538	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.300	1.538	0.000	1.538	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.300	1.538	0.000	1.538	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.301	1.538	0.000	1.538	0.000

## TIMDEP.OUT

219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.301	1.538	0.000	1.538	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.301	1.538	0.000	1.538	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.021	1.538	0.000	1.538	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.578	1.224	0.000	1.224	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.578	0.000	0.000	0.000	-9.422
238	1085.775	0.000	0.000	0.000	1080.775
239	0.578	0.000	0.000	0.000	-9.422
240	0.000	0.000	0.000	0.000	0.000
1.900					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250

## TIMDEP.OUT

27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.538	0.000	1.538	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.300	1.538	0.000	1.538	0.800
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.300	1.538	0.000	1.538	0.650
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	1.300	1.538	0.000	1.538	0.350
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.300	1.538	0.000	1.538	0.200
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.300	1.538	0.000	1.538	0.050
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.300	1.538	0.000	1.538	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.300	1.538	0.000	1.538	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.300	1.538	0.000	1.538	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.300	1.538	0.000	1.538	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.300	1.538	0.000	1.538	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.300	1.538	0.000	1.538	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.300	1.538	0.000	1.538	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.300	1.538	0.000	1.538	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

174	1.300	1.538	0.000	1.538	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	1.300	1.538	0.000	1.538	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.300	1.538	0.000	1.538	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.300	1.538	0.000	1.538	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.300	1.538	0.000	1.538	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.300	1.538	0.000	1.538	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.300	1.538	0.000	1.538	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.300	1.538	0.000	1.538	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.300	1.538	0.000	1.538	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.300	1.538	0.000	1.538	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.300	1.538	0.000	1.538	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.301	1.538	0.000	1.538	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.301	1.538	0.000	1.538	0.000

	TIMDEP.OUT				
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.300	1.538	0.000	1.538	0.000
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.022	1.538	0.000	1.538	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.579	1.216	0.000	1.216	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.579	0.000	0.000	0.000	-9.421
238	1195.127	0.000	0.000	0.000	1190.127
239	0.579	0.000	0.000	0.000	-9.421
240	0.000	0.000	0.000	0.000	0.000
2.000					
1	0.000	0.000	0.000	0.000	0.000
2	1.300	1.538	0.000	1.538	5.150
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	1.300	1.538	0.000	1.538	5.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	1.300	1.538	0.000	1.538	4.850
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	1.300	1.538	0.000	1.538	4.700
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	1.300	1.538	0.000	1.538	4.550
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	1.300	1.538	0.000	1.538	4.400
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	1.300	1.538	0.000	1.538	4.250
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	1.300	1.538	0.000	1.538	4.100

## TIMDEP.OUT

31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	1.300	1.538	0.000	1.538	3.950
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	1.300	1.538	0.000	1.538	3.800
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	1.300	1.538	0.000	1.538	3.650
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	1.300	1.538	0.000	1.538	3.500
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	1.300	1.538	0.000	1.538	3.350
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	1.300	1.538	0.000	1.538	3.200
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	1.300	1.538	0.000	1.538	3.050
59	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
61	0.000	0.000	0.000	0.000	0.000
62	1.300	1.538	0.000	1.538	2.900
63	0.000	0.000	0.000	0.000	0.000
64	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
66	1.300	1.538	0.000	1.538	2.750
67	0.000	0.000	0.000	0.000	0.000
68	0.000	0.000	0.000	0.000	0.000
69	0.000	0.000	0.000	0.000	0.000
70	1.300	1.538	0.000	1.538	2.600
71	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.000	0.000	0.000
73	0.000	0.000	0.000	0.000	0.000
74	1.300	1.538	0.000	1.538	2.450
75	0.000	0.000	0.000	0.000	0.000
76	0.000	0.000	0.000	0.000	0.000
77	0.000	0.000	0.000	0.000	0.000
78	1.300	1.538	0.000	1.538	2.300
79	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

80	0.000	0.000	0.000	0.000	0.000
81	0.000	0.000	0.000	0.000	0.000
82	1.300	1.538	0.000	1.538	2.150
83	0.000	0.000	0.000	0.000	0.000
84	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
86	1.300	1.538	0.000	1.538	2.000
87	0.000	0.000	0.000	0.000	0.000
88	0.000	0.000	0.000	0.000	0.000
89	0.000	0.000	0.000	0.000	0.000
90	1.300	1.538	0.000	1.538	1.850
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	1.300	1.538	0.000	1.538	1.700
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	1.300	1.538	0.000	1.538	1.550
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	1.300	1.538	0.000	1.538	1.400
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	1.300	1.538	0.000	1.538	1.250
107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	1.300	1.538	0.000	1.538	1.100
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	1.300	1.538	0.000	1.538	0.950
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	1.300	1.538	0.000	1.538	0.800
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	1.300	1.538	0.000	1.538	0.650
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	1.300	1.538	0.000	1.538	0.500
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000

## TIMDEP.OUT

129	0.000	0.000	0.000	0.000	0.000
130	1.300	1.538	0.000	1.538	0.350
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	1.300	1.538	0.000	1.538	0.200
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	1.300	1.538	0.000	1.538	0.050
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	1.300	1.538	0.000	1.538	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	1.300	1.538	0.000	1.538	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	1.300	1.538	0.000	1.538	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	1.300	1.538	0.000	1.538	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	1.300	1.538	0.000	1.538	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	1.300	1.538	0.000	1.538	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	1.300	1.538	0.000	1.538	0.000
167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	1.300	1.538	0.000	1.538	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	1.300	1.538	0.000	1.538	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000



## TIMDEP.OUT

178	1.300	1.538	0.000	1.538	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000
181	0.000	0.000	0.000	0.000	0.000
182	1.300	1.538	0.000	1.538	0.000
183	0.000	0.000	0.000	0.000	0.000
184	0.000	0.000	0.000	0.000	0.000
185	0.000	0.000	0.000	0.000	0.000
186	1.300	1.538	0.000	1.538	0.000
187	0.000	0.000	0.000	0.000	0.000
188	0.000	0.000	0.000	0.000	0.000
189	0.000	0.000	0.000	0.000	0.000
190	1.300	1.538	0.000	1.538	0.000
191	0.000	0.000	0.000	0.000	0.000
192	0.000	0.000	0.000	0.000	0.000
193	0.000	0.000	0.000	0.000	0.000
194	1.300	1.538	0.000	1.538	0.000
195	0.000	0.000	0.000	0.000	0.000
196	0.000	0.000	0.000	0.000	0.000
197	0.000	0.000	0.000	0.000	0.000
198	1.300	1.538	0.000	1.538	0.000
199	0.000	0.000	0.000	0.000	0.000
200	0.000	0.000	0.000	0.000	0.000
201	0.000	0.000	0.000	0.000	0.000
202	1.300	1.538	0.000	1.538	0.000
203	0.000	0.000	0.000	0.000	0.000
204	0.000	0.000	0.000	0.000	0.000
205	0.000	0.000	0.000	0.000	0.000
206	1.300	1.538	0.000	1.538	0.000
207	0.000	0.000	0.000	0.000	0.000
208	0.000	0.000	0.000	0.000	0.000
209	0.000	0.000	0.000	0.000	0.000
210	1.300	1.538	0.000	1.538	0.000
211	0.000	0.000	0.000	0.000	0.000
212	0.000	0.000	0.000	0.000	0.000
213	0.000	0.000	0.000	0.000	0.000
214	1.300	1.538	0.000	1.538	0.000
215	0.000	0.000	0.000	0.000	0.000
216	0.000	0.000	0.000	0.000	0.000
217	0.000	0.000	0.000	0.000	0.000
218	1.300	1.538	0.000	1.538	0.000
219	0.000	0.000	0.000	0.000	0.000
220	0.000	0.000	0.000	0.000	0.000
221	0.000	0.000	0.000	0.000	0.000
222	1.300	1.538	0.000	1.538	0.000
223	0.000	0.000	0.000	0.000	0.000
224	0.000	0.000	0.000	0.000	0.000
225	0.000	0.000	0.000	0.000	0.000
226	1.300	1.538	0.000	1.538	0.000

	TIMDEP.OUT				
227	0.000	0.000	0.000	0.000	0.000
228	0.000	0.000	0.000	0.000	0.000
229	0.000	0.000	0.000	0.000	0.000
230	2.022	1.538	0.000	1.538	0.000
231	0.000	0.000	0.000	0.000	0.000
232	0.000	0.000	0.000	0.000	0.000
233	0.000	0.000	0.000	0.000	0.000
234	0.579	1.223	0.000	1.223	0.000
235	0.000	0.000	0.000	0.000	0.000
236	0.000	0.000	0.000	0.000	0.000
237	0.579	0.000	0.000	0.000	-9.421
238	1302.395	0.000	0.000	0.000	1297.395
239	0.579	0.000	0.000	0.000	-9.421
240	0.000	0.000	0.000	0.000	0.000

## VELTIMEFP.OUT

## MAXIMUM FLOODPLAIN VELOCITIES LISTED IN DESCENDING ORDER

NODE	MAXIMUM VELOCITY (FPS OR MPS)	DEPTH AT MAX. VELOCITY (FT OR M)	TIME OF OCCURRENCE (HRS)
234	2.40	0.71	0.80
226	2.18	2.14	0.79
218	2.18	2.02	0.78
222	2.17	1.94	0.79
214	2.16	2.09	0.77
210	2.14	1.87	0.76
206	2.14	1.90	0.75
202	2.12	1.90	0.74
198	2.10	1.89	0.73
194	2.08	1.86	0.72
190	2.06	1.81	0.71
186	2.04	1.94	0.70
182	2.02	1.83	0.69
174	1.99	1.79	0.67
178	1.98	1.92	0.68
170	1.96	1.85	0.66
162	1.95	1.75	0.64
166	1.95	1.71	0.65
230	1.94	2.75	0.80
158	1.94	1.78	0.63
154	1.92	1.79	0.62
150	1.90	1.77	0.61
146	1.89	1.73	0.60
142	1.87	1.68	0.59
138	1.84	1.61	0.58
134	1.82	1.66	0.57
130	1.79	1.54	0.56
126	1.76	1.54	0.55
122	1.74	1.51	0.53
118	1.72	1.47	0.52
114	1.69	1.55	0.51
110	1.69	1.49	0.50
106	1.66	1.42	0.49
102	1.65	1.43	0.48
98	1.63	1.41	0.47
94	1.61	1.36	0.73
86	1.60	1.35	0.72
90	1.60	1.36	0.73
82	1.60	1.36	0.71
78	1.60	1.35	0.71
74	1.59	1.35	0.70
70	1.59	1.34	0.60
66	1.59	1.34	0.63
62	1.59	1.34	0.63
58	1.59	1.34	0.62

## VELTIMEFP.OUT

54	1.59	1.35	0.61
50	1.59	1.35	0.60
46	1.58	1.34	0.59
42	1.58	1.33	0.59
38	1.58	1.34	0.58
34	1.57	1.33	0.57
30	1.57	1.33	0.56
26	1.56	1.32	0.56
22	1.56	1.32	0.55
18	1.56	1.32	0.54
14	1.55	1.31	0.53
10	1.55	1.31	0.52
6	1.54	1.30	0.52
2	1.54	1.30	0.52
238	0.15	0.60	0.79
61	0.00	0.00	0.00
44	0.00	0.00	0.00
63	0.00	0.00	0.00
64	0.00	0.00	0.00
65	0.00	0.00	0.00
43	0.00	0.00	0.00
67	0.00	0.00	0.00
68	0.00	0.00	0.00
69	0.00	0.00	0.00
49	0.00	0.00	0.00
71	0.00	0.00	0.00
72	0.00	0.00	0.00
73	0.00	0.00	0.00
41	0.00	0.00	0.00
75	0.00	0.00	0.00
76	0.00	0.00	0.00
77	0.00	0.00	0.00
40	0.00	0.00	0.00
79	0.00	0.00	0.00
80	0.00	0.00	0.00
81	0.00	0.00	0.00
39	0.00	0.00	0.00
83	0.00	0.00	0.00
84	0.00	0.00	0.00
85	0.00	0.00	0.00
37	0.00	0.00	0.00
87	0.00	0.00	0.00
88	0.00	0.00	0.00
89	0.00	0.00	0.00
47	0.00	0.00	0.00
91	0.00	0.00	0.00
92	0.00	0.00	0.00
93	0.00	0.00	0.00
36	0.00	0.00	0.00

## VELTIMEFP.OUT

95	0.00	0.00	0.00
96	0.00	0.00	0.00
97	0.00	0.00	0.00
35	0.00	0.00	0.00
99	0.00	0.00	0.00
100	0.00	0.00	0.00
101	0.00	0.00	0.00
51	0.00	0.00	0.00
103	0.00	0.00	0.00
104	0.00	0.00	0.00
105	0.00	0.00	0.00
33	0.00	0.00	0.00
107	0.00	0.00	0.00
108	0.00	0.00	0.00
109	0.00	0.00	0.00
32	0.00	0.00	0.00
111	0.00	0.00	0.00
112	0.00	0.00	0.00
113	0.00	0.00	0.00
31	0.00	0.00	0.00
115	0.00	0.00	0.00
116	0.00	0.00	0.00
117	0.00	0.00	0.00
52	0.00	0.00	0.00
119	0.00	0.00	0.00
120	0.00	0.00	0.00
121	0.00	0.00	0.00
29	0.00	0.00	0.00
123	0.00	0.00	0.00
124	0.00	0.00	0.00
125	0.00	0.00	0.00
28	0.00	0.00	0.00
127	0.00	0.00	0.00
128	0.00	0.00	0.00
129	0.00	0.00	0.00
27	0.00	0.00	0.00
131	0.00	0.00	0.00
132	0.00	0.00	0.00
133	0.00	0.00	0.00
53	0.00	0.00	0.00
135	0.00	0.00	0.00
136	0.00	0.00	0.00
137	0.00	0.00	0.00
25	0.00	0.00	0.00
139	0.00	0.00	0.00
140	0.00	0.00	0.00
141	0.00	0.00	0.00
24	0.00	0.00	0.00
143	0.00	0.00	0.00

## VELTIMEFP.OUT

144	0.00	0.00	0.00
145	0.00	0.00	0.00
23	0.00	0.00	0.00
147	0.00	0.00	0.00
148	0.00	0.00	0.00
149	0.00	0.00	0.00
48	0.00	0.00	0.00
151	0.00	0.00	0.00
152	0.00	0.00	0.00
153	0.00	0.00	0.00
21	0.00	0.00	0.00
155	0.00	0.00	0.00
156	0.00	0.00	0.00
157	0.00	0.00	0.00
20	0.00	0.00	0.00
159	0.00	0.00	0.00
160	0.00	0.00	0.00
161	0.00	0.00	0.00
17	0.00	0.00	0.00
163	0.00	0.00	0.00
164	0.00	0.00	0.00
165	0.00	0.00	0.00
55	0.00	0.00	0.00
167	0.00	0.00	0.00
168	0.00	0.00	0.00
169	0.00	0.00	0.00
16	0.00	0.00	0.00
171	0.00	0.00	0.00
172	0.00	0.00	0.00
173	0.00	0.00	0.00
56	0.00	0.00	0.00
175	0.00	0.00	0.00
176	0.00	0.00	0.00
177	0.00	0.00	0.00
15	0.00	0.00	0.00
179	0.00	0.00	0.00
180	0.00	0.00	0.00
181	0.00	0.00	0.00
13	0.00	0.00	0.00
183	0.00	0.00	0.00
184	0.00	0.00	0.00
185	0.00	0.00	0.00
12	0.00	0.00	0.00
187	0.00	0.00	0.00
188	0.00	0.00	0.00
189	0.00	0.00	0.00
11	0.00	0.00	0.00
191	0.00	0.00	0.00
192	0.00	0.00	0.00

## VELTIMEFP.OUT

193	0.00	0.00	0.00
57	0.00	0.00	0.00
195	0.00	0.00	0.00
196	0.00	0.00	0.00
197	0.00	0.00	0.00
9	0.00	0.00	0.00
199	0.00	0.00	0.00
200	0.00	0.00	0.00
201	0.00	0.00	0.00
8	0.00	0.00	0.00
203	0.00	0.00	0.00
204	0.00	0.00	0.00
205	0.00	0.00	0.00
7	0.00	0.00	0.00
207	0.00	0.00	0.00
208	0.00	0.00	0.00
209	0.00	0.00	0.00
45	0.00	0.00	0.00
211	0.00	0.00	0.00
212	0.00	0.00	0.00
213	0.00	0.00	0.00
5	0.00	0.00	0.00
215	0.00	0.00	0.00
216	0.00	0.00	0.00
217	0.00	0.00	0.00
3	0.00	0.00	0.00
219	0.00	0.00	0.00
220	0.00	0.00	0.00
221	0.00	0.00	0.00
4	0.00	0.00	0.00
223	0.00	0.00	0.00
224	0.00	0.00	0.00
225	0.00	0.00	0.00
59	0.00	0.00	0.00
227	0.00	0.00	0.00
228	0.00	0.00	0.00
229	0.00	0.00	0.00
19	0.00	0.00	0.00
231	0.00	0.00	0.00
232	0.00	0.00	0.00
233	0.00	0.00	0.00
1	0.00	0.00	0.00
235	0.00	0.00	0.00
236	0.00	0.00	0.00
237	0.00	0.00	0.00
60	0.00	0.00	0.00
239	0.00	0.00	0.00
240	0.00	0.00	0.00



TOPO.DAT

0.00	2450.00	1.50
50.00	2450.00	1.50
100.00	2450.00	1.50
150.00	2450.00	1.50
0.00	2500.00	1.35
50.00	2500.00	1.35
100.00	2500.00	1.35
150.00	2500.00	1.35
0.00	2550.00	1.20
50.00	2550.00	1.20
100.00	2550.00	1.20
150.00	2550.00	1.20
0.00	2600.00	1.05
50.00	2600.00	1.05
100.00	2600.00	1.05
150.00	2600.00	1.05
0.00	2650.00	0.90
50.00	2650.00	0.90
100.00	2650.00	0.90
150.00	2650.00	0.90
0.00	2700.00	0.75
50.00	2700.00	0.75
100.00	2700.00	0.75
150.00	2700.00	0.75
0.00	2750.00	0.60
50.00	2750.00	0.60
100.00	2750.00	0.60
150.00	2750.00	0.60
0.00	2800.00	0.45
50.00	2800.00	0.45
100.00	2800.00	0.45
150.00	2800.00	0.45
0.00	2850.00	0.30
50.00	2850.00	0.30
100.00	2850.00	0.30
150.00	2850.00	0.30
0.00	2900.00	0.15
50.00	2900.00	0.15
100.00	2900.00	0.15
150.00	2900.00	0.15
0.00	2950.00	0.00
50.00	2950.00	0.00
100.00	2950.00	0.00
150.00	2950.00	0.00

## **Attachment 5 – Test Case 2 FLO-2D Input Files**

#### 4.2 Case Study 2. Overland Flow - Truckee River

Tetra Tech, Inc. was contracted by the US Army Corps of Engineers, Sacramento District, to conduct a flood hazard delineation project for the Truckee River through Reno, Nevada. This project was supported by the City of Reno and Washoe County Flood Control District. The FLO-2D model was selected for this study because most of the flood volume in the lower reach of the study area was on the floodplain. The focus of this study was a January 1997 flood that was documented with gage data, high water marks, pictures and video. This data base was supplemented with over 100 post flood channel cross section surveys. An existing HEC-2 model was updated and used to calibrate in-channel flow n-values.

The key to the FLO-2D overbank flood analysis was the relationship between the volume of water in the channel and the volume of water on the Truckee Meadows floodplain area. Downstream of this area, all the flow in the river and on the floodplain was forced over the geologic control (bedrock sill) and into a narrow canyon (Figure 38). This broad floodplain has historically flooded in response to the backwater at the canyon entrance. Just upstream of the canyon a USGS gage (New Vista) was located. Upstream of the Truckee Meadows area was another gage (Reno gage) which essentially captured all the flow entering the Meadows reach. Between the two gages, the river conveyance capacity was limited to about 10,000 cfs. The 1997 flood peak discharge was approximately 20,000 cfs. Complicating the flood replication was the fact that the travel time associated with the overbank flooding through the Truckee Meadows floodplain area was on the order of 6 hours whereas the channel flow was less than 0.5 hours.

To replicate the downstream New Vista gage stage for the 1997 flood, it was necessary to accurately route the flow in the channel, the overland flow over the huge meadow and the return flow to the channel upstream of the gage. Following the successful replication of the 1997 flood, the model was applied to other historical flood events that were less well documented. The ability of the model to accurately replicate the lower gage stage as shown in Figures 9 and 10 verified that three components of the model functioned correctly in concert:

- Channel routing
- Unconfined overland flood routing
- Channel-floodplain exchange (both overbank flow and return flow to the channel)

It is noteworthy that this project marked the end of the use of the channel power regression relationships for the channel cross sections. If the actual surveyed cross section data were used in the model instead of the power regression relationship, the predicted stage at the New Vista gage would be an almost perfect match. Only power regression relationship were used to represent the cross sections when the model was initially developed for this project.





Figure 38. Sparks Truckee Meadows Area General Peak Flow Path (Google Earth, 2011)

#### 4.3 Case Study 3. City of Camarillo, California FIS Study

FEMA issued a Preliminary Flood Insurance Study (FIS) reporting Digital Flood Insurance Rate Maps (DFIRM) for Ventura County and the City of Camarillo on September 16, 2005. In February 2006, the City appealed and FEMA in April 2006 agreed with the technical assessment of the City's appeal and requested additional analysis. In January 2008, the City filed a detailed two dimensional FLO-2D model floodplain study (27,979 - 100 ft elements) in support of their appeal. The revised floodplain boundaries and elevations were incorporated into the DFIRM with a date of January 20, 2010. After the DFIRMs went into effect, it became apparent that it was difficult to determine whether flood insurance was required in certain areas. The City came to the conclusion that a more refined hydraulic model should be prepared to better depict the 100-year flood for flood insurance and requested that 10 ft grid elements be used in the FLO-2D model. It was presumed that a higher resolution grid system was required to more accurately define the shallow flow flooding in the densely populated urban areas.

The new FLO-2D FIS Study 10 ft model encompassed 1,093,307 grid elements, over 5,000 buildings, almost 2,400 channel elements, spatially variable n-value assignment (including the streets), privacy walls, and numerous hydraulic structures to simulate the culverts and bridges (Figures 39 - 41).

## ARF.DAT

```

S 0
T 1679
T 1825
T 1826
T 1898
T 1899
T 3531
T 3610
T 3611
T 3690
T 3691
3612 1 0 1 1 1 0 1 1 1
3692 1 0 1 1 1 1 1 1 0
1060 .45 0 0 0 0 0 0 0 0
1085 .9 .6 .5 0 0 0 0 0 0
1086 0 0 0 .6 0 0 0 0 0
1110 .6 0 0 0 .5 0 0 0 0
1135 .7 0 0 0 0 0 0 0 0
1159 .5 0 0 0 0 0 0 0 0
1186 .5 .8 0 0 0 0 0 0 0
1187 0 0 0 .8 0 0 0 0 0
1296 .75 .95 .85 0 0 0 0 0 0
1297 0 0 0 .95 0 0 0 0 0
1326 0 0 0 0 .85 0 0 0 0
1388 .55 0 0 0 0 0 0 0 0
1693 .25 0 0 0 0 0 0 0 0
1761 .25 0 0 0 0 0 0 0 0
1830 .75 0 0 0 0 0 0 0 0
2037 .9 1 0 0 0 1 0 0 0
2038 .9 .6 0 1 0 0 0 0 0
2039 .9 0 .9 .6 0 .5 .5 0 0
2052 .9 0 0 0 0 0 0 0 0
2116 0 0 0 0 0 0 0 1 .5
2117 0 0 0 0 .9 0 0 0 0
2118 0 0 0 0 0 0 0 .5 0
2129 .9 0 0 0 0 0 0 0 0
2207 .7 0 0 0 0 0 0 0 0
2534 0 0 .9 0 0 0 0 0 0
2543 .65 0 0 0 0 0 0 0 0
2619 0 0 0 0 .9 0 0 0 0
3283 0 0 .9 0 0 0 0 0 0
3363 0 0 0 0 .9 0 0 0 0
3440 .05 0 0 0 0 0 0 0 0
3441 .05 0 0 0 0 0 0 0 0
3451 .15 0 0 0 0 0 1 0 0
3452 .15 0 0 0 0 0 0 0 0
3516 .1 0 0 0 0 0 0 0 0
3517 .1 0 0 0 0 0 0 0 0
3518 .05 0 0 0 0 0 0 0 0
3521 .05 0 0 0 0 0 0 0 0
3524 .05 0 0 0 0 0 0 0 0
3525 .05 0 0 0 0 0 0 0 0
3526 .05 0 0 0 0 0 0 0 0
3533 .15 0 1 0 0 0 1 0 0
3580 .15 0 0 0 0 0 0 0 0
3581 .05 0 0 0 0 0 0 0 0
3588 .1 0 0 0 0 0 0 0 0
3589 .2 0 0 0 0 0 0 0 0
3598 .1 0 0 0 0 0 0 0 0
3606 .05 0 0 0 0 0 0 0 0
3607 .05 0 0 0 0 0 0 0 0
3608 .05 0 0 0 0 0 0 0 0
3609 .05 1 0 0 0 1 0 0 1
3675 .1 0 0 0 0 0 0 0 0
3678 .05 0 0 0 0 0 0 0 0
3683 .05 0 0 0 0 0 0 0 0

```



## CADPTS.DAT

1	2245958.000	14859512.000
2	2246458.000	14859512.000
3	2246458.000	14860012.000
4	2246958.000	14859512.000
5	2246958.000	14860012.000
6	2246958.000	14860512.000
7	2247458.000	14859512.000
8	2247458.000	14860012.000
9	2247458.000	14860512.000
10	2247458.000	14861012.000
11	2247958.000	14859512.000
12	2247958.000	14860012.000
13	2247958.000	14860512.000
14	2247958.000	14861012.000
15	2247958.000	14861512.000
16	2247958.000	14862012.000
17	2247958.000	14862512.000
18	2247958.000	14863012.000
19	2247958.000	14863512.000
20	2248458.000	14856512.000
21	2248458.000	14857012.000
22	2248458.000	14857512.000
23	2248458.000	14858012.000
24	2248458.000	14858512.000
25	2248458.000	14859012.000
26	2248458.000	14859512.000
27	2248458.000	14860012.000
28	2248458.000	14860512.000
29	2248458.000	14861012.000
30	2248458.000	14861512.000
31	2248458.000	14862012.000
32	2248458.000	14862512.000
33	2248458.000	14863012.000
34	2248458.000	14863512.000
35	2248958.000	14856512.000
36	2248958.000	14857012.000
37	2248958.000	14857512.000
38	2248958.000	14858012.000
39	2248958.000	14858512.000
40	2248958.000	14859012.000
41	2248958.000	14859512.000
42	2248958.000	14860012.000
43	2248958.000	14860512.000
44	2248958.000	14861012.000
45	2248958.000	14861512.000
46	2248958.000	14862012.000
47	2248958.000	14862512.000
48	2248958.000	14863012.000
49	2249458.000	14855012.000
50	2249458.000	14855512.000
51	2249458.000	14856012.000
52	2249458.000	14856512.000
53	2249458.000	14857012.000
54	2249458.000	14857512.000
55	2249458.000	14858012.000
56	2249458.000	14858512.000
57	2249458.000	14859012.000
58	2249458.000	14859512.000
59	2249458.000	14860012.000
60	2249458.000	14860512.000
61	2249458.000	14861012.000
62	2249458.000	14861512.000
63	2249458.000	14862012.000
64	2249458.000	14862512.000
65	2249458.000	14863012.000
66	2249958.000	14855012.000

## CADPTS.DAT

67	2249958.000	14855512.000
68	2249958.000	14856012.000
69	2249958.000	14856512.000
70	2249958.000	14857012.000
71	2249958.000	14857512.000
72	2249958.000	14858012.000
73	2249958.000	14858512.000
74	2249958.000	14859012.000
75	2249958.000	14859512.000
76	2249958.000	14860012.000
77	2249958.000	14860512.000
78	2249958.000	14861012.000
79	2249958.000	14861512.000
80	2249958.000	14862012.000
81	2249958.000	14862512.000
82	2250458.000	14855012.000
83	2250458.000	14855512.000
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85	2250458.000	14856512.000
86	2250458.000	14857012.000
87	2250458.000	14857512.000
88	2250458.000	14858012.000
89	2250458.000	14858512.000
90	2250458.000	14859012.000
91	2250458.000	14859512.000
92	2250458.000	14860012.000
93	2250458.000	14860512.000
94	2250458.000	14861012.000
95	2250458.000	14861512.000
96	2250458.000	14862012.000
97	2250458.000	14862512.000
98	2250958.000	14855012.000
99	2250958.000	14855512.000
100	2250958.000	14856012.000
101	2250958.000	14856512.000
102	2250958.000	14857012.000
103	2250958.000	14857512.000
104	2250958.000	14858012.000
105	2250958.000	14858512.000
106	2250958.000	14859012.000
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109	2250958.000	14860512.000
110	2250958.000	14861012.000
111	2250958.000	14861512.000
112	2250958.000	14862012.000
113	2251458.000	14855012.000
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117	2251458.000	14857012.000
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120	2251458.000	14858512.000
121	2251458.000	14859012.000
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124	2251458.000	14860512.000
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128	2251958.000	14855012.000
129	2251958.000	14855512.000
130	2251958.000	14856012.000
131	2251958.000	14856512.000
132	2251958.000	14857012.000



## CADPTS.DAT

133	2251958.000	14857512.000
134	2251958.000	14858012.000
135	2251958.000	14858512.000
136	2251958.000	14859012.000
137	2251958.000	14859512.000
138	2251958.000	14860012.000
139	2251958.000	14860512.000
140	2251958.000	14861012.000
141	2251958.000	14861512.000
142	2251958.000	14862012.000
143	2252458.000	14855512.000
144	2252458.000	14856012.000
145	2252458.000	14856512.000
146	2252458.000	14857012.000
147	2252458.000	14857512.000
148	2252458.000	14858012.000
149	2252458.000	14858512.000
150	2252458.000	14859012.000
151	2252458.000	14859512.000
152	2252458.000	14860012.000
153	2252458.000	14860512.000
154	2252458.000	14861012.000
155	2252458.000	14861512.000
156	2252458.000	14862012.000
157	2252958.000	14856012.000
158	2252958.000	14856512.000
159	2252958.000	14857012.000
160	2252958.000	14857512.000
161	2252958.000	14858012.000
162	2252958.000	14858512.000
163	2252958.000	14859012.000
164	2252958.000	14859512.000
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167	2252958.000	14861012.000
168	2252958.000	14861512.000
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171	2253458.000	14856012.000
172	2253458.000	14856512.000
173	2253458.000	14857012.000
174	2253458.000	14857512.000
175	2253458.000	14858012.000
176	2253458.000	14858512.000
177	2253458.000	14859012.000
178	2253458.000	14859512.000
179	2253458.000	14860012.000
180	2253458.000	14860512.000
181	2253458.000	14861012.000
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183	2253958.000	14855512.000
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185	2253958.000	14856512.000
186	2253958.000	14857012.000
187	2253958.000	14857512.000
188	2253958.000	14858012.000
189	2253958.000	14858512.000
190	2253958.000	14859012.000
191	2253958.000	14859512.000
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194	2253958.000	14861012.000
195	2253958.000	14861512.000
196	2254458.000	14856012.000
197	2254458.000	14856512.000
198	2254458.000	14857012.000

## CADPTS.DAT

199	2254458.000	14857512.000
200	2254458.000	14858012.000
201	2254458.000	14858512.000
202	2254458.000	14859012.000
203	2254458.000	14859512.000
204	2254458.000	14860012.000
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## CADPTS.DAT

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4735	2306458.000	14854012.000
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4737	2306458.000	14855012.000
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4739	2306458.000	14856012.000
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4743	2306458.000	14858012.000
4744	2306458.000	14858512.000
4745	2306458.000	14859012.000
4746	2306458.000	14859512.000
4747	2306458.000	14860012.000
4748	2306458.000	14860512.000
4749	2306458.000	14861012.000
4750	2306458.000	14861512.000
4751	2306458.000	14862012.000
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## CADPTS.DAT

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4755	2306458.000	14864012.000
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4766	2306458.000	14869512.000
4767	2306458.000	14870012.000
4768	2306458.000	14870512.000
4769	2306458.000	14871012.000
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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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5016	2309958.000	14873512.000

## CADPTS.DAT

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CADPTS.DAT

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5101	2318958.000	14858012.000

## CHANBANK . DAT

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43	0
59	0
76	0
91	0
107	0
121	0
135	0
148	0
147	0
159	0
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244	0
261	0
277	0
292	0
310	0
327	0
345	0
363	0
382	0
400	0
418	0
437	0
456	0
475	0
494	0
514	0
534	0
553	0
572	0
591	0
610	0
628	0
646	0
663	0
664	0
681	0
682	0
683	0
700	0
716	0
732	0
748	0
763	0
764	0
789	0
814	0
838	0
863	0
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910	0
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958	0
982	0
1007	0
1033	0



## CHANBANK . DAT

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1109	0
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4335	0
4402	0
4467	0
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4644	0

## CHANBANK . DAT

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4795	0
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3988	4051
4053	4113
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## CHANBANK . DAT

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292	0
310	0
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345	0
363	0
382	0
400	0
418	0
437	0
456	0
475	0
494	0
514	0
534	0
553	0
572	0
591	0
610	0
628	0
646	0
663	0
664	0
681	0
682	0
683	0
700	0
716	0
732	0
748	0
763	0
764	0
789	0
814	0
838	0
863	0
887	0
910	0
934	0
958	0
982	0
1007	0
1033	0

## CHANBANK . DAT

1059	0
1084	0
1109	0
1134	0
1160	0
1185	0
1212	0
1213	0
1239	0
1268	0
1297	0
1327	0
1358	0
1389	0
1421	0
1454	0
1488	0
1525	0
1566	0
1628	0
1693	0
1761	0
1831	0
1903	0
1902	0
1976	0
1975	0
2051	0
2128	0
2208	0
2289	0
2373	0
2459	0
2545	0
2630	0
2716	0
2803	0
2887	0
2973	0
3059	0
3135	0
3212	0
3292	0
3293	0
3373	0
3453	0
3534	0
3613	0
3693	0
3774	0
3773	0
3858	0
3944	0
4004	0
4068	0
4130	0
4131	0
4196	0
4265	0
4335	0
4402	0
4467	0
4532	0
4533	0
4590	0
4644	0

## CHANBANK . DAT

4645	0
4699	0
4751	0
4795	0
4833	0
4870	0
4800	0
4838	0
4873	0
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5089	0
5090	0
5092	0
5093	0
5094	0
5095	0
5096	0
5098	0
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5101	0
4040	0
4041	0
3977	0
3978	0
3915	0
3829	0
3830	0
3746	0
3747	0
3748	0
3834	0
3835	0
3836	0
3837	0
3925	0
3926	0
3988	4051
4053	4113
4115	4179
4116	0
4182	0
4252	4321
4253	0
4323	0
4324	0
4325	0
4393	0
4394	0
4460	0
4524	0

## CHANBANK . DAT

4581	0
4635	0
4636	0
4637	0
4690	0
4691	0
4692	0
4693	0
4746	0
4791	0
4830	0
4867	0
4903	0
2341	0
2342	0
2343	0
2344	0
2345	0
2346	0
2347	0
2348	0
2435	0
2523	0
2524	0
2525	0
2611	0
2698	0
2786	0
2870	0
2956	0
3043	0
3118	0
3195	0
3275	0
3355	0
3354	0
3353	0
3433	0
3514	0
3594	0
3675	0
3758	0
3843	0
3930	0
3992	0
3993	0
4057	0
4119	0
4184	0



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CONT.DAT
199.00 1.00 2 0 0 Pro Model - Build No. 14.08.09
  1 1 1 1 0
  1 1 0 0 0 0
  1 0 0
0.000 0.00 0.000 0.300 0.000 0.150
      2
      2
      2 0.25
1.00
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FPLAIN.DAT					
1	0	2	0	0	0.065 4680.77
2	3	4	0	1	0.065 4760.07
3	0	5	2	0	0.065 4671.49
4	5	7	0	2	0.065 4904.23
5	6	8	4	3	0.065 4734.29
6	0	9	5	0	0.065 4673.27
7	8	11	0	4	0.065 4921.95
8	9	12	7	5	0.065 4803.38
9	10	13	8	6	0.065 4696.37
10	0	14	9	0	0.065 4672.92
11	12	26	0	7	0.065 4913.47
12	13	27	11	8	0.065 4812.28
13	14	28	12	9	0.065 4695.81
14	15	29	13	10	0.065 4677.02
15	16	30	14	0	0.065 4686.69
16	17	31	15	0	0.065 4757.84
17	18	32	16	0	0.065 4885.13
18	19	33	17	0	0.065 4910.89
19	0	34	18	0	0.065 5072.85
20	21	35	0	0	0.065 4952.39
21	22	36	20	0	0.065 4881.80
22	23	37	21	0	0.065 4844.74
23	24	38	22	0	0.065 4862.00
24	25	39	23	0	0.065 4918.34
25	26	40	24	0	0.065 4946.60
26	27	41	25	11	0.065 4934.34
27	28	42	26	12	0.065 4748.42
28	29	43	27	13	0.065 4662.20
29	30	44	28	14	0.065 4695.74
30	31	45	29	15	0.065 4699.40
31	32	46	30	16	0.065 4887.07
32	33	47	31	17	0.065 4954.84
33	34	48	32	18	0.065 4987.67
34	0	0	33	19	0.065 4994.18
35	36	52	0	20	0.065 4921.99
36	37	53	35	21	0.065 4883.19
37	38	54	36	22	0.065 4879.23
38	39	55	37	23	0.065 4788.36
39	40	56	38	24	0.065 4769.47
40	41	57	39	25	0.065 4822.37
41	42	58	40	26	0.065 4824.53
42	43	59	41	27	0.065 4710.03
43	44	60	42	28	0.065 4677.46
44	45	61	43	29	0.065 4692.87
45	46	62	44	30	0.065 4758.33
46	47	63	45	31	0.065 4938.60
47	48	64	46	32	0.065 4989.74
48	0	65	47	33	0.065 5023.28
49	50	66	0	0	0.065 4921.05
50	51	67	49	0	0.065 4907.58
51	52	68	50	0	0.065 4929.57
52	53	69	51	35	0.065 4889.50
53	54	70	52	36	0.065 4860.41
54	55	71	53	37	0.065 4853.82
55	56	72	54	38	0.065 4854.41
56	57	73	55	39	0.065 4858.36
57	58	74	56	40	0.065 4713.30
58	59	75	57	41	0.065 4724.54
59	60	76	58	42	0.065 4657.70
60	61	77	59	43	0.065 4684.69
61	62	78	60	44	0.065 4731.59
62	63	79	61	45	0.065 4871.69
63	64	80	62	46	0.065 4986.26
64	65	81	63	47	0.065 5067.17
65	0	0	64	48	0.065 5082.48
66	67	82	0	49	0.065 4857.59

			FPLAIN.DAT			
67	68	83	66	50	0.065	4834.74
68	69	84	67	51	0.065	4876.97
69	70	85	68	52	0.065	4851.83
70	71	86	69	53	0.065	4831.29
71	72	87	70	54	0.065	4800.37
72	73	88	71	55	0.065	4844.34
73	74	89	72	56	0.065	4811.23
74	75	90	73	57	0.065	4766.32
75	76	91	74	58	0.065	4671.28
76	77	92	75	59	0.065	4660.94
77	78	93	76	60	0.065	4741.30
78	79	94	77	61	0.065	4809.54
79	80	95	78	62	0.065	4945.32
80	81	96	79	63	0.065	4966.29
81	0	97	80	64	0.065	5037.62
82	83	98	0	66	0.065	4975.36
83	84	99	82	67	0.065	4854.34
84	85	100	83	68	0.065	4834.88
85	86	101	84	69	0.065	4873.85
86	87	102	85	70	0.065	4859.11
87	88	103	86	71	0.065	4768.87
88	89	104	87	72	0.065	4722.78
89	90	105	88	73	0.065	4710.29
90	91	106	89	74	0.065	4678.02
91	92	107	90	75	0.065	4655.26
92	93	108	91	76	0.065	4662.70
93	94	109	92	77	0.065	4734.45
94	95	110	93	78	0.065	4767.84
95	96	111	94	79	0.065	4835.94
96	97	112	95	80	0.065	4886.15
97	0	0	96	81	0.065	4929.27
98	99	113	0	82	0.065	4992.32
99	100	114	98	83	0.065	4891.36
100	101	115	99	84	0.065	4731.82
101	102	116	100	85	0.065	4758.28
102	103	117	101	86	0.065	4747.48
103	104	118	102	87	0.065	4709.24
104	105	119	103	88	0.065	4690.93
105	106	120	104	89	0.065	4673.92
106	107	121	105	90	0.065	4662.86
107	108	122	106	91	0.065	4652.30
108	109	123	107	92	0.065	4708.28
109	110	124	108	93	0.065	4787.51
110	111	125	109	94	0.065	4833.86
111	112	126	110	95	0.065	4903.40
112	0	127	111	96	0.065	4992.26
113	114	128	0	98	0.065	4930.82
114	115	129	113	99	0.065	4896.33
115	116	130	114	100	0.065	4794.45
116	117	131	115	101	0.065	4700.21
117	118	132	116	102	0.065	4696.89
118	119	133	117	103	0.065	4684.09
119	120	134	118	104	0.065	4671.17
120	121	135	119	105	0.065	4668.32
121	122	136	120	106	0.065	4650.50
122	123	137	121	107	0.065	4750.34
123	124	138	122	108	0.065	4785.59
124	125	139	123	109	0.065	4830.05
125	126	140	124	110	0.065	4917.41
126	127	141	125	111	0.065	4972.90
127	0	142	126	112	0.065	5007.71
128	129	0	0	113	0.065	4934.97
129	130	143	128	114	0.065	4887.58
130	131	144	129	115	0.065	4844.73
131	132	145	130	116	0.065	4847.93
132	133	146	131	117	0.065	4750.94

			FPLAIN.DAT			
133	134	147	132	118	0.065	4664.91
134	135	148	133	119	0.065	4652.83
135	136	149	134	120	0.065	4642.32
136	137	150	135	121	0.065	4750.53
137	138	151	136	122	0.065	4775.21
138	139	152	137	123	0.065	4796.65
139	140	153	138	124	0.065	4832.02
140	141	154	139	125	0.065	4878.00
141	142	155	140	126	0.065	4901.25
142	0	156	141	127	0.065	4966.52
143	144	0	0	129	0.065	4944.67
144	145	157	143	130	0.065	4830.20
145	146	158	144	131	0.065	4897.08
146	147	159	145	132	0.065	4695.62
147	148	160	146	133	0.065	4648.17
148	149	161	147	134	0.065	4641.15
149	150	162	148	135	0.065	4655.67
150	151	163	149	136	0.065	4762.22
151	152	164	150	137	0.065	4777.56
152	153	165	151	138	0.065	4799.65
153	154	166	152	139	0.065	4823.32
154	155	167	153	140	0.065	4851.71
155	156	168	154	141	0.065	4885.14
156	0	169	155	142	0.065	4917.00
157	158	171	0	144	0.065	4815.38
158	159	172	157	145	0.065	4782.91
159	160	173	158	146	0.065	4642.40
160	161	174	159	147	0.065	4647.98
161	162	175	160	148	0.065	4655.19
162	163	176	161	149	0.065	4657.10
163	164	177	162	150	0.065	4758.69
164	165	178	163	151	0.065	4771.31
165	166	179	164	152	0.065	4783.15
166	167	180	165	153	0.065	4816.35
167	168	181	166	154	0.065	4855.56
168	169	182	167	155	0.065	4871.16
169	0	0	168	156	0.065	4918.73
170	171	183	0	0	0.065	4906.11
171	172	184	170	157	0.065	4742.52
172	173	185	171	158	0.065	4628.93
173	174	186	172	159	0.065	4638.71
174	175	187	173	160	0.065	4644.37
175	176	188	174	161	0.065	4652.30
176	177	189	175	162	0.065	4659.75
177	178	190	176	163	0.065	4745.28
178	179	191	177	164	0.065	4756.43
179	180	192	178	165	0.065	4792.68
180	181	193	179	166	0.065	4834.51
181	182	194	180	167	0.065	4883.88
182	0	195	181	168	0.065	4925.61
183	184	0	0	170	0.065	4927.08
184	185	196	183	171	0.065	4701.55
185	186	197	184	172	0.065	4631.08
186	187	198	185	173	0.065	4638.59
187	188	199	186	174	0.065	4646.58
188	189	200	187	175	0.065	4649.48
189	190	201	188	176	0.065	4658.22
190	191	202	189	177	0.065	4737.59
191	192	203	190	178	0.065	4767.79
192	193	204	191	179	0.065	4818.71
193	194	205	192	180	0.065	4843.55
194	195	206	193	181	0.065	4905.39
195	0	207	194	182	0.065	4936.68
196	197	210	0	184	0.065	4718.78
197	198	211	196	185	0.065	4630.30
198	199	212	197	186	0.065	4636.00

			FPLAIN.DAT			
199	200	213	198	187	0.065	4639.17
200	201	214	199	188	0.065	4645.99
201	202	215	200	189	0.065	4653.20
202	203	216	201	190	0.065	4740.52
203	204	217	202	191	0.065	4797.02
204	205	218	203	192	0.065	4901.06
205	206	219	204	193	0.065	4890.95
206	207	220	205	194	0.065	4902.02
207	208	221	206	195	0.065	4908.95
208	0	222	207	0	0.065	4903.73
209	210	225	0	0	0.065	4937.33
210	211	226	209	196	0.065	4873.83
211	212	227	210	197	0.065	4629.42
212	213	228	211	198	0.065	4629.10
213	214	229	212	199	0.065	4637.06
214	215	230	213	200	0.065	4639.45
215	216	231	214	201	0.065	4649.37
216	217	232	215	202	0.065	4745.26
217	218	233	216	203	0.065	4782.73
218	219	234	217	204	0.065	4856.96
219	220	235	218	205	0.065	4873.11
220	221	236	219	206	0.065	4863.74
221	222	0	220	207	0.065	4860.01
222	0	0	221	208	0.065	4887.81
223	224	238	0	0	0.065	4811.62
224	225	239	223	0	0.065	4768.08
225	226	240	224	209	0.065	4812.79
226	227	241	225	210	0.065	4834.78
227	228	242	226	211	0.065	4762.96
228	229	243	227	212	0.065	4632.10
229	230	244	228	213	0.065	4633.11
230	231	245	229	214	0.065	4644.38
231	232	246	230	215	0.065	4644.08
232	233	247	231	216	0.065	4735.28
233	234	248	232	217	0.065	4762.62
234	235	249	233	218	0.065	4869.22
235	236	250	234	219	0.065	4847.07
236	0	251	235	220	0.065	4865.96
237	238	253	0	0	0.065	4909.99
238	239	254	237	223	0.065	4885.27
239	240	255	238	224	0.065	4867.91
240	241	256	239	225	0.065	4815.42
241	242	257	240	226	0.065	4704.04
242	243	258	241	227	0.065	4669.26
243	244	259	242	228	0.065	4643.56
244	245	260	243	229	0.065	4622.58
245	246	261	244	230	0.065	4640.69
246	247	262	245	231	0.065	4650.69
247	248	263	246	232	0.065	4696.15
248	249	264	247	233	0.065	4829.71
249	250	265	248	234	0.065	4942.22
250	251	266	249	235	0.065	4910.31
251	252	267	250	236	0.065	4895.65
252	0	268	251	0	0.065	4936.10
253	254	269	0	237	0.065	4916.51
254	255	270	253	238	0.065	4868.47
255	256	271	254	239	0.065	4845.97
256	257	272	255	240	0.065	4824.49
257	258	273	256	241	0.065	4799.31
258	259	274	257	242	0.065	4776.45
259	260	275	258	243	0.065	4672.57
260	261	276	259	244	0.065	4622.40
261	262	277	260	245	0.065	4639.00
262	263	278	261	246	0.065	4644.78
263	264	279	262	247	0.065	4708.05
264	265	280	263	248	0.065	4898.58

			FPLAIN.DAT			
265	266	281	264	249	0.065	4961.91
266	267	282	265	250	0.065	4915.31
267	268	283	266	251	0.065	4898.29
268	0	284	267	252	0.065	4917.96
269	270	285	0	253	0.065	4931.90
270	271	286	269	254	0.065	4861.64
271	272	287	270	255	0.065	4830.71
272	273	288	271	256	0.065	4808.33
273	274	289	272	257	0.065	4789.96
274	275	290	273	258	0.065	4791.37
275	276	291	274	259	0.065	4706.23
276	277	292	275	260	0.065	4619.17
277	278	293	276	261	0.065	4634.69
278	279	294	277	262	0.065	4638.28
279	280	295	278	263	0.065	4735.22
280	281	296	279	264	0.065	4923.85
281	282	297	280	265	0.065	4952.23
282	283	298	281	266	0.065	4921.38
283	284	299	282	267	0.065	4901.00
284	0	300	283	268	0.065	4912.52
285	286	302	0	269	0.065	4880.89
286	287	303	285	270	0.065	4854.69
287	288	304	286	271	0.065	4813.39
288	289	305	287	272	0.065	4796.95
289	290	306	288	273	0.065	4771.69
290	291	307	289	274	0.065	4755.74
291	292	308	290	275	0.065	4703.61
292	293	309	291	276	0.065	4618.83
293	294	310	292	277	0.065	4618.83
294	295	311	293	278	0.065	4630.81
295	296	312	294	279	0.065	4718.82
296	297	313	295	280	0.065	4912.61
297	298	314	296	281	0.065	4963.05
298	299	315	297	282	0.065	4903.82
299	300	316	298	283	0.065	4882.94
300	301	317	299	284	0.065	4894.05
301	0	318	300	0	0.065	4891.09
302	303	319	0	285	0.065	4842.38
303	304	320	302	286	0.065	4819.49
304	305	321	303	287	0.065	4791.97
305	306	322	304	288	0.065	4775.45
306	307	323	305	289	0.065	4763.69
307	308	324	306	290	0.065	4751.00
308	309	325	307	291	0.065	4678.60
309	310	326	308	292	0.065	4621.20
310	311	327	309	293	0.065	4611.61
311	312	328	310	294	0.065	4630.79
312	313	329	311	295	0.065	4693.17
313	314	330	312	296	0.065	4892.04
314	315	331	313	297	0.065	4960.89
315	316	332	314	298	0.065	4894.42
316	317	333	315	299	0.065	4868.52
317	318	334	316	300	0.065	4877.06
318	0	335	317	301	0.065	4870.92
319	320	337	0	302	0.065	4860.81
320	321	338	319	303	0.065	4824.97
321	322	339	320	304	0.065	4764.31
322	323	340	321	305	0.065	4765.79
323	324	341	322	306	0.065	4750.65
324	325	342	323	307	0.065	4712.11
325	326	343	324	308	0.065	4732.18
326	327	344	325	309	0.065	4623.87
327	328	345	326	310	0.065	4606.80
328	329	346	327	311	0.065	4613.06
329	330	347	328	312	0.065	4655.89
330	331	348	329	313	0.065	4854.04

			FPLAIN.DAT			
331	332	349	330	314	0.065	4949.36
332	333	350	331	315	0.065	4897.60
333	334	351	332	316	0.065	4827.01
334	335	352	333	317	0.065	4858.29
335	336	353	334	318	0.065	4855.98
336	0	354	335	0	0.065	4853.85
337	338	0	0	319	0.065	4841.86
338	339	355	337	320	0.065	4822.05
339	340	356	338	321	0.065	4775.35
340	341	357	339	322	0.065	4759.09
341	342	358	340	323	0.065	4751.11
342	343	359	341	324	0.065	4733.76
343	344	360	342	325	0.065	4719.44
344	345	361	343	326	0.065	4631.04
345	346	362	344	327	0.065	4616.26
346	347	363	345	328	0.065	4607.76
347	348	364	346	329	0.065	4647.55
348	349	365	347	330	0.065	4830.34
349	350	366	348	331	0.065	4950.53
350	351	367	349	332	0.065	4925.46
351	352	368	350	333	0.065	4813.86
352	353	369	351	334	0.065	4843.65
353	354	370	352	335	0.065	4845.08
354	0	371	353	336	0.065	4828.27
355	356	373	0	338	0.065	4818.08
356	357	374	355	339	0.065	4781.45
357	358	375	356	340	0.065	4763.67
358	359	376	357	341	0.065	4754.15
359	360	377	358	342	0.065	4726.89
360	361	378	359	343	0.065	4723.85
361	362	379	360	344	0.065	4622.58
362	363	380	361	345	0.065	4617.10
363	364	381	362	346	0.065	4601.70
364	365	382	363	347	0.065	4613.19
365	366	383	364	348	0.065	4787.51
366	367	384	365	349	0.065	4943.61
367	368	385	366	350	0.065	4938.96
368	369	386	367	351	0.065	4814.24
369	370	387	368	352	0.065	4824.24
370	371	388	369	353	0.065	4806.28
371	372	389	370	354	0.065	4817.16
372	0	390	371	0	0.065	4788.71
373	374	391	0	355	0.065	4816.74
374	375	392	373	356	0.065	4781.15
375	376	393	374	357	0.065	4750.00
376	377	394	375	358	0.065	4746.83
377	378	395	376	359	0.065	4724.93
378	379	396	377	360	0.065	4718.71
379	380	397	378	361	0.065	4625.76
380	381	398	379	362	0.065	4617.16
381	382	399	380	363	0.065	4613.40
382	383	400	381	364	0.065	4598.90
383	384	401	382	365	0.065	4761.47
384	385	402	383	366	0.065	4911.40
385	386	403	384	367	0.065	4912.99
386	387	404	385	368	0.065	4753.10
387	388	405	386	369	0.065	4727.57
388	389	406	387	370	0.065	4784.05
389	390	407	388	371	0.065	4796.53
390	0	408	389	372	0.065	4802.13
391	392	0	0	373	0.065	4828.74
392	393	410	391	374	0.065	4783.89
393	394	411	392	375	0.065	4755.96
394	395	412	393	376	0.065	4733.80
395	396	413	394	377	0.065	4720.81
396	397	414	395	378	0.065	4713.40



			FPLAIN.DAT			
397	398	415	396	379	0.065	4651.83
398	399	416	397	380	0.065	4613.05
399	400	417	398	381	0.065	4611.08
400	401	418	399	382	0.065	4606.00
401	402	419	400	383	0.065	4731.64
402	403	420	401	384	0.065	4821.42
403	404	421	402	385	0.065	4794.75
404	405	422	403	386	0.065	4684.78
405	406	423	404	387	0.065	4813.62
406	407	424	405	388	0.065	4833.18
407	408	425	406	389	0.065	4885.86
408	409	426	407	390	0.065	4867.86
409	0	427	408	0	0.065	4860.66
410	411	429	0	392	0.065	4810.32
411	412	430	410	393	0.065	4752.58
412	413	431	411	394	0.065	4735.36
413	414	432	412	395	0.065	4710.92
414	415	433	413	396	0.065	4704.17
415	416	434	414	397	0.065	4701.38
416	417	435	415	398	0.065	4611.86
417	418	436	416	399	0.065	4608.27
418	419	437	417	400	0.065	4590.50
419	420	438	418	401	0.065	4715.89
420	421	439	419	402	0.065	4726.54
421	422	440	420	403	0.065	4650.02
422	423	441	421	404	0.065	4802.97
423	424	442	422	405	0.065	4823.36
424	425	443	423	406	0.065	4865.52
425	426	444	424	407	0.065	4891.38
426	427	445	425	408	0.065	4939.30
427	428	446	426	409	0.065	4959.01
428	0	447	427	0	0.065	4894.59
429	430	448	0	410	0.065	4800.25
430	431	449	429	411	0.065	4753.03
431	432	450	430	412	0.065	4735.37
432	433	451	431	413	0.065	4702.28
433	434	452	432	414	0.065	4695.78
434	435	453	433	415	0.065	4690.55
435	436	454	434	416	0.065	4617.86
436	437	455	435	417	0.065	4609.99
437	438	456	436	418	0.065	4589.86
438	439	457	437	419	0.065	4635.45
439	440	458	438	420	0.065	4727.63
440	441	459	439	421	0.065	4727.64
441	442	460	440	422	0.065	4813.64
442	443	461	441	423	0.065	4836.55
443	444	462	442	424	0.065	4862.94
444	445	463	443	425	0.065	4859.83
445	446	464	444	426	0.065	4922.11
446	447	465	445	427	0.065	4949.95
447	0	466	446	428	0.065	4958.88
448	449	0	0	429	0.065	4763.58
449	450	468	448	430	0.065	4745.02
450	451	469	449	431	0.065	4734.53
451	452	470	450	432	0.065	4700.33
452	453	471	451	433	0.065	4690.98
453	454	472	452	434	0.065	4654.24
454	455	473	453	435	0.065	4619.32
455	456	474	454	436	0.065	4611.40
456	457	475	455	437	0.065	4586.36
457	458	476	456	438	0.065	4593.09
458	459	477	457	439	0.065	4707.69
459	460	478	458	440	0.065	4708.75
460	461	479	459	441	0.065	4755.55
461	462	480	460	442	0.065	4843.55
462	463	481	461	443	0.065	4864.19

			FPLAIN.DAT			
463	464	482	462	444	0.065	4889.13
464	465	483	463	445	0.065	4897.22
465	466	484	464	446	0.065	4920.49
466	467	485	465	447	0.065	4973.47
467	0	486	466	0	0.065	4992.36
468	469	487	0	449	0.065	4731.05
469	470	488	468	450	0.065	4721.74
470	471	489	469	451	0.065	4705.42
471	472	490	470	452	0.065	4687.40
472	473	491	471	453	0.065	4644.80
473	474	492	472	454	0.065	4611.67
474	475	493	473	455	0.065	4607.94
475	476	494	474	456	0.065	4583.30
476	477	495	475	457	0.065	4589.98
477	478	496	476	458	0.065	4671.92
478	479	497	477	459	0.065	4706.26
479	480	498	478	460	0.065	4729.89
480	481	499	479	461	0.065	4817.46
481	482	500	480	462	0.065	4860.39
482	483	501	481	463	0.065	4858.94
483	484	502	482	464	0.065	4878.91
484	485	503	483	465	0.065	4903.44
485	486	504	484	466	0.065	4935.12
486	0	505	485	467	0.065	4935.73
487	488	507	0	468	0.065	4683.30
488	489	508	487	469	0.065	4668.41
489	490	509	488	470	0.065	4662.49
490	491	510	489	471	0.065	4653.54
491	492	511	490	472	0.065	4645.30
492	493	512	491	473	0.065	4604.22
493	494	513	492	474	0.065	4600.20
494	495	514	493	475	0.065	4581.20
495	496	515	494	476	0.065	4591.88
496	497	516	495	477	0.065	4620.97
497	498	517	496	478	0.065	4687.74
498	499	518	497	479	0.065	4693.34
499	500	519	498	480	0.065	4749.63
500	501	520	499	481	0.065	4841.19
501	502	521	500	482	0.065	4830.83
502	503	522	501	483	0.065	4852.43
503	504	523	502	484	0.065	4873.19
504	505	524	503	485	0.065	4911.08
505	506	525	504	486	0.065	4899.88
506	0	526	505	0	0.065	4869.12
507	508	0	0	487	0.065	4669.92
508	509	527	507	488	0.065	4665.60
509	510	528	508	489	0.065	4655.21
510	511	529	509	490	0.065	4645.71
511	512	530	510	491	0.065	4636.86
512	513	531	511	492	0.065	4597.39
513	514	532	512	493	0.065	4593.08
514	515	533	513	494	0.065	4593.36
515	516	534	514	495	0.065	4585.11
516	517	535	515	496	0.065	4632.62
517	518	536	516	497	0.065	4668.54
518	519	537	517	498	0.065	4684.56
519	520	538	518	499	0.065	4716.79
520	521	539	519	500	0.065	4798.65
521	522	540	520	501	0.065	4808.44
522	523	541	521	502	0.065	4834.27
523	524	542	522	503	0.065	4835.49
524	525	543	523	504	0.065	4842.76
525	526	544	524	505	0.065	4879.33
526	0	545	525	506	0.065	4870.61
527	528	546	0	508	0.065	4654.06
528	529	547	527	509	0.065	4649.60

			FPLAIN.DAT			
529	530	548	528	510	0.065	4638.76
530	531	549	529	511	0.065	4618.24
531	532	550	530	512	0.065	4594.64
532	533	551	531	513	0.065	4587.04
533	534	552	532	514	0.065	4584.41
534	535	553	533	515	0.065	4575.21
535	536	554	534	516	0.065	4677.18
536	537	555	535	517	0.065	4674.60
537	538	556	536	518	0.065	4665.25
538	539	557	537	519	0.065	4693.30
539	540	558	538	520	0.065	4728.11
540	541	559	539	521	0.065	4774.53
541	542	560	540	522	0.065	4797.20
542	543	561	541	523	0.065	4815.20
543	544	562	542	524	0.065	4842.14
544	545	563	543	525	0.065	4824.31
545	0	564	544	526	0.065	4827.93
546	547	0	0	527	0.065	4650.29
547	548	566	546	528	0.065	4628.85
548	549	567	547	529	0.065	4624.85
549	550	568	548	530	0.065	4611.26
550	551	569	549	531	0.065	4600.63
551	552	570	550	532	0.065	4590.33
552	553	571	551	533	0.065	4583.19
553	554	572	552	534	0.065	4574.00
554	555	573	553	535	0.065	4664.13
555	556	574	554	536	0.065	4653.33
556	557	575	555	537	0.065	4677.57
557	558	576	556	538	0.065	4671.66
558	559	577	557	539	0.065	4741.02
559	560	578	558	540	0.065	4816.77
560	561	579	559	541	0.065	4818.76
561	562	580	560	542	0.065	4814.17
562	563	581	561	543	0.065	4814.01
563	564	582	562	544	0.065	4827.29
564	565	583	563	545	0.065	4783.57
565	0	584	564	0	0.065	4850.84
566	567	585	0	547	0.065	4631.68
567	568	586	566	548	0.065	4618.49
568	569	587	567	549	0.065	4610.73
569	570	588	568	550	0.065	4596.16
570	571	589	569	551	0.065	4588.53
571	572	590	570	552	0.065	4581.05
572	573	591	571	553	0.065	4577.10
573	574	592	572	554	0.065	4642.51
574	575	593	573	555	0.065	4653.93
575	576	594	574	556	0.065	4645.42
576	577	595	575	557	0.065	4655.08
577	578	596	576	558	0.065	4710.09
578	579	597	577	559	0.065	4785.63
579	580	598	578	560	0.065	4812.99
580	581	599	579	561	0.065	4812.42
581	582	600	580	562	0.065	4807.63
582	583	601	581	563	0.065	4796.99
583	584	602	582	564	0.065	4806.87
584	0	603	583	565	0.065	4822.74
585	586	604	0	566	0.065	4628.46
586	587	605	585	567	0.065	4619.22
587	588	606	586	568	0.065	4609.81
588	589	607	587	569	0.065	4592.71
589	590	608	588	570	0.065	4585.47
590	591	609	589	571	0.065	4575.92
591	592	610	590	572	0.065	4566.60
592	593	611	591	573	0.065	4625.03
593	594	612	592	574	0.065	4645.37
594	595	613	593	575	0.065	4628.79

			FPLAIN.DAT			
595	596	614	594	576	0.065	4681.02
596	597	615	595	577	0.065	4755.06
597	598	616	596	578	0.065	4769.22
598	599	617	597	579	0.065	4762.72
599	600	618	598	580	0.065	4793.34
600	601	619	599	581	0.065	4793.29
601	602	620	600	582	0.065	4742.35
602	603	621	601	583	0.065	4811.62
603	0	622	602	584	0.065	4810.74
604	605	0	0	585	0.065	4623.46
605	606	623	604	586	0.065	4616.42
606	607	624	605	587	0.065	4608.93
607	608	625	606	588	0.065	4592.24
608	609	626	607	589	0.065	4582.21
609	610	627	608	590	0.065	4572.85
610	611	628	609	591	0.065	4564.00
611	612	629	610	592	0.065	4579.14
612	613	630	611	593	0.065	4624.57
613	614	631	612	594	0.065	4705.26
614	615	632	613	595	0.065	4719.67
615	616	633	614	596	0.065	4728.74
616	617	634	615	597	0.065	4746.30
617	618	635	616	598	0.065	4743.17
618	619	636	617	599	0.065	4748.90
619	620	637	618	600	0.065	4773.44
620	621	638	619	601	0.065	4722.59
621	622	639	620	602	0.065	4776.52
622	0	640	621	603	0.065	4811.17
623	624	641	0	605	0.065	4612.99
624	625	642	623	606	0.065	4605.87
625	626	643	624	607	0.065	4587.23
626	627	644	625	608	0.065	4582.14
627	628	645	626	609	0.065	4571.46
628	629	646	627	610	0.065	4563.72
629	630	647	628	611	0.065	4575.81
630	631	648	629	612	0.065	4600.90
631	632	649	630	613	0.065	4699.31
632	633	650	631	614	0.065	4697.66
633	634	651	632	615	0.065	4700.53
634	635	652	633	616	0.065	4721.74
635	636	653	634	617	0.065	4717.60
636	637	654	635	618	0.065	4732.70
637	638	655	636	619	0.065	4744.58
638	639	656	637	620	0.065	4699.69
639	640	657	638	621	0.065	4763.70
640	0	658	639	622	0.065	4807.17
641	642	0	0	623	0.065	4607.04
642	643	659	641	624	0.065	4601.11
643	644	660	642	625	0.065	4590.71
644	645	661	643	626	0.065	4579.11
645	646	662	644	627	0.065	4569.57
646	647	663	645	628	0.065	4559.79
647	648	664	646	629	0.065	4560.51
648	649	665	647	630	0.065	4567.71
649	650	666	648	631	0.065	4621.50
650	651	667	649	632	0.065	4679.27
651	652	668	650	633	0.065	4670.94
652	653	669	651	634	0.065	4685.20
653	654	670	652	635	0.065	4688.11
654	655	671	653	636	0.065	4715.07
655	656	672	654	637	0.065	4720.46
656	657	673	655	638	0.065	4697.36
657	658	674	656	639	0.065	4738.93
658	0	675	657	640	0.065	4795.49
659	660	0	0	642	0.065	4597.88
660	661	676	659	643	0.065	4587.15

			FPLAIN.DAT			
661	662	677	660	644	0.065	4573.46
662	663	678	661	645	0.065	4568.81
663	664	679	662	646	0.065	4564.78
664	665	680	663	647	0.065	4558.56
665	666	681	664	648	0.065	4555.23
666	667	682	665	649	0.065	4553.37
667	668	683	666	650	0.065	4551.35
668	669	684	667	651	0.065	4574.47
669	670	685	668	652	0.065	4618.32
670	671	686	669	653	0.065	4651.98
671	672	687	670	654	0.065	4682.72
672	673	688	671	655	0.065	4693.92
673	674	689	672	656	0.065	4668.56
674	675	690	673	657	0.065	4724.72
675	0	691	674	658	0.065	4776.99
676	677	693	0	660	0.065	4584.22
677	678	694	676	661	0.065	4569.26
678	679	695	677	662	0.065	4566.37
679	680	696	678	663	0.065	4565.23
680	681	697	679	664	0.065	4565.41
681	682	698	680	665	0.065	4560.46
682	683	699	681	666	0.065	4554.30
683	684	700	682	667	0.065	4547.11
684	685	701	683	668	0.065	4546.29
685	686	702	684	669	0.065	4581.46
686	687	703	685	670	0.065	4627.25
687	688	704	686	671	0.065	4663.00
688	689	705	687	672	0.065	4648.13
689	690	706	688	673	0.065	4701.75
690	691	707	689	674	0.065	4707.73
691	692	708	690	675	0.065	4746.48
692	0	709	691	0	0.065	4764.72
693	694	0	0	676	0.065	4579.88
694	695	710	693	677	0.065	4568.05
695	696	711	694	678	0.065	4563.96
696	697	712	695	679	0.065	4561.89
697	698	713	696	680	0.065	4565.24
698	699	714	697	681	0.065	4560.35
699	700	715	698	682	0.065	4554.60
700	701	716	699	683	0.065	4555.82
701	702	717	700	684	0.065	4544.08
702	703	718	701	685	0.065	4559.12
703	704	719	702	686	0.065	4586.77
704	705	720	703	687	0.065	4629.12
705	706	721	704	688	0.065	4657.28
706	707	722	705	689	0.065	4681.71
707	708	723	706	690	0.065	4690.83
708	709	724	707	691	0.065	4730.65
709	0	725	708	692	0.065	4744.16
710	711	726	0	694	0.065	4570.96
711	712	727	710	695	0.065	4564.57
712	713	728	711	696	0.065	4559.82
713	714	729	712	697	0.065	4564.05
714	715	730	713	698	0.065	4560.53
715	716	731	714	699	0.065	4555.81
716	717	732	715	700	0.065	4547.39
717	718	733	716	701	0.065	4551.61
718	719	734	717	702	0.065	4557.49
719	720	735	718	703	0.065	4587.58
720	721	736	719	704	0.065	4630.46
721	722	737	720	705	0.065	4645.26
722	723	738	721	706	0.065	4664.00
723	724	739	722	707	0.065	4673.72
724	725	740	723	708	0.065	4708.93
725	0	741	724	709	0.065	4715.12
726	727	0	0	710	0.065	4567.56

				FPLAIN.DAT		
727	728	742	726	711	0.065	4561.59
728	729	743	727	712	0.065	4559.01
729	730	744	728	713	0.065	4558.32
730	731	745	729	714	0.065	4559.66
731	732	746	730	715	0.065	4555.38
732	733	747	731	716	0.065	4540.30
733	734	748	732	717	0.065	4547.42
734	735	749	733	718	0.065	4560.47
735	736	750	734	719	0.065	4599.26
736	737	751	735	720	0.065	4642.27
737	738	752	736	721	0.065	4641.10
738	739	753	737	722	0.065	4648.97
739	740	754	738	723	0.065	4656.55
740	741	755	739	724	0.065	4679.66
741	0	756	740	725	0.065	4687.50
742	743	757	0	727	0.065	4556.75
743	744	758	742	728	0.065	4555.86
744	745	759	743	729	0.065	4554.67
745	746	760	744	730	0.065	4554.32
746	747	761	745	731	0.065	4559.10
747	748	762	746	732	0.065	4550.70
748	749	763	747	733	0.065	4539.89
749	750	764	748	734	0.065	4541.90
750	751	765	749	735	0.065	4548.60
751	752	766	750	736	0.065	4570.83
752	753	767	751	737	0.065	4622.12
753	754	768	752	738	0.065	4637.77
754	755	769	753	739	0.065	4638.34
755	756	770	754	740	0.065	4652.46
756	0	771	755	741	0.065	4678.28
757	758	781	0	742	0.065	4555.56
758	759	782	757	743	0.065	4552.80
759	760	783	758	744	0.065	4548.82
760	761	784	759	745	0.065	4548.11
761	762	785	760	746	0.065	4553.66
762	763	786	761	747	0.065	4547.52
763	764	787	762	748	0.065	4544.93
764	765	788	763	749	0.065	4535.92
765	766	789	764	750	0.065	4538.33
766	767	790	765	751	0.065	4538.68
767	768	791	766	752	0.065	4541.82
768	769	792	767	753	0.065	4597.46
769	770	793	768	754	0.065	4623.67
770	771	794	769	755	0.065	4635.00
771	772	795	770	756	0.065	4661.66
772	773	796	771	0	0.065	4666.65
773	774	797	772	0	0.065	4653.22
774	775	798	773	0	0.065	4644.37
775	776	799	774	0	0.065	4677.23
776	777	800	775	0	0.065	4670.68
777	778	801	776	0	0.065	4671.59
778	779	802	777	0	0.065	4712.43
779	780	803	778	0	0.065	4734.61
780	0	804	779	0	0.065	4731.59
781	782	805	0	757	0.065	4568.38
782	783	806	781	758	0.065	4552.68
783	784	807	782	759	0.065	4543.95
784	785	808	783	760	0.065	4543.03
785	786	809	784	761	0.065	4549.42
786	787	810	785	762	0.065	4538.48
787	788	811	786	763	0.065	4542.05
788	789	812	787	764	0.065	4542.87
789	790	813	788	765	0.065	4529.34
790	791	814	789	766	0.065	4536.55
791	792	815	790	767	0.065	4537.06
792	793	816	791	768	0.065	4572.85



			FPLAIN.DAT			
793	794	817	792	769	0.065	4611.18
794	795	818	793	770	0.065	4618.77
795	796	819	794	771	0.065	4652.00
796	797	820	795	772	0.065	4648.11
797	798	821	796	773	0.065	4637.16
798	799	822	797	774	0.065	4657.64
799	800	823	798	775	0.065	4677.61
800	801	824	799	776	0.065	4648.17
801	802	825	800	777	0.065	4683.62
802	803	826	801	778	0.065	4702.24
803	804	827	802	779	0.065	4700.55
804	0	828	803	780	0.065	4738.67
805	806	829	0	781	0.065	4565.68
806	807	830	805	782	0.065	4551.75
807	808	831	806	783	0.065	4542.72
808	809	832	807	784	0.065	4539.51
809	810	833	808	785	0.065	4542.97
810	811	834	809	786	0.065	4545.76
811	812	835	810	787	0.065	4536.31
812	813	836	811	788	0.065	4537.36
813	814	837	812	789	0.065	4530.53
814	815	838	813	790	0.065	4529.35
815	816	839	814	791	0.065	4532.32
816	817	840	815	792	0.065	4531.87
817	818	841	816	793	0.065	4591.23
818	819	842	817	794	0.065	4604.11
819	820	843	818	795	0.065	4634.65
820	821	844	819	796	0.065	4639.04
821	822	845	820	797	0.065	4625.02
822	823	846	821	798	0.065	4642.47
823	824	847	822	799	0.065	4658.90
824	825	848	823	800	0.065	4636.64
825	826	849	824	801	0.065	4680.61
826	827	850	825	802	0.065	4675.57
827	828	851	826	803	0.065	4702.05
828	0	852	827	804	0.065	4722.42
829	830	854	0	805	0.065	4575.11
830	831	855	829	806	0.065	4553.21
831	832	856	830	807	0.065	4538.20
832	833	857	831	808	0.065	4531.50
833	834	858	832	809	0.065	4538.40
834	835	859	833	810	0.065	4541.03
835	836	860	834	811	0.065	4536.89
836	837	861	835	812	0.065	4531.83
837	838	862	836	813	0.065	4524.89
838	839	863	837	814	0.065	4524.46
839	840	864	838	815	0.065	4532.86
840	841	865	839	816	0.065	4537.15
841	842	866	840	817	0.065	4568.01
842	843	867	841	818	0.065	4592.90
843	844	868	842	819	0.065	4611.89
844	845	869	843	820	0.065	4620.55
845	846	870	844	821	0.065	4608.75
846	847	871	845	822	0.065	4634.98
847	848	872	846	823	0.065	4642.72
848	849	873	847	824	0.065	4627.22
849	850	874	848	825	0.065	4660.48
850	851	875	849	826	0.065	4691.09
851	852	876	850	827	0.065	4697.55
852	853	877	851	828	0.065	4709.82
853	0	878	852	0	0.065	4714.65
854	855	879	0	829	0.065	4570.95
855	856	880	854	830	0.065	4566.68
856	857	881	855	831	0.065	4531.94
857	858	882	856	832	0.065	4530.62
858	859	883	857	833	0.065	4530.17



				FPLAIN.DAT		
859	860	884	858	834	0.065	4536.42
860	861	885	859	835	0.065	4541.49
861	862	886	860	836	0.065	4523.99
862	863	887	861	837	0.065	4518.61
863	864	888	862	838	0.065	4515.93
864	865	889	863	839	0.065	4533.04
865	866	890	864	840	0.065	4538.72
866	867	891	865	841	0.065	4542.02
867	868	892	866	842	0.065	4580.23
868	869	893	867	843	0.065	4581.42
869	870	894	868	844	0.065	4595.17
870	871	895	869	845	0.065	4607.78
871	872	896	870	846	0.065	4622.45
872	873	897	871	847	0.065	4610.43
873	874	898	872	848	0.065	4633.49
874	875	899	873	849	0.065	4644.86
875	876	900	874	850	0.065	4677.33
876	877	901	875	851	0.065	4699.17
877	878	902	876	852	0.065	4707.21
878	0	903	877	853	0.065	4695.18
879	880	0	0	854	0.065	4582.88
880	881	904	879	855	0.065	4570.29
881	882	905	880	856	0.065	4535.93
882	883	906	881	857	0.065	4528.37
883	884	907	882	858	0.065	4525.13
884	885	908	883	859	0.065	4527.93
885	886	909	884	860	0.065	4532.78
886	887	910	885	861	0.065	4516.82
887	888	911	886	862	0.065	4514.10
888	889	912	887	863	0.065	4523.58
889	890	913	888	864	0.065	4525.63
890	891	914	889	865	0.065	4531.74
891	892	915	890	866	0.065	4537.58
892	893	916	891	867	0.065	4549.77
893	894	917	892	868	0.065	4559.45
894	895	918	893	869	0.065	4573.35
895	896	919	894	870	0.065	4588.30
896	897	920	895	871	0.065	4600.43
897	898	921	896	872	0.065	4603.06
898	899	922	897	873	0.065	4612.79
899	900	923	898	874	0.065	4643.77
900	901	924	899	875	0.065	4666.60
901	902	925	900	876	0.065	4678.86
902	903	926	901	877	0.065	4686.86
903	0	927	902	878	0.065	4680.00
904	905	928	0	880	0.065	4604.69
905	906	929	904	881	0.065	4588.11
906	907	930	905	882	0.065	4530.99
907	908	931	906	883	0.065	4529.22
908	909	932	907	884	0.065	4525.28
909	910	933	908	885	0.065	4522.98
910	911	934	909	886	0.065	4513.80
911	912	935	910	887	0.065	4516.45
912	913	936	911	888	0.065	4520.23
913	914	937	912	889	0.065	4523.46
914	915	938	913	890	0.065	4529.42
915	916	939	914	891	0.065	4532.24
916	917	940	915	892	0.065	4537.56
917	918	941	916	893	0.065	4553.94
918	919	942	917	894	0.065	4561.84
919	920	943	918	895	0.065	4570.14
920	921	944	919	896	0.065	4579.69
921	922	945	920	897	0.065	4595.30
922	923	946	921	898	0.065	4617.33
923	924	947	922	899	0.065	4636.66
924	925	948	923	900	0.065	4653.97

				FPLAIN.DAT		
925	926	949	924	901	0.065	4674.03
926	927	950	925	902	0.065	4674.10
927	0	951	926	903	0.065	4661.43
928	929	952	0	904	0.065	4599.06
929	930	953	928	905	0.065	4589.36
930	931	954	929	906	0.065	4545.87
931	932	955	930	907	0.065	4526.10
932	933	956	931	908	0.065	4523.64
933	934	957	932	909	0.065	4522.49
934	935	958	933	910	0.065	4511.60
935	936	959	934	911	0.065	4513.51
936	937	960	935	912	0.065	4522.94
937	938	961	936	913	0.065	4527.24
938	939	962	937	914	0.065	4527.99
939	940	963	938	915	0.065	4531.34
940	941	964	939	916	0.065	4539.43
941	942	965	940	917	0.065	4546.06
942	943	966	941	918	0.065	4555.19
943	944	967	942	919	0.065	4561.53
944	945	968	943	920	0.065	4570.63
945	946	969	944	921	0.065	4593.39
946	947	970	945	922	0.065	4612.79
947	948	971	946	923	0.065	4626.18
948	949	972	947	924	0.065	4643.91
949	950	973	948	925	0.065	4674.30
950	951	974	949	926	0.065	4662.82
951	0	975	950	927	0.065	4654.20
952	953	976	0	928	0.065	4592.08
953	954	977	952	929	0.065	4588.44
954	955	978	953	930	0.065	4578.31
955	956	979	954	931	0.065	4580.69
956	957	980	955	932	0.065	4546.00
957	958	981	956	933	0.065	4521.09
958	959	982	957	934	0.065	4506.23
959	960	983	958	935	0.065	4513.34
960	961	984	959	936	0.065	4520.42
961	962	985	960	937	0.065	4526.54
962	963	986	961	938	0.065	4525.88
963	964	987	962	939	0.065	4530.02
964	965	988	963	940	0.065	4531.90
965	966	989	964	941	0.065	4540.85
966	967	990	965	942	0.065	4541.79
967	968	991	966	943	0.065	4560.37
968	969	992	967	944	0.065	4590.55
969	970	993	968	945	0.065	4600.32
970	971	994	969	946	0.065	4611.41
971	972	995	970	947	0.065	4624.24
972	973	996	971	948	0.065	4636.60
973	974	997	972	949	0.065	4651.36
974	975	998	973	950	0.065	4637.99
975	0	999	974	951	0.065	4653.58
976	977	1000	0	952	0.065	4581.04
977	978	1001	976	953	0.065	4581.36
978	979	1002	977	954	0.065	4574.41
979	980	1003	978	955	0.065	4567.93
980	981	1004	979	956	0.065	4574.39
981	982	1005	980	957	0.065	4575.22
982	983	1006	981	958	0.065	4506.10
983	984	1007	982	959	0.065	4507.85
984	985	1008	983	960	0.065	4514.28
985	986	1009	984	961	0.065	4519.09
986	987	1010	985	962	0.065	4522.47
987	988	1011	986	963	0.065	4523.23
988	989	1012	987	964	0.065	4528.96
989	990	1013	988	965	0.065	4535.40
990	991	1014	989	966	0.065	4540.59

			FPLAIN.DAT			
991	992	1015	990	967	0.065	4557.30
992	993	1016	991	968	0.065	4589.24
993	994	1017	992	969	0.065	4597.66
994	995	1018	993	970	0.065	4600.16
995	996	1019	994	971	0.065	4612.18
996	997	1020	995	972	0.065	4630.07
997	998	1021	996	973	0.065	4633.46
998	999	1022	997	974	0.065	4623.36
999	0	1023	998	975	0.065	4648.69
1000	1001	1025	0	976	0.065	4561.00
1001	1002	1026	1000	977	0.065	4558.79
1002	1003	1027	1001	978	0.065	4556.84
1003	1004	1028	1002	979	0.065	4545.56
1004	1005	1029	1003	980	0.065	4544.81
1005	1006	1030	1004	981	0.065	4551.08
1006	1007	1031	1005	982	0.065	4555.64
1007	1008	1032	1006	983	0.065	4501.30
1008	1009	1033	1007	984	0.065	4503.56
1009	1010	1034	1008	985	0.065	4511.43
1010	1011	1035	1009	986	0.065	4515.29
1011	1012	1036	1010	987	0.065	4520.04
1012	1013	1037	1011	988	0.065	4524.04
1013	1014	1038	1012	989	0.065	4527.75
1014	1015	1039	1013	990	0.065	4529.37
1015	1016	1040	1014	991	0.065	4516.99
1016	1017	1041	1015	992	0.065	4579.31
1017	1018	1042	1016	993	0.065	4594.58
1018	1019	1043	1017	994	0.065	4590.72
1019	1020	1044	1018	995	0.065	4601.35
1020	1021	1045	1019	996	0.065	4609.89
1021	1022	1046	1020	997	0.065	4597.19
1022	1023	1047	1021	998	0.065	4611.83
1023	0	1048	1022	999	0.065	4644.95
1024	1025	1049	0	0	0.065	4552.29
1025	1026	1050	1024	1000	0.065	4555.99
1026	1027	1051	1025	1001	0.065	4552.36
1027	1028	1052	1026	1002	0.065	4550.24
1028	1029	1053	1027	1003	0.065	4549.26
1029	1030	1054	1028	1004	0.065	4545.28
1030	1031	1055	1029	1005	0.065	4539.29
1031	1032	1056	1030	1006	0.065	4544.45
1032	1033	1057	1031	1007	0.065	4547.69
1033	1034	1058	1032	1008	0.065	4498.70
1034	1035	1059	1033	1009	0.065	4504.84
1035	1036	1060	1034	1010	0.065	4509.95
1036	1037	1061	1035	1011	0.065	4518.06
1037	1038	1062	1036	1012	0.065	4516.74
1038	1039	1063	1037	1013	0.065	4521.37
1039	1040	1064	1038	1014	0.065	4521.43
1040	1041	1065	1039	1015	0.065	4522.85
1041	1042	1066	1040	1016	0.065	4540.79
1042	1043	1067	1041	1017	0.065	4576.96
1043	1044	1068	1042	1018	0.065	4594.35
1044	1045	1069	1043	1019	0.065	4572.12
1045	1046	1070	1044	1020	0.065	4575.00
1046	1047	1071	1045	1021	0.065	4594.97
1047	1048	1072	1046	1022	0.065	4641.77
1048	0	1073	1047	1023	0.065	4608.17
1049	1050	1074	0	1024	0.065	4541.72
1050	1051	1075	1049	1025	0.065	4549.96
1051	1052	1076	1050	1026	0.065	4549.96
1052	1053	1077	1051	1027	0.065	4546.88
1053	1054	1078	1052	1028	0.065	4545.79
1054	1055	1079	1053	1029	0.065	4543.43
1055	1056	1080	1054	1030	0.065	4534.85
1056	1057	1081	1055	1031	0.065	4529.28

			FPLAIN.DAT			
1057	1058	1082	1056	1032	0.065	4529.42
1058	1059	1083	1057	1033	0.065	4499.05
1059	1060	1084	1058	1034	0.065	4498.07
1060	1061	1085	1059	1035	0.065	4504.91
1061	1062	1086	1060	1036	0.065	4509.85
1062	1063	1087	1061	1037	0.065	4512.88
1063	1064	1088	1062	1038	0.065	4514.96
1064	1065	1089	1063	1039	0.065	4516.14
1065	1066	1090	1064	1040	0.065	4515.15
1066	1067	1091	1065	1041	0.065	4496.98
1067	1068	1092	1066	1042	0.065	4534.12
1068	1069	1093	1067	1043	0.065	4557.85
1069	1070	1094	1068	1044	0.065	4560.52
1070	1071	1095	1069	1045	0.065	4579.08
1071	1072	1096	1070	1046	0.065	4609.38
1072	1073	1097	1071	1047	0.065	4598.90
1073	0	1098	1072	1048	0.065	4579.01
1074	1075	1099	0	1049	0.065	4527.37
1075	1076	1100	1074	1050	0.065	4533.09
1076	1077	1101	1075	1051	0.065	4537.79
1077	1078	1102	1076	1052	0.065	4534.35
1078	1079	1103	1077	1053	0.065	4534.48
1079	1080	1104	1078	1054	0.065	4534.78
1080	1081	1105	1079	1055	0.065	4531.02
1081	1082	1106	1080	1056	0.065	4528.57
1082	1083	1107	1081	1057	0.065	4522.17
1083	1084	1108	1082	1058	0.065	4506.40
1084	1085	1109	1083	1059	0.065	4499.70
1085	1086	1110	1084	1060	0.065	4503.48
1086	1087	1111	1085	1061	0.065	4506.01
1087	1088	1112	1086	1062	0.065	4509.05
1088	1089	1113	1087	1063	0.065	4509.98
1089	1090	1114	1088	1064	0.065	4511.40
1090	1091	1115	1089	1065	0.065	4509.74
1091	1092	1116	1090	1066	0.065	4512.79
1092	1093	1117	1091	1067	0.065	4520.15
1093	1094	1118	1092	1068	0.065	4548.31
1094	1095	1119	1093	1069	0.065	4548.06
1095	1096	1120	1094	1070	0.065	4571.70
1096	1097	1121	1095	1071	0.065	4571.61
1097	1098	1122	1096	1072	0.065	4561.65
1098	0	1123	1097	1073	0.065	4568.15
1099	1100	1124	0	1074	0.065	4506.66
1100	1101	1125	1099	1075	0.065	4510.87
1101	1102	1126	1100	1076	0.065	4513.43
1102	1103	1127	1101	1077	0.065	4514.04
1103	1104	1128	1102	1078	0.065	4520.92
1104	1105	1129	1103	1079	0.065	4522.96
1105	1106	1130	1104	1080	0.065	4522.09
1106	1107	1131	1105	1081	0.065	4520.48
1107	1108	1132	1106	1082	0.065	4523.65
1108	1109	1133	1107	1083	0.065	4512.62
1109	1110	1134	1108	1084	0.065	4496.00
1110	1111	1135	1109	1085	0.065	4500.20
1111	1112	1136	1110	1086	0.065	4503.25
1112	1113	1137	1111	1087	0.065	4504.19
1113	1114	1138	1112	1088	0.065	4504.79
1114	1115	1139	1113	1089	0.065	4506.37
1115	1116	1140	1114	1090	0.065	4505.66
1116	1117	1141	1115	1091	0.065	4508.79
1117	1118	1142	1116	1092	0.065	4515.96
1118	1119	1143	1117	1093	0.065	4542.68
1119	1120	1144	1118	1094	0.065	4558.37
1120	1121	1145	1119	1095	0.065	4559.43
1121	1122	1146	1120	1096	0.065	4547.09
1122	1123	1147	1121	1097	0.065	4571.90

			FPLAIN.DAT			
1123	0	1148	1122	1098	0.065	4577.08
1124	1125	1149	0	1099	0.065	4486.87
1125	1126	1150	1124	1100	0.065	4490.60
1126	1127	1151	1125	1101	0.065	4494.40
1127	1128	1152	1126	1102	0.065	4496.42
1128	1129	1153	1127	1103	0.065	4509.23
1129	1130	1154	1128	1104	0.065	4508.40
1130	1131	1155	1129	1105	0.065	4509.25
1131	1132	1156	1130	1106	0.065	4509.43
1132	1133	1157	1131	1107	0.065	4509.91
1133	1134	1158	1132	1108	0.065	4502.08
1134	1135	1159	1133	1109	0.065	4497.79
1135	1136	1160	1134	1110	0.065	4495.37
1136	1137	1161	1135	1111	0.065	4498.04
1137	1138	1162	1136	1112	0.065	4500.94
1138	1139	1163	1137	1113	0.065	4500.34
1139	1140	1164	1138	1114	0.065	4501.15
1140	1141	1165	1139	1115	0.065	4502.16
1141	1142	1166	1140	1116	0.065	4504.39
1142	1143	1167	1141	1117	0.065	4498.49
1143	1144	1168	1142	1118	0.065	4528.83
1144	1145	1169	1143	1119	0.065	4526.33
1145	1146	1170	1144	1120	0.065	4533.22
1146	1147	1171	1145	1121	0.065	4555.97
1147	1148	1172	1146	1122	0.065	4552.61
1148	0	1173	1147	1123	0.065	4550.75
1149	1150	1174	0	1124	0.065	4482.61
1150	1151	1175	1149	1125	0.065	4478.50
1151	1152	1176	1150	1126	0.065	4476.40
1152	1153	1177	1151	1127	0.065	4474.17
1153	1154	1178	1152	1128	0.065	4474.68
1154	1155	1179	1153	1129	0.065	4481.47
1155	1156	1180	1154	1130	0.065	4493.35
1156	1157	1181	1155	1131	0.065	4503.98
1157	1158	1182	1156	1132	0.065	4507.50
1158	1159	1183	1157	1133	0.065	4498.91
1159	1160	1184	1158	1134	0.065	4499.29
1160	1161	1185	1159	1135	0.065	4493.10
1161	1162	1186	1160	1136	0.065	4494.36
1162	1163	1187	1161	1137	0.065	4496.14
1163	1164	1188	1162	1138	0.065	4496.93
1164	1165	1189	1163	1139	0.065	4498.12
1165	1166	1190	1164	1140	0.065	4498.42
1166	1167	1191	1165	1141	0.065	4501.19
1167	1168	1192	1166	1142	0.065	4491.85
1168	1169	1193	1167	1143	0.065	4517.66
1169	1170	1194	1168	1144	0.065	4541.09
1170	1171	1195	1169	1145	0.065	4543.32
1171	1172	1196	1170	1146	0.065	4532.50
1172	1173	1197	1171	1147	0.065	4536.01
1173	0	1198	1172	1148	0.065	4530.20
1174	1175	1200	0	1149	0.065	4479.02
1175	1176	1201	1174	1150	0.065	4473.58
1176	1177	1202	1175	1151	0.065	4470.85
1177	1178	1203	1176	1152	0.065	4468.98
1178	1179	1204	1177	1153	0.065	4470.52
1179	1180	1205	1178	1154	0.065	4474.22
1180	1181	1206	1179	1155	0.065	4480.88
1181	1182	1207	1180	1156	0.065	4488.70
1182	1183	1208	1181	1157	0.065	4493.71
1183	1184	1209	1182	1158	0.065	4492.42
1184	1185	1210	1183	1159	0.065	4497.56
1185	1186	1211	1184	1160	0.065	4493.54
1186	1187	1212	1185	1161	0.065	4493.43
1187	1188	1213	1186	1162	0.065	4491.85
1188	1189	1214	1187	1163	0.065	4494.58

			FPLAIN.DAT			
1189	1190	1215	1188	1164	0.065	4497.74
1190	1191	1216	1189	1165	0.065	4498.06
1191	1192	1217	1190	1166	0.065	4499.59
1192	1193	1218	1191	1167	0.065	4504.86
1193	1194	1219	1192	1168	0.065	4508.91
1194	1195	1220	1193	1169	0.065	4507.02
1195	1196	1221	1194	1170	0.065	4524.39
1196	1197	1222	1195	1171	0.065	4519.30
1197	1198	1223	1196	1172	0.065	4517.08
1198	0	1224	1197	1173	0.065	4520.98
1199	1200	1225	0	0	0.065	4473.95
1200	1201	1226	1199	1174	0.065	4466.59
1201	1202	1227	1200	1175	0.065	4467.74
1202	1203	1228	1201	1176	0.065	4467.55
1203	1204	1229	1202	1177	0.065	4467.18
1204	1205	1230	1203	1178	0.065	4467.52
1205	1206	1231	1204	1179	0.065	4471.56
1206	1207	1232	1205	1180	0.065	4476.30
1207	1208	1233	1206	1181	0.065	4482.17
1208	1209	1234	1207	1182	0.065	4486.27
1209	1210	1235	1208	1183	0.065	4485.37
1210	1211	1236	1209	1184	0.065	4498.00
1211	1212	1237	1210	1185	0.065	4497.00
1212	1213	1238	1211	1186	0.065	4492.98
1213	1214	1239	1212	1187	0.065	4491.00
1214	1215	1240	1213	1188	0.065	4497.12
1215	1216	1241	1214	1189	0.065	4496.55
1216	1217	1242	1215	1190	0.065	4494.20
1217	1218	1243	1216	1191	0.065	4494.71
1218	1219	1244	1217	1192	0.065	4499.09
1219	1220	1245	1218	1193	0.065	4500.44
1220	1221	1246	1219	1194	0.065	4499.37
1221	1222	1247	1220	1195	0.065	4498.41
1222	1223	1248	1221	1196	0.065	4512.69
1223	1224	1249	1222	1197	0.065	4509.27
1224	0	1250	1223	1198	0.065	4524.77
1225	1226	1253	0	1199	0.065	4458.59
1226	1227	1254	1225	1200	0.065	4460.00
1227	1228	1255	1226	1201	0.065	4467.17
1228	1229	1256	1227	1202	0.065	4477.73
1229	1230	1257	1228	1203	0.065	4481.09
1230	1231	1258	1229	1204	0.065	4482.61
1231	1232	1259	1230	1205	0.065	4485.09
1232	1233	1260	1231	1206	0.065	4484.17
1233	1234	1261	1232	1207	0.065	4483.79
1234	1235	1262	1233	1208	0.065	4488.21
1235	1236	1263	1234	1209	0.065	4487.86
1236	1237	1264	1235	1210	0.065	4488.00
1237	1238	1265	1236	1211	0.065	4495.00
1238	1239	1266	1237	1212	0.065	4488.75
1239	1240	1267	1238	1213	0.065	4485.00
1240	1241	1268	1239	1214	0.065	4495.98
1241	1242	1269	1240	1215	0.065	4495.68
1242	1243	1270	1241	1216	0.065	4493.77
1243	1244	1271	1242	1217	0.065	4490.40
1244	1245	1272	1243	1218	0.065	4490.53
1245	1246	1273	1244	1219	0.065	4493.23
1246	1247	1274	1245	1220	0.065	4491.75
1247	1248	1275	1246	1221	0.065	4491.08
1248	1249	1276	1247	1222	0.065	4496.04
1249	1250	1277	1248	1223	0.065	4505.99
1250	1251	1278	1249	1224	0.065	4524.28
1251	0	1279	1250	0	0.065	4528.95
1252	1253	1281	0	0	0.065	4454.19
1253	1254	1282	1252	1225	0.065	4453.47
1254	1255	1283	1253	1226	0.065	4455.29



			FPLAIN.DAT			
1255	1256	1284	1254	1227	0.065	4460.79
1256	1257	1285	1255	1228	0.065	4473.59
1257	1258	1286	1256	1229	0.065	4476.17
1258	1259	1287	1257	1230	0.065	4479.78
1259	1260	1288	1258	1231	0.065	4482.97
1260	1261	1289	1259	1232	0.065	4495.71
1261	1262	1290	1260	1233	0.065	4495.57
1262	1263	1291	1261	1234	0.065	4484.81
1263	1264	1292	1262	1235	0.065	4483.26
1264	1265	1293	1263	1236	0.065	4482.67
1265	1266	1294	1264	1237	0.065	4488.00
1266	1267	1295	1265	1238	0.065	4484.41
1267	1268	1296	1266	1239	0.065	4482.41
1268	1269	1297	1267	1240	0.065	4491.48
1269	1270	1298	1268	1241	0.065	4494.29
1270	1271	1299	1269	1242	0.065	4494.63
1271	1272	1300	1270	1243	0.065	4489.47
1272	1273	1301	1271	1244	0.065	4484.89
1273	1274	1302	1272	1245	0.065	4484.93
1274	1275	1303	1273	1246	0.065	4485.56
1275	1276	1304	1274	1247	0.065	4487.77
1276	1277	1305	1275	1248	0.065	4490.48
1277	1278	1306	1276	1249	0.065	4499.39
1278	1279	1307	1277	1250	0.065	4512.14
1279	0	1308	1278	1251	0.065	4519.73
1280	1281	1310	0	0	0.065	4454.77
1281	1282	1311	1280	1252	0.065	4452.87
1282	1283	1312	1281	1253	0.065	4451.94
1283	1284	1313	1282	1254	0.065	4449.50
1284	1285	1314	1283	1255	0.065	4457.77
1285	1286	1315	1284	1256	0.065	4467.35
1286	1287	1316	1285	1257	0.065	4467.41
1287	1288	1317	1286	1258	0.065	4471.45
1288	1289	1318	1287	1259	0.065	4479.28
1289	1290	1319	1288	1260	0.065	4485.28
1290	1291	1320	1289	1261	0.065	4495.00
1291	1292	1321	1290	1262	0.065	4491.67
1292	1293	1322	1291	1263	0.065	4474.46
1293	1294	1323	1292	1264	0.065	4480.17
1294	1295	1324	1293	1265	0.065	4484.21
1295	1296	1325	1294	1266	0.065	4480.25
1296	1297	1326	1295	1267	0.065	4480.81
1297	1298	1327	1296	1268	0.065	4490.38
1298	1299	1328	1297	1269	0.065	4491.03
1299	1300	1329	1298	1270	0.065	4490.30
1300	1301	1330	1299	1271	0.065	4486.11
1301	1302	1331	1300	1272	0.065	4480.65
1302	1303	1332	1301	1273	0.065	4483.64
1303	1304	1333	1302	1274	0.065	4479.19
1304	1305	1334	1303	1275	0.065	4484.23
1305	1306	1335	1304	1276	0.065	4486.56
1306	1307	1336	1305	1277	0.065	4491.39
1307	1308	1337	1306	1278	0.065	4493.01
1308	0	1338	1307	1279	0.065	4511.05
1309	1310	1340	0	0	0.065	4447.41
1310	1311	1341	1309	1280	0.065	4448.91
1311	1312	1342	1310	1281	0.065	4446.60
1312	1313	1343	1311	1282	0.065	4448.08
1313	1314	1344	1312	1283	0.065	4446.76
1314	1315	1345	1313	1284	0.065	4452.82
1315	1316	1346	1314	1285	0.065	4461.10
1316	1317	1347	1315	1286	0.065	4459.07
1317	1318	1348	1316	1287	0.065	4467.45
1318	1319	1349	1317	1288	0.065	4469.97
1319	1320	1350	1318	1289	0.065	4476.48
1320	1321	1351	1319	1290	0.065	4485.77



			FPLAIN.DAT			
1321	1322	1352	1320	1291	0.065	4488.74
1322	1323	1353	1321	1292	0.065	4472.32
1323	1324	1354	1322	1293	0.065	4477.71
1324	1325	1355	1323	1294	0.065	4481.36
1325	1326	1356	1324	1295	0.065	4482.52
1326	1327	1357	1325	1296	0.065	4479.16
1327	1328	1358	1326	1297	0.065	4483.36
1328	1329	1359	1327	1298	0.065	4491.66
1329	1330	1360	1328	1299	0.065	4491.52
1330	1331	1361	1329	1300	0.065	4488.60
1331	1332	1362	1330	1301	0.065	4480.54
1332	1333	1363	1331	1302	0.065	4476.59
1333	1334	1364	1332	1303	0.065	4474.49
1334	1335	1365	1333	1304	0.065	4481.92
1335	1336	1366	1334	1305	0.065	4483.92
1336	1337	1367	1335	1306	0.065	4486.37
1337	1338	1368	1336	1307	0.065	4490.53
1338	0	1369	1337	1308	0.065	4498.86
1339	1340	1370	0	0	0.065	4442.65
1340	1341	1371	1339	1309	0.065	4443.49
1341	1342	1372	1340	1310	0.065	4443.81
1342	1343	1373	1341	1311	0.065	4442.84
1343	1344	1374	1342	1312	0.065	4443.30
1344	1345	1375	1343	1313	0.065	4443.54
1345	1346	1376	1344	1314	0.065	4447.65
1346	1347	1377	1345	1315	0.065	4455.01
1347	1348	1378	1346	1316	0.065	4452.68
1348	1349	1379	1347	1317	0.065	4458.07
1349	1350	1380	1348	1318	0.065	4464.03
1350	1351	1381	1349	1319	0.065	4477.81
1351	1352	1382	1350	1320	0.065	4477.58
1352	1353	1383	1351	1321	0.065	4476.60
1353	1354	1384	1352	1322	0.065	4466.33
1354	1355	1385	1353	1323	0.065	4473.20
1355	1356	1386	1354	1324	0.065	4476.18
1356	1357	1387	1355	1325	0.065	4477.23
1357	1358	1388	1356	1326	0.065	4473.82
1358	1359	1389	1357	1327	0.065	4484.43
1359	1360	1390	1358	1328	0.065	4488.45
1360	1361	1391	1359	1329	0.065	4489.65
1361	1362	1392	1360	1330	0.065	4486.91
1362	1363	1393	1361	1331	0.065	4481.45
1363	1364	1394	1362	1332	0.065	4473.44
1364	1365	1395	1363	1333	0.065	4472.58
1365	1366	1396	1364	1334	0.065	4478.23
1366	1367	1397	1365	1335	0.065	4481.60
1367	1368	1398	1366	1336	0.065	4484.96
1368	1369	1399	1367	1337	0.065	4488.68
1369	0	1400	1368	1338	0.065	4493.36
1370	1371	1402	0	1339	0.065	4439.26
1371	1372	1403	1370	1340	0.065	4438.40
1372	1373	1404	1371	1341	0.065	4439.15
1373	1374	1405	1372	1342	0.065	4438.97
1374	1375	1406	1373	1343	0.065	4438.87
1375	1376	1407	1374	1344	0.065	4437.95
1376	1377	1408	1375	1345	0.065	4443.23
1377	1378	1409	1376	1346	0.065	4445.88
1378	1379	1410	1377	1347	0.065	4446.59
1379	1380	1411	1378	1348	0.065	4452.45
1380	1381	1412	1379	1349	0.065	4457.66
1381	1382	1413	1380	1350	0.065	4474.64
1382	1383	1414	1381	1351	0.065	4467.86
1383	1384	1415	1382	1352	0.065	4464.53
1384	1385	1416	1383	1353	0.065	4470.66
1385	1386	1417	1384	1354	0.065	4469.58
1386	1387	1418	1385	1355	0.065	4469.89

			FPLAIN.DAT			
1387	1388	1419	1386	1356	0.065	4476.64
1388	1389	1420	1387	1357	0.065	4476.17
1389	1390	1421	1388	1358	0.065	4468.58
1390	1391	1422	1389	1359	0.065	4488.04
1391	1392	1423	1390	1360	0.065	4486.38
1392	1393	1424	1391	1361	0.065	4486.85
1393	1394	1425	1392	1362	0.065	4482.68
1394	1395	1426	1393	1363	0.065	4477.02
1395	1396	1427	1394	1364	0.065	4468.96
1396	1397	1428	1395	1365	0.065	4475.81
1397	1398	1429	1396	1366	0.065	4479.05
1398	1399	1430	1397	1367	0.065	4481.98
1399	1400	1431	1398	1368	0.065	4482.01
1400	0	1432	1399	1369	0.065	4486.19
1401	1402	1434	0	0	0.065	4436.47
1402	1403	1435	1401	1370	0.065	4435.65
1403	1404	1436	1402	1371	0.065	4435.96
1404	1405	1437	1403	1372	0.065	4436.10
1405	1406	1438	1404	1373	0.065	4435.79
1406	1407	1439	1405	1374	0.065	4436.00
1407	1408	1440	1406	1375	0.065	4435.26
1408	1409	1441	1407	1376	0.065	4441.71
1409	1410	1442	1408	1377	0.065	4442.90
1410	1411	1443	1409	1378	0.065	4443.86
1411	1412	1444	1410	1379	0.065	4447.26
1412	1413	1445	1411	1380	0.065	4457.48
1413	1414	1446	1412	1381	0.065	4466.54
1414	1415	1447	1413	1382	0.065	4459.91
1415	1416	1448	1414	1383	0.065	4462.47
1416	1417	1449	1415	1384	0.065	4467.51
1417	1418	1450	1416	1385	0.065	4465.89
1418	1419	1451	1417	1386	0.065	4467.86
1419	1420	1452	1418	1387	0.065	4469.20
1420	1421	1453	1419	1388	0.065	4470.55
1421	1422	1454	1420	1389	0.065	4475.25
1422	1423	1455	1421	1390	0.065	4482.33
1423	1424	1456	1422	1391	0.065	4484.46
1424	1425	1457	1423	1392	0.065	4484.61
1425	1426	1458	1424	1393	0.065	4483.17
1426	1427	1459	1425	1394	0.065	4480.18
1427	1428	1460	1426	1395	0.065	4466.05
1428	1429	1461	1427	1396	0.065	4466.78
1429	1430	1462	1428	1397	0.065	4474.41
1430	1431	1463	1429	1398	0.065	4476.98
1431	1432	1464	1430	1399	0.065	4476.80
1432	0	1465	1431	1400	0.065	4479.76
1433	1434	1467	0	0	0.065	4432.11
1434	1435	1468	1433	1401	0.065	4433.00
1435	1436	1469	1434	1402	0.065	4431.53
1436	1437	1470	1435	1403	0.065	4431.65
1437	1438	1471	1436	1404	0.065	4434.54
1438	1439	1472	1437	1405	0.065	4430.74
1439	1440	1473	1438	1406	0.065	4433.11
1440	1441	1474	1439	1407	0.065	4432.92
1441	1442	1475	1440	1408	0.065	4439.49
1442	1443	1476	1441	1409	0.065	4443.36
1443	1444	1477	1442	1410	0.065	4446.44
1444	1445	1478	1443	1411	0.065	4450.35
1445	1446	1479	1444	1412	0.065	4456.54
1446	1447	1480	1445	1413	0.065	4457.60
1447	1448	1481	1446	1414	0.065	4456.72
1448	1449	1482	1447	1415	0.065	4461.14
1449	1450	1483	1448	1416	0.065	4461.02
1450	1451	1484	1449	1417	0.065	4464.03
1451	1452	1485	1450	1418	0.065	4463.79
1452	1453	1486	1451	1419	0.065	4464.90

			FPLAIN.DAT			
1453	1454	1487	1452	1420	0.065	4465.39
1454	1455	1488	1453	1421	0.065	4458.00
1455	1456	1489	1454	1422	0.065	4480.42
1456	1457	1490	1455	1423	0.065	4482.18
1457	1458	1491	1456	1424	0.065	4482.43
1458	1459	1492	1457	1425	0.065	4458.89
1459	1460	1493	1458	1426	0.065	4481.06
1460	1461	1494	1459	1427	0.065	4467.03
1461	1462	1495	1460	1428	0.065	4463.31
1462	1463	1496	1461	1429	0.065	4465.63
1463	1464	1497	1462	1430	0.065	4471.43
1464	1465	1498	1463	1431	0.065	4472.52
1465	0	1499	1464	1432	0.065	4476.45
1466	1467	1503	0	0	0.065	4427.37
1467	1468	1504	1466	1433	0.065	4428.51
1468	1469	1505	1467	1434	0.065	4428.93
1469	1470	1506	1468	1435	0.065	4429.05
1470	1471	1507	1469	1436	0.065	4428.71
1471	1472	1508	1470	1437	0.065	4430.44
1472	1473	1509	1471	1438	0.065	4429.88
1473	1474	1510	1472	1439	0.065	4430.71
1474	1475	1511	1473	1440	0.065	4433.03
1475	1476	1512	1474	1441	0.065	4439.24
1476	1477	1513	1475	1442	0.065	4442.45
1477	1478	1514	1476	1443	0.065	4446.86
1478	1479	1515	1477	1444	0.065	4449.35
1479	1480	1516	1478	1445	0.065	4452.35
1480	1481	1517	1479	1446	0.065	4455.52
1481	1482	1518	1480	1447	0.065	4451.50
1482	1483	1519	1481	1448	0.065	4458.60
1483	1484	1520	1482	1449	0.065	4458.07
1484	1485	1521	1483	1450	0.065	4460.05
1485	1486	1522	1484	1451	0.065	4463.23
1486	1487	1523	1485	1452	0.065	4461.17
1487	1488	1524	1486	1453	0.065	4462.71
1488	1489	1525	1487	1454	0.065	4458.30
1489	1490	1526	1488	1455	0.065	4476.97
1490	1491	1527	1489	1456	0.065	4477.11
1491	1492	1528	1490	1457	0.065	4477.69
1492	1493	1529	1491	1458	0.065	4475.67
1493	1494	1530	1492	1459	0.065	4464.69
1494	1495	1531	1493	1460	0.065	4469.85
1495	1496	1532	1494	1461	0.065	4461.69
1496	1497	1533	1495	1462	0.065	4463.52
1497	1498	1534	1496	1463	0.065	4464.26
1498	1499	1535	1497	1464	0.065	4467.78
1499	0	1536	1498	1465	0.065	4473.83
1500	1501	1540	0	0	0.065	4471.11
1501	0	1541	1500	0	0.065	4476.93
1502	1503	1543	0	0	0.065	4425.01
1503	1504	1544	1502	1466	0.065	4425.86
1504	1505	1545	1503	1467	0.065	4426.40
1505	1506	1546	1504	1468	0.065	4426.68
1506	1507	1547	1505	1469	0.065	4427.41
1507	1508	1548	1506	1470	0.065	4428.56
1508	1509	1549	1507	1471	0.065	4428.53
1509	1510	1550	1508	1472	0.065	4429.00
1510	1511	1551	1509	1473	0.065	4432.08
1511	1512	1552	1510	1474	0.065	4435.35
1512	1513	1553	1511	1475	0.065	4436.72
1513	1514	1554	1512	1476	0.065	4439.53
1514	1515	1555	1513	1477	0.065	4443.67
1515	1516	1556	1514	1478	0.065	4447.11
1516	1517	1557	1515	1479	0.065	4448.95
1517	1518	1558	1516	1480	0.065	4450.03
1518	1519	1559	1517	1481	0.065	4451.11

			FPLAIN.DAT			
1519	1520	1560	1518	1482	0.065	4453.46
1520	1521	1561	1519	1483	0.065	4456.74
1521	1522	1562	1520	1484	0.065	4458.58
1522	1523	1563	1521	1485	0.065	4459.45
1523	1524	1564	1522	1486	0.065	4456.72
1524	1525	1565	1523	1487	0.065	4463.12
1525	1526	1566	1524	1488	0.065	4455.63
1526	1527	1567	1525	1489	0.065	4475.37
1527	1528	1568	1526	1490	0.065	4476.31
1528	1529	1569	1527	1491	0.065	4476.29
1529	1530	1570	1528	1492	0.065	4468.62
1530	1531	1571	1529	1493	0.065	4464.13
1531	1532	1572	1530	1494	0.065	4465.77
1532	1533	1573	1531	1495	0.065	4460.26
1533	1534	1574	1532	1496	0.065	4462.89
1534	1535	1575	1533	1497	0.065	4461.17
1535	1536	1576	1534	1498	0.065	4463.57
1536	0	1577	1535	1499	0.065	4471.61
1537	1538	1581	0	0	0.065	4478.30
1538	1539	1582	1537	0	0.065	4469.69
1539	1540	1583	1538	0	0.065	4470.81
1540	1541	1584	1539	1500	0.065	4468.17
1541	0	1585	1540	1501	0.065	4463.62
1542	1543	1604	0	0	0.065	4419.56
1543	1544	1605	1542	1502	0.065	4421.48
1544	1545	1606	1543	1503	0.065	4424.60
1545	1546	1607	1544	1504	0.065	4423.57
1546	1547	1608	1545	1505	0.065	4423.34
1547	1548	1609	1546	1506	0.065	4422.45
1548	1549	1610	1547	1507	0.065	4422.79
1549	1550	1611	1548	1508	0.065	4421.88
1550	1551	1612	1549	1509	0.065	4424.63
1551	1552	1613	1550	1510	0.065	4426.02
1552	1553	1614	1551	1511	0.065	4427.59
1553	1554	1615	1552	1512	0.065	4433.18
1554	1555	1616	1553	1513	0.065	4436.35
1555	1556	1617	1554	1514	0.065	4441.19
1556	1557	1618	1555	1515	0.065	4441.96
1557	1558	1619	1556	1516	0.065	4445.68
1558	1559	1620	1557	1517	0.065	4447.55
1559	1560	1621	1558	1518	0.065	4448.71
1560	1561	1622	1559	1519	0.065	4454.00
1561	1562	1623	1560	1520	0.065	4451.67
1562	1563	1624	1561	1521	0.065	4453.40
1563	1564	1625	1562	1522	0.065	4454.44
1564	1565	1626	1563	1523	0.065	4452.40
1565	1566	1627	1564	1524	0.065	4461.99
1566	1567	1628	1565	1525	0.065	4459.77
1567	1568	1629	1566	1526	0.065	4459.19
1568	1569	1630	1567	1527	0.065	4472.13
1569	1570	1631	1568	1528	0.065	4505.27
1570	1571	1632	1569	1529	0.065	4498.82
1571	1572	1633	1570	1530	0.065	4466.65
1572	1573	1634	1571	1531	0.065	4477.11
1573	1574	1635	1572	1532	0.065	4472.75
1574	1575	1636	1573	1533	0.065	4468.53
1575	1576	1637	1574	1534	0.065	4469.37
1576	1577	1638	1575	1535	0.065	4480.05
1577	0	1639	1576	1536	0.065	4467.88
1578	1579	1643	0	0	0.065	4467.69
1579	1580	1644	1578	0	0.065	4465.41
1580	1581	1645	1579	0	0.065	4460.97
1581	1582	1646	1580	1537	0.065	4461.36
1582	1583	1647	1581	1538	0.065	4462.35
1583	1584	1648	1582	1539	0.065	4463.30
1584	1585	1649	1583	1540	0.065	4461.76

			FPLAIN.DAT			
1585	1586	1650	1584	1541	0.065	4456.80
1586	1587	1651	1585	0	0.065	4452.35
1587	1588	1652	1586	0	0.065	4449.98
1588	1589	1653	1587	0	0.065	4451.45
1589	1590	1654	1588	0	0.065	4452.73
1590	1591	1655	1589	0	0.065	4449.79
1591	1592	1656	1590	0	0.065	4446.12
1592	1593	1657	1591	0	0.065	4441.37
1593	1594	1658	1592	0	0.065	4439.93
1594	1595	1659	1593	0	0.065	4436.79
1595	1596	1660	1594	0	0.065	4431.63
1596	1597	1661	1595	0	0.065	4433.08
1597	1598	1662	1596	0	0.065	4443.29
1598	1599	1663	1597	0	0.065	4435.10
1599	1600	1664	1598	0	0.065	4435.19
1600	1601	1665	1599	0	0.065	4428.20
1601	1602	1666	1600	0	0.065	4423.53
1602	1603	1667	1601	0	0.065	4422.03
1603	1604	1668	1602	0	0.065	4419.05
1604	1605	1669	1603	1542	0.065	4415.80
1605	1606	1670	1604	1543	0.065	4419.02
1606	1607	1671	1605	1544	0.065	4419.26
1607	1608	1672	1606	1545	0.065	4420.16
1608	1609	1673	1607	1546	0.065	4420.94
1609	1610	1674	1608	1547	0.065	4419.68
1610	1611	1675	1609	1548	0.065	4422.49
1611	1612	1676	1610	1549	0.065	4420.80
1612	1613	1677	1611	1550	0.065	4423.72
1613	1614	1678	1612	1551	0.065	4425.93
1614	1615	1679	1613	1552	0.065	4428.55
1615	1616	1680	1614	1553	0.065	4431.87
1616	1617	1681	1615	1554	0.065	4434.63
1617	1618	1682	1616	1555	0.065	4436.01
1618	1619	1683	1617	1556	0.065	4436.37
1619	1620	1684	1618	1557	0.065	4440.75
1620	1621	1685	1619	1558	0.065	4441.08
1621	1622	1686	1620	1559	0.065	4445.38
1622	1623	1687	1621	1560	0.065	4448.89
1623	1624	1688	1622	1561	0.065	4448.05
1624	1625	1689	1623	1562	0.065	4450.80
1625	1626	1690	1624	1563	0.065	4451.79
1626	1627	1691	1625	1564	0.065	4451.75
1627	1628	1692	1626	1565	0.065	4457.30
1628	1629	1693	1627	1566	0.065	4452.70
1629	1630	1694	1628	1567	0.065	4465.35
1630	1631	1695	1629	1568	0.065	4470.70
1631	1632	1696	1630	1569	0.065	4470.06
1632	1633	1697	1631	1570	0.065	4471.59
1633	1634	1698	1632	1571	0.065	4470.30
1634	1635	1699	1633	1572	0.065	4452.63
1635	1636	1700	1634	1573	0.065	4457.35
1636	1637	1701	1635	1574	0.065	4459.87
1637	1638	1702	1636	1575	0.065	4460.24
1638	1639	1703	1637	1576	0.065	4457.13
1639	0	1704	1638	1577	0.065	4464.29
1640	1641	1708	0	0	0.065	4487.62
1641	1642	1709	1640	0	0.065	4470.34
1642	1643	1710	1641	0	0.065	4467.78
1643	1644	1711	1642	1578	0.065	4467.00
1644	1645	1712	1643	1579	0.065	4463.57
1645	1646	1713	1644	1580	0.065	4461.59
1646	1647	1714	1645	1581	0.065	4462.30
1647	1648	1715	1646	1582	0.065	4457.90
1648	1649	1716	1647	1583	0.065	4457.63
1649	1650	1717	1648	1584	0.065	4451.61
1650	1651	1718	1649	1585	0.065	4451.60

			FPLAIN.DAT			
1651	1652	1719	1650	1586	0.065	4452.32
1652	1653	1720	1651	1587	0.065	4450.78
1653	1654	1721	1652	1588	0.065	4449.61
1654	1655	1722	1653	1589	0.065	4445.93
1655	1656	1723	1654	1590	0.065	4443.37
1656	1657	1724	1655	1591	0.065	4438.92
1657	1658	1725	1656	1592	0.065	4436.84
1658	1659	1726	1657	1593	0.065	4432.58
1659	1660	1727	1658	1594	0.065	4429.59
1660	1661	1728	1659	1595	0.065	4425.68
1661	1662	1729	1660	1596	0.065	4423.69
1662	1663	1730	1661	1597	0.065	4421.19
1663	1664	1731	1662	1598	0.065	4422.12
1664	1665	1732	1663	1599	0.065	4421.04
1665	1666	1733	1664	1600	0.065	4421.39
1666	1667	1734	1665	1601	0.065	4417.34
1667	1668	1735	1666	1602	0.065	4418.47
1668	1669	1736	1667	1603	0.065	4415.80
1669	1670	1737	1668	1604	0.065	4417.63
1670	1671	1738	1669	1605	0.065	4417.91
1671	1672	1739	1670	1606	0.065	4419.57
1672	1673	1740	1671	1607	0.065	4417.04
1673	1674	1741	1672	1608	0.065	4420.26
1674	1675	1742	1673	1609	0.065	4417.92
1675	1676	1743	1674	1610	0.065	4420.82
1676	1677	1744	1675	1611	0.065	4422.38
1677	1678	1745	1676	1612	0.065	4424.59
1678	1679	1746	1677	1613	0.065	4426.41
1679	1680	1747	1678	1614	0.065	4427.86
1680	1681	1748	1679	1615	0.065	4432.46
1681	1682	1749	1680	1616	0.065	4431.75
1682	1683	1750	1681	1617	0.065	4431.91
1683	1684	1751	1682	1618	0.065	4438.06
1684	1685	1752	1683	1619	0.065	4439.11
1685	1686	1753	1684	1620	0.065	4439.54
1686	1687	1754	1685	1621	0.065	4442.08
1687	1688	1755	1686	1622	0.065	4439.09
1688	1689	1756	1687	1623	0.065	4444.07
1689	1690	1757	1688	1624	0.065	4444.32
1690	1691	1758	1689	1625	0.065	4458.05
1691	1692	1759	1690	1626	0.065	4455.91
1692	1693	1760	1691	1627	0.065	4473.19
1693	1694	1761	1692	1628	0.065	4447.23
1694	1695	1762	1693	1629	0.065	4469.85
1695	1696	1763	1694	1630	0.065	4468.42
1696	1697	1764	1695	1631	0.065	4467.85
1697	1698	1765	1696	1632	0.065	4469.57
1698	1699	1766	1697	1633	0.065	4476.59
1699	1700	1767	1698	1634	0.065	4451.42
1700	1701	1768	1699	1635	0.065	4458.45
1701	1702	1769	1700	1636	0.065	4458.97
1702	1703	1770	1701	1637	0.065	4459.47
1703	1704	1771	1702	1638	0.065	4456.21
1704	0	1772	1703	1639	0.065	4460.29
1705	1706	1775	0	0	0.065	4509.13
1706	1707	1776	1705	0	0.065	4482.31
1707	1708	1777	1706	0	0.065	4480.04
1708	1709	1778	1707	1640	0.065	4475.01
1709	1710	1779	1708	1641	0.065	4471.22
1710	1711	1780	1709	1642	0.065	4469.00
1711	1712	1781	1710	1643	0.065	4464.05
1712	1713	1782	1711	1644	0.065	4459.38
1713	1714	1783	1712	1645	0.065	4457.12
1714	1715	1784	1713	1646	0.065	4458.67
1715	1716	1785	1714	1647	0.065	4453.76
1716	1717	1786	1715	1648	0.065	4452.47



			FPLAIN.DAT			
1717	1718	1787	1716	1649	0.065	4448.12
1718	1719	1788	1717	1650	0.065	4447.85
1719	1720	1789	1718	1651	0.065	4452.22
1720	1721	1790	1719	1652	0.065	4450.08
1721	1722	1791	1720	1653	0.065	4446.15
1722	1723	1792	1721	1654	0.065	4441.75
1723	1724	1793	1722	1655	0.065	4438.33
1724	1725	1794	1723	1656	0.065	4435.33
1725	1726	1795	1724	1657	0.065	4431.41
1726	1727	1796	1725	1658	0.065	4428.37
1727	1728	1797	1726	1659	0.065	4423.86
1728	1729	1798	1727	1660	0.065	4418.37
1729	1730	1799	1728	1661	0.065	4419.04
1730	1731	1800	1729	1662	0.065	4413.70
1731	1732	1801	1730	1663	0.065	4413.98
1732	1733	1802	1731	1664	0.065	4416.44
1733	1734	1803	1732	1665	0.065	4413.46
1734	1735	1804	1733	1666	0.065	4414.10
1735	1736	1805	1734	1667	0.065	4412.62
1736	1737	1806	1735	1668	0.065	4413.93
1737	1738	1807	1736	1669	0.065	4412.07
1738	1739	1808	1737	1670	0.065	4414.74
1739	1740	1809	1738	1671	0.065	4413.66
1740	1741	1810	1739	1672	0.065	4412.81
1741	1742	1811	1740	1673	0.065	4423.73
1742	1743	1812	1741	1674	0.065	4431.65
1743	1744	1813	1742	1675	0.065	4422.71
1744	1745	1814	1743	1676	0.065	4424.85
1745	1746	1815	1744	1677	0.065	4425.17
1746	1747	1816	1745	1678	0.065	4425.47
1747	1748	1817	1746	1679	0.065	4424.93
1748	1749	1818	1747	1680	0.065	4428.78
1749	1750	1819	1748	1681	0.065	4427.47
1750	1751	1820	1749	1682	0.065	4435.55
1751	1752	1821	1750	1683	0.065	4436.66
1752	1753	1822	1751	1684	0.065	4446.42
1753	1754	1823	1752	1685	0.065	4433.90
1754	1755	1824	1753	1686	0.065	4434.28
1755	1756	1825	1754	1687	0.065	4436.65
1756	1757	1826	1755	1688	0.065	4439.67
1757	1758	1827	1756	1689	0.065	4441.91
1758	1759	1828	1757	1690	0.065	4446.78
1759	1760	1829	1758	1691	0.065	4447.33
1760	1761	1830	1759	1692	0.065	4445.17
1761	1762	1831	1760	1693	0.065	4444.84
1762	1763	1832	1761	1694	0.065	4467.81
1763	1764	1833	1762	1695	0.065	4465.99
1764	1765	1834	1763	1696	0.065	4466.38
1765	1766	1835	1764	1697	0.065	4467.47
1766	1767	1836	1765	1698	0.065	4470.89
1767	1768	1837	1766	1699	0.065	4447.73
1768	1769	1838	1767	1700	0.065	4454.71
1769	1770	1839	1768	1701	0.065	4456.23
1770	1771	1840	1769	1702	0.065	4455.34
1771	1772	1841	1770	1703	0.065	4458.52
1772	0	1842	1771	1704	0.065	4454.67
1773	1774	1846	0	0	0.065	4500.03
1774	1775	1847	1773	0	0.065	4510.15
1775	1776	1848	1774	1705	0.065	4493.95
1776	1777	1849	1775	1706	0.065	4482.38
1777	1778	1850	1776	1707	0.065	4476.91
1778	1779	1851	1777	1708	0.065	4470.53
1779	1780	1852	1778	1709	0.065	4467.05
1780	1781	1853	1779	1710	0.065	4463.08
1781	1782	1854	1780	1711	0.065	4460.04
1782	1783	1855	1781	1712	0.065	4459.09



			FPLAIN.DAT			
1783	1784	1856	1782	1713	0.065	4456.09
1784	1785	1857	1783	1714	0.065	4454.50
1785	1786	1858	1784	1715	0.065	4452.99
1786	1787	1859	1785	1716	0.065	4450.28
1787	1788	1860	1786	1717	0.065	4447.43
1788	1789	1861	1787	1718	0.065	4442.37
1789	1790	1862	1788	1719	0.065	4441.54
1790	1791	1863	1789	1720	0.065	4442.43
1791	1792	1864	1790	1721	0.065	4437.31
1792	1793	1865	1791	1722	0.065	4437.30
1793	1794	1866	1792	1723	0.065	4435.69
1794	1795	1867	1793	1724	0.065	4431.11
1795	1796	1868	1794	1725	0.065	4427.05
1796	1797	1869	1795	1726	0.065	4422.66
1797	1798	1870	1796	1727	0.065	4420.94
1798	1799	1871	1797	1728	0.065	4415.81
1799	1800	1872	1798	1729	0.065	4412.35
1800	1801	1873	1799	1730	0.065	4408.82
1801	1802	1874	1800	1731	0.065	4412.03
1802	1803	1875	1801	1732	0.065	4411.05
1803	1804	1876	1802	1733	0.065	4410.91
1804	1805	1877	1803	1734	0.065	4409.72
1805	1806	1878	1804	1735	0.065	4410.78
1806	1807	1879	1805	1736	0.065	4409.75
1807	1808	1880	1806	1737	0.065	4410.65
1808	1809	1881	1807	1738	0.065	4410.94
1809	1810	1882	1808	1739	0.065	4411.81
1810	1811	1883	1809	1740	0.065	4418.63
1811	1812	1884	1810	1741	0.065	4413.66
1812	1813	1885	1811	1742	0.065	4415.62
1813	1814	1886	1812	1743	0.065	4420.02
1814	1815	1887	1813	1744	0.065	4421.07
1815	1816	1888	1814	1745	0.065	4418.75
1816	1817	1889	1815	1746	0.065	4440.56
1817	1818	1890	1816	1747	0.065	4437.14
1818	1819	1891	1817	1748	0.065	4425.84
1819	1820	1892	1818	1749	0.065	4428.41
1820	1821	1893	1819	1750	0.065	4428.54
1821	1822	1894	1820	1751	0.065	4429.63
1822	1823	1895	1821	1752	0.065	4432.12
1823	1824	1896	1822	1753	0.065	4432.64
1824	1825	1897	1823	1754	0.065	4428.59
1825	1826	1898	1824	1755	0.065	4449.62
1826	1827	1899	1825	1756	0.065	4455.22
1827	1828	1900	1826	1757	0.065	4438.72
1828	1829	1901	1827	1758	0.065	4444.13
1829	1830	1902	1828	1759	0.065	4442.38
1830	1831	1903	1829	1760	0.065	4443.71
1831	1832	1904	1830	1761	0.065	4446.57
1832	1833	1905	1831	1762	0.065	4464.38
1833	1834	1906	1832	1763	0.065	4464.19
1834	1835	1907	1833	1764	0.065	4464.78
1835	1836	1908	1834	1765	0.065	4471.32
1836	1837	1909	1835	1766	0.065	4448.73
1837	1838	1910	1836	1767	0.065	4448.45
1838	1839	1911	1837	1768	0.065	4452.48
1839	1840	1912	1838	1769	0.065	4455.98
1840	1841	1913	1839	1770	0.065	4455.88
1841	1842	1914	1840	1771	0.065	4453.68
1842	0	1915	1841	1772	0.065	4452.14
1843	1844	1918	0	0	0.065	4508.65
1844	1845	1919	1843	0	0.065	4503.87
1845	1846	1920	1844	0	0.065	4500.68
1846	1847	1921	1845	1773	0.065	4517.26
1847	1848	1922	1846	1774	0.065	4489.04
1848	1849	1923	1847	1775	0.065	4486.61

			FPLAIN.DAT			
1849	1850	1924	1848	1776	0.065	4484.42
1850	1851	1925	1849	1777	0.065	4478.18
1851	1852	1926	1850	1778	0.065	4470.80
1852	1853	1927	1851	1779	0.065	4463.87
1853	1854	1928	1852	1780	0.065	4459.89
1854	1855	1929	1853	1781	0.065	4460.15
1855	1856	1930	1854	1782	0.065	4451.61
1856	1857	1931	1855	1783	0.065	4452.77
1857	1858	1932	1856	1784	0.065	4450.91
1858	1859	1933	1857	1785	0.065	4448.07
1859	1860	1934	1858	1786	0.065	4446.71
1860	1861	1935	1859	1787	0.065	4444.80
1861	1862	1936	1860	1788	0.065	4442.83
1862	1863	1937	1861	1789	0.065	4441.84
1863	1864	1938	1862	1790	0.065	4440.05
1864	1865	1939	1863	1791	0.065	4434.78
1865	1866	1940	1864	1792	0.065	4432.95
1866	1867	1941	1865	1793	0.065	4429.81
1867	1868	1942	1866	1794	0.065	4425.86
1868	1869	1943	1867	1795	0.065	4424.14
1869	1870	1944	1868	1796	0.065	4419.89
1870	1871	1945	1869	1797	0.065	4416.31
1871	1872	1946	1870	1798	0.065	4414.54
1872	1873	1947	1871	1799	0.065	4410.04
1873	1874	1948	1872	1800	0.065	4407.88
1874	1875	1949	1873	1801	0.065	4406.80
1875	1876	1950	1874	1802	0.065	4407.07
1876	1877	1951	1875	1803	0.065	4406.47
1877	1878	1952	1876	1804	0.065	4405.32
1878	1879	1953	1877	1805	0.065	4406.94
1879	1880	1954	1878	1806	0.065	4408.40
1880	1881	1955	1879	1807	0.065	4406.52
1881	1882	1956	1880	1808	0.065	4409.17
1882	1883	1957	1881	1809	0.065	4409.51
1883	1884	1958	1882	1810	0.065	4409.76
1884	1885	1959	1883	1811	0.065	4413.33
1885	1886	1960	1884	1812	0.065	4413.85
1886	1887	1961	1885	1813	0.065	4414.31
1887	1888	1962	1886	1814	0.065	4415.23
1888	1889	1963	1887	1815	0.065	4415.70
1889	1890	1964	1888	1816	0.065	4416.46
1890	1891	1965	1889	1817	0.065	4417.65
1891	1892	1966	1890	1818	0.065	4421.62
1892	1893	1967	1891	1819	0.065	4420.55
1893	1894	1968	1892	1820	0.065	4419.62
1894	1895	1969	1893	1821	0.065	4426.29
1895	1896	1970	1894	1822	0.085	4426.47
1896	1897	1971	1895	1823	0.125	4406.62
1897	1898	1972	1896	1824	0.120	4406.50
1898	1899	1973	1897	1825	0.065	4430.91
1899	1900	1974	1898	1826	0.065	4432.37
1900	1901	1975	1899	1827	0.065	4435.92
1901	1902	1976	1900	1828	0.065	4442.24
1902	1903	1977	1901	1829	0.065	4442.04
1903	1904	1978	1902	1830	0.065	4442.96
1904	1905	1979	1903	1831	0.065	4460.24
1905	1906	1980	1904	1832	0.065	4457.71
1906	1907	1981	1905	1833	0.065	4460.11
1907	1908	1982	1906	1834	0.065	4463.73
1908	1909	1983	1907	1835	0.065	4474.46
1909	1910	1984	1908	1836	0.065	4443.76
1910	1911	1985	1909	1837	0.065	4446.12
1911	1912	1986	1910	1838	0.065	4445.27
1912	1913	1987	1911	1839	0.065	4440.76
1913	1914	1988	1912	1840	0.065	4443.18
1914	1915	1989	1913	1841	0.065	4443.28

			FPLAIN.DAT			
1915	0	1990	1914	1842	0.065	4451.09
1916	1917	1993	0	0	0.065	4516.68
1917	1918	1994	1916	0	0.065	4512.51
1918	1919	1995	1917	1843	0.065	4507.24
1919	1920	1996	1918	1844	0.065	4499.68
1920	1921	1997	1919	1845	0.065	4497.14
1921	1922	1998	1920	1846	0.065	4493.97
1922	1923	1999	1921	1847	0.065	4486.45
1923	1924	2000	1922	1848	0.065	4482.13
1924	1925	2001	1923	1849	0.065	4477.10
1925	1926	2002	1924	1850	0.065	4478.01
1926	1927	2003	1925	1851	0.065	4470.55
1927	1928	2004	1926	1852	0.065	4462.01
1928	1929	2005	1927	1853	0.065	4456.10
1929	1930	2006	1928	1854	0.065	4453.55
1930	1931	2007	1929	1855	0.065	4451.91
1931	1932	2008	1930	1856	0.065	4449.27
1932	1933	2009	1931	1857	0.065	4449.14
1933	1934	2010	1932	1858	0.065	4451.63
1934	1935	2011	1933	1859	0.065	4442.78
1935	1936	2012	1934	1860	0.065	4445.28
1936	1937	2013	1935	1861	0.065	4439.53
1937	1938	2014	1936	1862	0.065	4434.52
1938	1939	2015	1937	1863	0.065	4435.56
1939	1940	2016	1938	1864	0.065	4432.82
1940	1941	2017	1939	1865	0.065	4432.32
1941	1942	2018	1940	1866	0.065	4429.21
1942	1943	2019	1941	1867	0.065	4425.89
1943	1944	2020	1942	1868	0.065	4422.10
1944	1945	2021	1943	1869	0.065	4420.77
1945	1946	2022	1944	1870	0.065	4417.55
1946	1947	2023	1945	1871	0.065	4414.88
1947	1948	2024	1946	1872	0.065	4410.48
1948	1949	2025	1947	1873	0.065	4406.72
1949	1950	2026	1948	1874	0.065	4405.17
1950	1951	2027	1949	1875	0.065	4405.97
1951	1952	2028	1950	1876	0.065	4401.16
1952	1953	2029	1951	1877	0.065	4402.47
1953	1954	2030	1952	1878	0.065	4404.92
1954	1955	2031	1953	1879	0.065	4405.70
1955	1956	2032	1954	1880	0.065	4405.21
1956	1957	2033	1955	1881	0.065	4406.78
1957	1958	2034	1956	1882	0.065	4406.95
1958	1959	2035	1957	1883	0.065	4409.00
1959	1960	2036	1958	1884	0.065	4409.81
1960	1961	2037	1959	1885	0.065	4412.40
1961	1962	2038	1960	1886	0.065	4412.50
1962	1963	2039	1961	1887	0.065	4412.81
1963	1964	2040	1962	1888	0.065	4412.98
1964	1965	2041	1963	1889	0.065	4414.57
1965	1966	2042	1964	1890	0.065	4417.00
1966	1967	2043	1965	1891	0.065	4418.00
1967	1968	2044	1966	1892	0.065	4419.27
1968	1969	2045	1967	1893	0.065	4423.98
1969	1970	2046	1968	1894	0.065	4426.53
1970	1971	2047	1969	1895	0.065	4424.22
1971	1972	2048	1970	1896	0.120	4406.69
1972	1973	2049	1971	1897	0.120	4406.30
1973	1974	2050	1972	1898	0.085	4428.57
1974	1975	2051	1973	1899	0.065	4430.57
1975	1976	2052	1974	1900	0.065	4435.74
1976	1977	2053	1975	1901	0.065	4431.00
1977	1978	2054	1976	1902	0.065	4442.82
1978	1979	2055	1977	1903	0.065	4456.74
1979	1980	2056	1978	1904	0.065	4456.57
1980	1981	2057	1979	1905	0.065	4456.19

			FPLAIN.DAT			
1981	1982	2058	1980	1906	0.065	4458.00
1982	1983	2059	1981	1907	0.065	4478.68
1983	1984	2060	1982	1908	0.065	4463.35
1984	1985	2061	1983	1909	0.065	4440.45
1985	1986	2062	1984	1910	0.065	4444.65
1986	1987	2063	1985	1911	0.065	4443.91
1987	1988	2064	1986	1912	0.065	4439.52
1988	1989	2065	1987	1913	0.065	4441.79
1989	1990	2066	1988	1914	0.065	4437.90
1990	0	0	1989	1915	0.065	4450.55
1991	1992	2069	0	0	0.065	4518.31
1992	1993	2070	1991	0	0.065	4515.76
1993	1994	2071	1992	1916	0.065	4513.08
1994	1995	2072	1993	1917	0.065	4510.11
1995	1996	2073	1994	1918	0.065	4503.43
1996	1997	2074	1995	1919	0.065	4497.62
1997	1998	2075	1996	1920	0.065	4491.97
1998	1999	2076	1997	1921	0.065	4499.44
1999	2000	2077	1998	1922	0.065	4483.94
2000	2001	2078	1999	1923	0.065	4475.89
2001	2002	2079	2000	1924	0.065	4475.85
2002	2003	2080	2001	1925	0.065	4473.68
2003	2004	2081	2002	1926	0.065	4468.22
2004	2005	2082	2003	1927	0.065	4462.45
2005	2006	2083	2004	1928	0.065	4457.58
2006	2007	2084	2005	1929	0.065	4451.71
2007	2008	2085	2006	1930	0.065	4449.07
2008	2009	2086	2007	1931	0.065	4451.06
2009	2010	2087	2008	1932	0.065	4445.55
2010	2011	2088	2009	1933	0.065	4444.78
2011	2012	2089	2010	1934	0.065	4447.64
2012	2013	2090	2011	1935	0.065	4439.81
2013	2014	2091	2012	1936	0.065	4437.94
2014	2015	2092	2013	1937	0.065	4436.26
2015	2016	2093	2014	1938	0.065	4434.88
2016	2017	2094	2015	1939	0.065	4432.69
2017	2018	2095	2016	1940	0.065	4429.83
2018	2019	2096	2017	1941	0.065	4426.44
2019	2020	2097	2018	1942	0.065	4425.21
2020	2021	2098	2019	1943	0.065	4421.88
2021	2022	2099	2020	1944	0.065	4418.24
2022	2023	2100	2021	1945	0.065	4416.58
2023	2024	2101	2022	1946	0.065	4411.97
2024	2025	2102	2023	1947	0.065	4410.44
2025	2026	2103	2024	1948	0.065	4407.34
2026	2027	2104	2025	1949	0.065	4404.44
2027	2028	2105	2026	1950	0.065	4402.50
2028	2029	2106	2027	1951	0.065	4401.99
2029	2030	2107	2028	1952	0.065	4401.84
2030	2031	2108	2029	1953	0.065	4404.17
2031	2032	2109	2030	1954	0.065	4404.10
2032	2033	2110	2031	1955	0.065	4404.38
2033	2034	2111	2032	1956	0.065	4404.92
2034	2035	2112	2033	1957	0.065	4405.81
2035	2036	2113	2034	1958	0.065	4407.40
2036	2037	2114	2035	1959	0.065	4408.70
2037	2038	2115	2036	1960	0.065	4410.34
2038	2039	2116	2037	1961	0.065	4410.01
2039	2040	2117	2038	1962	0.065	4410.21
2040	2041	2118	2039	1963	0.065	4410.96
2041	2042	2119	2040	1964	0.065	4412.82
2042	2043	2120	2041	1965	0.065	4416.61
2043	2044	2121	2042	1966	0.065	4416.96
2044	2045	2122	2043	1967	0.065	4421.03
2045	2046	2123	2044	1968	0.065	4422.53
2046	2047	2124	2045	1969	0.065	4424.45

			FPLAIN.DAT			
2047	2048	2125	2046	1970	0.065	4424.93
2048	2049	2126	2047	1971	0.085	4423.89
2049	2050	2127	2048	1972	0.120	4406.31
2050	2051	2128	2049	1973	0.085	4427.59
2051	2052	2129	2050	1974	0.065	4431.00
2052	2053	2130	2051	1975	0.065	4430.96
2053	2054	2131	2052	1976	0.065	4433.00
2054	2055	2132	2053	1977	0.065	4439.17
2055	2056	2133	2054	1978	0.065	4456.42
2056	2057	2134	2055	1979	0.065	4453.47
2057	2058	2135	2056	1980	0.065	4452.93
2058	2059	2136	2057	1981	0.065	4453.08
2059	2060	2137	2058	1982	0.065	4459.61
2060	2061	2138	2059	1983	0.065	4444.24
2061	2062	2139	2060	1984	0.065	4440.95
2062	2063	2140	2061	1985	0.065	4441.70
2063	2064	2141	2062	1986	0.065	4438.06
2064	2065	2142	2063	1987	0.065	4442.52
2065	2066	2143	2064	1988	0.065	4443.31
2066	0	2144	2065	1989	0.065	4445.68
2067	2068	2147	0	0	0.065	4523.75
2068	2069	2148	2067	0	0.065	4514.05
2069	2070	2149	2068	1991	0.065	4511.23
2070	2071	2150	2069	1992	0.065	4512.21
2071	2072	2151	2070	1993	0.065	4509.08
2072	2073	2152	2071	1994	0.065	4505.17
2073	2074	2153	2072	1995	0.065	4498.11
2074	2075	2154	2073	1996	0.065	4503.75
2075	2076	2155	2074	1997	0.065	4487.53
2076	2077	2156	2075	1998	0.065	4484.30
2077	2078	2157	2076	1999	0.065	4479.29
2078	2079	2158	2077	2000	0.065	4476.15
2079	2080	2159	2078	2001	0.065	4470.80
2080	2081	2160	2079	2002	0.065	4466.34
2081	2082	2161	2080	2003	0.065	4463.32
2082	2083	2162	2081	2004	0.065	4459.14
2083	2084	2163	2082	2005	0.065	4453.90
2084	2085	2164	2083	2006	0.065	4451.44
2085	2086	2165	2084	2007	0.065	4451.21
2086	2087	2166	2085	2008	0.065	4449.81
2087	2088	2167	2086	2009	0.065	4444.95
2088	2089	2168	2087	2010	0.065	4442.32
2089	2090	2169	2088	2011	0.065	4440.45
2090	2091	2170	2089	2012	0.065	4436.87
2091	2092	2171	2090	2013	0.065	4436.11
2092	2093	2172	2091	2014	0.065	4434.21
2093	2094	2173	2092	2015	0.065	4432.27
2094	2095	2174	2093	2016	0.065	4431.88
2095	2096	2175	2094	2017	0.065	4429.45
2096	2097	2176	2095	2018	0.065	4426.07
2097	2098	2177	2096	2019	0.065	4424.27
2098	2099	2178	2097	2020	0.065	4422.79
2099	2100	2179	2098	2021	0.065	4417.26
2100	2101	2180	2099	2022	0.065	4413.23
2101	2102	2181	2100	2023	0.065	4410.73
2102	2103	2182	2101	2024	0.065	4407.62
2103	2104	2183	2102	2025	0.065	4405.57
2104	2105	2184	2103	2026	0.065	4403.63
2105	2106	2185	2104	2027	0.065	4401.46
2106	2107	2186	2105	2028	0.065	4403.92
2107	2108	2187	2106	2029	0.065	4401.93
2108	2109	2188	2107	2030	0.065	4403.23
2109	2110	2189	2108	2031	0.065	4402.83
2110	2111	2190	2109	2032	0.065	4403.05
2111	2112	2191	2110	2033	0.065	4403.73
2112	2113	2192	2111	2034	0.065	4404.24

			FPLAIN.DAT			
2113	2114	2193	2112	2035	0.065	4405.65
2114	2115	2194	2113	2036	0.065	4407.03
2115	2116	2195	2114	2037	0.065	4408.50
2116	2117	2196	2115	2038	0.065	4408.50
2117	2118	2197	2116	2039	0.065	4408.80
2118	2119	2198	2117	2040	0.065	4410.31
2119	2120	2199	2118	2041	0.065	4412.89
2120	2121	2200	2119	2042	0.065	4410.54
2121	2122	2201	2120	2043	0.065	4412.90
2122	2123	2202	2121	2044	0.065	4416.22
2123	2124	2203	2122	2045	0.065	4418.98
2124	2125	2204	2123	2046	0.065	4421.68
2125	2126	2205	2124	2047	0.065	4421.98
2126	2127	2206	2125	2048	0.065	4425.34
2127	2128	2207	2126	2049	0.065	4427.06
2128	2129	2208	2127	2050	0.065	4424.94
2129	2130	2209	2128	2051	0.065	4431.79
2130	2131	2210	2129	2052	0.065	4431.41
2131	2132	2211	2130	2053	0.065	4432.41
2132	2133	2212	2131	2054	0.065	4435.44
2133	2134	2213	2132	2055	0.065	4446.94
2134	2135	2214	2133	2056	0.065	4453.76
2135	2136	2215	2134	2057	0.065	4449.01
2136	2137	2216	2135	2058	0.065	4439.41
2137	2138	2217	2136	2059	0.065	4436.76
2138	2139	2218	2137	2060	0.065	4439.99
2139	2140	2219	2138	2061	0.065	4437.33
2140	2141	2220	2139	2062	0.065	4439.40
2141	2142	2221	2140	2063	0.065	4437.25
2142	2143	2222	2141	2064	0.065	4440.07
2143	2144	2223	2142	2065	0.065	4440.55
2144	0	2224	2143	2066	0.065	4444.24
2145	2146	2227	0	0	0.065	4531.77
2146	2147	2228	2145	0	0.065	4514.21
2147	2148	2229	2146	2067	0.065	4508.66
2148	2149	2230	2147	2068	0.065	4508.11
2149	2150	2231	2148	2069	0.065	4507.61
2150	2151	2232	2149	2070	0.065	4510.53
2151	2152	2233	2150	2071	0.065	4507.56
2152	2153	2234	2151	2072	0.065	4505.23
2153	2154	2235	2152	2073	0.065	4507.20
2154	2155	2236	2153	2074	0.065	4491.61
2155	2156	2237	2154	2075	0.065	4488.34
2156	2157	2238	2155	2076	0.065	4485.61
2157	2158	2239	2156	2077	0.065	4479.42
2158	2159	2240	2157	2078	0.065	4476.07
2159	2160	2241	2158	2079	0.065	4469.97
2160	2161	2242	2159	2080	0.065	4465.02
2161	2162	2243	2160	2081	0.065	4462.47
2162	2163	2244	2161	2082	0.065	4458.05
2163	2164	2245	2162	2083	0.065	4454.15
2164	2165	2246	2163	2084	0.065	4450.87
2165	2166	2247	2164	2085	0.065	4448.50
2166	2167	2248	2165	2086	0.065	4446.54
2167	2168	2249	2166	2087	0.065	4442.20
2168	2169	2250	2167	2088	0.065	4441.29
2169	2170	2251	2168	2089	0.065	4439.33
2170	2171	2252	2169	2090	0.065	4434.28
2171	2172	2253	2170	2091	0.065	4433.80
2172	2173	2254	2171	2092	0.065	4432.49
2173	2174	2255	2172	2093	0.065	4431.13
2174	2175	2256	2173	2094	0.065	4429.08
2175	2176	2257	2174	2095	0.065	4427.77
2176	2177	2258	2175	2096	0.065	4424.11
2177	2178	2259	2176	2097	0.065	4423.59
2178	2179	2260	2177	2098	0.065	4419.90



			FPLAIN.DAT			
2179	2180	2261	2178	2099	0.065	4414.78
2180	2181	2262	2179	2100	0.065	4413.33
2181	2182	2263	2180	2101	0.065	4411.00
2182	2183	2264	2181	2102	0.065	4408.44
2183	2184	2265	2182	2103	0.065	4405.79
2184	2185	2266	2183	2104	0.065	4403.76
2185	2186	2267	2184	2105	0.065	4403.40
2186	2187	2268	2185	2106	0.065	4402.04
2187	2188	2269	2186	2107	0.065	4400.28
2188	2189	2270	2187	2108	0.065	4400.15
2189	2190	2271	2188	2109	0.065	4402.23
2190	2191	2272	2189	2110	0.065	4402.48
2191	2192	2273	2190	2111	0.065	4402.66
2192	2193	2274	2191	2112	0.065	4404.21
2193	2194	2275	2192	2113	0.065	4406.52
2194	2195	2276	2193	2114	0.065	4408.69
2195	2196	2277	2194	2115	0.065	4409.84
2196	2197	2278	2195	2116	0.065	4410.60
2197	2198	2279	2196	2117	0.065	4410.25
2198	2199	2280	2197	2118	0.065	4412.06
2199	2200	2281	2198	2119	0.065	4414.03
2200	2201	2282	2199	2120	0.065	4412.60
2201	2202	2283	2200	2121	0.065	4414.65
2202	2203	2284	2201	2122	0.065	4413.43
2203	2204	2285	2202	2123	0.065	4418.94
2204	2205	2286	2203	2124	0.065	4422.10
2205	2206	2287	2204	2125	0.065	4423.02
2206	2207	2288	2205	2126	0.065	4426.87
2207	2208	2289	2206	2127	0.065	4426.75
2208	2209	2290	2207	2128	0.065	4419.75
2209	2210	2291	2208	2129	0.065	4432.75
2210	2211	2292	2209	2130	0.065	4432.26
2211	2212	2293	2210	2131	0.065	4432.40
2212	2213	2294	2211	2132	0.065	4430.78
2213	2214	2295	2212	2133	0.065	4429.27
2214	2215	2296	2213	2134	0.065	4447.56
2215	2216	2297	2214	2135	0.065	4451.30
2216	2217	2298	2215	2136	0.065	4437.72
2217	2218	2299	2216	2137	0.065	4433.20
2218	2219	2300	2217	2138	0.065	4436.21
2219	2220	2301	2218	2139	0.065	4436.15
2220	2221	2302	2219	2140	0.065	4438.41
2221	2222	2303	2220	2141	0.065	4437.17
2222	2223	2304	2221	2142	0.065	4438.50
2223	2224	2305	2222	2143	0.065	4439.75
2224	0	2306	2223	2144	0.065	4444.59
2225	2226	2309	0	0	0.065	4537.96
2226	2227	2310	2225	0	0.065	4526.67
2227	2228	2311	2226	2145	0.065	4529.63
2228	2229	2312	2227	2146	0.065	4519.33
2229	2230	2313	2228	2147	0.065	4508.42
2230	2231	2314	2229	2148	0.065	4499.11
2231	2232	2315	2230	2149	0.065	4504.35
2232	2233	2316	2231	2150	0.065	4503.49
2233	2234	2317	2232	2151	0.065	4508.14
2234	2235	2318	2233	2152	0.065	4530.76
2235	2236	2319	2234	2153	0.065	4506.57
2236	2237	2320	2235	2154	0.065	4488.96
2237	2238	2321	2236	2155	0.065	4515.51
2238	2239	2322	2237	2156	0.065	4482.85
2239	2240	2323	2238	2157	0.065	4482.40
2240	2241	2324	2239	2158	0.065	4567.92
2241	2242	2325	2240	2159	0.065	4467.81
2242	2243	2326	2241	2160	0.065	4462.34
2243	2244	2327	2242	2161	0.065	4458.85
2244	2245	2328	2243	2162	0.065	4456.29



			FPLAIN.DAT			
2245	2246	2329	2244	2163	0.065	4451.89
2246	2247	2330	2245	2164	0.065	4449.66
2247	2248	2331	2246	2165	0.065	4446.41
2248	2249	2332	2247	2166	0.065	4443.54
2249	2250	2333	2248	2167	0.065	4440.06
2250	2251	2334	2249	2168	0.065	4439.04
2251	2252	2335	2250	2169	0.065	4437.54
2252	2253	2336	2251	2170	0.065	4435.24
2253	2254	2337	2252	2171	0.065	4433.19
2254	2255	2338	2253	2172	0.065	4433.76
2255	2256	2339	2254	2173	0.065	4432.59
2256	2257	2340	2255	2174	0.065	4427.62
2257	2258	2341	2256	2175	0.065	4426.31
2258	2259	2342	2257	2176	0.065	4423.21
2259	2260	2343	2258	2177	0.065	4422.99
2260	2261	2344	2259	2178	0.065	4417.69
2261	2262	2345	2260	2179	0.065	4414.92
2262	2263	2346	2261	2180	0.065	4412.10
2263	2264	2347	2262	2181	0.065	4409.91
2264	2265	2348	2263	2182	0.065	4407.73
2265	2266	2349	2264	2183	0.065	4406.87
2266	2267	2350	2265	2184	0.065	4405.63
2267	2268	2351	2266	2185	0.065	4405.30
2268	2269	2352	2267	2186	0.065	4404.08
2269	2270	2353	2268	2187	0.065	4402.83
2270	2271	2354	2269	2188	0.065	4402.56
2271	2272	2355	2270	2189	0.065	4403.15
2272	2273	2356	2271	2190	0.065	4403.08
2273	2274	2357	2272	2191	0.065	4402.75
2274	2275	2358	2273	2192	0.065	4403.13
2275	2276	2359	2274	2193	0.065	4405.08
2276	2277	2360	2275	2194	0.065	4406.77
2277	2278	2361	2276	2195	0.065	4408.43
2278	2279	2362	2277	2196	0.065	4409.30
2279	2280	2363	2278	2197	0.065	4411.06
2280	2281	2364	2279	2198	0.065	4412.82
2281	2282	2365	2280	2199	0.065	4413.04
2282	2283	2366	2281	2200	0.065	4413.84
2283	2284	2367	2282	2201	0.065	4413.28
2284	2285	2368	2283	2202	0.065	4413.17
2285	2286	2369	2284	2203	0.065	4416.64
2286	2287	2370	2285	2204	0.065	4418.91
2287	2288	2371	2286	2205	0.065	4422.95
2288	2289	2372	2287	2206	0.065	4425.85
2289	2290	2373	2288	2207	0.065	4426.75
2290	2291	2374	2289	2208	0.065	4424.86
2291	2292	2375	2290	2209	0.065	4430.14
2292	2293	2376	2291	2210	0.065	4423.43
2293	2294	2377	2292	2211	0.065	4427.48
2294	2295	2378	2293	2212	0.065	4428.08
2295	2296	2379	2294	2213	0.065	4427.80
2296	2297	2380	2295	2214	0.065	4435.22
2297	2298	2381	2296	2215	0.065	4446.30
2298	2299	2382	2297	2216	0.065	4437.46
2299	2300	2383	2298	2217	0.065	4430.70
2300	2301	2384	2299	2218	0.065	4432.12
2301	2302	2385	2300	2219	0.065	4433.09
2302	2303	2386	2301	2220	0.065	4434.96
2303	2304	2387	2302	2221	0.065	4432.90
2304	2305	2388	2303	2222	0.065	4434.98
2305	2306	2389	2304	2223	0.065	4436.63
2306	0	2390	2305	2224	0.065	4442.92
2307	2308	2393	0	0	0.065	4528.33
2308	2309	2394	2307	0	0.065	4530.47
2309	2310	2395	2308	2225	0.065	4523.32
2310	2311	2396	2309	2226	0.065	4520.84

			FPLAIN.DAT			
2311	2312	2397	2310	2227	0.065	4514.66
2312	2313	2398	2311	2228	0.065	4510.22
2313	2314	2399	2312	2229	0.065	4501.93
2314	2315	2400	2313	2230	0.065	4501.00
2315	2316	2401	2314	2231	0.065	4507.66
2316	2317	2402	2315	2232	0.065	4514.04
2317	2318	2403	2316	2233	0.065	4489.36
2318	2319	2404	2317	2234	0.065	4488.18
2319	2320	2405	2318	2235	0.065	4490.31
2320	2321	2406	2319	2236	0.065	4558.74
2321	2322	2407	2320	2237	0.065	4583.78
2322	2323	2408	2321	2238	0.065	4572.44
2323	2324	2409	2322	2239	0.065	4591.11
2324	2325	2410	2323	2240	0.065	4667.72
2325	2326	2411	2324	2241	0.065	4557.57
2326	2327	2412	2325	2242	0.065	4462.02
2327	2328	2413	2326	2243	0.065	4456.45
2328	2329	2414	2327	2244	0.065	4456.22
2329	2330	2415	2328	2245	0.065	4472.06
2330	2331	2416	2329	2246	0.065	4448.45
2331	2332	2417	2330	2247	0.065	4445.54
2332	2333	2418	2331	2248	0.065	4442.93
2333	2334	2419	2332	2249	0.065	4440.40
2334	2335	2420	2333	2250	0.065	4436.68
2335	2336	2421	2334	2251	0.065	4434.64
2336	2337	2422	2335	2252	0.065	4431.96
2337	2338	2423	2336	2253	0.065	4433.10
2338	2339	2424	2337	2254	0.065	4431.43
2339	2340	2425	2338	2255	0.065	4431.10
2340	2341	2426	2339	2256	0.065	4426.78
2341	2342	2427	2340	2257	0.065	4421.22
2342	2343	2428	2341	2258	0.065	4422.81
2343	2344	2429	2342	2259	0.065	4422.02
2344	2345	2430	2343	2260	0.065	4419.16
2345	2346	2431	2344	2261	0.065	4417.22
2346	2347	2432	2345	2262	0.065	4411.54
2347	2348	2433	2346	2263	0.065	4409.98
2348	2349	2434	2347	2264	0.065	4406.26
2349	2350	2435	2348	2265	0.065	4404.12
2350	2351	2436	2349	2266	0.065	4404.01
2351	2352	2437	2350	2267	0.065	4401.92
2352	2353	2438	2351	2268	0.065	4400.67
2353	2354	2439	2352	2269	0.065	4401.63
2354	2355	2440	2353	2270	0.065	4399.96
2355	2356	2441	2354	2271	0.065	4401.98
2356	2357	2442	2355	2272	0.065	4399.52
2357	2358	2443	2356	2273	0.065	4399.79
2358	2359	2444	2357	2274	0.065	4401.45
2359	2360	2445	2358	2275	0.065	4401.52
2360	2361	2446	2359	2276	0.065	4403.03
2361	2362	2447	2360	2277	0.065	4402.89
2362	2363	2448	2361	2278	0.065	4405.19
2363	2364	2449	2362	2279	0.065	4405.63
2364	2365	2450	2363	2280	0.065	4408.22
2365	2366	2451	2364	2281	0.065	4410.62
2366	2367	2452	2365	2282	0.065	4410.09
2367	2368	2453	2366	2283	0.065	4411.15
2368	2369	2454	2367	2284	0.065	4412.53
2369	2370	2455	2368	2285	0.065	4416.52
2370	2371	2456	2369	2286	0.065	4420.77
2371	2372	2457	2370	2287	0.065	4421.80
2372	2373	2458	2371	2288	0.065	4423.72
2373	2374	2459	2372	2289	0.065	4422.20
2374	2375	2460	2373	2290	0.065	4419.68
2375	2376	2461	2374	2291	0.065	4421.88
2376	2377	2462	2375	2292	0.065	4422.28

			FPLAIN.DAT			
2377	2378	2463	2376	2293	0.065	4422.51
2378	2379	2464	2377	2294	0.065	4423.85
2379	2380	2465	2378	2295	0.065	4422.51
2380	2381	2466	2379	2296	0.065	4425.94
2381	2382	2467	2380	2297	0.065	4429.69
2382	2383	2468	2381	2298	0.065	4428.11
2383	2384	2469	2382	2299	0.065	4427.54
2384	2385	2470	2383	2300	0.065	4431.78
2385	2386	2471	2384	2301	0.065	4431.64
2386	2387	2472	2385	2302	0.065	4430.60
2387	2388	2473	2386	2303	0.065	4435.27
2388	2389	2474	2387	2304	0.065	4432.53
2389	2390	2475	2388	2305	0.065	4434.25
2390	0	2476	2389	2306	0.065	4436.65
2391	2392	2478	0	0	0.065	4531.52
2392	2393	2479	2391	0	0.065	4536.37
2393	2394	2480	2392	2307	0.065	4505.70
2394	2395	2481	2393	2308	0.065	4509.86
2395	2396	2482	2394	2309	0.065	4503.78
2396	2397	2483	2395	2310	0.065	4504.62
2397	2398	2484	2396	2311	0.065	4508.02
2398	2399	2485	2397	2312	0.065	4503.54
2399	2400	2486	2398	2313	0.065	4512.51
2400	2401	2487	2399	2314	0.065	4489.29
2401	2402	2488	2400	2315	0.065	4488.60
2402	2403	2489	2401	2316	0.065	4484.96
2403	2404	2490	2402	2317	0.065	4480.76
2404	2405	2491	2403	2318	0.065	4479.65
2405	2406	2492	2404	2319	0.065	4478.05
2406	2407	2493	2405	2320	0.065	4523.49
2407	2408	2494	2406	2321	0.065	4470.07
2408	2409	2495	2407	2322	0.065	4483.38
2409	2410	2496	2408	2323	0.065	4547.83
2410	2411	2497	2409	2324	0.065	4556.94
2411	2412	2498	2410	2325	0.065	4513.02
2412	2413	2499	2411	2326	0.065	4457.94
2413	2414	2500	2412	2327	0.065	4457.21
2414	2415	2501	2413	2328	0.065	4453.59
2415	2416	2502	2414	2329	0.065	4450.85
2416	2417	2503	2415	2330	0.065	4449.01
2417	2418	2504	2416	2331	0.065	4454.94
2418	2419	2505	2417	2332	0.065	4510.11
2419	2420	2506	2418	2333	0.065	4439.92
2420	2421	2507	2419	2334	0.065	4436.18
2421	2422	2508	2420	2335	0.065	4433.59
2422	2423	2509	2421	2336	0.065	4431.76
2423	2424	2510	2422	2337	0.065	4429.87
2424	2425	2511	2423	2338	0.065	4428.05
2425	2426	2512	2424	2339	0.065	4427.71
2426	2427	2513	2425	2340	0.065	4427.84
2427	2428	2514	2426	2341	0.065	4425.19
2428	2429	2515	2427	2342	0.065	4423.01
2429	2430	2516	2428	2343	0.065	4420.05
2430	2431	2517	2429	2344	0.065	4415.03
2431	2432	2518	2430	2345	0.065	4414.85
2432	2433	2519	2431	2346	0.065	4411.22
2433	2434	2520	2432	2347	0.065	4410.36
2434	2435	2521	2433	2348	0.065	4407.13
2435	2436	2522	2434	2349	0.065	4404.11
2436	2437	2523	2435	2350	0.065	4404.19
2437	2438	2524	2436	2351	0.065	4402.31
2438	2439	2525	2437	2352	0.065	4400.80
2439	2440	2526	2438	2353	0.065	4401.28
2440	2441	2527	2439	2354	0.065	4399.04
2441	2442	2528	2440	2355	0.065	4400.81
2442	2443	2529	2441	2356	0.065	4399.84

			FPLAIN.DAT			
2443	2444	2530	2442	2357	0.065	4402.23
2444	2445	2531	2443	2358	0.065	4402.32
2445	2446	2532	2444	2359	0.065	4400.87
2446	2447	2533	2445	2360	0.065	4402.66
2447	2448	2534	2446	2361	0.065	4403.01
2448	2449	2535	2447	2362	0.065	4404.79
2449	2450	2536	2448	2363	0.065	4406.07
2450	2451	2537	2449	2364	0.065	4408.36
2451	2452	2538	2450	2365	0.065	4409.95
2452	2453	2539	2451	2366	0.065	4410.92
2453	2454	2540	2452	2367	0.065	4412.51
2454	2455	2541	2453	2368	0.065	4413.82
2455	2456	2542	2454	2369	0.065	4415.40
2456	2457	2543	2455	2370	0.065	4419.59
2457	2458	2544	2456	2371	0.065	4418.31
2458	2459	2545	2457	2372	0.065	4420.16
2459	2460	2546	2458	2373	0.065	4421.90
2460	2461	2547	2459	2374	0.065	4423.97
2461	2462	2548	2460	2375	0.065	4418.64
2462	2463	2549	2461	2376	0.065	4418.53
2463	2464	2550	2462	2377	0.065	4419.22
2464	2465	2551	2463	2378	0.065	4421.09
2465	2466	2552	2464	2379	0.065	4419.41
2466	2467	2553	2465	2380	0.065	4422.06
2467	2468	2554	2466	2381	0.065	4424.73
2468	2469	2555	2467	2382	0.065	4428.59
2469	2470	2556	2468	2383	0.065	4426.59
2470	2471	2557	2469	2384	0.065	4427.84
2471	2472	2558	2470	2385	0.065	4429.35
2472	2473	2559	2471	2386	0.065	4430.21
2473	2474	2560	2472	2387	0.065	4433.37
2474	2475	2561	2473	2388	0.065	4431.43
2475	2476	2562	2474	2389	0.065	4431.52
2476	0	2563	2475	2390	0.065	4434.87
2477	2478	2566	0	0	0.065	4537.19
2478	2479	2567	2477	2391	0.065	4529.09
2479	2480	2568	2478	2392	0.065	4522.88
2480	2481	2569	2479	2393	0.065	4512.86
2481	2482	2570	2480	2394	0.065	4496.29
2482	2483	2571	2481	2395	0.065	4493.00
2483	2484	2572	2482	2396	0.065	4491.65
2484	2485	2573	2483	2397	0.065	4505.40
2485	2486	2574	2484	2398	0.065	4490.51
2486	2487	2575	2485	2399	0.065	4492.20
2487	2488	2576	2486	2400	0.065	4485.42
2488	2489	2577	2487	2401	0.065	4482.11
2489	2490	2578	2488	2402	0.065	4477.62
2490	2491	2579	2489	2403	0.065	4476.56
2491	2492	2580	2490	2404	0.065	4471.45
2492	2493	2581	2491	2405	0.065	4467.93
2493	2494	2582	2492	2406	0.065	4465.75
2494	2495	2583	2493	2407	0.065	4465.57
2495	2496	2584	2494	2408	0.065	4464.99
2496	2497	2585	2495	2409	0.065	4467.57
2497	2498	2586	2496	2410	0.065	4467.17
2498	2499	2587	2497	2411	0.065	4471.25
2499	2500	2588	2498	2412	0.065	4455.44
2500	2501	2589	2499	2413	0.065	4453.71
2501	2502	2590	2500	2414	0.065	4485.54
2502	2503	2591	2501	2415	0.065	4451.86
2503	2504	2592	2502	2416	0.065	4467.03
2504	2505	2593	2503	2417	0.065	4570.96
2505	2506	2594	2504	2418	0.065	4593.36
2506	2507	2595	2505	2419	0.065	4437.84
2507	2508	2596	2506	2420	0.065	4435.39
2508	2509	2597	2507	2421	0.065	4434.86

			FPLAIN.DAT			
2509	2510	2598	2508	2422	0.065	4429.08
2510	2511	0	2509	2423	0.065	4424.90
2511	2512	0	2510	2424	0.065	4426.55
2512	2513	0	2511	2425	0.065	4423.85
2513	2514	0	2512	2426	0.065	4425.09
2514	2515	2599	2513	2427	0.065	4423.46
2515	2516	2600	2514	2428	0.065	4421.58
2516	2517	2601	2515	2429	0.065	4418.85
2517	2518	2602	2516	2430	0.065	4416.70
2518	2519	2603	2517	2431	0.065	4415.48
2519	2520	2604	2518	2432	0.065	4411.31
2520	2521	2605	2519	2433	0.065	4409.41
2521	2522	2606	2520	2434	0.065	4405.73
2522	2523	2607	2521	2435	0.065	4401.46
2523	2524	2608	2522	2436	0.065	4400.19
2524	2525	2609	2523	2437	0.065	4399.17
2525	2526	2610	2524	2438	0.065	4399.02
2526	2527	2611	2525	2439	0.065	4398.46
2527	2528	2612	2526	2440	0.065	4396.17
2528	2529	2613	2527	2441	0.065	4399.98
2529	2530	2614	2528	2442	0.065	4399.10
2530	2531	2615	2529	2443	0.065	4400.46
2531	2532	2616	2530	2444	0.065	4401.11
2532	2533	2617	2531	2445	0.065	4401.89
2533	2534	2618	2532	2446	0.065	4400.82
2534	2535	2619	2533	2447	0.065	4403.01
2535	2536	2620	2534	2448	0.065	4403.26
2536	2537	2621	2535	2449	0.065	4404.40
2537	2538	2622	2536	2450	0.065	4405.55
2538	2539	2623	2537	2451	0.065	4407.99
2539	2540	2624	2538	2452	0.065	4409.40
2540	2541	2625	2539	2453	0.065	4411.18
2541	2542	2626	2540	2454	0.065	4413.61
2542	2543	2627	2541	2455	0.065	4414.77
2543	2544	2628	2542	2456	0.065	4417.50
2544	2545	2629	2543	2457	0.065	4417.04
2545	2546	2630	2544	2458	0.065	4419.04
2546	2547	2631	2545	2459	0.065	4416.54
2547	2548	2632	2546	2460	0.065	4416.55
2548	2549	2633	2547	2461	0.065	4416.68
2549	2550	2634	2548	2462	0.065	4417.01
2550	2551	2635	2549	2463	0.065	4419.17
2551	2552	2636	2550	2464	0.065	4418.05
2552	2553	2637	2551	2465	0.065	4415.71
2553	2554	2638	2552	2466	0.065	4419.35
2554	2555	2639	2553	2467	0.065	4422.76
2555	2556	2640	2554	2468	0.065	4422.72
2556	2557	2641	2555	2469	0.065	4425.73
2557	2558	2642	2556	2470	0.065	4427.00
2558	2559	2643	2557	2471	0.065	4426.12
2559	2560	2644	2558	2472	0.065	4427.30
2560	2561	2645	2559	2473	0.065	4428.04
2561	2562	2646	2560	2474	0.065	4429.92
2562	2563	2647	2561	2475	0.065	4428.87
2563	0	2648	2562	2476	0.065	4431.64
2564	2565	2651	0	0	0.065	4539.42
2565	2566	2652	2564	0	0.065	4534.91
2566	2567	2653	2565	2477	0.065	4531.14
2567	2568	2654	2566	2478	0.065	4522.62
2568	2569	2655	2567	2479	0.065	4515.32
2569	2570	2656	2568	2480	0.065	4507.01
2570	2571	2657	2569	2481	0.065	4500.71
2571	2572	2658	2570	2482	0.065	4495.28
2572	2573	2659	2571	2483	0.065	4498.26
2573	2574	2660	2572	2484	0.065	4484.51
2574	2575	2661	2573	2485	0.065	4486.19

			FPLAIN.DAT			
2575	2576	2662	2574	2486	0.065	4486.11
2576	2577	2663	2575	2487	0.065	4481.03
2577	2578	2664	2576	2488	0.065	4478.30
2578	2579	2665	2577	2489	0.065	4472.78
2579	2580	2666	2578	2490	0.065	4470.46
2580	2581	2667	2579	2491	0.065	4467.29
2581	2582	2668	2580	2492	0.065	4463.30
2582	2583	2669	2581	2493	0.065	4462.45
2583	2584	2670	2582	2494	0.065	4462.98
2584	2585	2671	2583	2495	0.065	4466.29
2585	2586	2672	2584	2496	0.065	4466.76
2586	2587	2673	2585	2497	0.065	4462.93
2587	2588	2674	2586	2498	0.065	4456.17
2588	2589	2675	2587	2499	0.065	4458.24
2589	2590	2676	2588	2500	0.065	4457.96
2590	2591	2677	2589	2501	0.065	4524.25
2591	2592	2678	2590	2502	0.065	4503.75
2592	2593	2679	2591	2503	0.065	4664.54
2593	2594	2680	2592	2504	0.065	4659.85
2594	2595	2681	2593	2505	0.065	4611.94
2595	2596	2682	2594	2506	0.065	4534.32
2596	2597	2683	2595	2507	0.065	4471.25
2597	2598	2684	2596	2508	0.065	4431.33
2598	0	2685	2597	2509	0.065	4434.59
2599	2600	2686	0	2514	0.065	4421.77
2600	2601	2687	2599	2515	0.065	4419.29
2601	2602	2688	2600	2516	0.065	4417.30
2602	2603	2689	2601	2517	0.065	4412.80
2603	2604	2690	2602	2518	0.065	4413.41
2604	2605	2691	2603	2519	0.065	4409.24
2605	2606	2692	2604	2520	0.065	4408.47
2606	2607	2693	2605	2521	0.065	4405.52
2607	2608	2694	2606	2522	0.065	4403.81
2608	2609	2695	2607	2523	0.065	4400.75
2609	2610	2696	2608	2524	0.065	4399.83
2610	2611	2697	2609	2525	0.065	4400.24
2611	2612	2698	2610	2526	0.065	4407.70
2612	2613	2699	2611	2527	0.065	4396.92
2613	2614	2700	2612	2528	0.065	4399.31
2614	2615	2701	2613	2529	0.065	4397.22
2615	2616	2702	2614	2530	0.065	4397.66
2616	2617	2703	2615	2531	0.065	4398.65
2617	2618	2704	2616	2532	0.065	4400.72
2618	2619	2705	2617	2533	0.065	4398.87
2619	2620	2706	2618	2534	0.065	4397.00
2620	2621	2707	2619	2535	0.065	4403.91
2621	2622	2708	2620	2536	0.065	4403.74
2622	2623	2709	2621	2537	0.065	4405.61
2623	2624	2710	2622	2538	0.065	4406.25
2624	2625	2711	2623	2539	0.065	4408.00
2625	2626	2712	2624	2540	0.065	4410.10
2626	2627	2713	2625	2541	0.065	4410.71
2627	2628	2714	2626	2542	0.065	4414.64
2628	2629	2715	2627	2543	0.065	4415.75
2629	2630	2716	2628	2544	0.065	4415.87
2630	2631	2717	2629	2545	0.065	4415.74
2631	2632	2718	2630	2546	0.065	4418.67
2632	2633	2719	2631	2547	0.065	4418.98
2633	2634	2720	2632	2548	0.065	4416.48
2634	2635	2721	2633	2549	0.065	4415.05
2635	2636	2722	2634	2550	0.065	4418.89
2636	2637	2723	2635	2551	0.065	4418.05
2637	2638	2724	2636	2552	0.065	4417.21
2638	2639	2725	2637	2553	0.065	4419.15
2639	2640	2726	2638	2554	0.065	4422.27
2640	2641	2727	2639	2555	0.065	4422.30



			FPLAIN.DAT			
2641	2642	2728	2640	2556	0.065	4423.04
2642	2643	2729	2641	2557	0.065	4424.07
2643	2644	2730	2642	2558	0.065	4425.52
2644	2645	2731	2643	2559	0.065	4425.60
2645	2646	2732	2644	2560	0.065	4426.61
2646	2647	2733	2645	2561	0.065	4426.88
2647	2648	2734	2646	2562	0.065	4430.11
2648	0	2735	2647	2563	0.065	4429.54
2649	2650	2737	0	0	0.065	4539.80
2650	2651	2738	2649	0	0.065	4536.50
2651	2652	2739	2650	2564	0.065	4535.85
2652	2653	2740	2651	2565	0.065	4526.80
2653	2654	2741	2652	2566	0.065	4521.53
2654	2655	2742	2653	2567	0.065	4515.11
2655	2656	2743	2654	2568	0.065	4507.33
2656	2657	2744	2655	2569	0.065	4502.10
2657	2658	2745	2656	2570	0.065	4493.86
2658	2659	2746	2657	2571	0.065	4490.02
2659	2660	2747	2658	2572	0.065	4485.80
2660	2661	2748	2659	2573	0.065	4489.71
2661	2662	2749	2660	2574	0.065	4483.44
2662	2663	2750	2661	2575	0.065	4479.09
2663	2664	2751	2662	2576	0.065	4479.19
2664	2665	2752	2663	2577	0.065	4475.10
2665	2666	2753	2664	2578	0.065	4466.71
2666	2667	2754	2665	2579	0.065	4467.86
2667	2668	2755	2666	2580	0.065	4464.67
2668	2669	2756	2667	2581	0.065	4462.64
2669	2670	2757	2668	2582	0.065	4458.32
2670	2671	2758	2669	2583	0.065	4460.13
2671	2672	2759	2670	2584	0.065	4454.24
2672	2673	2760	2671	2585	0.065	4461.44
2673	2674	2761	2672	2586	0.065	4464.38
2674	2675	2762	2673	2587	0.065	4503.37
2675	2676	2763	2674	2588	0.065	4495.31
2676	2677	2764	2675	2589	0.065	4569.93
2677	2678	2765	2676	2590	0.065	4616.27
2678	2679	2766	2677	2591	0.065	4629.24
2679	2680	2767	2678	2592	0.065	4616.55
2680	2681	2768	2679	2593	0.065	4586.36
2681	2682	2769	2680	2594	0.065	4564.73
2682	2683	2770	2681	2595	0.065	4622.65
2683	2684	2771	2682	2596	0.065	4490.30
2684	2685	2772	2683	2597	0.065	4431.74
2685	0	0	2684	2598	0.065	4504.87
2686	2687	2773	0	2599	0.065	4418.34
2687	2688	2774	2686	2600	0.065	4416.70
2688	2689	2775	2687	2601	0.065	4417.68
2689	2690	2776	2688	2602	0.065	4413.77
2690	2691	2777	2689	2603	0.065	4410.13
2691	2692	2778	2690	2604	0.065	4410.04
2692	2693	2779	2691	2605	0.065	4409.02
2693	2694	2780	2692	2606	0.065	4404.68
2694	2695	2781	2693	2607	0.065	4402.43
2695	2696	2782	2694	2608	0.065	4402.63
2696	2697	2783	2695	2609	0.065	4399.04
2697	2698	2784	2696	2610	0.065	4398.67
2698	2699	2785	2697	2611	0.065	4397.51
2699	2700	2786	2698	2612	0.065	4396.96
2700	2701	2787	2699	2613	0.065	4398.99
2701	2702	2788	2700	2614	0.065	4397.72
2702	2703	2789	2701	2615	0.065	4399.65
2703	2704	2790	2702	2616	0.065	4399.02
2704	2705	2791	2703	2617	0.065	4400.75
2705	2706	2792	2704	2618	0.065	4401.20
2706	2707	2793	2705	2619	0.065	4400.38



			FPLAIN.DAT			
2707	2708	2794	2706	2620	0.065	4403.17
2708	2709	2795	2707	2621	0.065	4401.13
2709	2710	2796	2708	2622	0.065	4403.82
2710	2711	2797	2709	2623	0.065	4405.10
2711	2712	2798	2710	2624	0.065	4407.03
2712	2713	2799	2711	2625	0.065	4409.81
2713	2714	2800	2712	2626	0.065	4413.32
2714	2715	2801	2713	2627	0.065	4413.17
2715	2716	2802	2714	2628	0.065	4413.90
2716	2717	2803	2715	2629	0.065	4415.10
2717	2718	2804	2716	2630	0.065	4414.88
2718	2719	2805	2717	2631	0.065	4415.29
2719	2720	2806	2718	2632	0.065	4416.58
2720	2721	2807	2719	2633	0.065	4415.43
2721	2722	2808	2720	2634	0.065	4414.93
2722	2723	2809	2721	2635	0.065	4413.66
2723	2724	2810	2722	2636	0.065	4414.45
2724	2725	2811	2723	2637	0.065	4417.09
2725	2726	2812	2724	2638	0.065	4417.83
2726	2727	2813	2725	2639	0.065	4420.94
2727	2728	2814	2726	2640	0.065	4420.90
2728	2729	2815	2727	2641	0.065	4421.08
2729	2730	2816	2728	2642	0.065	4422.33
2730	2731	2817	2729	2643	0.065	4424.97
2731	2732	2818	2730	2644	0.065	4424.03
2732	2733	2819	2731	2645	0.065	4425.76
2733	2734	2820	2732	2646	0.065	4426.51
2734	2735	2821	2733	2647	0.065	4426.92
2735	0	0	2734	2648	0.065	4427.53
2736	2737	2822	0	0	0.065	4534.46
2737	2738	2823	2736	2649	0.065	4529.51
2738	2739	2824	2737	2650	0.065	4526.43
2739	2740	2825	2738	2651	0.065	4524.54
2740	2741	2826	2739	2652	0.065	4519.69
2741	2742	2827	2740	2653	0.065	4515.22
2742	2743	2828	2741	2654	0.065	4505.47
2743	2744	2829	2742	2655	0.065	4512.68
2744	2745	2830	2743	2656	0.065	4493.34
2745	2746	2831	2744	2657	0.065	4488.33
2746	2747	2832	2745	2658	0.065	4484.12
2747	2748	2833	2746	2659	0.065	4480.22
2748	2749	2834	2747	2660	0.065	4480.47
2749	2750	2835	2748	2661	0.065	4480.05
2750	2751	2836	2749	2662	0.065	4476.93
2751	2752	2837	2750	2663	0.065	4471.81
2752	2753	2838	2751	2664	0.065	4469.95
2753	2754	2839	2752	2665	0.065	4458.62
2754	2755	2840	2753	2666	0.065	4462.88
2755	2756	2841	2754	2667	0.065	4463.89
2756	2757	2842	2755	2668	0.065	4462.08
2757	2758	2843	2756	2669	0.065	4457.09
2758	2759	2844	2757	2670	0.065	4455.06
2759	2760	2845	2758	2671	0.065	4453.51
2760	2761	2846	2759	2672	0.065	4461.81
2761	2762	2847	2760	2673	0.065	4450.76
2762	2763	2848	2761	2674	0.065	4517.85
2763	2764	2849	2762	2675	0.065	4497.52
2764	2765	2850	2763	2676	0.065	4566.32
2765	2766	2851	2764	2677	0.065	4627.35
2766	2767	2852	2765	2678	0.065	4605.23
2767	2768	2853	2766	2679	0.065	4566.27
2768	2769	2854	2767	2680	0.065	4528.90
2769	2770	2855	2768	2681	0.065	4534.49
2770	2771	2856	2769	2682	0.065	4457.84
2771	2772	0	2770	2683	0.065	4436.79
2772	0	0	2771	2684	0.065	4454.52

			FPLAIN.DAT			
2773	2774	2857	0	2686	0.065	4441.37
2774	2775	2858	2773	2687	0.065	4416.49
2775	2776	2859	2774	2688	0.065	4414.44
2776	2777	2860	2775	2689	0.065	4409.87
2777	2778	2861	2776	2690	0.065	4409.55
2778	2779	2862	2777	2691	0.065	4406.99
2779	2780	2863	2778	2692	0.065	4404.50
2780	2781	2864	2779	2693	0.065	4400.83
2781	2782	2865	2780	2694	0.065	4401.56
2782	2783	2866	2781	2695	0.065	4401.77
2783	2784	2867	2782	2696	0.065	4400.15
2784	2785	2868	2783	2697	0.065	4399.57
2785	2786	2869	2784	2698	0.065	4398.27
2786	2787	2870	2785	2699	0.065	4395.97
2787	2788	2871	2786	2700	0.065	4398.72
2788	2789	2872	2787	2701	0.065	4397.83
2789	2790	2873	2788	2702	0.065	4396.41
2790	2791	2874	2789	2703	0.065	4399.00
2791	2792	2875	2790	2704	0.065	4401.23
2792	2793	2876	2791	2705	0.065	4400.25
2793	2794	2877	2792	2706	0.065	4399.00
2794	2795	2878	2793	2707	0.065	4399.97
2795	2796	2879	2794	2708	0.065	4402.29
2796	2797	2880	2795	2709	0.065	4401.63
2797	2798	2881	2796	2710	0.065	4407.20
2798	2799	2882	2797	2711	0.065	4407.49
2799	2800	2883	2798	2712	0.065	4408.26
2800	2801	2884	2799	2713	0.065	4411.46
2801	2802	2885	2800	2714	0.065	4411.89
2802	2803	2886	2801	2715	0.065	4414.26
2803	2804	2887	2802	2716	0.065	4414.50
2804	2805	2888	2803	2717	0.065	4413.85
2805	2806	2889	2804	2718	0.065	4413.38
2806	2807	2890	2805	2719	0.065	4414.30
2807	2808	2891	2806	2720	0.065	4414.01
2808	2809	2892	2807	2721	0.065	4412.62
2809	2810	2893	2808	2722	0.065	4413.80
2810	2811	2894	2809	2723	0.065	4415.34
2811	2812	2895	2810	2724	0.065	4415.25
2812	2813	2896	2811	2725	0.065	4416.35
2813	2814	2897	2812	2726	0.065	4420.10
2814	2815	2898	2813	2727	0.065	4417.87
2815	2816	2899	2814	2728	0.065	4419.50
2816	2817	2900	2815	2729	0.065	4420.56
2817	2818	2901	2816	2730	0.065	4420.40
2818	2819	2902	2817	2731	0.065	4422.40
2819	2820	2903	2818	2732	0.065	4421.73
2820	2821	2904	2819	2733	0.065	4424.46
2821	0	2905	2820	2734	0.065	4425.52
2822	2823	2906	0	2736	0.065	4528.49
2823	2824	2907	2822	2737	0.065	4519.57
2824	2825	2908	2823	2738	0.065	4516.01
2825	2826	2909	2824	2739	0.065	4513.86
2826	2827	2910	2825	2740	0.065	4512.21
2827	2828	2911	2826	2741	0.065	4520.20
2828	2829	2912	2827	2742	0.065	4498.93
2829	2830	2913	2828	2743	0.065	4493.59
2830	2831	2914	2829	2744	0.065	4487.62
2831	2832	2915	2830	2745	0.065	4482.30
2832	2833	2916	2831	2746	0.065	4478.08
2833	2834	2917	2832	2747	0.065	4475.54
2834	2835	2918	2833	2748	0.065	4473.43
2835	2836	2919	2834	2749	0.065	4471.16
2836	2837	2920	2835	2750	0.065	4475.93
2837	2838	2921	2836	2751	0.065	4476.45
2838	2839	2922	2837	2752	0.065	4465.19

			FPLAIN.DAT			
2839	2840	2923	2838	2753	0.065	4455.06
2840	2841	2924	2839	2754	0.065	4456.34
2841	2842	2925	2840	2755	0.065	4463.85
2842	2843	2926	2841	2756	0.065	4459.50
2843	2844	2927	2842	2757	0.065	4456.66
2844	2845	2928	2843	2758	0.065	4454.81
2845	2846	2929	2844	2759	0.065	4452.71
2846	2847	2930	2845	2760	0.065	4450.04
2847	2848	2931	2846	2761	0.065	4449.91
2848	2849	2932	2847	2762	0.065	4451.42
2849	2850	2933	2848	2763	0.065	4520.78
2850	2851	2934	2849	2764	0.065	4638.51
2851	2852	2935	2850	2765	0.065	4733.48
2852	2853	2936	2851	2766	0.065	4736.97
2853	2854	2937	2852	2767	0.065	4668.27
2854	2855	2938	2853	2768	0.065	4588.63
2855	2856	2939	2854	2769	0.065	4584.89
2856	0	2940	2855	2770	0.065	4549.52
2857	2858	2943	0	2773	0.065	4413.10
2858	2859	2944	2857	2774	0.065	4413.95
2859	2860	2945	2858	2775	0.065	4413.80
2860	2861	2946	2859	2776	0.065	4412.68
2861	2862	2947	2860	2777	0.065	4406.50
2862	2863	2948	2861	2778	0.065	4405.30
2863	2864	2949	2862	2779	0.065	4403.27
2864	2865	2950	2863	2780	0.065	4401.47
2865	2866	2951	2864	2781	0.065	4398.47
2866	2867	2952	2865	2782	0.065	4394.13
2867	2868	2953	2866	2783	0.065	4397.35
2868	2869	2954	2867	2784	0.065	4399.81
2869	2870	2955	2868	2785	0.065	4396.20
2870	2871	2956	2869	2786	0.065	4391.76
2871	2872	2957	2870	2787	0.065	4397.54
2872	2873	2958	2871	2788	0.065	4396.75
2873	2874	2959	2872	2789	0.065	4393.23
2874	2875	2960	2873	2790	0.065	4398.00
2875	2876	2961	2874	2791	0.065	4400.33
2876	2877	2962	2875	2792	0.065	4398.55
2877	2878	2963	2876	2793	0.065	4397.72
2878	2879	2964	2877	2794	0.065	4401.73
2879	2880	2965	2878	2795	0.065	4402.61
2880	2881	2966	2879	2796	0.065	4403.80
2881	2882	2967	2880	2797	0.065	4403.75
2882	2883	2968	2881	2798	0.065	4408.86
2883	2884	2969	2882	2799	0.065	4407.47
2884	2885	2970	2883	2800	0.065	4408.28
2885	2886	2971	2884	2801	0.065	4410.19
2886	2887	2972	2885	2802	0.065	4411.29
2887	2888	2973	2886	2803	0.065	4411.16
2888	2889	2974	2887	2804	0.065	4411.15
2889	2890	2975	2888	2805	0.065	4410.51
2890	2891	2976	2889	2806	0.065	4413.46
2891	2892	2977	2890	2807	0.065	4413.80
2892	2893	2978	2891	2808	0.065	4411.74
2893	2894	2979	2892	2809	0.065	4413.04
2894	2895	2980	2893	2810	0.065	4414.67
2895	2896	2981	2894	2811	0.065	4413.30
2896	2897	2982	2895	2812	0.065	4416.55
2897	2898	2983	2896	2813	0.065	4418.60
2898	2899	2984	2897	2814	0.065	4416.58
2899	2900	2985	2898	2815	0.065	4417.49
2900	2901	2986	2899	2816	0.065	4418.12
2901	2902	2987	2900	2817	0.065	4417.61
2902	2903	2988	2901	2818	0.065	4418.58
2903	2904	2989	2902	2819	0.065	4419.82
2904	2905	2990	2903	2820	0.065	4422.81

			FPLAIN.DAT			
2905	0	2991	2904	2821	0.065	4425.84
2906	2907	2992	0	2822	0.065	4522.62
2907	2908	2993	2906	2823	0.065	4515.30
2908	2909	2994	2907	2824	0.065	4509.94
2909	2910	2995	2908	2825	0.065	4504.17
2910	2911	2996	2909	2826	0.065	4524.26
2911	2912	2997	2910	2827	0.065	4496.15
2912	2913	2998	2911	2828	0.065	4492.24
2913	2914	2999	2912	2829	0.065	4487.24
2914	2915	3000	2913	2830	0.065	4481.18
2915	2916	3001	2914	2831	0.065	4476.42
2916	2917	3002	2915	2832	0.065	4471.94
2917	2918	3003	2916	2833	0.065	4469.44
2918	2919	3004	2917	2834	0.065	4466.62
2919	2920	3005	2918	2835	0.065	4465.96
2920	2921	3006	2919	2836	0.065	4466.47
2921	2922	3007	2920	2837	0.065	4467.05
2922	2923	3008	2921	2838	0.065	4464.93
2923	2924	3009	2922	2839	0.065	4453.33
2924	2925	3010	2923	2840	0.065	4459.20
2925	2926	3011	2924	2841	0.065	4459.96
2926	2927	3012	2925	2842	0.065	4457.55
2927	2928	3013	2926	2843	0.065	4455.00
2928	2929	3014	2927	2844	0.065	4452.52
2929	2930	3015	2928	2845	0.065	4450.14
2930	2931	3016	2929	2846	0.065	4447.47
2931	2932	3017	2930	2847	0.065	4446.91
2932	2933	3018	2931	2848	0.065	4453.25
2933	2934	3019	2932	2849	0.065	4574.96
2934	2935	3020	2933	2850	0.065	4702.28
2935	2936	3021	2934	2851	0.065	4791.27
2936	2937	3022	2935	2852	0.065	4745.94
2937	2938	3023	2936	2853	0.065	4678.85
2938	2939	3024	2937	2854	0.065	4653.54
2939	2940	3025	2938	2855	0.065	4630.23
2940	0	3026	2939	2856	0.065	4621.73
2941	2942	3028	0	0	0.065	4438.33
2942	2943	3029	2941	0	0.065	4437.53
2943	2944	3030	2942	2857	0.065	4403.30
2944	2945	3031	2943	2858	0.065	4404.68
2945	2946	3032	2944	2859	0.065	4404.35
2946	2947	3033	2945	2860	0.065	4406.20
2947	2948	3034	2946	2861	0.065	4406.24
2948	2949	3035	2947	2862	0.065	4404.58
2949	2950	3036	2948	2863	0.065	4403.12
2950	2951	3037	2949	2864	0.065	4394.82
2951	2952	3038	2950	2865	0.065	4397.71
2952	2953	3039	2951	2866	0.065	4396.15
2953	2954	3040	2952	2867	0.065	4396.56
2954	2955	3041	2953	2868	0.065	4401.98
2955	2956	3042	2954	2869	0.065	4398.77
2956	2957	3043	2955	2870	0.065	4392.11
2957	2958	3044	2956	2871	0.065	4397.54
2958	2959	3045	2957	2872	0.065	4396.10
2959	2960	3046	2958	2873	0.065	4394.39
2960	2961	3047	2959	2874	0.065	4397.00
2961	2962	3048	2960	2875	0.065	4401.08
2962	2963	3049	2961	2876	0.065	4400.17
2963	2964	3050	2962	2877	0.065	4398.54
2964	2965	3051	2963	2878	0.065	4399.80
2965	2966	3052	2964	2879	0.065	4401.80
2966	2967	3053	2965	2880	0.065	4404.43
2967	2968	3054	2966	2881	0.065	4406.27
2968	2969	3055	2967	2882	0.065	4406.70
2969	2970	3056	2968	2883	0.065	4406.99
2970	2971	3057	2969	2884	0.065	4407.03

			FPLAIN.DAT			
2971	2972	3058	2970	2885	0.065	4408.04
2972	2973	3059	2971	2886	0.065	4408.23
2973	2974	3060	2972	2887	0.065	4411.49
2974	2975	3061	2973	2888	0.065	4410.59
2975	2976	3062	2974	2889	0.065	4409.31
2976	2977	3063	2975	2890	0.065	4411.87
2977	2978	3064	2976	2891	0.065	4409.22
2978	2979	3065	2977	2892	0.065	4410.99
2979	2980	3066	2978	2893	0.065	4411.55
2980	2981	3067	2979	2894	0.065	4411.85
2981	2982	3068	2980	2895	0.065	4411.26
2982	2983	3069	2981	2896	0.065	4414.03
2983	2984	3070	2982	2897	0.065	4416.89
2984	2985	3071	2983	2898	0.065	4416.91
2985	2986	3072	2984	2899	0.065	4416.63
2986	2987	3073	2985	2900	0.065	4416.59
2987	2988	3074	2986	2901	0.065	4416.11
2988	2989	3075	2987	2902	0.065	4416.99
2989	2990	3076	2988	2903	0.065	4417.98
2990	2991	3077	2989	2904	0.065	4419.19
2991	0	3078	2990	2905	0.065	4421.64
2992	2993	0	0	2906	0.065	4514.90
2993	2994	0	2992	2907	0.065	4507.76
2994	2995	3079	2993	2908	0.065	4503.56
2995	2996	3080	2994	2909	0.065	4529.74
2996	2997	3081	2995	2910	0.065	4491.67
2997	2998	3082	2996	2911	0.065	4489.71
2998	2999	3083	2997	2912	0.065	4484.43
2999	3000	3084	2998	2913	0.065	4480.58
3000	3001	3085	2999	2914	0.065	4473.78
3001	3002	3086	3000	2915	0.065	4475.88
3002	3003	3087	3001	2916	0.065	4467.12
3003	3004	3088	3002	2917	0.065	4463.46
3004	3005	3089	3003	2918	0.065	4463.55
3005	3006	3090	3004	2919	0.065	4461.96
3006	3007	3091	3005	2920	0.065	4462.60
3007	3008	3092	3006	2921	0.065	4461.32
3008	3009	3093	3007	2922	0.065	4460.69
3009	3010	3094	3008	2923	0.065	4452.21
3010	3011	3095	3009	2924	0.065	4458.41
3011	3012	3096	3010	2925	0.065	4455.78
3012	3013	3097	3011	2926	0.065	4454.83
3013	3014	3098	3012	2927	0.065	4453.48
3014	3015	3099	3013	2928	0.065	4451.34
3015	3016	3100	3014	2929	0.065	4447.21
3016	3017	3101	3015	2930	0.065	4444.50
3017	3018	3102	3016	2931	0.065	4444.81
3018	3019	0	3017	2932	0.065	4454.14
3019	3020	0	3018	2933	0.065	4514.15
3020	3021	0	3019	2934	0.065	4663.64
3021	3022	0	3020	2935	0.065	4756.45
3022	3023	0	3021	2936	0.065	4747.74
3023	3024	0	3022	2937	0.065	4688.86
3024	3025	0	3023	2938	0.065	4666.35
3025	3026	0	3024	2939	0.065	4631.75
3026	3027	0	3025	2940	0.065	4615.42
3027	0	0	3026	0	0.065	4616.12
3028	3029	3104	0	2941	0.065	4410.59
3029	3030	3105	3028	2942	0.065	4401.91
3030	3031	3106	3029	2943	0.065	4401.08
3031	3032	3107	3030	2944	0.065	4402.25
3032	3033	3108	3031	2945	0.065	4401.90
3033	3034	3109	3032	2946	0.065	4403.60
3034	3035	3110	3033	2947	0.065	4404.99
3035	3036	3111	3034	2948	0.065	4403.00
3036	3037	3112	3035	2949	0.065	4401.38



			FPLAIN.DAT			
3037	3038	3113	3036	2950	0.065	4395.21
3038	3039	3114	3037	2951	0.065	4396.60
3039	3040	3115	3038	2952	0.065	4396.91
3040	3041	3116	3039	2953	0.065	4396.90
3041	3042	3117	3040	2954	0.065	4398.42
3042	3043	3118	3041	2955	0.065	4395.31
3043	3044	3119	3042	2956	0.065	4397.53
3044	3045	3120	3043	2957	0.065	4396.94
3045	3046	3121	3044	2958	0.065	4399.42
3046	3047	3122	3045	2959	0.065	4396.00
3047	3048	3123	3046	2960	0.065	4395.95
3048	3049	3124	3047	2961	0.065	4399.65
3049	3050	3125	3048	2962	0.065	4399.93
3050	3051	3126	3049	2963	0.065	4398.68
3051	3052	3127	3050	2964	0.065	4400.67
3052	3053	3128	3051	2965	0.065	4402.43
3053	3054	3129	3052	2966	0.065	4403.51
3054	3055	3130	3053	2967	0.065	4403.52
3055	3056	3131	3054	2968	0.065	4404.46
3056	3057	3132	3055	2969	0.065	4405.98
3057	3058	3133	3056	2970	0.065	4407.05
3058	3059	3134	3057	2971	0.065	4407.18
3059	3060	3135	3058	2972	0.065	4407.48
3060	3061	3136	3059	2973	0.065	4408.58
3061	3062	3137	3060	2974	0.065	4408.54
3062	3063	3138	3061	2975	0.065	4409.58
3063	3064	3139	3062	2976	0.065	4407.81
3064	3065	3140	3063	2977	0.065	4407.78
3065	3066	3141	3064	2978	0.065	4407.27
3066	3067	3142	3065	2979	0.065	4409.33
3067	3068	3143	3066	2980	0.065	4410.16
3068	3069	3144	3067	2981	0.065	4412.28
3069	3070	3145	3068	2982	0.065	4413.36
3070	3071	3146	3069	2983	0.065	4414.73
3071	3072	3147	3070	2984	0.065	4414.49
3072	3073	3148	3071	2985	0.065	4414.86
3073	3074	3149	3072	2986	0.065	4413.10
3074	3075	3150	3073	2987	0.065	4413.97
3075	3076	3151	3074	2988	0.065	4415.17
3076	3077	3152	3075	2989	0.065	4416.14
3077	3078	3153	3076	2990	0.065	4417.18
3078	0	3154	3077	2991	0.065	4419.62
3079	3080	3155	0	2994	0.065	4528.39
3080	3081	3156	3079	2995	0.065	4493.50
3081	3082	3157	3080	2996	0.065	4489.32
3082	3083	3158	3081	2997	0.065	4485.36
3083	3084	3159	3082	2998	0.065	4479.06
3084	3085	3160	3083	2999	0.065	4475.22
3085	3086	3161	3084	3000	0.065	4471.22
3086	3087	3162	3085	3001	0.065	4466.44
3087	3088	3163	3086	3002	0.065	4463.22
3088	3089	3164	3087	3003	0.065	4459.90
3089	3090	3165	3088	3004	0.065	4458.62
3090	3091	3166	3089	3005	0.065	4459.76
3091	3092	3167	3090	3006	0.065	4457.93
3092	3093	3168	3091	3007	0.065	4456.66
3093	3094	3169	3092	3008	0.065	4456.17
3094	3095	3170	3093	3009	0.065	4456.10
3095	3096	3171	3094	3010	0.065	4454.65
3096	3097	3172	3095	3011	0.065	4453.82
3097	3098	3173	3096	3012	0.065	4450.81
3098	3099	3174	3097	3013	0.065	4451.17
3099	3100	3175	3098	3014	0.065	4445.97
3100	3101	3176	3099	3015	0.065	4441.48
3101	3102	3177	3100	3016	0.065	4502.83
3102	0	3178	3101	3017	0.065	4573.86

			FPLAIN.DAT			
3103	3104	3180	0	0	0.065	4439.40
3104	3105	3181	3103	3028	0.065	4402.13
3105	3106	3182	3104	3029	0.065	4400.47
3106	3107	3183	3105	3030	0.065	4397.72
3107	3108	3184	3106	3031	0.065	4400.81
3108	3109	3185	3107	3032	0.065	4402.45
3109	3110	3186	3108	3033	0.065	4402.28
3110	3111	3187	3109	3034	0.065	4400.56
3111	3112	3188	3110	3035	0.065	4400.92
3112	3113	3189	3111	3036	0.065	4401.62
3113	3114	3190	3112	3037	0.065	4397.98
3114	3115	3191	3113	3038	0.065	4396.96
3115	3116	3192	3114	3039	0.065	4395.36
3116	3117	3193	3115	3040	0.065	4397.68
3117	3118	3194	3116	3041	0.065	4395.71
3118	3119	3195	3117	3042	0.065	4394.80
3119	3120	3196	3118	3043	0.065	4397.17
3120	3121	3197	3119	3044	0.065	4397.56
3121	3122	3198	3120	3045	0.065	4398.31
3122	3123	3199	3121	3046	0.065	4395.00
3123	3124	3200	3122	3047	0.065	4396.72
3124	3125	3201	3123	3048	0.065	4397.73
3125	3126	3202	3124	3049	0.065	4398.07
3126	3127	3203	3125	3050	0.065	4395.42
3127	3128	3204	3126	3051	0.065	4396.78
3128	3129	3205	3127	3052	0.065	4396.97
3129	3130	3206	3128	3053	0.065	4401.96
3130	3131	3207	3129	3054	0.065	4401.01
3131	3132	3208	3130	3055	0.065	4406.42
3132	3133	3209	3131	3056	0.065	4405.75
3133	3134	3210	3132	3057	0.065	4407.81
3134	3135	3211	3133	3058	0.065	4405.32
3135	3136	3212	3134	3059	0.065	4406.99
3136	3137	3213	3135	3060	0.065	4404.91
3137	3138	3214	3136	3061	0.065	4408.51
3138	3139	3215	3137	3062	0.065	4407.54
3139	3140	3216	3138	3063	0.065	4407.27
3140	3141	3217	3139	3064	0.065	4405.69
3141	3142	3218	3140	3065	0.065	4407.01
3142	3143	3219	3141	3066	0.065	4407.17
3143	3144	3220	3142	3067	0.065	4411.18
3144	3145	3221	3143	3068	0.065	4409.32
3145	3146	3222	3144	3069	0.065	4409.67
3146	3147	3223	3145	3070	0.065	4413.57
3147	3148	3224	3146	3071	0.065	4414.42
3148	3149	3225	3147	3072	0.065	4413.30
3149	3150	3226	3148	3073	0.065	4411.55
3150	3151	3227	3149	3074	0.065	4412.52
3151	3152	3228	3150	3075	0.065	4413.90
3152	3153	3229	3151	3076	0.065	4416.42
3153	3154	3230	3152	3077	0.065	4416.87
3154	0	3231	3153	3078	0.065	4418.15
3155	3156	3232	0	3079	0.065	4488.54
3156	3157	0	3155	3080	0.065	4488.09
3157	3158	3233	3156	3081	0.065	4481.92
3158	3159	3234	3157	3082	0.065	4478.47
3159	3160	3235	3158	3083	0.065	4474.32
3160	3161	3236	3159	3084	0.065	4471.46
3161	3162	3237	3160	3085	0.065	4466.88
3162	3163	3238	3161	3086	0.065	4463.02
3163	3164	3239	3162	3087	0.065	4458.86
3164	3165	3240	3163	3088	0.065	4456.15
3165	3166	3241	3164	3089	0.065	4454.53
3166	3167	3242	3165	3090	0.065	4455.41
3167	3168	3243	3166	3091	0.065	4455.14
3168	3169	3244	3167	3092	0.065	4452.52



			FPLAIN.DAT			
3169	3170	3245	3168	3093	0.065	4449.84
3170	3171	3246	3169	3094	0.065	4450.85
3171	3172	3247	3170	3095	0.065	4451.34
3172	3173	3248	3171	3096	0.065	4449.76
3173	3174	3249	3172	3097	0.065	4448.62
3174	3175	3250	3173	3098	0.065	4446.05
3175	3176	3251	3174	3099	0.065	4442.89
3176	3177	3252	3175	3100	0.065	4441.13
3177	3178	3253	3176	3101	0.065	4459.29
3178	0	3254	3177	3102	0.065	4595.65
3179	3180	3259	0	0	0.065	4415.97
3180	3181	3260	3179	3103	0.065	4400.92
3181	3182	3261	3180	3104	0.065	4402.08
3182	3183	3262	3181	3105	0.065	4399.96
3183	3184	3263	3182	3106	0.065	4400.97
3184	3185	3264	3183	3107	0.065	4401.14
3185	3186	3265	3184	3108	0.065	4401.51
3186	3187	3266	3185	3109	0.065	4399.81
3187	3188	3267	3186	3110	0.065	4401.15
3188	3189	3268	3187	3111	0.065	4400.31
3189	3190	3269	3188	3112	0.065	4400.98
3190	3191	3270	3189	3113	0.065	4395.37
3191	3192	3271	3190	3114	0.065	4394.71
3192	3193	3272	3191	3115	0.065	4393.55
3193	3194	3273	3192	3116	0.065	4394.47
3194	3195	3274	3193	3117	0.065	4396.45
3195	3196	3275	3194	3118	0.065	4395.63
3196	3197	3276	3195	3119	0.065	4395.47
3197	3198	3277	3196	3120	0.065	4394.55
3198	3199	3278	3197	3121	0.065	4394.75
3199	3200	3279	3198	3122	0.065	4393.98
3200	3201	3280	3199	3123	0.065	4397.04
3201	3202	3281	3200	3124	0.065	4394.80
3202	3203	3282	3201	3125	0.065	4395.31
3203	3204	3283	3202	3126	0.065	4394.35
3204	3205	3284	3203	3127	0.065	4397.14
3205	3206	3285	3204	3128	0.065	4400.01
3206	3207	3286	3205	3129	0.065	4399.22
3207	3208	3287	3206	3130	0.065	4402.47
3208	3209	3288	3207	3131	0.065	4403.51
3209	3210	3289	3208	3132	0.065	4404.66
3210	3211	3290	3209	3133	0.065	4406.01
3211	3212	3291	3210	3134	0.065	4405.81
3212	3213	3292	3211	3135	0.065	4403.74
3213	3214	3293	3212	3136	0.065	4404.74
3214	3215	3294	3213	3137	0.065	4407.84
3215	3216	3295	3214	3138	0.065	4406.62
3216	3217	3296	3215	3139	0.065	4405.80
3217	3218	3297	3216	3140	0.065	4402.69
3218	3219	3298	3217	3141	0.065	4404.42
3219	3220	3299	3218	3142	0.065	4407.88
3220	3221	3300	3219	3143	0.065	4408.40
3221	3222	3301	3220	3144	0.065	4406.65
3222	3223	3302	3221	3145	0.065	4409.30
3223	3224	3303	3222	3146	0.065	4411.57
3224	3225	3304	3223	3147	0.065	4413.34
3225	3226	3305	3224	3148	0.065	4410.94
3226	3227	3306	3225	3149	0.065	4409.84
3227	3228	3307	3226	3150	0.065	4410.42
3228	3229	3308	3227	3151	0.065	4412.04
3229	3230	3309	3228	3152	0.065	4412.50
3230	3231	3310	3229	3153	0.065	4413.33
3231	0	3311	3230	3154	0.065	4414.88
3232	0	0	0	3155	0.065	4485.68
3233	3234	3312	0	3157	0.065	4478.32
3234	3235	3313	3233	3158	0.065	4476.20

			FPLAIN.DAT			
3235	3236	3314	3234	3159	0.065	4472.37
3236	3237	3315	3235	3160	0.065	4468.79
3237	3238	3316	3236	3161	0.065	4464.88
3238	3239	3317	3237	3162	0.065	4462.21
3239	3240	3318	3238	3163	0.065	4457.12
3240	3241	3319	3239	3164	0.065	4455.26
3241	3242	3320	3240	3165	0.065	4456.15
3242	3243	3321	3241	3166	0.065	4452.01
3243	3244	3322	3242	3167	0.065	4450.36
3244	3245	3323	3243	3168	0.065	4448.83
3245	3246	3324	3244	3169	0.065	4446.16
3246	3247	3325	3245	3170	0.065	4447.02
3247	3248	3326	3246	3171	0.065	4446.87
3248	3249	3327	3247	3172	0.065	4451.47
3249	3250	3328	3248	3173	0.065	4451.87
3250	3251	3329	3249	3174	0.065	4450.80
3251	3252	3330	3250	3175	0.065	4445.72
3252	3253	3331	3251	3176	0.065	4439.15
3253	3254	3332	3252	3177	0.065	4438.70
3254	3255	3333	3253	3178	0.065	4441.70
3255	3256	3334	3254	0	0.065	4543.24
3256	3257	3335	3255	0	0.065	4667.02
3257	3258	3336	3256	0	0.065	4727.33
3258	0	3337	3257	0	0.065	4686.89
3259	3260	3339	0	3179	0.065	4415.18
3260	3261	3340	3259	3180	0.065	4403.39
3261	3262	3341	3260	3181	0.065	4400.90
3262	3263	3342	3261	3182	0.065	4402.46
3263	3264	3343	3262	3183	0.065	4400.90
3264	3265	3344	3263	3184	0.065	4398.39
3265	3266	3345	3264	3185	0.065	4398.34
3266	3267	3346	3265	3186	0.065	4401.38
3267	3268	3347	3266	3187	0.065	4397.48
3268	3269	3348	3267	3188	0.065	4399.60
3269	3270	3349	3268	3189	0.065	4398.30
3270	3271	3350	3269	3190	0.065	4398.69
3271	3272	3351	3270	3191	0.065	4397.34
3272	3273	3352	3271	3192	0.065	4399.46
3273	3274	3353	3272	3193	0.065	4398.26
3274	3275	3354	3273	3194	0.065	4398.49
3275	3276	3355	3274	3195	0.065	4393.40
3276	3277	3356	3275	3196	0.065	4395.73
3277	3278	3357	3276	3197	0.065	4395.26
3278	3279	3358	3277	3198	0.065	4394.50
3279	3280	3359	3278	3199	0.065	4395.16
3280	3281	3360	3279	3200	0.065	4395.29
3281	3282	3361	3280	3201	0.065	4395.42
3282	3283	3362	3281	3202	0.065	4395.98
3283	3284	3363	3282	3203	0.065	4396.15
3284	3285	3364	3283	3204	0.065	4396.42
3285	3286	3365	3284	3205	0.065	4397.35
3286	3287	3366	3285	3206	0.065	4399.70
3287	3288	3367	3286	3207	0.065	4398.32
3288	3289	3368	3287	3208	0.065	4400.43
3289	3290	3369	3288	3209	0.065	4403.40
3290	3291	3370	3289	3210	0.065	4403.11
3291	3292	3371	3290	3211	0.065	4402.78
3292	3293	3372	3291	3212	0.065	4406.79
3293	3294	3373	3292	3213	0.065	4402.37
3294	3295	3374	3293	3214	0.065	4404.34
3295	3296	3375	3294	3215	0.065	4403.36
3296	3297	3376	3295	3216	0.065	4405.05
3297	3298	3377	3296	3217	0.065	4404.43
3298	3299	3378	3297	3218	0.065	4405.53
3299	3300	3379	3298	3219	0.065	4405.87
3300	3301	3380	3299	3220	0.065	4404.30

FPLAIN.DAT						
3301	3302	3381	3300	3221	0.065	4405.01
3302	3303	3382	3301	3222	0.065	4408.30
3303	3304	3383	3302	3223	0.065	4411.49
3304	3305	3384	3303	3224	0.065	4409.49
3305	3306	3385	3304	3225	0.065	4408.55
3306	3307	3386	3305	3226	0.065	4406.88
3307	3308	3387	3306	3227	0.065	4408.43
3308	3309	3388	3307	3228	0.065	4410.19
3309	3310	3389	3308	3229	0.065	4416.09
3310	3311	3390	3309	3230	0.065	4411.48
3311	0	3391	3310	3231	0.065	4412.36
3312	3313	3393	0	3233	0.065	4476.60
3313	3314	3394	3312	3234	0.065	4473.71
3314	3315	3395	3313	3235	0.065	4469.92
3315	3316	3396	3314	3236	0.065	4466.27
3316	3317	3397	3315	3237	0.065	4464.02
3317	3318	3398	3316	3238	0.065	4459.70
3318	3319	3399	3317	3239	0.065	4457.54
3319	3320	3400	3318	3240	0.065	4456.24
3320	3321	3401	3319	3241	0.065	4454.23
3321	3322	3402	3320	3242	0.065	4453.61
3322	3323	3403	3321	3243	0.065	4449.79
3323	3324	3404	3322	3244	0.065	4450.08
3324	3325	3405	3323	3245	0.065	4448.55
3325	3326	3406	3324	3246	0.065	4447.16
3326	3327	3407	3325	3247	0.065	4438.83
3327	3328	3408	3326	3248	0.065	4446.78
3328	3329	3409	3327	3249	0.065	4447.44
3329	3330	3410	3328	3250	0.065	4446.61
3330	3331	3411	3329	3251	0.065	4447.53
3331	3332	3412	3330	3252	0.065	4446.11
3332	3333	3413	3331	3253	0.065	4440.37
3333	3334	3414	3332	3254	0.065	4438.45
3334	3335	3415	3333	3255	0.065	4433.75
3335	3336	3416	3334	3256	0.065	4493.05
3336	3337	3417	3335	3257	0.065	4503.08
3337	0	3418	3336	3258	0.065	4462.29
3338	3339	3419	0	0	0.065	4440.57
3339	3340	3420	3338	3259	0.065	4414.27
3340	3341	3421	3339	3260	0.065	4408.73
3341	3342	3422	3340	3261	0.065	4405.88
3342	3343	3423	3341	3262	0.065	4403.86
3343	3344	3424	3342	3263	0.065	4403.32
3344	3345	3425	3343	3264	0.065	4401.82
3345	3346	3426	3344	3265	0.065	4398.93
3346	3347	3427	3345	3266	0.065	4394.95
3347	3348	3428	3346	3267	0.065	4397.64
3348	3349	3429	3347	3268	0.065	4398.10
3349	3350	3430	3348	3269	0.065	4398.15
3350	3351	3431	3349	3270	0.065	4396.16
3351	3352	3432	3350	3271	0.065	4397.10
3352	3353	3433	3351	3272	0.065	4398.06
3353	3354	3434	3352	3273	0.065	4393.60
3354	3355	3435	3353	3274	0.065	4393.73
3355	3356	3436	3354	3275	0.065	4393.28
3356	3357	3437	3355	3276	0.035	4393.40
3357	3358	3438	3356	3277	0.035	4393.75
3358	3359	3439	3357	3278	0.035	4393.91
3359	3360	3440	3358	3279	0.035	4393.57
3360	3361	3441	3359	3280	0.035	4394.06
3361	3362	3442	3360	3281	0.035	4394.74
3362	3363	3443	3361	3282	0.035	4395.00
3363	3364	3444	3362	3283	0.035	4395.57
3364	3365	3445	3363	3284	0.035	4396.86
3365	3366	3446	3364	3285	0.065	4399.70
3366	3367	3447	3365	3286	0.065	4399.33

			FPLAIN.DAT			
3367	3368	3448	3366	3287	0.065	4398.01
3368	3369	3449	3367	3288	0.065	4398.44
3369	3370	3450	3368	3289	0.065	4400.40
3370	3371	3451	3369	3290	0.065	4401.51
3371	3372	3452	3370	3291	0.065	4401.95
3372	3373	3453	3371	3292	0.065	4401.88
3373	3374	3454	3372	3293	0.065	4403.41
3374	3375	3455	3373	3294	0.065	4399.81
3375	3376	3456	3374	3295	0.065	4404.04
3376	3377	3457	3375	3296	0.065	4402.35
3377	3378	3458	3376	3297	0.065	4404.57
3378	3379	3459	3377	3298	0.065	4403.70
3379	3380	3460	3378	3299	0.065	4402.53
3380	3381	3461	3379	3300	0.065	4401.78
3381	3382	3462	3380	3301	0.065	4404.52
3382	3383	3463	3381	3302	0.065	4407.78
3383	3384	3464	3382	3303	0.065	4409.64
3384	3385	3465	3383	3304	0.065	4407.84
3385	3386	3466	3384	3305	0.065	4406.58
3386	3387	3467	3385	3306	0.065	4405.24
3387	3388	3468	3386	3307	0.065	4407.40
3388	3389	3469	3387	3308	0.065	4408.83
3389	3390	3470	3388	3309	0.065	4412.13
3390	3391	3471	3389	3310	0.065	4410.72
3391	3392	3472	3390	3311	0.065	4411.46
3392	0	3473	3391	0	0.065	4411.28
3393	3394	3474	0	3312	0.065	4474.81
3394	3395	3475	3393	3313	0.065	4471.17
3395	3396	3476	3394	3314	0.065	4468.93
3396	3397	3477	3395	3315	0.065	4466.28
3397	3398	3478	3396	3316	0.065	4464.26
3398	3399	3479	3397	3317	0.065	4461.30
3399	3400	3480	3398	3318	0.065	4458.73
3400	3401	3481	3399	3319	0.065	4455.99
3401	3402	3482	3400	3320	0.065	4454.88
3402	3403	3483	3401	3321	0.065	4453.53
3403	3404	3484	3402	3322	0.065	4452.31
3404	3405	3485	3403	3323	0.065	4450.44
3405	3406	3486	3404	3324	0.065	4450.04
3406	3407	3487	3405	3325	0.065	4449.10
3407	3408	3488	3406	3326	0.065	4443.50
3408	3409	3489	3407	3327	0.065	4437.28
3409	3410	3490	3408	3328	0.065	4439.81
3410	3411	3491	3409	3329	0.065	4441.17
3411	3412	3492	3410	3330	0.065	4440.42
3412	3413	3493	3411	3331	0.065	4442.74
3413	3414	3494	3412	3332	0.065	4441.11
3414	3415	3495	3413	3333	0.065	4437.19
3415	3416	3496	3414	3334	0.065	4433.83
3416	3417	3497	3415	3335	0.065	4433.43
3417	3418	3498	3416	3336	0.065	4439.96
3418	0	3499	3417	3337	0.065	4435.83
3419	3420	3500	0	3338	0.065	4422.80
3420	3421	3501	3419	3339	0.065	4413.70
3421	3422	3502	3420	3340	0.065	4418.46
3422	3423	3503	3421	3341	0.065	4417.20
3423	3424	3504	3422	3342	0.065	4411.54
3424	3425	3505	3423	3343	0.065	4408.82
3425	3426	3506	3424	3344	0.065	4403.29
3426	3427	3507	3425	3345	0.065	4402.05
3427	3428	3508	3426	3346	0.065	4396.21
3428	3429	3509	3427	3347	0.065	4399.23
3429	3430	3510	3428	3348	0.065	4398.05
3430	3431	3511	3429	3349	0.065	4398.05
3431	3432	3512	3430	3350	0.065	4397.35
3432	3433	3513	3431	3351	0.065	4396.46

			FPLAIN.DAT			
3433	3434	3514	3432	3352	0.065	4392.50
3434	3435	3515	3433	3353	0.065	4394.81
3435	3436	3516	3434	3354	0.035	4397.19
3436	3437	3517	3435	3355	0.035	4394.88
3437	3438	3518	3436	3356	0.035	4393.93
3438	3439	3519	3437	3357	0.035	4393.74
3439	3440	3520	3438	3358	0.035	4392.52
3440	3441	3521	3439	3359	0.035	4392.34
3441	3442	3522	3440	3360	0.035	4392.10
3442	3443	3523	3441	3361	0.035	4392.80
3443	3444	3524	3442	3362	0.035	4392.26
3444	3445	3525	3443	3363	0.035	4392.99
3445	3446	3526	3444	3364	0.035	4394.03
3446	3447	3527	3445	3365	0.035	4395.36
3447	3448	3528	3446	3366	0.035	4395.69
3448	3449	3529	3447	3367	0.065	4397.88
3449	3450	3530	3448	3368	0.065	4398.07
3450	3451	3531	3449	3369	0.065	4399.18
3451	3452	3532	3450	3370	0.065	4400.00
3452	3453	3533	3451	3371	0.065	4400.59
3453	3454	3534	3452	3372	0.065	4396.28
3454	3455	3535	3453	3373	0.065	4399.75
3455	3456	3536	3454	3374	0.065	4398.92
3456	3457	3537	3455	3375	0.065	4401.47
3457	3458	3538	3456	3376	0.065	4401.58
3458	3459	3539	3457	3377	0.065	4401.55
3459	3460	3540	3458	3378	0.065	4402.55
3460	3461	3541	3459	3379	0.065	4403.82
3461	3462	3542	3460	3380	0.065	4401.94
3462	3463	3543	3461	3381	0.065	4402.98
3463	3464	3544	3462	3382	0.065	4407.59
3464	3465	3545	3463	3383	0.065	4406.65
3465	3466	3546	3464	3384	0.065	4407.45
3466	3467	3547	3465	3385	0.065	4405.60
3467	3468	3548	3466	3386	0.065	4403.52
3468	3469	3549	3467	3387	0.065	4406.84
3469	3470	3550	3468	3388	0.065	4407.60
3470	3471	3551	3469	3389	0.065	4410.98
3471	3472	3552	3470	3390	0.065	4409.15
3472	3473	3553	3471	3391	0.065	4409.89
3473	0	3554	3472	3392	0.065	4410.35
3474	3475	3556	0	3393	0.065	4476.51
3475	3476	3557	3474	3394	0.065	4472.05
3476	3477	3558	3475	3395	0.065	4468.91
3477	3478	3559	3476	3396	0.065	4466.13
3478	3479	3560	3477	3397	0.065	4464.96
3479	3480	3561	3478	3398	0.065	4460.56
3480	3481	3562	3479	3399	0.065	4457.57
3481	3482	3563	3480	3400	0.065	4455.57
3482	3483	3564	3481	3401	0.065	4453.79
3483	3484	3565	3482	3402	0.065	4450.49
3484	3485	3566	3483	3403	0.065	4450.37
3485	3486	3567	3484	3404	0.065	4447.13
3486	3487	3568	3485	3405	0.065	4448.24
3487	3488	3569	3486	3406	0.065	4445.26
3488	3489	3570	3487	3407	0.065	4444.53
3489	3490	3571	3488	3408	0.065	4444.08
3490	3491	3572	3489	3409	0.065	4439.91
3491	3492	3573	3490	3410	0.065	4433.59
3492	3493	3574	3491	3411	0.065	4436.34
3493	3494	3575	3492	3412	0.065	4437.66
3494	3495	3576	3493	3413	0.065	4437.49
3495	3496	3577	3494	3414	0.065	4437.16
3496	3497	3578	3495	3415	0.065	4435.13
3497	3498	0	3496	3416	0.065	4431.37
3498	3499	0	3497	3417	0.065	4439.74

			FPLAIN.DAT			
3499	0	0	3498	3418	0.065	4478.64
3500	3501	3579	0	3419	0.065	4405.95
3501	3502	3580	3500	3420	0.065	4408.67
3502	3503	3581	3501	3421	0.065	4409.19
3503	3504	3582	3502	3422	0.065	4404.35
3504	3505	3583	3503	3423	0.065	4403.70
3505	3506	3584	3504	3424	0.065	4398.55
3506	3507	3585	3505	3425	0.065	4395.86
3507	3508	3586	3506	3426	0.065	4394.76
3508	3509	3587	3507	3427	0.065	4394.99
3509	3510	3588	3508	3428	0.035	4397.72
3510	3511	3589	3509	3429	0.035	4398.50
3511	3512	3590	3510	3430	0.035	4398.65
3512	3513	3591	3511	3431	0.035	4398.81
3513	3514	3592	3512	3432	0.035	4396.60
3514	3515	3593	3513	3433	0.035	4392.40
3515	3516	3594	3514	3434	0.035	4391.70
3516	3517	3595	3515	3435	0.035	4394.53
3517	3518	3596	3516	3436	0.035	4393.20
3518	3519	3597	3517	3437	0.035	4393.07
3519	3520	3598	3518	3438	0.035	4392.68
3520	3521	3599	3519	3439	0.035	4392.03
3521	3522	3600	3520	3440	0.035	4391.39
3522	3523	3601	3521	3441	0.035	4390.26
3523	3524	3602	3522	3442	0.035	4389.73
3524	3525	3603	3523	3443	0.035	4392.61
3525	3526	3604	3524	3444	0.035	4394.09
3526	3527	3605	3525	3445	0.035	4393.46
3527	3528	3606	3526	3446	0.035	4394.20
3528	3529	3607	3527	3447	0.035	4394.68
3529	3530	3608	3528	3448	0.035	4395.67
3530	3531	3609	3529	3449	0.035	4395.97
3531	3532	3610	3530	3450	0.065	4399.25
3532	3533	3611	3531	3451	0.065	4398.60
3533	3534	3612	3532	3452	0.065	4399.82
3534	3535	3613	3533	3453	0.065	4403.50
3535	3536	3614	3534	3454	0.065	4397.61
3536	3537	3615	3535	3455	0.065	4401.04
3537	3538	3616	3536	3456	0.065	4400.34
3538	3539	3617	3537	3457	0.065	4399.98
3539	3540	3618	3538	3458	0.065	4399.61
3540	3541	3619	3539	3459	0.065	4399.88
3541	3542	3620	3540	3460	0.065	4399.29
3542	3543	3621	3541	3461	0.065	4400.08
3543	3544	3622	3542	3462	0.065	4401.65
3544	3545	3623	3543	3463	0.065	4407.19
3545	3546	3624	3544	3464	0.065	4403.61
3546	3547	3625	3545	3465	0.065	4404.42
3547	3548	3626	3546	3466	0.065	4403.25
3548	3549	3627	3547	3467	0.065	4402.21
3549	3550	3628	3548	3468	0.065	4404.13
3550	3551	3629	3549	3469	0.065	4405.47
3551	3552	3630	3550	3470	0.065	4406.75
3552	3553	3631	3551	3471	0.065	4407.76
3553	3554	3632	3552	3472	0.065	4408.30
3554	3555	3633	3553	3473	0.065	4409.59
3555	0	3634	3554	0	0.065	4409.99
3556	3557	3635	0	3474	0.065	4477.55
3557	3558	3636	3556	3475	0.065	4473.24
3558	3559	3637	3557	3476	0.065	4469.77
3559	3560	3638	3558	3477	0.065	4467.68
3560	3561	3639	3559	3478	0.065	4465.22
3561	3562	3640	3560	3479	0.065	4460.99
3562	3563	3641	3561	3480	0.065	4458.82
3563	3564	3642	3562	3481	0.065	4456.13
3564	3565	3643	3563	3482	0.065	4452.65



			FPLAIN.DAT			
3565	3566	3644	3564	3483	0.065	4451.57
3566	3567	3645	3565	3484	0.065	4449.73
3567	3568	3646	3566	3485	0.065	4449.30
3568	3569	3647	3567	3486	0.065	4446.79
3569	3570	3648	3568	3487	0.065	4444.52
3570	3571	3649	3569	3488	0.065	4443.14
3571	3572	3650	3570	3489	0.065	4442.34
3572	3573	3651	3571	3490	0.065	4438.09
3573	3574	3652	3572	3491	0.065	4435.10
3574	3575	3653	3573	3492	0.065	4431.58
3575	3576	3654	3574	3493	0.065	4444.16
3576	3577	3655	3575	3494	0.065	4433.87
3577	3578	3656	3576	3495	0.065	4435.80
3578	0	3657	3577	3496	0.065	4437.34
3579	3580	3659	0	3500	0.065	4405.03
3580	3581	3660	3579	3501	0.065	4401.21
3581	3582	3661	3580	3502	0.065	4400.68
3582	3583	3662	3581	3503	0.065	4399.80
3583	3584	3663	3582	3504	0.065	4398.71
3584	3585	3664	3583	3505	0.065	4397.01
3585	3586	3665	3584	3506	0.065	4395.11
3586	3587	3666	3585	3507	0.065	4394.00
3587	3588	3667	3586	3508	0.065	4395.85
3588	3589	3668	3587	3509	0.035	4396.81
3589	3590	3669	3588	3510	0.035	4395.25
3590	3591	3670	3589	3511	0.035	4395.35
3591	3592	3671	3590	3512	0.035	4395.47
3592	3593	3672	3591	3513	0.035	4397.13
3593	3594	3673	3592	3514	0.035	4394.55
3594	3595	3674	3593	3515	0.035	4393.09
3595	3596	3675	3594	3516	0.035	4394.37
3596	3597	3676	3595	3517	0.035	4391.83
3597	3598	3677	3596	3518	0.035	4391.31
3598	3599	3678	3597	3519	0.035	4392.98
3599	3600	3679	3598	3520	0.035	4391.59
3600	3601	3680	3599	3521	0.035	4390.94
3601	3602	3681	3600	3522	0.035	4390.43
3602	3603	3682	3601	3523	0.035	4389.28
3603	3604	3683	3602	3524	0.035	4391.69
3604	3605	3684	3603	3525	0.035	4392.13
3605	3606	3685	3604	3526	0.035	4393.01
3606	3607	3686	3605	3527	0.035	4392.90
3607	3608	3687	3606	3528	0.035	4393.17
3608	3609	3688	3607	3529	0.035	4394.71
3609	3610	3689	3608	3530	0.035	4394.96
3610	3611	3690	3609	3531	0.035	4397.48
3611	3612	3691	3610	3532	0.035	4398.83
3612	3613	3692	3611	3533	0.065	4398.91
3613	3614	3693	3612	3534	0.065	4400.00
3614	3615	3694	3613	3535	0.065	4398.24
3615	3616	3695	3614	3536	0.065	4403.60
3616	3617	3696	3615	3537	0.065	4398.49
3617	3618	3697	3616	3538	0.065	4400.68
3618	3619	3698	3617	3539	0.065	4401.23
3619	3620	3699	3618	3540	0.065	4399.75
3620	3621	3700	3619	3541	0.065	4399.08
3621	3622	3701	3620	3542	0.065	4401.31
3622	3623	3702	3621	3543	0.065	4399.09
3623	3624	3703	3622	3544	0.065	4400.91
3624	3625	3704	3623	3545	0.065	4398.12
3625	3626	3705	3624	3546	0.065	4400.41
3626	3627	3706	3625	3547	0.065	4401.83
3627	3628	3707	3626	3548	0.065	4400.36
3628	3629	3708	3627	3549	0.065	4400.67
3629	3630	3709	3628	3550	0.065	4403.65
3630	3631	3710	3629	3551	0.065	4406.75



			FPLAIN.DAT			
3631	3632	3711	3630	3552	0.065	4407.22
3632	3633	3712	3631	3553	0.065	4407.69
3633	3634	3713	3632	3554	0.065	4408.24
3634	0	3714	3633	3555	0.065	4408.73
3635	3636	3716	0	3556	0.065	4476.97
3636	3637	3717	3635	3557	0.065	4473.58
3637	3638	3718	3636	3558	0.065	4470.48
3638	3639	3719	3637	3559	0.065	4466.66
3639	3640	3720	3638	3560	0.065	4464.86
3640	3641	3721	3639	3561	0.065	4461.89
3641	3642	3722	3640	3562	0.065	4458.91
3642	3643	3723	3641	3563	0.065	4455.72
3643	3644	3724	3642	3564	0.065	4453.19
3644	3645	3725	3643	3565	0.065	4451.05
3645	3646	3726	3644	3566	0.065	4449.01
3646	3647	3727	3645	3567	0.065	4442.55
3647	3648	3728	3646	3568	0.065	4442.42
3648	3649	3729	3647	3569	0.065	4443.49
3649	3650	3730	3648	3570	0.065	4441.94
3650	3651	3731	3649	3571	0.065	4440.24
3651	3652	3732	3650	3572	0.065	4438.75
3652	3653	3733	3651	3573	0.065	4437.10
3653	3654	3734	3652	3574	0.065	4434.55
3654	3655	3735	3653	3575	0.065	4432.26
3655	3656	3736	3654	3576	0.065	4431.54
3656	3657	3737	3655	3577	0.065	4430.51
3657	3658	3738	3656	3578	0.065	4429.45
3658	0	3739	3657	0	0.065	4431.78
3659	3660	3741	0	3579	0.065	4421.77
3660	3661	3742	3659	3580	0.065	4402.27
3661	3662	3743	3660	3581	0.065	4401.50
3662	3663	3744	3661	3582	0.065	4400.22
3663	3664	3745	3662	3583	0.065	4399.01
3664	3665	3746	3663	3584	0.065	4397.96
3665	3666	3747	3664	3585	0.065	4395.96
3666	3667	3748	3665	3586	0.065	4394.99
3667	3668	3749	3666	3587	0.065	4393.19
3668	3669	3750	3667	3588	0.035	4396.79
3669	3670	3751	3668	3589	0.035	4390.26
3670	3671	3752	3669	3590	0.035	4390.81
3671	3672	3753	3670	3591	0.035	4390.98
3672	3673	3754	3671	3592	0.035	4390.96
3673	3674	3755	3672	3593	0.035	4395.51
3674	3675	3756	3673	3594	0.035	4398.46
3675	3676	3757	3674	3595	0.035	4391.59
3676	3677	3758	3675	3596	0.050	4391.21
3677	3678	3759	3676	3597	0.035	4390.97
3678	3679	3760	3677	3598	0.035	4390.51
3679	3680	3761	3678	3599	0.035	4391.26
3680	3681	3762	3679	3600	0.035	4390.19
3681	3682	3763	3680	3601	0.035	4389.24
3682	3683	3764	3681	3602	0.035	4388.46
3683	3684	3765	3682	3603	0.035	4390.53
3684	3685	3766	3683	3604	0.035	4391.58
3685	3686	3767	3684	3605	0.035	4393.32
3686	3687	3768	3685	3606	0.035	4393.01
3687	3688	3769	3686	3607	0.035	4393.23
3688	3689	3770	3687	3608	0.035	4393.04
3689	3690	3771	3688	3609	0.035	4393.40
3690	3691	3772	3689	3610	0.035	4394.59
3691	3692	3773	3690	3611	0.035	4397.91
3692	3693	3774	3691	3612	0.065	4395.26
3693	3694	3775	3692	3613	0.065	4401.50
3694	3695	3776	3693	3614	0.065	4399.08
3695	3696	3777	3694	3615	0.065	4397.99
3696	3697	3778	3695	3616	0.065	4398.65

			FPLAIN.DAT			
3697	3698	3779	3696	3617	0.065	4396.93
3698	3699	3780	3697	3618	0.065	4400.15
3699	3700	3781	3698	3619	0.065	4398.89
3700	3701	3782	3699	3620	0.065	4398.00
3701	3702	3783	3700	3621	0.065	4398.98
3702	3703	3784	3701	3622	0.065	4399.39
3703	3704	3785	3702	3623	0.065	4399.20
3704	3705	3786	3703	3624	0.065	4397.52
3705	3706	3787	3704	3625	0.065	4403.79
3706	3707	3788	3705	3626	0.065	4401.99
3707	3708	3789	3706	3627	0.065	4403.17
3708	3709	3790	3707	3628	0.065	4399.54
3709	3710	3791	3708	3629	0.065	4403.32
3710	3711	3792	3709	3630	0.065	4405.03
3711	3712	3793	3710	3631	0.065	4406.44
3712	3713	3794	3711	3632	0.065	4406.14
3713	3714	3795	3712	3633	0.065	4407.68
3714	3715	3796	3713	3634	0.065	4407.30
3715	0	3797	3714	0	0.065	4408.19
3716	3717	3798	0	3635	0.065	4474.78
3717	3718	3799	3716	3636	0.065	4473.60
3718	3719	3800	3717	3637	0.065	4469.32
3719	3720	3801	3718	3638	0.065	4467.07
3720	3721	3802	3719	3639	0.065	4463.88
3721	3722	3803	3720	3640	0.065	4461.91
3722	3723	3804	3721	3641	0.065	4458.60
3723	3724	3805	3722	3642	0.065	4454.86
3724	3725	3806	3723	3643	0.065	4453.48
3725	3726	3807	3724	3644	0.065	4448.17
3726	3727	3808	3725	3645	0.065	4449.78
3727	3728	3809	3726	3646	0.065	4446.06
3728	3729	3810	3727	3647	0.065	4446.18
3729	3730	3811	3728	3648	0.065	4444.62
3730	3731	3812	3729	3649	0.065	4442.67
3731	3732	3813	3730	3650	0.065	4440.70
3732	3733	3814	3731	3651	0.065	4437.86
3733	3734	3815	3732	3652	0.065	4436.21
3734	3735	3816	3733	3653	0.065	4435.60
3735	3736	3817	3734	3654	0.065	4434.20
3736	3737	3818	3735	3655	0.065	4428.07
3737	3738	3819	3736	3656	0.065	4427.20
3738	3739	3820	3737	3657	0.065	4428.26
3739	3740	3821	3738	3658	0.065	4430.57
3740	0	3822	3739	0	0.065	4432.39
3741	3742	3826	0	3659	0.065	4404.10
3742	3743	3827	3741	3660	0.065	4402.79
3743	3744	3828	3742	3661	0.065	4402.27
3744	3745	3829	3743	3662	0.065	4401.43
3745	3746	3830	3744	3663	0.065	4399.93
3746	3747	3831	3745	3664	0.065	4398.63
3747	3748	3832	3746	3665	0.065	4397.42
3748	3749	3833	3747	3666	0.065	4397.28
3749	3750	3834	3748	3667	0.065	4394.70
3750	3751	3835	3749	3668	0.035	4393.87
3751	3752	3836	3750	3669	0.035	4388.96
3752	3753	3837	3751	3670	0.035	4388.89
3753	3754	3838	3752	3671	0.035	4389.84
3754	3755	3839	3753	3672	0.035	4389.04
3755	3756	3840	3754	3673	0.035	4391.10
3756	3757	3841	3755	3674	0.035	4391.56
3757	3758	3842	3756	3675	0.050	4391.75
3758	3759	3843	3757	3676	0.050	4391.39
3759	3760	3844	3758	3677	0.035	4391.19
3760	3761	3845	3759	3678	0.035	4390.28
3761	3762	3846	3760	3679	0.035	4390.27
3762	3763	3847	3761	3680	0.035	4388.83

			FPLAIN.DAT			
3763	3764	3848	3762	3681	0.035	4388.72
3764	3765	3849	3763	3682	0.035	4388.27
3765	3766	3850	3764	3683	0.035	4390.47
3766	3767	3851	3765	3684	0.035	4390.61
3767	3768	3852	3766	3685	0.035	4390.93
3768	3769	3853	3767	3686	0.035	4391.29
3769	3770	3854	3768	3687	0.035	4391.06
3770	3771	3855	3769	3688	0.035	4392.31
3771	3772	3856	3770	3689	0.035	4393.60
3772	3773	3857	3771	3690	0.035	4395.22
3773	3774	3858	3772	3691	0.065	4396.86
3774	3775	3859	3773	3692	0.065	4396.70
3775	3776	3860	3774	3693	0.065	4396.39
3776	3777	3861	3775	3694	0.065	4395.98
3777	3778	3862	3776	3695	0.065	4396.23
3778	3779	3863	3777	3696	0.065	4396.60
3779	3780	3864	3778	3697	0.065	4396.19
3780	3781	3865	3779	3698	0.065	4397.16
3781	3782	3866	3780	3699	0.065	4394.76
3782	3783	3867	3781	3700	0.065	4395.00
3783	3784	3868	3782	3701	0.065	4394.50
3784	3785	3869	3783	3702	0.065	4395.17
3785	3786	3870	3784	3703	0.065	4393.80
3786	3787	3871	3785	3704	0.065	4395.20
3787	3788	3872	3786	3705	0.065	4399.40
3788	3789	3873	3787	3706	0.065	4402.68
3789	3790	3874	3788	3707	0.065	4400.60
3790	3791	3875	3789	3708	0.065	4399.41
3791	3792	3876	3790	3709	0.065	4401.03
3792	3793	3877	3791	3710	0.065	4402.91
3793	3794	3878	3792	3711	0.065	4404.64
3794	3795	3879	3793	3712	0.065	4403.45
3795	3796	3880	3794	3713	0.065	4404.58
3796	3797	3881	3795	3714	0.065	4405.12
3797	0	3882	3796	3715	0.065	4412.71
3798	3799	3885	0	3716	0.065	4474.91
3799	3800	3886	3798	3717	0.065	4473.23
3800	3801	3887	3799	3718	0.065	4470.59
3801	3802	3888	3800	3719	0.065	4467.77
3802	3803	3889	3801	3720	0.065	4464.50
3803	3804	3890	3802	3721	0.065	4462.53
3804	3805	3891	3803	3722	0.065	4460.50
3805	3806	3892	3804	3723	0.065	4457.40
3806	3807	3893	3805	3724	0.065	4454.37
3807	3808	3894	3806	3725	0.065	4450.49
3808	3809	3895	3807	3726	0.065	4449.54
3809	3810	3896	3808	3727	0.065	4447.40
3810	3811	3897	3809	3728	0.065	4444.85
3811	3812	3898	3810	3729	0.065	4443.70
3812	3813	3899	3811	3730	0.065	4441.44
3813	3814	3900	3812	3731	0.065	4439.39
3814	3815	3901	3813	3732	0.065	4437.77
3815	3816	3902	3814	3733	0.065	4436.20
3816	3817	3903	3815	3734	0.065	4433.58
3817	3818	3904	3816	3735	0.065	4432.17
3818	3819	3905	3817	3736	0.065	4430.12
3819	3820	3906	3818	3737	0.065	4432.71
3820	3821	3907	3819	3738	0.065	4431.29
3821	3822	3908	3820	3739	0.065	4426.92
3822	3823	3909	3821	3740	0.065	4425.68
3823	0	3910	3822	0	0.065	4432.81
3824	3825	3911	0	0	0.065	4446.58
3825	3826	3912	3824	0	0.065	4404.24
3826	3827	3913	3825	3741	0.065	4403.28
3827	3828	3914	3826	3742	0.065	4404.64
3828	3829	3915	3827	3743	0.065	4404.28

			FPLAIN.DAT			
3829	3830	3916	3828	3744	0.065	4402.96
3830	3831	3917	3829	3745	0.065	4400.57
3831	3832	3918	3830	3746	0.065	4450.24
3832	3833	3919	3831	3747	0.065	4526.04
3833	3834	3920	3832	3748	0.065	4470.16
3834	3835	3921	3833	3749	0.065	4431.58
3835	3836	3922	3834	3750	0.065	4408.07
3836	3837	3923	3835	3751	0.065	4390.08
3837	3838	3924	3836	3752	0.065	4389.57
3838	3839	3925	3837	3753	0.035	4391.19
3839	3840	3926	3838	3754	0.035	4389.45
3840	3841	3927	3839	3755	0.035	4388.75
3841	3842	3928	3840	3756	0.035	4388.75
3842	3843	3929	3841	3757	0.035	4391.57
3843	3844	3930	3842	3758	0.045	4391.25
3844	3845	3931	3843	3759	0.035	4391.17
3845	3846	3932	3844	3760	0.035	4391.59
3846	3847	3933	3845	3761	0.035	4389.75
3847	3848	3934	3846	3762	0.035	4387.24
3848	3849	3935	3847	3763	0.035	4387.81
3849	3850	3936	3848	3764	0.035	4388.00
3850	3851	3937	3849	3765	0.035	4388.33
3851	3852	3938	3850	3766	0.035	4388.51
3852	3853	3939	3851	3767	0.035	4390.11
3853	3854	3940	3852	3768	0.035	4390.69
3854	3855	3941	3853	3769	0.035	4391.90
3855	3856	3942	3854	3770	0.035	4392.97
3856	3857	3943	3855	3771	0.035	4393.10
3857	3858	3944	3856	3772	0.035	4396.90
3858	3859	3945	3857	3773	0.065	4398.80
3859	3860	3946	3858	3774	0.065	4396.15
3860	3861	3947	3859	3775	0.065	4393.81
3861	3862	3948	3860	3776	0.065	4393.70
3862	3863	3949	3861	3777	0.065	4396.48
3863	3864	3950	3862	3778	0.065	4394.96
3864	3865	3951	3863	3779	0.065	4394.11
3865	3866	3952	3864	3780	0.065	4394.54
3866	3867	3953	3865	3781	0.065	4393.24
3867	3868	3954	3866	3782	0.065	4393.00
3868	3869	3955	3867	3783	0.065	4392.04
3869	3870	3956	3868	3784	0.065	4395.48
3870	3871	3957	3869	3785	0.065	4393.76
3871	3872	3958	3870	3786	0.065	4412.96
3872	3873	3959	3871	3787	0.065	4397.08
3873	3874	3960	3872	3788	0.065	4399.73
3874	3875	3961	3873	3789	0.065	4401.32
3875	3876	3962	3874	3790	0.065	4396.37
3876	3877	3963	3875	3791	0.065	4397.95
3877	3878	3964	3876	3792	0.065	4401.34
3878	3879	3965	3877	3793	0.065	4402.22
3879	3880	3966	3878	3794	0.065	4402.73
3880	3881	3967	3879	3795	0.065	4404.27
3881	3882	3968	3880	3796	0.065	4406.80
3882	3883	3969	3881	3797	0.065	4413.31
3883	3884	3970	3882	0	0.065	4408.76
3884	0	3971	3883	0	0.065	4418.29
3885	3886	0	0	3798	0.065	4473.34
3886	3887	0	3885	3799	0.065	4471.23
3887	3888	0	3886	3800	0.065	4469.41
3888	3889	0	3887	3801	0.065	4466.28
3889	3890	0	3888	3802	0.065	4462.71
3890	3891	0	3889	3803	0.065	4461.36
3891	3892	0	3890	3804	0.065	4459.49
3892	3893	0	3891	3805	0.065	4456.71
3893	3894	0	3892	3806	0.065	4452.97
3894	3895	0	3893	3807	0.065	4450.74

			FPLAIN.DAT			
3895	3896	0	3894	3808	0.065	4448.37
3896	3897	0	3895	3809	0.065	4446.87
3897	3898	0	3896	3810	0.065	4444.57
3898	3899	0	3897	3811	0.065	4442.90
3899	3900	0	3898	3812	0.065	4441.58
3900	3901	0	3899	3813	0.065	4439.71
3901	3902	0	3900	3814	0.065	4436.19
3902	3903	0	3901	3815	0.065	4436.35
3903	3904	0	3902	3816	0.065	4434.09
3904	3905	0	3903	3817	0.065	4433.11
3905	3906	0	3904	3818	0.065	4431.96
3906	3907	0	3905	3819	0.065	4431.63
3907	3908	0	3906	3820	0.065	4430.58
3908	3909	0	3907	3821	0.065	4431.84
3909	3910	0	3908	3822	0.065	4423.67
3910	0	0	3909	3823	0.065	4431.55
3911	3912	3975	0	3824	0.065	4407.00
3912	3913	3976	3911	3825	0.065	4405.53
3913	3914	3977	3912	3826	0.065	4404.93
3914	3915	3978	3913	3827	0.065	4405.95
3915	3916	3979	3914	3828	0.065	4407.43
3916	3917	3980	3915	3829	0.065	4482.06
3917	3918	3981	3916	3830	0.065	4443.81
3918	3919	3982	3917	3831	0.065	4518.54
3919	3920	3983	3918	3832	0.065	4588.77
3920	3921	0	3919	3833	0.065	4684.41
3921	3922	0	3920	3834	0.065	4644.92
3922	3923	0	3921	3835	0.065	4527.83
3923	3924	3984	3922	3836	0.065	4431.38
3924	3925	3985	3923	3837	0.065	4406.00
3925	3926	3986	3924	3838	0.065	4395.96
3926	3927	3987	3925	3839	0.065	4393.53
3927	3928	3988	3926	3840	0.035	4390.90
3928	3929	3989	3927	3841	0.035	4388.31
3929	3930	3990	3928	3842	0.035	4389.06
3930	3931	3991	3929	3843	0.035	4392.75
3931	3932	3992	3930	3844	0.035	4392.77
3932	3933	3993	3931	3845	0.035	4393.90
3933	3934	3994	3932	3846	0.035	4389.34
3934	3935	3995	3933	3847	0.035	4389.30
3935	3936	3996	3934	3848	0.035	4388.58
3936	3937	3997	3935	3849	0.035	4387.73
3937	3938	3998	3936	3850	0.035	4389.26
3938	3939	3999	3937	3851	0.035	4389.67
3939	3940	4000	3938	3852	0.035	4391.50
3940	3941	4001	3939	3853	0.035	4391.66
3941	3942	4002	3940	3854	0.035	4391.95
3942	3943	4003	3941	3855	0.035	4392.51
3943	3944	4004	3942	3856	0.035	4394.90
3944	3945	4005	3943	3857	0.065	4395.99
3945	3946	4006	3944	3858	0.065	4395.94
3946	3947	4007	3945	3859	0.065	4395.87
3947	3948	4008	3946	3860	0.065	4393.61
3948	3949	4009	3947	3861	0.065	4392.90
3949	3950	4010	3948	3862	0.065	4393.79
3950	3951	4011	3949	3863	0.065	4394.38
3951	3952	4012	3950	3864	0.065	4392.09
3952	3953	4013	3951	3865	0.065	4395.48
3953	3954	4014	3952	3866	0.065	4390.50
3954	3955	4015	3953	3867	0.065	4392.00
3955	3956	4016	3954	3868	0.065	4393.56
3956	3957	4017	3955	3869	0.065	4398.62
3957	3958	4018	3956	3870	0.065	4398.00
3958	3959	4019	3957	3871	0.065	4397.00
3959	3960	4020	3958	3872	0.065	4395.94
3960	3961	4021	3959	3873	0.065	4399.05

			FPLAIN.DAT			
3961	3962	4022	3960	3874	0.065	4398.78
3962	3963	4023	3961	3875	0.065	4401.32
3963	3964	4024	3962	3876	0.065	4397.11
3964	3965	4025	3963	3877	0.065	4400.20
3965	3966	4026	3964	3878	0.065	4402.96
3966	3967	4027	3965	3879	0.065	4403.14
3967	3968	4028	3966	3880	0.065	4407.33
3968	3969	4029	3967	3881	0.065	4408.75
3969	3970	4030	3968	3882	0.065	4408.08
3970	3971	4031	3969	3883	0.065	4407.62
3971	3972	4032	3970	3884	0.065	4416.34
3972	3973	4033	3971	0	0.065	4414.33
3973	3974	4034	3972	0	0.065	4415.64
3974	0	4035	3973	0	0.065	4413.57
3975	3976	4040	0	3911	0.065	4409.35
3976	3977	4041	3975	3912	0.065	4406.88
3977	3978	4042	3976	3913	0.065	4411.44
3978	3979	4043	3977	3914	0.065	4444.10
3979	3980	4044	3978	3915	0.065	4451.35
3980	3981	4045	3979	3916	0.065	4544.73
3981	3982	0	3980	3917	0.065	4612.31
3982	3983	0	3981	3918	0.065	4695.49
3983	0	0	3982	3919	0.065	4649.26
3984	3985	4048	0	3923	0.065	4559.14
3985	3986	4049	3984	3924	0.065	4473.08
3986	3987	4050	3985	3925	0.065	4437.37
3987	3988	4051	3986	3926	0.065	4393.66
3988	3989	4052	3987	3927	0.065	4391.49
3989	3990	4053	3988	3928	0.035	4390.08
3990	3991	4054	3989	3929	0.035	4388.14
3991	3992	4055	3990	3930	0.035	4390.72
3992	3993	4056	3991	3931	0.035	4392.65
3993	3994	4057	3992	3932	0.035	4392.55
3994	3995	4058	3993	3933	0.035	4392.49
3995	3996	4059	3994	3934	0.035	4389.72
3996	3997	4060	3995	3935	0.035	4388.71
3997	3998	4061	3996	3936	0.035	4386.83
3998	3999	4062	3997	3937	0.035	4389.00
3999	4000	4063	3998	3938	0.035	4390.34
4000	4001	4064	3999	3939	0.035	4390.54
4001	4002	4065	4000	3940	0.035	4391.11
4002	4003	4066	4001	3941	0.035	4391.86
4003	4004	4067	4002	3942	0.035	4392.80
4004	4005	4068	4003	3943	0.065	4394.75
4005	4006	4069	4004	3944	0.065	4394.61
4006	4007	4070	4005	3945	0.065	4393.88
4007	4008	4071	4006	3946	0.065	4393.27
4008	4009	4072	4007	3947	0.065	4392.35
4009	4010	4073	4008	3948	0.065	4395.18
4010	4011	4074	4009	3949	0.065	4392.84
4011	4012	4075	4010	3950	0.065	4393.26
4012	4013	4076	4011	3951	0.065	4393.57
4013	4014	4077	4012	3952	0.065	4394.28
4014	4015	4078	4013	3953	0.065	4394.70
4015	4016	4079	4014	3954	0.065	4391.00
4016	4017	4080	4015	3955	0.065	4390.13
4017	4018	4081	4016	3956	0.065	4398.09
4018	4019	4082	4017	3957	0.065	4398.00
4019	4020	4083	4018	3958	0.120	4340.41
4020	4021	4084	4019	3959	0.065	4395.18
4021	4022	4085	4020	3960	0.065	4397.59
4022	4023	4086	4021	3961	0.065	4399.45
4023	4024	4087	4022	3962	0.065	4398.81
4024	4025	4088	4023	3963	0.065	4400.35
4025	4026	4089	4024	3964	0.065	4401.74
4026	4027	4090	4025	3965	0.065	4402.40



			FPLAIN.DAT			
4027	4028	4091	4026	3966	0.065	4404.07
4028	4029	4092	4027	3967	0.065	4408.14
4029	4030	4093	4028	3968	0.065	4401.99
4030	4031	4094	4029	3969	0.065	4407.01
4031	4032	4095	4030	3970	0.065	4410.02
4032	4033	4096	4031	3971	0.065	4410.56
4033	4034	4097	4032	3972	0.065	4408.76
4034	4035	4098	4033	3973	0.065	4410.42
4035	4036	4099	4034	3974	0.065	4410.41
4036	4037	4100	4035	0	0.065	4411.37
4037	4038	4101	4036	0	0.065	4412.26
4038	0	4102	4037	0	0.065	4413.82
4039	4040	0	0	0	0.065	4412.62
4040	4041	0	4039	3975	0.065	4411.01
4041	4042	0	4040	3976	0.065	4409.00
4042	4043	0	4041	3977	0.065	4460.43
4043	4044	0	4042	3978	0.065	4614.83
4044	4045	0	4043	3979	0.065	4639.58
4045	0	0	4044	3980	0.065	4592.35
4046	4047	4107	0	0	0.065	4516.09
4047	4048	4108	4046	0	0.065	4418.68
4048	4049	4109	4047	3984	0.065	4405.84
4049	4050	4110	4048	3985	0.065	4406.57
4050	4051	4111	4049	3986	0.065	4405.39
4051	4052	4112	4050	3987	0.065	4396.97
4052	4053	4113	4051	3988	0.065	4395.52
4053	4054	4114	4052	3989	0.065	4390.21
4054	4055	4115	4053	3990	0.035	4387.62
4055	4056	4116	4054	3991	0.035	4388.70
4056	4057	4117	4055	3992	0.035	4388.87
4057	4058	4118	4056	3993	0.035	4392.40
4058	4059	4119	4057	3994	0.035	4393.69
4059	4060	4120	4058	3995	0.035	4391.53
4060	4061	4121	4059	3996	0.035	4390.27
4061	4062	4122	4060	3997	0.035	4389.32
4062	4063	4123	4061	3998	0.035	4385.95
4063	4064	4124	4062	3999	0.035	4390.16
4064	4065	4125	4063	4000	0.035	4390.95
4065	4066	4126	4064	4001	0.035	4392.34
4066	4067	4127	4065	4002	0.035	4391.98
4067	4068	4128	4066	4003	0.035	4392.70
4068	4069	4129	4067	4004	0.065	4394.44
4069	4070	4130	4068	4005	0.065	4394.13
4070	4071	4131	4069	4006	0.065	4393.83
4071	4072	4132	4070	4007	0.065	4391.86
4072	4073	4133	4071	4008	0.065	4390.76
4073	4074	4134	4072	4009	0.065	4389.24
4074	4075	4135	4073	4010	0.065	4393.44
4075	4076	4136	4074	4011	0.065	4392.98
4076	4077	4137	4075	4012	0.065	4394.79
4077	4078	4138	4076	4013	0.065	4394.87
4078	4079	4139	4077	4014	0.065	4389.15
4079	4080	4140	4078	4015	0.065	4390.00
4080	4081	4141	4079	4016	0.065	4389.57
4081	4082	4142	4080	4017	0.065	4398.00
4082	4083	4143	4081	4018	0.120	4372.57
4083	4084	4144	4082	4019	0.120	4340.21
4084	4085	4145	4083	4020	0.120	4340.91
4085	4086	4146	4084	4021	0.120	4388.62
4086	4087	4147	4085	4022	0.065	4381.85
4087	4088	4148	4086	4023	0.065	4397.04
4088	4089	4149	4087	4024	0.065	4398.71
4089	4090	4150	4088	4025	0.065	4398.89
4090	4091	4151	4089	4026	0.065	4402.48
4091	4092	4152	4090	4027	0.065	4401.06
4092	4093	4153	4091	4028	0.065	4402.39



			FPLAIN.DAT			
4093	4094	4154	4092	4029	0.065	4402.37
4094	4095	4155	4093	4030	0.065	4405.24
4095	4096	4156	4094	4031	0.065	4405.85
4096	4097	4157	4095	4032	0.065	4410.89
4097	4098	4158	4096	4033	0.065	4409.03
4098	4099	4159	4097	4034	0.065	4407.13
4099	4100	4160	4098	4035	0.065	4410.64
4100	4101	4161	4099	4036	0.065	4410.39
4101	4102	4162	4100	4037	0.065	4409.74
4102	4103	4163	4101	4038	0.065	4410.35
4103	4104	4164	4102	0	0.065	4414.23
4104	4105	4165	4103	0	0.065	4458.21
4105	0	4166	4104	0	0.065	4465.82
4106	4107	4171	0	0	0.065	4468.36
4107	4108	4172	4106	4046	0.065	4411.79
4108	4109	4173	4107	4047	0.065	4408.39
4109	4110	4174	4108	4048	0.065	4406.37
4110	4111	4175	4109	4049	0.065	4402.97
4111	4112	4176	4110	4050	0.065	4397.47
4112	4113	4177	4111	4051	0.065	4398.09
4113	4114	4178	4112	4052	0.065	4395.25
4114	4115	4179	4113	4053	0.065	4395.27
4115	4116	4180	4114	4054	0.065	4389.51
4116	4117	4181	4115	4055	0.075	4388.94
4117	4118	4182	4116	4056	0.055	4390.98
4118	4119	4183	4117	4057	0.045	4385.75
4119	4120	4184	4118	4058	0.035	4392.21
4120	4121	4185	4119	4059	0.035	4391.41
4121	4122	4186	4120	4060	0.035	4391.10
4122	4123	4187	4121	4061	0.035	4389.83
4123	4124	4188	4122	4062	0.035	4384.99
4124	4125	4189	4123	4063	0.035	4389.27
4125	4126	4190	4124	4064	0.035	4390.38
4126	4127	4191	4125	4065	0.035	4391.90
4127	4128	4192	4126	4066	0.035	4391.98
4128	4129	4193	4127	4067	0.035	4391.40
4129	4130	4194	4128	4068	0.035	4395.41
4130	4131	4195	4129	4069	0.065	4394.89
4131	4132	4196	4130	4070	0.065	4394.90
4132	4133	4197	4131	4071	0.065	4394.21
4133	4134	4198	4132	4072	0.065	4393.18
4134	4135	4199	4133	4073	0.065	4389.43
4135	4136	4200	4134	4074	0.065	4392.81
4136	4137	4201	4135	4075	0.065	4392.90
4137	4138	4202	4136	4076	0.065	4392.30
4138	4139	4203	4137	4077	0.065	4394.05
4139	4140	4204	4138	4078	0.065	4393.16
4140	4141	4205	4139	4079	0.065	4389.50
4141	4142	4206	4140	4080	0.065	4393.02
4142	4143	4207	4141	4081	0.065	4398.00
4143	4144	4208	4142	4082	0.120	4340.89
4144	4145	4209	4143	4083	0.120	4341.43
4145	4146	4210	4144	4084	0.120	4341.36
4146	4147	4211	4145	4085	0.120	4383.80
4147	4148	4212	4146	4086	0.120	4374.63
4148	4149	4213	4147	4087	0.065	4397.50
4149	4150	4214	4148	4088	0.065	4398.86
4150	4151	4215	4149	4089	0.065	4400.74
4151	4152	4216	4150	4090	0.065	4400.73
4152	4153	4217	4151	4091	0.065	4399.89
4153	4154	4218	4152	4092	0.065	4397.68
4154	4155	4219	4153	4093	0.065	4402.03
4155	4156	4220	4154	4094	0.065	4405.13
4156	4157	4221	4155	4095	0.065	4407.06
4157	4158	4222	4156	4096	0.065	4407.27
4158	4159	4223	4157	4097	0.065	4407.69

			FPLAIN.DAT			
4159	4160	4224	4158	4098	0.065	4409.36
4160	4161	4225	4159	4099	0.065	4410.51
4161	4162	4226	4160	4100	0.065	4407.17
4162	4163	4227	4161	4101	0.065	4408.28
4163	4164	4228	4162	4102	0.065	4409.81
4164	4165	4229	4163	4103	0.065	4421.50
4165	4166	4230	4164	4104	0.065	4467.39
4166	4167	4231	4165	4105	0.065	4510.56
4167	4168	4232	4166	0	0.065	4469.85
4168	4169	4233	4167	0	0.065	4465.22
4169	0	4234	4168	0	0.065	4457.76
4170	4171	4239	0	0	0.065	4421.29
4171	4172	4240	4170	4106	0.065	4418.99
4172	4173	4241	4171	4107	0.065	4417.82
4173	4174	4242	4172	4108	0.065	4416.67
4174	4175	4243	4173	4109	0.065	4417.31
4175	4176	4244	4174	4110	0.065	4412.27
4176	4177	4245	4175	4111	0.065	4409.02
4177	4178	4246	4176	4112	0.065	4404.79
4178	4179	4247	4177	4113	0.065	4403.64
4179	4180	4248	4178	4114	0.065	4395.00
4180	4181	4249	4179	4115	0.065	4393.46
4181	4182	4250	4180	4116	0.065	4385.77
4182	4183	4251	4181	4117	0.035	4399.28
4183	4184	4252	4182	4118	0.035	4385.86
4184	4185	4253	4183	4119	0.035	4392.00
4185	4186	4254	4184	4120	0.035	4393.31
4186	4187	4255	4185	4121	0.035	4393.12
4187	4188	4256	4186	4122	0.035	4391.10
4188	4189	4257	4187	4123	0.035	4389.51
4189	4190	4258	4188	4124	0.035	4384.84
4190	4191	4259	4189	4125	0.035	4389.79
4191	4192	4260	4190	4126	0.035	4390.35
4192	4193	4261	4191	4127	0.035	4390.61
4193	4194	4262	4192	4128	0.035	4390.59
4194	4195	4263	4193	4129	0.035	4393.23
4195	4196	4264	4194	4130	0.035	4391.56
4196	4197	4265	4195	4131	0.065	4389.99
4197	4198	4266	4196	4132	0.065	4392.41
4198	4199	4267	4197	4133	0.065	4390.51
4199	4200	4268	4198	4134	0.065	4389.56
4200	4201	4269	4199	4135	0.065	4392.79
4201	4202	4270	4200	4136	0.065	4392.50
4202	4203	4271	4201	4137	0.065	4390.03
4203	4204	4272	4202	4138	0.065	4390.93
4204	4205	4273	4203	4139	0.065	4389.56
4205	4206	4274	4204	4140	0.065	4389.00
4206	4207	4275	4205	4141	0.065	4389.53
4207	4208	4276	4206	4142	0.065	4398.00
4208	4209	4277	4207	4143	0.120	4340.81
4209	4210	4278	4208	4144	0.120	4341.06
4210	4211	4279	4209	4145	0.120	4340.48
4211	4212	4280	4210	4146	0.120	4391.08
4212	4213	4281	4211	4147	0.065	4392.48
4213	4214	4282	4212	4148	0.065	4396.21
4214	4215	4283	4213	4149	0.065	4398.36
4215	4216	4284	4214	4150	0.065	4398.27
4216	4217	4285	4215	4151	0.065	4397.79
4217	4218	4286	4216	4152	0.065	4400.83
4218	4219	4287	4217	4153	0.065	4401.19
4219	4220	4288	4218	4154	0.065	4402.29
4220	4221	4289	4219	4155	0.065	4407.26
4221	4222	4290	4220	4156	0.065	4404.74
4222	4223	4291	4221	4157	0.065	4403.77
4223	4224	4292	4222	4158	0.065	4405.13
4224	4225	4293	4223	4159	0.065	4410.88

			FPLAIN.DAT			
4225	4226	4294	4224	4160	0.065	4408.18
4226	4227	4295	4225	4161	0.065	4407.92
4227	4228	4296	4226	4162	0.065	4407.96
4228	4229	4297	4227	4163	0.065	4408.29
4229	4230	4298	4228	4164	0.065	4413.81
4230	4231	4299	4229	4165	0.065	4471.79
4231	4232	4300	4230	4166	0.065	4433.30
4232	4233	4301	4231	4167	0.065	4417.07
4233	4234	4302	4232	4168	0.065	4423.77
4234	4235	4303	4233	4169	0.065	4438.20
4235	4236	4304	4234	0	0.065	4460.44
4236	4237	4305	4235	0	0.065	4434.78
4237	0	4306	4236	0	0.065	4432.43
4238	4239	4308	0	0	0.065	4458.99
4239	4240	4309	4238	4170	0.065	4427.01
4240	4241	4310	4239	4171	0.065	4427.24
4241	4242	4311	4240	4172	0.065	4428.20
4242	4243	4312	4241	4173	0.065	4429.94
4243	4244	4313	4242	4174	0.065	4433.46
4244	4245	4314	4243	4175	0.065	4430.02
4245	4246	4315	4244	4176	0.065	4422.97
4246	4247	4316	4245	4177	0.065	4416.74
4247	4248	4317	4246	4178	0.065	4410.59
4248	4249	4318	4247	4179	0.065	4407.78
4249	4250	4319	4248	4180	0.065	4404.84
4250	4251	4320	4249	4181	0.065	4396.25
4251	4252	4321	4250	4182	0.065	4393.97
4252	4253	4322	4251	4183	0.065	4394.63
4253	4254	4323	4252	4184	0.035	4392.58
4254	4255	4324	4253	4185	0.035	4394.13
4255	4256	4325	4254	4186	0.035	4392.56
4256	4257	4326	4255	4187	0.035	4391.83
4257	4258	4327	4256	4188	0.035	4390.24
4258	4259	4328	4257	4189	0.035	4384.36
4259	4260	4329	4258	4190	0.035	4389.03
4260	4261	4330	4259	4191	0.035	4390.65
4261	4262	4331	4260	4192	0.035	4389.57
4262	4263	4332	4261	4193	0.035	4389.14
4263	4264	4333	4262	4194	0.035	4389.53
4264	4265	4334	4263	4195	0.035	4391.29
4265	4266	4335	4264	4196	0.065	4392.67
4266	4267	4336	4265	4197	0.065	4392.18
4267	4268	4337	4266	4198	0.065	4390.04
4268	4269	4338	4267	4199	0.065	4388.73
4269	4270	4339	4268	4200	0.065	4390.45
4270	4271	4340	4269	4201	0.065	4391.72
4271	4272	4341	4270	4202	0.065	4396.25
4272	4273	4342	4271	4203	0.065	4389.71
4273	4274	4343	4272	4204	0.065	4389.60
4274	4275	4344	4273	4205	0.065	4388.50
4275	4276	4345	4274	4206	0.065	4398.00
4276	4277	4346	4275	4207	0.065	4398.00
4277	4278	4347	4276	4208	0.120	4340.14
4278	4279	4348	4277	4209	0.120	4340.16
4279	4280	4349	4278	4210	0.120	4366.21
4280	4281	4350	4279	4211	0.065	4392.21
4281	4282	4351	4280	4212	0.065	4394.53
4282	4283	4352	4281	4213	0.065	4396.03
4283	4284	4353	4282	4214	0.065	4397.78
4284	4285	4354	4283	4215	0.065	4397.66
4285	4286	4355	4284	4216	0.065	4398.14
4286	4287	4356	4285	4217	0.065	4401.70
4287	4288	4357	4286	4218	0.065	4399.27
4288	4289	4358	4287	4219	0.065	4403.35
4289	4290	4359	4288	4220	0.065	4407.24
4290	4291	4360	4289	4221	0.065	4403.47

			FPLAIN.DAT			
4291	4292	4361	4290	4222	0.065	4404.80
4292	4293	4362	4291	4223	0.065	4408.35
4293	4294	4363	4292	4224	0.065	4408.82
4294	4295	4364	4293	4225	0.065	4408.86
4295	4296	4365	4294	4226	0.065	4405.39
4296	4297	4366	4295	4227	0.065	4406.59
4297	4298	4367	4296	4228	0.065	4406.60
4298	4299	4368	4297	4229	0.065	4407.49
4299	4300	4369	4298	4230	0.065	4412.68
4300	4301	4370	4299	4231	0.065	4414.20
4301	4302	4371	4300	4232	0.065	4415.59
4302	4303	4372	4301	4233	0.065	4417.52
4303	4304	4373	4302	4234	0.065	4417.35
4304	4305	4374	4303	4235	0.065	4413.22
4305	4306	0	4304	4236	0.065	4424.39
4306	0	0	4305	4237	0.065	4424.05
4307	4308	0	0	0	0.065	4448.67
4308	4309	4375	4307	4238	0.065	4440.67
4309	4310	4376	4308	4239	0.065	4436.19
4310	4311	4377	4309	4240	0.065	4438.47
4311	4312	4378	4310	4241	0.065	4445.22
4312	4313	4379	4311	4242	0.065	4450.65
4313	4314	4380	4312	4243	0.065	4453.93
4314	4315	4381	4313	4244	0.065	4449.22
4315	4316	4382	4314	4245	0.065	4441.09
4316	4317	4383	4315	4246	0.065	4433.57
4317	4318	4384	4316	4247	0.065	4427.22
4318	4319	4385	4317	4248	0.065	4421.31
4319	4320	4386	4318	4249	0.065	4414.68
4320	4321	4387	4319	4250	0.065	4410.95
4321	4322	4388	4320	4251	0.065	4401.45
4322	4323	4389	4321	4252	0.065	4396.97
4323	4324	4390	4322	4253	0.035	4393.13
4324	4325	4391	4323	4254	0.035	4392.87
4325	4326	4392	4324	4255	0.035	4388.59
4326	4327	4393	4325	4256	0.035	4391.83
4327	4328	4394	4326	4257	0.035	4389.65
4328	4329	4395	4327	4258	0.035	4384.59
4329	4330	4396	4328	4259	0.035	4391.87
4330	4331	4397	4329	4260	0.035	4392.16
4331	4332	4398	4330	4261	0.035	4388.54
4332	4333	4399	4331	4262	0.035	4388.19
4333	4334	4400	4332	4263	0.035	4389.03
4334	4335	4401	4333	4264	0.035	4391.43
4335	4336	4402	4334	4265	0.065	4392.50
4336	4337	4403	4335	4266	0.065	4393.53
4337	4338	4404	4336	4267	0.065	4388.14
4338	4339	4405	4337	4268	0.065	4389.14
4339	4340	4406	4338	4269	0.065	4395.00
4340	4341	4407	4339	4270	0.065	4391.50
4341	4342	4408	4340	4271	0.065	4391.99
4342	4343	4409	4341	4272	0.065	4386.86
4343	4344	4410	4342	4273	0.065	4387.06
4344	4345	4411	4343	4274	0.065	4388.35
4345	4346	4412	4344	4275	0.065	4395.00
4346	4347	4413	4345	4276	0.065	4392.25
4347	4348	4414	4346	4277	0.085	4391.00
4348	4349	4415	4347	4278	0.085	4390.44
4349	4350	4416	4348	4279	0.085	4393.94
4350	4351	4417	4349	4280	0.085	4390.12
4351	4352	4418	4350	4281	0.065	4391.15
4352	4353	4419	4351	4282	0.065	4391.78
4353	4354	4420	4352	4283	0.065	4393.40
4354	4355	4421	4353	4284	0.065	4393.90
4355	4356	4422	4354	4285	0.065	4398.20
4356	4357	4423	4355	4286	0.065	4399.95

			FPLAIN.DAT			
4357	4358	4424	4356	4287	0.065	4401.09
4358	4359	4425	4357	4288	0.065	4399.79
4359	4360	4426	4358	4289	0.065	4400.69
4360	4361	4427	4359	4290	0.065	4401.48
4361	4362	4428	4360	4291	0.065	4402.52
4362	4363	4429	4361	4292	0.065	4406.32
4363	4364	4430	4362	4293	0.065	4407.68
4364	4365	4431	4363	4294	0.065	4408.56
4365	4366	4432	4364	4295	0.065	4407.20
4366	4367	4433	4365	4296	0.065	4407.75
4367	4368	4434	4366	4297	0.065	4408.87
4368	4369	4435	4367	4298	0.065	4409.97
4369	4370	4436	4368	4299	0.065	4411.20
4370	4371	4437	4369	4300	0.065	4413.06
4371	4372	4438	4370	4301	0.065	4414.41
4372	4373	4439	4371	4302	0.065	4421.06
4373	4374	0	4372	4303	0.065	4463.03
4374	0	0	4373	4304	0.065	4469.28
4375	4376	4440	0	4308	0.065	4454.99
4376	4377	4441	4375	4309	0.065	4454.54
4377	4378	4442	4376	4310	0.065	4469.26
4378	4379	4443	4377	4311	0.065	4461.88
4379	4380	4444	4378	4312	0.065	4471.30
4380	4381	4445	4379	4313	0.065	4477.55
4381	4382	4446	4380	4314	0.065	4470.26
4382	4383	4447	4381	4315	0.065	4461.35
4383	4384	4448	4382	4316	0.065	4452.41
4384	4385	4449	4383	4317	0.065	4448.25
4385	4386	4450	4384	4318	0.065	4439.82
4386	4387	4451	4385	4319	0.065	4427.76
4387	4388	4452	4386	4320	0.065	4428.27
4388	4389	4453	4387	4321	0.065	4417.72
4389	4390	4454	4388	4322	0.065	4412.39
4390	4391	4455	4389	4323	0.065	4403.84
4391	4392	4456	4390	4324	0.035	4397.33
4392	4393	4457	4391	4325	0.035	4383.23
4393	4394	4458	4392	4326	0.035	4390.14
4394	4395	4459	4393	4327	0.035	4390.72
4395	4396	4460	4394	4328	0.035	4393.31
4396	4397	4461	4395	4329	0.035	4390.48
4397	4398	4462	4396	4330	0.035	4391.26
4398	4399	4463	4397	4331	0.035	4388.08
4399	4400	4464	4398	4332	0.035	4388.51
4400	4401	4465	4399	4333	0.035	4387.39
4401	4402	4466	4400	4334	0.035	4389.50
4402	4403	4467	4401	4335	0.065	4393.90
4403	4404	4468	4402	4336	0.065	4391.99
4404	4405	4469	4403	4337	0.065	4390.77
4405	4406	4470	4404	4338	0.065	4390.36
4406	4407	4471	4405	4339	0.065	4390.71
4407	4408	4472	4406	4340	0.065	4392.59
4408	4409	4473	4407	4341	0.065	4391.82
4409	4410	4474	4408	4342	0.065	4389.47
4410	4411	4475	4409	4343	0.065	4386.41
4411	4412	4476	4410	4344	0.065	4387.39
4412	4413	4477	4411	4345	0.065	4398.00
4413	4414	4478	4412	4346	0.065	4402.56
4414	4415	4479	4413	4347	0.065	4387.67
4415	4416	4480	4414	4348	0.065	4387.00
4416	4417	4481	4415	4349	0.065	4390.80
4417	4418	4482	4416	4350	0.065	4389.07
4418	4419	4483	4417	4351	0.065	4390.74
4419	4420	4484	4418	4352	0.065	4391.84
4420	4421	4485	4419	4353	0.065	4392.35
4421	4422	4486	4420	4354	0.065	4396.40
4422	4423	4487	4421	4355	0.065	4398.75

			FPLAIN.DAT			
4423	4424	4488	4422	4356	0.065	4399.80
4424	4425	4489	4423	4357	0.065	4399.79
4425	4426	4490	4424	4358	0.065	4400.09
4426	4427	4491	4425	4359	0.065	4401.37
4427	4428	4492	4426	4360	0.065	4401.85
4428	4429	4493	4427	4361	0.065	4401.79
4429	4430	4494	4428	4362	0.065	4406.46
4430	4431	4495	4429	4363	0.065	4408.56
4431	4432	4496	4430	4364	0.065	4405.86
4432	4433	4497	4431	4365	0.065	4406.68
4433	4434	4498	4432	4366	0.065	4409.83
4434	4435	4499	4433	4367	0.065	4409.87
4435	4436	4500	4434	4368	0.065	4412.05
4436	4437	4501	4435	4369	0.065	4414.39
4437	4438	4502	4436	4370	0.065	4416.39
4438	4439	4503	4437	4371	0.065	4417.26
4439	0	4504	4438	4372	0.065	4464.40
4440	4441	0	0	4375	0.065	4503.32
4441	4442	4505	4440	4376	0.065	4483.29
4442	4443	4506	4441	4377	0.065	4480.79
4443	4444	4507	4442	4378	0.065	4483.16
4444	4445	4508	4443	4379	0.065	4492.60
4445	4446	4509	4444	4380	0.065	4500.78
4446	4447	4510	4445	4381	0.065	4492.51
4447	4448	4511	4446	4382	0.065	4483.54
4448	4449	4512	4447	4383	0.065	4468.30
4449	4450	4513	4448	4384	0.065	4460.64
4450	4451	4514	4449	4385	0.065	4450.60
4451	4452	4515	4450	4386	0.065	4448.18
4452	4453	4516	4451	4387	0.065	4449.25
4453	4454	4517	4452	4388	0.065	4443.81
4454	4455	4518	4453	4389	0.065	4435.12
4455	4456	4519	4454	4390	0.065	4421.99
4456	4457	4520	4455	4391	0.065	4405.51
4457	4458	4521	4456	4392	0.065	4397.58
4458	4459	4522	4457	4393	0.065	4384.24
4459	4460	4523	4458	4394	0.065	4382.99
4460	4461	4524	4459	4395	0.035	4382.79
4461	4462	4525	4460	4396	0.035	4391.88
4462	4463	4526	4461	4397	0.035	4388.62
4463	4464	4527	4462	4398	0.035	4387.19
4464	4465	4528	4463	4399	0.035	4386.55
4465	4466	4529	4464	4400	0.035	4386.90
4466	4467	4530	4465	4401	0.035	4391.08
4467	4468	4531	4466	4402	0.065	4393.63
4468	4469	4532	4467	4403	0.065	4392.46
4469	4470	4533	4468	4404	0.065	4390.12
4470	4471	4534	4469	4405	0.065	4387.26
4471	4472	4535	4470	4406	0.065	4392.36
4472	4473	4536	4471	4407	0.065	4391.00
4473	4474	4537	4472	4408	0.065	4388.15
4474	4475	4538	4473	4409	0.065	4392.32
4475	4476	4539	4474	4410	0.065	4386.68
4476	4477	4540	4475	4411	0.065	4386.47
4477	4478	4541	4476	4412	0.065	4398.00
4478	4479	4542	4477	4413	0.065	4390.74
4479	4480	4543	4478	4414	0.065	4388.08
4480	4481	4544	4479	4415	0.065	4386.50
4481	4482	4545	4480	4416	0.065	4389.42
4482	4483	4546	4481	4417	0.065	4389.12
4483	4484	4547	4482	4418	0.065	4390.49
4484	4485	4548	4483	4419	0.065	4391.56
4485	4486	4549	4484	4420	0.065	4392.50
4486	4487	4550	4485	4421	0.065	4395.87
4487	4488	4551	4486	4422	0.065	4397.38
4488	4489	4552	4487	4423	0.065	4399.07



			FPLAIN.DAT			
4489	4490	4553	4488	4424	0.065	4398.96
4490	4491	4554	4489	4425	0.065	4399.46
4491	4492	4555	4490	4426	0.065	4399.50
4492	4493	4556	4491	4427	0.065	4399.96
4493	4494	4557	4492	4428	0.065	4402.90
4494	4495	4558	4493	4429	0.065	4405.55
4495	4496	4559	4494	4430	0.065	4406.63
4496	4497	4560	4495	4431	0.065	4410.59
4497	4498	4561	4496	4432	0.065	4411.29
4498	4499	4562	4497	4433	0.065	4416.16
4499	4500	4563	4498	4434	0.065	4415.60
4500	4501	4564	4499	4435	0.065	4429.07
4501	4502	4565	4500	4436	0.065	4453.27
4502	4503	4566	4501	4437	0.065	4425.99
4503	4504	4567	4502	4438	0.065	4422.94
4504	0	4568	4503	4439	0.065	4461.16
4505	4506	0	0	4441	0.065	4506.54
4506	4507	4570	4505	4442	0.065	4496.90
4507	4508	0	4506	4443	0.065	4504.15
4508	4509	0	4507	4444	0.065	4516.18
4509	4510	0	4508	4445	0.065	4527.06
4510	4511	0	4509	4446	0.065	4511.30
4511	4512	0	4510	4447	0.065	4520.98
4512	4513	0	4511	4448	0.065	4493.79
4513	4514	0	4512	4449	0.065	4477.50
4514	4515	4571	4513	4450	0.065	4472.58
4515	4516	4572	4514	4451	0.065	4473.03
4516	4517	4573	4515	4452	0.065	4471.83
4517	4518	4574	4516	4453	0.065	4467.11
4518	4519	4575	4517	4454	0.065	4461.82
4519	4520	4576	4518	4455	0.065	4437.49
4520	4521	4577	4519	4456	0.065	4415.86
4521	4522	4578	4520	4457	0.065	4396.43
4522	4523	4579	4521	4458	0.065	4395.79
4523	4524	4580	4522	4459	0.065	4385.12
4524	4525	4581	4523	4460	0.035	4382.61
4525	4526	4582	4524	4461	0.035	4389.12
4526	4527	4583	4525	4462	0.035	4387.10
4527	4528	4584	4526	4463	0.035	4404.51
4528	4529	4585	4527	4464	0.035	4409.39
4529	4530	4586	4528	4465	0.035	4387.60
4530	4531	4587	4529	4466	0.050	4388.81
4531	4532	4588	4530	4467	0.050	4389.68
4532	4533	4589	4531	4468	0.065	4392.81
4533	4534	4590	4532	4469	0.065	4392.90
4534	4535	4591	4533	4470	0.065	4389.39
4535	4536	4592	4534	4471	0.065	4393.13
4536	4537	4593	4535	4472	0.065	4391.30
4537	4538	4594	4536	4473	0.065	4390.92
4538	4539	4595	4537	4474	0.065	4390.54
4539	4540	4596	4538	4475	0.065	4389.15
4540	4541	4597	4539	4476	0.065	4386.83
4541	4542	4598	4540	4477	0.065	4397.75
4542	4543	4599	4541	4478	0.065	4391.16
4543	4544	4600	4542	4479	0.065	4390.16
4544	4545	4601	4543	4480	0.065	4391.18
4545	4546	4602	4544	4481	0.065	4390.49
4546	4547	4603	4545	4482	0.065	4391.36
4547	4548	4604	4546	4483	0.065	4395.33
4548	4549	4605	4547	4484	0.065	4395.97
4549	4550	4606	4548	4485	0.065	4396.92
4550	4551	4607	4549	4486	0.065	4396.23
4551	4552	4608	4550	4487	0.065	4396.56
4552	4553	4609	4551	4488	0.065	4397.78
4553	4554	4610	4552	4489	0.065	4399.52
4554	4555	4611	4553	4490	0.065	4398.50



			FPLAIN.DAT			
4555	4556	4612	4554	4491	0.065	4398.16
4556	4557	4613	4555	4492	0.065	4400.76
4557	4558	4614	4556	4493	0.065	4401.09
4558	4559	4615	4557	4494	0.065	4404.73
4559	4560	4616	4558	4495	0.065	4408.20
4560	4561	4617	4559	4496	0.065	4411.17
4561	4562	4618	4560	4497	0.065	4415.77
4562	4563	4619	4561	4498	0.065	4416.67
4563	4564	4620	4562	4499	0.065	4416.94
4564	4565	4621	4563	4500	0.065	4451.49
4565	4566	4622	4564	4501	0.065	4473.85
4566	4567	4623	4565	4502	0.065	4425.41
4567	4568	4624	4566	4503	0.065	4427.51
4568	4569	4625	4567	4504	0.065	4439.83
4569	0	4626	4568	0	0.065	4465.89
4570	0	0	0	4506	0.065	4525.11
4571	4572	0	0	4514	0.065	4497.82
4572	4573	0	4571	4515	0.065	4503.36
4573	4574	0	4572	4516	0.065	4495.08
4574	4575	4628	4573	4517	0.065	4492.60
4575	4576	4629	4574	4518	0.065	4473.26
4576	4577	4630	4575	4519	0.065	4454.17
4577	4578	4631	4576	4520	0.065	4418.10
4578	4579	4632	4577	4521	0.065	4409.98
4579	4580	4633	4578	4522	0.065	4391.27
4580	4581	4634	4579	4523	0.065	4390.96
4581	4582	4635	4580	4524	0.035	4380.78
4582	4583	4636	4581	4525	0.035	4390.25
4583	4584	4637	4582	4526	0.035	4387.60
4584	4585	4638	4583	4527	0.035	4388.35
4585	4586	4639	4584	4528	0.035	4387.68
4586	4587	4640	4585	4529	0.035	4387.30
4587	4588	4641	4586	4530	0.050	4387.37
4588	4589	4642	4587	4531	0.035	4387.25
4589	4590	4643	4588	4532	0.065	4389.33
4590	4591	4644	4589	4533	0.065	4393.00
4591	4592	4645	4590	4534	0.065	4393.40
4592	4593	4646	4591	4535	0.065	4393.78
4593	4594	4647	4592	4536	0.065	4390.75
4594	4595	4648	4593	4537	0.065	4390.91
4595	4596	4649	4594	4538	0.065	4394.02
4596	4597	4650	4595	4539	0.065	4390.64
4597	4598	4651	4596	4540	0.065	4388.21
4598	4599	4652	4597	4541	0.065	4397.39
4599	4600	4653	4598	4542	0.065	4398.33
4600	4601	4654	4599	4543	0.065	4392.44
4601	4602	4655	4600	4544	0.065	4392.74
4602	4603	4656	4601	4545	0.065	4390.06
4603	4604	4657	4602	4546	0.065	4391.50
4604	4605	4658	4603	4547	0.065	4394.96
4605	4606	4659	4604	4548	0.065	4392.93
4606	4607	4660	4605	4549	0.065	4395.34
4607	4608	4661	4606	4550	0.065	4399.76
4608	4609	4662	4607	4551	0.065	4397.22
4609	4610	4663	4608	4552	0.065	4397.47
4610	4611	4664	4609	4553	0.065	4397.41
4611	4612	4665	4610	4554	0.065	4398.30
4612	4613	4666	4611	4555	0.065	4398.75
4613	4614	4667	4612	4556	0.065	4398.43
4614	4615	4668	4613	4557	0.065	4395.49
4615	4616	4669	4614	4558	0.065	4405.86
4616	4617	4670	4615	4559	0.065	4408.87
4617	4618	4671	4616	4560	0.065	4414.18
4618	4619	4672	4617	4561	0.065	4415.89
4619	4620	4673	4618	4562	0.065	4418.97
4620	4621	4674	4619	4563	0.065	4421.74

			FPLAIN.DAT			
4621	4622	4675	4620	4564	0.065	4433.51
4622	4623	4676	4621	4565	0.065	4430.74
4623	4624	4677	4622	4566	0.065	4429.84
4624	4625	4678	4623	4567	0.065	4434.93
4625	4626	4679	4624	4568	0.065	4436.04
4626	4627	4680	4625	4569	0.065	4454.21
4627	0	4681	4626	0	0.065	4468.95
4628	4629	0	0	4574	0.065	4522.83
4629	4630	4682	4628	4575	0.065	4497.84
4630	4631	4683	4629	4576	0.065	4465.69
4631	4632	4684	4630	4577	0.065	4433.81
4632	4633	4685	4631	4578	0.065	4412.17
4633	4634	4686	4632	4579	0.065	4392.15
4634	4635	4687	4633	4580	0.065	4387.45
4635	4636	4688	4634	4581	0.035	4380.48
4636	4637	4689	4635	4582	0.035	4385.57
4637	4638	4690	4636	4583	0.035	4390.90
4638	4639	4691	4637	4584	0.035	4391.65
4639	4640	4692	4638	4585	0.035	4387.42
4640	4641	4693	4639	4586	0.035	4386.98
4641	4642	4694	4640	4587	0.050	4386.81
4642	4643	4695	4641	4588	0.035	4386.47
4643	4644	4696	4642	4589	0.035	4388.10
4644	4645	4697	4643	4590	0.065	4389.63
4645	4646	4698	4644	4591	0.065	4390.22
4646	4647	4699	4645	4592	0.065	4390.27
4647	4648	4700	4646	4593	0.065	4392.17
4648	4649	4701	4647	4594	0.065	4391.71
4649	4650	4702	4648	4595	0.065	4391.26
4650	4651	4703	4649	4596	0.065	4408.21
4651	4652	4704	4650	4597	0.065	4425.92
4652	4653	4705	4651	4598	0.065	4408.73
4653	4654	4706	4652	4599	0.065	4409.18
4654	4655	4707	4653	4600	0.065	4392.85
4655	4656	4708	4654	4601	0.065	4395.10
4656	4657	4709	4655	4602	0.065	4390.16
4657	4658	4710	4656	4603	0.065	4396.67
4658	4659	4711	4657	4604	0.065	4396.70
4659	4660	4712	4658	4605	0.065	4397.48
4660	4661	4713	4659	4606	0.065	4397.49
4661	4662	4714	4660	4607	0.065	4398.87
4662	4663	4715	4661	4608	0.065	4400.02
4663	4664	4716	4662	4609	0.065	4400.73
4664	4665	4717	4663	4610	0.065	4401.17
4665	4666	4718	4664	4611	0.065	4400.01
4666	4667	4719	4665	4612	0.065	4402.18
4667	4668	4720	4666	4613	0.065	4395.40
4668	4669	4721	4667	4614	0.065	4405.59
4669	4670	4722	4668	4615	0.065	4405.83
4670	4671	4723	4669	4616	0.065	4408.10
4671	4672	4724	4670	4617	0.065	4413.08
4672	4673	4725	4671	4618	0.065	4416.75
4673	4674	4726	4672	4619	0.065	4421.21
4674	4675	4727	4673	4620	0.065	4428.26
4675	4676	4728	4674	4621	0.065	4432.03
4676	4677	4729	4675	4622	0.065	4434.92
4677	4678	4730	4676	4623	0.065	4434.82
4678	4679	4731	4677	4624	0.065	4437.80
4679	4680	4732	4678	4625	0.065	4443.61
4680	4681	4733	4679	4626	0.065	4458.66
4681	0	4734	4680	4627	0.065	4475.10
4682	4683	0	0	4629	0.065	4521.47
4683	4684	4735	4682	4630	0.065	4482.23
4684	4685	4736	4683	4631	0.065	4433.98
4685	4686	4737	4684	4632	0.065	4416.02
4686	4687	4738	4685	4633	0.065	4443.85

			FPLAIN.DAT			
4687	4688	4739	4686	4634	0.065	4519.60
4688	4689	4740	4687	4635	0.065	4462.52
4689	4690	4741	4688	4636	0.065	4408.50
4690	4691	4742	4689	4637	0.065	4386.80
4691	4692	4743	4690	4638	0.065	4382.71
4692	4693	4744	4691	4639	0.035	4387.74
4693	4694	4745	4692	4640	0.035	4386.61
4694	4695	4746	4693	4641	0.035	4387.84
4695	4696	4747	4694	4642	0.035	4387.74
4696	4697	4748	4695	4643	0.035	4386.69
4697	4698	4749	4696	4644	0.035	4387.48
4698	4699	4750	4697	4645	0.065	4389.78
4699	4700	4751	4698	4646	0.065	4391.58
4700	4701	4752	4699	4647	0.065	4392.59
4701	4702	4753	4700	4648	0.065	4394.92
4702	4703	4754	4701	4649	0.065	4390.65
4703	4704	4755	4702	4650	0.065	4391.61
4704	4705	4756	4703	4651	0.065	4398.69
4705	4706	4757	4704	4652	0.065	4393.28
4706	4707	4758	4705	4653	0.065	4396.42
4707	4708	4759	4706	4654	0.065	4399.05
4708	4709	4760	4707	4655	0.065	4390.41
4709	4710	4761	4708	4656	0.065	4390.91
4710	4711	4762	4709	4657	0.065	4396.06
4711	4712	4763	4710	4658	0.065	4401.15
4712	4713	4764	4711	4659	0.065	4400.60
4713	4714	4765	4712	4660	0.065	4398.40
4714	4715	4766	4713	4661	0.065	4399.64
4715	4716	4767	4714	4662	0.065	4398.74
4716	4717	4768	4715	4663	0.065	4399.50
4717	4718	4769	4716	4664	0.065	4400.98
4718	4719	4770	4717	4665	0.065	4399.85
4719	4720	4771	4718	4666	0.065	4400.51
4720	4721	4772	4719	4667	0.065	4400.97
4721	4722	4773	4720	4668	0.065	4403.93
4722	4723	4774	4721	4669	0.065	4407.97
4723	4724	4775	4722	4670	0.065	4408.29
4724	4725	4776	4723	4671	0.065	4414.39
4725	4726	4777	4724	4672	0.065	4420.43
4726	4727	4778	4725	4673	0.065	4425.47
4727	4728	4779	4726	4674	0.065	4433.29
4728	4729	4780	4727	4675	0.065	4434.57
4729	4730	4781	4728	4676	0.065	4439.78
4730	4731	4782	4729	4677	0.065	4442.91
4731	4732	4783	4730	4678	0.065	4441.69
4732	4733	4784	4731	4679	0.065	4444.91
4733	4734	4785	4732	4680	0.065	4463.71
4734	0	0	4733	4681	0.065	4482.45
4735	4736	4786	0	4683	0.065	4546.78
4736	4737	4787	4735	4684	0.065	4562.73
4737	4738	4788	4736	4685	0.065	4558.56
4738	4739	0	4737	4686	0.065	4529.54
4739	4740	0	4738	4687	0.065	4597.13
4740	4741	0	4739	4688	0.065	4656.37
4741	4742	0	4740	4689	0.065	4579.38
4742	4743	0	4741	4690	0.065	4493.26
4743	4744	0	4742	4691	0.065	4460.39
4744	4745	0	4743	4692	0.035	4428.55
4745	4746	4789	4744	4693	0.035	4387.01
4746	4747	4790	4745	4694	0.035	4394.37
4747	4748	4791	4746	4695	0.035	4386.89
4748	4749	4792	4747	4696	0.035	4387.15
4749	4750	4793	4748	4697	0.035	4387.14
4750	4751	4794	4749	4698	0.035	4389.07
4751	4752	4795	4750	4699	0.035	4392.91
4752	4753	4796	4751	4700	0.065	4386.48

			FPLAIN.DAT			
4753	4754	4797	4752	4701	0.065	4393.93
4754	4755	4798	4753	4702	0.065	4394.15
4755	4756	4799	4754	4703	0.065	4391.07
4756	4757	4800	4755	4704	0.065	4398.66
4757	4758	4801	4756	4705	0.065	4394.98
4758	4759	4802	4757	4706	0.065	4393.33
4759	4760	4803	4758	4707	0.065	4393.09
4760	4761	4804	4759	4708	0.065	4393.19
4761	4762	4805	4760	4709	0.065	4390.66
4762	4763	4806	4761	4710	0.065	4392.56
4763	4764	4807	4762	4711	0.065	4392.83
4764	4765	4808	4763	4712	0.065	4392.96
4765	4766	4809	4764	4713	0.065	4400.12
4766	4767	4810	4765	4714	0.065	4401.51
4767	4768	4811	4766	4715	0.065	4399.13
4768	4769	4812	4767	4716	0.065	4399.75
4769	4770	4813	4768	4717	0.065	4401.16
4770	4771	4814	4769	4718	0.065	4398.13
4771	4772	4815	4770	4719	0.065	4399.37
4772	4773	4816	4771	4720	0.065	4402.15
4773	4774	4817	4772	4721	0.065	4408.43
4774	4775	4818	4773	4722	0.065	4411.35
4775	4776	4819	4774	4723	0.065	4413.59
4776	4777	4820	4775	4724	0.065	4416.05
4777	4778	4821	4776	4725	0.065	4419.57
4778	4779	4822	4777	4726	0.065	4425.14
4779	4780	4823	4778	4727	0.065	4429.94
4780	4781	4824	4779	4728	0.065	4438.68
4781	4782	4825	4780	4729	0.065	4443.84
4782	4783	4826	4781	4730	0.065	4448.75
4783	4784	4827	4782	4731	0.065	4453.88
4784	4785	4828	4783	4732	0.065	4453.87
4785	0	4829	4784	4733	0.065	4470.54
4786	4787	0	0	4735	0.065	4703.28
4787	4788	0	4786	4736	0.065	4684.60
4788	0	0	4787	4737	0.065	4676.80
4789	4790	0	0	4745	0.065	4491.61
4790	4791	0	4789	4746	0.065	4422.04
4791	4792	0	4790	4747	0.035	4389.68
4792	4793	4830	4791	4748	0.035	4386.67
4793	4794	4831	4792	4749	0.035	4386.88
4794	4795	4832	4793	4750	0.035	4388.23
4795	4796	4833	4794	4751	0.035	4390.71
4796	4797	4834	4795	4752	0.065	4386.94
4797	4798	4835	4796	4753	0.065	4392.94
4798	4799	4836	4797	4754	0.065	4392.57
4799	4800	4837	4798	4755	0.065	4386.96
4800	4801	4838	4799	4756	0.035	4398.00
4801	4802	4839	4800	4757	0.065	4384.79
4802	4803	4840	4801	4758	0.065	4392.76
4803	4804	4841	4802	4759	0.065	4391.81
4804	4805	4842	4803	4760	0.065	4392.96
4805	4806	4843	4804	4761	0.065	4391.53
4806	4807	4844	4805	4762	0.065	4395.86
4807	4808	4845	4806	4763	0.065	4395.77
4808	4809	4846	4807	4764	0.065	4396.90
4809	4810	4847	4808	4765	0.065	4399.19
4810	4811	4848	4809	4766	0.065	4403.46
4811	4812	4849	4810	4767	0.065	4399.52
4812	4813	4850	4811	4768	0.065	4399.72
4813	4814	4851	4812	4769	0.065	4398.82
4814	4815	4852	4813	4770	0.065	4401.84
4815	4816	4853	4814	4771	0.065	4402.45
4816	4817	4854	4815	4772	0.065	4404.90
4817	4818	4855	4816	4773	0.065	4405.01
4818	4819	4856	4817	4774	0.065	4412.26

			FPLAIN.DAT			
4819	4820	4857	4818	4775	0.065	4411.82
4820	4821	4858	4819	4776	0.065	4414.90
4821	4822	4859	4820	4777	0.065	4423.48
4822	4823	4860	4821	4778	0.065	4427.29
4823	4824	4861	4822	4779	0.065	4437.89
4824	4825	4862	4823	4780	0.065	4446.63
4825	4826	4863	4824	4781	0.065	4454.46
4826	4827	4864	4825	4782	0.065	4456.73
4827	4828	4865	4826	4783	0.065	4451.90
4828	4829	4866	4827	4784	0.065	4461.31
4829	0	0	4828	4785	0.065	4488.95
4830	4831	0	0	4792	0.035	4388.70
4831	4832	4867	4830	4793	0.050	4387.21
4832	4833	4868	4831	4794	0.045	4387.38
4833	4834	4869	4832	4795	0.045	4390.12
4834	4835	4870	4833	4796	0.065	4388.29
4835	4836	4871	4834	4797	0.065	4389.93
4836	4837	4872	4835	4798	0.065	4390.06
4837	4838	4873	4836	4799	0.065	4388.09
4838	4839	4874	4837	4800	0.035	4398.00
4839	4840	4875	4838	4801	0.065	4395.15
4840	4841	4876	4839	4802	0.065	4400.93
4841	4842	4877	4840	4803	0.065	4397.31
4842	4843	4878	4841	4804	0.065	4392.42
4843	4844	4879	4842	4805	0.065	4398.58
4844	4845	4880	4843	4806	0.065	4398.01
4845	4846	4881	4844	4807	0.065	4396.43
4846	4847	4882	4845	4808	0.065	4400.11
4847	4848	4883	4846	4809	0.065	4402.91
4848	4849	4884	4847	4810	0.065	4400.57
4849	4850	4885	4848	4811	0.065	4399.94
4850	4851	4886	4849	4812	0.065	4397.73
4851	4852	4887	4850	4813	0.065	4401.01
4852	4853	4888	4851	4814	0.065	4400.03
4853	4854	4889	4852	4815	0.065	4403.38
4854	4855	4890	4853	4816	0.065	4405.99
4855	4856	4891	4854	4817	0.065	4406.01
4856	4857	4892	4855	4818	0.065	4415.26
4857	4858	4893	4856	4819	0.065	4416.97
4858	4859	4894	4857	4820	0.065	4419.94
4859	4860	4895	4858	4821	0.065	4432.54
4860	4861	4896	4859	4822	0.065	4441.71
4861	4862	4897	4860	4823	0.065	4448.07
4862	4863	4898	4861	4824	0.065	4454.92
4863	4864	4899	4862	4825	0.065	4464.05
4864	4865	4900	4863	4826	0.065	4463.34
4865	4866	4901	4864	4827	0.065	4466.52
4866	0	0	4865	4828	0.065	4491.56
4867	4868	4902	0	4831	0.035	4399.65
4868	4869	4903	4867	4832	0.035	4386.25
4869	4870	4904	4868	4833	0.035	4391.05
4870	4871	4905	4869	4834	0.035	4391.67
4871	4872	4906	4870	4835	0.035	4391.62
4872	4873	4907	4871	4836	0.035	4391.86
4873	4874	4908	4872	4837	0.035	4392.03
4874	4875	4909	4873	4838	0.065	4398.00
4875	4876	4910	4874	4839	0.065	4396.40
4876	4877	4911	4875	4840	0.065	4400.26
4877	4878	4912	4876	4841	0.065	4399.25
4878	4879	4913	4877	4842	0.065	4392.13
4879	4880	4914	4878	4843	0.065	4398.13
4880	4881	4915	4879	4844	0.065	4397.01
4881	4882	4916	4880	4845	0.065	4400.60
4882	4883	4917	4881	4846	0.065	4400.21
4883	4884	4918	4882	4847	0.065	4398.73
4884	4885	4919	4883	4848	0.065	4400.10

			FPLAIN.DAT			
4885	4886	4920	4884	4849	0.065	4399.54
4886	4887	4921	4885	4850	0.065	4397.48
4887	4888	4922	4886	4851	0.065	4403.23
4888	4889	4923	4887	4852	0.065	4401.96
4889	4890	4924	4888	4853	0.065	4404.67
4890	4891	4925	4889	4854	0.065	4411.62
4891	4892	4926	4890	4855	0.065	4410.73
4892	4893	4927	4891	4856	0.065	4417.85
4893	4894	4928	4892	4857	0.065	4422.39
4894	4895	4929	4893	4858	0.065	4422.90
4895	4896	4930	4894	4859	0.065	4432.16
4896	4897	4931	4895	4860	0.065	4442.75
4897	4898	4932	4896	4861	0.065	4457.19
4898	4899	4933	4897	4862	0.065	4465.33
4899	4900	0	4898	4863	0.065	4474.98
4900	4901	0	4899	4864	0.065	4479.70
4901	0	0	4900	4865	0.065	4477.63
4902	4903	4935	0	4867	0.065	4404.98
4903	4904	4936	4902	4868	0.035	4388.31
4904	4905	4937	4903	4869	0.035	4390.64
4905	4906	4938	4904	4870	0.035	4390.83
4906	4907	4939	4905	4871	0.065	4388.45
4907	4908	4940	4906	4872	0.065	4387.40
4908	4909	4941	4907	4873	0.065	4390.63
4909	4910	4942	4908	4874	0.065	4398.15
4910	4911	4943	4909	4875	0.065	4398.61
4911	4912	4944	4910	4876	0.065	4401.07
4912	4913	4945	4911	4877	0.065	4399.93
4913	4914	4946	4912	4878	0.065	4395.67
4914	4915	4947	4913	4879	0.065	4398.79
4915	4916	4948	4914	4880	0.065	4399.33
4916	4917	4949	4915	4881	0.065	4403.50
4917	4918	4950	4916	4882	0.065	4402.67
4918	4919	4951	4917	4883	0.065	4399.10
4919	4920	4952	4918	4884	0.065	4400.42
4920	4921	4953	4919	4885	0.065	4401.10
4921	4922	4954	4920	4886	0.065	4403.15
4922	4923	4955	4921	4887	0.065	4404.82
4923	4924	4956	4922	4888	0.065	4403.99
4924	4925	4957	4923	4889	0.065	4407.47
4925	4926	4958	4924	4890	0.065	4411.89
4926	4927	4959	4925	4891	0.065	4415.68
4927	4928	4960	4926	4892	0.065	4423.63
4928	4929	4961	4927	4893	0.065	4425.83
4929	4930	4962	4928	4894	0.065	4429.59
4930	4931	4963	4929	4895	0.065	4433.54
4931	4932	4964	4930	4896	0.065	4451.37
4932	4933	4965	4931	4897	0.065	4463.64
4933	0	4966	4932	4898	0.065	4471.36
4934	4935	0	0	0	0.065	4451.32
4935	4936	4967	4934	4902	0.065	4405.06
4936	4937	4968	4935	4903	0.065	4403.64
4937	4938	4969	4936	4904	0.035	4390.41
4938	4939	4970	4937	4905	0.065	4387.48
4939	4940	4971	4938	4906	0.065	4389.30
4940	4941	4972	4939	4907	0.065	4388.48
4941	4942	4973	4940	4908	0.065	4394.74
4942	4943	4974	4941	4909	0.065	4398.00
4943	4944	4975	4942	4910	0.065	4401.10
4944	4945	4976	4943	4911	0.065	4401.72
4945	4946	4977	4944	4912	0.065	4403.75
4946	4947	4978	4945	4913	0.065	4404.14
4947	4948	4979	4946	4914	0.065	4406.80
4948	4949	4980	4947	4915	0.065	4406.53
4949	4950	4981	4948	4916	0.065	4407.66
4950	4951	0	4949	4917	0.065	4405.41



			FPLAIN.DAT			
4951	4952	4982	4950	4918	0.065	4408.00
4952	4953	4983	4951	4919	0.065	4405.72
4953	4954	4984	4952	4920	0.065	4400.86
4954	4955	4985	4953	4921	0.065	4404.96
4955	4956	4986	4954	4922	0.065	4407.76
4956	4957	4987	4955	4923	0.065	4406.11
4957	4958	4988	4956	4924	0.065	4410.19
4958	4959	4989	4957	4925	0.065	4415.45
4959	4960	4990	4958	4926	0.065	4421.61
4960	4961	4991	4959	4927	0.065	4430.25
4961	4962	4992	4960	4928	0.065	4432.63
4962	4963	4993	4961	4929	0.065	4435.45
4963	4964	4994	4962	4930	0.065	4438.38
4964	4965	4995	4963	4931	0.065	4462.40
4965	4966	4996	4964	4932	0.065	4507.41
4966	0	0	4965	4933	0.065	4498.78
4967	4968	4997	0	4935	0.065	4401.47
4968	4969	4998	4967	4936	0.065	4400.82
4969	4970	4999	4968	4937	0.035	4390.30
4970	4971	5000	4969	4938	0.065	4385.82
4971	4972	5001	4970	4939	0.065	4393.05
4972	4973	5002	4971	4940	0.065	4391.87
4973	4974	5003	4972	4941	0.065	4403.01
4974	4975	5004	4973	4942	0.065	4416.97
4975	4976	5005	4974	4943	0.065	4406.46
4976	4977	5006	4975	4944	0.065	4407.18
4977	4978	5007	4976	4945	0.065	4435.74
4978	4979	0	4977	4946	0.065	4460.45
4979	4980	0	4978	4947	0.065	4462.70
4980	4981	0	4979	4948	0.065	4458.25
4981	0	0	4980	4949	0.065	4461.28
4982	4983	0	0	4951	0.065	4454.15
4983	4984	5008	4982	4952	0.065	4413.00
4984	4985	5009	4983	4953	0.065	4407.45
4985	4986	5010	4984	4954	0.065	4406.43
4986	4987	5011	4985	4955	0.065	4410.28
4987	4988	5012	4986	4956	0.065	4411.00
4988	4989	5013	4987	4957	0.065	4417.68
4989	4990	5014	4988	4958	0.065	4424.58
4990	4991	5015	4989	4959	0.065	4434.52
4991	4992	5016	4990	4960	0.065	4444.49
4992	4993	5017	4991	4961	0.065	4450.34
4993	4994	5018	4992	4962	0.065	4449.21
4994	4995	5019	4993	4963	0.065	4445.57
4995	4996	5020	4994	4964	0.065	4460.15
4996	0	5021	4995	4965	0.065	4484.18
4997	4998	0	0	4967	0.065	4473.35
4998	4999	5022	4997	4968	0.035	4389.96
4999	5000	5023	4998	4969	0.065	4387.53
5000	5001	5024	4999	4970	0.065	4387.79
5001	5002	5025	5000	4971	0.065	4388.53
5002	5003	5026	5001	4972	0.065	4393.41
5003	5004	5027	5002	4973	0.065	4407.28
5004	5005	5028	5003	4974	0.065	4425.28
5005	5006	5029	5004	4975	0.065	4482.57
5006	5007	5030	5005	4976	0.065	4477.43
5007	0	0	5006	4977	0.065	4456.69
5008	5009	5031	0	4983	0.065	4436.00
5009	5010	5032	5008	4984	0.065	4429.82
5010	5011	5033	5009	4985	0.065	4429.86
5011	5012	5034	5010	4986	0.065	4430.78
5012	5013	5035	5011	4987	0.065	4436.31
5013	5014	5036	5012	4988	0.065	4444.65
5014	5015	5037	5013	4989	0.065	4441.70
5015	5016	5038	5014	4990	0.065	4452.10
5016	5017	5039	5015	4991	0.065	4466.38



			FPLAIN.DAT			
5017	5018	5040	5016	4992	0.065	4471.44
5018	5019	5041	5017	4993	0.065	4469.87
5019	5020	5042	5018	4994	0.065	4459.24
5020	5021	5043	5019	4995	0.065	4459.94
5021	0	0	5020	4996	0.065	4492.03
5022	5023	0	0	4998	0.065	4440.46
5023	5024	5044	5022	4999	0.065	4391.95
5024	5025	5045	5023	5000	0.065	4389.47
5025	5026	5046	5024	5001	0.065	4389.89
5026	5027	5047	5025	5002	0.065	4396.10
5027	5028	5048	5026	5003	0.065	4442.35
5028	5029	5049	5027	5004	0.065	4481.08
5029	5030	0	5028	5005	0.065	4501.62
5030	0	0	5029	5006	0.065	4507.43
5031	5032	0	0	5008	0.065	4459.65
5032	5033	5050	5031	5009	0.065	4463.47
5033	5034	5051	5032	5010	0.065	4461.21
5034	5035	5052	5033	5011	0.065	4463.35
5035	5036	5053	5034	5012	0.065	4468.90
5036	5037	5054	5035	5013	0.065	4482.93
5037	5038	5055	5036	5014	0.065	4474.89
5038	5039	5056	5037	5015	0.065	4480.46
5039	5040	5057	5038	5016	0.065	4486.42
5040	5041	5058	5039	5017	0.065	4490.81
5041	5042	5059	5040	5018	0.065	4491.84
5042	5043	5060	5041	5019	0.065	4472.08
5043	0	5061	5042	5020	0.065	4466.29
5044	5045	5062	0	5023	0.065	4398.78
5045	5046	5063	5044	5024	0.065	4393.79
5046	5047	5064	5045	5025	0.065	4389.79
5047	5048	5065	5046	5026	0.065	4414.29
5048	5049	5066	5047	5027	0.065	4487.10
5049	0	0	5048	5028	0.065	4576.42
5050	5051	0	0	5032	0.065	4483.44
5051	5052	0	5050	5033	0.065	4500.01
5052	5053	0	5051	5034	0.065	4505.80
5053	5054	0	5052	5035	0.065	4518.81
5054	5055	0	5053	5036	0.065	4530.66
5055	5056	0	5054	5037	0.065	4515.44
5056	5057	0	5055	5038	0.065	4502.14
5057	5058	0	5056	5039	0.065	4511.68
5058	5059	0	5057	5040	0.065	4514.39
5059	5060	0	5058	5041	0.065	4521.06
5060	5061	0	5059	5042	0.065	4491.98
5061	0	0	5060	5043	0.065	4475.01
5062	5063	5067	0	5044	0.065	4426.42
5063	5064	5068	5062	5045	0.065	4384.70
5064	5065	5069	5063	5046	0.065	4391.92
5065	5066	5070	5064	5047	0.065	4447.27
5066	0	0	5065	5048	0.065	4525.56
5067	5068	5071	0	5062	0.065	4414.54
5068	5069	5072	5067	5063	0.065	4391.24
5069	5070	5073	5068	5064	0.065	4416.61
5070	0	5074	5069	5065	0.065	4544.96
5071	5072	5076	0	5067	0.065	4390.65
5072	5073	5077	5071	5068	0.065	4388.20
5073	5074	5078	5072	5069	0.065	4509.51
5074	0	0	5073	5070	0.065	4716.88
5075	5076	5080	0	0	0.065	4423.84
5076	5077	5081	5075	5071	0.065	4391.90
5077	5078	5082	5076	5072	0.065	4437.43
5078	0	0	5077	5073	0.065	4641.37
5079	5080	5083	0	0	0.065	4428.96
5080	5081	5084	5079	5075	0.065	4391.60
5081	5082	0	5080	5076	0.065	4422.94
5082	0	0	5081	5077	0.065	4536.01

			FPLAIN.DAT			
5083	5084	5086	0	5079	0.065	4394.50
5084	0	0	5083	5080	0.065	4394.50
5085	5086	5088	0	0	0.065	4394.50
5086	0	0	5085	5083	0.065	4394.50
5087	5088	5089	0	0	0.065	4394.50
5088	0	0	5087	5085	0.065	4394.50
5089	0	0	5090	5087	0.065	4394.50
5090	5089	5091	0	0	0.065	4384.30
5091	0	0	5092	5090	0.065	4383.70
5092	5091	5093	0	0	0.065	4381.20
5093	0	5094	0	5092	0.065	4380.00
5094	0	5095	0	5093	0.065	4384.70
5095	0	5096	0	5094	0.065	4386.40
5096	0	0	5097	5095	0.065	4384.00
5097	5096	5098	0	0	0.065	4380.00
5098	0	5100	5099	5097	0.065	4377.70
5099	5098	5101	0	0	0.065	4378.00
5100	0	0	5101	5098	0.065	4376.50
5101	5100	0	0	5099	0.065	4373.50

		HYSTRUC.DAT					
S		Patagoni	1	1	0	147	159
	0	0	0	0	0		
T		0	0				
T		1.46	100				
T		1.81	250				
T		2.28	500				
T		2.64	750				
T		2.94	1000				
T		3.49	1500				
T		4	2000				
T		4.91	3000				
T		5.73	4000				
T		6.48	5000				
T		7.97	7500				
T		9.3	10000				
T		10.41	12500				
T		11.51	15000				
T		12.53	17500				
T		13.45	20000				
T		14.35	22500				
T		15.21	25000				
T		16.04	27500				
T		16.86	30000				
T		22.62	35000				
T		23.8	40000				
T		23.94	45000				
T		25.85	50000				
T		27.61	55000				
T		29.26	60000				
T		30.82	65000				
T		32.32	70000				
S	0	Mayberry	1	1	0	261	277
	0	0	0	0	0		
T		0	0				
T		1.97	100				
T		2.33	250				
T		2.94	500				
T		3.42	750				
T		3.81	1000				
T		4.5	1500				
T		5.1	2000				
T		6.11	3000				
T		6.95	4000				
T		7.68	5000				
T		9.14	7500				
T		10.37	10000				
T		13.07	12500				
T		13.99	15000				
T		14.19	17500				
T		15.92	20000				
T		17.07	22500				
T		18.03	25000				
T		18.88	27500				
T		19.66	30000				
T		21.08	35000				
T		22.33	40000				
T		23.5	45000				
T		24.61	50000				
T		25.62	55000				
T		26.57	60000				
T		27.49	65000				
T		28.38	70000				
S	0	Booth	1	1	0	934	958
	0	0	0	0	0		
T		0	0				
T		1.89	100				

				HYSTRUC.DAT					
	T	2.67		250					
	T	3.46		500					
	T	4.02		750					
	T	4.51		1000					
	T	5.29		1500					
	T	5.96		2000					
	T	7.06		3000					
	T	7.99		4000					
	T	8.81		5000					
	T	10.54		7500					
	T	11.96		10000					
	T	13.15		12500					
	T	14.21		15000					
	T	15.17		17500					
	T	18.9		20000					
	T	19.21		22500					
	T	19.45		25000					
	T	19.68		27500					
	T	20.92		30000					
	T	22.99		35000					
	T	24.3		40000					
	T	27.16		45000					
	T	28.42		50000					
	T	31.78		55000					
	T	33.41		60000					
	T	35.08		65000					
	T	36.78		70000					
S		Keystone		1	0	1	0	958	982
	0	0		0	0				
	T	0		0					
	T	1.26		100					
	T	1.8		250					
	T	2.36		500					
	T	2.79		750					
	T	3.27		1000					
	T	3.85		1500					
	T	4.36		2000					
	T	5.24		3000					
	T	6.05		4000					
	T	6.8		5000					
	T	8.42		7500					
	T	9.82		10000					
	T	11.03		12500					
	T	12.11		15000					
	T	13.05		17500					
	T	14.06		20000					
	T	15.23		22500					
	T	16.16		25000					
	T	17.18		27500					
	T	18.31		30000					
	T	21.44		35000					
	T	23.37		40000					
	T	26.33		45000					
	T	27.93		50000					
	T	31.52		55000					
	T	33.15		60000					
	T	34.82		65000					
	T	36.53		70000					
S		Arlington		1	0	1	0	1059	1084
	0	0		0	0				
	T	0		0					
	T	1.67		100					
	T	2.39		250					
	T	3.16		500					
	T	3.73		750					
	T	4.22		1000					

		HYSTRUC.DAT							
T	4.92	1500							
T	5.37	2000							
T	6.26	3000							
T	6.97	4000							
T	7.63	5000							
T	9.02	7500							
T	10.23	10000							
T	13.55	12500							
T	14.74	15000							
T	18.02	17500							
T	20.57	20000							
T	24.03	22500							
T	25.32	25000							
T	26.76	27500							
T	28.2	30000							
T	31.18	35000							
T	33.6	40000							
T	35.86	45000							
T	37.88	50000							
T	39.89	55000							
T	41.9	60000							
T	43.81	65000							
T	45.68	70000							
S	0	sierra	0	1	0	1	0	1109	1134
T	0	0	0						
T	1.66	100							
T	2.31	250							
T	3.01	500							
T	3.52	750							
T	3.94	1000							
T	4.67	1500							
T	5.29	2000							
T	6.36	3000							
T	7.3	4000							
T	8.13	5000							
T	10	7500							
T	11.82	10000							
T	15.85	12500							
T	16.91	15000							
T	21	17500							
T	24.13	20000							
T	27.68	22500							
T	28.87	25000							
T	30.23	27500							
T	31.6	30000							
T	34.45	35000							
T	36.7	40000							
T	38.77	45000							
T	40.6	50000							
T	42.42	55000							
T	44.25	60000							
T	45.99	65000							
T	47.67	70000							
S	0	virginia	0	1	0	1	0	1134	1160
T	0	0	0						
T	1.62	100							
T	2.1	250							
T	2.64	500							
T	3.07	750							
T	3.43	1000							
T	4.06	1500							
T	4.62	2000							
T	5.61	3000							
T	6.54	4000							

HYSTRUC.DAT

T	7.17	5000					
T	9.24	7500					
T	11.15	10000					
T	12.83	12500					
T	15.07	15000					
T	18.28	17500					
T	21.42	20000					
T	25.64	22500					
T	26.64	25000					
T	27.92	27500					
T	29.29	30000					
T	32.35	35000					
T	34.56	40000					
T	36.56	45000					
T	38.23	50000					
T	39.94	55000					
T	41.72	60000					
T	43.41	65000					
T	45.04	70000					
S	Center	1	0	1	0	1160	1185
	0	0	0	0	0		
T	0	0					
T	0.72	100					
T	1.11	250					
T	1.55	500					
T	1.9	750					
T	2.23	1000					
T	3.79	1500					
T	4.32	2000					
T	4.8	3000					
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T	5.97	5000					
T	7.74	7500					
T	9.69	10000					
T	11.13	12500					
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T	21.92	22500					
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T	23.4	27500					
T	24.6	30000					
T	27.84	35000					
T	29.85	40000					
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T	32.86	50000					
T	34.25	55000					
T	35.92	60000					
T	37.47	65000					
T	38.95	70000					
S	Lake	1	0	1	0	1185	1212
	0	0	0	0	0		
T	0	0					
T	1.4	100					
T	2.05	250					
T	2.67	500					
T	3.14	750					
T	3.55	1000					
T	4.26	1500					
T	4.86	2000					
T	5.89	3000					
T	6.78	4000					
T	7.58	5000					
T	9.31	7500					
T	11.44	10000					
T	12.82	12500					

HYSTRUC.DAT

T	15.07	15000					
T	17.47	17500					
T	19.3	20000					
T	20.75	22500					
T	22.02	25000					
T	23.19	27500					
T	24.29	30000					
T	27.98	35000					
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T	32.72	50000					
T	33.97	55000					
T	35.78	60000					
T	37.43	65000					
T	38.99	70000					
S	0	Second	1	0	1	0	1212 1213
T	0	0	0	0			
T	1.41	100					
T	1.87	250					
T	2.4	500					
T	2.82	750					
T	3.17	1000					
T	3.78	1500					
T	4.3	2000					
T	5.21	3000					
T	5.99	4000					
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T	28.93	50000					
T	29.6	55000					
T	32.24	60000					
T	34.47	65000					
T	36.52	70000					
S	0	Kuenzli	1	0	1	0	1213 1239
T	0	0	0	0			
T	1.11	100					
T	1.58	250					
T	2.08	500					
T	2.46	750					
T	2.79	1000					
T	3.33	1500					
T	3.77	2000					
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T	6.96	7500					
T	7.98	10000					
T	8.85	12500					
T	9.54	15000					
T	10.3	17500					
T	11.06	20000					
T	11.86	22500					



HYSTRUC.DAT

T	12.63	25000					
T	13.51	27500					
T	14.22	30000					
T	15.51	35000					
T	16.84	40000					
T	18.13	45000					
T	23.16	50000					
T	23.54	55000					
T	25.62	60000					
T	27.48	65000					
T	29.27	70000					
S	0	0	1	0	1	0	1268 1297
T	0	0					
T	0.98	100					
T	1.43	250					
T	1.92	500					
T	2.29	750					
T	2.6	1000					
T	3.1	1500					
T	3.52	2000					
T	4.21	3000					
T	4.8	4000					
T	5.32	5000					
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T	22.87	45000					
T	24.34	50000					
T	27.25	55000					
T	28.9	60000					
T	30.55	65000					
T	32.25	70000					
S	0	0	1	0	1	0	1358 1389
T	0	0					
T	1.28	100					
T	1.8	250					
T	2.35	500					
T	2.74	750					
T	3.06	1000					
T	3.6	1500					
T	4.08	2000					
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T	15.74	22500					
T	16.8	25000					
T	20.31	27500					
T	20.67	30000					
T	21.47	35000					

				HYSTRUC.DAT					
	T	22.22		40000					
	T	24.45		45000					
	T	26.45		50000					
	T	28.2		55000					
	T	29.9		60000					
	T	31.52		65000					
	T	33.03		70000					
S		Keitzke		1	0	1	0	1566	1628
	0	0		0					
	T	0		0					
	T	2.43		100					
	T	3.25		250					
	T	4.16		500					
	T	4.81		750					
	T	5.24		1000					
	T	5.92		1500					
	T	6.45		2000					
	T	7.32		3000					
	T	8.24		4000					
	T	8.95		5000					
	T	10.58		7500					
	T	11.99		10000					
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	T	14.34		15000					
	T	15.37		17500					
	T	16.33		20000					
	T	20.44		22500					
	T	20.92		25000					
	T	21.53		27500					
	T	22.15		30000					
	T	23.07		35000					
	T	23.91		40000					
	T	25.51		45000					
	T	26.97		50000					
	T	28.31		55000					
	T	29.57		60000					
	T	30.78		65000					
	T	31.93		70000					
S		Glendale		1	0	1	0	1902	1976
	0	0		0					
	T	0		0					
	T	1.73		100					
	T	2.49		250					
	T	3.34		500					
	T	3.92		750					
	T	4.43		1000					
	T	5.22		1500					
	T	5.86		2000					
	T	6.91		3000					
	T	7.73		4000					
	T	8.49		5000					
	T	10.2		7500					
	T	11.49		10000					
	T	12.65		12500					
	T	13.71		15000					
	T	14.74		17500					
	T	17.02		20000					
	T	17.41		22500					
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	T	19.12		27500					
	T	20.28		30000					
	T	22.19		35000					
	T	23.8		40000					
	T	25.28		45000					
	T	26.72		50000					
	T	28.09		55000					

HYSTRUC.DAT									
T		29.41	60000						
T		30.71	65000						
T		31.98	70000						
S		Greg	1	1	0	0	2208	2289	
	0	0	0	0	0				
T		0	0						
T		2.48	100						
T		3.53	250						
T		4.31	500						
T		4.88	750						
T		5.36	1000						
T		6.17	1500						
T		6.83	2000						
T		7.94	3000						
T		8.87	4000						
T		9.68	5000						
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T		13.6	12500						
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T		15.4	17500						
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T		29.32	55000						
T		31.25	60000						
T		33.12	65000						
T		34.98	70000						
S		Rock	1	1	0	0	2716	2803	
	0	0	0	0	0				
T		0	0						
T		1.53	100						
T		2.38	250						
T		3.16	500						
T		3.72	750						
T		4.17	1000						
T		4.88	1500						
T		5.46	2000						
T		6.37	3000						
T		7.17	4000						
T		7.9	5000						
T		9.39	7500						
T		10.66	10000						
T		11.85	12500						
T		12.91	15000						
T		13.94	17500						
T		14.95	20000						
T		15.99	22500						
T		17.04	25000						
T		18.11	27500						
T		19.2	30000						
T		22.17	35000						
T		24.52	40000						
T		27.07	45000						
T		29.31	50000						
T		31.55	55000						
T		33.63	60000						
T		35.73	65000						
T		37.9	70000						
S		McCarran	1	1			3613	3693	

	0	0	HYSTRUC.DAT 0	0
T		0	0	
T		1.54	100	
T		2.22	250	
T		2.93	500	
T		3.49	750	
T		3.95	1000	
T		4.72	1500	
T		5.31	2000	
T		6.26	3000	
T		7.09	4000	
T		7.9	5000	
T		10.08	7500	
T		12.02	10000	
T		13.85	12500	
T		15.69	15000	
T		17.83	17500	
T		20.01	20000	
T		22.07	22500	
T		23.8	25000	
T		25.39	27500	
T		26.91	30000	
T		29.76	35000	
T		32.52	40000	
T		35.29	45000	
T		37.99	50000	
T		40.88	55000	
T		43.51	60000	
T		46.06	65000	
T		48.53	70000	

INFIL.DAT

1						
0	.9	1	.4	10	1	
.02	6.8	0				
0.01		0				1588
0.04		5.4				0.1
0		0				10
0		1589				0.04

## INFLOW.DAT

0	3	
C	0	3
H	0.0	0.0
H	1.0	5530.0
H	2.0	5530.0
H	3.0	5378.0
H	4.0	5378.0
H	5.0	5227.0
H	6.0	5075.0
H	7.0	4924.0
H	8.0	4772.0
H	9.0	4772.0
H	10.0	4621.0
H	11.0	4469.0
H	12.0	4469.0
H	13.0	4469.0
H	14.0	4469.0
H	15.0	4469.0
H	16.0	4469.0
H	17.0	4621.0
H	18.0	4772.0
H	19.0	4924.0
H	20.0	4924.0
H	21.0	4924.0
H	22.0	5075.0
H	23.0	5378.0
H	24.0	5682.0
H	25.0	5985.0
H	26.0	5985.0
H	27.0	5985.0
H	28.0	6152.0
H	29.0	6152.0
H	30.0	6152.0
H	31.0	6326.0
H	32.0	6326.0
H	33.0	6326.0
H	34.0	6152.0
H	35.0	6152.0
H	36.0	5985.0
H	37.0	5985.0
H	38.0	5985.0
H	39.0	5985.0
H	40.0	5985.0
H	41.0	5985.0
H	42.0	6152.0
H	43.0	6152.0
H	44.0	6326.0
H	45.0	6500.0
H	46.0	6673.0
H	47.0	6847.0
H	48.0	7021.0
H	49.0	7195.0
H	50.0	7543.0
H	51.0	7543.0
H	52.0	7717.0
H	53.0	8270.0
H	54.0	9070.0
H	55.0	10075.0
H	56.0	11648.0
H	57.0	12876.0
H	58.0	13902.0
H	59.0	15398.0
H	60.0	16061.0
H	61.0	17004.0
H	62.0	17327.0
H	63.0	18304.0

INFLOW.DAT

H	64.0	18674.0
H	65.0	18674.0
H	66.0	18674.0
H	67.0	18674.0
H	68.0	18674.0
H	69.0	18674.0
H	70.0	18674.0
H	71.0	18674.0
H	72.0	19045.0
H	73.0	19045.0
H	74.0	19045.0
H	75.0	19415.0
H	76.0	20156.0
H	77.0	20538.0
H	78.0	20922.0
H	79.0	21692.0
H	80.0	21307.0
H	81.0	20922.0
H	82.0	20922.0
H	83.0	20922.0
H	84.0	20922.0
H	85.0	20156.0
H	86.0	19045.0
H	87.0	17972.0
H	88.0	16359.0
H	89.0	15498.0
H	90.0	14653.0
H	91.0	13589.0
H	92.0	12820.0
H	93.0	12073.0
H	94.0	11623.0
H	95.0	11061.0
H	96.0	10724.0
H	97.0	10275.0
H	98.0	10070.0
H	99.0	9670.0
H	100.0	9370.0
H	101.0	9070.0
H	102.0	8870.0
H	103.0	8670.0
H	104.0	8270.0
H	105.0	8091.0
H	106.0	7917.0
H	107.0	7743.0
H	108.0	7743.0
H	109.0	7917.0
H	110.0	8270.0
H	111.0	8091.0
H	112.0	7917.0
H	113.0	8270.0
H	114.0	8670.0
H	115.0	8470.0
H	116.0	8470.0
H	117.0	8470.0
H	118.0	8670.0
H	119.0	8670.0
H	120.0	8670.0
H	121.0	8470.0
H	122.0	8470.0
H	123.0	8270.0
H	124.0	8270.0
H	125.0	8270.0
H	126.0	8091.0
H	127.0	8091.0
H	128.0	8091.0
H	129.0	7917.0



INFLOW.DAT

H	130.0	7917.0
H	131.0	8270.0
H	132.0	8270.0
H	133.0	8270.0
H	134.0	8270.0
H	135.0	8270.0
H	136.0	8270.0
H	137.0	8270.0
H	138.0	8270.0
H	139.0	8091.0
H	140.0	8091.0
H	141.0	8091.0
H	142.0	8091.0
H	143.0	8091.0
H	144.0	7917.0
H	145.0	7917.0
H	146.0	7917.0
H	147.0	7917.0
H	148.0	7917.0
H	149.0	7917.0
H	150.0	7801.0
H	151.0	7743.0
H	152.0	7743.0
H	153.0	7743.0
H	154.0	7569.0
H	155.0	7917.0
H	156.0	7917.0
H	157.0	7917.0
H	158.0	7917.0
H	159.0	7917.0
H	160.0	7917.0
H	161.0	7917.0
H	162.0	7917.0
H	163.0	7917.0
H	164.0	7743.0
H	165.0	7743.0
H	166.0	7743.0
H	167.0	7743.0
H	168.0	7743.0
H	169.0	7743.0
H	170.0	7743.0
H	171.0	7743.0
H	172.0	7569.0
H	173.0	7569.0
H	174.0	7569.0
H	175.0	7569.0
H	176.0	7569.0
H	177.0	7569.0
H	178.0	7569.0
H	179.0	7917.0
H	180.0	7917.0
H	181.0	8091.0
H	182.0	8091.0
H	183.0	8091.0
H	184.0	8091.0
H	185.0	8091.0
H	186.0	8091.0
H	187.0	8091.0
H	188.0	8091.0
H	189.0	8091.0
H	190.0	7917.0
H	191.0	7917.0
H	192.0	7917.0
H	193.0	7917.0
H	194.0	7917.0
H	195.0	7917.0

INFLOW.DAT

H	196.0	7917.0
H	197.0	7917.0
H	198.0	7917.0
H	199.0	7917.0
C	0	2341
H	0.0	0.0
H	1.0	0.0
H	60.0	0.0
H	61.0	20.0
H	62.0	30.0
H	63.0	50.0
H	64.0	60.0
H	65.0	70.0
H	66.0	120.0
H	67.0	180.0
H	68.0	250.0
H	69.0	325.0
H	70.0	350.0
H	71.0	373.0
H	72.0	455.0
H	73.0	536.0
H	74.0	591.0
H	75.0	682.0
H	76.0	773.0
H	77.0	891.0
H	78.0	1000.0
H	79.0	1109.0
H	80.0	1273.0
H	81.0	1445.0
H	82.0	1591.0
H	83.0	1682.0
H	84.0	1736.0
H	85.0	1809.0
H	86.0	1836.0
H	87.0	1900.0
H	88.0	1909.0
H	89.0	1909.0
H	90.0	1900.0
H	91.0	1864.0
H	92.0	1827.0
H	93.0	1800.0
H	94.0	1745.0
H	95.0	1709.0
H	96.0	1655.0
H	97.0	1627.0
H	98.0	1591.0
H	99.0	1545.0
H	100.0	1399.0
H	101.0	1264.0
H	102.0	1164.0
H	103.0	1064.0
H	104.0	985.0
H	105.0	905.0
H	106.0	821.0
H	107.0	749.0
H	108.0	618.0
H	109.0	555.0
H	110.0	500.0
H	111.0	436.0
H	112.0	400.0
H	113.0	364.0
H	114.0	328.0
H	115.0	392.0
H	116.0	256.0
H	117.0	220.0
H	118.0	184.0

## INFLOW.DAT

H	119.0	148.0
H	120.0	112.0
H	121.0	92.0
H	122.0	83.0
H	123.0	74.0
H	124.0	65.0
H	125.0	56.0
H	126.0	47.0
H	127.0	39.0
H	128.0	39.0
H	129.0	39.0
H	130.0	39.0
H	131.0	39.0
H	132.0	39.0
H	133.0	39.0
H	134.0	39.0
H	135.0	39.0
H	136.0	39.0
H	137.0	39.0
H	138.0	39.0
H	139.0	39.0
H	140.0	39.0
H	141.0	39.0
H	142.0	39.0
H	143.0	39.0
H	144.0	39.0
H	145.0	39.0
H	146.0	39.0
H	147.0	39.0
H	148.0	39.0
H	149.0	39.0
H	150.0	39.0
H	151.0	39.0
H	152.0	39.0
H	153.0	39.0
H	154.0	39.0
H	155.0	39.0
H	156.0	39.0
H	157.0	39.0
H	158.0	39.0
H	159.0	39.0
H	160.0	39.0
H	161.0	39.0
H	162.0	39.0
H	163.0	39.0
H	164.0	39.0
H	165.0	39.0
H	166.0	39.0
H	167.0	39.0
H	168.0	39.0
H	169.0	39.0
H	170.0	39.0
H	171.0	39.0
H	172.0	39.0
H	173.0	39.0
H	174.0	39.0
H	175.0	39.0
H	176.0	39.0
H	177.0	39.0
H	178.0	39.0
H	179.0	39.0
H	180.0	39.0
H	181.0	39.0
H	182.0	39.0
H	183.0	39.0
H	184.0	39.0

## INFLOW.DAT

H	185.0	39.0
H	186.0	39.0
H	187.0	39.0
H	188.0	39.0
H	189.0	39.0
H	190.0	39.0
H	191.0	39.0
H	192.0	39.0
H	193.0	39.0
H	194.0	39.0
H	195.0	39.0
H	196.0	39.0
H	197.0	39.0
H	198.0	39.0
H	199.0	39.0
C	0	4040
H	0.0	0.0
H	1.0	0.0
H	63.0	0.0
H	64.0	100.0
H	65.0	200.0
H	66.0	250.8
H	67.0	341.3
H	68.0	404.5
H	69.0	573.0
H	70.0	645.0
H	71.0	726.0
H	72.0	805.0
H	73.0	855.0
H	74.0	891.0
H	75.0	918.0
H	76.0	955.0
H	77.0	1000.0
H	78.0	1082.0
H	79.0	1164.0
H	80.0	1364.0
H	81.0	1536.0
H	82.0	1827.0
H	83.0	2045.0
H	84.0	2227.0
H	85.0	2455.0
H	86.0	2636.0
H	87.0	2818.0
H	88.0	2918.0
H	89.0	3009.0
H	90.0	3100.0
H	91.0	3091.0
H	92.0	3055.0
H	93.0	3022.0
H	94.0	2991.0
H	95.0	2973.0
H	96.0	2927.0
H	97.0	2864.0
H	98.0	2691.0
H	99.0	2518.0
H	100.0	2373.0
H	101.0	2123.0
H	102.0	1903.0
H	103.0	1845.0
H	104.0	1673.0
H	105.0	1573.0
H	106.0	1423.0
H	107.0	1373.0
H	108.0	1264.0
H	109.0	1204.0
H	110.0	1170.0

INFLOW.DAT

H	111.0	1027.0
H	112.0	985.0
H	113.0	945.0
H	114.0	887.0
H	115.0	867.0
H	116.0	855.0
H	117.0	840.0
H	118.0	836.0
H	119.0	803.0
H	120.0	789.0
H	121.0	780.0
H	122.0	775.0
H	123.0	770.0
H	124.0	765.0
H	125.0	760.0
H	126.0	755.0
H	127.0	750.0
H	128.0	745.0
H	129.0	740.0
H	130.0	735.0
H	131.0	730.0
H	132.0	725.0
H	133.0	720.0
H	134.0	715.0
H	135.0	710.0
H	136.0	705.0
H	137.0	700.0
H	138.0	695.0
H	139.0	690.0
H	140.0	685.0
H	141.0	683.0
H	142.0	674.0
H	143.0	665.0
H	144.0	660.0
H	145.0	655.0
H	146.0	650.0
H	147.0	645.0
H	148.0	640.0
H	149.0	635.0
H	150.0	630.0
H	151.0	625.0
H	152.0	622.0
H	153.0	621.0
H	154.0	620.0
H	155.0	620.0
H	156.0	620.0
H	157.0	620.0
H	158.0	620.0
H	159.0	620.0
H	160.0	620.0
H	161.0	620.0
H	162.0	620.0
H	163.0	620.0
H	164.0	620.0
H	165.0	620.0
H	166.0	620.0
H	167.0	619.0
H	168.0	616.0
H	169.0	613.0
H	170.0	611.0
H	171.0	608.0
H	172.0	606.0
H	173.0	603.0
H	174.0	601.0
H	175.0	598.0
H	176.0	596.0

## INFLOW.DAT

H	177.0	594.0
H	178.0	592.0
H	179.0	590.0
H	180.0	588.0
H	181.0	586.0
H	182.0	584.0
H	183.0	582.0
H	184.0	580.0
H	185.0	578.0
H	186.0	576.0
H	187.0	574.0
H	188.0	572.0
H	189.0	570.0
H	190.0	568.0
H	191.0	566.0
H	192.0	564.0
H	193.0	562.0
H	194.0	560.0
H	195.0	558.0
H	196.0	556.0
H	197.0	554.0
H	198.0	552.0
H	199.0	550.0
C	0	4635
H	0.0	0.0
H	1.0	0.0
H	2.0	0.0
H	3.0	0.0
H	4.0	0.0
H	5.0	0.0
H	6.0	0.0
H	7.0	0.0
H	8.0	0.0
H	9.0	0.0
H	10.0	0.0
H	11.0	0.0
H	12.0	0.0
H	13.0	0.0
H	14.0	0.0
H	15.0	0.0
H	16.0	0.0
H	17.0	0.0
H	18.0	0.0
H	19.0	0.0
H	20.0	0.0
H	21.0	0.0
H	22.0	0.0
H	23.0	0.0
H	24.0	0.0
H	25.0	0.0
H	26.0	0.0
H	27.0	0.0
H	28.0	0.0
H	29.0	0.0
H	30.0	0.0
H	31.0	0.0
H	32.0	0.0
H	33.0	0.0
H	34.0	0.0
H	35.0	0.0
H	36.0	0.0
H	37.0	0.0
H	38.0	0.0
H	39.0	0.0
H	40.0	0.0
H	41.0	0.0

## INFLOW.DAT

H	42.0	0.0
H	43.0	0.0
H	44.0	0.0
H	45.0	0.0
H	46.0	0.0
H	47.0	0.0
H	48.0	0.0
H	49.0	0.0
H	50.0	0.0
H	51.0	0.0
H	52.0	0.0
H	53.0	0.0
H	54.0	0.0
H	55.0	0.0
H	56.0	3.0
H	57.0	5.0
H	58.0	7.0
H	59.0	10.0
H	60.0	12.0
H	61.0	14.0
H	62.0	16.0
H	63.0	18.0
H	64.0	20.0
H	65.0	22.0
H	66.0	25.0
H	67.0	28.0
H	68.0	31.0
H	69.0	33.0
H	70.0	34.0
H	71.0	39.0
H	72.0	44.0
H	73.0	52.0
H	74.0	60.0
H	75.0	70.0
H	76.0	79.0
H	77.0	91.0
H	78.0	106.0
H	79.0	128.0
H	80.0	150.0
H	81.0	169.0
H	82.0	179.0
H	83.0	182.0
H	84.0	182.0
H	85.0	187.0
H	86.0	194.0
H	87.0	202.0
H	88.0	207.0
H	89.0	208.0
H	90.0	206.0
H	91.0	203.0
H	92.0	201.0
H	93.0	197.0
H	94.0	191.0
H	95.0	186.0
H	96.0	180.0
H	97.0	173.0
H	98.0	167.0
H	99.0	160.0
H	100.0	153.0
H	101.0	147.0
H	102.0	140.0
H	103.0	134.0
H	104.0	128.0
H	105.0	121.0
H	106.0	115.0
H	107.0	107.0



## INFLOW.DAT

H	108.0	96.0
H	109.0	85.0
H	110.0	76.0
H	111.0	70.0
H	112.0	65.0
H	113.0	61.0
H	114.0	56.0
H	115.0	50.0
H	116.0	45.0
H	117.0	40.0
H	118.0	37.0
H	119.0	35.0
H	120.0	33.0
H	121.0	32.0
H	122.0	31.0
H	123.0	30.0
H	124.0	29.0
H	125.0	28.0
H	126.0	26.0
H	127.0	25.0
H	128.0	24.0
H	129.0	23.0
H	130.0	22.0
H	131.0	22.0
H	132.0	21.0
H	133.0	21.0
H	134.0	20.0
H	135.0	20.0
H	136.0	19.0
H	137.0	19.0
H	138.0	19.0
H	139.0	19.0
H	140.0	19.0
H	141.0	19.0
H	142.0	18.0
H	143.0	17.0
H	144.0	16.0
H	145.0	16.0
H	146.0	16.0
H	147.0	15.0
H	148.0	15.0
H	149.0	15.0
H	150.0	14.0
H	151.0	13.0
H	152.0	13.0
H	153.0	12.0
H	154.0	12.0
H	155.0	9.0
H	156.0	5.0
H	157.0	2.0
H	158.0	0.0
H	199.0	0.0
C	0	4800
H	0.0	0.0
H	1.0	0.0
H	60.0	0.0
H	61.0	10.0
H	62.0	50.0
H	63.0	89.0
H	199.0	89.0

		LEVEE.DAT
0	0	
L	1899	
D	5	4438.0
L	1900	
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LEVEE.DAT

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D	6	4396.5
L	4593	
D	3	4394.0
D	6	4394.0
D	7	4394.0
L	4595	
D	5	4416.0
L	4596	
D	2	4428.0
D	5	4428.0
D	6	4428.0
L	4597	
D	2	4428.0
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D	6	4428.0
D	7	4428.0
L	4640	
D	1	4391.5
D	5	4391.5
D	8	4391.5
L	4643	
D	1	4394.5
D	5	4394.5
D	8	4394.5
L	4646	
D	2	4397.0
D	3	4397.0
D	5	4397.0
D	6	4397.0
D	7	4397.0
L	4647	
D	2	4395.0
D	3	4395.0
D	5	4395.0
D	6	4395.0
D	7	4395.0
L	4648	

		LEVEE.DAT
D	2	4397.0
D	5	4397.0
D	6	4397.0
L	4649	
D	1	4412.0
D	2	4412.0
D	5	4412.0
D	6	4412.0
L	4651	
D	1	4428.0
D	5	4428.0
L	4693	
D	1	4395.0
D	5	4395.0
D	8	4395.0
L	4696	
D	8	4393.5
L	4697	
D	1	4393.5
D	4	4393.5
D	5	4393.5
D	8	4393.5
L	4700	
D	1	4395.0
D	5	4395.0
L	4704	
D	1	4428.0
D	5	4428.0
D	8	4428.0
L	4745	
D	1	4395.0
D	8	4395.0
L	4749	
D	8	4393.5
L	4750	
D	4	4393.5
D	8	4393.5
L	4752	
D	1	4395.0
D	5	4395.0
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L	4756	
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D	5	4408.0
D	8	4408.0
L	4796	
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D	5	4395.0
D	8	4395.0
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L	4834	
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D	8	4395.0
L	4838	
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D	5	4406.0
D	8	4406.0
L	4874	
D	1	4406.0
D	2	4406.0
D	5	4406.0
D	8	4406.0

LEVEE.DAT

L	4905	
D	5	4396.0
L	4906	
D	3	4396.0
D	7	4396.0
L	4908	
D	1	4407.0
D	5	4407.0
D	8	4407.0
L	4909	
D	7	4406.0
L	4938	
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D	4	4405.0
D	6	4405.0
D	7	4405.0
L	4940	
D	2	4408.0
D	5	4408.0
L	4941	
D	1	4418.0
D	2	4418.0
D	5	4418.0
D	6	4418.0
D	8	4418.0
L	4970	
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D	6	4405.0
D	7	4405.0
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D	2	4405.0
D	3	4405.0
D	4	4405.0
L	5000	
D	7	4405.0
L	5023	
D	8	4397.0
L	5024	
D	2	4396.5
D	3	4396.5
L	5045	
D	8	4397.0
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D	3	4397.0
D	4	4397.0
D	6	4397.0
D	7	4397.0
D	8	4397.0
L	5064	
D	3	4397.0
D	6	4397.0
D	7	4397.0

## MANNINGS\_N.DAT

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66	0.065

## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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919	0.065
920	0.065
921	0.065
922	0.065
923	0.065
924	0.065

## MANNINGS\_N.DAT

925	0.065
926	0.065
927	0.065
928	0.065
929	0.065
930	0.065
931	0.065
932	0.065
933	0.065
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935	0.065
936	0.065
937	0.065
938	0.065
939	0.065
940	0.065
941	0.065
942	0.065
943	0.065
944	0.065
945	0.065
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957	0.065
958	0.065
959	0.065
960	0.065
961	0.065
962	0.065
963	0.065
964	0.065
965	0.065
966	0.065
967	0.065
968	0.065
969	0.065
970	0.065
971	0.065
972	0.065
973	0.065
974	0.065
975	0.065
976	0.065
977	0.065
978	0.065
979	0.065
980	0.065
981	0.065
982	0.065
983	0.065
984	0.065
985	0.065
986	0.065
987	0.065
988	0.065
989	0.065
990	0.065

## MANNINGS\_N.DAT

991	0.065
992	0.065
993	0.065
994	0.065
995	0.065
996	0.065
997	0.065
998	0.065
999	0.065
1000	0.065
1001	0.065
1002	0.065
1003	0.065
1004	0.065
1005	0.065
1006	0.065
1007	0.065
1008	0.065
1009	0.065
1010	0.065
1011	0.065
1012	0.065
1013	0.065
1014	0.065
1015	0.065
1016	0.065
1017	0.065
1018	0.065
1019	0.065
1020	0.065
1021	0.065
1022	0.065
1023	0.065
1024	0.065
1025	0.065
1026	0.065
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1046	0.065
1047	0.065
1048	0.065
1049	0.065
1050	0.065
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1052	0.065
1053	0.065
1054	0.065
1055	0.065
1056	0.065

## MANNINGS\_N.DAT

1057	0.065
1058	0.065
1059	0.065
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1061	0.065
1062	0.065
1063	0.065
1064	0.065
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1066	0.065
1067	0.065
1068	0.065
1069	0.065
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1072	0.065
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1075	0.065
1076	0.065
1077	0.065
1078	0.065
1079	0.065
1080	0.065
1081	0.065
1082	0.065
1083	0.065
1084	0.065
1085	0.065
1086	0.065
1087	0.065
1088	0.065
1089	0.065
1090	0.065
1091	0.065
1092	0.065
1093	0.065
1094	0.065
1095	0.065
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1098	0.065
1099	0.065
1100	0.065
1101	0.065
1102	0.065
1103	0.065
1104	0.065
1105	0.065
1106	0.065
1107	0.065
1108	0.065
1109	0.065
1110	0.065
1111	0.065
1112	0.065
1113	0.065
1114	0.065
1115	0.065
1116	0.065
1117	0.065
1118	0.065
1119	0.065
1120	0.065
1121	0.065
1122	0.065

## MANNINGS\_N.DAT

1123	0.065
1124	0.065
1125	0.065
1126	0.065
1127	0.065
1128	0.065
1129	0.065
1130	0.065
1131	0.065
1132	0.065
1133	0.065
1134	0.065
1135	0.065
1136	0.065
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1178	0.065
1179	0.065
1180	0.065
1181	0.065
1182	0.065
1183	0.065
1184	0.065
1185	0.065
1186	0.065
1187	0.065
1188	0.065



## MANNINGS\_N.DAT

1189	0.065
1190	0.065
1191	0.065
1192	0.065
1193	0.065
1194	0.065
1195	0.065
1196	0.065
1197	0.065
1198	0.065
1199	0.065
1200	0.065
1201	0.065
1202	0.065
1203	0.065
1204	0.065
1205	0.065
1206	0.065
1207	0.065
1208	0.065
1209	0.065
1210	0.065
1211	0.065
1212	0.065
1213	0.065
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1218	0.065
1219	0.065
1220	0.065
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1222	0.065
1223	0.065
1224	0.065
1225	0.065
1226	0.065
1227	0.065
1228	0.065
1229	0.065
1230	0.065
1231	0.065
1232	0.065
1233	0.065
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1244	0.065
1245	0.065
1246	0.065
1247	0.065
1248	0.065
1249	0.065
1250	0.065
1251	0.065
1252	0.065
1253	0.065
1254	0.065

## MANNINGS\_N.DAT

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1256	0.065
1257	0.065
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1268	0.065
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1283	0.065
1284	0.065
1285	0.065
1286	0.065
1287	0.065
1288	0.065
1289	0.065
1290	0.065
1291	0.065
1292	0.065
1293	0.065
1294	0.065
1295	0.065
1296	0.065
1297	0.065
1298	0.065
1299	0.065
1300	0.065
1301	0.065
1302	0.065
1303	0.065
1304	0.065
1305	0.065
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1310	0.065
1311	0.065
1312	0.065
1313	0.065
1314	0.065
1315	0.065
1316	0.065
1317	0.065
1318	0.065
1319	0.065
1320	0.065

## MANNINGS\_N.DAT

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1323	0.065
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1326	0.065
1327	0.065
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1329	0.065
1330	0.065
1331	0.065
1332	0.065
1333	0.065
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1346	0.065
1347	0.065
1348	0.065
1349	0.065
1350	0.065
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1361	0.065
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1376	0.065
1377	0.065
1378	0.065
1379	0.065
1380	0.065
1381	0.065
1382	0.065
1383	0.065
1384	0.065
1385	0.065
1386	0.065

## MANNINGS\_N.DAT

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1388	0.065
1389	0.065
1390	0.065
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1395	0.065
1396	0.065
1397	0.065
1398	0.065
1399	0.065
1400	0.065
1401	0.065
1402	0.065
1403	0.065
1404	0.065
1405	0.065
1406	0.065
1407	0.065
1408	0.065
1409	0.065
1410	0.065
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1412	0.065
1413	0.065
1414	0.065
1415	0.065
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1419	0.065
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1423	0.065
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1427	0.065
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1430	0.065
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1432	0.065
1433	0.065
1434	0.065
1435	0.065
1436	0.065
1437	0.065
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1439	0.065
1440	0.065
1441	0.065
1442	0.065
1443	0.065
1444	0.065
1445	0.065
1446	0.065
1447	0.065
1448	0.065
1449	0.065
1450	0.065
1451	0.065
1452	0.065

## MANNINGS\_N.DAT

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1455	0.065
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1468	0.065
1469	0.065
1470	0.065
1471	0.065
1472	0.065
1473	0.065
1474	0.065
1475	0.065
1476	0.065
1477	0.065
1478	0.065
1479	0.065
1480	0.065
1481	0.065
1482	0.065
1483	0.065
1484	0.065
1485	0.065
1486	0.065
1487	0.065
1488	0.065
1489	0.065
1490	0.065
1491	0.065
1492	0.065
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1496	0.065
1497	0.065
1498	0.065
1499	0.065
1500	0.065
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1502	0.065
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1505	0.065
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1508	0.065
1509	0.065
1510	0.065
1511	0.065
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1513	0.065
1514	0.065
1515	0.065
1516	0.065
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1518	0.065

## MANNINGS\_N.DAT

1519	0.065
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1522	0.065
1523	0.065
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1527	0.065
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1530	0.065
1531	0.065
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1536	0.065
1537	0.065
1538	0.065
1539	0.065
1540	0.065
1541	0.065
1542	0.065
1543	0.065
1544	0.065
1545	0.065
1546	0.065
1547	0.065
1548	0.065
1549	0.065
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1563	0.065
1564	0.065
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1566	0.065
1567	0.065
1568	0.065
1569	0.065
1570	0.065
1571	0.065
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1573	0.065
1574	0.065
1575	0.065
1576	0.065
1577	0.065
1578	0.065
1579	0.065
1580	0.065
1581	0.065
1582	0.065
1583	0.065
1584	0.065

## MANNINGS\_N.DAT

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1587	0.065
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1589	0.065
1590	0.065
1591	0.065
1592	0.065
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1596	0.065
1597	0.065
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1599	0.065
1600	0.065
1601	0.065
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1603	0.065
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1605	0.065
1606	0.065
1607	0.065
1608	0.065
1609	0.065
1610	0.065
1611	0.065
1612	0.065
1613	0.065
1614	0.065
1615	0.065
1616	0.065
1617	0.065
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1622	0.065
1623	0.065
1624	0.065
1625	0.065
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1637	0.065
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1642	0.065
1643	0.065
1644	0.065
1645	0.065
1646	0.065
1647	0.065
1648	0.065
1649	0.065
1650	0.065



## MANNINGS\_N.DAT

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1653	0.065
1654	0.065
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1656	0.065
1657	0.065
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1660	0.065
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1676	0.065
1677	0.065
1678	0.065
1679	0.065
1680	0.065
1681	0.065
1682	0.065
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1690	0.065
1691	0.065
1692	0.065
1693	0.065
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1696	0.065
1697	0.065
1698	0.065
1699	0.065
1700	0.065
1701	0.065
1702	0.065
1703	0.065
1704	0.065
1705	0.065
1706	0.065
1707	0.065
1708	0.065
1709	0.065
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1711	0.065
1712	0.065
1713	0.065
1714	0.065
1715	0.065
1716	0.065

## MANNINGS\_N.DAT

1717	0.065
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1723	0.065
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1778	0.065
1779	0.065
1780	0.065
1781	0.065
1782	0.065

## MANNINGS\_N.DAT

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1788	0.065
1789	0.065
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1791	0.065
1792	0.065
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1795	0.065
1796	0.065
1797	0.065
1798	0.065
1799	0.065
1800	0.065
1801	0.065
1802	0.065
1803	0.065
1804	0.065
1805	0.065
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1807	0.065
1808	0.065
1809	0.065
1810	0.065
1811	0.065
1812	0.065
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1847	0.065
1848	0.065

## MANNINGS\_N.DAT

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1887	0.065
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1889	0.065
1890	0.065
1891	0.065
1892	0.065
1893	0.065
1894	0.065
1895	0.085
1896	0.125
1897	0.120
1898	0.065
1899	0.065
1900	0.065
1901	0.065
1902	0.065
1903	0.065
1904	0.065
1905	0.065
1906	0.065
1907	0.065
1908	0.065
1909	0.065
1910	0.065
1911	0.065
1912	0.065
1913	0.065
1914	0.065

## MANNINGS\_N.DAT

1915	0.065
1916	0.065
1917	0.065
1918	0.065
1919	0.065
1920	0.065
1921	0.065
1922	0.065
1923	0.065
1924	0.065
1925	0.065
1926	0.065
1927	0.065
1928	0.065
1929	0.065
1930	0.065
1931	0.065
1932	0.065
1933	0.065
1934	0.065
1935	0.065
1936	0.065
1937	0.065
1938	0.065
1939	0.065
1940	0.065
1941	0.065
1942	0.065
1943	0.065
1944	0.065
1945	0.065
1946	0.065
1947	0.065
1948	0.065
1949	0.065
1950	0.065
1951	0.065
1952	0.065
1953	0.065
1954	0.065
1955	0.065
1956	0.065
1957	0.065
1958	0.065
1959	0.065
1960	0.065
1961	0.065
1962	0.065
1963	0.065
1964	0.065
1965	0.065
1966	0.065
1967	0.065
1968	0.065
1969	0.065
1970	0.065
1971	0.120
1972	0.120
1973	0.085
1974	0.065
1975	0.065
1976	0.065
1977	0.065
1978	0.065
1979	0.065
1980	0.065

## MANNINGS\_N.DAT

1981	0.065
1982	0.065
1983	0.065
1984	0.065
1985	0.065
1986	0.065
1987	0.065
1988	0.065
1989	0.065
1990	0.065
1991	0.065
1992	0.065
1993	0.065
1994	0.065
1995	0.065
1996	0.065
1997	0.065
1998	0.065
1999	0.065
2000	0.065
2001	0.065
2002	0.065
2003	0.065
2004	0.065
2005	0.065
2006	0.065
2007	0.065
2008	0.065
2009	0.065
2010	0.065
2011	0.065
2012	0.065
2013	0.065
2014	0.065
2015	0.065
2016	0.065
2017	0.065
2018	0.065
2019	0.065
2020	0.065
2021	0.065
2022	0.065
2023	0.065
2024	0.065
2025	0.065
2026	0.065
2027	0.065
2028	0.065
2029	0.065
2030	0.065
2031	0.065
2032	0.065
2033	0.065
2034	0.065
2035	0.065
2036	0.065
2037	0.065
2038	0.065
2039	0.065
2040	0.065
2041	0.065
2042	0.065
2043	0.065
2044	0.065
2045	0.065
2046	0.065

## MANNINGS\_N.DAT

2047	0.065
2048	0.085
2049	0.120
2050	0.085
2051	0.065
2052	0.065
2053	0.065
2054	0.065
2055	0.065
2056	0.065
2057	0.065
2058	0.065
2059	0.065
2060	0.065
2061	0.065
2062	0.065
2063	0.065
2064	0.065
2065	0.065
2066	0.065
2067	0.065
2068	0.065
2069	0.065
2070	0.065
2071	0.065
2072	0.065
2073	0.065
2074	0.065
2075	0.065
2076	0.065
2077	0.065
2078	0.065
2079	0.065
2080	0.065
2081	0.065
2082	0.065
2083	0.065
2084	0.065
2085	0.065
2086	0.065
2087	0.065
2088	0.065
2089	0.065
2090	0.065
2091	0.065
2092	0.065
2093	0.065
2094	0.065
2095	0.065
2096	0.065
2097	0.065
2098	0.065
2099	0.065
2100	0.065
2101	0.065
2102	0.065
2103	0.065
2104	0.065
2105	0.065
2106	0.065
2107	0.065
2108	0.065
2109	0.065
2110	0.065
2111	0.065
2112	0.065



## MANNINGS\_N.DAT

2113	0.065
2114	0.065
2115	0.065
2116	0.065
2117	0.065
2118	0.065
2119	0.065
2120	0.065
2121	0.065
2122	0.065
2123	0.065
2124	0.065
2125	0.065
2126	0.065
2127	0.065
2128	0.065
2129	0.065
2130	0.065
2131	0.065
2132	0.065
2133	0.065
2134	0.065
2135	0.065
2136	0.065
2137	0.065
2138	0.065
2139	0.065
2140	0.065
2141	0.065
2142	0.065
2143	0.065
2144	0.065
2145	0.065
2146	0.065
2147	0.065
2148	0.065
2149	0.065
2150	0.065
2151	0.065
2152	0.065
2153	0.065
2154	0.065
2155	0.065
2156	0.065
2157	0.065
2158	0.065
2159	0.065
2160	0.065
2161	0.065
2162	0.065
2163	0.065
2164	0.065
2165	0.065
2166	0.065
2167	0.065
2168	0.065
2169	0.065
2170	0.065
2171	0.065
2172	0.065
2173	0.065
2174	0.065
2175	0.065
2176	0.065
2177	0.065
2178	0.065

## MANNINGS\_N.DAT

2179	0.065
2180	0.065
2181	0.065
2182	0.065
2183	0.065
2184	0.065
2185	0.065
2186	0.065
2187	0.065
2188	0.065
2189	0.065
2190	0.065
2191	0.065
2192	0.065
2193	0.065
2194	0.065
2195	0.065
2196	0.065
2197	0.065
2198	0.065
2199	0.065
2200	0.065
2201	0.065
2202	0.065
2203	0.065
2204	0.065
2205	0.065
2206	0.065
2207	0.065
2208	0.065
2209	0.065
2210	0.065
2211	0.065
2212	0.065
2213	0.065
2214	0.065
2215	0.065
2216	0.065
2217	0.065
2218	0.065
2219	0.065
2220	0.065
2221	0.065
2222	0.065
2223	0.065
2224	0.065
2225	0.065
2226	0.065
2227	0.065
2228	0.065
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2233	0.065
2234	0.065
2235	0.065
2236	0.065
2237	0.065
2238	0.065
2239	0.065
2240	0.065
2241	0.065
2242	0.065
2243	0.065
2244	0.065

## MANNINGS\_N.DAT

2245	0.065
2246	0.065
2247	0.065
2248	0.065
2249	0.065
2250	0.065
2251	0.065
2252	0.065
2253	0.065
2254	0.065
2255	0.065
2256	0.065
2257	0.065
2258	0.065
2259	0.065
2260	0.065
2261	0.065
2262	0.065
2263	0.065
2264	0.065
2265	0.065
2266	0.065
2267	0.065
2268	0.065
2269	0.065
2270	0.065
2271	0.065
2272	0.065
2273	0.065
2274	0.065
2275	0.065
2276	0.065
2277	0.065
2278	0.065
2279	0.065
2280	0.065
2281	0.065
2282	0.065
2283	0.065
2284	0.065
2285	0.065
2286	0.065
2287	0.065
2288	0.065
2289	0.065
2290	0.065
2291	0.065
2292	0.065
2293	0.065
2294	0.065
2295	0.065
2296	0.065
2297	0.065
2298	0.065
2299	0.065
2300	0.065
2301	0.065
2302	0.065
2303	0.065
2304	0.065
2305	0.065
2306	0.065
2307	0.065
2308	0.065
2309	0.065
2310	0.065

## MANNINGS\_N.DAT

2311	0.065
2312	0.065
2313	0.065
2314	0.065
2315	0.065
2316	0.065
2317	0.065
2318	0.065
2319	0.065
2320	0.065
2321	0.065
2322	0.065
2323	0.065
2324	0.065
2325	0.065
2326	0.065
2327	0.065
2328	0.065
2329	0.065
2330	0.065
2331	0.065
2332	0.065
2333	0.065
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2335	0.065
2336	0.065
2337	0.065
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2339	0.065
2340	0.065
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2346	0.065
2347	0.065
2348	0.065
2349	0.065
2350	0.065
2351	0.065
2352	0.065
2353	0.065
2354	0.065
2355	0.065
2356	0.065
2357	0.065
2358	0.065
2359	0.065
2360	0.065
2361	0.065
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2366	0.065
2367	0.065
2368	0.065
2369	0.065
2370	0.065
2371	0.065
2372	0.065
2373	0.065
2374	0.065
2375	0.065
2376	0.065

## MANNINGS\_N.DAT

2377	0.065
2378	0.065
2379	0.065
2380	0.065
2381	0.065
2382	0.065
2383	0.065
2384	0.065
2385	0.065
2386	0.065
2387	0.065
2388	0.065
2389	0.065
2390	0.065
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2393	0.065
2394	0.065
2395	0.065
2396	0.065
2397	0.065
2398	0.065
2399	0.065
2400	0.065
2401	0.065
2402	0.065
2403	0.065
2404	0.065
2405	0.065
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2413	0.065
2414	0.065
2415	0.065
2416	0.065
2417	0.065
2418	0.065
2419	0.065
2420	0.065
2421	0.065
2422	0.065
2423	0.065
2424	0.065
2425	0.065
2426	0.065
2427	0.065
2428	0.065
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2431	0.065
2432	0.065
2433	0.065
2434	0.065
2435	0.065
2436	0.065
2437	0.065
2438	0.065
2439	0.065
2440	0.065
2441	0.065
2442	0.065

## MANNINGS\_N.DAT

2443	0.065
2444	0.065
2445	0.065
2446	0.065
2447	0.065
2448	0.065
2449	0.065
2450	0.065
2451	0.065
2452	0.065
2453	0.065
2454	0.065
2455	0.065
2456	0.065
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2460	0.065
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2463	0.065
2464	0.065
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2466	0.065
2467	0.065
2468	0.065
2469	0.065
2470	0.065
2471	0.065
2472	0.065
2473	0.065
2474	0.065
2475	0.065
2476	0.065
2477	0.065
2478	0.065
2479	0.065
2480	0.065
2481	0.065
2482	0.065
2483	0.065
2484	0.065
2485	0.065
2486	0.065
2487	0.065
2488	0.065
2489	0.065
2490	0.065
2491	0.065
2492	0.065
2493	0.065
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2497	0.065
2498	0.065
2499	0.065
2500	0.065
2501	0.065
2502	0.065
2503	0.065
2504	0.065
2505	0.065
2506	0.065
2507	0.065
2508	0.065

## MANNINGS\_N.DAT

2509	0.065
2510	0.065
2511	0.065
2512	0.065
2513	0.065
2514	0.065
2515	0.065
2516	0.065
2517	0.065
2518	0.065
2519	0.065
2520	0.065
2521	0.065
2522	0.065
2523	0.065
2524	0.065
2525	0.065
2526	0.065
2527	0.065
2528	0.065
2529	0.065
2530	0.065
2531	0.065
2532	0.065
2533	0.065
2534	0.065
2535	0.065
2536	0.065
2537	0.065
2538	0.065
2539	0.065
2540	0.065
2541	0.065
2542	0.065
2543	0.065
2544	0.065
2545	0.065
2546	0.065
2547	0.065
2548	0.065
2549	0.065
2550	0.065
2551	0.065
2552	0.065
2553	0.065
2554	0.065
2555	0.065
2556	0.065
2557	0.065
2558	0.065
2559	0.065
2560	0.065
2561	0.065
2562	0.065
2563	0.065
2564	0.065
2565	0.065
2566	0.065
2567	0.065
2568	0.065
2569	0.065
2570	0.065
2571	0.065
2572	0.065
2573	0.065
2574	0.065



## MANNINGS\_N.DAT

2575	0.065
2576	0.065
2577	0.065
2578	0.065
2579	0.065
2580	0.065
2581	0.065
2582	0.065
2583	0.065
2584	0.065
2585	0.065
2586	0.065
2587	0.065
2588	0.065
2589	0.065
2590	0.065
2591	0.065
2592	0.065
2593	0.065
2594	0.065
2595	0.065
2596	0.065
2597	0.065
2598	0.065
2599	0.065
2600	0.065
2601	0.065
2602	0.065
2603	0.065
2604	0.065
2605	0.065
2606	0.065
2607	0.065
2608	0.065
2609	0.065
2610	0.065
2611	0.065
2612	0.065
2613	0.065
2614	0.065
2615	0.065
2616	0.065
2617	0.065
2618	0.065
2619	0.065
2620	0.065
2621	0.065
2622	0.065
2623	0.065
2624	0.065
2625	0.065
2626	0.065
2627	0.065
2628	0.065
2629	0.065
2630	0.065
2631	0.065
2632	0.065
2633	0.065
2634	0.065
2635	0.065
2636	0.065
2637	0.065
2638	0.065
2639	0.065
2640	0.065

## MANNINGS\_N.DAT

2641	0.065
2642	0.065
2643	0.065
2644	0.065
2645	0.065
2646	0.065
2647	0.065
2648	0.065
2649	0.065
2650	0.065
2651	0.065
2652	0.065
2653	0.065
2654	0.065
2655	0.065
2656	0.065
2657	0.065
2658	0.065
2659	0.065
2660	0.065
2661	0.065
2662	0.065
2663	0.065
2664	0.065
2665	0.065
2666	0.065
2667	0.065
2668	0.065
2669	0.065
2670	0.065
2671	0.065
2672	0.065
2673	0.065
2674	0.065
2675	0.065
2676	0.065
2677	0.065
2678	0.065
2679	0.065
2680	0.065
2681	0.065
2682	0.065
2683	0.065
2684	0.065
2685	0.065
2686	0.065
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2696	0.065
2697	0.065
2698	0.065
2699	0.065
2700	0.065
2701	0.065
2702	0.065
2703	0.065
2704	0.065
2705	0.065
2706	0.065

## MANNINGS\_N.DAT

2707	0.065
2708	0.065
2709	0.065
2710	0.065
2711	0.065
2712	0.065
2713	0.065
2714	0.065
2715	0.065
2716	0.065
2717	0.065
2718	0.065
2719	0.065
2720	0.065
2721	0.065
2722	0.065
2723	0.065
2724	0.065
2725	0.065
2726	0.065
2727	0.065
2728	0.065
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2730	0.065
2731	0.065
2732	0.065
2733	0.065
2734	0.065
2735	0.065
2736	0.065
2737	0.065
2738	0.065
2739	0.065
2740	0.065
2741	0.065
2742	0.065
2743	0.065
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2746	0.065
2747	0.065
2748	0.065
2749	0.065
2750	0.065
2751	0.065
2752	0.065
2753	0.065
2754	0.065
2755	0.065
2756	0.065
2757	0.065
2758	0.065
2759	0.065
2760	0.065
2761	0.065
2762	0.065
2763	0.065
2764	0.065
2765	0.065
2766	0.065
2767	0.065
2768	0.065
2769	0.065
2770	0.065
2771	0.065
2772	0.065

## MANNINGS\_N.DAT

2773	0.065
2774	0.065
2775	0.065
2776	0.065
2777	0.065
2778	0.065
2779	0.065
2780	0.065
2781	0.065
2782	0.065
2783	0.065
2784	0.065
2785	0.065
2786	0.065
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2798	0.065
2799	0.065
2800	0.065
2801	0.065
2802	0.065
2803	0.065
2804	0.065
2805	0.065
2806	0.065
2807	0.065
2808	0.065
2809	0.065
2810	0.065
2811	0.065
2812	0.065
2813	0.065
2814	0.065
2815	0.065
2816	0.065
2817	0.065
2818	0.065
2819	0.065
2820	0.065
2821	0.065
2822	0.065
2823	0.065
2824	0.065
2825	0.065
2826	0.065
2827	0.065
2828	0.065
2829	0.065
2830	0.065
2831	0.065
2832	0.065
2833	0.065
2834	0.065
2835	0.065
2836	0.065
2837	0.065
2838	0.065

## MANNINGS\_N.DAT

2839	0.065
2840	0.065
2841	0.065
2842	0.065
2843	0.065
2844	0.065
2845	0.065
2846	0.065
2847	0.065
2848	0.065
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2850	0.065
2851	0.065
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2853	0.065
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2863	0.065
2864	0.065
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2866	0.065
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2869	0.065
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2894	0.065
2895	0.065
2896	0.065
2897	0.065
2898	0.065
2899	0.065
2900	0.065
2901	0.065
2902	0.065
2903	0.065
2904	0.065

## MANNINGS\_N.DAT

2905	0.065
2906	0.065
2907	0.065
2908	0.065
2909	0.065
2910	0.065
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2913	0.065
2914	0.065
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2923	0.065
2924	0.065
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2927	0.065
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2929	0.065
2930	0.065
2931	0.065
2932	0.065
2933	0.065
2934	0.065
2935	0.065
2936	0.065
2937	0.065
2938	0.065
2939	0.065
2940	0.065
2941	0.065
2942	0.065
2943	0.065
2944	0.065
2945	0.065
2946	0.065
2947	0.065
2948	0.065
2949	0.065
2950	0.065
2951	0.065
2952	0.065
2953	0.065
2954	0.065
2955	0.065
2956	0.065
2957	0.065
2958	0.065
2959	0.065
2960	0.065
2961	0.065
2962	0.065
2963	0.065
2964	0.065
2965	0.065
2966	0.065
2967	0.065
2968	0.065
2969	0.065
2970	0.065

## MANNINGS\_N.DAT

2971	0.065
2972	0.065
2973	0.065
2974	0.065
2975	0.065
2976	0.065
2977	0.065
2978	0.065
2979	0.065
2980	0.065
2981	0.065
2982	0.065
2983	0.065
2984	0.065
2985	0.065
2986	0.065
2987	0.065
2988	0.065
2989	0.065
2990	0.065
2991	0.065
2992	0.065
2993	0.065
2994	0.065
2995	0.065
2996	0.065
2997	0.065
2998	0.065
2999	0.065
3000	0.065
3001	0.065
3002	0.065
3003	0.065
3004	0.065
3005	0.065
3006	0.065
3007	0.065
3008	0.065
3009	0.065
3010	0.065
3011	0.065
3012	0.065
3013	0.065
3014	0.065
3015	0.065
3016	0.065
3017	0.065
3018	0.065
3019	0.065
3020	0.065
3021	0.065
3022	0.065
3023	0.065
3024	0.065
3025	0.065
3026	0.065
3027	0.065
3028	0.065
3029	0.065
3030	0.065
3031	0.065
3032	0.065
3033	0.065
3034	0.065
3035	0.065
3036	0.065

## MANNINGS\_N.DAT

3037	0.065
3038	0.065
3039	0.065
3040	0.065
3041	0.065
3042	0.065
3043	0.065
3044	0.065
3045	0.065
3046	0.065
3047	0.065
3048	0.065
3049	0.065
3050	0.065
3051	0.065
3052	0.065
3053	0.065
3054	0.065
3055	0.065
3056	0.065
3057	0.065
3058	0.065
3059	0.065
3060	0.065
3061	0.065
3062	0.065
3063	0.065
3064	0.065
3065	0.065
3066	0.065
3067	0.065
3068	0.065
3069	0.065
3070	0.065
3071	0.065
3072	0.065
3073	0.065
3074	0.065
3075	0.065
3076	0.065
3077	0.065
3078	0.065
3079	0.065
3080	0.065
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3082	0.065
3083	0.065
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3093	0.065
3094	0.065
3095	0.065
3096	0.065
3097	0.065
3098	0.065
3099	0.065
3100	0.065
3101	0.065
3102	0.065



## MANNINGS\_N.DAT

3103	0.065
3104	0.065
3105	0.065
3106	0.065
3107	0.065
3108	0.065
3109	0.065
3110	0.065
3111	0.065
3112	0.065
3113	0.065
3114	0.065
3115	0.065
3116	0.065
3117	0.065
3118	0.065
3119	0.065
3120	0.065
3121	0.065
3122	0.065
3123	0.065
3124	0.065
3125	0.065
3126	0.065
3127	0.065
3128	0.065
3129	0.065
3130	0.065
3131	0.065
3132	0.065
3133	0.065
3134	0.065
3135	0.065
3136	0.065
3137	0.065
3138	0.065
3139	0.065
3140	0.065
3141	0.065
3142	0.065
3143	0.065
3144	0.065
3145	0.065
3146	0.065
3147	0.065
3148	0.065
3149	0.065
3150	0.065
3151	0.065
3152	0.065
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3155	0.065
3156	0.065
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3158	0.065
3159	0.065
3160	0.065
3161	0.065
3162	0.065
3163	0.065
3164	0.065
3165	0.065
3166	0.065
3167	0.065
3168	0.065

## MANNINGS\_N.DAT

3169	0.065
3170	0.065
3171	0.065
3172	0.065
3173	0.065
3174	0.065
3175	0.065
3176	0.065
3177	0.065
3178	0.065
3179	0.065
3180	0.065
3181	0.065
3182	0.065
3183	0.065
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3186	0.065
3187	0.065
3188	0.065
3189	0.065
3190	0.065
3191	0.065
3192	0.065
3193	0.065
3194	0.065
3195	0.065
3196	0.065
3197	0.065
3198	0.065
3199	0.065
3200	0.065
3201	0.065
3202	0.065
3203	0.065
3204	0.065
3205	0.065
3206	0.065
3207	0.065
3208	0.065
3209	0.065
3210	0.065
3211	0.065
3212	0.065
3213	0.065
3214	0.065
3215	0.065
3216	0.065
3217	0.065
3218	0.065
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3224	0.065
3225	0.065
3226	0.065
3227	0.065
3228	0.065
3229	0.065
3230	0.065
3231	0.065
3232	0.065
3233	0.065
3234	0.065

## MANNINGS\_N.DAT

3235	0.065
3236	0.065
3237	0.065
3238	0.065
3239	0.065
3240	0.065
3241	0.065
3242	0.065
3243	0.065
3244	0.065
3245	0.065
3246	0.065
3247	0.065
3248	0.065
3249	0.065
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3251	0.065
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3253	0.065
3254	0.065
3255	0.065
3256	0.065
3257	0.065
3258	0.065
3259	0.065
3260	0.065
3261	0.065
3262	0.065
3263	0.065
3264	0.065
3265	0.065
3266	0.065
3267	0.065
3268	0.065
3269	0.065
3270	0.065
3271	0.065
3272	0.065
3273	0.065
3274	0.065
3275	0.065
3276	0.065
3277	0.065
3278	0.065
3279	0.065
3280	0.065
3281	0.065
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3284	0.065
3285	0.065
3286	0.065
3287	0.065
3288	0.065
3289	0.065
3290	0.065
3291	0.065
3292	0.065
3293	0.065
3294	0.065
3295	0.065
3296	0.065
3297	0.065
3298	0.065
3299	0.065
3300	0.065

## MANNINGS\_N.DAT

3301	0.065
3302	0.065
3303	0.065
3304	0.065
3305	0.065
3306	0.065
3307	0.065
3308	0.065
3309	0.065
3310	0.065
3311	0.065
3312	0.065
3313	0.065
3314	0.065
3315	0.065
3316	0.065
3317	0.065
3318	0.065
3319	0.065
3320	0.065
3321	0.065
3322	0.065
3323	0.065
3324	0.065
3325	0.065
3326	0.065
3327	0.065
3328	0.065
3329	0.065
3330	0.065
3331	0.065
3332	0.065
3333	0.065
3334	0.065
3335	0.065
3336	0.065
3337	0.065
3338	0.065
3339	0.065
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3341	0.065
3342	0.065
3343	0.065
3344	0.065
3345	0.065
3346	0.065
3347	0.065
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3349	0.065
3350	0.065
3351	0.065
3352	0.065
3353	0.065
3354	0.065
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3356	0.035
3357	0.035
3358	0.035
3359	0.035
3360	0.035
3361	0.035
3362	0.035
3363	0.035
3364	0.035
3365	0.065
3366	0.065

## MANNINGS\_N.DAT

3367	0.065
3368	0.065
3369	0.065
3370	0.065
3371	0.065
3372	0.065
3373	0.065
3374	0.065
3375	0.065
3376	0.065
3377	0.065
3378	0.065
3379	0.065
3380	0.065
3381	0.065
3382	0.065
3383	0.065
3384	0.065
3385	0.065
3386	0.065
3387	0.065
3388	0.065
3389	0.065
3390	0.065
3391	0.065
3392	0.065
3393	0.065
3394	0.065
3395	0.065
3396	0.065
3397	0.065
3398	0.065
3399	0.065
3400	0.065
3401	0.065
3402	0.065
3403	0.065
3404	0.065
3405	0.065
3406	0.065
3407	0.065
3408	0.065
3409	0.065
3410	0.065
3411	0.065
3412	0.065
3413	0.065
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3415	0.065
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3417	0.065
3418	0.065
3419	0.065
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3422	0.065
3423	0.065
3424	0.065
3425	0.065
3426	0.065
3427	0.065
3428	0.065
3429	0.065
3430	0.065
3431	0.065
3432	0.065

## MANNINGS\_N.DAT

3433	0.065
3434	0.065
3435	0.035
3436	0.035
3437	0.035
3438	0.035
3439	0.035
3440	0.035
3441	0.035
3442	0.035
3443	0.035
3444	0.035
3445	0.035
3446	0.035
3447	0.035
3448	0.065
3449	0.065
3450	0.065
3451	0.065
3452	0.065
3453	0.065
3454	0.065
3455	0.065
3456	0.065
3457	0.065
3458	0.065
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3460	0.065
3461	0.065
3462	0.065
3463	0.065
3464	0.065
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3466	0.065
3467	0.065
3468	0.065
3469	0.065
3470	0.065
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3472	0.065
3473	0.065
3474	0.065
3475	0.065
3476	0.065
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3478	0.065
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3481	0.065
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3485	0.065
3486	0.065
3487	0.065
3488	0.065
3489	0.065
3490	0.065
3491	0.065
3492	0.065
3493	0.065
3494	0.065
3495	0.065
3496	0.065
3497	0.065
3498	0.065

## MANNINGS\_N.DAT

3499	0.065
3500	0.065
3501	0.065
3502	0.065
3503	0.065
3504	0.065
3505	0.065
3506	0.065
3507	0.065
3508	0.065
3509	0.035
3510	0.035
3511	0.035
3512	0.035
3513	0.035
3514	0.035
3515	0.035
3516	0.035
3517	0.035
3518	0.035
3519	0.035
3520	0.035
3521	0.035
3522	0.035
3523	0.035
3524	0.035
3525	0.035
3526	0.035
3527	0.035
3528	0.035
3529	0.035
3530	0.035
3531	0.065
3532	0.065
3533	0.065
3534	0.065
3535	0.065
3536	0.065
3537	0.065
3538	0.065
3539	0.065
3540	0.065
3541	0.065
3542	0.065
3543	0.065
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3545	0.065
3546	0.065
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3549	0.065
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3552	0.065
3553	0.065
3554	0.065
3555	0.065
3556	0.065
3557	0.065
3558	0.065
3559	0.065
3560	0.065
3561	0.065
3562	0.065
3563	0.065
3564	0.065

## MANNINGS\_N.DAT

3565	0.065
3566	0.065
3567	0.065
3568	0.065
3569	0.065
3570	0.065
3571	0.065
3572	0.065
3573	0.065
3574	0.065
3575	0.065
3576	0.065
3577	0.065
3578	0.065
3579	0.065
3580	0.065
3581	0.065
3582	0.065
3583	0.065
3584	0.065
3585	0.065
3586	0.065
3587	0.065
3588	0.035
3589	0.035
3590	0.035
3591	0.035
3592	0.035
3593	0.035
3594	0.035
3595	0.035
3596	0.035
3597	0.035
3598	0.035
3599	0.035
3600	0.035
3601	0.035
3602	0.035
3603	0.035
3604	0.035
3605	0.035
3606	0.035
3607	0.035
3608	0.035
3609	0.035
3610	0.035
3611	0.035
3612	0.065
3613	0.065
3614	0.065
3615	0.065
3616	0.065
3617	0.065
3618	0.065
3619	0.065
3620	0.065
3621	0.065
3622	0.065
3623	0.065
3624	0.065
3625	0.065
3626	0.065
3627	0.065
3628	0.065
3629	0.065
3630	0.065



## MANNINGS\_N.DAT

3631	0.065
3632	0.065
3633	0.065
3634	0.065
3635	0.065
3636	0.065
3637	0.065
3638	0.065
3639	0.065
3640	0.065
3641	0.065
3642	0.065
3643	0.065
3644	0.065
3645	0.065
3646	0.065
3647	0.065
3648	0.065
3649	0.065
3650	0.065
3651	0.065
3652	0.065
3653	0.065
3654	0.065
3655	0.065
3656	0.065
3657	0.065
3658	0.065
3659	0.065
3660	0.065
3661	0.065
3662	0.065
3663	0.065
3664	0.065
3665	0.065
3666	0.065
3667	0.065
3668	0.035
3669	0.035
3670	0.035
3671	0.035
3672	0.035
3673	0.035
3674	0.035
3675	0.035
3676	0.050
3677	0.035
3678	0.035
3679	0.035
3680	0.035
3681	0.035
3682	0.035
3683	0.035
3684	0.035
3685	0.035
3686	0.035
3687	0.035
3688	0.035
3689	0.035
3690	0.035
3691	0.035
3692	0.065
3693	0.065
3694	0.065
3695	0.065
3696	0.065

## MANNINGS\_N.DAT

3697	0.065
3698	0.065
3699	0.065
3700	0.065
3701	0.065
3702	0.065
3703	0.065
3704	0.065
3705	0.065
3706	0.065
3707	0.065
3708	0.065
3709	0.065
3710	0.065
3711	0.065
3712	0.065
3713	0.065
3714	0.065
3715	0.065
3716	0.065
3717	0.065
3718	0.065
3719	0.065
3720	0.065
3721	0.065
3722	0.065
3723	0.065
3724	0.065
3725	0.065
3726	0.065
3727	0.065
3728	0.065
3729	0.065
3730	0.065
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3732	0.065
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3749	0.065
3750	0.035
3751	0.035
3752	0.035
3753	0.035
3754	0.035
3755	0.035
3756	0.035
3757	0.050
3758	0.050
3759	0.035
3760	0.035
3761	0.035
3762	0.035

## MANNINGS\_N.DAT

3763	0.035
3764	0.035
3765	0.035
3766	0.035
3767	0.035
3768	0.035
3769	0.035
3770	0.035
3771	0.035
3772	0.035
3773	0.065
3774	0.065
3775	0.065
3776	0.065
3777	0.065
3778	0.065
3779	0.065
3780	0.065
3781	0.065
3782	0.065
3783	0.065
3784	0.065
3785	0.065
3786	0.065
3787	0.065
3788	0.065
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3790	0.065
3791	0.065
3792	0.065
3793	0.065
3794	0.065
3795	0.065
3796	0.065
3797	0.065
3798	0.065
3799	0.065
3800	0.065
3801	0.065
3802	0.065
3803	0.065
3804	0.065
3805	0.065
3806	0.065
3807	0.065
3808	0.065
3809	0.065
3810	0.065
3811	0.065
3812	0.065
3813	0.065
3814	0.065
3815	0.065
3816	0.065
3817	0.065
3818	0.065
3819	0.065
3820	0.065
3821	0.065
3822	0.065
3823	0.065
3824	0.065
3825	0.065
3826	0.065
3827	0.065
3828	0.065

## MANNINGS\_N.DAT

3829	0.065
3830	0.065
3831	0.065
3832	0.065
3833	0.065
3834	0.065
3835	0.065
3836	0.065
3837	0.065
3838	0.035
3839	0.035
3840	0.035
3841	0.035
3842	0.035
3843	0.045
3844	0.035
3845	0.035
3846	0.035
3847	0.035
3848	0.035
3849	0.035
3850	0.035
3851	0.035
3852	0.035
3853	0.035
3854	0.035
3855	0.035
3856	0.035
3857	0.035
3858	0.065
3859	0.065
3860	0.065
3861	0.065
3862	0.065
3863	0.065
3864	0.065
3865	0.065
3866	0.065
3867	0.065
3868	0.065
3869	0.065
3870	0.065
3871	0.065
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3884	0.065
3885	0.065
3886	0.065
3887	0.065
3888	0.065
3889	0.065
3890	0.065
3891	0.065
3892	0.065
3893	0.065
3894	0.065

## MANNINGS\_N.DAT

3895	0.065
3896	0.065
3897	0.065
3898	0.065
3899	0.065
3900	0.065
3901	0.065
3902	0.065
3903	0.065
3904	0.065
3905	0.065
3906	0.065
3907	0.065
3908	0.065
3909	0.065
3910	0.065
3911	0.065
3912	0.065
3913	0.065
3914	0.065
3915	0.065
3916	0.065
3917	0.065
3918	0.065
3919	0.065
3920	0.065
3921	0.065
3922	0.065
3923	0.065
3924	0.065
3925	0.065
3926	0.065
3927	0.035
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3929	0.035
3930	0.035
3931	0.035
3932	0.035
3933	0.035
3934	0.035
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3938	0.035
3939	0.035
3940	0.035
3941	0.035
3942	0.035
3943	0.035
3944	0.065
3945	0.065
3946	0.065
3947	0.065
3948	0.065
3949	0.065
3950	0.065
3951	0.065
3952	0.065
3953	0.065
3954	0.065
3955	0.065
3956	0.065
3957	0.065
3958	0.065
3959	0.065
3960	0.065

## MANNINGS\_N.DAT

3961	0.065
3962	0.065
3963	0.065
3964	0.065
3965	0.065
3966	0.065
3967	0.065
3968	0.065
3969	0.065
3970	0.065
3971	0.065
3972	0.065
3973	0.065
3974	0.065
3975	0.065
3976	0.065
3977	0.065
3978	0.065
3979	0.065
3980	0.065
3981	0.065
3982	0.065
3983	0.065
3984	0.065
3985	0.065
3986	0.065
3987	0.065
3988	0.065
3989	0.035
3990	0.035
3991	0.035
3992	0.035
3993	0.035
3994	0.035
3995	0.035
3996	0.035
3997	0.035
3998	0.035
3999	0.035
4000	0.035
4001	0.035
4002	0.035
4003	0.035
4004	0.065
4005	0.065
4006	0.065
4007	0.065
4008	0.065
4009	0.065
4010	0.065
4011	0.065
4012	0.065
4013	0.065
4014	0.065
4015	0.065
4016	0.065
4017	0.065
4018	0.065
4019	0.120
4020	0.065
4021	0.065
4022	0.065
4023	0.065
4024	0.065
4025	0.065
4026	0.065

## MANNINGS\_N.DAT

4027	0.065
4028	0.065
4029	0.065
4030	0.065
4031	0.065
4032	0.065
4033	0.065
4034	0.065
4035	0.065
4036	0.065
4037	0.065
4038	0.065
4039	0.065
4040	0.065
4041	0.065
4042	0.065
4043	0.065
4044	0.065
4045	0.065
4046	0.065
4047	0.065
4048	0.065
4049	0.065
4050	0.065
4051	0.065
4052	0.065
4053	0.065
4054	0.035
4055	0.035
4056	0.035
4057	0.035
4058	0.035
4059	0.035
4060	0.035
4061	0.035
4062	0.035
4063	0.035
4064	0.035
4065	0.035
4066	0.035
4067	0.035
4068	0.065
4069	0.065
4070	0.065
4071	0.065
4072	0.065
4073	0.065
4074	0.065
4075	0.065
4076	0.065
4077	0.065
4078	0.065
4079	0.065
4080	0.065
4081	0.065
4082	0.120
4083	0.120
4084	0.120
4085	0.120
4086	0.065
4087	0.065
4088	0.065
4089	0.065
4090	0.065
4091	0.065
4092	0.065

## MANNINGS\_N.DAT

4093	0.065
4094	0.065
4095	0.065
4096	0.065
4097	0.065
4098	0.065
4099	0.065
4100	0.065
4101	0.065
4102	0.065
4103	0.065
4104	0.065
4105	0.065
4106	0.065
4107	0.065
4108	0.065
4109	0.065
4110	0.065
4111	0.065
4112	0.065
4113	0.065
4114	0.065
4115	0.065
4116	0.075
4117	0.055
4118	0.045
4119	0.035
4120	0.035
4121	0.035
4122	0.035
4123	0.035
4124	0.035
4125	0.035
4126	0.035
4127	0.035
4128	0.035
4129	0.035
4130	0.065
4131	0.065
4132	0.065
4133	0.065
4134	0.065
4135	0.065
4136	0.065
4137	0.065
4138	0.065
4139	0.065
4140	0.065
4141	0.065
4142	0.065
4143	0.120
4144	0.120
4145	0.120
4146	0.120
4147	0.120
4148	0.065
4149	0.065
4150	0.065
4151	0.065
4152	0.065
4153	0.065
4154	0.065
4155	0.065
4156	0.065
4157	0.065
4158	0.065



## MANNINGS\_N.DAT

4159	0.065
4160	0.065
4161	0.065
4162	0.065
4163	0.065
4164	0.065
4165	0.065
4166	0.065
4167	0.065
4168	0.065
4169	0.065
4170	0.065
4171	0.065
4172	0.065
4173	0.065
4174	0.065
4175	0.065
4176	0.065
4177	0.065
4178	0.065
4179	0.065
4180	0.065
4181	0.065
4182	0.035
4183	0.035
4184	0.035
4185	0.035
4186	0.035
4187	0.035
4188	0.035
4189	0.035
4190	0.035
4191	0.035
4192	0.035
4193	0.035
4194	0.035
4195	0.035
4196	0.065
4197	0.065
4198	0.065
4199	0.065
4200	0.065
4201	0.065
4202	0.065
4203	0.065
4204	0.065
4205	0.065
4206	0.065
4207	0.065
4208	0.120
4209	0.120
4210	0.120
4211	0.120
4212	0.065
4213	0.065
4214	0.065
4215	0.065
4216	0.065
4217	0.065
4218	0.065
4219	0.065
4220	0.065
4221	0.065
4222	0.065
4223	0.065
4224	0.065

## MANNINGS\_N.DAT

4225	0.065
4226	0.065
4227	0.065
4228	0.065
4229	0.065
4230	0.065
4231	0.065
4232	0.065
4233	0.065
4234	0.065
4235	0.065
4236	0.065
4237	0.065
4238	0.065
4239	0.065
4240	0.065
4241	0.065
4242	0.065
4243	0.065
4244	0.065
4245	0.065
4246	0.065
4247	0.065
4248	0.065
4249	0.065
4250	0.065
4251	0.065
4252	0.065
4253	0.035
4254	0.035
4255	0.035
4256	0.035
4257	0.035
4258	0.035
4259	0.035
4260	0.035
4261	0.035
4262	0.035
4263	0.035
4264	0.035
4265	0.065
4266	0.065
4267	0.065
4268	0.065
4269	0.065
4270	0.065
4271	0.065
4272	0.065
4273	0.065
4274	0.065
4275	0.065
4276	0.065
4277	0.120
4278	0.120
4279	0.120
4280	0.065
4281	0.065
4282	0.065
4283	0.065
4284	0.065
4285	0.065
4286	0.065
4287	0.065
4288	0.065
4289	0.065
4290	0.065

## MANNINGS\_N.DAT

4291	0.065
4292	0.065
4293	0.065
4294	0.065
4295	0.065
4296	0.065
4297	0.065
4298	0.065
4299	0.065
4300	0.065
4301	0.065
4302	0.065
4303	0.065
4304	0.065
4305	0.065
4306	0.065
4307	0.065
4308	0.065
4309	0.065
4310	0.065
4311	0.065
4312	0.065
4313	0.065
4314	0.065
4315	0.065
4316	0.065
4317	0.065
4318	0.065
4319	0.065
4320	0.065
4321	0.065
4322	0.065
4323	0.035
4324	0.035
4325	0.035
4326	0.035
4327	0.035
4328	0.035
4329	0.035
4330	0.035
4331	0.035
4332	0.035
4333	0.035
4334	0.035
4335	0.065
4336	0.065
4337	0.065
4338	0.065
4339	0.065
4340	0.065
4341	0.065
4342	0.065
4343	0.065
4344	0.065
4345	0.065
4346	0.065
4347	0.085
4348	0.085
4349	0.085
4350	0.085
4351	0.065
4352	0.065
4353	0.065
4354	0.065
4355	0.065
4356	0.065

## MANNINGS\_N.DAT

4357	0.065
4358	0.065
4359	0.065
4360	0.065
4361	0.065
4362	0.065
4363	0.065
4364	0.065
4365	0.065
4366	0.065
4367	0.065
4368	0.065
4369	0.065
4370	0.065
4371	0.065
4372	0.065
4373	0.065
4374	0.065
4375	0.065
4376	0.065
4377	0.065
4378	0.065
4379	0.065
4380	0.065
4381	0.065
4382	0.065
4383	0.065
4384	0.065
4385	0.065
4386	0.065
4387	0.065
4388	0.065
4389	0.065
4390	0.065
4391	0.035
4392	0.035
4393	0.035
4394	0.035
4395	0.035
4396	0.035
4397	0.035
4398	0.035
4399	0.035
4400	0.035
4401	0.035
4402	0.065
4403	0.065
4404	0.065
4405	0.065
4406	0.065
4407	0.065
4408	0.065
4409	0.065
4410	0.065
4411	0.065
4412	0.065
4413	0.065
4414	0.065
4415	0.065
4416	0.065
4417	0.065
4418	0.065
4419	0.065
4420	0.065
4421	0.065
4422	0.065

## MANNINGS\_N.DAT

4423	0.065
4424	0.065
4425	0.065
4426	0.065
4427	0.065
4428	0.065
4429	0.065
4430	0.065
4431	0.065
4432	0.065
4433	0.065
4434	0.065
4435	0.065
4436	0.065
4437	0.065
4438	0.065
4439	0.065
4440	0.065
4441	0.065
4442	0.065
4443	0.065
4444	0.065
4445	0.065
4446	0.065
4447	0.065
4448	0.065
4449	0.065
4450	0.065
4451	0.065
4452	0.065
4453	0.065
4454	0.065
4455	0.065
4456	0.065
4457	0.065
4458	0.065
4459	0.065
4460	0.035
4461	0.035
4462	0.035
4463	0.035
4464	0.035
4465	0.035
4466	0.035
4467	0.065
4468	0.065
4469	0.065
4470	0.065
4471	0.065
4472	0.065
4473	0.065
4474	0.065
4475	0.065
4476	0.065
4477	0.065
4478	0.065
4479	0.065
4480	0.065
4481	0.065
4482	0.065
4483	0.065
4484	0.065
4485	0.065
4486	0.065
4487	0.065
4488	0.065

## MANNINGS\_N.DAT

4489	0.065
4490	0.065
4491	0.065
4492	0.065
4493	0.065
4494	0.065
4495	0.065
4496	0.065
4497	0.065
4498	0.065
4499	0.065
4500	0.065
4501	0.065
4502	0.065
4503	0.065
4504	0.065
4505	0.065
4506	0.065
4507	0.065
4508	0.065
4509	0.065
4510	0.065
4511	0.065
4512	0.065
4513	0.065
4514	0.065
4515	0.065
4516	0.065
4517	0.065
4518	0.065
4519	0.065
4520	0.065
4521	0.065
4522	0.065
4523	0.065
4524	0.035
4525	0.035
4526	0.035
4527	0.035
4528	0.035
4529	0.035
4530	0.050
4531	0.050
4532	0.065
4533	0.065
4534	0.065
4535	0.065
4536	0.065
4537	0.065
4538	0.065
4539	0.065
4540	0.065
4541	0.065
4542	0.065
4543	0.065
4544	0.065
4545	0.065
4546	0.065
4547	0.065
4548	0.065
4549	0.065
4550	0.065
4551	0.065
4552	0.065
4553	0.065
4554	0.065

## MANNINGS\_N.DAT

4555	0.065
4556	0.065
4557	0.065
4558	0.065
4559	0.065
4560	0.065
4561	0.065
4562	0.065
4563	0.065
4564	0.065
4565	0.065
4566	0.065
4567	0.065
4568	0.065
4569	0.065
4570	0.065
4571	0.065
4572	0.065
4573	0.065
4574	0.065
4575	0.065
4576	0.065
4577	0.065
4578	0.065
4579	0.065
4580	0.065
4581	0.035
4582	0.035
4583	0.035
4584	0.035
4585	0.035
4586	0.035
4587	0.050
4588	0.035
4589	0.065
4590	0.065
4591	0.065
4592	0.065
4593	0.065
4594	0.065
4595	0.065
4596	0.065
4597	0.065
4598	0.065
4599	0.065
4600	0.065
4601	0.065
4602	0.065
4603	0.065
4604	0.065
4605	0.065
4606	0.065
4607	0.065
4608	0.065
4609	0.065
4610	0.065
4611	0.065
4612	0.065
4613	0.065
4614	0.065
4615	0.065
4616	0.065
4617	0.065
4618	0.065
4619	0.065
4620	0.065

## MANNINGS\_N.DAT

4621	0.065
4622	0.065
4623	0.065
4624	0.065
4625	0.065
4626	0.065
4627	0.065
4628	0.065
4629	0.065
4630	0.065
4631	0.065
4632	0.065
4633	0.065
4634	0.065
4635	0.035
4636	0.035
4637	0.035
4638	0.035
4639	0.035
4640	0.035
4641	0.050
4642	0.035
4643	0.035
4644	0.065
4645	0.065
4646	0.065
4647	0.065
4648	0.065
4649	0.065
4650	0.065
4651	0.065
4652	0.065
4653	0.065
4654	0.065
4655	0.065
4656	0.065
4657	0.065
4658	0.065
4659	0.065
4660	0.065
4661	0.065
4662	0.065
4663	0.065
4664	0.065
4665	0.065
4666	0.065
4667	0.065
4668	0.065
4669	0.065
4670	0.065
4671	0.065
4672	0.065
4673	0.065
4674	0.065
4675	0.065
4676	0.065
4677	0.065
4678	0.065
4679	0.065
4680	0.065
4681	0.065
4682	0.065
4683	0.065
4684	0.065
4685	0.065
4686	0.065



## MANNINGS\_N.DAT

4687	0.065
4688	0.065
4689	0.065
4690	0.065
4691	0.065
4692	0.035
4693	0.035
4694	0.035
4695	0.035
4696	0.035
4697	0.035
4698	0.065
4699	0.065
4700	0.065
4701	0.065
4702	0.065
4703	0.065
4704	0.065
4705	0.065
4706	0.065
4707	0.065
4708	0.065
4709	0.065
4710	0.065
4711	0.065
4712	0.065
4713	0.065
4714	0.065
4715	0.065
4716	0.065
4717	0.065
4718	0.065
4719	0.065
4720	0.065
4721	0.065
4722	0.065
4723	0.065
4724	0.065
4725	0.065
4726	0.065
4727	0.065
4728	0.065
4729	0.065
4730	0.065
4731	0.065
4732	0.065
4733	0.065
4734	0.065
4735	0.065
4736	0.065
4737	0.065
4738	0.065
4739	0.065
4740	0.065
4741	0.065
4742	0.065
4743	0.065
4744	0.035
4745	0.035
4746	0.035
4747	0.035
4748	0.035
4749	0.035
4750	0.035
4751	0.035
4752	0.065

## MANNINGS\_N.DAT

4753	0.065
4754	0.065
4755	0.065
4756	0.065
4757	0.065
4758	0.065
4759	0.065
4760	0.065
4761	0.065
4762	0.065
4763	0.065
4764	0.065
4765	0.065
4766	0.065
4767	0.065
4768	0.065
4769	0.065
4770	0.065
4771	0.065
4772	0.065
4773	0.065
4774	0.065
4775	0.065
4776	0.065
4777	0.065
4778	0.065
4779	0.065
4780	0.065
4781	0.065
4782	0.065
4783	0.065
4784	0.065
4785	0.065
4786	0.065
4787	0.065
4788	0.065
4789	0.065
4790	0.065
4791	0.035
4792	0.035
4793	0.035
4794	0.035
4795	0.035
4796	0.065
4797	0.065
4798	0.065
4799	0.065
4800	0.035
4801	0.065
4802	0.065
4803	0.065
4804	0.065
4805	0.065
4806	0.065
4807	0.065
4808	0.065
4809	0.065
4810	0.065
4811	0.065
4812	0.065
4813	0.065
4814	0.065
4815	0.065
4816	0.065
4817	0.065
4818	0.065

## MANNINGS\_N.DAT

4819	0.065
4820	0.065
4821	0.065
4822	0.065
4823	0.065
4824	0.065
4825	0.065
4826	0.065
4827	0.065
4828	0.065
4829	0.065
4830	0.035
4831	0.050
4832	0.045
4833	0.045
4834	0.065
4835	0.065
4836	0.065
4837	0.065
4838	0.035
4839	0.065
4840	0.065
4841	0.065
4842	0.065
4843	0.065
4844	0.065
4845	0.065
4846	0.065
4847	0.065
4848	0.065
4849	0.065
4850	0.065
4851	0.065
4852	0.065
4853	0.065
4854	0.065
4855	0.065
4856	0.065
4857	0.065
4858	0.065
4859	0.065
4860	0.065
4861	0.065
4862	0.065
4863	0.065
4864	0.065
4865	0.065
4866	0.065
4867	0.035
4868	0.035
4869	0.035
4870	0.035
4871	0.035
4872	0.035
4873	0.035
4874	0.065
4875	0.065
4876	0.065
4877	0.065
4878	0.065
4879	0.065
4880	0.065
4881	0.065
4882	0.065
4883	0.065
4884	0.065

## MANNINGS\_N.DAT

4885	0.065
4886	0.065
4887	0.065
4888	0.065
4889	0.065
4890	0.065
4891	0.065
4892	0.065
4893	0.065
4894	0.065
4895	0.065
4896	0.065
4897	0.065
4898	0.065
4899	0.065
4900	0.065
4901	0.065
4902	0.065
4903	0.035
4904	0.035
4905	0.035
4906	0.065
4907	0.065
4908	0.065
4909	0.065
4910	0.065
4911	0.065
4912	0.065
4913	0.065
4914	0.065
4915	0.065
4916	0.065
4917	0.065
4918	0.065
4919	0.065
4920	0.065
4921	0.065
4922	0.065
4923	0.065
4924	0.065
4925	0.065
4926	0.065
4927	0.065
4928	0.065
4929	0.065
4930	0.065
4931	0.065
4932	0.065
4933	0.065
4934	0.065
4935	0.065
4936	0.065
4937	0.035
4938	0.065
4939	0.065
4940	0.065
4941	0.065
4942	0.065
4943	0.065
4944	0.065
4945	0.065
4946	0.065
4947	0.065
4948	0.065
4949	0.065
4950	0.065

## MANNINGS\_N.DAT

4951	0.065
4952	0.065
4953	0.065
4954	0.065
4955	0.065
4956	0.065
4957	0.065
4958	0.065
4959	0.065
4960	0.065
4961	0.065
4962	0.065
4963	0.065
4964	0.065
4965	0.065
4966	0.065
4967	0.065
4968	0.065
4969	0.035
4970	0.065
4971	0.065
4972	0.065
4973	0.065
4974	0.065
4975	0.065
4976	0.065
4977	0.065
4978	0.065
4979	0.065
4980	0.065
4981	0.065
4982	0.065
4983	0.065
4984	0.065
4985	0.065
4986	0.065
4987	0.065
4988	0.065
4989	0.065
4990	0.065
4991	0.065
4992	0.065
4993	0.065
4994	0.065
4995	0.065
4996	0.065
4997	0.065
4998	0.035
4999	0.065
5000	0.065
5001	0.065
5002	0.065
5003	0.065
5004	0.065
5005	0.065
5006	0.065
5007	0.065
5008	0.065
5009	0.065
5010	0.065
5011	0.065
5012	0.065
5013	0.065
5014	0.065
5015	0.065
5016	0.065

## MANNINGS\_N.DAT

5017	0.065
5018	0.065
5019	0.065
5020	0.065
5021	0.065
5022	0.065
5023	0.065
5024	0.065
5025	0.065
5026	0.065
5027	0.065
5028	0.065
5029	0.065
5030	0.065
5031	0.065
5032	0.065
5033	0.065
5034	0.065
5035	0.065
5036	0.065
5037	0.065
5038	0.065
5039	0.065
5040	0.065
5041	0.065
5042	0.065
5043	0.065
5044	0.065
5045	0.065
5046	0.065
5047	0.065
5048	0.065
5049	0.065
5050	0.065
5051	0.065
5052	0.065
5053	0.065
5054	0.065
5055	0.065
5056	0.065
5057	0.065
5058	0.065
5059	0.065
5060	0.065
5061	0.065
5062	0.065
5063	0.065
5064	0.065
5065	0.065
5066	0.065
5067	0.065
5068	0.065
5069	0.065
5070	0.065
5071	0.065
5072	0.065
5073	0.065
5074	0.065
5075	0.065
5076	0.065
5077	0.065
5078	0.065
5079	0.065
5080	0.065
5081	0.065
5082	0.065

## MANNINGS\_N.DAT

5083	0.065
5084	0.065
5085	0.065
5086	0.065
5087	0.065
5088	0.065
5089	0.065
5090	0.065
5091	0.065
5092	0.065
5093	0.065
5094	0.065
5095	0.065
5096	0.065
5097	0.065
5098	0.065
5099	0.065
5100	0.065
5101	0.065

K  
O

5101  
5101

OUTFLOW.DAT



		RAIN.DAT	
0	0		
1.17	0	0	0
R	0	0	
R	57	0	
R	58	0.017	
R	59	0.034	
R	60	0.068	
R	61	0.085	
R	62	0.085	
R	63	0.085	
R	64	0.085	
R	65	0.085	
R	66	0.085	
R	67	0.085	
R	68	0.085	
R	69	0.12	
R	70	0.162	
R	71	0.197	
R	72	0.197	
R	73	0.222	
R	74	0.282	
R	75	0.299	
R	76	0.325	
R	77	0.325	
R	78	0.376	
R	79	0.436	
R	80	0.462	
R	81	0.504	
R	82	0.607	
R	83	0.624	
R	84	0.65	
R	85	0.709	
R	86	0.846	
R	87	0.957	
R	88	1	

		0.02	0	STREET.DAT	0.95	0.667	90
		GLENDAL					
N							
S	2054	0 0.000 0					
W	2 90						
W	4 90						
S	2132	0 0.000 0					
W	2 90						
W	4 90						
S	2212	0 0.000 0					
W	2 90						
W	4 90						
S	2294	0 0.000 0					
W	2 90						
W	4 90						
S	2378	0 0.000 0					
W	2 90						
W	4 90						
S	2464	0 0.000 0					
W	2 90						
W	4 90						
S	2551	0 0.000 0					
W	2 90						
W	4 90						
S	2636	0 0.000 0					
W	2 90						
W	4 90						
S	2723	0 0.000 0					
W	2 90						
W	4 90						
S	2810	0 0.000 0					
W	2 90						
W	4 90						
S	2894	0 0.000 0					
W	2 90						
W	4 90						
S	2980	0 0.000 0					
W	2 90						
W	4 90						
S	3067	0 0.000 0					
W	2 90						
W	4 90						
S	3143	0 0.000 0					
W	2 90						
W	4 90						
S	3220	0 0.000 0					
W	2 90						
W	4 90						
S	3300	0 0.000 0					
W	2 90						
W	4 90						
S	3380	0 0.000 0					
W	2 90						
W	4 90						
S	3461	0 0.000 0					
W	2 90						
W	4 90						
S	3542	0 0.000 0					
W	4 90						
W	6 90						
S	3620	0 0.000 0					
W	2 90						
W	8 90						
S	3700	0 0.000 0					
W	2 90						
W	4 90						
S	3782	0 0.000 0					

## STREET.DAT

```

W 2 90
W 4 90
S 3867 0 0.000 0
W 2 90
W 4 90
S 3954 0 0.000 0
W 2 90
W 4 90
S 4015 0 0.000 0
W 2 90
W 4 90
S 4079 0 0.000 0
W 2 90
W 4 90
S 4140 0 0.000 0
W 2 90
W 4 90
S 4205 0 0.000 0
W 2 90
W 4 90
S 4274 0 0.000 0
W 2 90
W 4 90
S 4344 0 0.000 0
W 2 90
W 4 90
S 4411 0 0.000 0
W 2 90
W 4 90
S 4476 0 0.000 0
W 2 90
W 4 90
N GREG
S 2291 0 0.000 0
W 2 85
S 2375 0 0.000 0
W 2 85
W 4 85
S 2461 0 0.000 0
W 2 85
W 4 85
S 2548 0 0.000 0
W 2 85
W 4 85
S 2633 0 0.000 0
W 2 85
W 4 85
S 2720 0 0.000 0
W 2 85
W 4 85
S 2807 0 0.000 0
W 4 85
W 6 85
S 2890 0 0.000 0
W 2 85
W 8 85
S 2976 0 0.000 0
W 4 85
W 6 85
S 3062 0 0.000 0
W 2 85
W 8 85
S 3138 0 0.000 0
W 2 85
W 4 85
S 3215 0 0.000 0

```

## STREET.DAT

```
W 2 85
W 4 85
S 3295 0 0.000 0
W 2 85
W 4 85
S 3375 0 0.000 0
W 2 85
W 4 85
S 3456 0 0.000 0
W 2 85
W 4 85
S 3537 0 0.000 0
W 2 85
W 4 85
S 3616 0 0.000 0
W 2 85
W 4 85
S 3696 0 0.000 0
W 2 85
W 4 85
S 3778 0 0.000 0
W 2 85
W 4 85
S 3863 0 0.000 0
W 2 85
W 4 85
S 3950 0 0.000 0
W 2 85
W 4 85
S 4011 0 0.000 0
W 2 85
W 4 85
S 4075 0 0.000 0
W 2 85
W 4 85
S 4136 0 0.000 0
W 2 85
W 4 85
S 4201 0 0.000 0
W 2 85
W 4 85
S 4270 0 0.000 0
W 2 85
W 4 85
S 4340 0 0.000 0
W 2 85
W 4 85
S 4407 0 0.000 0
W 2 85
W 4 85
S 4472 0 0.000 0
W 2 85
W 4 85
S 4536 0 0.000 0
W 2 85
W 4 85
S 4593 0 0.000 0
W 2 85
W 4 85
S 4647 0 0.000 0
W 2 85
W 4 85
S 4700 0 0.000 0
W 4 85
W 5 85
S 4753 0 0.000 0
```

## STREET.DAT

```

W 2 85
W 7 85
S 4797 0 0.000 0
W 2 85
W 4 85
S 4835 0 0.000 0
W 2 85
W 4 85
N
S 1968 0 0.000 0
W 1 90
W 3 90
S 1967 0 0.000 0
W 1 90
W 3 90
S 1966 0 0.000 0
W 1 90
W 3 90
S 1965 0 0.000 0
W 1 90
W 7 90
S 1889 0 0.000 0
W 3 90
W 5 90
S 1888 0 0.000 0
W 1 90
W 3 90
S 1887 0 0.000 0
W 1 90
W 3 90
S 1886 0 0.000 0
W 1 90
W 3 90
S 1885 0 0.000 0
W 1 90
W 3 90
S 1884 0 0.000 0
W 1 95
N
S 1969 0 0.000 0
W 2 85
W 3 90
S 2046 0 0.000 0
W 2 85
W 4 85
S 2124 0 0.000 0
W 2 85
W 4 85
S 2204 0 0.000 0
W 2 85
W 4 85
S 2286 0 0.000 0
W 2 85
W 4 85
S 2370 0 0.000 0
W 2 85
W 4 85
S 2456 0 0.000 0
W 2 85
W 4 85
S 2543 0 0.000 0
W 4 85
W 6 85
S 2627 0 0.000 0
W 2 85
W 8 85

```

## STREET.DAT

```

S 2714 0 0.000 0
W 2 85
W 4 85
W 7 85
S 2801 0 0.000 0
W 4 85
W 6 85
S 2884 0 0.000 0
W 2 85
W 8 85
S 2970 0 0.000 0
W 2 85
W 4 85
S 3057 0 0.000 0
W 2 85
W 4 85
S 3133 0 0.000 0
W 4 85
W 6 85
S 3209 0 0.000 0
W 2 85
W 8 85
S 3289 0 0.000 0
W 2 85
W 4 85
S 3369 0 0.000 0
W 4 85
W 6 85
S 3449 0 0.000 0
W 8 85
N          ROCK
S 2626 0 0.000 0
W 3 90
W 5 90
S 2625 0 0.000 0
W 1 90
W 3 90
S 2624 0 0.000 0
W 1 90
W 3 90
S 2623 0 0.000 0
W 1 90
W 3 90
S 2622 0 0.000 0
W 1 90
W 7 90
S 2536 0 0.000 0
W 3 90
W 5 90
S 2535 0 0.000 0
W 1 90
W 3 90
S 2534 0 0.000 0
W 1 90
W 3 90
S 2533 0 0.000 0
W 1 90
W 6 90
S 2617 0 0.000 0
W 2 90
W 8 90
S 2704 0 0.000 0
W 4 90
W 6 90
S 2790 0 0.000 0
W 2 90

```

## STREET.DAT

```
W 8 90
S 2874 0 0.000 0
W 2 90
W 4 90
S 2960 0 0.000 0
W 4 90
W 6 90
S 3046 0 0.000 0
W 2 90
W 8 90
S 3122 0 0.000 0
W 4 90
W 6 90
S 3198 0 0.000 0
W 2 90
W 8 90
S 3278 0 0.000 0
W 4 90
```

```
SUPPLEMENT.DAT
0          [Shape Files]
0          [Images]
[Modeling Boundary Polygon]=false
[Street Polylines]=false
[Channel Polylines]=false
[Levee Polylines]=false
```



TOLER.DAT

	0.100	0.000	0.00
C	0.60	0.60	0.60
T	0.100		

## TOPO.DAT

2245958.00	14859512.00	4680.77
2246458.00	14859512.00	4760.07
2246458.00	14860012.00	4671.49
2246958.00	14859512.00	4904.23
2246958.00	14860012.00	4734.29
2246958.00	14860512.00	4673.27
2247458.00	14859512.00	4921.95
2247458.00	14860012.00	4803.38
2247458.00	14860512.00	4696.37
2247458.00	14861012.00	4672.92
2247958.00	14859512.00	4913.47
2247958.00	14860012.00	4812.28
2247958.00	14860512.00	4695.81
2247958.00	14861012.00	4677.02
2247958.00	14861512.00	4686.69
2247958.00	14862012.00	4757.84
2247958.00	14862512.00	4885.13
2247958.00	14863012.00	4910.89
2247958.00	14863512.00	5072.85
2248458.00	14856512.00	4952.39
2248458.00	14857012.00	4881.80
2248458.00	14857512.00	4844.74
2248458.00	14858012.00	4862.00
2248458.00	14858512.00	4918.34
2248458.00	14859012.00	4946.60
2248458.00	14859512.00	4934.34
2248458.00	14860012.00	4748.42
2248458.00	14860512.00	4662.20
2248458.00	14861012.00	4695.74
2248458.00	14861512.00	4699.40
2248458.00	14862012.00	4887.07
2248458.00	14862512.00	4954.84
2248458.00	14863012.00	4987.67
2248458.00	14863512.00	4994.18
2248958.00	14856512.00	4921.99
2248958.00	14857012.00	4883.19
2248958.00	14857512.00	4879.23
2248958.00	14858012.00	4788.36
2248958.00	14858512.00	4769.47
2248958.00	14859012.00	4822.37
2248958.00	14859512.00	4824.53
2248958.00	14860012.00	4710.03
2248958.00	14860512.00	4677.46
2248958.00	14861012.00	4692.87
2248958.00	14861512.00	4758.33
2248958.00	14862012.00	4938.60
2248958.00	14862512.00	4989.74
2248958.00	14863012.00	5023.28
2249458.00	14855012.00	4921.05
2249458.00	14855512.00	4907.58
2249458.00	14856012.00	4929.57
2249458.00	14856512.00	4889.50
2249458.00	14857012.00	4860.41
2249458.00	14857512.00	4853.82
2249458.00	14858012.00	4854.41
2249458.00	14858512.00	4858.36
2249458.00	14859012.00	4713.30
2249458.00	14859512.00	4724.54
2249458.00	14860012.00	4657.70
2249458.00	14860512.00	4684.69
2249458.00	14861012.00	4731.59
2249458.00	14861512.00	4871.69
2249458.00	14862012.00	4986.26
2249458.00	14862512.00	5067.17
2249458.00	14863012.00	5082.48
2249958.00	14855012.00	4857.59

## TOPO.DAT

2249958.00	14855512.00	4834.74
2249958.00	14856012.00	4876.97
2249958.00	14856512.00	4851.83
2249958.00	14857012.00	4831.29
2249958.00	14857512.00	4800.37
2249958.00	14858012.00	4844.34
2249958.00	14858512.00	4811.23
2249958.00	14859012.00	4766.32
2249958.00	14859512.00	4671.28
2249958.00	14860012.00	4660.94
2249958.00	14860512.00	4741.30
2249958.00	14861012.00	4809.54
2249958.00	14861512.00	4945.32
2249958.00	14862012.00	4966.29
2249958.00	14862512.00	5037.62
2250458.00	14855012.00	4975.36
2250458.00	14855512.00	4854.34
2250458.00	14856012.00	4834.88
2250458.00	14856512.00	4873.85
2250458.00	14857012.00	4859.11
2250458.00	14857512.00	4768.87
2250458.00	14858012.00	4722.78
2250458.00	14858512.00	4710.29
2250458.00	14859012.00	4678.02
2250458.00	14859512.00	4655.26
2250458.00	14860012.00	4662.70
2250458.00	14860512.00	4734.45
2250458.00	14861012.00	4767.84
2250458.00	14861512.00	4835.94
2250458.00	14862012.00	4886.15
2250458.00	14862512.00	4929.27
2250958.00	14855012.00	4992.32
2250958.00	14855512.00	4891.36
2250958.00	14856012.00	4731.82
2250958.00	14856512.00	4758.28
2250958.00	14857012.00	4747.48
2250958.00	14857512.00	4709.24
2250958.00	14858012.00	4690.93
2250958.00	14858512.00	4673.92
2250958.00	14859012.00	4662.86
2250958.00	14859512.00	4652.30
2250958.00	14860012.00	4708.28
2250958.00	14860512.00	4787.51
2250958.00	14861012.00	4833.86
2250958.00	14861512.00	4903.40
2250958.00	14862012.00	4992.26
2251458.00	14855012.00	4930.82
2251458.00	14855512.00	4896.33
2251458.00	14856012.00	4794.45
2251458.00	14856512.00	4700.21
2251458.00	14857012.00	4696.89
2251458.00	14857512.00	4684.09
2251458.00	14858012.00	4671.17
2251458.00	14858512.00	4668.32
2251458.00	14859012.00	4650.50
2251458.00	14859512.00	4750.34
2251458.00	14860012.00	4785.59
2251458.00	14860512.00	4830.05
2251458.00	14861012.00	4917.41
2251458.00	14861512.00	4972.90
2251458.00	14862012.00	5007.71
2251958.00	14855012.00	4934.97
2251958.00	14855512.00	4887.58
2251958.00	14856012.00	4844.73
2251958.00	14856512.00	4847.93
2251958.00	14857012.00	4750.94

## TOPO.DAT

2251958.00	14857512.00	4664.91
2251958.00	14858012.00	4652.83
2251958.00	14858512.00	4642.32
2251958.00	14859012.00	4750.53
2251958.00	14859512.00	4775.21
2251958.00	14860012.00	4796.65
2251958.00	14860512.00	4832.02
2251958.00	14861012.00	4878.00
2251958.00	14861512.00	4901.25
2251958.00	14862012.00	4966.52
2252458.00	14855512.00	4944.67
2252458.00	14856012.00	4830.20
2252458.00	14856512.00	4897.08
2252458.00	14857012.00	4695.62
2252458.00	14857512.00	4648.17
2252458.00	14858012.00	4641.15
2252458.00	14858512.00	4655.67
2252458.00	14859012.00	4762.22
2252458.00	14859512.00	4777.56
2252458.00	14860012.00	4799.65
2252458.00	14860512.00	4823.32
2252458.00	14861012.00	4851.71
2252458.00	14861512.00	4885.14
2252458.00	14862012.00	4917.00
2252958.00	14856012.00	4815.38
2252958.00	14856512.00	4782.91
2252958.00	14857012.00	4642.40
2252958.00	14857512.00	4647.98
2252958.00	14858012.00	4655.19
2252958.00	14858512.00	4657.10
2252958.00	14859012.00	4758.69
2252958.00	14859512.00	4771.31
2252958.00	14860012.00	4783.15
2252958.00	14860512.00	4816.35
2252958.00	14861012.00	4855.56
2252958.00	14861512.00	4871.16
2252958.00	14862012.00	4918.73
2253458.00	14855512.00	4906.11
2253458.00	14856012.00	4742.52
2253458.00	14856512.00	4628.93
2253458.00	14857012.00	4638.71
2253458.00	14857512.00	4644.37
2253458.00	14858012.00	4652.30
2253458.00	14858512.00	4659.75
2253458.00	14859012.00	4745.28
2253458.00	14859512.00	4756.43
2253458.00	14860012.00	4792.68
2253458.00	14860512.00	4834.51
2253458.00	14861012.00	4883.88
2253458.00	14861512.00	4925.61
2253958.00	14855512.00	4927.08
2253958.00	14856012.00	4701.55
2253958.00	14856512.00	4631.08
2253958.00	14857012.00	4638.59
2253958.00	14857512.00	4646.58
2253958.00	14858012.00	4649.48
2253958.00	14858512.00	4658.22
2253958.00	14859012.00	4737.59
2253958.00	14859512.00	4767.79
2253958.00	14860012.00	4818.71
2253958.00	14860512.00	4843.55
2253958.00	14861012.00	4905.39
2253958.00	14861512.00	4936.68
2254458.00	14856012.00	4718.78
2254458.00	14856512.00	4630.30
2254458.00	14857012.00	4636.00

## TOPO.DAT

2254458.00	14857512.00	4639.17
2254458.00	14858012.00	4645.99
2254458.00	14858512.00	4653.20
2254458.00	14859012.00	4740.52
2254458.00	14859512.00	4797.02
2254458.00	14860012.00	4901.06
2254458.00	14860512.00	4890.95
2254458.00	14861012.00	4902.02
2254458.00	14861512.00	4908.95
2254458.00	14862012.00	4903.73
2254958.00	14855512.00	4937.33
2254958.00	14856012.00	4873.83
2254958.00	14856512.00	4629.42
2254958.00	14857012.00	4629.10
2254958.00	14857512.00	4637.06
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2254958.00	14860012.00	4856.96
2254958.00	14860512.00	4873.11
2254958.00	14861012.00	4863.74
2254958.00	14861512.00	4860.01
2254958.00	14862012.00	4887.81
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2255958.00	14858512.00	4650.69
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2255958.00	14859512.00	4829.71
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2256458.00	14855512.00	4824.49
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2256458.00	14856512.00	4776.45
2256458.00	14857012.00	4672.57
2256458.00	14857512.00	4622.40
2256458.00	14858012.00	4639.00
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2257958.00	14858012.00	4611.61
2257958.00	14858512.00	4630.79
2257958.00	14859012.00	4693.17
2257958.00	14859512.00	4892.04
2257958.00	14860012.00	4960.89
2257958.00	14860512.00	4894.42
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2258458.00	14857512.00	4623.87
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2258458.00	14860512.00	4897.60
2258458.00	14861012.00	4827.01
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2258458.00	14862012.00	4855.98
2258458.00	14862512.00	4853.85
2258958.00	14854012.00	4841.86
2258958.00	14854512.00	4822.05
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2258958.00	14855512.00	4759.09
2258958.00	14856012.00	4751.11
2258958.00	14856512.00	4733.76
2258958.00	14857012.00	4719.44
2258958.00	14857512.00	4631.04
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2258958.00	14862012.00	4845.08
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2259458.00	14859512.00	4787.51
2259458.00	14860012.00	4943.61
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2259458.00	14863012.00	4788.71
2259958.00	14854512.00	4816.74
2259958.00	14855012.00	4781.15
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2259958.00	14856012.00	4746.83
2259958.00	14856512.00	4724.93
2259958.00	14857012.00	4718.71
2259958.00	14857512.00	4625.76
2259958.00	14858012.00	4617.16
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2259958.00	14862512.00	4796.53
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2260458.00	14855012.00	4783.89
2260458.00	14855512.00	4755.96
2260458.00	14856012.00	4733.80
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2260458.00	14857012.00	4713.40



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2260458.00	14863012.00	4867.86
2260458.00	14863512.00	4860.66
2260958.00	14855012.00	4810.32
2260958.00	14855512.00	4752.58
2260958.00	14856012.00	4735.36
2260958.00	14856512.00	4710.92
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2260958.00	14859512.00	4715.89
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2260958.00	14862512.00	4891.38
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2260958.00	14864012.00	4894.59
2261458.00	14855012.00	4800.25
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2261458.00	14859012.00	4589.86
2261458.00	14859512.00	4635.45
2261458.00	14860012.00	4727.63
2261458.00	14860512.00	4727.64
2261458.00	14861012.00	4813.64
2261458.00	14861512.00	4836.55
2261458.00	14862012.00	4862.94
2261458.00	14862512.00	4859.83
2261458.00	14863012.00	4922.11
2261458.00	14863512.00	4949.95
2261458.00	14864012.00	4958.88
2261958.00	14855012.00	4763.58
2261958.00	14855512.00	4745.02
2261958.00	14856012.00	4734.53
2261958.00	14856512.00	4700.33
2261958.00	14857012.00	4690.98
2261958.00	14857512.00	4654.24
2261958.00	14858012.00	4619.32
2261958.00	14858512.00	4611.40
2261958.00	14859012.00	4586.36
2261958.00	14859512.00	4593.09
2261958.00	14860012.00	4707.69
2261958.00	14860512.00	4708.75
2261958.00	14861012.00	4755.55
2261958.00	14861512.00	4843.55
2261958.00	14862012.00	4864.19



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2261958.00	14864012.00	4973.47
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2262958.00	14858012.00	4604.22
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2262958.00	14859012.00	4581.20
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2262958.00	14860012.00	4620.97
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2262958.00	14861512.00	4749.63
2262958.00	14862012.00	4841.19
2262958.00	14862512.00	4830.83
2262958.00	14863012.00	4852.43
2262958.00	14863512.00	4873.19
2262958.00	14864012.00	4911.08
2262958.00	14864512.00	4899.88
2262958.00	14865012.00	4869.12
2263458.00	14855512.00	4669.92
2263458.00	14856012.00	4665.60
2263458.00	14856512.00	4655.21
2263458.00	14857012.00	4645.71
2263458.00	14857512.00	4636.86
2263458.00	14858012.00	4597.39
2263458.00	14858512.00	4593.08
2263458.00	14859012.00	4593.36
2263458.00	14859512.00	4585.11
2263458.00	14860012.00	4632.62
2263458.00	14860512.00	4668.54
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2263458.00	14862512.00	4808.44
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2263458.00	14863512.00	4835.49
2263458.00	14864012.00	4842.76
2263458.00	14864512.00	4879.33
2263458.00	14865012.00	4870.61
2263958.00	14856012.00	4654.06
2263958.00	14856512.00	4649.60

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2263958.00	14858512.00	4587.04
2263958.00	14859012.00	4584.41
2263958.00	14859512.00	4575.21
2263958.00	14860012.00	4677.18
2263958.00	14860512.00	4674.60
2263958.00	14861012.00	4665.25
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2263958.00	14864012.00	4842.14
2263958.00	14864512.00	4824.31
2263958.00	14865012.00	4827.93
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2264458.00	14857012.00	4624.85
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2264458.00	14861012.00	4677.57
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2264458.00	14862012.00	4741.02
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2264458.00	14864012.00	4814.01
2264458.00	14864512.00	4827.29
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2264958.00	14858012.00	4596.16
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2264958.00	14859012.00	4581.05
2264958.00	14859512.00	4577.10
2264958.00	14860012.00	4642.51
2264958.00	14860512.00	4653.93
2264958.00	14861012.00	4645.42
2264958.00	14861512.00	4655.08
2264958.00	14862012.00	4710.09
2264958.00	14862512.00	4785.63
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2264958.00	14865512.00	4822.74
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2265458.00	14858012.00	4592.71
2265458.00	14858512.00	4585.47
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2265458.00	14859512.00	4566.60
2265458.00	14860012.00	4625.03
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2265458.00	14864012.00	4793.29
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2265458.00	14865012.00	4811.62
2265458.00	14865512.00	4810.74
2265958.00	14856512.00	4623.46
2265958.00	14857012.00	4616.42
2265958.00	14857512.00	4608.93
2265958.00	14858012.00	4592.24
2265958.00	14858512.00	4582.21
2265958.00	14859012.00	4572.85
2265958.00	14859512.00	4564.00
2265958.00	14860012.00	4579.14
2265958.00	14860512.00	4624.57
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2265958.00	14862012.00	4728.74
2265958.00	14862512.00	4746.30
2265958.00	14863012.00	4743.17
2265958.00	14863512.00	4748.90
2265958.00	14864012.00	4773.44
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2265958.00	14865512.00	4811.17
2266458.00	14857012.00	4612.99
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2266458.00	14858512.00	4582.14
2266458.00	14859012.00	4571.46
2266458.00	14859512.00	4563.72
2266458.00	14860012.00	4575.81
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2266458.00	14861512.00	4697.66
2266458.00	14862012.00	4700.53
2266458.00	14862512.00	4721.74
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2266458.00	14865012.00	4763.70
2266458.00	14865512.00	4807.17
2266958.00	14857012.00	4607.04
2266958.00	14857512.00	4601.11
2266958.00	14858012.00	4590.71
2266958.00	14858512.00	4579.11
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2266958.00	14860512.00	4567.71
2266958.00	14861012.00	4621.50
2266958.00	14861512.00	4679.27
2266958.00	14862012.00	4670.94
2266958.00	14862512.00	4685.20
2266958.00	14863012.00	4688.11
2266958.00	14863512.00	4715.07
2266958.00	14864012.00	4720.46
2266958.00	14864512.00	4697.36
2266958.00	14865012.00	4738.93
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2267458.00	14858012.00	4587.15

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2267458.00	14861512.00	4551.35
2267458.00	14862012.00	4574.47
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2267458.00	14863012.00	4651.98
2267458.00	14863512.00	4682.72
2267458.00	14864012.00	4693.92
2267458.00	14864512.00	4668.56
2267458.00	14865012.00	4724.72
2267458.00	14865512.00	4776.99
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2267958.00	14861512.00	4547.11
2267958.00	14862012.00	4546.29
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2267958.00	14863012.00	4627.25
2267958.00	14863512.00	4663.00
2267958.00	14864012.00	4648.13
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2268458.00	14859012.00	4563.96
2268458.00	14859512.00	4561.89
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2268458.00	14861512.00	4555.82
2268458.00	14862012.00	4544.08
2268458.00	14862512.00	4559.12
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2268458.00	14864012.00	4657.28
2268458.00	14864512.00	4681.71
2268458.00	14865012.00	4690.83
2268458.00	14865512.00	4730.65
2268458.00	14866012.00	4744.16
2268958.00	14858512.00	4570.96
2268958.00	14859012.00	4564.57
2268958.00	14859512.00	4559.82
2268958.00	14860012.00	4564.05
2268958.00	14860512.00	4560.53
2268958.00	14861012.00	4555.81
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2268958.00	14865012.00	4673.72
2268958.00	14865512.00	4708.93
2268958.00	14866012.00	4715.12
2269458.00	14858512.00	4567.56

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2269458.00	14862512.00	4560.47
2269458.00	14863012.00	4599.26
2269458.00	14863512.00	4642.27
2269458.00	14864012.00	4641.10
2269458.00	14864512.00	4648.97
2269458.00	14865012.00	4656.55
2269458.00	14865512.00	4679.66
2269458.00	14866012.00	4687.50
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2269958.00	14859512.00	4555.86
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2269958.00	14863512.00	4570.83
2269958.00	14864012.00	4622.12
2269958.00	14864512.00	4637.77
2269958.00	14865012.00	4638.34
2269958.00	14865512.00	4652.46
2269958.00	14866012.00	4678.28
2270458.00	14859012.00	4555.56
2270458.00	14859512.00	4552.80
2270458.00	14860012.00	4548.82
2270458.00	14860512.00	4548.11
2270458.00	14861012.00	4553.66
2270458.00	14861512.00	4547.52
2270458.00	14862012.00	4544.93
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2270458.00	14863512.00	4538.68
2270458.00	14864012.00	4541.82
2270458.00	14864512.00	4597.46
2270458.00	14865012.00	4623.67
2270458.00	14865512.00	4635.00
2270458.00	14866012.00	4661.66
2270458.00	14866512.00	4666.65
2270458.00	14867012.00	4653.22
2270458.00	14867512.00	4644.37
2270458.00	14868012.00	4677.23
2270458.00	14868512.00	4670.68
2270458.00	14869012.00	4671.59
2270458.00	14869512.00	4712.43
2270458.00	14870012.00	4734.61
2270458.00	14870512.00	4731.59
2270958.00	14859012.00	4568.38
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2270958.00	14860512.00	4543.03
2270958.00	14861012.00	4549.42
2270958.00	14861512.00	4538.48
2270958.00	14862012.00	4542.05
2270958.00	14862512.00	4542.87
2270958.00	14863012.00	4529.34
2270958.00	14863512.00	4536.55
2270958.00	14864012.00	4537.06
2270958.00	14864512.00	4572.85

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2270958.00	14865012.00	4611.18
2270958.00	14865512.00	4618.77
2270958.00	14866012.00	4652.00
2270958.00	14866512.00	4648.11
2270958.00	14867012.00	4637.16
2270958.00	14867512.00	4657.64
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2270958.00	14868512.00	4648.17
2270958.00	14869012.00	4683.62
2270958.00	14869512.00	4702.24
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2271458.00	14859012.00	4565.68
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2271458.00	14860012.00	4542.72
2271458.00	14860512.00	4539.51
2271458.00	14861012.00	4542.97
2271458.00	14861512.00	4545.76
2271458.00	14862012.00	4536.31
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2271458.00	14864012.00	4532.32
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2271458.00	14869512.00	4675.57
2271458.00	14870012.00	4702.05
2271458.00	14870512.00	4722.42
2271958.00	14859012.00	4575.11
2271958.00	14859512.00	4553.21
2271958.00	14860012.00	4538.20
2271958.00	14860512.00	4531.50
2271958.00	14861012.00	4538.40
2271958.00	14861512.00	4541.03
2271958.00	14862012.00	4536.89
2271958.00	14862512.00	4531.83
2271958.00	14863012.00	4524.89
2271958.00	14863512.00	4524.46
2271958.00	14864012.00	4532.86
2271958.00	14864512.00	4537.15
2271958.00	14865012.00	4568.01
2271958.00	14865512.00	4592.90
2271958.00	14866012.00	4611.89
2271958.00	14866512.00	4620.55
2271958.00	14867012.00	4608.75
2271958.00	14867512.00	4634.98
2271958.00	14868012.00	4642.72
2271958.00	14868512.00	4627.22
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2271958.00	14871012.00	4714.65
2272458.00	14859012.00	4570.95
2272458.00	14859512.00	4566.68
2272458.00	14860012.00	4531.94
2272458.00	14860512.00	4530.62
2272458.00	14861012.00	4530.17



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2272458.00	14862012.00	4541.49
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2272458.00	14863012.00	4518.61
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2272458.00	14864012.00	4533.04
2272458.00	14864512.00	4538.72
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2272458.00	14865512.00	4580.23
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2272458.00	14866512.00	4595.17
2272458.00	14867012.00	4607.78
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2272458.00	14868012.00	4610.43
2272458.00	14868512.00	4633.49
2272458.00	14869012.00	4644.86
2272458.00	14869512.00	4677.33
2272458.00	14870012.00	4699.17
2272458.00	14870512.00	4707.21
2272458.00	14871012.00	4695.18
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2272958.00	14860012.00	4535.93
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2272958.00	14864512.00	4531.74
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2272958.00	14866012.00	4559.45
2272958.00	14866512.00	4573.35
2272958.00	14867012.00	4588.30
2272958.00	14867512.00	4600.43
2272958.00	14868012.00	4603.06
2272958.00	14868512.00	4612.79
2272958.00	14869012.00	4643.77
2272958.00	14869512.00	4666.60
2272958.00	14870012.00	4678.86
2272958.00	14870512.00	4686.86
2272958.00	14871012.00	4680.00
2273458.00	14859512.00	4604.69
2273458.00	14860012.00	4588.11
2273458.00	14860512.00	4530.99
2273458.00	14861012.00	4529.22
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2273458.00	14863012.00	4516.45
2273458.00	14863512.00	4520.23
2273458.00	14864012.00	4523.46
2273458.00	14864512.00	4529.42
2273458.00	14865012.00	4532.24
2273458.00	14865512.00	4537.56
2273458.00	14866012.00	4553.94
2273458.00	14866512.00	4561.84
2273458.00	14867012.00	4570.14
2273458.00	14867512.00	4579.69
2273458.00	14868012.00	4595.30
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2273458.00	14869512.00	4653.97

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2273458.00	14870512.00	4674.10
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2273958.00	14860012.00	4589.36
2273958.00	14860512.00	4545.87
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2273958.00	14861512.00	4523.64
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2273958.00	14863512.00	4522.94
2273958.00	14864012.00	4527.24
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2273958.00	14868012.00	4593.39
2273958.00	14868512.00	4612.79
2273958.00	14869012.00	4626.18
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2274458.00	14861012.00	4580.69
2274458.00	14861512.00	4546.00
2274458.00	14862012.00	4521.09
2274458.00	14862512.00	4506.23
2274458.00	14863012.00	4513.34
2274458.00	14863512.00	4520.42
2274458.00	14864012.00	4526.54
2274458.00	14864512.00	4525.88
2274458.00	14865012.00	4530.02
2274458.00	14865512.00	4531.90
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2274458.00	14866512.00	4541.79
2274458.00	14867012.00	4560.37
2274458.00	14867512.00	4590.55
2274458.00	14868012.00	4600.32
2274458.00	14868512.00	4611.41
2274458.00	14869012.00	4624.24
2274458.00	14869512.00	4636.60
2274458.00	14870012.00	4651.36
2274458.00	14870512.00	4637.99
2274458.00	14871012.00	4653.58
2274958.00	14859512.00	4581.04
2274958.00	14860012.00	4581.36
2274958.00	14860512.00	4574.41
2274958.00	14861012.00	4567.93
2274958.00	14861512.00	4574.39
2274958.00	14862012.00	4575.22
2274958.00	14862512.00	4506.10
2274958.00	14863012.00	4507.85
2274958.00	14863512.00	4514.28
2274958.00	14864012.00	4519.09
2274958.00	14864512.00	4522.47
2274958.00	14865012.00	4523.23
2274958.00	14865512.00	4528.96
2274958.00	14866012.00	4535.40
2274958.00	14866512.00	4540.59



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2274958.00	14867512.00	4589.24
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2274958.00	14868512.00	4600.16
2274958.00	14869012.00	4612.18
2274958.00	14869512.00	4630.07
2274958.00	14870012.00	4633.46
2274958.00	14870512.00	4623.36
2274958.00	14871012.00	4648.69
2275458.00	14859512.00	4561.00
2275458.00	14860012.00	4558.79
2275458.00	14860512.00	4556.84
2275458.00	14861012.00	4545.56
2275458.00	14861512.00	4544.81
2275458.00	14862012.00	4551.08
2275458.00	14862512.00	4555.64
2275458.00	14863012.00	4501.30
2275458.00	14863512.00	4503.56
2275458.00	14864012.00	4511.43
2275458.00	14864512.00	4515.29
2275458.00	14865012.00	4520.04
2275458.00	14865512.00	4524.04
2275458.00	14866012.00	4527.75
2275458.00	14866512.00	4529.37
2275458.00	14867012.00	4516.99
2275458.00	14867512.00	4579.31
2275458.00	14868012.00	4594.58
2275458.00	14868512.00	4590.72
2275458.00	14869012.00	4601.35
2275458.00	14869512.00	4609.89
2275458.00	14870012.00	4597.19
2275458.00	14870512.00	4611.83
2275458.00	14871012.00	4644.95
2275958.00	14859012.00	4552.29
2275958.00	14859512.00	4555.99
2275958.00	14860012.00	4552.36
2275958.00	14860512.00	4550.24
2275958.00	14861012.00	4549.26
2275958.00	14861512.00	4545.28
2275958.00	14862012.00	4539.29
2275958.00	14862512.00	4544.45
2275958.00	14863012.00	4547.69
2275958.00	14863512.00	4498.70
2275958.00	14864012.00	4504.84
2275958.00	14864512.00	4509.95
2275958.00	14865012.00	4518.06
2275958.00	14865512.00	4516.74
2275958.00	14866012.00	4521.37
2275958.00	14866512.00	4521.43
2275958.00	14867012.00	4522.85
2275958.00	14867512.00	4540.79
2275958.00	14868012.00	4576.96
2275958.00	14868512.00	4594.35
2275958.00	14869012.00	4572.12
2275958.00	14869512.00	4575.00
2275958.00	14870012.00	4594.97
2275958.00	14870512.00	4641.77
2275958.00	14871012.00	4608.17
2276458.00	14859012.00	4541.72
2276458.00	14859512.00	4549.96
2276458.00	14860012.00	4549.96
2276458.00	14860512.00	4546.88
2276458.00	14861012.00	4545.79
2276458.00	14861512.00	4543.43
2276458.00	14862012.00	4534.85
2276458.00	14862512.00	4529.28

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2276458.00	14863512.00	4499.05
2276458.00	14864012.00	4498.07
2276458.00	14864512.00	4504.91
2276458.00	14865012.00	4509.85
2276458.00	14865512.00	4512.88
2276458.00	14866012.00	4514.96
2276458.00	14866512.00	4516.14
2276458.00	14867012.00	4515.15
2276458.00	14867512.00	4496.98
2276458.00	14868012.00	4534.12
2276458.00	14868512.00	4557.85
2276458.00	14869012.00	4560.52
2276458.00	14869512.00	4579.08
2276458.00	14870012.00	4609.38
2276458.00	14870512.00	4598.90
2276458.00	14871012.00	4579.01
2276958.00	14859012.00	4527.37
2276958.00	14859512.00	4533.09
2276958.00	14860012.00	4537.79
2276958.00	14860512.00	4534.35
2276958.00	14861012.00	4534.48
2276958.00	14861512.00	4534.78
2276958.00	14862012.00	4531.02
2276958.00	14862512.00	4528.57
2276958.00	14863012.00	4522.17
2276958.00	14863512.00	4506.40
2276958.00	14864012.00	4499.70
2276958.00	14864512.00	4503.48
2276958.00	14865012.00	4506.01
2276958.00	14865512.00	4509.05
2276958.00	14866012.00	4509.98
2276958.00	14866512.00	4511.40
2276958.00	14867012.00	4509.74
2276958.00	14867512.00	4512.79
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2284458.00	14855512.00	4426.40
2284458.00	14856012.00	4426.68
2284458.00	14856512.00	4427.41
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2284458.00	14857512.00	4428.53
2284458.00	14858012.00	4429.00
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2284458.00	14859512.00	4436.72
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2284458.00	14861012.00	4447.11
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2284458.00	14870012.00	4462.89
2284458.00	14870512.00	4461.17
2284458.00	14871012.00	4463.57
2284458.00	14871512.00	4471.61
2284958.00	14842512.00	4478.30
2284958.00	14843012.00	4469.69
2284958.00	14843512.00	4470.81
2284958.00	14844012.00	4468.17
2284958.00	14844512.00	4463.62
2284958.00	14854012.00	4419.56
2284958.00	14854512.00	4421.48
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2284958.00	14866012.00	4459.77
2284958.00	14866512.00	4459.19
2284958.00	14867012.00	4472.13
2284958.00	14867512.00	4505.27
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2284958.00	14869512.00	4472.75
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2285458.00	14842012.00	4460.97
2285458.00	14842512.00	4461.36
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2285458.00	14844012.00	4461.76

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2285458.00	14851512.00	4435.19
2285458.00	14852012.00	4428.20
2285458.00	14852512.00	4423.53
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2285458.00	14868012.00	4471.59
2285458.00	14868512.00	4470.30
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2285958.00	14844012.00	4451.61
2285958.00	14844512.00	4451.60

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2285958.00	14846512.00	4445.93
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2285958.00	14850512.00	4421.19
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2285958.00	14852012.00	4421.39
2285958.00	14852512.00	4417.34
2285958.00	14853012.00	4418.47
2285958.00	14853512.00	4415.80
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2285958.00	14867512.00	4467.85
2285958.00	14868012.00	4469.57
2285958.00	14868512.00	4476.59
2285958.00	14869012.00	4451.42
2285958.00	14869512.00	4458.45
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2285958.00	14870512.00	4459.47
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2286458.00	14865512.00	4445.17
2286458.00	14866012.00	4444.84
2286458.00	14866512.00	4467.81
2286458.00	14867012.00	4465.99
2286458.00	14867512.00	4466.38
2286458.00	14868012.00	4467.47
2286458.00	14868512.00	4470.89
2286458.00	14869012.00	4447.73
2286458.00	14869512.00	4454.71
2286458.00	14870012.00	4456.23
2286458.00	14870512.00	4455.34
2286458.00	14871012.00	4458.52
2286458.00	14871512.00	4454.67
2286958.00	14837012.00	4500.03
2286958.00	14837512.00	4510.15
2286958.00	14838012.00	4493.95
2286958.00	14838512.00	4482.38
2286958.00	14839012.00	4476.91
2286958.00	14839512.00	4470.53
2286958.00	14840012.00	4467.05
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2286958.00	14841012.00	4460.04
2286958.00	14841512.00	4459.09

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2286958.00	14844512.00	4442.37
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2286958.00	14864012.00	4438.72
2286958.00	14864512.00	4444.13
2286958.00	14865012.00	4442.38
2286958.00	14865512.00	4443.71
2286958.00	14866012.00	4446.57
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2286958.00	14867012.00	4464.19
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2286958.00	14868012.00	4471.32
2286958.00	14868512.00	4448.73
2286958.00	14869012.00	4448.45
2286958.00	14869512.00	4452.48
2286958.00	14870012.00	4455.98
2286958.00	14870512.00	4455.88
2286958.00	14871012.00	4453.68
2286958.00	14871512.00	4452.14
2287458.00	14835512.00	4508.65
2287458.00	14836012.00	4503.87
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2287458.00	14837012.00	4517.26
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2287458.00	14838012.00	4486.61

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2287458.00	14840512.00	4459.89
2287458.00	14841012.00	4460.15
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2287458.00	14849512.00	4414.54
2287458.00	14850012.00	4410.04
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2287458.00	14852012.00	4406.47
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2287458.00	14856012.00	4413.33
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2287458.00	14857012.00	4414.31
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2287458.00	14861012.00	4426.29
2287458.00	14861512.00	4426.47
2287458.00	14862012.00	4406.62
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2287458.00	14863512.00	4432.37
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2287458.00	14866512.00	4457.71
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2287458.00	14869512.00	4445.27
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2287958.00	14839012.00	4478.01
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2287958.00	14840012.00	4462.01
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2287958.00	14841012.00	4453.55
2287958.00	14841512.00	4451.91
2287958.00	14842012.00	4449.27
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2287958.00	14843012.00	4451.63
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2287958.00	14844012.00	4445.28
2287958.00	14844512.00	4439.53
2287958.00	14845012.00	4434.52
2287958.00	14845512.00	4435.56
2287958.00	14846012.00	4432.82
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2287958.00	14856012.00	4409.81
2287958.00	14856512.00	4412.40
2287958.00	14857012.00	4412.50
2287958.00	14857512.00	4412.81
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2287958.00	14858512.00	4414.57
2287958.00	14859012.00	4417.00
2287958.00	14859512.00	4418.00
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2287958.00	14860512.00	4423.98
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2287958.00	14862012.00	4406.69
2287958.00	14862512.00	4406.30
2287958.00	14863012.00	4428.57
2287958.00	14863512.00	4430.57
2287958.00	14864012.00	4435.74
2287958.00	14864512.00	4431.00
2287958.00	14865012.00	4442.82
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2287958.00	14866512.00	4456.19

## TOPO.DAT

2287958.00	14867012.00	4458.00
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2287958.00	14868012.00	4463.35
2287958.00	14868512.00	4440.45
2287958.00	14869012.00	4444.65
2287958.00	14869512.00	4443.91
2287958.00	14870012.00	4439.52
2287958.00	14870512.00	4441.79
2287958.00	14871012.00	4437.90
2287958.00	14871512.00	4450.55
2288458.00	14833512.00	4518.31
2288458.00	14834012.00	4515.76
2288458.00	14834512.00	4513.08
2288458.00	14835012.00	4510.11
2288458.00	14835512.00	4503.43
2288458.00	14836012.00	4497.62
2288458.00	14836512.00	4491.97
2288458.00	14837012.00	4499.44
2288458.00	14837512.00	4483.94
2288458.00	14838012.00	4475.89
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2288458.00	14839012.00	4473.68
2288458.00	14839512.00	4468.22
2288458.00	14840012.00	4462.45
2288458.00	14840512.00	4457.58
2288458.00	14841012.00	4451.71
2288458.00	14841512.00	4449.07
2288458.00	14842012.00	4451.06
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2288458.00	14849012.00	4416.58
2288458.00	14849512.00	4411.97
2288458.00	14850012.00	4410.44
2288458.00	14850512.00	4407.34
2288458.00	14851012.00	4404.44
2288458.00	14851512.00	4402.50
2288458.00	14852012.00	4401.99
2288458.00	14852512.00	4401.84
2288458.00	14853012.00	4404.17
2288458.00	14853512.00	4404.10
2288458.00	14854012.00	4404.38
2288458.00	14854512.00	4404.92
2288458.00	14855012.00	4405.81
2288458.00	14855512.00	4407.40
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2288458.00	14859012.00	4416.61
2288458.00	14859512.00	4416.96
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2288458.00	14860512.00	4422.53
2288458.00	14861012.00	4424.45



## TOPO.DAT

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2288458.00	14864012.00	4430.96
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2288458.00	14865012.00	4439.17
2288458.00	14865512.00	4456.42
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2288458.00	14866512.00	4452.93
2288458.00	14867012.00	4453.08
2288458.00	14867512.00	4459.61
2288458.00	14868012.00	4444.24
2288458.00	14868512.00	4440.95
2288458.00	14869012.00	4441.70
2288458.00	14869512.00	4438.06
2288458.00	14870012.00	4442.52
2288458.00	14870512.00	4443.31
2288458.00	14871012.00	4445.68
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2288958.00	14833012.00	4514.05
2288958.00	14833512.00	4511.23
2288958.00	14834012.00	4512.21
2288958.00	14834512.00	4509.08
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2288958.00	14837012.00	4484.30
2288958.00	14837512.00	4479.29
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2288958.00	14839512.00	4463.32
2288958.00	14840012.00	4459.14
2288958.00	14840512.00	4453.90
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2288958.00	14841512.00	4451.21
2288958.00	14842012.00	4449.81
2288958.00	14842512.00	4444.95
2288958.00	14843012.00	4442.32
2288958.00	14843512.00	4440.45
2288958.00	14844012.00	4436.87
2288958.00	14844512.00	4436.11
2288958.00	14845012.00	4434.21
2288958.00	14845512.00	4432.27
2288958.00	14846012.00	4431.88
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2288958.00	14848012.00	4422.79
2288958.00	14848512.00	4417.26
2288958.00	14849012.00	4413.23
2288958.00	14849512.00	4410.73
2288958.00	14850012.00	4407.62
2288958.00	14850512.00	4405.57
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2288958.00	14851512.00	4401.46
2288958.00	14852012.00	4403.92
2288958.00	14852512.00	4401.93
2288958.00	14853012.00	4403.23
2288958.00	14853512.00	4402.83
2288958.00	14854012.00	4403.05
2288958.00	14854512.00	4403.73
2288958.00	14855012.00	4404.24

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2288958.00	14856012.00	4407.03
2288958.00	14856512.00	4408.50
2288958.00	14857012.00	4408.50
2288958.00	14857512.00	4408.80
2288958.00	14858012.00	4410.31
2288958.00	14858512.00	4412.89
2288958.00	14859012.00	4410.54
2288958.00	14859512.00	4412.90
2288958.00	14860012.00	4416.22
2288958.00	14860512.00	4418.98
2288958.00	14861012.00	4421.68
2288958.00	14861512.00	4421.98
2288958.00	14862012.00	4425.34
2288958.00	14862512.00	4427.06
2288958.00	14863012.00	4424.94
2288958.00	14863512.00	4431.79
2288958.00	14864012.00	4431.41
2288958.00	14864512.00	4432.41
2288958.00	14865012.00	4435.44
2288958.00	14865512.00	4446.94
2288958.00	14866012.00	4453.76
2288958.00	14866512.00	4449.01
2288958.00	14867012.00	4439.41
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2288958.00	14868012.00	4439.99
2288958.00	14868512.00	4437.33
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2288958.00	14869512.00	4437.25
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2288958.00	14871012.00	4444.24
2289458.00	14831512.00	4531.77
2289458.00	14832012.00	4514.21
2289458.00	14832512.00	4508.66
2289458.00	14833012.00	4508.11
2289458.00	14833512.00	4507.61
2289458.00	14834012.00	4510.53
2289458.00	14834512.00	4507.56
2289458.00	14835012.00	4505.23
2289458.00	14835512.00	4507.20
2289458.00	14836012.00	4491.61
2289458.00	14836512.00	4488.34
2289458.00	14837012.00	4485.61
2289458.00	14837512.00	4479.42
2289458.00	14838012.00	4476.07
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2289458.00	14839012.00	4465.02
2289458.00	14839512.00	4462.47
2289458.00	14840012.00	4458.05
2289458.00	14840512.00	4454.15
2289458.00	14841012.00	4450.87
2289458.00	14841512.00	4448.50
2289458.00	14842012.00	4446.54
2289458.00	14842512.00	4442.20
2289458.00	14843012.00	4441.29
2289458.00	14843512.00	4439.33
2289458.00	14844012.00	4434.28
2289458.00	14844512.00	4433.80
2289458.00	14845012.00	4432.49
2289458.00	14845512.00	4431.13
2289458.00	14846012.00	4429.08
2289458.00	14846512.00	4427.77
2289458.00	14847012.00	4424.11
2289458.00	14847512.00	4423.59
2289458.00	14848012.00	4419.90

## TOPO.DAT

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2289458.00	14849012.00	4413.33
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2289458.00	14850012.00	4408.44
2289458.00	14850512.00	4405.79
2289458.00	14851012.00	4403.76
2289458.00	14851512.00	4403.40
2289458.00	14852012.00	4402.04
2289458.00	14852512.00	4400.28
2289458.00	14853012.00	4400.15
2289458.00	14853512.00	4402.23
2289458.00	14854012.00	4402.48
2289458.00	14854512.00	4402.66
2289458.00	14855012.00	4404.21
2289458.00	14855512.00	4406.52
2289458.00	14856012.00	4408.69
2289458.00	14856512.00	4409.84
2289458.00	14857012.00	4410.60
2289458.00	14857512.00	4410.25
2289458.00	14858012.00	4412.06
2289458.00	14858512.00	4414.03
2289458.00	14859012.00	4412.60
2289458.00	14859512.00	4414.65
2289458.00	14860012.00	4413.43
2289458.00	14860512.00	4418.94
2289458.00	14861012.00	4422.10
2289458.00	14861512.00	4423.02
2289458.00	14862012.00	4426.87
2289458.00	14862512.00	4426.75
2289458.00	14863012.00	4419.75
2289458.00	14863512.00	4432.75
2289458.00	14864012.00	4432.26
2289458.00	14864512.00	4432.40
2289458.00	14865012.00	4430.78
2289458.00	14865512.00	4429.27
2289458.00	14866012.00	4447.56
2289458.00	14866512.00	4451.30
2289458.00	14867012.00	4437.72
2289458.00	14867512.00	4433.20
2289458.00	14868012.00	4436.21
2289458.00	14868512.00	4436.15
2289458.00	14869012.00	4438.41
2289458.00	14869512.00	4437.17
2289458.00	14870012.00	4438.50
2289458.00	14870512.00	4439.75
2289458.00	14871012.00	4444.59
2289958.00	14830512.00	4537.96
2289958.00	14831012.00	4526.67
2289958.00	14831512.00	4529.63
2289958.00	14832012.00	4519.33
2289958.00	14832512.00	4508.42
2289958.00	14833012.00	4499.11
2289958.00	14833512.00	4504.35
2289958.00	14834012.00	4503.49
2289958.00	14834512.00	4508.14
2289958.00	14835012.00	4530.76
2289958.00	14835512.00	4506.57
2289958.00	14836012.00	4488.96
2289958.00	14836512.00	4515.51
2289958.00	14837012.00	4482.85
2289958.00	14837512.00	4482.40
2289958.00	14838012.00	4567.92
2289958.00	14838512.00	4467.81
2289958.00	14839012.00	4462.34
2289958.00	14839512.00	4458.85
2289958.00	14840012.00	4456.29

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2289958.00	14842012.00	4443.54
2289958.00	14842512.00	4440.06
2289958.00	14843012.00	4439.04
2289958.00	14843512.00	4437.54
2289958.00	14844012.00	4435.24
2289958.00	14844512.00	4433.19
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2289958.00	14845512.00	4432.59
2289958.00	14846012.00	4427.62
2289958.00	14846512.00	4426.31
2289958.00	14847012.00	4423.21
2289958.00	14847512.00	4422.99
2289958.00	14848012.00	4417.69
2289958.00	14848512.00	4414.92
2289958.00	14849012.00	4412.10
2289958.00	14849512.00	4409.91
2289958.00	14850012.00	4407.73
2289958.00	14850512.00	4406.87
2289958.00	14851012.00	4405.63
2289958.00	14851512.00	4405.30
2289958.00	14852012.00	4404.08
2289958.00	14852512.00	4402.83
2289958.00	14853012.00	4402.56
2289958.00	14853512.00	4403.15
2289958.00	14854012.00	4403.08
2289958.00	14854512.00	4402.75
2289958.00	14855012.00	4403.13
2289958.00	14855512.00	4405.08
2289958.00	14856012.00	4406.77
2289958.00	14856512.00	4408.43
2289958.00	14857012.00	4409.30
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2289958.00	14859012.00	4413.84
2289958.00	14859512.00	4413.28
2289958.00	14860012.00	4413.17
2289958.00	14860512.00	4416.64
2289958.00	14861012.00	4418.91
2289958.00	14861512.00	4422.95
2289958.00	14862012.00	4425.85
2289958.00	14862512.00	4426.75
2289958.00	14863012.00	4424.86
2289958.00	14863512.00	4430.14
2289958.00	14864012.00	4423.43
2289958.00	14864512.00	4427.48
2289958.00	14865012.00	4428.08
2289958.00	14865512.00	4427.80
2289958.00	14866012.00	4435.22
2289958.00	14866512.00	4446.30
2289958.00	14867012.00	4437.46
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2289958.00	14868012.00	4432.12
2289958.00	14868512.00	4433.09
2289958.00	14869012.00	4434.96
2289958.00	14869512.00	4432.90
2289958.00	14870012.00	4434.98
2289958.00	14870512.00	4436.63
2289958.00	14871012.00	4442.92
2290458.00	14829512.00	4528.33
2290458.00	14830012.00	4530.47
2290458.00	14830512.00	4523.32
2290458.00	14831012.00	4520.84

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2290458.00	14832012.00	4510.22
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2290458.00	14833512.00	4507.66
2290458.00	14834012.00	4514.04
2290458.00	14834512.00	4489.36
2290458.00	14835012.00	4488.18
2290458.00	14835512.00	4490.31
2290458.00	14836012.00	4558.74
2290458.00	14836512.00	4583.78
2290458.00	14837012.00	4572.44
2290458.00	14837512.00	4591.11
2290458.00	14838012.00	4667.72
2290458.00	14838512.00	4557.57
2290458.00	14839012.00	4462.02
2290458.00	14839512.00	4456.45
2290458.00	14840012.00	4456.22
2290458.00	14840512.00	4472.06
2290458.00	14841012.00	4448.45
2290458.00	14841512.00	4445.54
2290458.00	14842012.00	4442.93
2290458.00	14842512.00	4440.40
2290458.00	14843012.00	4436.68
2290458.00	14843512.00	4434.64
2290458.00	14844012.00	4431.96
2290458.00	14844512.00	4433.10
2290458.00	14845012.00	4431.43
2290458.00	14845512.00	4431.10
2290458.00	14846012.00	4426.78
2290458.00	14846512.00	4421.22
2290458.00	14847012.00	4422.81
2290458.00	14847512.00	4422.02
2290458.00	14848012.00	4419.16
2290458.00	14848512.00	4417.22
2290458.00	14849012.00	4411.54
2290458.00	14849512.00	4409.98
2290458.00	14850012.00	4406.26
2290458.00	14850512.00	4404.12
2290458.00	14851012.00	4404.01
2290458.00	14851512.00	4401.92
2290458.00	14852012.00	4400.67
2290458.00	14852512.00	4401.63
2290458.00	14853012.00	4399.96
2290458.00	14853512.00	4401.98
2290458.00	14854012.00	4399.52
2290458.00	14854512.00	4399.79
2290458.00	14855012.00	4401.45
2290458.00	14855512.00	4401.52
2290458.00	14856012.00	4403.03
2290458.00	14856512.00	4402.89
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2290458.00	14857512.00	4405.63
2290458.00	14858012.00	4408.22
2290458.00	14858512.00	4410.62
2290458.00	14859012.00	4410.09
2290458.00	14859512.00	4411.15
2290458.00	14860012.00	4412.53
2290458.00	14860512.00	4416.52
2290458.00	14861012.00	4420.77
2290458.00	14861512.00	4421.80
2290458.00	14862012.00	4423.72
2290458.00	14862512.00	4422.20
2290458.00	14863012.00	4419.68
2290458.00	14863512.00	4421.88
2290458.00	14864012.00	4422.28

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2290458.00	14864512.00	4422.51
2290458.00	14865012.00	4423.85
2290458.00	14865512.00	4422.51
2290458.00	14866012.00	4425.94
2290458.00	14866512.00	4429.69
2290458.00	14867012.00	4428.11
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2290458.00	14868012.00	4431.78
2290458.00	14868512.00	4431.64
2290458.00	14869012.00	4430.60
2290458.00	14869512.00	4435.27
2290458.00	14870012.00	4432.53
2290458.00	14870512.00	4434.25
2290458.00	14871012.00	4436.65
2290958.00	14828512.00	4531.52
2290958.00	14829012.00	4536.37
2290958.00	14829512.00	4505.70
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2290958.00	14830512.00	4503.78
2290958.00	14831012.00	4504.62
2290958.00	14831512.00	4508.02
2290958.00	14832012.00	4503.54
2290958.00	14832512.00	4512.51
2290958.00	14833012.00	4489.29
2290958.00	14833512.00	4488.60
2290958.00	14834012.00	4484.96
2290958.00	14834512.00	4480.76
2290958.00	14835012.00	4479.65
2290958.00	14835512.00	4478.05
2290958.00	14836012.00	4523.49
2290958.00	14836512.00	4470.07
2290958.00	14837012.00	4483.38
2290958.00	14837512.00	4547.83
2290958.00	14838012.00	4556.94
2290958.00	14838512.00	4513.02
2290958.00	14839012.00	4457.94
2290958.00	14839512.00	4457.21
2290958.00	14840012.00	4453.59
2290958.00	14840512.00	4450.85
2290958.00	14841012.00	4449.01
2290958.00	14841512.00	4454.94
2290958.00	14842012.00	4510.11
2290958.00	14842512.00	4439.92
2290958.00	14843012.00	4436.18
2290958.00	14843512.00	4433.59
2290958.00	14844012.00	4431.76
2290958.00	14844512.00	4429.87
2290958.00	14845012.00	4428.05
2290958.00	14845512.00	4427.71
2290958.00	14846012.00	4427.84
2290958.00	14846512.00	4425.19
2290958.00	14847012.00	4423.01
2290958.00	14847512.00	4420.05
2290958.00	14848012.00	4415.03
2290958.00	14848512.00	4414.85
2290958.00	14849012.00	4411.22
2290958.00	14849512.00	4410.36
2290958.00	14850012.00	4407.13
2290958.00	14850512.00	4404.11
2290958.00	14851012.00	4404.19
2290958.00	14851512.00	4402.31
2290958.00	14852012.00	4400.80
2290958.00	14852512.00	4401.28
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2290958.00	14854012.00	4399.84



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2290958.00	14860512.00	4415.40
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2290958.00	14862512.00	4421.90
2290958.00	14863012.00	4423.97
2290958.00	14863512.00	4418.64
2290958.00	14864012.00	4418.53
2290958.00	14864512.00	4419.22
2290958.00	14865012.00	4421.09
2290958.00	14865512.00	4419.41
2290958.00	14866012.00	4422.06
2290958.00	14866512.00	4424.73
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2290958.00	14871012.00	4434.87
2291458.00	14828012.00	4537.19
2291458.00	14828512.00	4529.09
2291458.00	14829012.00	4522.88
2291458.00	14829512.00	4512.86
2291458.00	14830012.00	4496.29
2291458.00	14830512.00	4493.00
2291458.00	14831012.00	4491.65
2291458.00	14831512.00	4505.40
2291458.00	14832012.00	4490.51
2291458.00	14832512.00	4492.20
2291458.00	14833012.00	4485.42
2291458.00	14833512.00	4482.11
2291458.00	14834012.00	4477.62
2291458.00	14834512.00	4476.56
2291458.00	14835012.00	4471.45
2291458.00	14835512.00	4467.93
2291458.00	14836012.00	4465.75
2291458.00	14836512.00	4465.57
2291458.00	14837012.00	4464.99
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2291458.00	14838512.00	4471.25
2291458.00	14839012.00	4455.44
2291458.00	14839512.00	4453.71
2291458.00	14840012.00	4485.54
2291458.00	14840512.00	4451.86
2291458.00	14841012.00	4467.03
2291458.00	14841512.00	4570.96
2291458.00	14842012.00	4593.36
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2291458.00	14843512.00	4434.86

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2291458.00	14846012.00	4425.09
2291458.00	14846512.00	4423.46
2291458.00	14847012.00	4421.58
2291458.00	14847512.00	4418.85
2291458.00	14848012.00	4416.70
2291458.00	14848512.00	4415.48
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2291458.00	14849512.00	4409.41
2291458.00	14850012.00	4405.73
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2291458.00	14851512.00	4399.17
2291458.00	14852012.00	4399.02
2291458.00	14852512.00	4398.46
2291458.00	14853012.00	4396.17
2291458.00	14853512.00	4399.98
2291458.00	14854012.00	4399.10
2291458.00	14854512.00	4400.46
2291458.00	14855012.00	4401.11
2291458.00	14855512.00	4401.89
2291458.00	14856012.00	4400.82
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2291458.00	14857012.00	4403.26
2291458.00	14857512.00	4404.40
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2291458.00	14859012.00	4409.40
2291458.00	14859512.00	4411.18
2291458.00	14860012.00	4413.61
2291458.00	14860512.00	4414.77
2291458.00	14861012.00	4417.50
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2291458.00	14865012.00	4418.05
2291458.00	14865512.00	4415.71
2291458.00	14866012.00	4419.35
2291458.00	14866512.00	4422.76
2291458.00	14867012.00	4422.72
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2291458.00	14868012.00	4427.00
2291458.00	14868512.00	4426.12
2291458.00	14869012.00	4427.30
2291458.00	14869512.00	4428.04
2291458.00	14870012.00	4429.92
2291458.00	14870512.00	4428.87
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2291958.00	14827512.00	4534.91
2291958.00	14828012.00	4531.14
2291958.00	14828512.00	4522.62
2291958.00	14829012.00	4515.32
2291958.00	14829512.00	4507.01
2291958.00	14830012.00	4500.71
2291958.00	14830512.00	4495.28
2291958.00	14831012.00	4498.26
2291958.00	14831512.00	4484.51
2291958.00	14832012.00	4486.19



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2291958.00	14834012.00	4472.78
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2291958.00	14835012.00	4467.29
2291958.00	14835512.00	4463.30
2291958.00	14836012.00	4462.45
2291958.00	14836512.00	4462.98
2291958.00	14837012.00	4466.29
2291958.00	14837512.00	4466.76
2291958.00	14838012.00	4462.93
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2291958.00	14839012.00	4458.24
2291958.00	14839512.00	4457.96
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2291958.00	14840512.00	4503.75
2291958.00	14841012.00	4664.54
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2291958.00	14842512.00	4534.32
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2291958.00	14843512.00	4431.33
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2291958.00	14846512.00	4421.77
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2291958.00	14849012.00	4409.24
2291958.00	14849512.00	4408.47
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2291958.00	14850512.00	4403.81
2291958.00	14851012.00	4400.75
2291958.00	14851512.00	4399.83
2291958.00	14852012.00	4400.24
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2291958.00	14853512.00	4399.31
2291958.00	14854012.00	4397.22
2291958.00	14854512.00	4397.66
2291958.00	14855012.00	4398.65
2291958.00	14855512.00	4400.72
2291958.00	14856012.00	4398.87
2291958.00	14856512.00	4397.00
2291958.00	14857012.00	4403.91
2291958.00	14857512.00	4403.74
2291958.00	14858012.00	4405.61
2291958.00	14858512.00	4406.25
2291958.00	14859012.00	4408.00
2291958.00	14859512.00	4410.10
2291958.00	14860012.00	4410.71
2291958.00	14860512.00	4414.64
2291958.00	14861012.00	4415.75
2291958.00	14861512.00	4415.87
2291958.00	14862012.00	4415.74
2291958.00	14862512.00	4418.67
2291958.00	14863012.00	4418.98
2291958.00	14863512.00	4416.48
2291958.00	14864012.00	4415.05
2291958.00	14864512.00	4418.89
2291958.00	14865012.00	4418.05
2291958.00	14865512.00	4417.21
2291958.00	14866012.00	4419.15
2291958.00	14866512.00	4422.27
2291958.00	14867012.00	4422.30

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2291958.00	14869012.00	4425.60
2291958.00	14869512.00	4426.61
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2292458.00	14826512.00	4536.50
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2292458.00	14828012.00	4521.53
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2292458.00	14831512.00	4489.71
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2292458.00	14832512.00	4479.09
2292458.00	14833012.00	4479.19
2292458.00	14833512.00	4475.10
2292458.00	14834012.00	4466.71
2292458.00	14834512.00	4467.86
2292458.00	14835012.00	4464.67
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2292458.00	14836512.00	4460.13
2292458.00	14837012.00	4454.24
2292458.00	14837512.00	4461.44
2292458.00	14838012.00	4464.38
2292458.00	14838512.00	4503.37
2292458.00	14839012.00	4495.31
2292458.00	14839512.00	4569.93
2292458.00	14840012.00	4616.27
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2292458.00	14843512.00	4431.74
2292458.00	14844012.00	4504.87
2292458.00	14846512.00	4418.34
2292458.00	14847012.00	4416.70
2292458.00	14847512.00	4417.68
2292458.00	14848012.00	4413.77
2292458.00	14848512.00	4410.13
2292458.00	14849012.00	4410.04
2292458.00	14849512.00	4409.02
2292458.00	14850012.00	4404.68
2292458.00	14850512.00	4402.43
2292458.00	14851012.00	4402.63
2292458.00	14851512.00	4399.04
2292458.00	14852012.00	4398.67
2292458.00	14852512.00	4397.51
2292458.00	14853012.00	4396.96
2292458.00	14853512.00	4398.99
2292458.00	14854012.00	4397.72
2292458.00	14854512.00	4399.65
2292458.00	14855012.00	4399.02
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2292458.00	14859012.00	4407.03
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2292458.00	14866512.00	4420.94
2292458.00	14867012.00	4420.90
2292458.00	14867512.00	4421.08
2292458.00	14868012.00	4422.33
2292458.00	14868512.00	4424.97
2292458.00	14869012.00	4424.03
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2292458.00	14870012.00	4426.51
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2292958.00	14827012.00	4524.54
2292958.00	14827512.00	4519.69
2292958.00	14828012.00	4515.22
2292958.00	14828512.00	4505.47
2292958.00	14829012.00	4512.68
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2292958.00	14830012.00	4488.33
2292958.00	14830512.00	4484.12
2292958.00	14831012.00	4480.22
2292958.00	14831512.00	4480.47
2292958.00	14832012.00	4480.05
2292958.00	14832512.00	4476.93
2292958.00	14833012.00	4471.81
2292958.00	14833512.00	4469.95
2292958.00	14834012.00	4458.62
2292958.00	14834512.00	4462.88
2292958.00	14835012.00	4463.89
2292958.00	14835512.00	4462.08
2292958.00	14836012.00	4457.09
2292958.00	14836512.00	4455.06
2292958.00	14837012.00	4453.51
2292958.00	14837512.00	4461.81
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2292958.00	14838512.00	4517.85
2292958.00	14839012.00	4497.52
2292958.00	14839512.00	4566.32
2292958.00	14840012.00	4627.35
2292958.00	14840512.00	4605.23
2292958.00	14841012.00	4566.27
2292958.00	14841512.00	4528.90
2292958.00	14842012.00	4534.49
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2292958.00	14849012.00	4406.99
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2292958.00	14852512.00	4398.27
2292958.00	14853012.00	4395.97
2292958.00	14853512.00	4398.72
2292958.00	14854012.00	4397.83
2292958.00	14854512.00	4396.41
2292958.00	14855012.00	4399.00
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2292958.00	14856012.00	4400.25
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2292958.00	14857512.00	4402.29
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2292958.00	14858512.00	4407.20
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2292958.00	14859512.00	4408.26
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2292958.00	14864512.00	4413.80
2292958.00	14865012.00	4415.34
2292958.00	14865512.00	4415.25
2292958.00	14866012.00	4416.35
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2292958.00	14867012.00	4417.87
2292958.00	14867512.00	4419.50
2292958.00	14868012.00	4420.56
2292958.00	14868512.00	4420.40
2292958.00	14869012.00	4422.40
2292958.00	14869512.00	4421.73
2292958.00	14870012.00	4424.46
2292958.00	14870512.00	4425.52
2293458.00	14825512.00	4528.49
2293458.00	14826012.00	4519.57
2293458.00	14826512.00	4516.01
2293458.00	14827012.00	4513.86
2293458.00	14827512.00	4512.21
2293458.00	14828012.00	4520.20
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2293458.00	14829012.00	4493.59
2293458.00	14829512.00	4487.62
2293458.00	14830012.00	4482.30
2293458.00	14830512.00	4478.08
2293458.00	14831012.00	4475.54
2293458.00	14831512.00	4473.43
2293458.00	14832012.00	4471.16
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2293458.00	14833512.00	4465.19

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2293458.00	14835512.00	4459.50
2293458.00	14836012.00	4456.66
2293458.00	14836512.00	4454.81
2293458.00	14837012.00	4452.71
2293458.00	14837512.00	4450.04
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2293458.00	14839012.00	4520.78
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2293458.00	14847012.00	4413.95
2293458.00	14847512.00	4413.80
2293458.00	14848012.00	4412.68
2293458.00	14848512.00	4406.50
2293458.00	14849012.00	4405.30
2293458.00	14849512.00	4403.27
2293458.00	14850012.00	4401.47
2293458.00	14850512.00	4398.47
2293458.00	14851012.00	4394.13
2293458.00	14851512.00	4397.35
2293458.00	14852012.00	4399.81
2293458.00	14852512.00	4396.20
2293458.00	14853012.00	4391.76
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2293458.00	14854012.00	4396.75
2293458.00	14854512.00	4393.23
2293458.00	14855012.00	4398.00
2293458.00	14855512.00	4400.33
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2293458.00	14859512.00	4407.47
2293458.00	14860012.00	4408.28
2293458.00	14860512.00	4410.19
2293458.00	14861012.00	4411.29
2293458.00	14861512.00	4411.16
2293458.00	14862012.00	4411.15
2293458.00	14862512.00	4410.51
2293458.00	14863012.00	4413.46
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2293458.00	14864012.00	4411.74
2293458.00	14864512.00	4413.04
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2293458.00	14865512.00	4413.30
2293458.00	14866012.00	4416.55
2293458.00	14866512.00	4418.60
2293458.00	14867012.00	4416.58
2293458.00	14867512.00	4417.49
2293458.00	14868012.00	4418.12
2293458.00	14868512.00	4417.61
2293458.00	14869012.00	4418.58
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2293958.00	14827512.00	4524.26
2293958.00	14828012.00	4496.15
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2293958.00	14829512.00	4481.18
2293958.00	14830012.00	4476.42
2293958.00	14830512.00	4471.94
2293958.00	14831012.00	4469.44
2293958.00	14831512.00	4466.62
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2293958.00	14834512.00	4459.20
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2293958.00	14835512.00	4457.55
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2293958.00	14837512.00	4447.47
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2293958.00	14840512.00	4745.94
2293958.00	14841012.00	4678.85
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2293958.00	14850012.00	4394.82
2293958.00	14850512.00	4397.71
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2293958.00	14854512.00	4394.39
2293958.00	14855012.00	4397.00
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2293958.00	14858012.00	4404.43
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2293958.00	14864012.00	4410.99
2293958.00	14864512.00	4411.55
2293958.00	14865012.00	4411.85
2293958.00	14865512.00	4411.26
2293958.00	14866012.00	4414.03
2293958.00	14866512.00	4416.89
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2293958.00	14868012.00	4416.59
2293958.00	14868512.00	4416.11
2293958.00	14869012.00	4416.99
2293958.00	14869512.00	4417.98
2293958.00	14870012.00	4419.19
2293958.00	14870512.00	4421.64
2294458.00	14825512.00	4514.90
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2294458.00	14826512.00	4503.56
2294458.00	14827012.00	4529.74
2294458.00	14827512.00	4491.67
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2294458.00	14830512.00	4467.12
2294458.00	14831012.00	4463.46
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2294458.00	14834512.00	4458.41
2294458.00	14835012.00	4455.78
2294458.00	14835512.00	4454.83
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2294458.00	14837012.00	4447.21
2294458.00	14837512.00	4444.50
2294458.00	14838012.00	4444.81
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2294458.00	14839012.00	4514.15
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2294458.00	14840012.00	4756.45
2294458.00	14840512.00	4747.74
2294458.00	14841012.00	4688.86
2294458.00	14841512.00	4666.35
2294458.00	14842012.00	4631.75
2294458.00	14842512.00	4615.42
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2294458.00	14849512.00	4401.38

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2294458.00	14852012.00	4398.42
2294458.00	14852512.00	4395.31
2294458.00	14853012.00	4397.53
2294458.00	14853512.00	4396.94
2294458.00	14854012.00	4399.42
2294458.00	14854512.00	4396.00
2294458.00	14855012.00	4395.95
2294458.00	14855512.00	4399.65
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2294458.00	14861012.00	4407.48
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2294458.00	14868012.00	4413.10
2294458.00	14868512.00	4413.97
2294458.00	14869012.00	4415.17
2294458.00	14869512.00	4416.14
2294458.00	14870012.00	4417.18
2294458.00	14870512.00	4419.62
2294958.00	14826512.00	4528.39
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2294958.00	14827512.00	4489.32
2294958.00	14828012.00	4485.36
2294958.00	14828512.00	4479.06
2294958.00	14829012.00	4475.22
2294958.00	14829512.00	4471.22
2294958.00	14830012.00	4466.44
2294958.00	14830512.00	4463.22
2294958.00	14831012.00	4459.90
2294958.00	14831512.00	4458.62
2294958.00	14832012.00	4459.76
2294958.00	14832512.00	4457.93
2294958.00	14833012.00	4456.66
2294958.00	14833512.00	4456.17
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2294958.00	14834512.00	4454.65
2294958.00	14835012.00	4453.82
2294958.00	14835512.00	4450.81
2294958.00	14836012.00	4451.17
2294958.00	14836512.00	4445.97
2294958.00	14837012.00	4441.48
2294958.00	14837512.00	4502.83
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2294958.00	14848012.00	4402.28
2294958.00	14848512.00	4400.56
2294958.00	14849012.00	4400.92
2294958.00	14849512.00	4401.62
2294958.00	14850012.00	4397.98
2294958.00	14850512.00	4396.96
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2294958.00	14851512.00	4397.68
2294958.00	14852012.00	4395.71
2294958.00	14852512.00	4394.80
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2294958.00	14855512.00	4397.73
2294958.00	14856012.00	4398.07
2294958.00	14856512.00	4395.42
2294958.00	14857012.00	4396.78
2294958.00	14857512.00	4396.97
2294958.00	14858012.00	4401.96
2294958.00	14858512.00	4401.01
2294958.00	14859012.00	4406.42
2294958.00	14859512.00	4405.75
2294958.00	14860012.00	4407.81
2294958.00	14860512.00	4405.32
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2294958.00	14861512.00	4404.91
2294958.00	14862012.00	4408.51
2294958.00	14862512.00	4407.54
2294958.00	14863012.00	4407.27
2294958.00	14863512.00	4405.69
2294958.00	14864012.00	4407.01
2294958.00	14864512.00	4407.17
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2294958.00	14865512.00	4409.32
2294958.00	14866012.00	4409.67
2294958.00	14866512.00	4413.57
2294958.00	14867012.00	4414.42
2294958.00	14867512.00	4413.30
2294958.00	14868012.00	4411.55
2294958.00	14868512.00	4412.52
2294958.00	14869012.00	4413.90
2294958.00	14869512.00	4416.42
2294958.00	14870012.00	4416.87
2294958.00	14870512.00	4418.15
2295458.00	14826512.00	4488.54
2295458.00	14827012.00	4488.09
2295458.00	14827512.00	4481.92
2295458.00	14828012.00	4478.47
2295458.00	14828512.00	4474.32
2295458.00	14829012.00	4471.46
2295458.00	14829512.00	4466.88
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2295458.00	14830512.00	4458.86
2295458.00	14831012.00	4456.15
2295458.00	14831512.00	4454.53
2295458.00	14832012.00	4455.41
2295458.00	14832512.00	4455.14
2295458.00	14833012.00	4452.52

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2295458.00	14835012.00	4449.76
2295458.00	14835512.00	4448.62
2295458.00	14836012.00	4446.05
2295458.00	14836512.00	4442.89
2295458.00	14837012.00	4441.13
2295458.00	14837512.00	4459.29
2295458.00	14838012.00	4595.65
2295458.00	14844512.00	4415.97
2295458.00	14845012.00	4400.92
2295458.00	14845512.00	4402.08
2295458.00	14846012.00	4399.96
2295458.00	14846512.00	4400.97
2295458.00	14847012.00	4401.14
2295458.00	14847512.00	4401.51
2295458.00	14848012.00	4399.81
2295458.00	14848512.00	4401.15
2295458.00	14849012.00	4400.31
2295458.00	14849512.00	4400.98
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2295458.00	14852012.00	4396.45
2295458.00	14852512.00	4395.63
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2295458.00	14854012.00	4394.75
2295458.00	14854512.00	4393.98
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2295458.00	14856012.00	4395.31
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2295458.00	14857012.00	4397.14
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2295458.00	14858012.00	4399.22
2295458.00	14858512.00	4402.47
2295458.00	14859012.00	4403.51
2295458.00	14859512.00	4404.66
2295458.00	14860012.00	4406.01
2295458.00	14860512.00	4405.81
2295458.00	14861012.00	4403.74
2295458.00	14861512.00	4404.74
2295458.00	14862012.00	4407.84
2295458.00	14862512.00	4406.62
2295458.00	14863012.00	4405.80
2295458.00	14863512.00	4402.69
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2295458.00	14864512.00	4407.88
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2295458.00	14865512.00	4406.65
2295458.00	14866012.00	4409.30
2295458.00	14866512.00	4411.57
2295458.00	14867012.00	4413.34
2295458.00	14867512.00	4410.94
2295458.00	14868012.00	4409.84
2295458.00	14868512.00	4410.42
2295458.00	14869012.00	4412.04
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2295458.00	14870512.00	4414.88
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2295958.00	14828012.00	4476.20

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2295958.00	14832512.00	4450.36
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2295958.00	14836012.00	4450.80
2295958.00	14836512.00	4445.72
2295958.00	14837012.00	4439.15
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2295958.00	14839512.00	4727.33
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2295958.00	14844512.00	4415.18
2295958.00	14845012.00	4403.39
2295958.00	14845512.00	4400.90
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2295958.00	14849012.00	4399.60
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2295958.00	14850512.00	4397.34
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2295958.00	14852512.00	4393.40
2295958.00	14853012.00	4395.73
2295958.00	14853512.00	4395.26
2295958.00	14854012.00	4394.50
2295958.00	14854512.00	4395.16
2295958.00	14855012.00	4395.29
2295958.00	14855512.00	4395.42
2295958.00	14856012.00	4395.98
2295958.00	14856512.00	4396.15
2295958.00	14857012.00	4396.42
2295958.00	14857512.00	4397.35
2295958.00	14858012.00	4399.70
2295958.00	14858512.00	4398.32
2295958.00	14859012.00	4400.43
2295958.00	14859512.00	4403.40
2295958.00	14860012.00	4403.11
2295958.00	14860512.00	4402.78
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2295958.00	14861512.00	4402.37
2295958.00	14862012.00	4404.34
2295958.00	14862512.00	4403.36
2295958.00	14863012.00	4405.05
2295958.00	14863512.00	4404.43
2295958.00	14864012.00	4405.53
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2295958.00	14865012.00	4404.30

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2295958.00	14865512.00	4405.01
2295958.00	14866012.00	4408.30
2295958.00	14866512.00	4411.49
2295958.00	14867012.00	4409.49
2295958.00	14867512.00	4408.55
2295958.00	14868012.00	4406.88
2295958.00	14868512.00	4408.43
2295958.00	14869012.00	4410.19
2295958.00	14869512.00	4416.09
2295958.00	14870012.00	4411.48
2295958.00	14870512.00	4412.36
2296458.00	14827512.00	4476.60
2296458.00	14828012.00	4473.71
2296458.00	14828512.00	4469.92
2296458.00	14829012.00	4466.27
2296458.00	14829512.00	4464.02
2296458.00	14830012.00	4459.70
2296458.00	14830512.00	4457.54
2296458.00	14831012.00	4456.24
2296458.00	14831512.00	4454.23
2296458.00	14832012.00	4453.61
2296458.00	14832512.00	4449.79
2296458.00	14833012.00	4450.08
2296458.00	14833512.00	4448.55
2296458.00	14834012.00	4447.16
2296458.00	14834512.00	4438.83
2296458.00	14835012.00	4446.78
2296458.00	14835512.00	4447.44
2296458.00	14836012.00	4446.61
2296458.00	14836512.00	4447.53
2296458.00	14837012.00	4446.11
2296458.00	14837512.00	4440.37
2296458.00	14838012.00	4438.45
2296458.00	14838512.00	4433.75
2296458.00	14839012.00	4493.05
2296458.00	14839512.00	4503.08
2296458.00	14840012.00	4462.29
2296458.00	14844012.00	4440.57
2296458.00	14844512.00	4414.27
2296458.00	14845012.00	4408.73
2296458.00	14845512.00	4405.88
2296458.00	14846012.00	4403.86
2296458.00	14846512.00	4403.32
2296458.00	14847012.00	4401.82
2296458.00	14847512.00	4398.93
2296458.00	14848012.00	4394.95
2296458.00	14848512.00	4397.64
2296458.00	14849012.00	4398.10
2296458.00	14849512.00	4398.15
2296458.00	14850012.00	4396.16
2296458.00	14850512.00	4397.10
2296458.00	14851012.00	4398.06
2296458.00	14851512.00	4393.60
2296458.00	14852012.00	4393.73
2296458.00	14852512.00	4393.28
2296458.00	14853012.00	4393.40
2296458.00	14853512.00	4393.75
2296458.00	14854012.00	4393.91
2296458.00	14854512.00	4393.57
2296458.00	14855012.00	4394.06
2296458.00	14855512.00	4394.74
2296458.00	14856012.00	4395.00
2296458.00	14856512.00	4395.57
2296458.00	14857012.00	4396.86
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2296458.00	14858012.00	4399.33

## TOPO.DAT

2296458.00	14858512.00	4398.01
2296458.00	14859012.00	4398.44
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2296458.00	14860012.00	4401.51
2296458.00	14860512.00	4401.95
2296458.00	14861012.00	4401.88
2296458.00	14861512.00	4403.41
2296458.00	14862012.00	4399.81
2296458.00	14862512.00	4404.04
2296458.00	14863012.00	4402.35
2296458.00	14863512.00	4404.57
2296458.00	14864012.00	4403.70
2296458.00	14864512.00	4402.53
2296458.00	14865012.00	4401.78
2296458.00	14865512.00	4404.52
2296458.00	14866012.00	4407.78
2296458.00	14866512.00	4409.64
2296458.00	14867012.00	4407.84
2296458.00	14867512.00	4406.58
2296458.00	14868012.00	4405.24
2296458.00	14868512.00	4407.40
2296458.00	14869012.00	4408.83
2296458.00	14869512.00	4412.13
2296458.00	14870012.00	4410.72
2296458.00	14870512.00	4411.46
2296458.00	14871012.00	4411.28
2296958.00	14827512.00	4474.81
2296958.00	14828012.00	4471.17
2296958.00	14828512.00	4468.93
2296958.00	14829012.00	4466.28
2296958.00	14829512.00	4464.26
2296958.00	14830012.00	4461.30
2296958.00	14830512.00	4458.73
2296958.00	14831012.00	4455.99
2296958.00	14831512.00	4454.88
2296958.00	14832012.00	4453.53
2296958.00	14832512.00	4452.31
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2296958.00	14833512.00	4450.04
2296958.00	14834012.00	4449.10
2296958.00	14834512.00	4443.50
2296958.00	14835012.00	4437.28
2296958.00	14835512.00	4439.81
2296958.00	14836012.00	4441.17
2296958.00	14836512.00	4440.42
2296958.00	14837012.00	4442.74
2296958.00	14837512.00	4441.11
2296958.00	14838012.00	4437.19
2296958.00	14838512.00	4433.83
2296958.00	14839012.00	4433.43
2296958.00	14839512.00	4439.96
2296958.00	14840012.00	4435.83
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2296958.00	14845012.00	4418.46
2296958.00	14845512.00	4417.20
2296958.00	14846012.00	4411.54
2296958.00	14846512.00	4408.82
2296958.00	14847012.00	4403.29
2296958.00	14847512.00	4402.05
2296958.00	14848012.00	4396.21
2296958.00	14848512.00	4399.23
2296958.00	14849012.00	4398.05
2296958.00	14849512.00	4398.05
2296958.00	14850012.00	4397.35
2296958.00	14850512.00	4396.46

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2296958.00	14851512.00	4394.81
2296958.00	14852012.00	4397.19
2296958.00	14852512.00	4394.88
2296958.00	14853012.00	4393.93
2296958.00	14853512.00	4393.74
2296958.00	14854012.00	4392.52
2296958.00	14854512.00	4392.34
2296958.00	14855012.00	4392.10
2296958.00	14855512.00	4392.80
2296958.00	14856012.00	4392.26
2296958.00	14856512.00	4392.99
2296958.00	14857012.00	4394.03
2296958.00	14857512.00	4395.36
2296958.00	14858012.00	4395.69
2296958.00	14858512.00	4397.88
2296958.00	14859012.00	4398.07
2296958.00	14859512.00	4399.18
2296958.00	14860012.00	4400.00
2296958.00	14860512.00	4400.59
2296958.00	14861012.00	4396.28
2296958.00	14861512.00	4399.75
2296958.00	14862012.00	4398.92
2296958.00	14862512.00	4401.47
2296958.00	14863012.00	4401.58
2296958.00	14863512.00	4401.55
2296958.00	14864012.00	4402.55
2296958.00	14864512.00	4403.82
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2296958.00	14866512.00	4406.65
2296958.00	14867012.00	4407.45
2296958.00	14867512.00	4405.60
2296958.00	14868012.00	4403.52
2296958.00	14868512.00	4406.84
2296958.00	14869012.00	4407.60
2296958.00	14869512.00	4410.98
2296958.00	14870012.00	4409.15
2296958.00	14870512.00	4409.89
2296958.00	14871012.00	4410.35
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2297458.00	14829012.00	4466.13
2297458.00	14829512.00	4464.96
2297458.00	14830012.00	4460.56
2297458.00	14830512.00	4457.57
2297458.00	14831012.00	4455.57
2297458.00	14831512.00	4453.79
2297458.00	14832012.00	4450.49
2297458.00	14832512.00	4450.37
2297458.00	14833012.00	4447.13
2297458.00	14833512.00	4448.24
2297458.00	14834012.00	4445.26
2297458.00	14834512.00	4444.53
2297458.00	14835012.00	4444.08
2297458.00	14835512.00	4439.91
2297458.00	14836012.00	4433.59
2297458.00	14836512.00	4436.34
2297458.00	14837012.00	4437.66
2297458.00	14837512.00	4437.49
2297458.00	14838012.00	4437.16
2297458.00	14838512.00	4435.13
2297458.00	14839012.00	4431.37
2297458.00	14839512.00	4439.74



## TOPO.DAT

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2297458.00	14844012.00	4405.95
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2297458.00	14845012.00	4409.19
2297458.00	14845512.00	4404.35
2297458.00	14846012.00	4403.70
2297458.00	14846512.00	4398.55
2297458.00	14847012.00	4395.86
2297458.00	14847512.00	4394.76
2297458.00	14848012.00	4394.99
2297458.00	14848512.00	4397.72
2297458.00	14849012.00	4398.50
2297458.00	14849512.00	4398.65
2297458.00	14850012.00	4398.81
2297458.00	14850512.00	4396.60
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2297458.00	14851512.00	4391.70
2297458.00	14852012.00	4394.53
2297458.00	14852512.00	4393.20
2297458.00	14853012.00	4393.07
2297458.00	14853512.00	4392.68
2297458.00	14854012.00	4392.03
2297458.00	14854512.00	4391.39
2297458.00	14855012.00	4390.26
2297458.00	14855512.00	4389.73
2297458.00	14856012.00	4392.61
2297458.00	14856512.00	4394.09
2297458.00	14857012.00	4393.46
2297458.00	14857512.00	4394.20
2297458.00	14858012.00	4394.68
2297458.00	14858512.00	4395.67
2297458.00	14859012.00	4395.97
2297458.00	14859512.00	4399.25
2297458.00	14860012.00	4398.60
2297458.00	14860512.00	4399.82
2297458.00	14861012.00	4403.50
2297458.00	14861512.00	4397.61
2297458.00	14862012.00	4401.04
2297458.00	14862512.00	4400.34
2297458.00	14863012.00	4399.98
2297458.00	14863512.00	4399.61
2297458.00	14864012.00	4399.88
2297458.00	14864512.00	4399.29
2297458.00	14865012.00	4400.08
2297458.00	14865512.00	4401.65
2297458.00	14866012.00	4407.19
2297458.00	14866512.00	4403.61
2297458.00	14867012.00	4404.42
2297458.00	14867512.00	4403.25
2297458.00	14868012.00	4402.21
2297458.00	14868512.00	4404.13
2297458.00	14869012.00	4405.47
2297458.00	14869512.00	4406.75
2297458.00	14870012.00	4407.76
2297458.00	14870512.00	4408.30
2297458.00	14871012.00	4409.59
2297458.00	14871512.00	4409.99
2297958.00	14827512.00	4477.55
2297958.00	14828012.00	4473.24
2297958.00	14828512.00	4469.77
2297958.00	14829012.00	4467.68
2297958.00	14829512.00	4465.22
2297958.00	14830012.00	4460.99
2297958.00	14830512.00	4458.82
2297958.00	14831012.00	4456.13
2297958.00	14831512.00	4452.65

## TOPO.DAT

2297958.00	14832012.00	4451.57
2297958.00	14832512.00	4449.73
2297958.00	14833012.00	4449.30
2297958.00	14833512.00	4446.79
2297958.00	14834012.00	4444.52
2297958.00	14834512.00	4443.14
2297958.00	14835012.00	4442.34
2297958.00	14835512.00	4438.09
2297958.00	14836012.00	4435.10
2297958.00	14836512.00	4431.58
2297958.00	14837012.00	4444.16
2297958.00	14837512.00	4433.87
2297958.00	14838012.00	4435.80
2297958.00	14838512.00	4437.34
2297958.00	14844012.00	4405.03
2297958.00	14844512.00	4401.21
2297958.00	14845012.00	4400.68
2297958.00	14845512.00	4399.80
2297958.00	14846012.00	4398.71
2297958.00	14846512.00	4397.01
2297958.00	14847012.00	4395.11
2297958.00	14847512.00	4394.00
2297958.00	14848012.00	4395.85
2297958.00	14848512.00	4396.81
2297958.00	14849012.00	4395.25
2297958.00	14849512.00	4395.35
2297958.00	14850012.00	4395.47
2297958.00	14850512.00	4397.13
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2297958.00	14851512.00	4393.09
2297958.00	14852012.00	4394.37
2297958.00	14852512.00	4391.83
2297958.00	14853012.00	4391.31
2297958.00	14853512.00	4392.98
2297958.00	14854012.00	4391.59
2297958.00	14854512.00	4390.94
2297958.00	14855012.00	4390.43
2297958.00	14855512.00	4389.28
2297958.00	14856012.00	4391.69
2297958.00	14856512.00	4392.13
2297958.00	14857012.00	4393.01
2297958.00	14857512.00	4392.90
2297958.00	14858012.00	4393.17
2297958.00	14858512.00	4394.71
2297958.00	14859012.00	4394.96
2297958.00	14859512.00	4397.48
2297958.00	14860012.00	4398.83
2297958.00	14860512.00	4398.91
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2297958.00	14861512.00	4398.24
2297958.00	14862012.00	4403.60
2297958.00	14862512.00	4398.49
2297958.00	14863012.00	4400.68
2297958.00	14863512.00	4401.23
2297958.00	14864012.00	4399.75
2297958.00	14864512.00	4399.08
2297958.00	14865012.00	4401.31
2297958.00	14865512.00	4399.09
2297958.00	14866012.00	4400.91
2297958.00	14866512.00	4398.12
2297958.00	14867012.00	4400.41
2297958.00	14867512.00	4401.83
2297958.00	14868012.00	4400.36
2297958.00	14868512.00	4400.67
2297958.00	14869012.00	4403.65
2297958.00	14869512.00	4406.75



## TOPO.DAT

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2297958.00	14870512.00	4407.69
2297958.00	14871012.00	4408.24
2297958.00	14871512.00	4408.73
2298458.00	14827512.00	4476.97
2298458.00	14828012.00	4473.58
2298458.00	14828512.00	4470.48
2298458.00	14829012.00	4466.66
2298458.00	14829512.00	4464.86
2298458.00	14830012.00	4461.89
2298458.00	14830512.00	4458.91
2298458.00	14831012.00	4455.72
2298458.00	14831512.00	4453.19
2298458.00	14832012.00	4451.05
2298458.00	14832512.00	4449.01
2298458.00	14833012.00	4442.55
2298458.00	14833512.00	4442.42
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2298458.00	14835012.00	4440.24
2298458.00	14835512.00	4438.75
2298458.00	14836012.00	4437.10
2298458.00	14836512.00	4434.55
2298458.00	14837012.00	4432.26
2298458.00	14837512.00	4431.54
2298458.00	14838012.00	4430.51
2298458.00	14838512.00	4429.45
2298458.00	14839012.00	4431.78
2298458.00	14844012.00	4421.77
2298458.00	14844512.00	4402.27
2298458.00	14845012.00	4401.50
2298458.00	14845512.00	4400.22
2298458.00	14846012.00	4399.01
2298458.00	14846512.00	4397.96
2298458.00	14847012.00	4395.96
2298458.00	14847512.00	4394.99
2298458.00	14848012.00	4393.19
2298458.00	14848512.00	4396.79
2298458.00	14849012.00	4390.26
2298458.00	14849512.00	4390.81
2298458.00	14850012.00	4390.98
2298458.00	14850512.00	4390.96
2298458.00	14851012.00	4395.51
2298458.00	14851512.00	4398.46
2298458.00	14852012.00	4391.59
2298458.00	14852512.00	4391.21
2298458.00	14853012.00	4390.97
2298458.00	14853512.00	4390.51
2298458.00	14854012.00	4391.26
2298458.00	14854512.00	4390.19
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2298458.00	14855512.00	4388.46
2298458.00	14856012.00	4390.53
2298458.00	14856512.00	4391.58
2298458.00	14857012.00	4393.32
2298458.00	14857512.00	4393.01
2298458.00	14858012.00	4393.23
2298458.00	14858512.00	4393.04
2298458.00	14859012.00	4393.40
2298458.00	14859512.00	4394.59
2298458.00	14860012.00	4397.91
2298458.00	14860512.00	4395.26
2298458.00	14861012.00	4401.50
2298458.00	14861512.00	4399.08
2298458.00	14862012.00	4397.99
2298458.00	14862512.00	4398.65

## TOPO.DAT

2298458.00	14863012.00	4396.93
2298458.00	14863512.00	4400.15
2298458.00	14864012.00	4398.89
2298458.00	14864512.00	4398.00
2298458.00	14865012.00	4398.98
2298458.00	14865512.00	4399.39
2298458.00	14866012.00	4399.20
2298458.00	14866512.00	4397.52
2298458.00	14867012.00	4403.79
2298458.00	14867512.00	4401.99
2298458.00	14868012.00	4403.17
2298458.00	14868512.00	4399.54
2298458.00	14869012.00	4403.32
2298458.00	14869512.00	4405.03
2298458.00	14870012.00	4406.44
2298458.00	14870512.00	4406.14
2298458.00	14871012.00	4407.68
2298458.00	14871512.00	4407.30
2298458.00	14872012.00	4408.19
2298958.00	14827512.00	4474.78
2298958.00	14828012.00	4473.60
2298958.00	14828512.00	4469.32
2298958.00	14829012.00	4467.07
2298958.00	14829512.00	4463.88
2298958.00	14830012.00	4461.91
2298958.00	14830512.00	4458.60
2298958.00	14831012.00	4454.86
2298958.00	14831512.00	4453.48
2298958.00	14832012.00	4448.17
2298958.00	14832512.00	4449.78
2298958.00	14833012.00	4446.06
2298958.00	14833512.00	4446.18
2298958.00	14834012.00	4444.62
2298958.00	14834512.00	4442.67
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2298958.00	14836012.00	4436.21
2298958.00	14836512.00	4435.60
2298958.00	14837012.00	4434.20
2298958.00	14837512.00	4428.07
2298958.00	14838012.00	4427.20
2298958.00	14838512.00	4428.26
2298958.00	14839012.00	4430.57
2298958.00	14839512.00	4432.39
2298958.00	14844012.00	4404.10
2298958.00	14844512.00	4402.79
2298958.00	14845012.00	4402.27
2298958.00	14845512.00	4401.43
2298958.00	14846012.00	4399.93
2298958.00	14846512.00	4398.63
2298958.00	14847012.00	4397.42
2298958.00	14847512.00	4397.28
2298958.00	14848012.00	4394.70
2298958.00	14848512.00	4393.87
2298958.00	14849012.00	4388.96
2298958.00	14849512.00	4388.89
2298958.00	14850012.00	4389.84
2298958.00	14850512.00	4389.04
2298958.00	14851012.00	4391.10
2298958.00	14851512.00	4391.56
2298958.00	14852012.00	4391.75
2298958.00	14852512.00	4391.39
2298958.00	14853012.00	4391.19
2298958.00	14853512.00	4390.28
2298958.00	14854012.00	4390.27
2298958.00	14854512.00	4388.83

## TOPO.DAT

2298958.00	14855012.00	4388.72
2298958.00	14855512.00	4388.27
2298958.00	14856012.00	4390.47
2298958.00	14856512.00	4390.61
2298958.00	14857012.00	4390.93
2298958.00	14857512.00	4391.29
2298958.00	14858012.00	4391.06
2298958.00	14858512.00	4392.31
2298958.00	14859012.00	4393.60
2298958.00	14859512.00	4395.22
2298958.00	14860012.00	4396.86
2298958.00	14860512.00	4396.70
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2298958.00	14861512.00	4395.98
2298958.00	14862012.00	4396.23
2298958.00	14862512.00	4396.60
2298958.00	14863012.00	4396.19
2298958.00	14863512.00	4397.16
2298958.00	14864012.00	4394.76
2298958.00	14864512.00	4395.00
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2298958.00	14865512.00	4395.17
2298958.00	14866012.00	4393.80
2298958.00	14866512.00	4395.20
2298958.00	14867012.00	4399.40
2298958.00	14867512.00	4402.68
2298958.00	14868012.00	4400.60
2298958.00	14868512.00	4399.41
2298958.00	14869012.00	4401.03
2298958.00	14869512.00	4402.91
2298958.00	14870012.00	4404.64
2298958.00	14870512.00	4403.45
2298958.00	14871012.00	4404.58
2298958.00	14871512.00	4405.12
2298958.00	14872012.00	4412.71
2299458.00	14827512.00	4474.91
2299458.00	14828012.00	4473.23
2299458.00	14828512.00	4470.59
2299458.00	14829012.00	4467.77
2299458.00	14829512.00	4464.50
2299458.00	14830012.00	4462.53
2299458.00	14830512.00	4460.50
2299458.00	14831012.00	4457.40
2299458.00	14831512.00	4454.37
2299458.00	14832012.00	4450.49
2299458.00	14832512.00	4449.54
2299458.00	14833012.00	4447.40
2299458.00	14833512.00	4444.85
2299458.00	14834012.00	4443.70
2299458.00	14834512.00	4441.44
2299458.00	14835012.00	4439.39
2299458.00	14835512.00	4437.77
2299458.00	14836012.00	4436.20
2299458.00	14836512.00	4433.58
2299458.00	14837012.00	4432.17
2299458.00	14837512.00	4430.12
2299458.00	14838012.00	4432.71
2299458.00	14838512.00	4431.29
2299458.00	14839012.00	4426.92
2299458.00	14839512.00	4425.68
2299458.00	14840012.00	4432.81
2299458.00	14843012.00	4446.58
2299458.00	14843512.00	4404.24
2299458.00	14844012.00	4403.28
2299458.00	14844512.00	4404.64
2299458.00	14845012.00	4404.28

## TOPO.DAT

2299458.00	14845512.00	4402.96
2299458.00	14846012.00	4400.57
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2299458.00	14847012.00	4526.04
2299458.00	14847512.00	4470.16
2299458.00	14848012.00	4431.58
2299458.00	14848512.00	4408.07
2299458.00	14849012.00	4390.08
2299458.00	14849512.00	4389.57
2299458.00	14850012.00	4391.19
2299458.00	14850512.00	4389.45
2299458.00	14851012.00	4388.75
2299458.00	14851512.00	4388.75
2299458.00	14852012.00	4391.57
2299458.00	14852512.00	4391.25
2299458.00	14853012.00	4391.17
2299458.00	14853512.00	4391.59
2299458.00	14854012.00	4389.75
2299458.00	14854512.00	4387.24
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2299458.00	14855512.00	4388.00
2299458.00	14856012.00	4388.33
2299458.00	14856512.00	4388.51
2299458.00	14857012.00	4390.11
2299458.00	14857512.00	4390.69
2299458.00	14858012.00	4391.90
2299458.00	14858512.00	4392.97
2299458.00	14859012.00	4393.10
2299458.00	14859512.00	4396.90
2299458.00	14860012.00	4398.80
2299458.00	14860512.00	4396.15
2299458.00	14861012.00	4393.81
2299458.00	14861512.00	4393.70
2299458.00	14862012.00	4396.48
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2299458.00	14864012.00	4393.24
2299458.00	14864512.00	4393.00
2299458.00	14865012.00	4392.04
2299458.00	14865512.00	4395.48
2299458.00	14866012.00	4393.76
2299458.00	14866512.00	4412.96
2299458.00	14867012.00	4397.08
2299458.00	14867512.00	4399.73
2299458.00	14868012.00	4401.32
2299458.00	14868512.00	4396.37
2299458.00	14869012.00	4397.95
2299458.00	14869512.00	4401.34
2299458.00	14870012.00	4402.22
2299458.00	14870512.00	4402.73
2299458.00	14871012.00	4404.27
2299458.00	14871512.00	4406.80
2299458.00	14872012.00	4413.31
2299458.00	14872512.00	4408.76
2299458.00	14873012.00	4418.29
2299958.00	14827512.00	4473.34
2299958.00	14828012.00	4471.23
2299958.00	14828512.00	4469.41
2299958.00	14829012.00	4466.28
2299958.00	14829512.00	4462.71
2299958.00	14830012.00	4461.36
2299958.00	14830512.00	4459.49
2299958.00	14831012.00	4456.71
2299958.00	14831512.00	4452.97
2299958.00	14832012.00	4450.74

## TOPO.DAT

2299958.00	14832512.00	4448.37
2299958.00	14833012.00	4446.87
2299958.00	14833512.00	4444.57
2299958.00	14834012.00	4442.90
2299958.00	14834512.00	4441.58
2299958.00	14835012.00	4439.71
2299958.00	14835512.00	4436.19
2299958.00	14836012.00	4436.35
2299958.00	14836512.00	4434.09
2299958.00	14837012.00	4433.11
2299958.00	14837512.00	4431.96
2299958.00	14838012.00	4431.63
2299958.00	14838512.00	4430.58
2299958.00	14839012.00	4431.84
2299958.00	14839512.00	4423.67
2299958.00	14840012.00	4431.55
2299958.00	14843012.00	4407.00
2299958.00	14843512.00	4405.53
2299958.00	14844012.00	4404.93
2299958.00	14844512.00	4405.95
2299958.00	14845012.00	4407.43
2299958.00	14845512.00	4482.06
2299958.00	14846012.00	4443.81
2299958.00	14846512.00	4518.54
2299958.00	14847012.00	4588.77
2299958.00	14847512.00	4684.41
2299958.00	14848012.00	4644.92
2299958.00	14848512.00	4527.83
2299958.00	14849012.00	4431.38
2299958.00	14849512.00	4406.00
2299958.00	14850012.00	4395.96
2299958.00	14850512.00	4393.53
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2299958.00	14851512.00	4388.31
2299958.00	14852012.00	4389.06
2299958.00	14852512.00	4392.75
2299958.00	14853012.00	4392.77
2299958.00	14853512.00	4393.90
2299958.00	14854012.00	4389.34
2299958.00	14854512.00	4389.30
2299958.00	14855012.00	4388.58
2299958.00	14855512.00	4387.73
2299958.00	14856012.00	4389.26
2299958.00	14856512.00	4389.67
2299958.00	14857012.00	4391.50
2299958.00	14857512.00	4391.66
2299958.00	14858012.00	4391.95
2299958.00	14858512.00	4392.51
2299958.00	14859012.00	4394.90
2299958.00	14859512.00	4395.99
2299958.00	14860012.00	4395.94
2299958.00	14860512.00	4395.87
2299958.00	14861012.00	4393.61
2299958.00	14861512.00	4392.90
2299958.00	14862012.00	4393.79
2299958.00	14862512.00	4394.38
2299958.00	14863012.00	4392.09
2299958.00	14863512.00	4395.48
2299958.00	14864012.00	4390.50
2299958.00	14864512.00	4392.00
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2299958.00	14865512.00	4398.62
2299958.00	14866012.00	4398.00
2299958.00	14866512.00	4397.00
2299958.00	14867012.00	4395.94
2299958.00	14867512.00	4399.05

## TOPO.DAT

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2299958.00	14868512.00	4401.32
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2299958.00	14869512.00	4400.20
2299958.00	14870012.00	4402.96
2299958.00	14870512.00	4403.14
2299958.00	14871012.00	4407.33
2299958.00	14871512.00	4408.75
2299958.00	14872012.00	4408.08
2299958.00	14872512.00	4407.62
2299958.00	14873012.00	4416.34
2299958.00	14873512.00	4414.33
2299958.00	14874012.00	4415.64
2299958.00	14874512.00	4413.57
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2300458.00	14843512.00	4406.88
2300458.00	14844012.00	4411.44
2300458.00	14844512.00	4444.10
2300458.00	14845012.00	4451.35
2300458.00	14845512.00	4544.73
2300458.00	14846012.00	4612.31
2300458.00	14846512.00	4695.49
2300458.00	14847012.00	4649.26
2300458.00	14849012.00	4559.14
2300458.00	14849512.00	4473.08
2300458.00	14850012.00	4437.37
2300458.00	14850512.00	4393.66
2300458.00	14851012.00	4391.49
2300458.00	14851512.00	4390.08
2300458.00	14852012.00	4388.14
2300458.00	14852512.00	4390.72
2300458.00	14853012.00	4392.65
2300458.00	14853512.00	4392.55
2300458.00	14854012.00	4392.49
2300458.00	14854512.00	4389.72
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2300458.00	14859012.00	4394.75
2300458.00	14859512.00	4394.61
2300458.00	14860012.00	4393.88
2300458.00	14860512.00	4393.27
2300458.00	14861012.00	4392.35
2300458.00	14861512.00	4395.18
2300458.00	14862012.00	4392.84
2300458.00	14862512.00	4393.26
2300458.00	14863012.00	4393.57
2300458.00	14863512.00	4394.28
2300458.00	14864012.00	4394.70
2300458.00	14864512.00	4391.00
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2300458.00	14865512.00	4398.09
2300458.00	14866012.00	4398.00
2300458.00	14866512.00	4340.41
2300458.00	14867012.00	4395.18
2300458.00	14867512.00	4397.59
2300458.00	14868012.00	4399.45
2300458.00	14868512.00	4398.81
2300458.00	14869012.00	4400.35
2300458.00	14869512.00	4401.74
2300458.00	14870012.00	4402.40



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2300458.00	14871012.00	4408.14
2300458.00	14871512.00	4401.99
2300458.00	14872012.00	4407.01
2300458.00	14872512.00	4410.02
2300458.00	14873012.00	4410.56
2300458.00	14873512.00	4408.76
2300458.00	14874012.00	4410.42
2300458.00	14874512.00	4410.41
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2300458.00	14875512.00	4412.26
2300458.00	14876012.00	4413.82
2300958.00	14842512.00	4412.62
2300958.00	14843012.00	4411.01
2300958.00	14843512.00	4409.00
2300958.00	14844012.00	4460.43
2300958.00	14844512.00	4614.83
2300958.00	14845012.00	4639.58
2300958.00	14845512.00	4592.35
2300958.00	14848012.00	4516.09
2300958.00	14848512.00	4418.68
2300958.00	14849012.00	4405.84
2300958.00	14849512.00	4406.57
2300958.00	14850012.00	4405.39
2300958.00	14850512.00	4396.97
2300958.00	14851012.00	4395.52
2300958.00	14851512.00	4390.21
2300958.00	14852012.00	4387.62
2300958.00	14852512.00	4388.70
2300958.00	14853012.00	4388.87
2300958.00	14853512.00	4392.40
2300958.00	14854012.00	4393.69
2300958.00	14854512.00	4391.53
2300958.00	14855012.00	4390.27
2300958.00	14855512.00	4389.32
2300958.00	14856012.00	4385.95
2300958.00	14856512.00	4390.16
2300958.00	14857012.00	4390.95
2300958.00	14857512.00	4392.34
2300958.00	14858012.00	4391.98
2300958.00	14858512.00	4392.70
2300958.00	14859012.00	4394.44
2300958.00	14859512.00	4394.13
2300958.00	14860012.00	4393.83
2300958.00	14860512.00	4391.86
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2300958.00	14861512.00	4389.24
2300958.00	14862012.00	4393.44
2300958.00	14862512.00	4392.98
2300958.00	14863012.00	4394.79
2300958.00	14863512.00	4394.87
2300958.00	14864012.00	4389.15
2300958.00	14864512.00	4390.00
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2300958.00	14866512.00	4340.21
2300958.00	14867012.00	4340.91
2300958.00	14867512.00	4388.62
2300958.00	14868012.00	4381.85
2300958.00	14868512.00	4397.04
2300958.00	14869012.00	4398.71
2300958.00	14869512.00	4398.89
2300958.00	14870012.00	4402.48
2300958.00	14870512.00	4401.06
2300958.00	14871012.00	4402.39

## TOPO.DAT

2300958.00	14871512.00	4402.37
2300958.00	14872012.00	4405.24
2300958.00	14872512.00	4405.85
2300958.00	14873012.00	4410.89
2300958.00	14873512.00	4409.03
2300958.00	14874012.00	4407.13
2300958.00	14874512.00	4410.64
2300958.00	14875012.00	4410.39
2300958.00	14875512.00	4409.74
2300958.00	14876012.00	4410.35
2300958.00	14876512.00	4414.23
2300958.00	14877012.00	4458.21
2300958.00	14877512.00	4465.82
2301458.00	14847512.00	4468.36
2301458.00	14848012.00	4411.79
2301458.00	14848512.00	4408.39
2301458.00	14849012.00	4406.37
2301458.00	14849512.00	4402.97
2301458.00	14850012.00	4397.47
2301458.00	14850512.00	4398.09
2301458.00	14851012.00	4395.25
2301458.00	14851512.00	4395.27
2301458.00	14852012.00	4389.51
2301458.00	14852512.00	4388.94
2301458.00	14853012.00	4390.98
2301458.00	14853512.00	4385.75
2301458.00	14854012.00	4392.21
2301458.00	14854512.00	4391.41
2301458.00	14855012.00	4391.10
2301458.00	14855512.00	4389.83
2301458.00	14856012.00	4384.99
2301458.00	14856512.00	4389.27
2301458.00	14857012.00	4390.38
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2301458.00	14859012.00	4395.41
2301458.00	14859512.00	4394.89
2301458.00	14860012.00	4394.90
2301458.00	14860512.00	4394.21
2301458.00	14861012.00	4393.18
2301458.00	14861512.00	4389.43
2301458.00	14862012.00	4392.81
2301458.00	14862512.00	4392.90
2301458.00	14863012.00	4392.30
2301458.00	14863512.00	4394.05
2301458.00	14864012.00	4393.16
2301458.00	14864512.00	4389.50
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2301458.00	14866512.00	4341.43
2301458.00	14867012.00	4341.36
2301458.00	14867512.00	4383.80
2301458.00	14868012.00	4374.63
2301458.00	14868512.00	4397.50
2301458.00	14869012.00	4398.86
2301458.00	14869512.00	4400.74
2301458.00	14870012.00	4400.73
2301458.00	14870512.00	4399.89
2301458.00	14871012.00	4397.68
2301458.00	14871512.00	4402.03
2301458.00	14872012.00	4405.13
2301458.00	14872512.00	4407.06
2301458.00	14873012.00	4407.27
2301458.00	14873512.00	4407.69



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2301458.00	14874512.00	4410.51
2301458.00	14875012.00	4407.17
2301458.00	14875512.00	4408.28
2301458.00	14876012.00	4409.81
2301458.00	14876512.00	4421.50
2301458.00	14877012.00	4467.39
2301458.00	14877512.00	4510.56
2301458.00	14878012.00	4469.85
2301458.00	14878512.00	4465.22
2301458.00	14879012.00	4457.76
2301958.00	14847012.00	4421.29
2301958.00	14847512.00	4418.99
2301958.00	14848012.00	4417.82
2301958.00	14848512.00	4416.67
2301958.00	14849012.00	4417.31
2301958.00	14849512.00	4412.27
2301958.00	14850012.00	4409.02
2301958.00	14850512.00	4404.79
2301958.00	14851012.00	4403.64
2301958.00	14851512.00	4395.00
2301958.00	14852012.00	4393.46
2301958.00	14852512.00	4385.77
2301958.00	14853012.00	4399.28
2301958.00	14853512.00	4385.86
2301958.00	14854012.00	4392.00
2301958.00	14854512.00	4393.31
2301958.00	14855012.00	4393.12
2301958.00	14855512.00	4391.10
2301958.00	14856012.00	4389.51
2301958.00	14856512.00	4384.84
2301958.00	14857012.00	4389.79
2301958.00	14857512.00	4390.35
2301958.00	14858012.00	4390.61
2301958.00	14858512.00	4390.59
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2301958.00	14861512.00	4389.56
2301958.00	14862012.00	4392.79
2301958.00	14862512.00	4392.50
2301958.00	14863012.00	4390.03
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2301958.00	14864012.00	4389.56
2301958.00	14864512.00	4389.00
2301958.00	14865012.00	4389.53
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2301958.00	14866512.00	4341.06
2301958.00	14867012.00	4340.48
2301958.00	14867512.00	4391.08
2301958.00	14868012.00	4392.48
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2301958.00	14869012.00	4398.36
2301958.00	14869512.00	4398.27
2301958.00	14870012.00	4397.79
2301958.00	14870512.00	4400.83
2301958.00	14871012.00	4401.19
2301958.00	14871512.00	4402.29
2301958.00	14872012.00	4407.26
2301958.00	14872512.00	4404.74
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2301958.00	14874012.00	4410.88

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2301958.00	14876012.00	4408.29
2301958.00	14876512.00	4413.81
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2301958.00	14877512.00	4433.30
2301958.00	14878012.00	4417.07
2301958.00	14878512.00	4423.77
2301958.00	14879012.00	4438.20
2301958.00	14879512.00	4460.44
2301958.00	14880012.00	4434.78
2301958.00	14880512.00	4432.43
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2302458.00	14847512.00	4427.24
2302458.00	14848012.00	4428.20
2302458.00	14848512.00	4429.94
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2302458.00	14849512.00	4430.02
2302458.00	14850012.00	4422.97
2302458.00	14850512.00	4416.74
2302458.00	14851012.00	4410.59
2302458.00	14851512.00	4407.78
2302458.00	14852012.00	4404.84
2302458.00	14852512.00	4396.25
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2302458.00	14860512.00	4392.18
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2302458.00	14861512.00	4388.73
2302458.00	14862012.00	4390.45
2302458.00	14862512.00	4391.72
2302458.00	14863012.00	4396.25
2302458.00	14863512.00	4389.71
2302458.00	14864012.00	4389.60
2302458.00	14864512.00	4388.50
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2302458.00	14866512.00	4340.16
2302458.00	14867012.00	4366.21
2302458.00	14867512.00	4392.21
2302458.00	14868012.00	4394.53
2302458.00	14868512.00	4396.03
2302458.00	14869012.00	4397.78
2302458.00	14869512.00	4397.66
2302458.00	14870012.00	4398.14
2302458.00	14870512.00	4401.70
2302458.00	14871012.00	4399.27
2302458.00	14871512.00	4403.35
2302458.00	14872012.00	4407.24
2302458.00	14872512.00	4403.47

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2302458.00	14873512.00	4408.35
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2302458.00	14874512.00	4408.86
2302458.00	14875012.00	4405.39
2302458.00	14875512.00	4406.59
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2302458.00	14877512.00	4414.20
2302458.00	14878012.00	4415.59
2302458.00	14878512.00	4417.52
2302458.00	14879012.00	4417.35
2302458.00	14879512.00	4413.22
2302458.00	14880012.00	4424.39
2302458.00	14880512.00	4424.05
2302958.00	14846012.00	4448.67
2302958.00	14846512.00	4440.67
2302958.00	14847012.00	4436.19
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2302958.00	14848512.00	4450.65
2302958.00	14849012.00	4453.93
2302958.00	14849512.00	4449.22
2302958.00	14850012.00	4441.09
2302958.00	14850512.00	4433.57
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2302958.00	14852512.00	4410.95
2302958.00	14853012.00	4401.45
2302958.00	14853512.00	4396.97
2302958.00	14854012.00	4393.13
2302958.00	14854512.00	4392.87
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2302958.00	14860512.00	4393.53
2302958.00	14861012.00	4388.14
2302958.00	14861512.00	4389.14
2302958.00	14862012.00	4395.00
2302958.00	14862512.00	4391.50
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2302958.00	14868012.00	4391.15
2302958.00	14868512.00	4391.78
2302958.00	14869012.00	4393.40
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2302958.00	14870512.00	4399.95

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2302958.00	14873012.00	4402.52
2302958.00	14873512.00	4406.32
2302958.00	14874012.00	4407.68
2302958.00	14874512.00	4408.56
2302958.00	14875012.00	4407.20
2302958.00	14875512.00	4407.75
2302958.00	14876012.00	4408.87
2302958.00	14876512.00	4409.97
2302958.00	14877012.00	4411.20
2302958.00	14877512.00	4413.06
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2302958.00	14878512.00	4421.06
2302958.00	14879012.00	4463.03
2302958.00	14879512.00	4469.28
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2303458.00	14851012.00	4448.25
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2303458.00	14854012.00	4403.84
2303458.00	14854512.00	4397.33
2303458.00	14855012.00	4383.23
2303458.00	14855512.00	4390.14
2303458.00	14856012.00	4390.72
2303458.00	14856512.00	4393.31
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2303458.00	14858012.00	4388.08
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2303458.00	14860012.00	4393.90
2303458.00	14860512.00	4391.99
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2303458.00	14861512.00	4390.36
2303458.00	14862012.00	4390.71
2303458.00	14862512.00	4392.59
2303458.00	14863012.00	4391.82
2303458.00	14863512.00	4389.47
2303458.00	14864012.00	4386.41
2303458.00	14864512.00	4387.39
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2303458.00	14868012.00	4390.74
2303458.00	14868512.00	4391.84
2303458.00	14869012.00	4392.35
2303458.00	14869512.00	4396.40
2303458.00	14870012.00	4398.75

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2303458.00	14871012.00	4399.79
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2303458.00	14874512.00	4405.86
2303458.00	14875012.00	4406.68
2303458.00	14875512.00	4409.83
2303458.00	14876012.00	4409.87
2303458.00	14876512.00	4412.05
2303458.00	14877012.00	4414.39
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2303958.00	14850012.00	4483.54
2303958.00	14850512.00	4468.30
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2303958.00	14851512.00	4450.60
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2303958.00	14853012.00	4443.81
2303958.00	14853512.00	4435.12
2303958.00	14854012.00	4421.99
2303958.00	14854512.00	4405.51
2303958.00	14855012.00	4397.58
2303958.00	14855512.00	4384.24
2303958.00	14856012.00	4382.99
2303958.00	14856512.00	4382.79
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2303958.00	14859012.00	4386.90
2303958.00	14859512.00	4391.08
2303958.00	14860012.00	4393.63
2303958.00	14860512.00	4392.46
2303958.00	14861012.00	4390.12
2303958.00	14861512.00	4387.26
2303958.00	14862012.00	4392.36
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2303958.00	14863012.00	4388.15
2303958.00	14863512.00	4392.32
2303958.00	14864012.00	4386.68
2303958.00	14864512.00	4386.47
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2303958.00	14865512.00	4390.74
2303958.00	14866012.00	4388.08
2303958.00	14866512.00	4386.50
2303958.00	14867012.00	4389.42
2303958.00	14867512.00	4389.12
2303958.00	14868012.00	4390.49
2303958.00	14868512.00	4391.56
2303958.00	14869012.00	4392.50
2303958.00	14869512.00	4395.87
2303958.00	14870012.00	4397.38
2303958.00	14870512.00	4399.07

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2303958.00	14871512.00	4399.46
2303958.00	14872012.00	4399.50
2303958.00	14872512.00	4399.96
2303958.00	14873012.00	4402.90
2303958.00	14873512.00	4405.55
2303958.00	14874012.00	4406.63
2303958.00	14874512.00	4410.59
2303958.00	14875012.00	4411.29
2303958.00	14875512.00	4416.16
2303958.00	14876012.00	4415.60
2303958.00	14876512.00	4429.07
2303958.00	14877012.00	4453.27
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2304458.00	14848512.00	4516.18
2304458.00	14849012.00	4527.06
2304458.00	14849512.00	4511.30
2304458.00	14850012.00	4520.98
2304458.00	14850512.00	4493.79
2304458.00	14851012.00	4477.50
2304458.00	14851512.00	4472.58
2304458.00	14852012.00	4473.03
2304458.00	14852512.00	4471.83
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2304458.00	14853512.00	4461.82
2304458.00	14854012.00	4437.49
2304458.00	14854512.00	4415.86
2304458.00	14855012.00	4396.43
2304458.00	14855512.00	4395.79
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2304458.00	14859512.00	4388.81
2304458.00	14860012.00	4389.68
2304458.00	14860512.00	4392.81
2304458.00	14861012.00	4392.90
2304458.00	14861512.00	4389.39
2304458.00	14862012.00	4393.13
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2304458.00	14863012.00	4390.92
2304458.00	14863512.00	4390.54
2304458.00	14864012.00	4389.15
2304458.00	14864512.00	4386.83
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2304458.00	14866512.00	4391.18
2304458.00	14867012.00	4390.49
2304458.00	14867512.00	4391.36
2304458.00	14868012.00	4395.33
2304458.00	14868512.00	4395.97
2304458.00	14869012.00	4396.92
2304458.00	14869512.00	4396.23
2304458.00	14870012.00	4396.56
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2304458.00	14871012.00	4399.52
2304458.00	14871512.00	4398.50



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2304458.00	14874012.00	4408.20
2304458.00	14874512.00	4411.17
2304458.00	14875012.00	4415.77
2304458.00	14875512.00	4416.67
2304458.00	14876012.00	4416.94
2304458.00	14876512.00	4451.49
2304458.00	14877012.00	4473.85
2304458.00	14877512.00	4425.41
2304458.00	14878012.00	4427.51
2304458.00	14878512.00	4439.83
2304458.00	14879012.00	4465.89
2304958.00	14847512.00	4525.11
2304958.00	14851512.00	4497.82
2304958.00	14852012.00	4503.36
2304958.00	14852512.00	4495.08
2304958.00	14853012.00	4492.60
2304958.00	14853512.00	4473.26
2304958.00	14854012.00	4454.17
2304958.00	14854512.00	4418.10
2304958.00	14855012.00	4409.98
2304958.00	14855512.00	4391.27
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2304958.00	14861512.00	4393.40
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2304958.00	14862512.00	4390.75
2304958.00	14863012.00	4390.91
2304958.00	14863512.00	4394.02
2304958.00	14864012.00	4390.64
2304958.00	14864512.00	4388.21
2304958.00	14865012.00	4397.39
2304958.00	14865512.00	4398.33
2304958.00	14866012.00	4392.44
2304958.00	14866512.00	4392.74
2304958.00	14867012.00	4390.06
2304958.00	14867512.00	4391.50
2304958.00	14868012.00	4394.96
2304958.00	14868512.00	4392.93
2304958.00	14869012.00	4395.34
2304958.00	14869512.00	4399.76
2304958.00	14870012.00	4397.22
2304958.00	14870512.00	4397.47
2304958.00	14871012.00	4397.41
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2304958.00	14874012.00	4408.87
2304958.00	14874512.00	4414.18
2304958.00	14875012.00	4415.89
2304958.00	14875512.00	4418.97
2304958.00	14876012.00	4421.74

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2304958.00	14877012.00	4430.74
2304958.00	14877512.00	4429.84
2304958.00	14878012.00	4434.93
2304958.00	14878512.00	4436.04
2304958.00	14879012.00	4454.21
2304958.00	14879512.00	4468.95
2305458.00	14853012.00	4522.83
2305458.00	14853512.00	4497.84
2305458.00	14854012.00	4465.69
2305458.00	14854512.00	4433.81
2305458.00	14855012.00	4412.17
2305458.00	14855512.00	4392.15
2305458.00	14856012.00	4387.45
2305458.00	14856512.00	4380.48
2305458.00	14857012.00	4385.57
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2305458.00	14858512.00	4387.42
2305458.00	14859012.00	4386.98
2305458.00	14859512.00	4386.81
2305458.00	14860012.00	4386.47
2305458.00	14860512.00	4388.10
2305458.00	14861012.00	4389.63
2305458.00	14861512.00	4390.22
2305458.00	14862012.00	4390.27
2305458.00	14862512.00	4392.17
2305458.00	14863012.00	4391.71
2305458.00	14863512.00	4391.26
2305458.00	14864012.00	4408.21
2305458.00	14864512.00	4425.92
2305458.00	14865012.00	4408.73
2305458.00	14865512.00	4409.18
2305458.00	14866012.00	4392.85
2305458.00	14866512.00	4395.10
2305458.00	14867012.00	4390.16
2305458.00	14867512.00	4396.67
2305458.00	14868012.00	4396.70
2305458.00	14868512.00	4397.48
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2305458.00	14870012.00	4400.02
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2305458.00	14871012.00	4401.17
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2305458.00	14872512.00	4395.40
2305458.00	14873012.00	4405.59
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2305458.00	14874012.00	4408.10
2305458.00	14874512.00	4413.08
2305458.00	14875012.00	4416.75
2305458.00	14875512.00	4421.21
2305458.00	14876012.00	4428.26
2305458.00	14876512.00	4432.03
2305458.00	14877012.00	4434.92
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2305458.00	14878512.00	4443.61
2305458.00	14879012.00	4458.66
2305458.00	14879512.00	4475.10
2305958.00	14853512.00	4521.47
2305958.00	14854012.00	4482.23
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2305958.00	14861512.00	4389.78
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2305958.00	14864012.00	4391.61
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2305958.00	14865512.00	4396.42
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2305958.00	14866512.00	4390.41
2305958.00	14867012.00	4390.91
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2305958.00	14868012.00	4401.15
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2305958.00	14870512.00	4399.50
2305958.00	14871012.00	4400.98
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2305958.00	14879012.00	4463.71
2305958.00	14879512.00	4482.45
2306458.00	14854012.00	4546.78
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2306458.00	14855012.00	4558.56
2306458.00	14855512.00	4529.54
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2306458.00	14857512.00	4493.26
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2306458.00	14859012.00	4387.01
2306458.00	14859512.00	4394.37
2306458.00	14860012.00	4386.89
2306458.00	14860512.00	4387.15
2306458.00	14861012.00	4387.14
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2306458.00	14862012.00	4392.91
2306458.00	14862512.00	4386.48

## TOPO.DAT

2306458.00	14863012.00	4393.93
2306458.00	14863512.00	4394.15
2306458.00	14864012.00	4391.07
2306458.00	14864512.00	4398.66
2306458.00	14865012.00	4394.98
2306458.00	14865512.00	4393.33
2306458.00	14866012.00	4393.09
2306458.00	14866512.00	4393.19
2306458.00	14867012.00	4390.66
2306458.00	14867512.00	4392.56
2306458.00	14868012.00	4392.83
2306458.00	14868512.00	4392.96
2306458.00	14869012.00	4400.12
2306458.00	14869512.00	4401.51
2306458.00	14870012.00	4399.13
2306458.00	14870512.00	4399.75
2306458.00	14871012.00	4401.16
2306458.00	14871512.00	4398.13
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2306458.00	14873512.00	4411.35
2306458.00	14874012.00	4413.59
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2306458.00	14875512.00	4425.14
2306458.00	14876012.00	4429.94
2306458.00	14876512.00	4438.68
2306458.00	14877012.00	4443.84
2306458.00	14877512.00	4448.75
2306458.00	14878012.00	4453.88
2306458.00	14878512.00	4453.87
2306458.00	14879012.00	4470.54
2306958.00	14854012.00	4703.28
2306958.00	14854512.00	4684.60
2306958.00	14855012.00	4676.80
2306958.00	14859012.00	4491.61
2306958.00	14859512.00	4422.04
2306958.00	14860012.00	4389.68
2306958.00	14860512.00	4386.67
2306958.00	14861012.00	4386.88
2306958.00	14861512.00	4388.23
2306958.00	14862012.00	4390.71
2306958.00	14862512.00	4386.94
2306958.00	14863012.00	4392.94
2306958.00	14863512.00	4392.57
2306958.00	14864012.00	4386.96
2306958.00	14864512.00	4398.00
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2306958.00	14867512.00	4395.86
2306958.00	14868012.00	4395.77
2306958.00	14868512.00	4396.90
2306958.00	14869012.00	4399.19
2306958.00	14869512.00	4403.46
2306958.00	14870012.00	4399.52
2306958.00	14870512.00	4399.72
2306958.00	14871012.00	4398.82
2306958.00	14871512.00	4401.84
2306958.00	14872012.00	4402.45
2306958.00	14872512.00	4404.90
2306958.00	14873012.00	4405.01
2306958.00	14873512.00	4412.26

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2306958.00	14875512.00	4427.29
2306958.00	14876012.00	4437.89
2306958.00	14876512.00	4446.63
2306958.00	14877012.00	4454.46
2306958.00	14877512.00	4456.73
2306958.00	14878012.00	4451.90
2306958.00	14878512.00	4461.31
2306958.00	14879012.00	4488.95
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2307458.00	14861012.00	4387.21
2307458.00	14861512.00	4387.38
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2307458.00	14863012.00	4389.93
2307458.00	14863512.00	4390.06
2307458.00	14864012.00	4388.09
2307458.00	14864512.00	4398.00
2307458.00	14865012.00	4395.15
2307458.00	14865512.00	4400.93
2307458.00	14866012.00	4397.31
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2307458.00	14868012.00	4396.43
2307458.00	14868512.00	4400.11
2307458.00	14869012.00	4402.91
2307458.00	14869512.00	4400.57
2307458.00	14870012.00	4399.94
2307458.00	14870512.00	4397.73
2307458.00	14871012.00	4401.01
2307458.00	14871512.00	4400.03
2307458.00	14872012.00	4403.38
2307458.00	14872512.00	4405.99
2307458.00	14873012.00	4406.01
2307458.00	14873512.00	4415.26
2307458.00	14874012.00	4416.97
2307458.00	14874512.00	4419.94
2307458.00	14875012.00	4432.54
2307458.00	14875512.00	4441.71
2307458.00	14876012.00	4448.07
2307458.00	14876512.00	4454.92
2307458.00	14877012.00	4464.05
2307458.00	14877512.00	4463.34
2307458.00	14878012.00	4466.52
2307458.00	14878512.00	4491.56
2307958.00	14861012.00	4399.65
2307958.00	14861512.00	4386.25
2307958.00	14862012.00	4391.05
2307958.00	14862512.00	4391.67
2307958.00	14863012.00	4391.62
2307958.00	14863512.00	4391.86
2307958.00	14864012.00	4392.03
2307958.00	14864512.00	4398.00
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2307958.00	14865512.00	4400.26
2307958.00	14866012.00	4399.25
2307958.00	14866512.00	4392.13
2307958.00	14867012.00	4398.13
2307958.00	14867512.00	4397.01
2307958.00	14868012.00	4400.60
2307958.00	14868512.00	4400.21
2307958.00	14869012.00	4398.73
2307958.00	14869512.00	4400.10

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2307958.00	14870512.00	4397.48
2307958.00	14871012.00	4403.23
2307958.00	14871512.00	4401.96
2307958.00	14872012.00	4404.67
2307958.00	14872512.00	4411.62
2307958.00	14873012.00	4410.73
2307958.00	14873512.00	4417.85
2307958.00	14874012.00	4422.39
2307958.00	14874512.00	4422.90
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2307958.00	14875512.00	4442.75
2307958.00	14876012.00	4457.19
2307958.00	14876512.00	4465.33
2307958.00	14877012.00	4474.98
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2308458.00	14864512.00	4398.15
2308458.00	14865012.00	4398.61
2308458.00	14865512.00	4401.07
2308458.00	14866012.00	4399.93
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2308458.00	14867012.00	4398.79
2308458.00	14867512.00	4399.33
2308458.00	14868012.00	4403.50
2308458.00	14868512.00	4402.67
2308458.00	14869012.00	4399.10
2308458.00	14869512.00	4400.42
2308458.00	14870012.00	4401.10
2308458.00	14870512.00	4403.15
2308458.00	14871012.00	4404.82
2308458.00	14871512.00	4403.99
2308458.00	14872012.00	4407.47
2308458.00	14872512.00	4411.89
2308458.00	14873012.00	4415.68
2308458.00	14873512.00	4423.63
2308458.00	14874012.00	4425.83
2308458.00	14874512.00	4429.59
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2308458.00	14875512.00	4451.37
2308458.00	14876012.00	4463.64
2308458.00	14876512.00	4471.36
2308958.00	14860512.00	4451.32
2308958.00	14861012.00	4405.06
2308958.00	14861512.00	4403.64
2308958.00	14862012.00	4390.41
2308958.00	14862512.00	4387.48
2308958.00	14863012.00	4389.30
2308958.00	14863512.00	4388.48
2308958.00	14864012.00	4394.74
2308958.00	14864512.00	4398.00
2308958.00	14865012.00	4401.10
2308958.00	14865512.00	4401.72
2308958.00	14866012.00	4403.75
2308958.00	14866512.00	4404.14
2308958.00	14867012.00	4406.80
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2308958.00	14868012.00	4407.66
2308958.00	14868512.00	4405.41

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2308958.00	14870512.00	4404.96
2308958.00	14871012.00	4407.76
2308958.00	14871512.00	4406.11
2308958.00	14872012.00	4410.19
2308958.00	14872512.00	4415.45
2308958.00	14873012.00	4421.61
2308958.00	14873512.00	4430.25
2308958.00	14874012.00	4432.63
2308958.00	14874512.00	4435.45
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2308958.00	14875512.00	4462.40
2308958.00	14876012.00	4507.41
2308958.00	14876512.00	4498.78
2309458.00	14861012.00	4401.47
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2309458.00	14862512.00	4385.82
2309458.00	14863012.00	4393.05
2309458.00	14863512.00	4391.87
2309458.00	14864012.00	4403.01
2309458.00	14864512.00	4416.97
2309458.00	14865012.00	4406.46
2309458.00	14865512.00	4407.18
2309458.00	14866012.00	4435.74
2309458.00	14866512.00	4460.45
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2309458.00	14867512.00	4458.25
2309458.00	14868012.00	4461.28
2309458.00	14869012.00	4454.15
2309458.00	14869512.00	4413.00
2309458.00	14870012.00	4407.45
2309458.00	14870512.00	4406.43
2309458.00	14871012.00	4410.28
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2309458.00	14872012.00	4417.68
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2309458.00	14873012.00	4434.52
2309458.00	14873512.00	4444.49
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2309458.00	14874512.00	4449.21
2309458.00	14875012.00	4445.57
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2309458.00	14876012.00	4484.18
2309958.00	14861012.00	4473.35
2309958.00	14861512.00	4389.96
2309958.00	14862012.00	4387.53
2309958.00	14862512.00	4387.79
2309958.00	14863012.00	4388.53
2309958.00	14863512.00	4393.41
2309958.00	14864012.00	4407.28
2309958.00	14864512.00	4425.28
2309958.00	14865012.00	4482.57
2309958.00	14865512.00	4477.43
2309958.00	14866012.00	4456.69
2309958.00	14869512.00	4436.00
2309958.00	14870012.00	4429.82
2309958.00	14870512.00	4429.86
2309958.00	14871012.00	4430.78
2309958.00	14871512.00	4436.31
2309958.00	14872012.00	4444.65
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2309958.00	14873012.00	4452.10
2309958.00	14873512.00	4466.38

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2309958.00	14875512.00	4459.94
2309958.00	14876012.00	4492.03
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2310458.00	14863012.00	4389.89
2310458.00	14863512.00	4396.10
2310458.00	14864012.00	4442.35
2310458.00	14864512.00	4481.08
2310458.00	14865012.00	4501.62
2310458.00	14865512.00	4507.43
2310458.00	14869512.00	4459.65
2310458.00	14870012.00	4463.47
2310458.00	14870512.00	4461.21
2310458.00	14871012.00	4463.35
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2310458.00	14872512.00	4474.89
2310458.00	14873012.00	4480.46
2310458.00	14873512.00	4486.42
2310458.00	14874012.00	4490.81
2310458.00	14874512.00	4491.84
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2310958.00	14862012.00	4398.78
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2310958.00	14863012.00	4389.79
2310958.00	14863512.00	4414.29
2310958.00	14864012.00	4487.10
2310958.00	14864512.00	4576.42
2310958.00	14870012.00	4483.44
2310958.00	14870512.00	4500.01
2310958.00	14871012.00	4505.80
2310958.00	14871512.00	4518.81
2310958.00	14872012.00	4530.66
2310958.00	14872512.00	4515.44
2310958.00	14873012.00	4502.14
2310958.00	14873512.00	4511.68
2310958.00	14874012.00	4514.39
2310958.00	14874512.00	4521.06
2310958.00	14875012.00	4491.98
2310958.00	14875512.00	4475.01
2311458.00	14862012.00	4426.42
2311458.00	14862512.00	4384.70
2311458.00	14863012.00	4391.92
2311458.00	14863512.00	4447.27
2311458.00	14864012.00	4525.56
2311958.00	14862012.00	4414.54
2311958.00	14862512.00	4391.24
2311958.00	14863012.00	4416.61
2311958.00	14863512.00	4544.96
2312458.00	14862012.00	4390.65
2312458.00	14862512.00	4388.20
2312458.00	14863012.00	4509.51
2312458.00	14863512.00	4716.88
2312958.00	14861512.00	4423.84
2312958.00	14862012.00	4391.90
2312958.00	14862512.00	4437.43
2312958.00	14863012.00	4641.37
2313458.00	14861012.00	4428.96
2313458.00	14861512.00	4391.60
2313458.00	14862012.00	4422.94
2313458.00	14862512.00	4536.01



## TOPO.DAT

2313958.00	14861012.00	4394.50
2313958.00	14861512.00	4394.50
2314458.00	14860512.00	4394.50
2314458.00	14861012.00	4394.50
2314958.00	14860012.00	4394.50
2314958.00	14860512.00	4394.50
2315458.00	14860012.00	4394.50
2315458.00	14859512.00	4384.30
2315958.00	14859512.00	4383.70
2315958.00	14859012.00	4381.20
2316458.00	14859012.00	4380.00
2316958.00	14859012.00	4384.70
2317458.00	14859012.00	4386.40
2317958.00	14859012.00	4384.00
2317958.00	14858512.00	4380.00
2318458.00	14858512.00	4377.70
2318458.00	14858012.00	4378.00
2318958.00	14858512.00	4376.50
2318958.00	14858012.00	4373.50

## **Attachment 6 – Test Case 2 Flow Comparison**



Untitled

```
# Data for the following station is contained in this file
# -----
#  USGS 10350000 TRUCKEE RV AT VISTA, NV
#
# This data file was retrieved from the USGS
# instantaneous data archive at
# http://ida.water.usgs.gov
#
# -----WARNING-----
# The instantaneous data you have obtained from
# this automated U.S. Geological Survey database
# may or may not have been the basis for the published
# daily mean discharges for this station. Although
# automated filtering has been used to compare these
# data to the published daily mean values and to remove
# obviously bad data, there may still be significant
# error in individual values. Users are strongly
# encouraged to review all data carefully prior to use.
# These data are released on the condition that neither
# the USGS nor the United States Government may be held
# liable for any damages resulting from its use.
#
# This file consists of tab-separated columns of the
# following fields.
#
# column          column definition
# -----
# site_no         USGS site identification number
# date_time       date and time in format (YYYYMMDDhhmmss)
# tz_cd           time zone
# dd              internal USGS sensor designation ('data descriptor')
# accuracy_cd     accuracy code
#                  0 - A daily mean discharge calculated from the instantaneous
#                  data on this day is 0.01 cubic feet per second
#                  or less and the published daily mean is zero.
#                  1 - A daily mean discharge calculated from the instantaneous
#                  data on this day matches the published daily mean
```

## Untitled

# within 1 percent.

# 2 - A daily mean discharge calculated from the instantaneous

# data on this day matches the published daily mean

# from greater than 1 to 5 percent.

# 3 - A daily mean discharge calculated from the instantaneous

# values on this day matches the published daily mean

# from greater than 5 to 10 percent.

# 9 - The instantaneous value is considered correct by the

# collecting USGS Water Science Center. A published daily

# mean value does not exist and/or no comparison was made.

# value discharge in cubic feet per second

# precision digits of precision in the discharge

# remark optional remark code

# Remark Explanation

# < Actual value is known to be less than reported value.

# > Actual value is known to be greater than reported value.

# & value is affected by unspecified reasons.

# A value is affected by ice at the measurement site.

# B value is affected by backwater at the measurement site.

# e value has been estimated by USGS personnel.

# E value was computed from an estimated value.

# F value was modified due to automated filtering.

# K value is affected by instrument calibration drift.

# R Rating is undefined for this value.

#

#

site_no	date_time	tz_cd	dd	accuracy_cd	value	precision
15N	14N	6S	2N	5S	16N	1S
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10350000	19961230010000	PST	1	1	5900	3
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10350000	19970105211500	PST	1	1	8500	3
10350000	19970105213000	PST	1	1	8520	3
10350000	19970105214500	PST	1	1	8500	3
10350000	19970105220000	PST	1	1	8500	3
10350000	19970105221500	PST	1	1	8490	3
10350000	19970105223000	PST	1	1	8490	3
10350000	19970105224500	PST	1	1	8460	3
10350000	19970105230000	PST	1	1	8470	3
10350000	19970105231500	PST	1	1	8460	3
10350000	19970105233000	PST	1	1	8460	3
10350000	19970105234500	PST	1	1	8460	3
10350000	19970106000000	PST	1	1	8450	3

	FLO-2D Pro (Cell 4969)		USGS 10350000 - Vista Gage	
Elapsed Time (hours)	Date Stamp	Flow (cfs)	Date Stamp	Flow (cfs)
0	12/30/96 0:00	0	12/30/96 12:00	4940
1	12/30/96 1:00	0	12/30/96 13:00	4930
2	12/30/96 2:00	0	12/30/96 14:00	4950
3	12/30/96 3:00	0	12/30/96 15:00	4950
4	12/30/96 4:00	0	12/30/96 16:00	4980
5	12/30/96 5:00	2928.71	12/30/96 17:00	5020
6	12/30/96 6:00	4411.69	12/30/96 18:00	5100
7	12/30/96 7:00	4925.69	12/30/96 19:00	5210
8	12/30/96 8:00	5073.81	12/30/96 20:00	5270
9	12/30/96 9:00	5035.59	12/30/96 21:00	5350
10	12/30/96 10:00	4902.11	12/30/96 22:00	5470
11	12/30/96 11:00	4834.55	12/30/96 23:00	5630
12	12/30/96 12:00	4790.88	12/31/96 0:00	5820
13	12/30/96 13:00	4693.97	12/31/96 1:00	6050
14	12/30/96 14:00	4577.13	12/31/96 2:00	6150
15	12/30/96 15:00	4518.1	12/31/96 3:00	6230
16	12/30/96 16:00	4493.77	12/31/96 4:00	6290
17	12/30/96 17:00	4481.3	12/31/96 5:00	6340
18	12/30/96 18:00	4473.11	12/31/96 6:00	6400
19	12/30/96 19:00	4480.39	12/31/96 7:00	6450
20	12/30/96 20:00	4559.04	12/31/96 8:00	6460
21	12/30/96 21:00	4685.85	12/31/96 9:00	6480
22	12/30/96 22:00	4808.21	12/31/96 10:00	6490
23	12/30/96 23:00	4864.78	12/31/96 11:00	6460
24	12/31/96 0:00	4913.68	12/31/96 12:00	6390
25	12/31/96 1:00	5031.76	12/31/96 13:00	6340
26	12/31/96 2:00	5276.23	12/31/96 14:00	6270
27	12/31/96 3:00	5549.94	12/31/96 15:00	6230
28	12/31/96 4:00	5776.55	12/31/96 16:00	6220
29	12/31/96 5:00	5875.38	12/31/96 17:00	6220
30	12/31/96 6:00	5947.37	12/31/96 18:00	6260
31	12/31/96 7:00	6043.97	12/31/96 19:00	6310
32	12/31/96 8:00	6093.48	12/31/96 20:00	6380
33	12/31/96 9:00	6147.29	12/31/96 21:00	6470
34	12/31/96 10:00	6236.43	12/31/96 22:00	6570
35	12/31/96 11:00	6279.26	12/31/96 23:00	6680
36	12/31/96 12:00	6226.4	1/1/97 0:00	6840

	FLO-2D Pro (Cell 4969)		USGS 10350000 - Vista Gage	
Elapsed Time (hours)	Date Stamp	Flow (cfs)	Date Stamp	Flow (cfs)
37	12/31/96 13:00	6167.52	1/1/97 1:00	7020
38	12/31/96 14:00	6132.98	1/1/97 2:00	7110
39	12/31/96 15:00	6065.8	1/1/97 3:00	7250
40	12/31/96 16:00	6023.8	1/1/97 4:00	7350
41	12/31/96 17:00	6005.56	1/1/97 5:00	7540
42	12/31/96 18:00	5996.73	1/1/97 6:00	7770
43	12/31/96 19:00	5988.3	1/1/97 7:00	8160
44	12/31/96 20:00	6016.88	1/1/97 8:00	8650
45	12/31/96 21:00	6080.3	1/1/97 9:00	9170
46	12/31/96 22:00	6143.43	1/1/97 10:00	9560
47	12/31/96 23:00	6263.21	1/1/97 11:00	9860
48	1/1/97 0:00	6410.92	1/1/97 12:00	10200
49	1/1/97 1:00	6573.63	1/1/97 13:00	10500
50	1/1/97 2:00	6733.47	1/1/97 14:00	10600
51	1/1/97 3:00	6899.4	1/1/97 15:00	10800
52	1/1/97 4:00	7105.78	1/1/97 16:00	10800
53	1/1/97 5:00	7317.59	1/1/97 17:00	10900
54	1/1/97 6:00	7444.05	1/1/97 18:00	11000
55	1/1/97 7:00	7691.43	1/1/97 19:00	11100
56	1/1/97 8:00	8233.17	1/1/97 20:00	11300
57	1/1/97 9:00	8892.35	1/1/97 21:00	11500
58	1/1/97 10:00	9736.69	1/1/97 22:00	11700
59	1/1/97 11:00	10548.9	1/1/97 23:00	12100
60	1/1/97 12:00	11105.95	1/2/97 0:00	12500
61	1/1/97 13:00	11483.27	1/2/97 1:00	13000
62	1/1/97 14:00	11737.91	1/2/97 2:00	13500
63	1/1/97 15:00	11867.71	1/2/97 3:00	13900
64	1/1/97 16:00	12002.78	1/2/97 4:00	14300
65	1/1/97 17:00	12159.23	1/2/97 5:00	14600
66	1/1/97 18:00	12312.42	1/2/97 6:00	15000
67	1/1/97 19:00	12425.56	1/2/97 7:00	15300
68	1/1/97 20:00	12508.49	1/2/97 8:00	15600
69	1/1/97 21:00	12410.63	1/2/97 9:00	16000
70	1/1/97 22:00	12725.11	1/2/97 10:00	16600
71	1/1/97 23:00	13095.81	1/2/97 11:00	16900
72	1/2/97 0:00	13459.13	1/2/97 12:00	17300
73	1/2/97 1:00	14165.73	1/2/97 13:00	17700

	FLO-2D Pro (Cell 4969)		USGS 10350000 - Vista Gage	
Elapsed Time (hours)	Date Stamp	Flow (cfs)	Date Stamp	Flow (cfs)
74	1/2/97 2:00	14412.66	1/2/97 14:00	17900
75	1/2/97 3:00	14680.69	1/2/97 15:00	18200
76	1/2/97 4:00	15046.62	1/2/97 16:00	18300
77	1/2/97 5:00	15316.32	1/2/97 17:00	18400
78	1/2/97 6:00	15561.99	1/2/97 18:00	18500
79	1/2/97 7:00	16100.41	1/2/97 19:00	18500
80	1/2/97 8:00	16586.08	1/2/97 20:00	18300
81	1/2/97 9:00	17187.66	1/2/97 21:00	18100
82	1/2/97 10:00	17782.66	1/2/97 22:00	18000
83	1/2/97 11:00	18506.41	1/2/97 23:00	17700
84	1/2/97 12:00	19177.06	1/3/97 0:00	17500
85	1/2/97 13:00	19583.9	1/3/97 1:00	17200
86	1/2/97 14:00	19760.57	1/3/97 2:00	16900
87	1/2/97 15:00	19805.12	1/3/97 3:00	16700
88	1/2/97 16:00	19834.44	1/3/97 4:00	16400
89	1/2/97 17:00	19696.05	1/3/97 5:00	16000
90	1/2/97 18:00	19507.73	1/3/97 6:00	15700
91	1/2/97 19:00	19369.44	1/3/97 7:00	15400
92	1/2/97 20:00	19400.57	1/3/97 8:00	15000
93	1/2/97 21:00	19487.69	1/3/97 9:00	14700
94	1/2/97 22:00	19541.14	1/3/97 10:00	14400
95	1/2/97 23:00	19562.33	1/3/97 11:00	14000
96	1/3/97 0:00	19535.11	1/3/97 12:00	13700
97	1/3/97 1:00	19547	1/3/97 13:00	13300
98	1/3/97 2:00	19517.16	1/3/97 14:00	13000
99	1/3/97 3:00	19353.04	1/3/97 15:00	12600
100	1/3/97 4:00	19029.58	1/3/97 16:00	12200
101	1/3/97 5:00	18627.49	1/3/97 17:00	11900
102	1/3/97 6:00	18078.39	1/3/97 18:00	11700
103	1/3/97 7:00	17405.16	1/3/97 19:00	11500
104	1/3/97 8:00	16581.93	1/3/97 20:00	11200
105	1/3/97 9:00	15574.85	1/3/97 21:00	11000
106	1/3/97 10:00	14781.88	1/3/97 22:00	10800
107	1/3/97 11:00	14285.91	1/3/97 23:00	10700
108	1/3/97 12:00	13976.93	1/4/97 0:00	10600
109	1/3/97 13:00	13397.12	1/4/97 1:00	10400
110	1/3/97 14:00	12958.78	1/4/97 2:00	10400



	FLO-2D Pro (Cell 4969)		USGS 10350000 - Vista Gage	
Elapsed Time (hours)	Date Stamp	Flow (cfs)	Date Stamp	Flow (cfs)
111	1/3/97 15:00	12530.64	1/4/97 3:00	10200
112	1/3/97 16:00	12210.69	1/4/97 4:00	10000
113	1/3/97 17:00	11965.41	1/4/97 5:00	9920
114	1/3/97 18:00	11670.82	1/4/97 6:00	9830
115	1/3/97 19:00	11369.27	1/4/97 7:00	9710
116	1/3/97 20:00	11258.27	1/4/97 8:00	9610
117	1/3/97 21:00	11174.73	1/4/97 9:00	9510
118	1/3/97 22:00	10986.8	1/4/97 10:00	9450
119	1/3/97 23:00	10845.36	1/4/97 11:00	9380
120	1/4/97 0:00	10772.89	1/4/97 12:00	9440
121	1/4/97 1:00	10748.86	1/4/97 13:00	9460
122	1/4/97 2:00	10686.49	1/4/97 14:00	9410
123	1/4/97 3:00	10542.51	1/4/97 15:00	9380
124	1/4/97 4:00	10396.8	1/4/97 16:00	9360
125	1/4/97 5:00	10284.93	1/4/97 17:00	9300
126	1/4/97 6:00	10148.87	1/4/97 18:00	9260
127	1/4/97 7:00	10070.74	1/4/97 19:00	9200
128	1/4/97 8:00	9976.16	1/4/97 20:00	9140
129	1/4/97 9:00	9852.05	1/4/97 21:00	9080
130	1/4/97 10:00	9778.94		
131	1/4/97 11:00	9682.43		
132	1/4/97 12:00	9562.1		
133	1/4/97 13:00	9573.57		
134	1/4/97 14:00	9661.55		
135	1/4/97 15:00	9652.67		
136	1/4/97 16:00	9621.23		
137	1/4/97 17:00	9588.06		
138	1/4/97 18:00	9556.19		
139	1/4/97 19:00	9526.53		
140	1/4/97 20:00	9500.98		
141	1/4/97 21:00	9433.8		
142	1/4/97 22:00	9338.31		
143	1/4/97 23:00	9298.21		
144	1/5/97 0:00	9272.99		
145	1/5/97 1:00	9243.21		
146	1/5/97 2:00	9181.59		
147	1/5/97 3:00	9090.63		

	FLO-2D Pro (Cell 4969)		USGS 10350000 - Vista Gage	
Elapsed Time (hours)	Date Stamp	Flow (cfs)	Date Stamp	Flow (cfs)
148	1/5/97 4:00	9041.99		
149	1/5/97 5:00	9019.54		
150	1/5/97 6:00	8988.92		
151	1/5/97 7:00	8969.3		
152	1/5/97 8:00	8917.64		
153	1/5/97 9:00	8841.85		
154	1/5/97 10:00	8782.95		
155	1/5/97 11:00	8748.01		
156	1/5/97 12:00	8688.29		
157	1/5/97 13:00	8668.04		
158	1/5/97 14:00	8772.68		
159	1/5/97 15:00	8802.26		
160	1/5/97 16:00	8800.12		
161	1/5/97 17:00	8797.71		
162	1/5/97 18:00	8786.76		
163	1/5/97 19:00	8784.42		
164	1/5/97 20:00	8773.1		
165	1/5/97 21:00	8770.88		
166	1/5/97 22:00	8727.05		
167	1/5/97 23:00	8645.36		
168	1/6/97 0:00	8615.93		
169	1/6/97 1:00	8600.79		
170	1/6/97 2:00	8591.34		
171	1/6/97 3:00	8586.57		
172	1/6/97 4:00	8576.07		
173	1/6/97 5:00	8570.79		
174	1/6/97 6:00	8527.2		
175	1/6/97 7:00	8446.18		
176	1/6/97 8:00	8413.84		
177	1/6/97 9:00	8397.88		
178	1/6/97 10:00	8386.24		
179	1/6/97 11:00	8378.52		
180	1/6/97 12:00	8371.64		
181	1/6/97 13:00	8440.71		
182	1/6/97 14:00	8588.03		
183	1/6/97 15:00	8673.31		
184	1/6/97 16:00	8758.25		

	FLO-2D Pro (Cell 4969)		USGS 10350000 - Vista Gage	
Elapsed Time (hours)	Date Stamp	Flow (cfs)	Date Stamp	Flow (cfs)
185	1/6/97 17:00	8792.97		
186	1/6/97 18:00	8803.71		
187	1/6/97 19:00	8812.16		
188	1/6/97 20:00	8817.94		
189	1/6/97 21:00	8816.5		
190	1/6/97 22:00	8820.41		
191	1/6/97 23:00	8817.53		
192	1/7/97 0:00	8781.38		
193	1/7/97 1:00	8701.37		
194	1/7/97 2:00	8676.27		
195	1/7/97 3:00	8662.13		
196	1/7/97 4:00	8657.17		
197	1/7/97 5:00	8651.13		
198	1/7/97 6:00	8648.8		
199	1/7/97 7:00	8641.84		

**Attachment 7 – Test Case 2 FLO2D Pro  
“HYCHAN.DAT” Output File for Grid Element 4969**

## HYCHAN.OUT

## OUTFLOW HYDROGRAPHS FOR SELECTED CHANNEL ELEMENTS

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3

MAXIMUM DISCHARGE (CFS) = 20799.28 AT TIME = 79.02  
 MAXIMUM STAGE = 4678.66 AT TIME = 79.02

AREA (FT^2)	TIME (HRS)	ELEV. SURFACE (FT)	THALWEG HYDRAULIC DEPTH (FT)	DEPTH RADIUS (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FRUDE NO. ENERGY	NO. SLOPE	FLOW
0.00	0.00	4664.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
542.07	1.00	4669.15	4.55	4.07	3.60	1953.45	0.30	0.003032	
		133.29				132.06	29.05		
	0.76940	79234.89							
917.89	2.00	4672.80	8.20	5.15	6.02	5527.10	0.37	0.002991	
		178.07				175.91	21.45		
	0.96207	105544.11							
910.94	3.00	4672.76	8.16	5.13	5.99	5458.98	0.37	0.002968	
		177.58				175.43	21.51		
	0.94991	105258.64							
901.91	4.00	4672.70	8.10	5.09	5.96	5378.06	0.37	0.002968	
		177.02				174.88	21.58		
	0.94370	104927.94							
894.13	5.00	4672.65	8.05	5.07	5.93	5306.63	0.37	0.002945	
		176.50				174.37	21.65		
	0.93086	104624.42							
877.21	6.00	4672.55	7.95	5.00	5.88	5155.01	0.37	0.002921	
		175.40				173.30	21.79		
	0.91167	103979.15							
860.02	7.00	4672.45	7.85	4.93	5.82	5002.79	0.37	0.002899	
		174.27				172.19	21.94		
	0.89269	103316.50							
842.78	8.00	4672.34	7.74	4.87	5.76	4851.29	0.36	0.002875	
		173.12				171.07	22.09		
	0.87340	102641.34							
833.50	9.00	4672.29	7.69	4.83	5.73	4772.06	0.36	0.002877	
		172.52				170.48	22.17		
	0.86722	102287.20							
825.26	10.00	4672.24	7.64	4.80	5.69	4699.61	0.36	0.002852	
		171.94				169.91	22.25		
	0.85403	101948.88							
807.66	11.00	4672.13	7.53	4.73	5.63	4548.53	0.36	0.002828	
		170.74				168.74	22.41		
	0.83470	101241.41							
798.17	12.00	4672.07	7.47	4.69	5.60	4469.07	0.36	0.002831	
		170.10				168.11	22.50		
	0.82882	100867.98							
798.15	13.00	4672.07	7.47	4.69	5.60	4469.00	0.36	0.002830	
		170.10				168.11	22.50		
	0.82849	100867.73							
798.15	14.00	4672.07	7.47	4.69	5.60	4469.00	0.36	0.002829	
		170.10				168.11	22.50		
	0.82845	100867.73							
	15.00	4672.07	7.47		5.60	4469.00	0.36		

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		HYCHAN.OUT					
798.15	170.10	4.69	168.11	22.50	0.002830		
0.82868	100867.73						
16.00	4672.07	7.47	5.60	4469.00	0.36		
798.15	170.10	4.69	168.11	22.50	0.002830		
0.82873	100867.73						
17.00	4672.12	7.52	5.63	4541.83	0.36		
806.59	170.70	4.73	168.70	22.42	0.002855		
0.84190	101220.34						
18.00	4672.23	7.63	5.69	4693.25	0.36		
824.24	171.91	4.79	169.88	22.25	0.002878		
0.86101	101929.67						
19.00	4672.34	7.74	5.76	4844.56	0.36		
841.70	173.09	4.86	171.03	22.10	0.002901		
0.88028	102620.98						
20.00	4672.40	7.80	5.79	4923.93	0.37		
850.89	173.69	4.90	171.62	22.02	0.002900		
0.88648	102972.52						
21.00	4672.40	7.80	5.79	4924.00	0.37		
850.90	173.69	4.90	171.62	22.02	0.002900		
0.88649	102972.75						
22.00	4672.45	7.85	5.82	4996.16	0.37		
859.00	174.24	4.93	172.16	21.94	0.002925		
0.89993	103296.90						
23.00	4672.60	8.00	5.90	5220.40	0.37		
884.17	175.90	5.03	173.79	21.73	0.002971		
0.93179	104271.59						
24.00	4672.80	8.20	6.02	5524.04	0.37		
917.82	178.06	5.15	175.89	21.45	0.003015		
0.96980	105536.59						
25.00	4673.00	8.39	6.13	5827.56	0.37		
950.86	180.12	5.28	177.91	21.19	0.003059		
1.00761	106748.36						
26.00	4673.09	8.49	6.18	5984.89	0.37		
967.96	181.15	5.34	178.92	21.07	0.003056		
1.01893	107351.15						
27.00	4673.09	8.49	6.18	5985.00	0.37		
968.00	181.15	5.34	178.92	21.07	0.003056		
1.01891	107351.50						
28.00	4673.14	8.54	6.21	6064.93	0.37		
976.39	181.68	5.37	179.43	21.00	0.003082		
1.03364	107659.91						
29.00	4673.20	8.60	6.24	6151.93	0.38		
985.75	182.23	5.41	179.97	20.94	0.003080		
1.03955	107984.38						
30.00	4673.20	8.60	6.24	6152.00	0.38		
985.76	182.23	5.41	179.97	20.94	0.003081		
1.03990	107984.56						
31.00	4673.25	8.65	6.27	6235.62	0.38		
994.48	182.77	5.44	180.50	20.87	0.003107		
1.05475	108300.56						
32.00	4673.30	8.70	6.30	6325.94	0.38		
1004.10	183.33	5.48	181.05	20.80	0.003105		
1.06115	108630.30						
33.00	4673.30	8.70	6.30	6326.00	0.38		
1004.12	183.33	5.48	181.05	20.80	0.003104		
1.06092	108630.49						
34.00	4673.25	8.65	6.27	6242.43	0.38		
995.47	182.80	5.45	180.53	20.87	0.003079		
1.04621	108317.46						
35.00	4673.20	8.60	6.24	6152.06	0.38		
985.77	182.23	5.41	179.97	20.94	0.003081		
1.03992	107984.77						
36.00	4673.15	8.55	6.21	6071.85	0.37		

		HYCHAN.OUT					
977.38	181.71	5.38	179.46	21.00	0.003055		
1.02544	107677.83						
37.00	4673.09	8.49	6.18	5985.06	0.37		
968.00	181.15	5.34	178.92	21.07	0.003056		
1.01892	107351.63						
38.00	4673.09	8.49	6.18	5985.00	0.37		
967.99	181.15	5.34	178.92	21.07	0.003056		
1.01897	107351.50						
39.00	4673.09	8.49	6.18	5985.00	0.37		
967.98	181.15	5.34	178.92	21.07	0.003056		
1.01895	107351.46						
40.00	4673.09	8.49	6.18	5985.00	0.37		
967.99	181.15	5.34	178.92	21.07	0.003057		
1.01933	107351.48						
41.00	4673.09	8.49	6.18	5985.00	0.37		
967.98	181.15	5.34	178.92	21.07	0.003056		
1.01903	107351.46						
42.00	4673.14	8.54	6.21	6065.30	0.37		
976.43	181.68	5.37	179.44	21.00	0.003082		
1.03369	107661.30						
43.00	4673.20	8.60	6.24	6151.94	0.38		
985.74	182.23	5.41	179.97	20.94	0.003081		
1.03990	107984.38						
44.00	4673.25	8.65	6.27	6235.54	0.38		
994.48	182.77	5.44	180.50	20.87	0.003106		
1.05444	108300.27						
45.00	4673.35	8.75	6.33	6409.46	0.38		
1012.73	183.86	5.51	181.57	20.74	0.003130		
1.07590	108939.14						
46.00	4673.46	8.86	6.39	6583.16	0.38		
1030.83	184.92	5.57	182.61	20.62	0.003155		
1.09728	109564.05						
47.00	4673.56	8.96	6.44	6756.71	0.38		
1048.71	185.97	5.64	183.63	20.50	0.003178		
1.11826	110175.73						
48.00	4673.66	9.06	6.50	6930.69	0.38		
1066.50	186.99	5.70	184.63	20.38	0.003201		
1.13933	110776.93						
49.00	4673.76	9.16	6.55	7104.71	0.38		
1084.18	188.00	5.77	185.61	20.26	0.003225		
1.16071	111366.86						
50.00	4673.90	9.30	6.63	7362.45	0.38		
1109.97	189.46	5.86	187.04	20.10	0.003272		
1.19618	112222.95						
51.00	4674.00	9.40	6.69	7542.88	0.38		
1128.21	190.45	5.92	188.00	19.99	0.003270		
1.20882	112801.66						
52.00	4674.05	9.45	6.71	7626.57	0.38		
1136.37	190.91	5.95	188.45	19.94	0.003294		
1.22359	113071.70						
53.00	4674.24	9.64	6.82	7983.16	0.39		
1171.10	192.81	6.07	190.32	19.73	0.003368		
1.27656	114190.23						
54.00	4674.60	10.00	7.01	8656.57	0.39		
1235.64	196.24	6.30	193.66	19.37	0.003469		
1.36288	116195.21						
55.00	4675.03	10.43	7.25	9562.04	0.40		
1318.11	200.37	6.58	197.70	18.96	0.003506		
1.43929	118617.32						
56.00	4675.20	10.60	7.87	10866.56	0.43		
1381.23	201.90	6.84	199.26	18.80	0.003301		
1.40930	119555.70						
57.00	4675.40	10.80	8.46	12240.90	0.45		

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				HYCHAN.OUT			
1447.71		202.31		7.16	201.13	18.61	0.003341
	1.49163	120676.38					
58.00		4675.81	11.21	8.72	13340.17	0.46	
1530.34		203.12		7.53	204.74	18.27	0.003409
	1.60258	122841.95					
59.00		4676.26	11.66	8.99	14527.14	0.46	
1616.29		204.02		7.92	208.68	17.90	0.003569
	1.76431	125208.72					
60.00		4676.67	12.07	9.23	15580.93	0.47	
1687.25		204.85		8.24	212.29	17.58	0.003645
	1.87359	127372.74					
61.00		4676.97	12.37	9.41	16322.22	0.47	
1734.64		205.44		8.44	214.79	17.37	0.003751
	1.97635	128872.78					
62.00		4677.20	12.60	9.55	16914.73	0.47	
1772.10		205.90		8.61	216.73	17.20	0.003786
	2.03311	130038.45					
63.00		4677.43	12.83	9.68	17495.17	0.48	
1807.94		206.36		8.76	218.61	17.04	0.003891
	2.12710	131165.17					
64.00		4677.66	13.06	9.81	18109.95	0.48	
1846.42		206.83		8.93	220.56	16.88	0.003924
	2.18575	132336.03					
65.00		4677.73	13.13	9.84	18281.10	0.48	
1857.79		206.96		8.98	221.10	16.84	0.003923
	2.19749	132662.56					
66.00		4677.73	13.13	9.84	18281.29	0.48	
1857.80		206.96		8.98	221.10	16.84	0.003924
	2.19773	132662.73					
67.00		4677.73	13.13	9.84	18281.28	0.48	
1857.80		206.96		8.98	221.10	16.84	0.003924
	2.19804	132662.72					
68.00		4677.73	13.13	9.84	18281.33	0.48	
1857.81		206.96		8.98	221.10	16.84	0.003924
	2.19822	132662.66					
69.00		4677.73	13.13	9.84	18281.47	0.48	
1857.82		206.96		8.98	221.11	16.84	0.003924
	2.19805	132663.44					
70.00		4677.73	13.13	9.84	18281.58	0.48	
1857.84		206.96		8.98	221.11	16.84	0.003923
	2.19738	132663.61					
71.00		4677.73	13.13	9.84	18281.50	0.48	
1857.84		206.96		8.98	221.11	16.84	0.003924
	2.19785	132663.53					
72.00		4677.79	13.19	9.87	18438.62	0.48	
1868.38		207.09		9.02	221.64	16.80	0.003961
	2.23006	132983.86					
73.00		4677.86	13.26	9.90	18609.43	0.48	
1879.79		207.23		9.07	222.20	16.75	0.003961
	2.24223	133317.92					
74.00		4677.86	13.26	9.90	18609.89	0.48	
1879.83		207.23		9.07	222.20	16.75	0.003965
	2.24413	133318.36					
75.00		4677.93	13.33	9.93	18763.91	0.48	
1890.40		207.36		9.12	222.75	16.71	0.004008
	2.28012	133648.25					
76.00		4678.13	13.53	10.01	19240.33	0.48	
1921.26		207.76		9.25	224.34	16.58	0.004078
	2.35330	134603.06					
77.00		4678.31	13.71	10.11	19715.44	0.48	
1950.79		208.12		9.37	225.81	16.47	0.004106
	2.40147	135486.05					
78.00		4678.43	13.83	10.16	20028.14	0.48	

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				HYCHAN.OUT			
1970.60		208.37		9.46	226.77	16.40	0.004132
	2.43863	136062.89					
	79.00	4678.61	14.01	10.25	20488.75	0.48	
1999.42		208.72		9.58	228.18	16.29	0.004188
	2.50325	136906.58					
	80.00	4678.67	14.07	10.27	20653.99	0.48	
2010.85		208.85		9.63	228.68	16.25	0.004155
	2.49652	137207.38					
	81.00	4678.55	13.95	10.22	20345.95	0.48	
1991.67		208.61		9.55	227.75	16.32	0.004126
	2.45795	136647.27					
	82.00	4678.49	13.89	10.19	20186.54	0.48	
1981.41		208.49		9.50	227.26	16.36	0.004128
	2.44778	136357.27					
	83.00	4678.49	13.89	10.19	20185.98	0.48	
1981.33		208.49		9.50	227.26	16.36	0.004129
	2.44852	136356.53					
	84.00	4678.49	13.89	10.19	20186.01	0.48	
1981.34		208.49		9.50	227.26	16.36	0.004128
	2.44805	136356.59					
	85.00	4678.38	13.78	10.13	19884.48	0.48	
1962.94		208.26		9.43	226.33	16.43	0.004069
	2.39343	135800.80					
	86.00	4678.07	13.47	9.99	19112.49	0.48	
1914.08		207.65		9.22	223.89	16.62	0.003959
	2.27732	134332.22					
	87.00	4677.68	13.08	9.81	18156.66	0.48	
1850.72		206.86		8.95	220.70	16.87	0.003849
	2.14894	132421.16					
	88.00	4677.21	12.61	9.55	16951.46	0.47	
1775.92		205.93		8.62	216.83	17.19	0.003673
	1.97632	130096.23					
	89.00	4676.76	12.16	9.28	15797.99	0.47	
1702.50		205.02		8.30	213.01	17.52	0.003577
	1.85325	127806.34					
	90.00	4676.44	11.84	9.09	14997.11	0.47	
1649.83		204.38		8.07	210.28	17.76	0.003483
	1.75438	126165.96					
	91.00	4676.08	11.48	8.88	14085.08	0.46	
1586.85		203.66		7.79	207.13	18.04	0.003376
	1.64159	124278.77					
	92.00	4675.75	11.15	8.67	13183.66	0.46	
1519.98		203.00		7.49	204.21	18.32	0.003325
	1.55363	122526.77					
	93.00	4675.48	10.88	8.50	12452.50	0.45	
1464.28		202.46		7.23	201.80	18.55	0.003269
	1.47538	121079.30					
	94.00	4675.26	10.66	8.35	11854.36	0.45	
1419.31		202.03		7.03	199.84	18.74	0.003221
	1.41194	119903.36					
	95.00	4675.21	10.61	8.11	11341.66	0.44	
1398.78		201.93		6.93	199.39	18.79	0.003354
	1.44964	119633.23					
	96.00	4675.20	10.60	7.88	10890.19	0.43	
1382.76		201.90		6.85	199.24	18.80	0.003454
	1.47619	119546.45					
	97.00	4675.19	10.59	7.67	10500.33	0.42	
1369.29		201.87		6.78	199.16	18.81	0.003445
	1.45837	119494.62					
	98.00	4675.18	10.58	7.49	10172.61	0.41	
1357.69		201.80		6.73	199.09	18.82	0.003483
	1.46213	119456.56					
	99.00	4675.16	10.56	7.34	9872.15	0.40	

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				HYCHAN.OUT			
1344.74		201.56		6.67	198.86	18.84	0.003536
	1.47201	119313.42					
100.00		4675.03	10.43	7.23	9525.87	0.39	
1317.54		200.34		6.58	197.67	18.96	0.003501
	1.43672	118599.20					
101.00		4674.88	10.28	7.15	9226.00	0.39	
1289.73		198.95		6.48	196.31	19.10	0.003463
	1.40071	117784.57					
102.00		4674.75	10.15	7.09	8974.14	0.39	
1266.14		197.76		6.40	195.14	19.22	0.003440
	1.37436	117086.74					
103.00		4674.65	10.05	7.03	8773.86	0.39	
1247.28		196.79		6.34	194.20	19.32	0.003414
	1.35044	116519.54					
104.00		4674.50	9.90	6.95	8477.66	0.39	
1219.35		195.32		6.24	192.76	19.47	0.003362
	1.30983	115658.07					
105.00		4674.35	9.75	6.87	8184.28	0.39	
1191.02		193.84		6.14	191.32	19.63	0.003341
	1.28113	114790.77					
106.00		4674.25	9.65	6.82	8007.63	0.39	
1173.84		192.92		6.08	190.42	19.72	0.003319
	1.26005	114254.01					
107.00		4674.16	9.56	6.77	7833.64	0.39	
1156.91		192.01		6.03	189.53	19.82	0.003296
	1.23916	113716.60					
108.00		4674.11	9.51	6.75	7743.06	0.39	
1147.95		191.53		5.99	189.06	19.87	0.003297
	1.23298	113436.88					
109.00		4674.16	9.56	6.77	7826.73	0.39	
1156.04		191.98		6.02	189.50	19.82	0.003320
	1.24736	113701.73					
110.00		4674.30	9.70	6.85	8086.91	0.39	
1181.23		193.35		6.11	190.84	19.68	0.003367
	1.28367	114504.85					
111.00		4674.35	9.75	6.87	8183.69	0.39	
1190.93		193.84		6.14	191.32	19.63	0.003340
	1.28062	114789.04					
112.00		4674.25	9.65	6.82	8007.50	0.39	
1173.83		192.92		6.08	190.42	19.72	0.003318
	1.25974	114253.65					
113.00		4674.30	9.70	6.85	8086.57	0.39	
1181.21		193.35		6.11	190.84	19.68	0.003366
	1.28335	114503.76					
114.00		4674.50	9.90	6.95	8462.78	0.39	
1217.37		195.27		6.23	192.71	19.48	0.003417
	1.32919	115628.06					
115.00		4674.55	9.95	6.98	8573.31	0.39	
1228.31		195.80		6.27	193.24	19.42	0.003390
	1.32681	115941.80					
116.00		4674.50	9.90	6.95	8470.06	0.39	
1218.33		195.29		6.24	192.74	19.47	0.003390
	1.31949	115643.92					
117.00		4674.50	9.90	6.95	8470.00	0.39	
1218.32		195.29		6.24	192.74	19.47	0.003391
	1.31991	115643.74					
118.00		4674.55	9.95	6.98	8566.48	0.39	
1227.39		195.78		6.27	193.21	19.42	0.003417
	1.33662	115928.58					
119.00		4674.60	10.00	7.01	8669.94	0.39	
1237.37		196.29		6.30	193.71	19.37	0.003415
	1.34350	116225.39					
120.00		4674.60	10.00	7.01	8670.00	0.39	

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		HYCHAN.OUT				
1237.39	196.29	6.30	193.71	19.37	0.003415	
1.34352	116225.55					
121.00	4674.55	9.95	6.98	8573.59	0.39	
1228.35	195.80	6.27	193.24	19.42	0.003388	
1.32630	115942.60					
122.00	4674.50	9.90	6.95	8470.06	0.39	
1218.33	195.29	6.24	192.74	19.47	0.003390	
1.31980	115643.92					
123.00	4674.45	9.85	6.92	8373.71	0.39	
1209.25	194.80	6.21	192.26	19.52	0.003363	
1.30258	115356.12					
124.00	4674.39	9.79	6.90	8270.06	0.39	
1199.16	194.28	6.17	191.75	19.58	0.003365	
1.29614	115051.73					
125.00	4674.39	9.79	6.90	8270.00	0.39	
1199.15	194.28	6.17	191.75	19.58	0.003365	
1.29596	115051.56					
126.00	4674.35	9.75	6.87	8184.11	0.39	
1190.99	193.84	6.14	191.32	19.63	0.003341	
1.28078	114790.27					
127.00	4674.30	9.70	6.85	8091.06	0.39	
1181.79	193.36	6.11	190.85	19.68	0.003343	
1.27478	114512.08					
128.00	4674.30	9.70	6.85	8091.00	0.39	
1181.78	193.36	6.11	190.85	19.68	0.003342	
1.27443	114511.88					
129.00	4674.25	9.65	6.82	8007.43	0.39	
1173.82	192.92	6.08	190.42	19.72	0.003319	
1.26005	114253.44					
130.00	4674.21	9.61	6.80	7917.06	0.39	
1164.94	192.45	6.05	189.96	19.77	0.003320	
1.25388	113978.82					
131.00	4674.30	9.70	6.85	8087.10	0.39	
1181.26	193.35	6.11	190.84	19.68	0.003368	
1.28379	114505.42					
132.00	4674.39	9.79	6.90	8269.89	0.39	
1199.12	194.28	6.17	191.75	19.58	0.003365	
1.29593	115051.26					
133.00	4674.39	9.79	6.90	8270.00	0.39	
1199.15	194.28	6.17	191.75	19.58	0.003365	
1.29604	115051.57					
134.00	4674.39	9.79	6.90	8270.00	0.39	
1199.15	194.28	6.17	191.75	19.58	0.003364	
1.29572	115051.57					
135.00	4674.39	9.79	6.90	8270.00	0.39	
1199.15	194.28	6.17	191.75	19.58	0.003364	
1.29560	115051.56					
136.00	4674.39	9.79	6.90	8270.00	0.39	
1199.15	194.28	6.17	191.75	19.58	0.003364	
1.29564	115051.56					
137.00	4674.39	9.79	6.90	8270.00	0.39	
1199.15	194.28	6.17	191.75	19.58	0.003365	
1.29616	115051.57					
138.00	4674.39	9.79	6.90	8270.00	0.39	
1199.15	194.28	6.17	191.75	19.58	0.003365	
1.29595	115051.55					
139.00	4674.35	9.75	6.87	8184.01	0.39	
1190.98	193.84	6.14	191.32	19.63	0.003341	
1.28110	114790.01					
140.00	4674.30	9.70	6.85	8091.06	0.39	
1181.79	193.36	6.11	190.85	19.68	0.003342	
1.27445	114512.08					
141.00	4674.30	9.70	6.85	8091.00	0.39	

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				HYCHAN.OUT			
1181.78		193.36		6.11	190.85	19.68	0.003342
	1.27443	114511.88					
142.00		4674.30	9.70	6.85	8091.00	0.39	
1181.78		193.36		6.11	190.85	19.68	0.003342
	1.27443	114511.88					
143.00		4674.30	9.70	6.85	8091.00	0.39	
1181.78		193.36		6.11	190.85	19.68	0.003342
	1.27443	114511.88					
144.00		4674.25	9.65	6.82	8007.34	0.39	
1173.81		192.92		6.08	190.42	19.72	0.003319
	1.26002	114253.16					
145.00		4674.21	9.61	6.80	7917.06	0.39	
1164.94		192.45		6.05	189.96	19.77	0.003320
	1.25389	113978.83					
146.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003320
	1.25387	113978.67					
147.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003319
	1.25354	113978.67					
148.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003320
	1.25385	113978.67					
149.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003320
	1.25386	113978.67					
150.00		4674.18	9.58	6.78	7861.23	0.39	
1159.56		192.16		6.03	189.67	19.81	0.003303
	1.24369	113803.70					
151.00		4674.13	9.53	6.75	7773.21	0.39	
1150.93		191.69		6.00	189.22	19.86	0.003296
	1.23474	113530.29					
152.00		4674.11	9.51	6.75	7743.02	0.39	
1147.94		191.53		5.99	189.06	19.87	0.003297
	1.23298	113436.77					
153.00		4674.11	9.51	6.75	7743.00	0.39	
1147.94		191.53		5.99	189.06	19.87	0.003297
	1.23298	113436.73					
154.00		4674.07	9.47	6.72	7659.36	0.39	
1139.82		191.07		5.97	188.62	19.92	0.003273
	1.21831	113169.07					
155.00		4674.11	9.51	6.74	7736.19	0.39	
1147.07		191.50		5.99	189.03	19.88	0.003321
	1.24113	113420.73					
156.00		4674.21	9.61	6.80	7916.89	0.39	
1164.90		192.45		6.05	189.96	19.77	0.003319
	1.25353	113978.38					
157.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003319
	1.25355	113978.67					
158.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003320
	1.25387	113978.67					
159.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003319
	1.25354	113978.67					
160.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003319
	1.25354	113978.67					
161.00		4674.21	9.61	6.80	7917.00	0.39	
1164.92		192.45		6.05	189.96	19.77	0.003320
	1.25387	113978.67					
162.00		4674.21	9.61	6.80	7917.00	0.39	

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		HYCHAN.OUT					
1164.92	192.45	6.05	189.96	19.77	0.003320		
1.25388	113978.67						
163.00	4674.21	9.61	6.80	7917.00	0.39		
1164.92	192.45	6.05	189.96	19.77	0.003319		
1.25355	113978.67						
164.00	4674.16	9.56	6.77	7833.39	0.39		
1156.88	192.01	6.03	189.53	19.82	0.003296		
1.23912	113715.84						
165.00	4674.11	9.51	6.75	7743.06	0.39		
1147.95	191.53	5.99	189.06	19.87	0.003297		
1.23299	113436.88						
166.00	4674.11	9.51	6.75	7743.00	0.39		
1147.94	191.53	5.99	189.06	19.87	0.003296		
1.23268	113436.73						
167.00	4674.11	9.51	6.75	7743.00	0.39		
1147.94	191.53	5.99	189.06	19.87	0.003297		
1.23296	113436.73						
168.00	4674.11	9.51	6.75	7743.00	0.39		
1147.94	191.53	5.99	189.06	19.87	0.003296		
1.23267	113436.73						
169.00	4674.11	9.51	6.75	7743.00	0.39		
1147.94	191.53	5.99	189.06	19.87	0.003297		
1.23296	113436.73						
170.00	4674.11	9.51	6.75	7743.00	0.39		
1147.94	191.53	5.99	189.06	19.87	0.003296		
1.23266	113436.73						
171.00	4674.11	9.51	6.75	7743.00	0.39		
1147.94	191.53	5.99	189.06	19.87	0.003297		
1.23297	113436.73						
172.00	4674.07	9.47	6.72	7659.30	0.39		
1139.81	191.07	5.97	188.61	19.92	0.003272		
1.21789	113168.87						
173.00	4674.02	9.42	6.69	7569.06	0.38		
1130.83	190.59	5.93	188.14	19.98	0.003274		
1.21210	112885.16						
174.00	4674.02	9.42	6.69	7569.00	0.38		
1130.82	190.59	5.93	188.14	19.98	0.003273		
1.21181	112884.99						
175.00	4674.02	9.42	6.69	7569.00	0.38		
1130.82	190.59	5.93	188.14	19.98	0.003273		
1.21181	112884.99						
176.00	4674.02	9.42	6.69	7569.00	0.38		
1130.82	190.59	5.93	188.14	19.98	0.003274		
1.21209	112884.99						
177.00	4674.02	9.42	6.69	7569.00	0.38		
1130.82	190.59	5.93	188.14	19.98	0.003274		
1.21210	112884.99						
178.00	4674.02	9.42	6.69	7569.00	0.38		
1130.82	190.59	5.93	188.14	19.98	0.003273		
1.21180	112884.99						
179.00	4674.11	9.51	6.74	7736.45	0.39		
1147.09	191.50	5.99	189.04	19.88	0.003321		
1.24114	113421.59						
180.00	4674.21	9.61	6.80	7916.89	0.39		
1164.90	192.45	6.05	189.96	19.77	0.003319		
1.25352	113978.38						
181.00	4674.25	9.65	6.82	8000.74	0.39		
1172.96	192.90	6.08	190.40	19.73	0.003342		
1.26825	114239.34						
182.00	4674.30	9.70	6.85	8090.95	0.39		
1181.76	193.36	6.11	190.85	19.68	0.003343		
1.27476	114511.74						
183.00	4674.30	9.70	6.85	8091.00	0.39		

HYCHAN.OUT									
1181.78		193.36		6.11		190.85		19.68	0.003343
	1.27477	114511.88							
184.00		4674.30	9.70		6.85	8091.00		0.39	
1181.78		193.36		6.11		190.85		19.68	0.003342
	1.27443	114511.88							
185.00		4674.30	9.70		6.85	8091.00		0.39	
1181.78		193.36		6.11		190.85		19.68	0.003342
	1.27443	114511.88							
186.00		4674.30	9.70		6.85	8091.00		0.39	
1181.78		193.36		6.11		190.85		19.68	0.003342
	1.27443	114511.88							
187.00		4674.30	9.70		6.85	8091.00		0.39	
1181.78		193.36		6.11		190.85		19.68	0.003342
	1.27443	114511.88							
188.00		4674.30	9.70		6.85	8091.00		0.39	
1181.78		193.36		6.11		190.85		19.68	0.003343
	1.27477	114511.88							
189.00		4674.30	9.70		6.85	8091.00		0.39	
1181.78		193.36		6.11		190.85		19.68	0.003343
	1.27477	114511.88							
190.00		4674.25	9.65		6.82	8007.29		0.39	
1173.80		192.92		6.08		190.42		19.72	0.003318
	1.25973	114252.99							
191.00		4674.21	9.61		6.80	7917.06		0.39	
1164.94		192.45		6.05		189.96		19.77	0.003319
	1.25356	113978.82							
192.00		4674.21	9.61		6.80	7917.00		0.39	
1164.92		192.45		6.05		189.96		19.77	0.003320
	1.25385	113978.67							
193.00		4674.21	9.61		6.80	7917.00		0.39	
1164.92		192.45		6.05		189.96		19.77	0.003319
	1.25355	113978.67							
194.00		4674.21	9.61		6.80	7917.00		0.39	
1164.92		192.45		6.05		189.96		19.77	0.003319
	1.25355	113978.67							
195.00		4674.21	9.61		6.80	7917.00		0.39	
1164.92		192.45		6.05		189.96		19.77	0.003320
	1.25387	113978.67							
196.00		4674.21	9.61		6.80	7917.00		0.39	
1164.92		192.45		6.05		189.96		19.77	0.003320
	1.25386	113978.67							
197.00		4674.21	9.61		6.80	7917.00		0.39	
1164.92		192.45		6.05		189.96		19.77	0.003319
	1.25354	113978.67							
198.00		4674.21	9.61		6.80	7917.00		0.39	
1164.92		192.45		6.05		189.96		19.77	0.003320
	1.25386	113978.67							
199.00		4674.21	9.61		6.80	7918.31		0.39	
1164.92		192.44		6.05		189.95		19.78	0.002893
	1.09284	113969.63							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 6

MAXIMUM DISCHARGE (CFS) = 21613.74 AT TIME = 79.03  
 MAXIMUM STAGE = 4673.52 AT TIME = 79.05

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(HRS)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)	
(FT^2)	(LB/FT^2)	(FT^2)	(FT)	(FPS)	(FT)	(CFS)	

## HYCHAN.OUT

0.00	0.00	4662.10	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	1.00	4665.82	3.72	3.50	1830.21	0.32		
523.11		120.86	4.33	119.86	32.18		0.003573	
	0.96491	74313.93						
	2.00	4669.07	6.97	6.44	5523.46	0.43		
857.27		164.36	5.22	162.50	23.33		0.003505	
	1.14073	100747.48						
	3.00	4669.04	6.94	6.41	5460.92	0.43		
851.67		164.06	5.19	162.20	23.37		0.003487	
	1.12951	100564.79						
	4.00	4669.00	6.90	6.38	5378.16	0.43		
843.13		163.61	5.15	161.76	23.44		0.003490	
	1.12219	100291.59						
	5.00	4668.97	6.87	6.35	5308.60	0.43		
836.20		163.24	5.12	161.39	23.49		0.003472	
	1.10986	100064.81						
	6.00	4668.90	6.80	6.28	5157.14	0.42		
820.58		162.39	5.05	160.57	23.62		0.003458	
	1.09021	99552.70						
	7.00	4668.82	6.72	6.22	5004.91	0.42		
804.66		161.52	4.98	159.72	23.75		0.003443	
	1.07021	99024.05						
	8.00	4668.75	6.65	6.15	4853.44	0.42		
788.74		160.64	4.91	158.85	23.89		0.003426	
	1.04967	98487.12						
	9.00	4668.71	6.61	6.12	4772.19	0.42		
779.82		160.14	4.87	158.36	23.97		0.003429	
	1.04191	98185.61						
	10.00	4668.67	6.57	6.09	4701.68	0.42		
772.44		159.72	4.84	157.95	24.04		0.003410	
	1.02914	97929.77						
	11.00	4668.59	6.49	6.02	4550.77	0.42		
756.13		158.78	4.76	157.04	24.18		0.003394	
	1.00861	97362.66						
	12.00	4668.55	6.45	5.98	4469.17	0.42		
747.04		158.26	4.72	156.52	24.27		0.003397	
	1.00054	97045.41						
	13.00	4668.55	6.45	5.98	4469.01	0.42		
747.00		158.26	4.72	156.52	24.27		0.003397	
	1.00058	97044.21						
	14.00	4668.55	6.45	5.98	4468.98	0.42		
747.00		158.26	4.72	156.52	24.27		0.003397	
	1.00043	97044.05						
	15.00	4668.55	6.45	5.98	4469.01	0.42		
747.00		158.26	4.72	156.52	24.27		0.003397	
	1.00063	97044.20						
	16.00	4668.55	6.45	5.98	4468.99	0.42		
747.00		158.26	4.72	156.52	24.27		0.003396	
	1.00016	97044.12						
	17.00	4668.59	6.49	6.02	4539.70	0.42		
754.58		158.70	4.75	156.95	24.20		0.003415	
	1.01327	97311.92						
	18.00	4668.67	6.56	6.08	4691.07	0.42		
770.95		159.64	4.83	157.87	24.05		0.003430	
	1.03376	97881.56						
	19.00	4668.74	6.64	6.15	4842.37	0.42		
787.14		160.55	4.90	158.77	23.90		0.003446	
	1.05425	98436.52						
	20.00	4668.78	6.68	6.19	4923.85	0.42		
795.91		161.04	4.94	159.25	23.83		0.003444	

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		HYCHAN.OUT					
	1.06215	98732.34					
795.93	21.00	4668.78	6.68	6.19	4923.99	0.42	
		161.04	4.94	159.25	23.83		0.003444
	1.06226	98732.91					
803.19	22.00	4668.82	6.72	6.22	4994.12	0.42	
		161.44	4.98	159.64	23.77		0.003461
	1.07445	98978.12					
826.25	23.00	4668.92	6.82	6.31	5216.29	0.43	
		162.70	5.08	160.87	23.57		0.003494
	1.10717	99742.42					
857.40	24.00	4669.07	6.97	6.44	5519.90	0.43	
		164.37	5.22	162.50	23.32		0.003524
	1.14706	100750.84					
887.93	25.00	4669.20	7.10	6.56	5823.54	0.43	
		165.95	5.35	164.05	23.09		0.003553
	1.18627	101713.48					
904.20	26.00	4669.28	7.18	6.62	5984.72	0.44	
		166.78	5.42	164.86	22.97		0.003549
	1.20057	102215.82					
904.26	27.00	4669.28	7.18	6.62	5985.02	0.44	
		166.78	5.42	164.87	22.97		0.003549
	1.20084	102217.44					
911.73	28.00	4669.31	7.21	6.65	6062.83	0.44	
		167.16	5.45	165.24	22.92		0.003567
	1.21403	102447.08					
920.62	29.00	4669.35	7.25	6.68	6151.85	0.44	
		167.61	5.49	165.67	22.85		0.003566
	1.22224	102716.66					
920.63	30.00	4669.35	7.25	6.68	6152.00	0.44	
		167.61	5.49	165.67	22.85		0.003566
	1.22229	102717.07					
928.43	31.00	4669.38	7.28	6.71	6233.47	0.44	
		168.00	5.53	166.05	22.80		0.003584
	1.23607	102953.45					
937.55	32.00	4669.42	7.32	6.75	6325.84	0.44	
		168.45	5.57	166.49	22.73		0.003582
	1.24405	103226.61					
937.58	33.00	4669.42	7.32	6.75	6326.02	0.44	
		168.45	5.57	166.50	22.73		0.003582
	1.24420	103227.39					
929.87	34.00	4669.39	7.29	6.72	6244.58	0.44	
		168.06	5.53	166.12	22.79		0.003564
	1.23055	102993.98					
920.66	35.00	4669.35	7.25	6.68	6152.15	0.44	
		167.61	5.49	165.67	22.85		0.003566
	1.22225	102717.70					
913.16	36.00	4669.32	7.22	6.65	6073.95	0.44	
		167.23	5.46	165.30	22.91		0.003548
	1.20894	102487.71					
904.26	37.00	4669.28	7.18	6.62	5985.15	0.44	
		166.78	5.42	164.87	22.97		0.003549
	1.20082	102217.48					
904.24	38.00	4669.28	7.18	6.62	5984.98	0.44	
		166.78	5.42	164.87	22.97		0.003549
	1.20063	102217.03					
904.23	39.00	4669.28	7.18	6.62	5985.00	0.44	
		166.78	5.42	164.87	22.97		0.003549
	1.20061	102216.62					
904.24	40.00	4669.28	7.18	6.62	5985.00	0.44	
		166.78	5.42	164.87	22.97		0.003550
	1.20095	102216.86					
904.23	41.00	4669.28	7.18	6.62	5985.01	0.44	
		166.78	5.42	164.87	22.97		0.003550



		HYCHAN.OUT					
	1.20084	102216.48					
911.77	42.00	4669.31	7.21	6.65	6063.21	0.44	
		167.16	5.45		165.24	22.92	0.003567
	1.21417	102448.41					
920.61	43.00	4669.35	7.25	6.68	6151.85	0.44	
		167.61	5.49		165.67	22.85	0.003565
	1.22199	102716.42					
928.43	44.00	4669.38	7.28	6.71	6233.38	0.44	
		168.00	5.53		166.05	22.80	0.003584
	1.23611	102953.51					
945.24	45.00	4669.46	7.36	6.78	6407.25	0.44	
		168.83	5.60		166.87	22.68	0.003601
	1.25804	103456.76					
961.97	46.00	4669.53	7.43	6.84	6580.97	0.44	
		169.64	5.67		167.66	22.57	0.003616
	1.27964	103950.77					
978.41	47.00	4669.60	7.50	6.90	6754.55	0.44	
		170.43	5.74		168.44	22.46	0.003633
	1.30153	104430.19					
994.77	48.00	4669.67	7.57	6.96	6928.55	0.45	
		171.21	5.81		169.20	22.35	0.003649
	1.32293	104901.66					
1011.07	49.00	4669.74	7.64	7.02	7102.57	0.45	
		171.97	5.88		169.94	22.25	0.003665
	1.34470	105365.64					
1034.54	50.00	4669.84	7.74	7.11	7358.36	0.45	
		173.06	5.98		171.01	22.10	0.003698
	1.37941	106023.97					
1051.86	51.00	4669.91	7.81	7.17	7542.69	0.45	
		173.85	6.05		171.78	21.99	0.003695
	1.39514	106502.46					
1059.11	52.00	4669.94	7.84	7.20	7624.60	0.45	
		174.18	6.08		172.10	21.95	0.003712
	1.40849	106701.73					
1090.48	53.00	4670.07	7.97	7.32	7976.92	0.46	
		175.58	6.21		173.47	21.77	0.003764
	1.45867	107549.59					
1149.32	54.00	4670.31	8.21	7.52	8647.64	0.46	
		178.12	6.45		175.96	21.44	0.003835
	1.54424	109092.45					
1226.14	55.00	4670.61	8.51	7.79	9550.49	0.47	
		181.30	6.76		179.07	21.05	0.003877
	1.63602	111022.51					
1326.16	56.00	4670.99	8.89	8.18	10851.95	0.48	
		185.23	7.16		182.91	20.58	0.003740
	1.67077	113401.31					
1425.80	57.00	4671.35	9.25	8.58	12230.47	0.50	
		188.95	7.55		186.54	20.16	0.003741
	1.76159	115657.85					
1508.27	58.00	4671.65	9.55	8.85	13349.98	0.50	
		191.88	7.86		189.40	19.84	0.003786
	1.85707	117427.84					
1596.79	59.00	4671.95	9.85	9.13	14582.09	0.51	
		194.86	8.19		192.31	19.52	0.003896
	1.99204	119234.64					
1674.05	60.00	4672.21	10.11	9.38	15700.80	0.52	
		197.36	8.48		194.76	19.26	0.003943
	2.08676	120752.31					
1728.23	61.00	4672.39	10.29	9.54	16491.37	0.52	
		199.06	8.68		196.42	19.09	0.004015
	2.17497	121780.34					
1771.97	62.00	4672.53	10.43	9.67	17142.66	0.53	
		200.40	8.84		197.73	18.95	0.004036

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1813.46	2.22690	122590.27	10.56	8.99	9.80	17771.11	0.53	0.004109
	63.00	4672.66				198.94	18.83	
	2.30598	123343.84						
1860.03	64.00	4672.81	10.71	9.16	9.92	18459.32	0.53	0.004131
		203.01				200.28	18.70	
	2.36186	124172.55						
1874.78	65.00	4672.86	10.76	9.22	9.95	18656.28	0.53	0.004130
		203.44				200.70	18.66	
	2.37492	124431.95						
1874.80	66.00	4672.86	10.76	9.22	9.95	18656.78	0.53	0.004131
		203.44				200.70	18.66	
	2.37521	124432.36						
1874.81	67.00	4672.86	10.76	9.22	9.95	18656.77	0.53	0.004131
		203.44				200.70	18.66	
	2.37540	124432.62						
1874.82	68.00	4672.86	10.76	9.22	9.95	18656.86	0.53	0.004131
		203.44				200.70	18.66	
	2.37526	124432.79						
1874.85	69.00	4672.86	10.76	9.22	9.95	18657.39	0.53	0.004131
		203.44				200.70	18.66	
	2.37533	124432.69						
1874.89	70.00	4672.86	10.76	9.22	9.95	18657.65	0.53	0.004130
		203.44				200.70	18.66	
	2.37481	124433.55						
1874.88	71.00	4672.86	10.76	9.22	9.95	18657.42	0.53	0.004131
		203.44				200.70	18.66	
	2.37530	124433.39						
1887.86	72.00	4672.90	10.80	9.26	9.97	18828.94	0.54	0.004159
		203.82				201.07	18.62	
	2.40397	124661.71						
1902.39	73.00	4672.94	10.84	9.31	10.00	19026.15	0.54	0.004157
		204.24				201.47	18.58	
	2.41604	124913.02						
1902.44	74.00	4672.94	10.84	9.31	10.00	19027.31	0.54	0.004158
		204.24				201.47	18.58	
	2.41680	124914.05						
1914.98	75.00	4672.98	10.88	9.36	10.02	19197.63	0.54	0.004190
		204.60				201.82	18.55	
	2.44702	125131.23						
1951.22	76.00	4673.09	10.99	9.49	10.12	19736.88	0.54	0.004245
		205.61				202.81	18.45	
	2.51369	125744.25						
1987.00	77.00	4673.20	11.10	9.65	10.21	20297.18	0.54	0.004264
		205.89				203.79	18.36	
	2.56779	126352.06						
2012.07	78.00	4673.28	11.18	9.77	10.28	20675.10	0.54	0.004284
		206.04				204.48	18.29	
	2.61076	126778.78						
2048.48	79.00	4673.39	11.29	9.93	10.36	21227.51	0.54	0.004327
		206.26				205.47	18.20	
	2.68153	127391.82						
2064.55	80.00	4673.44	11.34	10.00	10.39	21451.99	0.54	0.004301
		206.36				205.90	18.16	
	2.68474	127656.21						
2040.22	81.00	4673.36	11.26	9.89	10.33	21081.21	0.54	0.004280
		206.21				205.24	18.22	
	2.64209	127250.09						
2026.84	82.00	4673.32	11.22	9.83	10.30	20881.53	0.54	0.004281
		206.13				204.88	18.25	
	2.62654	127026.63						
2026.69	83.00	4673.32	11.22	9.83	10.30	20879.70	0.54	0.004281
		206.13				204.88	18.25	

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2026.70	2.62655	127023.88	11.22	9.83	10.30	20879.53	0.54	0.004281
	84.00	4673.32				204.88	18.25	
	2.62651	127024.21						
2004.24	85.00	4673.25	11.15	9.73	10.24	20530.48	0.54	0.004235
		205.99				204.26	18.31	
	2.57149	126639.98						
1944.71	86.00	4673.07	10.97	9.47	10.09	19625.35	0.54	0.004152
		205.42				202.63	18.47	
	2.45300	125627.64						
1867.01	87.00	4672.83	10.73	9.19	9.93	18536.42	0.53	0.004075
		203.21				200.47	18.68	
	2.33651	124289.07						
1778.69	88.00	4672.55	10.45	8.87	9.68	17213.35	0.53	0.003955
		200.58				197.90	18.94	
	2.18826	122698.83						
1693.37	89.00	4672.28	10.18	8.55	9.42	15954.67	0.52	0.003892
		197.96				195.35	19.20	
	2.07757	121114.91						
1634.73	90.00	4672.08	9.98	8.34	9.24	15105.12	0.52	0.003829
		196.09				193.52	19.39	
	1.99176	119980.66						
1568.15	91.00	4671.85	9.75	8.09	9.03	14158.57	0.51	0.003757
		193.89				191.37	19.62	
	1.89630	118646.83						
1499.84	92.00	4671.62	9.52	7.83	8.82	13223.32	0.50	0.003724
		191.56				189.10	19.87	
	1.81921	117239.50						
1443.76	93.00	4671.42	9.32	7.62	8.64	12470.23	0.50	0.003686
		189.59				187.17	20.09	
	1.75154	116043.94						
1397.88	94.00	4671.25	9.15	7.44	8.48	11859.73	0.49	0.003678
		187.93				185.55	20.27	
	1.70711	115039.12						
1363.43	95.00	4671.13	9.03	7.30	8.32	11347.18	0.49	0.003764
		186.65				184.29	20.42	
	1.71589	114262.48						
1330.54	96.00	4671.00	8.90	7.18	8.19	10895.10	0.48	0.003801
		185.41				183.08	20.56	
	1.70224	113509.98						
1301.86	97.00	4670.90	8.80	7.06	8.07	10503.89	0.48	0.003814
		184.31				182.00	20.69	
	1.68130	112841.12						
1277.08	98.00	4670.80	8.70	6.97	7.97	10174.56	0.48	0.003843
		183.34				181.06	20.80	
	1.67019	112257.01						
1254.22	99.00	4670.72	8.62	6.87	7.87	9876.03	0.47	0.003877
		182.43				180.17	20.91	
	1.66317	111706.44						
1225.82	100.00	4670.61	8.51	6.76	7.77	9529.23	0.47	0.003853
		181.29				179.06	21.05	
	1.62549	111015.73						
1200.28	101.00	4670.51	8.41	6.66	7.69	9229.28	0.47	0.003827
		180.25				178.04	21.18	
	1.59018	110383.54						
1178.55	102.00	4670.42	8.32	6.57	7.62	8976.42	0.47	0.003811
		179.35				177.16	21.29	
	1.56260	109838.65						
1161.26	103.00	4670.35	8.25	6.50	7.56	8776.08	0.46	0.003793
		178.63				176.45	21.38	
	1.53856	109399.16						
1135.97	104.00	4670.25	8.15	6.40	7.47	8482.12	0.46	0.003756
		177.55				175.40	21.51	

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				HYCHAN.OUT				
	1.49965	108744.91						
1109.71	105.00	4670.15	8.05	6.29	7.38	8186.47	0.46	0.003743
	1.46911	108059.42						
1093.87	106.00	4670.08	7.98	6.22	7.32	8009.64	0.46	0.003727
	1.44782	107638.79						
1078.37	107.00	4670.02	7.92	6.16	7.27	7835.66	0.46	0.003711
	1.42660	107222.73						
1069.98	108.00	4669.98	7.88	6.13	7.24	7743.14	0.45	0.003713
	1.41937	106997.05						
1077.16	109.00	4670.01	7.91	6.16	7.26	7824.78	0.46	0.003730
	1.43284	107192.16						
1099.98	110.00	4670.11	8.01	6.25	7.35	8082.91	0.46	0.003763
	1.46755	107803.90						
1109.57	111.00	4670.15	8.05	6.29	7.38	8185.52	0.46	0.003742
	1.46883	108056.05						
1093.86	112.00	4670.08	7.98	6.22	7.32	8009.52	0.46	0.003727
	1.44769	107638.49						
1099.98	113.00	4670.11	8.01	6.25	7.35	8082.73	0.46	0.003763
	1.46741	107803.82						
1133.07	114.00	4670.24	8.14	6.39	7.46	8458.25	0.46	0.003798
	1.51344	108674.58						
1143.90	115.00	4670.28	8.18	6.43	7.50	8575.29	0.46	0.003776
	1.51517	108953.00						
1134.50	116.00	4670.25	8.15	6.39	7.47	8470.16	0.46	0.003778
	1.50676	108711.02						
1134.48	117.00	4670.25	8.15	6.39	7.47	8469.99	0.46	0.003777
	1.50655	108710.38						
1142.55	118.00	4670.28	8.18	6.42	7.50	8564.32	0.46	0.003796
	1.52198	108920.38						
1151.98	119.00	4670.32	8.22	6.46	7.53	8669.83	0.46	0.003795
	1.53049	109163.00						
1152.01	120.00	4670.32	8.22	6.46	7.53	8670.00	0.46	0.003794
	1.53028	109163.60						
1143.97	121.00	4670.28	8.18	6.43	7.50	8575.79	0.46	0.003775
	1.51496	108954.76						
1134.50	122.00	4670.25	8.15	6.39	7.47	8470.15	0.46	0.003777
	1.50657	108711.05						
1126.43	123.00	4670.21	8.11	6.36	7.44	8375.90	0.46	0.003758
	1.49107	108498.85						
1116.93	124.00	4670.18	8.08	6.32	7.40	8270.13	0.46	0.003760
	1.48274	108251.59						
1116.91	125.00	4670.18	8.08	6.32	7.40	8270.00	0.46	0.003760
		176.73						

				HYCHAN.OUT				
	1.48293	108250.88						
1109.64	126.00	4670.15	8.05	6.29	7.38	8186.10	0.46	0.003743
	1.46903	108057.94						
1100.89	127.00	4670.11	8.01	6.25	7.35	8091.17	0.46	0.003744
	1.46106	107827.39						
1100.86	128.00	4670.11	8.01	6.25	7.35	8091.01	0.46	0.003745
	1.46130	107826.63						
1093.83	129.00	4670.08	7.98	6.22	7.32	8009.35	0.46	0.003727
	1.44756	107637.74						
1085.50	130.00	4670.05	7.95	6.19	7.29	7917.13	0.46	0.003729
	1.44027	107416.30						
1100.02	131.00	4670.11	8.01	6.25	7.35	8083.18	0.46	0.003763
	1.46765	107804.95						
1116.86	132.00	4670.18	8.08	6.32	7.40	8269.72	0.46	0.003759
	1.48252	108249.85						
1116.91	133.00	4670.18	8.08	6.32	7.40	8270.01	0.46	0.003760
	1.48278	108250.86						
1116.91	134.00	4670.18	8.08	6.32	7.40	8269.99	0.46	0.003760
	1.48278	108250.92						
1116.91	135.00	4670.18	8.08	6.32	7.40	8270.00	0.46	0.003760
	1.48266	108251.00						
1116.91	136.00	4670.18	8.08	6.32	7.40	8270.01	0.46	0.003760
	1.48279	108250.91						
1116.91	137.00	4670.18	8.08	6.32	7.40	8269.98	0.46	0.003760
	1.48291	108250.96						
1116.91	138.00	4670.18	8.08	6.32	7.40	8270.00	0.46	0.003759
	1.48257	108250.94						
1109.64	139.00	4670.15	8.05	6.29	7.38	8186.02	0.46	0.003743
	1.46905	108057.77						
1100.90	140.00	4670.11	8.01	6.25	7.35	8091.16	0.46	0.003745
	1.46133	107827.44						
1100.86	141.00	4670.11	8.01	6.25	7.35	8091.00	0.46	0.003745
	1.46130	107826.66						
1100.86	142.00	4670.11	8.01	6.25	7.35	8091.00	0.46	0.003745
	1.46130	107826.65						
1100.86	143.00	4670.11	8.01	6.25	7.35	8091.00	0.46	0.003745
	1.46130	107826.63						
1093.83	144.00	4670.08	7.98	6.22	7.32	8009.27	0.46	0.003728
	1.44792	107637.68						
1085.50	145.00	4670.05	7.95	6.19	7.29	7917.14	0.46	0.003728
	1.44009	107416.32						
1085.48	146.00	4670.05	7.95	6.19	7.29	7917.00	0.46	0.003729
		175.36						

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	1.44040	107415.78					
1085.48	147.00	4670.05	7.95	6.19	7.29	7917.01	0.46
		175.36				173.25	21.80
	1.44008	107415.78					0.003728
1085.48	148.00	4670.05	7.95	6.19	7.29	7916.99	0.46
		175.36				173.25	21.80
	1.44033	107415.80					0.003729
1085.48	149.00	4670.05	7.95	6.19	7.29	7917.00	0.46
		175.36				173.25	21.80
	1.44007	107415.78					0.003728
1080.71	150.00	4670.03	7.93	6.17	7.28	7862.54	0.46
		175.14				173.04	21.82
	1.43126	107286.48					0.003717
1072.76	151.00	4670.00	7.90	6.14	7.25	7773.91	0.45
		174.79				172.70	21.87
	1.42174	107072.16					0.003712
1069.96	152.00	4669.98	7.88	6.13	7.24	7743.04	0.45
		174.66				172.58	21.89
	1.41934	106996.67					0.003713
1069.95	153.00	4669.98	7.88	6.13	7.24	7743.00	0.45
		174.66				172.57	21.89
	1.41912	106996.47					0.003713
1062.72	154.00	4669.96	7.85	6.10	7.21	7661.34	0.45
		174.34				172.26	21.93
	1.40570	106798.12					0.003696
1068.71	155.00	4669.98	7.88	6.12	7.24	7732.36	0.45
		174.61				172.52	21.89
	1.42534	106963.27					0.003732
1085.44	156.00	4670.05	7.95	6.19	7.29	7916.73	0.46
		175.35				173.25	21.80
	1.44012	107414.68					0.003728
1085.48	157.00	4670.05	7.95	6.19	7.29	7917.00	0.46
		175.36				173.25	21.80
	1.44039	107415.80					0.003729
1085.48	158.00	4670.05	7.95	6.19	7.29	7916.99	0.46
		175.36				173.25	21.80
	1.44025	107415.79					0.003729
1085.48	159.00	4670.05	7.95	6.19	7.29	7917.01	0.46
		175.36				173.25	21.80
	1.44036	107415.78					0.003729
1085.48	160.00	4670.05	7.95	6.19	7.29	7917.00	0.46
		175.36				173.25	21.80
	1.44018	107415.79					0.003728
1085.48	161.00	4670.05	7.95	6.19	7.29	7916.99	0.46
		175.36				173.25	21.80
	1.44031	107415.78					0.003729
1085.48	162.00	4670.05	7.95	6.19	7.29	7917.00	0.46
		175.36				173.25	21.80
	1.44007	107415.79					0.003728
1085.48	163.00	4670.05	7.95	6.19	7.29	7917.01	0.46
		175.36				173.25	21.80
	1.44030	107415.79					0.003729
1078.34	164.00	4670.02	7.92	6.16	7.27	7835.33	0.46
		175.04				172.94	21.84
	1.42691	107221.81					0.003712
1069.98	165.00	4669.98	7.88	6.13	7.24	7743.14	0.45
		174.66				172.58	21.89
	1.41914	106997.06					0.003713
1069.95	166.00	4669.98	7.88	6.13	7.24	7743.01	0.45
		174.66				172.57	21.89
	1.41920	106996.46					0.003713
1069.95	167.00	4669.98	7.88	6.13	7.24	7742.99	0.45
		174.66				172.57	21.89

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	1.41940	106996.47						
1069.95	168.00	4669.98	7.88	6.13	7.24	7743.01	0.45	0.003713
	1.41943	106996.48						
1069.95	169.00	4669.98	7.88	6.13	7.24	7742.99	0.45	0.003713
	1.41925	106996.46						
1069.95	170.00	4669.98	7.88	6.13	7.24	7743.01	0.45	0.003713
	1.41938	106996.46						
1069.95	171.00	4669.98	7.88	6.13	7.24	7742.99	0.45	0.003713
	1.41943	106996.46						
1062.72	172.00	4669.96	7.85	6.10	7.21	7661.28	0.45	0.003696
	1.40591	106797.98						
1054.30	173.00	4669.92	7.82	6.06	7.18	7569.12	0.45	0.003697
	1.39833	106569.26						
1054.28	174.00	4669.92	7.82	6.06	7.18	7569.01	0.45	0.003698
	1.39840	106568.80						
1054.28	175.00	4669.92	7.82	6.06	7.18	7569.00	0.45	0.003697
	1.39818	106568.80						
1054.28	176.00	4669.92	7.82	6.06	7.18	7568.99	0.45	0.003698
	1.39842	106568.80						
1054.28	177.00	4669.92	7.82	6.06	7.18	7569.00	0.45	0.003697
	1.39809	106568.79						
1054.28	178.00	4669.92	7.82	6.06	7.18	7569.01	0.45	0.003698
	1.39834	106568.79						
1068.72	179.00	4669.98	7.88	6.12	7.24	7732.53	0.45	0.003732
	1.42518	106963.50						
1085.44	180.00	4670.05	7.95	6.19	7.29	7916.73	0.46	0.003729
	1.44028	107414.68						
1092.62	181.00	4670.08	7.98	6.22	7.32	7998.80	0.46	0.003746
	1.45367	107607.56						
1100.85	182.00	4670.11	8.01	6.25	7.35	8090.87	0.46	0.003744
	1.46102	107826.20						
1100.86	183.00	4670.11	8.01	6.25	7.35	8091.00	0.46	0.003744
	1.46103	107826.63						
1100.86	184.00	4670.11	8.01	6.25	7.35	8091.01	0.46	0.003745
	1.46130	107826.62						
1100.86	185.00	4670.11	8.01	6.25	7.35	8091.00	0.46	0.003745
	1.46130	107826.64						
1100.86	186.00	4670.11	8.01	6.25	7.35	8091.00	0.46	0.003745
	1.46130	107826.65						
1100.86	187.00	4670.11	8.01	6.25	7.35	8091.00	0.46	0.003745
	1.46130	107826.69						
1100.86	188.00	4670.11	8.01	6.25	7.35	8090.99	0.46	0.003745
		176.03						

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## HYCHAN.OUT

1100.86	1.46128	107826.64	8.01	6.25	7.35	8091.00	0.46	0.003745
	189.00	4670.11				173.91	21.71	
		176.03						
1093.82	1.46128	107826.63	7.98	6.22	7.32	8009.23	0.46	0.003727
	190.00	4670.08				173.61	21.75	
		175.72						
1085.50	1.44782	107637.41	7.95	6.19	7.29	7917.13	0.46	0.003728
	191.00	4670.05				173.25	21.80	
		175.36						
1085.48	1.44010	107416.30	7.95	6.19	7.29	7916.99	0.46	0.003729
	192.00	4670.05				173.25	21.80	
		175.36						
1085.48	1.44033	107415.79	7.95	6.19	7.29	7917.01	0.46	0.003729
	193.00	4670.05				173.25	21.80	
		175.36						
1085.48	1.44033	107415.78	7.95	6.19	7.29	7917.00	0.46	0.003728
	194.00	4670.05				173.25	21.80	
		175.36						
1085.48	1.44016	107415.78	7.95	6.19	7.29	7916.99	0.46	0.003729
	195.00	4670.05				173.25	21.80	
		175.36						
1085.48	1.44040	107415.80	7.95	6.19	7.29	7917.00	0.46	0.003729
	196.00	4670.05				173.25	21.80	
		175.36						
1085.48	1.44025	107415.78	7.95	6.19	7.29	7917.01	0.46	0.003729
	197.00	4670.05				173.25	21.80	
		175.36						
1085.48	1.44036	107415.78	7.95	6.19	7.29	7916.99	0.46	0.003728
	198.00	4670.05				173.25	21.80	
		175.36						
1085.48	1.44007	107415.78	7.95	6.19	7.29	7917.00	0.46	0.003465
	199.00	4670.05				173.25	21.80	
		175.36						
	1.33852	107416.52						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 10

MAXIMUM DISCHARGE (CFS) = 21671.53 AT TIME = 79.08  
 MAXIMUM STAGE = 4671.05 AT TIME = 79.08

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4659.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
535.86	1.00	4662.72	3.42	3.14	1683.45	0.30	0.002979	
		133.09	4.03	107.13	31.35			
890.47	0.74850	64277.83	7.08	6.19	5514.30	0.41	0.002892	
	2.00	4666.38	3.88	184.38	26.03			
		229.72						
885.31	0.69950	110625.57	7.06	6.17	5463.98	0.41	0.002896	
	3.00	4666.36	3.86	183.94	26.05			
		229.17						
875.48	0.69802	110362.91	7.02	6.14	5378.45	0.41	0.002898	
	4.00	4666.32	3.84	183.12	26.09			
		228.15						
	0.69381	109873.92						



HYCHAN.OUT							
868.08	5.00	4666.29	6.99	6.12	5311.64	0.41	
		227.37	3.82	182.50	26.12		0.002901
	0.69117	109498.39					
850.98	6.00	4666.21	6.91	6.06	5160.49	0.41	
		225.55	3.77	181.05	26.20		0.002909
	0.68484	108629.97					
833.68	7.00	4666.14	6.84	6.01	5008.34	0.41	
		223.70	3.73	179.57	26.27		0.002914
	0.67778	107741.41					
816.48	8.00	4666.06	6.76	5.95	4856.75	0.40	
		221.83	3.68	178.08	26.34		0.002921
	0.67082	106846.48					
806.38	9.00	4666.01	6.71	5.92	4772.50	0.40	
		220.73	3.65	177.20	26.39		0.002924
	0.66650	106319.74					
798.95	10.00	4665.98	6.68	5.89	4704.81	0.40	
		219.90	3.63	176.54	26.42		0.002927
	0.66366	105923.41					
781.15	11.00	4665.90	6.60	5.83	4554.26	0.40	
		217.92	3.58	174.95	26.50		0.002934
	0.65627	104972.73					
770.84	12.00	4665.85	6.55	5.80	4469.43	0.40	
		216.77	3.56	174.03	26.55		0.002936
	0.65155	104420.73					
770.76	13.00	4665.85	6.55	5.80	4469.06	0.40	
		216.76	3.56	174.03	26.55		0.002936
	0.65151	104416.30					
770.75	14.00	4665.85	6.55	5.80	4468.90	0.40	
		216.76	3.56	174.03	26.55		0.002937
	0.65168	104416.02					
770.76	15.00	4665.85	6.55	5.80	4469.09	0.40	
		216.76	3.56	174.03	26.55		0.002936
	0.65146	104416.34					
770.76	16.00	4665.85	6.55	5.80	4468.92	0.40	
		216.76	3.56	174.03	26.55		0.002936
	0.65146	104416.55					
778.60	17.00	4665.89	6.59	5.83	4536.51	0.40	
		217.65	3.58	174.74	26.52		0.002932
	0.65449	104841.64					
796.34	18.00	4665.97	6.67	5.89	4687.63	0.40	
		219.63	3.63	176.32	26.43		0.002925
	0.66188	105790.51					
813.90	19.00	4666.05	6.75	5.95	4838.91	0.40	
		221.56	3.67	177.86	26.36		0.002920
	0.66938	106717.31					
823.81	20.00	4666.09	6.79	5.98	4923.63	0.40	
		222.64	3.70	178.72	26.31		0.002917
	0.67362	107233.34					
823.86	21.00	4666.09	6.79	5.98	4924.03	0.40	
		222.64	3.70	178.73	26.31		0.002917
	0.67353	107236.02					
831.41	22.00	4666.13	6.83	6.00	4990.96	0.41	
		223.46	3.72	179.38	26.28		0.002912
	0.67606	107629.71					
856.17	23.00	4666.23	6.93	6.09	5209.87	0.41	
		226.12	3.79	181.50	26.17		0.002902
	0.68576	108899.77					
890.14	24.00	4666.38	7.08	6.19	5513.32	0.41	
		229.68	3.88	184.35	26.03		0.002891
	0.69905	110607.74					
923.54	25.00	4666.52	7.22	6.30	5817.10	0.41	
		233.11	3.96	187.08	25.90		0.002878
	0.71147	112248.77					

		HYCHAN.OUT					
941.97	26.00	4666.60	7.30	6.35	5984.28	0.41	
	0.71922	234.96	4.01	188.56	25.83		0.002875
	27.00	113138.30					
942.09	0.71908	4666.60	7.30	6.35	5985.03	0.41	
	28.00	234.98	4.01	188.57	25.83		0.002874
	0.71908	113143.46					
949.93	28.00	4666.63	7.33	6.38	6059.56	0.42	
	0.72155	235.76	4.03	189.20	25.80		0.002870
	29.00	113520.55					
959.91	0.72581	4666.67	7.37	6.41	6151.62	0.42	
	30.00	236.75	4.05	189.99	25.77		0.002869
	0.72581	113994.95					
959.97	30.00	4666.67	7.37	6.41	6152.02	0.42	
	0.72555	236.76	4.05	190.00	25.77		0.002868
	31.00	113997.33					
968.19	0.72803	4666.71	7.41	6.43	6230.09	0.42	
	32.00	237.58	4.08	190.65	25.74		0.002863
	0.72803	114388.39					
978.52	32.00	4666.75	7.45	6.46	6325.59	0.42	
	0.73221	238.59	4.10	191.46	25.70		0.002861
	33.00	114873.48					
978.58	0.73256	4666.75	7.45	6.46	6325.97	0.42	
	34.00	238.59	4.10	191.46	25.70		0.002862
	0.73256	114876.28					
970.44	34.00	4666.72	7.42	6.44	6248.03	0.42	
	0.72988	237.79	4.08	190.82	25.73		0.002866
	35.00	114489.59					
960.02	0.72547	4666.67	7.37	6.41	6152.40	0.42	
	36.00	236.76	4.05	190.00	25.77		0.002867
	0.72547	113999.54					
952.15	36.00	4666.64	7.34	6.38	6077.17	0.42	
	0.72338	235.98	4.03	189.37	25.80		0.002873
	37.00	113622.12					
942.12	0.71907	4666.60	7.30	6.35	5985.40	0.41	
	38.00	234.98	4.01	188.58	25.83		0.002874
	0.71907	113145.03					
942.07	38.00	4666.60	7.30	6.35	5984.97	0.41	
	0.71928	234.97	4.01	188.57	25.83		0.002875
	39.00	113142.85					
942.06	0.71925	4666.60	7.30	6.35	5985.00	0.41	
	40.00	234.97	4.01	188.57	25.83		0.002875
	0.71925	113142.14					
942.07	40.00	4666.60	7.30	6.35	5985.00	0.41	
	0.71910	234.97	4.01	188.57	25.83		0.002874
	41.00	113142.41					
942.06	0.71929	4666.60	7.30	6.35	5984.99	0.41	
	42.00	234.97	4.01	188.57	25.83		0.002875
	0.71929	113141.96					
949.97	42.00	4666.63	7.33	6.38	6059.98	0.42	
	0.72142	235.77	4.03	189.20	25.80		0.002869
	43.00	113522.52					
959.92	0.72546	4666.67	7.37	6.41	6151.63	0.42	
	44.00	236.75	4.05	189.99	25.77		0.002867
	0.72546	113995.05					
968.19	44.00	4666.71	7.41	6.43	6229.98	0.42	
	0.72834	237.57	4.08	190.65	25.74		0.002864
	45.00	114388.13					
986.60	0.73496	4666.78	7.48	6.49	6403.63	0.42	
	46.00	239.38	4.12	192.09	25.67		0.002858
	0.73496	115253.35					
1004.90	46.00	4666.86	7.56	6.55	6577.47	0.42	
	0.74121	241.16	4.17	193.51	25.61		0.002851
		116103.11					

HYCHAN.OUT							
1023.00	47.00	4666.93	7.63	4.21	6.60	6750.99	0.42
	0.74766	242.89				194.89	25.54
		116935.07					0.002845
1041.03	48.00	4667.00	7.70	4.26	6.65	6925.06	0.42
	0.75396	244.60				196.26	25.48
		117754.64					0.002839
1058.89	49.00	4667.07	7.77	4.30	6.70	7099.06	0.42
	0.75987	246.28				197.60	25.42
		118558.34					0.002832
1084.37	50.00	4667.17	7.87	4.36	6.78	7351.70	0.43
	0.76799	248.65				199.48	25.34
		119690.71					0.002822
1103.98	51.00	4667.25	7.95	4.41	6.83	7542.27	0.43
	0.77532	250.44				200.92	25.28
		120550.03					0.002819
1111.75	52.00	4667.28	7.98	4.43	6.86	7621.41	0.43
	0.77741	251.15				201.48	25.25
		120890.03					0.002814
1145.66	53.00	4667.41	8.11	4.51	6.95	7966.67	0.43
	0.78740	254.20				203.92	25.15
		122349.35					0.002800
1210.15	54.00	4667.65	8.35	4.66	7.13	8632.80	0.44
	0.80727	259.85				208.43	24.96
		125055.23					0.002778
1294.70	55.00	4667.96	8.66	4.85	7.36	9532.27	0.44
	0.83501	267.00				214.12	24.73
		128474.30					0.002760
1411.83	56.00	4668.37	9.07	5.11	7.67	10825.51	0.45
	0.86126	276.43				221.65	24.44
		132989.66					0.002702
1532.90	57.00	4668.78	9.48	5.36	7.96	12209.04	0.46
	0.88540	285.75				229.08	24.17
		137450.16					0.002645
1629.54	58.00	4669.09	9.80	5.56	8.18	13332.59	0.46
	0.90679	292.87				234.76	23.97
		140853.05					0.002612
1732.08	59.00	4669.42	10.12	5.77	8.41	14558.21	0.47
	0.92647	300.13				240.54	23.77
		144326.98					0.002573
1825.39	60.00	4669.71	10.41	5.95	8.60	15692.31	0.47
	0.94601	306.54				245.65	23.60
		147392.42					0.002546
1889.28	61.00	4669.90	10.60	6.08	8.73	16486.09	0.47
	0.95669	310.80				249.05	23.49
		149429.70					0.002522
1942.25	62.00	4670.06	10.76	6.18	8.83	17147.72	0.47
	0.96768	314.27				251.82	23.40
		151090.80					0.002509
1990.60	63.00	4670.21	10.91	6.27	8.93	17768.77	0.48
	0.97402	317.39				254.30	23.32
		152581.70					0.002489
2045.78	64.00	4670.37	11.07	6.38	9.03	18467.80	0.48
	0.98573	320.90				257.10	23.23
		154258.50					0.002478
2062.57	65.00	4670.41	11.11	6.41	9.05	18671.88	0.48
	0.98963	321.95				257.94	23.21
		154761.48					0.002476
2062.59	66.00	4670.41	11.11	6.41	9.05	18672.58	0.48
	0.98974	321.95				257.94	23.21
		154762.02					0.002476
2062.64	67.00	4670.41	11.11	6.41	9.05	18672.46	0.48
	0.98983	321.95				257.94	23.21
		154763.55					0.002476

HYCHAN.OUT							
2062.64	68.00	4670.41	11.11	9.05	18672.54	0.48	0.002475
	0.98950	321.95	6.41	257.94	23.21		
		154763.36					
2062.70	69.00	4670.42	11.12	9.05	18673.46	0.48	0.002475
	0.98963	321.96	6.41	257.94	23.21		
		154765.23					
2062.75	70.00	4670.42	11.12	9.05	18673.82	0.48	0.002475
	0.98952	321.96	6.41	257.94	23.21		
		154766.66					
2062.74	71.00	4670.42	11.12	9.05	18673.59	0.48	0.002475
	0.98961	321.96	6.41	257.94	23.21		
		154766.48					
2076.06	72.00	4670.45	11.15	9.07	18839.61	0.48	0.002472
	0.99210	322.80	6.43	258.61	23.19		
		155166.22					
2092.60	73.00	4670.50	11.20	9.10	19043.15	0.48	0.002469
	0.99540	323.82	6.46	259.43	23.16		
		155657.64					
2092.74	74.00	4670.50	11.20	9.10	19045.35	0.48	0.002467
	0.99490	323.83	6.46	259.44	23.16		
		155661.52					
2105.32	75.00	4670.54	11.24	9.12	19210.41	0.48	0.002462
	0.99651	324.61	6.49	260.06	23.14		
		156036.14					
2144.56	76.00	4670.65	11.35	9.21	19747.20	0.48	0.002455
	1.00460	327.03	6.56	261.99	23.08		
		157191.20					
2187.17	77.00	4670.77	11.47	9.29	20321.86	0.48	0.002445
	1.01247	329.62	6.64	264.05	23.02		
		158429.00					
2216.29	78.00	4670.85	11.55	9.34	20708.07	0.48	0.002439
	1.01797	331.37	6.69	265.44	22.98		
		159266.28					
2257.09	79.00	4670.96	11.66	9.42	21264.84	0.49	0.002429
	1.02507	333.80	6.76	267.38	22.92		
		160428.75					
2276.70	80.00	4671.02	11.72	9.45	21515.02	0.49	0.002429
	1.03024	334.95	6.80	268.30	22.90		
		160977.88					
2248.69	81.00	4670.94	11.64	9.40	21134.84	0.49	0.002437
	1.02606	333.30	6.75	266.98	22.93		
		160186.16					
2233.31	82.00	4670.90	11.60	9.37	20923.54	0.48	0.002437
	1.02194	332.39	6.72	266.25	22.96		
		159751.70					
2233.19	83.00	4670.90	11.60	9.37	20920.38	0.48	0.002436
	1.02151	332.38	6.72	266.25	22.96		
		159748.59					
2233.18	84.00	4670.90	11.60	9.37	20920.20	0.48	0.002437
	1.02180	332.38	6.72	266.25	22.96		
		159748.30					
2208.02	85.00	4670.83	11.53	9.32	20579.88	0.48	0.002447
	1.01904	330.86	6.67	265.04	22.99		
		159021.30					
2140.97	86.00	4670.64	11.34	9.19	19670.43	0.48	0.002461
	1.00594	326.78	6.55	261.79	23.09		
		157071.42					
2055.77	87.00	4670.39	11.09	9.04	18574.89	0.48	0.002483
	0.99090	321.49	6.39	257.57	23.22		
		154544.05					
1952.69	88.00	4670.09	10.79	8.84	17252.39	0.47	0.002522
	0.97595	314.90	6.20	252.31	23.38		
		151388.91					

HYCHAN.OUT							
1850.29	89.00	4669.78	10.48	6.00	8.64	15977.48	0.47
	0.95577	308.18				246.96	23.55
		148178.62					0.002551
1780.62	90.00	4669.57	10.27	5.87	8.49	15121.91	0.47
	0.94273	303.47				243.21	23.68
		145924.59					0.002575
1702.80	91.00	4669.33	10.03	5.71	8.33	14178.17	0.46
	0.92884	298.06				238.89	23.82
		143335.80					0.002605
1623.14	92.00	4669.07	9.77	5.55	8.16	13238.07	0.46
	0.91084	292.38				234.37	23.98
		140621.98					0.002629
1558.27	93.00	4668.86	9.56	5.42	8.01	12483.51	0.46
	0.89692	287.63				230.58	24.11
		138348.23					0.002653
1504.35	94.00	4668.68	9.38	5.30	7.89	11867.11	0.45
	0.89679	283.60				227.37	24.23
		136419.53					0.002709
1460.81	95.00	4668.54	9.24	5.21	7.77	11357.47	0.45
	0.88057	280.27				224.71	24.33
		134824.36					0.002707
1420.29	96.00	4668.40	9.10	5.13	7.68	10901.27	0.45
	0.85993	277.12				222.20	24.42
		133320.78					0.002689
1385.32	97.00	4668.28	8.98	5.05	7.59	10511.22	0.45
	0.85984	274.36				219.99	24.51
		131996.88					0.002729
1355.17	98.00	4668.17	8.87	4.98	7.51	10178.42	0.44
	0.85202	271.95				218.07	24.58
		130844.41					0.002740
1328.34	99.00	4668.08	8.78	4.92	7.44	9883.14	0.44
	0.84455	269.76				216.33	24.65
		129799.06					0.002749
1296.32	100.00	4667.96	8.66	4.85	7.36	9534.86	0.44
	0.83508	267.14				214.23	24.73
		128540.58					0.002758
1268.29	101.00	4667.86	8.56	4.79	7.28	9234.74	0.44
	0.82716	264.80				212.37	24.80
		127422.16					0.002768
1244.17	102.00	4667.77	8.47	4.73	7.22	8980.32	0.44
	0.81941	262.77				210.75	24.87
		126449.30					0.002773
1225.05	103.00	4667.70	8.40	4.69	7.17	8779.77	0.44
	0.81375	261.14				209.45	24.92
		125668.73					0.002780
1197.54	104.00	4667.60	8.30	4.63	7.09	8489.43	0.43
	0.80585	258.75				207.55	25.00
		124528.23					0.002790
1168.26	105.00	4667.49	8.19	4.56	7.01	8190.19	0.43
	0.79614	256.20				205.51	25.08
		123306.25					0.002798
1150.81	106.00	4667.43	8.13	4.52	6.96	8012.98	0.43
	0.79068	254.65				204.28	25.14
		122566.55					0.002804
1133.73	107.00	4667.36	8.06	4.48	6.91	7839.01	0.43
	0.78534	253.13				203.06	25.19
		121836.09					0.002810
1124.09	108.00	4667.33	8.03	4.46	6.89	7743.37	0.43
	0.78169	252.27				202.37	25.22
		121423.22					0.002811
1131.64	109.00	4667.35	8.05	4.47	6.91	7821.58	0.43
	0.78404	252.95				202.92	25.19
		121749.96					0.002809

		HYCHAN.OUT					
110.00	4667.45	8.15	6.98	8076.35	0.43		
1156.53	255.17	4.53		204.69	25.12	0.002798	
0.79124	122813.95						
111.00	4667.49	8.19	7.01	8188.36	0.43		
1168.01	256.18	4.56		205.49	25.08	0.002799	
0.79628	123295.96						
112.00	4667.43	8.13	6.96	8012.87	0.43		
1150.80	254.65	4.52		204.28	25.14	0.002804	
0.79083	122566.09						
113.00	4667.45	8.15	6.98	8076.55	0.43		
1156.58	255.18	4.53		204.69	25.12	0.002798	
0.79139	122815.66						
114.00	4667.59	8.29	7.08	8450.70	0.43		
1192.98	258.37	4.62		207.24	25.01	0.002787	
0.80286	124346.99						
115.00	4667.63	8.33	7.11	8578.43	0.43		
1205.85	259.48	4.65		208.13	24.97	0.002786	
0.80786	124877.73						
116.00	4667.59	8.29	7.09	8470.36	0.43		
1195.27	258.57	4.62		207.40	25.00	0.002789	
0.80448	124441.03						
117.00	4667.59	8.29	7.09	8470.03	0.43		
1195.22	258.57	4.62		207.40	25.01	0.002788	
0.80409	124438.77						
118.00	4667.63	8.33	7.11	8560.72	0.43		
1203.74	259.31	4.64		207.99	24.98	0.002784	
0.80638	124794.20						
119.00	4667.67	8.37	7.14	8669.64	0.44		
1214.41	260.23	4.67		208.72	24.95	0.002782	
0.81010	125233.81						
120.00	4667.67	8.37	7.14	8670.02	0.44		
1214.46	260.23	4.67		208.73	24.95	0.002782	
0.81011	125235.78						
121.00	4667.63	8.33	7.11	8579.33	0.43		
1205.97	259.49	4.65		208.14	24.97	0.002787	
0.80809	124882.55						
122.00	4667.59	8.29	7.09	8470.37	0.43		
1195.28	258.57	4.62		207.40	25.00	0.002788	
0.80421	124441.10						
123.00	4667.56	8.26	7.06	8379.47	0.43		
1186.67	257.81	4.60		206.80	25.03	0.002793	
0.80213	124079.21						
124.00	4667.52	8.22	7.03	8270.40	0.43		
1175.86	256.87	4.58		206.05	25.06	0.002794	
0.79803	123628.77						
125.00	4667.52	8.22	7.03	8269.99	0.43		
1175.79	256.87	4.58		206.04	25.06	0.002795	
0.79820	123626.30						
126.00	4667.49	8.19	7.01	8189.33	0.43		
1168.13	256.19	4.56		205.50	25.08	0.002799	
0.79630	123300.90						
127.00	4667.46	8.16	6.99	8091.38	0.43		
1158.21	255.32	4.54		204.81	25.11	0.002800	
0.79254	122883.67						
128.00	4667.46	8.16	6.99	8090.99	0.43		
1158.15	255.31	4.54		204.80	25.11	0.002801	
0.79280	122881.12						
129.00	4667.43	8.13	6.96	8012.50	0.43		
1150.74	254.65	4.52		204.27	25.14	0.002804	
0.79062	122563.87						
130.00	4667.39	8.09	6.94	7917.33	0.43		
1141.24	253.81	4.50		203.60	25.16	0.002806	
0.78723	122160.65						

		HYCHAN.OUT					
1156.62	131.00 4667.45 255.18 122817.74	8.15	4.53	6.98	8076.78	0.43	0.002798
1175.71	132.00 4667.52 256.86 123623.15	8.22	4.58	7.03	8269.34	0.43	0.002795
1175.79	133.00 4667.52 256.87 123626.30	8.22	4.58	7.03	8270.00	0.43	0.002795
1175.80	134.00 4667.52 256.87 123626.66	8.22	4.58	7.03	8270.00	0.43	0.002795
1175.80	135.00 4667.52 256.87 123626.74	8.22	4.58	7.03	8270.00	0.43	0.002795
1175.79	136.00 4667.52 256.87 123626.30	8.22	4.58	7.03	8269.98	0.43	0.002795
1175.80	137.00 4667.52 256.87 123626.60	8.22	4.58	7.03	8270.01	0.43	0.002795
1175.80	138.00 4667.52 256.87 123626.40	8.22	4.58	7.03	8270.00	0.43	0.002795
1168.13	139.00 4667.49 256.19 123300.89	8.19	4.56	7.01	8189.26	0.43	0.002798
1158.21	140.00 4667.46 255.32 122883.80	8.16	4.54	6.99	8091.36	0.43	0.002801
1158.15	141.00 4667.46 255.31 122881.19	8.16	4.54	6.99	8091.00	0.43	0.002801
1158.15	142.00 4667.46 255.31 122881.17	8.16	4.54	6.99	8091.00	0.43	0.002801
1158.15	143.00 4667.46 255.31 122881.19	8.16	4.54	6.99	8091.00	0.43	0.002801
1150.74	144.00 4667.43 254.65 122563.57	8.13	4.52	6.96	8012.41	0.43	0.002804
1141.24	145.00 4667.39 253.81 122160.65	8.09	4.50	6.94	7917.34	0.43	0.002806
1141.20	146.00 4667.39 253.80 122158.73	8.09	4.50	6.94	7917.00	0.43	0.002806
1141.20	147.00 4667.39 253.80 122158.78	8.09	4.50	6.94	7917.01	0.43	0.002806
1141.20	148.00 4667.39 253.80 122158.75	8.09	4.50	6.94	7917.01	0.43	0.002806
1141.20	149.00 4667.39 253.80 122158.71	8.09	4.50	6.94	7916.99	0.43	0.002806
1136.17	150.00 4667.37 253.35 121941.66	8.07	4.48	6.92	7864.63	0.43	0.002809
1127.28	151.00 4667.34 252.55 121560.30	8.04	4.46	6.90	7775.11	0.43	0.002811



		HYCHAN.OUT				
1124.06	152.00 4667.33 252.26	8.03	4.46	6.89	7743.10	0.43 0.002812
	0.78174 121421.80				202.37	25.22
1124.04	153.00 4667.33 252.26	8.03	4.46	6.89	7743.00	0.43 0.002812
	0.78173 121421.13				202.37	25.22
1116.38	154.00 4667.30 251.56	8.00	4.44	6.87	7664.55	0.43 0.002816
	0.77975 121087.02				201.81	25.24
1122.00	155.00 4667.32 252.08	8.02	4.45	6.89	7726.20	0.43 0.002810
	0.78049 121334.35				202.22	25.22
1141.09	156.00 4667.39 253.79	8.09	4.50	6.94	7916.33	0.43 0.002806
	0.78731 122154.64				203.59	25.16
1141.20	157.00 4667.39 253.80	8.09	4.50	6.94	7916.98	0.43 0.002807
	0.78749 122158.78				203.60	25.16
1141.20	158.00 4667.39 253.80	8.09	4.50	6.94	7917.03	0.43 0.002806
	0.78721 122158.75				203.60	25.16
1141.20	159.00 4667.39 253.80	8.09	4.50	6.94	7917.00	0.43 0.002806
	0.78734 122158.73				203.60	25.16
1141.20	160.00 4667.39 253.80	8.09	4.50	6.94	7917.01	0.43 0.002806
	0.78727 122158.77				203.60	25.16
1141.20	161.00 4667.39 253.80	8.09	4.50	6.94	7916.98	0.43 0.002806
	0.78723 122158.73				203.60	25.16
1141.20	162.00 4667.39 253.80	8.09	4.50	6.94	7917.00	0.43 0.002806
	0.78729 122158.78				203.60	25.16
1141.20	163.00 4667.39 253.80	8.09	4.50	6.94	7917.01	0.43 0.002806
	0.78736 122158.75				203.60	25.16
1133.68	164.00 4667.36 253.12	8.06	4.48	6.91	7838.48	0.43 0.002810
	0.78531 121833.66				203.06	25.19
1124.09	165.00 4667.33 252.27	8.03	4.46	6.89	7743.36	0.43 0.002812
	0.78176 121423.30				202.37	25.22
1124.04	166.00 4667.33 252.26	8.03	4.46	6.89	7743.00	0.43 0.002812
	0.78193 121421.10				202.37	25.22
1124.04	167.00 4667.33 252.26	8.03	4.46	6.89	7743.00	0.43 0.002812
	0.78173 121421.09				202.37	25.22
1124.04	168.00 4667.33 252.26	8.03	4.46	6.89	7742.98	0.43 0.002813
	0.78207 121421.15				202.37	25.22
1124.04	169.00 4667.33 252.26	8.03	4.46	6.89	7743.03	0.43 0.002811
	0.78169 121421.12				202.37	25.22
1124.04	170.00 4667.33 252.26	8.03	4.46	6.89	7743.00	0.43 0.002812
	0.78190 121421.10				202.37	25.22
1124.04	171.00 4667.33 252.26	8.03	4.46	6.89	7742.98	0.43 0.002812
	0.78182 121421.13				202.37	25.22
1116.38	172.00 4667.30 251.56	8.00	4.44	6.87	7664.48	0.43 0.002817
	0.77996 121086.88				201.81	25.24



		HYCHAN.OUT					
1106.75	173.00	4667.26	7.96	4.41	6.84	7569.34	0.43
	0.77615	250.70				201.12	25.27
		120670.98					0.002817
1106.71	174.00	4667.26	7.96	4.41	6.84	7568.97	0.43
	0.77640	250.69				201.12	25.27
		120669.33					0.002818
1106.71	175.00	4667.26	7.96	4.41	6.84	7569.03	0.43
	0.77625	250.69				201.12	25.27
		120669.30					0.002818
1106.71	176.00	4667.26	7.96	4.41	6.84	7568.99	0.43
	0.77621	250.69				201.12	25.27
		120669.28					0.002818
1106.71	177.00	4667.26	7.96	4.41	6.84	7569.00	0.43
	0.77621	250.69				201.12	25.27
		120669.30					0.002818
1106.71	178.00	4667.26	7.96	4.41	6.84	7569.01	0.43
	0.77627	250.69				201.12	25.27
		120669.28					0.002818
1121.99	179.00	4667.32	8.02	4.45	6.89	7726.20	0.43
	0.78039	252.08				202.22	25.22
		121333.73					0.002810
1141.10	180.00	4667.39	8.09	4.50	6.94	7916.30	0.43
	0.78736	253.79				203.59	25.16
		122154.70					0.002806
1148.69	181.00	4667.42	8.12	4.51	6.96	7995.69	0.43
	0.78930	254.47				204.13	25.14
		122480.32					0.002802
1158.11	182.00	4667.46	8.16	4.54	6.99	8090.69	0.43
	0.79250	255.31				204.80	25.11
		122879.47					0.002800
1158.15	183.00	4667.46	8.16	4.54	6.99	8091.00	0.43
	0.79251	255.31				204.80	25.11
		122881.16					0.002800
1158.15	184.00	4667.46	8.16	4.54	6.99	8090.99	0.43
	0.79279	255.31				204.80	25.11
		122881.17					0.002801
1158.15	185.00	4667.46	8.16	4.54	6.99	8091.00	0.43
	0.79279	255.31				204.80	25.11
		122881.17					0.002801
1158.15	186.00	4667.46	8.16	4.54	6.99	8091.00	0.43
	0.79280	255.31				204.80	25.11
		122881.15					0.002801
1158.15	187.00	4667.46	8.16	4.54	6.99	8091.00	0.43
	0.79279	255.31				204.80	25.11
		122881.17					0.002801
1158.15	188.00	4667.46	8.16	4.54	6.99	8091.01	0.43
	0.79250	255.31				204.80	25.11
		122881.14					0.002800
1158.15	189.00	4667.46	8.16	4.54	6.99	8091.00	0.43
	0.79250	255.31				204.80	25.11
		122881.16					0.002800
1150.73	190.00	4667.43	8.13	4.52	6.96	8012.33	0.43
	0.79085	254.65				204.27	25.14
		122563.37					0.002805
1141.24	191.00	4667.39	8.09	4.50	6.94	7917.34	0.43
	0.78740	253.81				203.60	25.16
		122160.64					0.002806
1141.20	192.00	4667.39	8.09	4.50	6.94	7917.01	0.43
	0.78715	253.80				203.60	25.16
		122158.75					0.002805
1141.20	193.00	4667.39	8.09	4.50	6.94	7916.98	0.43
	0.78740	253.80				203.60	25.16
		122158.77					0.002806

HYCHAN.OUT							
194.00	4667.39	8.09	6.94	7917.01	0.43		
1141.20	253.80	4.50	203.60	25.16	0.002806		
0.78735	122158.71						
195.00	4667.39	8.09	6.94	7917.00	0.43		
1141.20	253.80	4.50	203.60	25.16	0.002806		
0.78728	122158.73						
196.00	4667.39	8.09	6.94	7917.01	0.43		
1141.20	253.80	4.50	203.60	25.16	0.002806		
0.78721	122158.77						
197.00	4667.39	8.09	6.94	7917.00	0.43		
1141.20	253.80	4.50	203.60	25.16	0.002806		
0.78734	122158.77						
198.00	4667.39	8.09	6.94	7917.00	0.43		
1141.20	253.80	4.50	203.60	25.16	0.002806		
0.78719	122158.75						
199.00	4667.39	8.09	6.94	7916.99	0.43		
1141.20	253.80	4.50	203.60	25.16	0.002829		
0.79373	122158.74						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 14

MAXIMUM DISCHARGE (CFS) = 21673.42 AT TIME = 79.08  
 MAXIMUM STAGE = 4669.16 AT TIME = 79.08

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4656.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00					
464.32	1.00	4659.59	3.29	6.49	3.40	1577.20	0.33	0.003167
	1.28269	71.54			70.83	21.55		
766.54	2.00	4663.78	7.48	6.05	7.18	5505.77	0.46	0.003075
	1.15997	126.79			124.71	16.67		
763.25	3.00	4663.76	7.46	6.03	7.16	5466.24	0.46	0.003084
	1.16030	126.57			124.50	16.68		
754.61	4.00	4663.72	7.42	5.99	7.13	5378.64	0.46	0.003084
	1.15243	126.02			123.97	16.72		
748.37	5.00	4663.68	7.38	5.96	7.10	5313.92	0.46	0.003093
	1.14985	125.62			123.57	16.74		
733.47	6.00	4663.60	7.30	5.88	7.04	5163.06	0.46	0.003103
	1.13933	124.65			122.63	16.80		
718.28	7.00	4663.52	7.22	5.81	6.98	5010.88	0.46	0.003113
	1.12831	123.65			121.66	16.86		
703.03	8.00	4663.43	7.13	5.73	6.91	4859.32	0.46	0.003126
	1.11825	122.63			120.67	16.92		
694.11	9.00	4663.38	7.08	5.69	6.88	4772.73	0.46	0.003127
	1.10997	122.03			120.08	16.96		
	10.00	4663.34	7.04		6.85	4707.18	0.45	

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		HYCHAN.OUT				
687.54	121.58	5.66	119.65	16.99	0.003136	
1.10667	65806.03					
11.00	4663.25	6.96	6.78	4556.89	0.45	
672.11	120.52	5.58	118.62	17.05	0.003149	
1.09567	65239.35					
12.00	4663.20	6.90	6.74	4469.67	0.45	
662.96	119.89	5.53	118.00	17.09	0.003151	
1.08729	64902.19					
13.00	4663.20	6.90	6.74	4469.04	0.45	
662.88	119.89	5.53	118.00	17.10	0.003150	
1.08666	64899.31					
14.00	4663.20	6.90	6.74	4468.93	0.45	
662.87	119.89	5.53	118.00	17.10	0.003152	
1.08742	64898.86					
15.00	4663.20	6.90	6.74	4469.07	0.45	
662.88	119.89	5.53	118.00	17.10	0.003150	
1.08672	64899.33					
16.00	4663.20	6.90	6.74	4468.91	0.45	
662.87	119.89	5.53	118.00	17.10	0.003153	
1.08775	64898.96					
17.00	4663.24	6.94	6.77	4534.10	0.45	
669.52	120.35	5.56	118.45	17.07	0.003141	
1.09042	65147.06					
18.00	4663.33	7.03	6.84	4685.02	0.45	
685.03	121.42	5.64	119.49	17.00	0.003131	
1.10222	65717.73					
19.00	4663.42	7.12	6.90	4836.37	0.46	
700.44	122.46	5.72	120.50	16.93	0.003119	
1.11326	66276.57					
20.00	4663.47	7.17	6.94	4923.41	0.46	
709.33	123.06	5.76	121.08	16.90	0.003117	
1.12135	66594.82					
21.00	4663.47	7.17	6.94	4924.02	0.46	
709.41	123.06	5.76	121.09	16.90	0.003116	
1.12075	66597.34					
22.00	4663.50	7.20	6.97	4988.60	0.46	
715.81	123.49	5.80	121.50	16.87	0.003109	
1.12451	66826.42					
23.00	4663.62	7.32	7.06	5205.03	0.46	
737.30	124.90	5.90	122.88	16.78	0.003089	
1.13766	67583.26					
24.00	4663.78	7.48	7.18	5508.36	0.46	
767.08	126.82	6.05	124.75	16.67	0.003067	
1.15762	68610.20					
25.00	4663.94	7.64	7.30	5812.19	0.47	
796.45	128.67	6.19	126.54	16.56	0.003047	
1.17688	69598.66					
26.00	4664.03	7.73	7.36	5983.92	0.47	
813.04	129.70	6.27	127.54	16.50	0.003044	
1.19062	70146.28					
27.00	4664.03	7.73	7.36	5985.01	0.47	
813.17	129.70	6.27	127.55	16.50	0.003042	
1.19019	70150.30					
28.00	4664.06	7.76	7.39	6057.12	0.47	
819.89	130.12	6.30	127.95	16.48	0.003035	
1.19321	70371.48					
29.00	4664.11	7.81	7.42	6151.44	0.47	
828.89	130.66	6.34	128.48	16.45	0.003032	
1.20003	70663.84					
30.00	4664.11	7.81	7.42	6152.00	0.47	
828.96	130.67	6.34	128.48	16.45	0.003031	
1.19999	70665.89					
31.00	4664.15	7.85	7.45	6227.53	0.47	

		HYCHAN.OUT					
835.96	1.20271	131.09	6.38	128.90	16.42	0.003023	
	32.00	70893.32					
		4664.20	7.90	7.48	6325.40	0.47	
845.22	1.21040	131.65	6.42	129.44	16.39	0.003021	
	33.00	71190.68					
		4664.20	7.90	7.48	6326.00	0.47	
845.29	1.21047	131.65	6.42	129.44	16.39	0.003021	
	34.00	71192.80					
		4664.16	7.86	7.46	6250.54	0.47	
838.35	1.20736	131.23	6.39	129.03	16.42	0.003029	
	35.00	70967.59					
		4664.11	7.81	7.42	6152.58	0.47	
829.03	1.20003	130.67	6.34	128.49	16.45	0.003031	
	36.00	70667.97					
		4664.08	7.78	7.39	6079.66	0.47	
822.26	1.19768	130.26	6.31	128.08	16.47	0.003041	
	37.00	70445.94					
		4664.03	7.73	7.36	5985.55	0.47	
813.23	1.19060	129.71	6.27	127.55	16.50	0.003043	
	38.00	70152.29					
		4664.03	7.73	7.36	5984.99	0.47	
813.17	1.19070	129.70	6.27	127.55	16.50	0.003044	
	39.00	70150.29					
		4664.03	7.73	7.36	5984.99	0.47	
813.17	1.19062	129.70	6.27	127.55	16.50	0.003043	
	40.00	70150.20					
		4664.03	7.73	7.36	5985.02	0.47	
813.17	1.19033	129.70	6.27	127.55	16.50	0.003043	
	41.00	70150.16					
		4664.03	7.73	7.36	5984.98	0.47	
813.17	1.19042	129.70	6.27	127.55	16.50	0.003043	
	42.00	70150.18					
		4664.06	7.76	7.39	6057.48	0.47	
819.93	1.19304	130.12	6.30	127.95	16.48	0.003034	
	43.00	70372.62					
		4664.11	7.81	7.42	6151.44	0.47	
828.90	1.20072	130.66	6.34	128.48	16.45	0.003033	
	44.00	70663.91					
		4664.15	7.85	7.45	6227.46	0.47	
835.95	1.20265	131.09	6.38	128.90	16.42	0.003022	
	45.00	70893.12					
		4664.23	7.93	7.51	6400.93	0.47	
852.16	1.21264	132.07	6.45	129.84	16.37	0.003012	
	46.00	71413.30					
		4664.31	8.01	7.57	6574.75	0.47	
868.28	1.22229	133.02	6.53	130.77	16.32	0.003001	
	47.00	71924.80					
		4664.40	8.10	7.63	6748.33	0.47	
884.25	1.23144	133.96	6.60	131.68	16.27	0.002990	
	48.00	72425.50					
		4664.48	8.18	7.69	6922.39	0.47	
900.14	1.24108	134.88	6.67	132.58	16.22	0.002980	
	49.00	72918.49					
		4664.55	8.26	7.75	7096.43	0.48	
915.91	1.24909	135.79	6.75	133.46	16.17	0.002968	
	50.00	73402.24					
		4664.67	8.37	7.83	7346.64	0.48	
938.28	1.26048	137.06	6.85	134.69	16.10	0.002951	
	51.00	74079.50					
		4664.75	8.45	7.89	7541.91	0.48	
955.87	1.27260	138.04	6.92	135.64	16.05	0.002945	
	52.00	74604.38					
		4664.79	8.49	7.92	7619.01	0.48	

				HYCHAN.OUT			
962.60		138.41		6.95	136.01	16.03	0.002938
	1.27508	74804.73					
	53.00	4664.93	8.63		8.02	7958.97	0.48
992.22		140.04		7.09	137.59	15.95	0.002910
	1.28672	75672.10					
	54.00	4665.20	8.90		8.22	8621.60	0.49
1049.17		143.08		7.33	140.54	15.79	0.002867
	1.31188	77295.84					
	55.00	4665.55	9.25		8.47	9518.16	0.49
1124.36		146.94		7.65	144.29	15.60	0.002811
	1.34214	79358.01					
	56.00	4666.02	9.72		8.78	10804.50	0.50
1230.76		152.14		8.09	149.33	15.36	0.002707
	1.36658	82131.72					
	57.00	4666.50	10.20		9.08	12192.42	0.50
1343.31		157.36		8.54	154.40	15.13	0.002653
	1.41293	84921.62					
	58.00	4666.87	10.57		9.30	13318.86	0.50
1432.62		161.32		8.88	158.24	14.97	0.002595
	1.43819	87030.05					
	59.00	4667.25	10.95		9.52	14539.45	0.51
1527.15		165.33		9.24	162.13	14.80	0.002521
	1.45311	89170.98					
	60.00	4667.60	11.30		9.71	15683.17	0.51
1614.73		168.93		9.56	165.62	14.66	0.002482
	1.48042	91089.01					
	61.00	4667.83	11.53		9.84	16474.55	0.51
1674.10		171.29		9.77	167.91	14.57	0.002438
	1.48707	92349.05					
	62.00	4668.01	11.71		9.94	17143.20	0.51
1724.05		173.25		9.95	169.80	14.49	0.002419
	1.50219	93389.21					
	63.00	4668.18	11.88		10.04	17757.36	0.51
1768.76		174.96		10.11	171.46	14.43	0.002379
	1.50088	94303.38					
	64.00	4668.37	12.07		10.14	18462.71	0.51
1820.46		176.92		10.29	173.35	14.36	0.002360
	1.51527	95344.13					
	65.00	4668.43	12.13		10.17	18671.57	0.51
1836.09		177.50		10.34	173.92	14.34	0.002357
	1.52154	95653.92					
	66.00	4668.43	12.13		10.17	18673.31	0.51
1836.08		177.50		10.34	173.92	14.34	0.002357
	1.52164	95653.56					
	67.00	4668.43	12.13		10.17	18673.98	0.51
1836.19		177.50		10.34	173.92	14.34	0.002358
	1.52216	95655.50					
	68.00	4668.43	12.13		10.17	18674.00	0.51
1836.16		177.50		10.34	173.92	14.34	0.002357
	1.52171	95654.94					
	69.00	4668.43	12.13		10.17	18675.32	0.51
1836.24		177.50		10.34	173.92	14.34	0.002357
	1.52179	95656.33					
	70.00	4668.43	12.13		10.17	18675.74	0.51
1836.29		177.50		10.35	173.92	14.34	0.002357
	1.52159	95657.33					
	71.00	4668.43	12.13		10.17	18675.47	0.51
1836.28		177.50		10.35	173.92	14.34	0.002357
	1.52151	95657.25					
	72.00	4668.47	12.17		10.19	18837.00	0.52
1847.92		177.94		10.39	174.34	14.32	0.002346
	1.52022	95888.45					
	73.00	4668.53	12.23		10.22	19044.59	0.52

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1862.84		178.49		10.44	174.88	14.30	0.002345
	1.52709	96181.85					
	74.00	4668.53	12.23	10.22	19047.58	0.52	
1863.01		178.49		10.44	174.88	14.30	0.002345
	1.52731	96184.97					
	75.00	4668.57	12.27	10.25	19208.21	0.52	
1873.88		178.90		10.47	175.27	14.29	0.002334
	1.52587	96399.09					
	76.00	4668.70	12.40	10.34	19741.18	0.52	
1909.55		180.20		10.60	176.53	14.24	0.002307
	1.52545	97093.69					
	77.00	4668.84	12.54	10.42	20319.22	0.52	
1949.25		181.63		10.73	177.92	14.19	0.002290
	1.53348	97857.39					
	78.00	4668.93	12.63	10.48	20706.55	0.52	
1976.08		182.59		10.82	178.85	14.16	0.002276
	1.53689	98367.88					
	79.00	4669.06	12.76	10.56	21259.90	0.52	
2012.70		183.89		10.95	180.11	14.11	0.002252
	1.53803	99057.80					
	80.00	4669.13	12.83	10.60	21521.68	0.52	
2031.21		184.53		11.01	180.73	14.09	0.002258
	1.55065	99401.71					
	81.00	4669.04	12.74	10.54	21142.44	0.52	
2005.79		183.64		10.92	179.87	14.12	0.002272
	1.54862	98925.95					
	82.00	4668.99	12.69	10.50	20927.10	0.52	
1992.21		183.16		10.88	179.40	14.14	0.002271
	1.54164	98671.88					
	83.00	4668.99	12.69	10.50	20923.05	0.52	
1992.24		183.16		10.88	179.40	14.14	0.002271
	1.54143	98672.52					
	84.00	4668.99	12.69	10.50	20922.97	0.52	
1992.23		183.16		10.88	179.40	14.14	0.002271
	1.54158	98672.43					
	85.00	4668.91	12.61	10.46	20591.28	0.52	
1969.18		182.34		10.80	178.60	14.17	0.002298
	1.54848	98232.54					
	86.00	4668.69	12.39	10.32	19693.00	0.52	
1907.92		180.12		10.59	176.46	14.24	0.002336
	1.54396	97052.90					
	87.00	4668.41	12.11	10.16	18596.80	0.51	
1830.46		177.27		10.33	173.70	14.35	0.002378
	1.53238	95532.91					
	88.00	4668.05	11.75	9.96	17276.39	0.51	
1735.34		173.65		9.99	170.19	14.48	0.002449
	1.52714	93605.37					
	89.00	4667.69	11.39	9.75	15989.12	0.51	
1639.28		169.90		9.65	166.56	14.62	0.002497
	1.50313	91606.20					
	90.00	4667.44	11.14	9.61	15132.72	0.51	
1574.40		167.28		9.41	164.02	14.72	0.002538
	1.49066	90208.38					
	91.00	4667.15	10.85	9.45	14191.83	0.51	
1502.41		164.28		9.15	161.11	14.84	0.002591
	1.47874	88611.73					
	92.00	4666.86	10.56	9.27	13248.49	0.50	
1428.54		161.13		8.87	158.05	14.97	0.002635
	1.45796	86929.95					
	93.00	4666.61	10.31	9.13	12493.59	0.50	
1368.83		158.50		8.64	155.51	15.08	0.002677
	1.44235	85527.95					
	94.00	4666.40	10.10	9.00	11873.86	0.50	

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1318.99		156.26		8.44	153.33	15.18	0.002720
	1.43268	84331.40					
95.00		4666.23	9.93	8.89	11364.72	0.50	
1278.04		154.37	8.28		151.50	15.26	0.002735
	1.41288	83323.86					
96.00		4666.06	9.76	8.79	10906.03	0.50	
1240.44		152.61	8.13		149.79	15.34	0.002758
	1.39884	82383.77					
97.00		4665.92	9.62	8.70	10517.42	0.49	
1208.49		151.08	8.00		148.31	15.41	0.002789
	1.39221	81567.98					
98.00		4665.80	9.50	8.63	10181.46	0.49	
1180.39		149.72	7.88		146.99	15.47	0.002804
	1.37924	80842.98					
99.00		4665.69	9.39	8.55	9888.52	0.49	
1156.05		148.52	7.78		145.82	15.53	0.002822
	1.37085	80202.25					
100.00		4665.56	9.26	8.47	9539.13	0.49	
1126.89		147.07	7.66		144.41	15.60	0.002840
	1.35786	79426.65					
101.00		4665.44	9.14	8.38	9238.96	0.49	
1101.92		145.80	7.56		143.19	15.66	0.002856
	1.34702	78751.91					
102.00		4665.34	9.04	8.31	8983.24	0.49	
1080.40		144.70	7.47		142.12	15.71	0.002867
	1.33586	78163.77					
103.00		4665.27	8.97	8.26	8782.60	0.49	
1063.49		143.83	7.39		141.26	15.76	0.002880
	1.32868	77695.60					
104.00		4665.15	8.85	8.17	8494.97	0.48	
1039.20		142.55	7.29		140.02	15.82	0.002899
	1.31863	77012.57					
105.00		4665.03	8.73	8.09	8193.03	0.48	
1013.05		141.16	7.18		138.68	15.89	0.002911
	1.30361	76271.35					
106.00		4664.95	8.65	8.03	8015.53	0.48	
997.62		140.33	7.11		137.87	15.93	0.002922
	1.29627	75826.97					
107.00		4664.88	8.58	7.98	7841.56	0.48	
982.44		139.50	7.04		137.06	15.97	0.002933
	1.28883	75385.56					
108.00		4664.84	8.54	7.95	7743.55	0.48	
973.71		139.02	7.00		136.60	16.00	0.002933
	1.28206	75131.26					
109.00		4664.87	8.57	7.98	7819.22	0.48	
980.22		139.38	7.03		136.95	15.98	0.002925
	1.28363	75323.21					
110.00		4664.98	8.68	8.05	8071.37	0.48	
1002.10		140.57	7.13		138.11	15.92	0.002908
	1.29335	75958.95					
111.00		4665.03	8.73	8.09	8190.40	0.48	
1012.76		141.14	7.18		138.66	15.89	0.002912
	1.30404	76263.56					
112.00		4664.95	8.65	8.03	8015.42	0.48	
997.61		140.33	7.11		137.87	15.93	0.002922
	1.29612	75826.70					
113.00		4664.98	8.68	8.05	8071.95	0.48	
1002.17		140.58	7.13		138.11	15.92	0.002908
	1.29346	75961.02					
114.00		4665.13	8.83	8.16	8445.01	0.48	
1034.31		142.30	7.27		139.78	15.83	0.002886
	1.30892	76879.46					
115.00		4665.19	8.89	8.20	8580.68	0.49	

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		HYCHAN.OUT				
1046.34	142.93	7.32	140.39	15.80	0.002889	
1.31972	77216.34					
116.00	4665.14	8.84	8.17	8470.59	0.48	
1036.80	142.43	7.28	139.91	15.82	0.002891	
1.31340	76948.87					
117.00	4665.14	8.84	8.17	8469.99	0.48	
1036.73	142.42	7.28	139.90	15.82	0.002893	
1.31393	76947.05					
118.00	4665.18	8.88	8.20	8558.07	0.49	
1044.12	142.82	7.31	140.28	15.81	0.002883	
1.31526	77156.18					
119.00	4665.22	8.92	8.23	8669.44	0.49	
1053.76	143.32	7.35	140.77	15.78	0.002880	
1.32151	77426.13					
120.00	4665.22	8.92	8.23	8670.01	0.49	
1053.83	143.32	7.35	140.78	15.78	0.002881	
1.32167	77427.82					
121.00	4665.19	8.89	8.20	8581.98	0.48	
1046.48	142.93	7.32	140.40	15.80	0.002891	
1.32053	77220.08					
122.00	4665.14	8.84	8.17	8470.59	0.48	
1036.80	142.43	7.28	139.91	15.82	0.002892	
1.31352	76949.02					
123.00	4665.11	8.81	8.14	8382.14	0.48	
1029.35	142.03	7.25	139.52	15.84	0.002902	
1.31239	76736.34					
124.00	4665.06	8.76	8.11	8270.60	0.48	
1019.60	141.51	7.21	139.02	15.87	0.002903	
1.30506	76460.40					
125.00	4665.06	8.76	8.11	8270.02	0.48	
1019.54	141.51	7.20	139.02	15.87	0.002903	
1.30517	76458.61					
126.00	4665.03	8.73	8.09	8191.73	0.48	
1012.90	141.15	7.18	138.67	15.89	0.002911	
1.30356	76267.33					
127.00	4664.99	8.69	8.06	8091.57	0.48	
1004.09	140.68	7.14	138.21	15.91	0.002914	
1.29775	76015.41					
128.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03	140.68	7.14	138.21	15.91	0.002912	
1.29708	76013.67					
129.00	4664.95	8.65	8.03	8014.83	0.48	
997.54	140.32	7.11	137.86	15.93	0.002923	
1.29651	75824.97					
130.00	4664.91	8.61	8.01	7917.52	0.48	
988.95	139.86	7.07	137.41	15.95	0.002923	
1.28993	75577.06					
131.00	4664.98	8.68	8.05	8072.01	0.48	
1002.17	140.58	7.13	138.11	15.92	0.002907	
1.29324	75961.00					
132.00	4665.06	8.76	8.11	8268.99	0.48	
1019.42	141.50	7.20	139.01	15.87	0.002904	
1.30558	76455.54					
133.00	4665.06	8.76	8.11	8270.00	0.48	
1019.53	141.51	7.20	139.02	15.87	0.002904	
1.30540	76458.59					
134.00	4665.06	8.76	8.11	8269.99	0.48	
1019.53	141.51	7.20	139.02	15.87	0.002903	
1.30519	76458.58					
135.00	4665.06	8.76	8.11	8270.00	0.48	
1019.53	141.51	7.20	139.02	15.87	0.002903	
1.30527	76458.59					
136.00	4665.06	8.76	8.11	8270.01	0.48	

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				HYCHAN.OUT			
1019.53		141.51		7.20	139.02	15.87	0.002903
	1.30516	76458.57					
	137.00	4665.06	8.76	8.11	8270.00	0.48	
1019.53		141.51		7.20	139.02	15.87	0.002903
	1.30531	76458.59					
	138.00	4665.06	8.76	8.11	8269.99	0.48	
1019.53		141.51		7.20	139.02	15.87	0.002904
	1.30535	76458.59					
	139.00	4665.03	8.73	8.09	8191.66	0.48	
1012.90		141.15		7.18	138.67	15.89	0.002911
	1.30349	76267.23					
	140.00	4664.99	8.69	8.06	8091.57	0.48	
1004.09		140.68		7.14	138.21	15.91	0.002912
	1.29712	76015.40					
	141.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03		140.68		7.14	138.21	15.91	0.002912
	1.29706	76013.70					
	142.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03		140.68		7.14	138.21	15.91	0.002913
	1.29724	76013.67					
	143.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03		140.68		7.14	138.21	15.91	0.002913
	1.29721	76013.69					
	144.00	4664.95	8.65	8.03	8014.77	0.48	
997.54		140.32		7.11	137.86	15.93	0.002921
	1.29590	75824.82					
	145.00	4664.91	8.61	8.01	7917.51	0.48	
988.95		139.86		7.07	137.41	15.95	0.002924
	1.29015	75577.05					
	146.00	4664.91	8.61	8.01	7917.01	0.48	
988.90		139.86		7.07	137.41	15.95	0.002924
	1.28993	75575.53					
	147.00	4664.91	8.61	8.01	7917.00	0.48	
988.90		139.86		7.07	137.41	15.95	0.002924
	1.29001	75575.52					
	148.00	4664.91	8.61	8.01	7917.00	0.48	
988.90		139.86		7.07	137.41	15.95	0.002923
	1.28955	75575.55					
	149.00	4664.91	8.61	8.01	7916.99	0.48	
988.89		139.86		7.07	137.41	15.95	0.002925
	1.29040	75575.46					
	150.00	4664.89	8.59	7.99	7866.22	0.48	
984.54		139.62		7.05	137.18	15.97	0.002929
	1.28873	75447.66					
	151.00	4664.85	8.55	7.96	7776.03	0.48	
976.60		139.18		7.02	136.76	15.99	0.002933
	1.28406	75215.91					
	152.00	4664.84	8.54	7.95	7743.18	0.48	
973.67		139.02		7.00	136.60	16.00	0.002933
	1.28202	75130.18					
	153.00	4664.84	8.54	7.95	7743.00	0.48	
973.64		139.02		7.00	136.60	16.00	0.002934
	1.28241	75129.49					
	154.00	4664.81	8.51	7.93	7666.95	0.48	
967.07		138.66		6.97	136.24	16.02	0.002943
	1.28085	74934.51					
	155.00	4664.83	8.53	7.95	7721.65	0.48	
971.55		138.91		6.99	136.49	16.00	0.002927
	1.27754	75068.80					
	156.00	4664.91	8.61	8.01	7915.94	0.48	
988.78		139.85		7.07	137.40	15.95	0.002924
	1.29020	75572.25					
	157.00	4664.91	8.61	8.01	7917.01	0.48	

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		HYCHAN.OUT				
988.90	139.86	7.07	137.41	15.95	0.002924	
1.29002	75575.55					
158.00	4664.91	8.61	8.01	7917.00	0.48	
988.90	139.86	7.07	137.41	15.95	0.002924	
1.28996	75575.55					
159.00	4664.91	8.61	8.01	7917.00	0.48	
988.90	139.86	7.07	137.41	15.95	0.002924	
1.28997	75575.50					
160.00	4664.91	8.61	8.01	7916.99	0.48	
988.90	139.86	7.07	137.41	15.95	0.002923	
1.28985	75575.51					
161.00	4664.91	8.61	8.01	7917.00	0.48	
988.89	139.86	7.07	137.41	15.95	0.002923	
1.28971	75575.48					
162.00	4664.91	8.61	8.01	7917.00	0.48	
988.90	139.86	7.07	137.41	15.95	0.002924	
1.29014	75575.54					
163.00	4664.91	8.61	8.01	7917.01	0.48	
988.90	139.86	7.07	137.41	15.95	0.002923	
1.28978	75575.59					
164.00	4664.88	8.58	7.98	7840.86	0.48	
982.37	139.50	7.04	137.06	15.97	0.002931	
1.28809	75383.58					
165.00	4664.84	8.54	7.95	7743.54	0.48	
973.71	139.02	7.00	136.60	16.00	0.002934	
1.28240	75131.26					
166.00	4664.84	8.54	7.95	7743.00	0.48	
973.64	139.02	7.00	136.60	16.00	0.002934	
1.28232	75129.45					
167.00	4664.84	8.54	7.95	7743.00	0.48	
973.64	139.02	7.00	136.60	16.00	0.002933	
1.28196	75129.43					
168.00	4664.84	8.54	7.95	7743.00	0.48	
973.64	139.02	7.00	136.60	16.00	0.002933	
1.28188	75129.54					
169.00	4664.84	8.54	7.95	7742.99	0.48	
973.64	139.02	7.00	136.60	16.00	0.002934	
1.28207	75129.53					
170.00	4664.84	8.54	7.95	7743.01	0.48	
973.64	139.02	7.00	136.60	16.00	0.002933	
1.28197	75129.53					
171.00	4664.84	8.54	7.95	7742.99	0.48	
973.64	139.02	7.00	136.60	16.00	0.002933	
1.28177	75129.46					
172.00	4664.81	8.51	7.93	7666.88	0.48	
967.07	138.66	6.97	136.24	16.02	0.002942	
1.28023	74934.34					
173.00	4664.76	8.46	7.90	7569.49	0.48	
958.36	138.18	6.94	135.78	16.04	0.002944	
1.27411	74678.21					
174.00	4664.76	8.46	7.90	7569.00	0.48	
958.31	138.17	6.94	135.78	16.04	0.002944	
1.27388	74676.77					
175.00	4664.76	8.46	7.90	7569.00	0.48	
958.31	138.17	6.94	135.78	16.04	0.002945	
1.27444	74676.79					
176.00	4664.76	8.46	7.90	7569.01	0.48	
958.31	138.17	6.94	135.78	16.04	0.002944	
1.27420	74676.79					
177.00	4664.76	8.46	7.90	7568.99	0.48	
958.31	138.17	6.94	135.78	16.04	0.002944	
1.27414	74676.77					
178.00	4664.76	8.46	7.90	7569.01	0.48	

		HYCHAN.OUT				
958.31	138.17	6.94	135.78	16.04	0.002943	
1.27379	74676.79					
179.00	4664.83	8.53	7.95	7721.44	0.48	
971.52	138.91	6.99		136.49	16.00	0.002927
1.27753	75068.02					
180.00	4664.91	8.61	8.01	7915.94	0.48	
988.78	139.85	7.07		137.40	15.95	0.002924
1.29000	75572.23					
181.00	4664.94	8.64	8.03	7993.32	0.48	
995.42	140.21	7.10		137.76	15.94	0.002916
1.29193	75765.87					
182.00	4664.98	8.69	8.06	8090.51	0.48	
1003.97	140.67	7.14		138.20	15.91	0.002913
1.29746	76012.17					
183.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03	140.68	7.14		138.21	15.91	0.002914
1.29770	76013.68					
184.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03	140.68	7.14		138.21	15.91	0.002913
1.29722	76013.65					
185.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03	140.68	7.14		138.21	15.91	0.002913
1.29754	76013.65					
186.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03	140.68	7.14		138.21	15.91	0.002912
1.29707	76013.67					
187.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03	140.68	7.14		138.21	15.91	0.002913
1.29748	76013.65					
188.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03	140.68	7.14		138.21	15.91	0.002913
1.29733	76013.67					
189.00	4664.99	8.69	8.06	8091.00	0.48	
1004.03	140.68	7.14		138.21	15.91	0.002914
1.29770	76013.65					
190.00	4664.95	8.65	8.03	8014.69	0.48	
997.53	140.32	7.11		137.86	15.93	0.002921
1.29595	75824.68					
191.00	4664.91	8.61	8.01	7917.51	0.48	
988.95	139.86	7.07		137.41	15.95	0.002924
1.29006	75577.03					
192.00	4664.91	8.61	8.01	7917.00	0.48	
988.90	139.86	7.07		137.41	15.95	0.002923
1.28954	75575.55					
193.00	4664.91	8.61	8.01	7917.00	0.48	
988.90	139.86	7.07		137.41	15.95	0.002924
1.29016	75575.48					
194.00	4664.91	8.61	8.01	7917.00	0.48	
988.90	139.86	7.07		137.41	15.95	0.002924
1.28996	75575.52					
195.00	4664.91	8.61	8.01	7917.01	0.48	
988.90	139.86	7.07		137.41	15.95	0.002923
1.28948	75575.55					
196.00	4664.91	8.61	8.01	7917.00	0.48	
988.90	139.86	7.07		137.41	15.95	0.002924
1.28995	75575.52					
197.00	4664.91	8.61	8.01	7917.00	0.48	
988.90	139.86	7.07		137.41	15.95	0.002923
1.28972	75575.52					
198.00	4664.91	8.61	8.01	7916.99	0.48	
988.89	139.86	7.07		137.41	15.95	0.002924
1.29017	75575.47					
199.00	4664.91	8.61	8.01	7917.00	0.48	

988.90 1.29011 139.86 75575.52 HYCHAN.OUT 7.07 137.41 15.95 0.002924

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 28

MAXIMUM DISCHARGE (CFS) = 21670.36 AT TIME = 79.09  
MAXIMUM STAGE = 4666.64 AT TIME = 79.08

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
SHEAR	STRESS	SURFACE	AREA						
(FT^2)	(HRS)	(FT)	(FT^2)	(FT)	(FPS)	(CFS)			
(LB/FT^2)									
0.00	0.00	4652.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
451.66	1.00	4655.91	3.31	6.28	3.26	1471.51	0.32		0.003597
	1.40964	71.92			71.21	21.50			
	2.00	42725.02	8.11		7.49	5495.62	0.46		
733.51	1.18985	134.13	5.47		131.85	16.26			0.003487
	3.00	79111.46	8.10		7.48	5468.52	0.46		
731.54	1.19050	133.99	5.46		131.71	16.26			0.003494
	4.00	79027.59	8.05		7.44	5378.88	0.46		
723.26	1.18334	133.41	5.42		131.15	16.30			0.003498
	5.00	78687.34	8.01		7.41	5316.21	0.46		
717.60	1.18008	133.00	5.40		130.75	16.32			0.003505
	6.00	78450.31	7.93		7.34	5165.66	0.46		
703.53	1.16872	131.99	5.33		129.77	16.37			0.003514
	7.00	77860.52	7.84		7.28	5013.47	0.46		
689.12	1.15723	130.94	5.26		128.75	16.43			0.003524
	8.00	77249.20	7.74		7.21	4861.97	0.46		
674.61	1.14596	129.87	5.19		127.71	16.49			0.003535
	9.00	76625.98	7.69		7.17	4772.98	0.46		
665.90	1.13770	129.23	5.15		127.08	16.53			0.003538
	10.00	76250.43	7.65		7.14	4709.61	0.45		
659.84	1.13380	128.77	5.12		126.64	16.56			0.003546
	11.00	75983.04	7.55		7.07	4559.59	0.45		
645.21	1.12190	127.66	5.05		125.56	16.62			0.003557
	12.00	75336.52	7.50		7.03	4469.96	0.45		
636.28	1.11372	126.98	5.01		124.90	16.66			0.003562
	13.00	74940.85	7.50		7.02	4469.00	0.45		
636.17	1.11324	126.98	5.01		124.89	16.66			0.003561
	14.00	74936.13	7.50		7.02	4468.98	0.45		
636.16	1.11335	126.97	5.01		124.89	16.66			0.003561
	15.00	74935.63	7.50		7.02	4469.02	0.45		
636.17		126.98	5.01		124.89	16.66			0.003561

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		HYCHAN.OUT					
	1.11322	74936.05					
636.17	16.00	4660.10	7.50	5.01	7.02	4468.94	0.45
		126.98			124.89	16.66	0.003562
	1.11347	74936.05					
642.25	17.00	4660.14	7.54	5.04	7.06	4531.62	0.45
		127.44			125.35	16.63	0.003553
	1.11721	75209.25					
656.99	18.00	4660.23	7.63	5.11	7.13	4682.36	0.45
		128.56			126.44	16.57	0.003542
	1.12946	75861.56					
671.63	19.00	4660.32	7.72	5.18	7.20	4833.75	0.46
		129.66			127.50	16.51	0.003530
	1.14096	76500.84					
680.30	20.00	4660.38	7.78	5.22	7.24	4923.13	0.46
		130.30			128.12	16.47	0.003528
	1.14927	76874.19					
680.39	21.00	4660.38	7.78	5.22	7.24	4924.00	0.46
		130.30			128.13	16.47	0.003527
	1.14921	76878.09					
686.25	22.00	4660.42	7.82	5.25	7.27	4986.26	0.46
		130.74			128.55	16.44	0.003521
	1.15322	77130.64					
706.42	23.00	4660.54	7.94	5.34	7.36	5200.09	0.46
		132.20			129.98	16.36	0.003503
	1.16793	77986.02					
734.65	24.00	4660.72	8.12	5.47	7.49	5503.26	0.46
		134.22			131.93	16.25	0.003482
	1.18939	79158.41					
762.52	25.00	4660.89	8.29	5.60	7.62	5807.18	0.47
		136.15			133.81	16.15	0.003464
	1.21040	80288.49					
778.66	26.00	4660.98	8.38	5.67	7.68	5983.48	0.47
		137.26			134.88	16.09	0.003457
	1.22389	80930.59					
778.83	27.00	4660.98	8.38	5.67	7.68	5984.99	0.47
		137.27			134.89	16.09	0.003458
	1.22438	80936.78					
784.98	28.00	4661.02	8.42	5.70	7.71	6054.69	0.47
		137.68			135.30	16.07	0.003450
	1.22730	81180.48					
793.70	29.00	4661.07	8.47	5.74	7.75	6151.16	0.47
		138.27			135.87	16.04	0.003448
	1.23505	81521.97					
793.79	30.00	4661.07	8.47	5.74	7.75	6151.99	0.47
		138.28			135.88	16.04	0.003449
	1.23535	81525.20					
800.19	31.00	4661.11	8.51	5.77	7.78	6224.98	0.47
		138.71			136.29	16.01	0.003441
	1.23862	81776.02					
809.16	32.00	4661.16	8.56	5.81	7.82	6325.15	0.47
		139.30			136.87	15.98	0.003438
	1.24622	82123.06					
809.25	33.00	4661.16	8.56	5.81	7.82	6326.01	0.47
		139.31			136.88	15.98	0.003437
	1.24578	82126.27					
802.90	34.00	4661.13	8.53	5.78	7.79	6253.08	0.47
		138.88			136.46	16.00	0.003444
	1.24243	81877.90					
793.88	35.00	4661.07	8.47	5.74	7.75	6152.86	0.47
		138.28			135.88	16.04	0.003448
	1.23517	81528.52					
787.67	36.00	4661.04	8.44	5.71	7.72	6082.12	0.47
		137.86			135.47	16.06	0.003454

		HYCHAN.OUT					
	1.23153	81283.33					
778.92	37.00	4660.98	8.39	7.68	5985.79	0.47	
		137.27	5.67		134.90	16.09	0.003458
	1.22455	80940.09					
778.84	38.00	4660.98	8.38	7.68	5985.01	0.47	
		137.27	5.67		134.90	16.09	0.003457
	1.22413	80937.14					
778.83	39.00	4660.98	8.38	7.68	5985.00	0.47	
		137.27	5.67		134.89	16.09	0.003458
	1.22413	80936.88					
778.82	40.00	4660.98	8.38	7.68	5985.00	0.47	
		137.27	5.67		134.89	16.09	0.003457
	1.22403	80936.54					
778.83	41.00	4660.98	8.38	7.68	5984.99	0.47	
		137.27	5.67		134.89	16.09	0.003458
	1.22418	80936.88					
785.01	42.00	4661.02	8.42	7.71	6055.03	0.47	
		137.69	5.70		135.30	16.07	0.003451
	1.22780	81181.70					
793.71	43.00	4661.07	8.47	7.75	6151.18	0.47	
		138.27	5.74		135.87	16.04	0.003448
	1.23510	81522.29					
800.18	44.00	4661.11	8.51	7.78	6224.90	0.47	
		138.71	5.77		136.29	16.01	0.003440
	1.23816	81775.68					
815.51	45.00	4661.20	8.60	7.85	6398.13	0.47	
		139.72	5.84		137.28	15.96	0.003429
	1.24876	82368.74					
830.78	46.00	4661.29	8.69	7.91	6572.02	0.47	
		140.73	5.90		138.25	15.91	0.003419
	1.25944	82952.59					
845.90	47.00	4661.38	8.78	7.97	6745.57	0.47	
		141.71	5.97		139.21	15.86	0.003409
	1.26975	83523.84					
860.94	48.00	4661.46	8.86	8.04	6919.67	0.48	
		142.67	6.03		140.14	15.81	0.003399
	1.27976	84086.53					
875.87	49.00	4661.55	8.95	8.10	7093.75	0.48	
		143.62	6.10		141.06	15.77	0.003389
	1.28961	84638.53					
896.83	50.00	4661.67	9.07	8.19	7341.51	0.48	
		144.93	6.19		142.34	15.70	0.003373
	1.30237	85403.89					
913.83	51.00	4661.76	9.16	8.25	7541.45	0.48	
		145.98	6.26		143.36	15.65	0.003367
	1.31532	86015.90					
920.03	52.00	4661.79	9.19	8.28	7616.61	0.48	
		146.37	6.29		143.73	15.63	0.003361
	1.31814	86238.47					
947.59	53.00	4661.95	9.35	8.39	7951.19	0.48	
		148.04	6.40		145.35	15.55	0.003337
	1.33285	87212.02					
1001.14	54.00	4662.23	9.63	8.60	8610.17	0.49	
		151.20	6.62		148.42	15.41	0.003300
	1.36330	89054.88					
1072.13	55.00	4662.61	10.01	8.86	9503.55	0.49	
		155.24	6.91		152.34	15.23	0.003247
	1.39929	91406.47					
1175.99	56.00	4663.13	10.53	9.17	10781.60	0.50	
		160.86	7.31		157.79	14.98	0.003133
	1.42938	94675.80					
1288.65	57.00	4663.68	11.08	9.45	12174.86	0.50	
		166.64	7.73		163.40	14.75	0.003064

## HYCHAN.OUT

1378.10	1.47867	98039.49	11.50	8.06	9.65	13303.92	0.50	0.002998
	58.00	4664.10				167.63	14.58	
	1.50735	100578.77						
1472.45	59.00	4664.53	11.93	8.39	9.86	14519.20	0.50	0.002916
		175.42				171.91	14.41	
	1.52754	103144.35						
1561.05	60.00	4664.92	12.32	8.70	10.04	15673.11	0.50	0.002873
		179.42				175.78	14.27	
	1.55978	105469.52						
1620.52	61.00	4665.18	12.58	8.90	10.16	16462.03	0.50	0.002826
		182.03				178.30	14.18	
	1.57000	106980.85						
1671.01	62.00	4665.39	12.79	9.07	10.26	17138.27	0.51	0.002807
		184.19				180.40	14.10	
	1.58882	108238.15						
1715.25	63.00	4665.58	12.98	9.22	10.35	17745.09	0.51	0.002765
		186.05				182.20	14.04	
	1.59053	109320.12						
1767.01	64.00	4665.79	13.19	9.39	10.45	18457.23	0.51	0.002744
		188.20				184.27	13.97	
	1.60769	110564.87						
1782.59	65.00	4665.86	13.26	9.44	10.47	18671.25	0.51	0.002744
		188.83				184.89	13.95	
	1.61636	110933.91						
1782.43	66.00	4665.86	13.26	9.44	10.48	18673.29	0.51	0.002742
		188.82				184.88	13.95	
	1.61510	110930.07						
1782.58	67.00	4665.86	13.26	9.44	10.48	18674.04	0.51	0.002744
		188.83				184.89	13.95	
	1.61623	110933.60						
1782.51	68.00	4665.86	13.26	9.44	10.48	18673.94	0.51	0.002740
		188.83				184.89	13.95	
	1.61425	110932.12						
1782.58	69.00	4665.86	13.26	9.44	10.48	18675.45	0.51	0.002743
		188.83				184.89	13.95	
	1.61559	110933.55						
1782.64	70.00	4665.86	13.26	9.44	10.48	18675.87	0.51	0.002745
		188.83				184.89	13.95	
	1.61675	110935.22						
1782.64	71.00	4665.86	13.26	9.44	10.48	18675.63	0.51	0.002746
		188.83				184.89	13.95	
	1.61745	110935.10						
1793.48	72.00	4665.90	13.30	9.48	10.50	18832.79	0.51	0.002735
		189.28				185.32	13.93	
	1.61709	111192.25						
1807.38	73.00	4665.96	13.36	9.52	10.54	19044.25	0.51	0.002732
		189.84				185.86	13.91	
	1.62290	111518.88						
1807.53	74.00	4665.96	13.36	9.52	10.54	19047.96	0.51	0.002735
		189.84				185.87	13.91	
	1.62478	111522.16						
1817.35	75.00	4666.00	13.40	9.55	10.57	19204.22	0.51	0.002726
		190.24				186.26	13.90	
	1.62507	111753.41						
1851.73	76.00	4666.14	13.54	9.66	10.66	19732.78	0.51	0.002700
		191.62				187.59	13.85	
	1.62824	112553.94						
1890.79	77.00	4666.30	13.70	9.79	10.74	20314.18	0.51	0.002686
		193.17				189.09	13.80	
	1.64058	113451.97						
1916.92	78.00	4666.40	13.80	9.87	10.80	20702.14	0.51	0.002672
		194.19				190.08	13.77	

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HYCHAN.OUT									
	1.64601	114046.33							
1950.97	79.00	4666.54	13.94	9.98	10.89	21251.65	0.51		
	1.65196	114813.37				191.36	13.73	0.002653	
1969.49	80.00	4666.61	14.01	10.04	10.93	21524.99	0.51		
	1.66384	115224.94				192.04	13.71	0.002657	
1945.35	81.00	4666.51	13.91	9.96	10.87	21147.16	0.51		
	1.65853	114684.87				191.14	13.74	0.002668	
1933.53	82.00	4666.47	13.87	9.92	10.82	20927.20	0.51		
	1.64966	114420.65				190.70	13.75	0.002664	
1933.89	83.00	4666.47	13.87	9.93	10.82	20923.11	0.51		
	1.64938	114428.77				190.71	13.75	0.002663	
1933.89	84.00	4666.47	13.87	9.93	10.82	20923.08	0.51		
	1.64938	114428.58				190.71	13.75	0.002663	
1911.12	85.00	4666.38	13.78	9.85	10.78	20600.44	0.51		
	1.65440	113909.77				189.85	13.78	0.002691	
1851.39	86.00	4666.14	13.54	9.66	10.65	19714.13	0.51		
	1.64440	112535.31				187.56	13.85	0.002727	
1776.48	87.00	4665.83	13.23	9.42	10.48	18617.41	0.51		
	1.62464	110779.05				184.63	13.95	0.002764	
1683.46	88.00	4665.44	12.84	9.12	10.28	17299.92	0.51		
	1.61254	108526.49				180.88	14.08	0.002835	
1587.23	89.00	4665.03	12.43	8.79	10.08	16001.78	0.50		
	1.58488	106130.24				176.88	14.23	0.002889	
1522.09	90.00	4664.75	12.15	8.57	9.95	15144.49	0.50		
	1.56823	104450.42				174.08	14.33	0.002934	
1450.16	91.00	4664.42	11.83	8.32	9.80	14206.56	0.50		
	1.55307	102538.88				170.90	14.45	0.002993	
1375.84	92.00	4664.09	11.49	8.05	9.64	13259.78	0.50		
	1.52902	100508.98				167.51	14.58	0.003044	
1316.18	93.00	4663.81	11.21	7.83	9.50	12504.49	0.50		
	1.50998	98826.37				164.71	14.70	0.003089	
1266.22	94.00	4663.57	10.97	7.65	9.38	11881.18	0.50		
	1.48880	97384.16				162.31	14.79	0.003119	
1225.39	95.00	4663.37	10.77	7.50	9.28	11372.54	0.50		
	1.47969	96175.26				160.29	14.88	0.003163	
1187.78	96.00	4663.19	10.59	7.36	9.19	10911.26	0.50		
	1.46183	95042.91				158.40	14.96	0.003185	
1156.17	97.00	4663.03	10.43	7.23	9.10	10524.08	0.50		
	1.45181	94070.15				156.78	15.03	0.003216	
1128.00	98.00	4662.89	10.29	7.13	9.03	10184.68	0.50		
	1.43770	93193.66				155.32	15.09	0.003234	
1104.16	99.00	4662.77	10.17	7.03	8.96	9894.19	0.50		
		157.01				154.06	15.15	0.003255	



				HYCHAN.OUT			
	1.42830	92436.40					
100.00	4662.62	10.03	8.87	9543.56	0.49		
1075.82	155.45	6.92	152.54	15.22	0.003271		
	1.41275	91526.94					
101.00	4662.50	9.90	8.78	9243.25	0.49		
1052.18	154.12	6.83	151.26	15.27	0.003286		
	1.39983	90755.98					
102.00	4662.40	9.80	8.71	8986.25	0.49		
1031.74	152.97	6.74	150.14	15.33	0.003298		
	1.38792	90081.48					
103.00	4662.31	9.71	8.65	8785.47	0.49		
1015.83	152.05	6.68	149.25	15.37	0.003307		
	1.37850	89550.17					
104.00	4662.19	9.59	8.56	8500.59	0.49		
993.15	150.73	6.59	147.97	15.43	0.003324		
	1.36669	88780.55					
105.00	4662.06	9.46	8.47	8195.99	0.49		
968.18	149.26	6.49	146.54	15.50	0.003336		
	1.35022	87926.80					
106.00	4661.98	9.38	8.41	8018.13	0.48		
953.56	148.39	6.43	145.70	15.54	0.003346		
	1.34154	87419.20					
107.00	4661.90	9.30	8.35	7844.18	0.48		
939.22	147.53	6.37	144.86	15.58	0.003355		
	1.33261	86916.02					
108.00	4661.85	9.25	8.32	7743.80	0.48		
930.75	147.02	6.33	144.36	15.60	0.003358		
	1.32658	86618.55					
109.00	4661.89	9.29	8.35	7816.85	0.48		
936.70	147.38	6.36	144.72	15.58	0.003350		
	1.32861	86830.06					
110.00	4662.00	9.40	8.43	8066.31	0.48		
957.15	148.61	6.44	145.91	15.53	0.003334		
	1.33994	87546.99					
111.00	4662.06	9.46	8.46	8192.38	0.49		
967.82	149.24	6.48	146.53	15.50	0.003337		
	1.35018	87915.05					
112.00	4661.98	9.38	8.41	8018.03	0.48		
953.56	148.39	6.43	145.70	15.54	0.003346		
	1.34153	87418.94					
113.00	4662.00	9.40	8.43	8067.37	0.48		
957.26	148.62	6.44	145.92	15.53	0.003334		
	1.34005	87550.79					
114.00	4662.16	9.56	8.55	8439.18	0.49		
987.53	150.41	6.57	147.66	15.44	0.003314		
	1.35766	88594.92					
115.00	4662.23	9.63	8.59	8582.85	0.49		
999.62	151.11	6.62	148.34	15.41	0.003317		
	1.36939	89003.88					
116.00	4662.18	9.58	8.55	8470.86	0.49		
990.41	150.58	6.58	147.82	15.43	0.003320		
	1.36251	88691.95					
117.00	4662.18	9.58	8.55	8469.97	0.49		
990.32	150.57	6.58	147.81	15.43	0.003320		
	1.36239	88688.95					
118.00	4662.21	9.61	8.58	8555.41	0.49		
997.07	150.97	6.60	148.20	15.42	0.003312		
	1.36511	88919.47					
119.00	4662.26	9.66	8.61	8669.18	0.49		
1006.44	151.51	6.64	148.73	15.39	0.003310		
	1.37178	89236.16					
120.00	4662.26	9.66	8.61	8670.00	0.49		
1006.53	151.52	6.64	148.73	15.39	0.003309		

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			HYCHAN.OUT				
1.37185	89238.82						
121.00	4662.23	9.63	8.59	8584.67	0.49		
999.80	151.12	6.62	148.35	15.41	0.003317		
1.36953	89009.48						
122.00	4662.18	9.58	8.55	8470.87	0.49		
990.42	150.58	6.58	147.82	15.43	0.003320		
1.36268	88692.38						
123.00	4662.14	9.54	8.52	8384.82	0.49		
983.58	150.18	6.55	147.43	15.45	0.003328		
1.36001	88456.98						
124.00	4662.09	9.49	8.49	8270.86	0.49		
974.14	149.62	6.51	146.89	15.48	0.003331		
1.35312	88134.48						
125.00	4662.09	9.49	8.49	8270.00	0.49		
974.06	149.62	6.51	146.89	15.48	0.003329		
1.35250	88131.71						
126.00	4662.06	9.46	8.47	8194.17	0.49		
967.99	149.25	6.49	146.53	15.50	0.003337		
1.35057	87920.52						
127.00	4662.01	9.41	8.43	8091.82	0.48		
959.49	148.75	6.45	146.05	15.52	0.003339		
1.34402	87627.47						
128.00	4662.01	9.41	8.43	8091.00	0.48		
959.41	148.75	6.45	146.04	15.52	0.003339		
1.34385	87624.84						
129.00	4661.98	9.38	8.41	8017.19	0.48		
953.47	148.39	6.43	145.69	15.54	0.003345		
1.34131	87416.24						
130.00	4661.93	9.33	8.38	7917.74	0.48		
945.18	147.89	6.39	145.21	15.56	0.003347		
1.33496	87127.48						
131.00	4662.00	9.40	8.43	8067.21	0.48		
957.24	148.62	6.44	145.92	15.53	0.003334		
1.34015	87550.07						
132.00	4662.09	9.49	8.49	8268.52	0.49		
973.91	149.61	6.51	146.88	15.48	0.003329		
1.35225	88126.88						
133.00	4662.09	9.49	8.49	8270.00	0.49		
974.06	149.62	6.51	146.89	15.48	0.003330		
1.35275	88131.71						
134.00	4662.09	9.49	8.49	8270.02	0.49		
974.06	149.62	6.51	146.89	15.48	0.003329		
1.35237	88131.61						
135.00	4662.09	9.49	8.49	8269.99	0.49		
974.05	149.62	6.51	146.89	15.48	0.003329		
1.35236	88131.59						
136.00	4662.09	9.49	8.49	8270.01	0.49		
974.06	149.62	6.51	146.89	15.48	0.003329		
1.35249	88131.72						
137.00	4662.09	9.49	8.49	8270.00	0.49		
974.06	149.62	6.51	146.89	15.48	0.003329		
1.35259	88131.58						
138.00	4662.09	9.49	8.49	8270.00	0.49		
974.06	149.62	6.51	146.89	15.48	0.003330		
1.35276	88131.71						
139.00	4662.06	9.46	8.47	8194.09	0.49		
967.99	149.25	6.49	146.53	15.50	0.003336		
1.35003	87920.46						
140.00	4662.01	9.41	8.43	8091.81	0.48		
959.49	148.75	6.45	146.05	15.52	0.003338		
1.34372	87627.47						
141.00	4662.01	9.41	8.43	8090.99	0.48		
959.41	148.75	6.45	146.04	15.52	0.003338		

		HYCHAN.OUT					
	1.34343	87624.92					
959.41	142.00	4662.01	9.41	8.43	8090.99	0.48	
		148.75	6.45		146.04	15.52	0.003339
	1.34408	87624.84					
959.41	143.00	4662.01	9.41	8.43	8090.99	0.48	
		148.75	6.45		146.04	15.52	0.003339
	1.34371	87624.91					
953.47	144.00	4661.98	9.38	8.41	8017.15	0.48	
		148.39	6.43		145.69	15.54	0.003345
	1.34128	87416.16					
945.18	145.00	4661.93	9.33	8.38	7917.75	0.48	
		147.89	6.39		145.21	15.56	0.003347
	1.33490	87127.48					
945.11	146.00	4661.93	9.33	8.38	7917.00	0.48	
		147.89	6.39		145.21	15.56	0.003348
	1.33498	87125.21					
945.11	147.00	4661.93	9.33	8.38	7917.00	0.48	
		147.89	6.39		145.21	15.56	0.003347
	1.33488	87125.21					
945.11	148.00	4661.93	9.33	8.38	7917.02	0.48	
		147.89	6.39		145.21	15.56	0.003349
	1.33541	87125.23					
945.11	149.00	4661.93	9.33	8.38	7916.98	0.48	
		147.89	6.39		145.21	15.56	0.003348
	1.33512	87125.05					
941.13	150.00	4661.91	9.31	8.36	7867.80	0.48	
		147.65	6.37		144.97	15.57	0.003354
	1.33391	86984.16					
933.57	151.00	4661.87	9.27	8.33	7776.99	0.48	
		147.19	6.34		144.53	15.59	0.003357
	1.32858	86717.93					
930.71	152.00	4661.85	9.25	8.32	7743.26	0.48	
		147.02	6.33		144.36	15.60	0.003357
	1.32604	86617.16					
930.67	153.00	4661.85	9.25	8.32	7743.00	0.48	
		147.01	6.33		144.36	15.60	0.003357
	1.32594	86615.79					
924.67	154.00	4661.82	9.22	8.29	7669.36	0.48	
		146.64	6.31		144.00	15.62	0.003364
	1.32358	86401.24					
928.32	155.00	4661.84	9.24	8.31	7717.08	0.48	
		146.87	6.32		144.22	15.61	0.003353
	1.32227	86533.33					
944.96	156.00	4661.93	9.33	8.38	7915.48	0.48	
		147.88	6.39		145.20	15.56	0.003349
	1.33527	87120.14					
945.11	157.00	4661.93	9.33	8.38	7917.01	0.48	
		147.89	6.39		145.21	15.56	0.003347
	1.33481	87125.30					
945.11	158.00	4661.93	9.33	8.38	7917.00	0.48	
		147.89	6.39		145.21	15.56	0.003349
	1.33544	87125.25					
945.11	159.00	4661.93	9.33	8.38	7917.01	0.48	
		147.89	6.39		145.21	15.56	0.003348
	1.33513	87125.07					
945.11	160.00	4661.93	9.33	8.38	7917.01	0.48	
		147.89	6.39		145.21	15.56	0.003349
	1.33538	87125.18					
945.11	161.00	4661.93	9.33	8.38	7917.00	0.48	
		147.89	6.39		145.21	15.56	0.003348
	1.33512	87125.09					
945.11	162.00	4661.93	9.33	8.38	7917.00	0.48	
		147.89	6.39		145.21	15.56	0.003348

		HYCHAN.OUT				
1.33531	87125.26	9.33	8.38	7916.98	0.48	
163.00	4661.93	6.39	145.21	15.56	0.003348	
945.12	147.89					
1.33515	87125.34	9.30	8.35	7843.25	0.48	
164.00	4661.90	6.37	144.86	15.58	0.003354	
939.14	147.52					
1.33248	86913.41	9.25	8.32	7743.78	0.48	
165.00	4661.85	6.33	144.36	15.60	0.003357	
930.75	147.02					
1.32622	86618.67	9.25	8.32	7743.01	0.48	
166.00	4661.85	6.33	144.36	15.60	0.003357	
930.66	147.01					
1.32611	86615.62	9.25	8.32	7743.00	0.48	
167.00	4661.85	6.33	144.36	15.60	0.003358	
930.66	147.01					
1.32648	86615.73	9.25	8.32	7743.00	0.48	
168.00	4661.85	6.33	144.36	15.60	0.003356	
930.67	147.01					
1.32588	86616.01	9.25	8.32	7743.01	0.48	
169.00	4661.85	6.33	144.36	15.60	0.003357	
930.67	147.01					
1.32596	86615.88	9.25	8.32	7742.99	0.48	
170.00	4661.85	6.33	144.36	15.60	0.003357	
930.67	147.01					
1.32595	86615.93	9.25	8.32	7743.00	0.48	
171.00	4661.85	6.33	144.36	15.60	0.003356	
930.67	147.01					
1.32589	86615.76	9.22	8.29	7669.29	0.48	
172.00	4661.82	6.31	144.00	15.62	0.003363	
924.67	146.64					
1.32327	86401.05	9.17	8.26	7569.71	0.48	
173.00	4661.77	6.27	143.50	15.64	0.003367	
916.26	146.13					
1.31730	86102.69	9.17	8.26	7569.00	0.48	
174.00	4661.77	6.27	143.50	15.64	0.003366	
916.20	146.13					
1.31708	86100.65	9.17	8.26	7569.00	0.48	
175.00	4661.77	6.27	143.50	15.64	0.003366	
916.20	146.13					
1.31687	86100.64	9.17	8.26	7569.00	0.48	
176.00	4661.77	6.27	143.50	15.64	0.003366	
916.20	146.13					
1.31678	86100.65	9.17	8.26	7569.01	0.48	
177.00	4661.77	6.27	143.50	15.64	0.003366	
916.20	146.13					
1.31684	86100.63	9.17	8.26	7569.00	0.48	
178.00	4661.77	6.27	143.50	15.64	0.003366	
916.20	146.13					
1.31694	86100.65	9.24	8.31	7716.65	0.48	
179.00	4661.84	6.32	144.22	15.61	0.003352	
928.28	146.87					
1.32202	86531.91	9.33	8.38	7915.48	0.48	
180.00	4661.93	6.39	145.20	15.56	0.003348	
944.96	147.88					
1.33491	87120.09	9.36	8.40	7990.94	0.48	
181.00	4661.96	6.42	145.56	15.54	0.003342	
951.08	148.25					
1.33798	87335.14	9.41	8.43	8090.31	0.48	
182.00	4662.01	6.45	146.04	15.52	0.003339	
959.34	148.74					
1.34392	87622.41	9.41	8.43	8091.00	0.48	
183.00	4662.01	6.45	146.04	15.52	0.003339	
959.41	148.75					

HYCHAN.OUT									
1.34396	87624.84	9.41	8.43	8091.00	0.48				
184.00	4662.01	6.45	146.04	15.52	0.003339				
959.41	148.75								
1.34399	87624.77	9.41	8.43	8090.99	0.48				
185.00	4662.01	6.45	146.04	15.52	0.003339				
959.41	148.75								
1.34384	87624.77	9.41	8.43	8091.01	0.48				
186.00	4662.01	6.45	146.04	15.52	0.003339				
959.41	148.75								
1.34385	87624.84	9.41	8.43	8090.99	0.48				
187.00	4662.01	6.45	146.04	15.52	0.003339				
959.41	148.75								
1.34369	87624.73	9.41	8.43	8091.00	0.48				
188.00	4662.01	6.45	146.04	15.52	0.003339				
959.41	148.75								
1.34377	87624.86	9.41	8.43	8090.99	0.48				
189.00	4662.01	6.45	146.04	15.52	0.003339				
959.41	148.75								
1.34388	87624.73	9.38	8.41	8017.07	0.48				
190.00	4661.98	6.43	145.69	15.54	0.003345				
953.47	148.39								
1.34120	87416.16	9.33	8.38	7917.74	0.48				
191.00	4661.93	6.39	145.21	15.56	0.003348				
945.18	147.89								
1.33536	87127.40	9.33	8.38	7917.01	0.48				
192.00	4661.93	6.39	145.21	15.56	0.003348				
945.11	147.89								
1.33516	87125.22	9.33	8.38	7916.98	0.48				
193.00	4661.93	6.39	145.21	15.56	0.003348				
945.11	147.89								
1.33498	87125.16	9.33	8.38	7917.01	0.48				
194.00	4661.93	6.39	145.21	15.56	0.003348				
945.11	147.89								
1.33503	87125.16	9.33	8.38	7917.01	0.48				
195.00	4661.93	6.39	145.21	15.56	0.003347				
945.11	147.89								
1.33475	87125.22	9.33	8.38	7916.99	0.48				
196.00	4661.93	6.39	145.21	15.56	0.003348				
945.11	147.89								
1.33512	87125.21	9.33	8.38	7917.01	0.48				
197.00	4661.93	6.39	145.21	15.56	0.003348				
945.11	147.89								
1.33495	87125.18	9.33	8.38	7916.99	0.48				
198.00	4661.93	6.39	145.21	15.56	0.003349				
945.11	147.89								
1.33549	87125.09	9.33	8.38	7917.00	0.48				
199.00	4661.93	6.39	145.21	15.56	0.003348				
945.11	147.89								
1.33505	87125.22								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 43

MAXIMUM DISCHARGE (CFS) = 21674.56 AT TIME = 79.09  
 MAXIMUM STAGE = 4664.54 AT TIME = 79.09

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)		
(LB/FT^2)	(FT^2)					

		HYCHAN.OUT						
	0.00	4648.80	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4652.29	3.49	3.12	1382.83	0.29		
443.61		74.58	5.95	73.81	21.15	0.003961		
	1.47028	37641.08						
	2.00	4657.83	9.03	7.79	5485.66	0.46		
704.38		144.58	4.87	142.00	15.72	0.003853		
	1.17144	72417.47						
	3.00	4657.83	9.03	7.78	5470.43	0.46		
703.52		144.51	4.87	141.93	15.72	0.003856		
	1.17148	72381.80						
	4.00	4657.77	8.97	7.73	5379.08	0.46		
695.67		143.89	4.83	141.32	15.75	0.003861		
	1.16487	72074.69						
	5.00	4657.73	8.93	7.70	5318.12	0.45		
690.51		143.47	4.81	140.92	15.77	0.003863		
	1.16016	71868.70						
	6.00	4657.64	8.84	7.63	5167.82	0.45		
677.44		142.42	4.76	139.90	15.83	0.003869		
	1.14851	71347.23						
	7.00	4657.54	8.74	7.55	5015.63	0.45		
664.00		141.32	4.70	138.83	15.88	0.003875		
	1.13622	70804.98						
	8.00	4657.44	8.64	7.48	4864.20	0.45		
650.48		140.21	4.64	137.75	15.94	0.003881		
	1.12347	70252.34						
	9.00	4657.38	8.58	7.43	4773.25	0.45		
642.18		139.52	4.60	137.08	15.97	0.003883		
	1.11534	69912.16						
	10.00	4657.34	8.54	7.40	4711.55	0.45		
636.69		139.05	4.58	136.63	16.00	0.003888		
	1.11090	69681.80						
	11.00	4657.24	8.44	7.32	4561.90	0.44		
623.05		137.90	4.52	135.51	16.06	0.003893		
	1.09754	69109.31						
	12.00	4657.18	8.38	7.27	4470.24	0.44		
614.52		137.17	4.48	134.80	16.09	0.003896		
	1.08905	68750.05						
	13.00	4657.18	8.38	7.27	4468.95	0.44		
614.39		137.16	4.48	134.79	16.09	0.003899		
	1.08968	68744.55						
	14.00	4657.17	8.38	7.27	4469.06	0.44		
614.37		137.16	4.48	134.79	16.09	0.003895		
	1.08877	68743.70						
	15.00	4657.18	8.38	7.27	4468.95	0.44		
614.37		137.16	4.48	134.79	16.09	0.003897		
	1.08936	68744.10						
	16.00	4657.18	8.38	7.27	4468.98	0.44		
614.40		137.16	4.48	134.79	16.09	0.003896		
	1.08904	68744.88						
	17.00	4657.22	8.42	7.31	4529.58	0.44		
619.92		137.64	4.50	135.26	16.07	0.003894		
	1.09429	68980.67						
	18.00	4657.32	8.52	7.39	4680.11	0.45		
633.67		138.81	4.57	136.39	16.01	0.003886		
	1.10703	69559.17						
	19.00	4657.42	8.62	7.46	4831.50	0.45		
647.33		139.95	4.63	137.50	15.95	0.003880		
	1.11990	70126.44						
	20.00	4657.48	8.68	7.51	4922.91	0.45		
655.57		140.63	4.66	138.16	15.91	0.003877		
	1.12764	70464.12						

		HYCHAN.OUT			
655.68	21.00	4657.48	8.68	7.51	4923.96
		140.64	4.66		15.91
	1.12826	70468.38			0.003878
660.99	22.00	4657.52	8.72	7.54	4984.37
		141.08	4.69		15.89
	1.13273	70686.07			0.003875
679.63	23.00	4657.66	8.86	7.65	5195.98
		142.60	4.77		15.82
	1.14931	71438.31			0.003865
705.84	24.00	4657.84	9.04	7.79	5498.98
		144.69	4.88		15.71
	1.17320	72475.11			0.003854
731.74	25.00	4658.03	9.23	7.93	5803.00
		146.72	4.99		15.62
	1.19580	73476.22			0.003842
747.03	26.00	4658.13	9.33	8.01	5983.04
		147.89	5.05		15.56
	1.20941	74056.59			0.003837
747.22	27.00	4658.13	9.33	8.01	5984.96
		147.90	5.05		15.56
	1.21031	74063.60			0.003839
752.76	28.00	4658.17	9.37	8.04	6052.70
		148.33	5.08		15.54
	1.21441	74272.77			0.003835
760.97	29.00	4658.23	9.43	8.08	6150.91
		148.94	5.11		15.51
	1.22173	74579.50			0.003832
761.07	30.00	4658.23	9.43	8.08	6152.00
		148.95	5.11		15.51
	1.22186	74583.25			0.003832
766.84	31.00	4658.27	9.47	8.11	6222.87
		149.39	5.13		15.49
	1.22664	74798.80			0.003829
775.31	32.00	4658.33	9.53	8.16	6324.93
		150.02	5.17		15.46
	1.23377	75111.56			0.003826
775.40	33.00	4658.33	9.53	8.16	6325.99
		150.03	5.17		15.46
	1.23390	75114.85			0.003826
769.68	34.00	4658.29	9.49	8.13	6255.16
		149.60	5.15		15.48
	1.22959	74901.46			0.003830
761.18	35.00	4658.23	9.43	8.08	6153.12
		148.96	5.11		15.51
	1.22234	74587.05			0.003833
755.57	36.00	4658.19	9.39	8.05	6084.15
		148.53	5.09		15.53
	1.21712	74375.55			0.003834
747.32	37.00	4658.13	9.33	8.01	5986.04
		147.91	5.05		15.56
	1.20981	74067.17			0.003837
747.22	38.00	4658.13	9.33	8.01	5985.02
		147.90	5.05		15.56
	1.20971	74063.43			0.003837
747.23	39.00	4658.13	9.33	8.01	5984.98
		147.90	5.05		15.56
	1.20981	74063.67			0.003838
747.23	40.00	4658.13	9.33	8.01	5985.00
		147.90	5.05		15.56
	1.20981	74063.67			0.003838
747.23	41.00	4658.13	9.33	8.01	5984.99
		147.90	5.05		15.56
	1.21024	74063.70			0.003839



HYCHAN.OUT							
752.79	42.00	4658.17	9.37	8.04	6053.00	0.46	
	1.21463	148.33	5.08	145.63	15.54		0.003835
		74273.85					
760.97	43.00	4658.23	9.43	8.08	6150.96	0.46	
	1.22171	148.94	5.11	146.23	15.51		0.003832
		74579.55					
766.83	44.00	4658.27	9.47	8.11	6222.81	0.46	
	1.22646	149.39	5.13	146.66	15.49		0.003829
		74798.46					
781.02	45.00	4658.36	9.57	8.19	6395.81	0.47	
	1.23845	150.45	5.19	147.69	15.44		0.003823
		75322.55					
795.15	46.00	4658.46	9.66	8.26	6569.71	0.47	
	1.25052	151.49	5.25	148.70	15.39		0.003818
		75838.47					
809.14	47.00	4658.55	9.75	8.33	6743.33	0.47	
	1.26172	152.51	5.31	149.69	15.35		0.003811
		76343.57					
823.04	48.00	4658.65	9.85	8.40	6917.41	0.47	
	1.27297	153.51	5.36	150.67	15.30		0.003805
		76840.38					
836.82	49.00	4658.74	9.94	8.47	7091.46	0.47	
	1.28490	154.50	5.42	151.62	15.26		0.003802
		77327.91					
856.02	50.00	4658.86	10.06	8.57	7337.33	0.48	
	1.29970	155.85	5.49	152.94	15.20		0.003792
		77998.37					
872.00	51.00	4658.97	10.17	8.65	7541.01	0.48	
	1.31321	156.97	5.56	154.02	15.15		0.003788
		78549.15					
877.59	52.00	4659.00	10.20	8.68	7614.64	0.48	
	1.31698	157.35	5.58	154.39	15.13		0.003784
		78740.89					
902.67	53.00	4659.16	10.36	8.80	7944.80	0.48	
	1.33623	159.07	5.67	156.06	15.06		0.003774
		79589.20					
951.66	54.00	4659.47	10.67	9.04	8600.78	0.49	
	1.37347	162.34	5.86	159.23	14.92		0.003755
		81205.30					
1017.10	55.00	4659.87	11.07	9.33	9491.06	0.49	
	1.42010	166.55	6.11	163.31	14.75		0.003727
		83286.36					
1120.71	56.00	4660.48	11.68	9.60	10760.71	0.50	
	1.48305	172.88	6.48	169.44	14.51		0.003666
		86415.55					
1236.47	57.00	4661.13	12.33	9.83	12158.52	0.49	
	1.55640	179.56	6.89	175.92	14.26		0.003622
		89717.90					
1328.33	58.00	4661.63	12.83	10.01	13290.24	0.49	
	1.60812	184.59	7.20	180.79	14.09		0.003581
		92200.68					
1424.82	59.00	4662.14	13.34	10.18	14500.55	0.49	
	1.65989	189.64	7.51	185.67	13.92		0.003541
		94693.48					
1515.53	60.00	4662.60	13.80	10.34	15664.05	0.49	
	1.70999	194.21	7.80	190.10	13.77		0.003512
		96948.98					
1575.99	61.00	4662.91	14.11	10.44	16450.52	0.49	
	1.73871	197.16	7.99	192.95	13.68		0.003486
		98403.08					
1626.79	62.00	4663.16	14.36	10.53	17133.79	0.49	
	1.76661	199.58	8.15	195.29	13.60		0.003473
		99599.09					



				HYCHAN.OUT				
1671.12	63.00	4663.37	14.57	8.29	10.61	17734.05	0.49	0.003449
	1.78330	201.66				197.30	13.54	
		100623.55						
1722.78	64.00	4663.62	14.82	8.44	10.71	18452.38	0.49	0.003434
	1.80931	204.04				199.60	13.47	
		101796.96						
1738.03	65.00	4663.69	14.89	8.49	10.74	18671.08	0.49	0.003433
	1.81877	204.73				200.27	13.45	
		102137.93						
1737.60	66.00	4663.69	14.89	8.49	10.75	18673.26	0.49	0.003431
	1.81744	204.71				200.25	13.45	
		102128.27						
1737.83	67.00	4663.69	14.89	8.49	10.75	18674.06	0.49	0.003432
	1.81798	204.72				200.26	13.45	
		102133.54						
1737.72	68.00	4663.69	14.89	8.49	10.75	18674.06	0.49	0.003426
	1.81487	204.72				200.26	13.45	
		102130.91						
1737.74	69.00	4663.69	14.89	8.49	10.75	18675.45	0.49	0.003431
	1.81710	204.72				200.26	13.45	
		102131.55						
1737.84	70.00	4663.69	14.89	8.49	10.75	18675.97	0.49	0.003432
	1.81790	204.72				200.26	13.45	
		102133.55						
1737.84	71.00	4663.69	14.89	8.49	10.75	18675.84	0.49	0.003434
	1.81912	204.72				200.26	13.45	
		102133.66						
1747.71	72.00	4663.74	14.94	8.52	10.77	18829.32	0.49	0.003423
	1.81950	205.17				200.70	13.44	
		102354.88						
1759.65	73.00	4663.79	14.99	8.55	10.82	19043.94	0.49	0.003418
	1.82438	205.71				201.22	13.42	
		102620.08						
1759.73	74.00	4663.79	14.99	8.55	10.82	19048.47	0.49	0.003417
	1.82410	205.71				201.22	13.42	
		102621.45						
1768.18	75.00	4663.83	15.03	8.58	10.86	19200.98	0.49	0.003407
	1.82382	206.09				201.59	13.41	
		102809.66						
1801.18	76.00	4663.99	15.19	8.68	10.95	19725.25	0.50	0.003385
	1.83317	207.57				203.01	13.37	
		103536.22						
1839.21	77.00	4664.17	15.37	8.79	11.04	20309.78	0.50	0.003376
	1.85152	209.24				204.63	13.32	
		104363.29						
1864.30	78.00	4664.28	15.48	8.86	11.10	20698.38	0.50	0.003366
	1.86181	210.34				205.69	13.29	
		104902.81						
1894.60	79.00	4664.42	15.62	8.95	11.21	21245.09	0.50	0.003349
	1.87052	211.65				206.96	13.25	
		105548.55						
1912.56	80.00	4664.50	15.70	9.00	11.26	21527.61	0.50	0.003348
	1.88101	212.41				207.70	13.23	
		105926.73						
1890.29	81.00	4664.40	15.60	8.94	11.19	21151.07	0.50	0.003358
	1.87298	211.46				206.77	13.26	
		105455.02						
1881.53	82.00	4664.36	15.56	8.91	11.12	20926.84	0.50	0.003347
	1.86158	211.08				206.41	13.27	
		105270.28						
1882.41	83.00	4664.36	15.56	8.92	11.12	20923.18	0.50	0.003348
	1.86263	211.12				206.45	13.26	
		105288.75						

				HYCHAN.OUT			
1882.40	84.00	4664.36	15.56	8.92	11.12	20923.20	0.50
	1.86260	211.12				206.45	13.26
		105288.55					0.003348
1859.45	85.00	4664.26	15.46	8.85	11.08	20608.60	0.50
	1.86367	210.12				205.48	13.29
		104794.23					0.003375
1800.93	86.00	4663.98	15.19	8.68	10.96	19732.53	0.50
	1.84414	207.53				202.98	13.37
		103521.09					0.003406
1729.69	87.00	4663.65	14.85	8.47	10.77	18634.96	0.49
	1.81690	204.33				199.89	13.46
		101941.99					0.003440
1639.28	88.00	4663.21	14.41	8.19	10.57	17320.95	0.49
	1.77956	200.14				195.83	13.59
		99872.92					0.003482
1542.49	89.00	4662.74	13.94	7.89	10.38	16013.21	0.49
	1.73177	195.52				191.36	13.73
		97593.20					0.003518
1476.07	90.00	4662.40	13.60	7.68	10.27	15155.37	0.49
	1.69738	192.23				188.18	13.83
		95971.33					0.003542
1402.71	91.00	4662.02	13.22	7.44	10.14	14220.01	0.49
	1.65986	188.49				184.55	13.96
		94123.01					0.003574
1326.56	92.00	4661.62	12.82	7.19	10.00	13270.22	0.49
	1.61650	184.48				180.68	14.09
		92146.81					0.003603
1265.42	93.00	4661.29	12.49	6.99	9.89	12514.46	0.49
	1.58183	181.16				177.46	14.21
		90506.16					0.003629
1214.29	94.00	4661.01	12.21	6.81	9.79	11887.66	0.49
	1.54926	178.31				174.70	14.31
		89099.02					0.003646
1172.51	95.00	4660.78	11.98	6.67	9.71	11379.97	0.49
	1.52756	175.92				172.39	14.40
		87917.83					0.003673
1133.90	96.00	4660.56	11.76	6.53	9.63	10916.03	0.49
	1.50141	173.67				170.21	14.48
		86806.50					0.003685
1101.61	97.00	4660.37	11.57	6.41	9.56	10530.32	0.50
	1.48145	171.74				168.34	14.55
		85855.28					0.003701
1072.66	98.00	4660.20	11.40	6.31	9.50	10187.62	0.50
	1.46227	170.00				166.65	14.62
		84991.77					0.003714
1048.53	99.00	4660.06	11.26	6.22	9.44	9899.26	0.50
	1.44672	168.51				165.21	14.68
		84256.72					0.003726
1020.99	100.00	4659.89	11.09	6.12	9.35	9547.26	0.49
	1.42702	166.79				163.54	14.74
		83407.95					0.003736
999.33	101.00	4659.76	10.96	6.04	9.25	9246.79	0.49
	1.41104	165.42				162.22	14.80
		82729.92					0.003743
980.58	102.00	4659.65	10.85	5.97	9.17	8988.71	0.49
	1.39736	164.22				161.05	14.85
		82136.39					0.003750
965.98	103.00	4659.56	10.76	5.92	9.10	8787.87	0.49
	1.38616	163.27				160.13	14.88
		81668.59					0.003755
945.28	104.00	4659.43	10.63	5.84	9.00	8505.20	0.49
	1.37113	161.91				158.81	14.94
		80995.12					0.003764

HYCHAN.OUT							
105.00	4659.29	10.49	8.89	8198.45	0.48		
922.18	160.38	5.75	157.33	15.00	0.003771		
1.35289	80238.15						
106.00	4659.20	10.40	8.83	8020.28	0.48		
908.73	159.48	5.70	156.45	15.04	0.003775		
1.34228	79790.85						
107.00	4659.12	10.32	8.76	7846.36	0.48		
895.50	158.58	5.65	155.58	15.08	0.003779		
1.33178	79346.45						
108.00	4659.07	10.27	8.72	7744.00	0.48		
887.62	158.04	5.62	155.06	15.10	0.003783		
1.32561	79081.35						
109.00	4659.10	10.30	8.75	7814.87	0.48		
892.96	158.41	5.64	155.42	15.09	0.003780		
1.32945	79263.01						
110.00	4659.22	10.42	8.84	8062.20	0.48		
911.60	159.68	5.71	156.65	15.03	0.003771		
1.34339	79888.96						
111.00	4659.28	10.48	8.89	8193.93	0.48		
921.78	160.36	5.75	157.31	15.01	0.003770		
1.35231	80225.76						
112.00	4659.20	10.40	8.83	8020.19	0.48		
908.73	159.48	5.70	156.45	15.04	0.003775		
1.34233	79790.69						
113.00	4659.22	10.42	8.84	8063.67	0.48		
911.73	159.68	5.71	156.65	15.03	0.003771		
1.34367	79893.17						
114.00	4659.39	10.59	8.98	8434.36	0.49		
939.46	161.54	5.82	158.45	14.96	0.003760		
1.36453	80809.99						
115.00	4659.47	10.67	9.03	8584.55	0.49		
951.03	162.30	5.86	159.19	14.92	0.003761		
1.37524	81185.55						
116.00	4659.41	10.61	8.99	8471.11	0.49		
942.39	161.73	5.83	158.64	14.95	0.003763		
1.36813	80905.12						
117.00	4659.41	10.61	8.99	8470.00	0.49		
942.29	161.72	5.83	158.63	14.95	0.003762		
1.36762	80901.77						
118.00	4659.45	10.65	9.02	8553.18	0.49		
948.39	162.13	5.85	159.02	14.93	0.003759		
1.37222	81101.55						
119.00	4659.50	10.70	9.06	8668.94	0.49		
957.15	162.70	5.88	159.58	14.91	0.003758		
1.37942	81385.40						
120.00	4659.50	10.70	9.06	8669.99	0.49		
957.24	162.71	5.88	159.58	14.91	0.003758		
1.37955	81388.05						
121.00	4659.47	10.67	9.03	8586.88	0.49		
951.23	162.31	5.86	159.20	14.92	0.003760		
1.37497	81191.53						
122.00	4659.41	10.61	8.99	8471.10	0.49		
942.42	161.73	5.83	158.64	14.95	0.003763		
1.36808	80905.85						
123.00	4659.37	10.57	8.96	8387.02	0.49		
936.27	161.32	5.80	158.24	14.97	0.003765		
1.36365	80702.84						
124.00	4659.32	10.52	8.92	8271.07	0.48		
927.51	160.74	5.77	157.68	14.99	0.003769		
1.35695	80416.23						
125.00	4659.32	10.52	8.92	8270.04	0.48		
927.42	160.74	5.77	157.67	14.99	0.003767		
1.35616	80413.17						

HYCHAN.OUT							
921.97	126.00	4659.28	10.48	8.89	8196.12	0.48	
	1.35279	160.37	5.75	157.32	15.00		0.003771
		80231.61					
914.05	127.00	4659.23	10.43	8.85	8092.03	0.48	
	1.34628	159.84	5.72	156.80	15.03		0.003773
		79969.85					
913.96	128.00	4659.23	10.43	8.85	8091.01	0.48	
	1.34630	159.83	5.72	156.80	15.03		0.003773
		79966.81					
908.63	129.00	4659.20	10.40	8.83	8019.14	0.48	
	1.34221	159.47	5.70	156.45	15.04		0.003775
		79787.52					
900.85	130.00	4659.15	10.35	8.79	7917.96	0.48	
	1.33607	158.95	5.67	155.94	15.06		0.003778
		79528.25					
911.68	131.00	4659.22	10.42	8.84	8063.27	0.48	
	1.34379	159.68	5.71	156.65	15.03		0.003772
		79891.80					
927.24	132.00	4659.32	10.52	8.92	8268.15	0.48	
	1.35599	160.72	5.77	157.66	14.99		0.003767
		80407.62					
927.41	133.00	4659.32	10.52	8.92	8269.99	0.48	
	1.35639	160.74	5.77	157.67	14.99		0.003767
		80412.96					
927.41	134.00	4659.32	10.52	8.92	8270.01	0.48	
	1.35648	160.74	5.77	157.67	14.99		0.003768
		80412.91					
927.40	135.00	4659.32	10.52	8.92	8269.99	0.48	
	1.35651	160.74	5.77	157.67	14.99		0.003768
		80412.77					
927.41	136.00	4659.32	10.52	8.92	8270.00	0.48	
	1.35646	160.74	5.77	157.67	14.99		0.003768
		80412.95					
927.41	137.00	4659.32	10.52	8.92	8270.02	0.48	
	1.35623	160.74	5.77	157.67	14.99		0.003767
		80412.91					
927.41	138.00	4659.32	10.52	8.92	8269.98	0.48	
	1.35659	160.74	5.77	157.67	14.99		0.003768
		80413.04					
921.97	139.00	4659.28	10.48	8.89	8196.06	0.48	
	1.35266	160.37	5.75	157.32	15.00		0.003771
		80231.53					
914.04	140.00	4659.23	10.43	8.85	8092.02	0.48	
	1.34654	159.84	5.72	156.80	15.03		0.003774
		79969.56					
913.95	141.00	4659.23	10.43	8.85	8091.01	0.48	
	1.34620	159.83	5.72	156.80	15.03		0.003773
		79966.76					
913.95	142.00	4659.23	10.43	8.85	8091.00	0.48	
	1.34604	159.83	5.72	156.80	15.03		0.003772
		79966.78					
913.95	143.00	4659.23	10.43	8.85	8090.99	0.48	
	1.34622	159.83	5.72	156.80	15.03		0.003773
		79966.74					
908.63	144.00	4659.20	10.40	8.83	8019.08	0.48	
	1.34210	159.47	5.70	156.45	15.04		0.003775
		79787.60					
900.85	145.00	4659.15	10.35	8.79	7917.97	0.48	
	1.33589	158.95	5.67	155.94	15.06		0.003777
		79528.32					
900.77	146.00	4659.15	10.35	8.79	7917.00	0.48	
	1.33576	158.94	5.67	155.93	15.07		0.003777
		79525.55					

HYCHAN.OUT							
900.77	147.00	4659.15	10.35	8.79	7917.00	0.48	
	1.33596	158.94	5.67	155.93	15.07		0.003778
	148.00	79525.54					
900.77	148.00	4659.15	10.35	8.79	7917.00	0.48	
	1.33614	158.94	5.67	155.93	15.07		0.003778
	149.00	79525.55					
900.77	149.00	4659.15	10.35	8.79	7917.01	0.48	
	1.33561	158.94	5.67	155.93	15.07		0.003777
	150.00	79525.47					
897.20	150.00	4659.13	10.33	8.77	7869.09	0.48	
	1.33342	158.70	5.65	155.70	15.08		0.003780
	151.00	79404.54					
890.23	151.00	4659.08	10.28	8.74	7777.76	0.48	
	1.32806	158.22	5.63	155.23	15.10		0.003783
	152.00	79169.66					
887.56	152.00	4659.07	10.27	8.72	7743.36	0.48	
	1.32558	158.04	5.62	155.06	15.10		0.003783
	153.00	79079.61					
887.53	153.00	4659.07	10.27	8.72	7743.00	0.48	
	1.32540	158.04	5.62	155.06	15.10		0.003782
	154.00	79078.48					
882.14	154.00	4659.03	10.23	8.70	7671.32	0.48	
	1.32134	157.66	5.60	154.69	15.12		0.003785
	155.00	78893.91					
885.09	155.00	4659.05	10.25	8.71	7713.38	0.48	
	1.32288	157.87	5.61	154.89	15.11		0.003781
	156.00	78996.33					
900.61	156.00	4659.15	10.35	8.79	7915.08	0.48	
	1.33548	158.93	5.67	155.92	15.07		0.003777
	157.00	79520.35					
900.77	157.00	4659.15	10.35	8.79	7917.02	0.48	
	1.33553	158.94	5.67	155.93	15.07		0.003777
	158.00	79525.49					
900.77	158.00	4659.15	10.35	8.79	7916.99	0.48	
	1.33593	158.94	5.67	155.93	15.07		0.003778
	159.00	79525.54					
900.77	159.00	4659.15	10.35	8.79	7916.99	0.48	
	1.33569	158.94	5.67	155.93	15.07		0.003777
	160.00	79525.52					
900.77	160.00	4659.15	10.35	8.79	7917.00	0.48	
	1.33606	158.94	5.67	155.93	15.07		0.003778
	161.00	79525.50					
900.77	161.00	4659.15	10.35	8.79	7917.01	0.48	
	1.33607	158.94	5.67	155.93	15.07		0.003778
	162.00	79525.48					
900.77	162.00	4659.15	10.35	8.79	7917.00	0.48	
	1.33596	158.94	5.67	155.93	15.07		0.003778
	163.00	79525.55					
900.77	163.00	4659.15	10.35	8.79	7916.99	0.48	
	1.33593	158.94	5.67	155.93	15.07		0.003778
	164.00	79525.52					
895.41	164.00	4659.12	10.32	8.76	7845.20	0.48	
	1.33207	158.57	5.65	155.58	15.08		0.003781
	165.00	79343.55					
887.62	165.00	4659.07	10.27	8.72	7743.99	0.48	
	1.32570	158.04	5.62	155.06	15.10		0.003783
	166.00	79081.41					
887.53	166.00	4659.07	10.27	8.72	7743.02	0.48	
	1.32539	158.04	5.62	155.06	15.10		0.003782
	167.00	79078.45					
887.53	167.00	4659.07	10.27	8.72	7742.99	0.48	
	1.32550	158.04	5.62	155.06	15.10		0.003782
	168.00	79078.45					

HYCHAN.OUT							
168.00	4659.07	10.27	8.72	7742.98	0.48		
887.53	158.04	5.62	155.06	15.10	0.003783		
1.32561	79078.62						
169.00	4659.07	10.27	8.72	7743.02	0.48		
887.54	158.04	5.62	155.06	15.10	0.003783		
1.32563	79078.66						
170.00	4659.07	10.27	8.72	7742.99	0.48		
887.53	158.04	5.62	155.06	15.10	0.003782		
1.32551	79078.58						
171.00	4659.07	10.27	8.72	7743.01	0.48		
887.53	158.04	5.62	155.06	15.10	0.003782		
1.32552	79078.53						
172.00	4659.03	10.23	8.70	7671.24	0.48		
882.14	157.66	5.60	154.69	15.12	0.003785		
1.32153	78893.84						
173.00	4658.98	10.18	8.66	7569.90	0.48		
874.37	157.13	5.56	154.18	15.14	0.003788		
1.31516	78629.84						
174.00	4658.98	10.18	8.66	7569.00	0.48		
874.31	157.13	5.56	154.17	15.14	0.003788		
1.31510	78627.74						
175.00	4658.98	10.18	8.66	7569.01	0.48		
874.31	157.13	5.56	154.17	15.14	0.003787		
1.31480	78627.74						
176.00	4658.98	10.18	8.66	7569.00	0.48		
874.31	157.13	5.56	154.17	15.14	0.003787		
1.31482	78627.74						
177.00	4658.98	10.18	8.66	7568.99	0.48		
874.30	157.13	5.56	154.17	15.14	0.003788		
1.31522	78627.76						
178.00	4658.98	10.18	8.66	7569.00	0.48		
874.31	157.13	5.56	154.17	15.14	0.003788		
1.31521	78627.75						
179.00	4659.05	10.25	8.71	7712.74	0.48		
885.03	157.87	5.61	154.89	15.11	0.003782		
1.32304	78994.44						
180.00	4659.15	10.35	8.79	7915.08	0.48		
900.61	158.93	5.67	155.92	15.07	0.003777		
1.33556	79520.27						
181.00	4659.18	10.38	8.82	7989.01	0.48		
906.14	159.31	5.69	156.29	15.05	0.003774		
1.33961	79706.51						
182.00	4659.23	10.43	8.85	8090.07	0.48		
913.87	159.83	5.72	156.79	15.03	0.003773		
1.34630	79964.02						
183.00	4659.23	10.43	8.85	8091.00	0.48		
913.95	159.83	5.72	156.80	15.03	0.003773		
1.34617	79966.70						
184.00	4659.23	10.43	8.85	8091.01	0.48		
913.96	159.83	5.72	156.80	15.03	0.003773		
1.34617	79966.80						
185.00	4659.23	10.43	8.85	8091.00	0.48		
913.95	159.83	5.72	156.80	15.03	0.003772		
1.34587	79966.77						
186.00	4659.23	10.43	8.85	8090.99	0.48		
913.96	159.83	5.72	156.80	15.03	0.003773		
1.34637	79966.84						
187.00	4659.23	10.43	8.85	8090.99	0.48		
913.95	159.83	5.72	156.80	15.03	0.003772		
1.34600	79966.73						
188.00	4659.23	10.43	8.85	8091.01	0.48		
913.96	159.83	5.72	156.80	15.03	0.003773		
1.34611	79966.80						

HYCHAN.OUT							
189.00	4659.23	10.43	8.85	8091.00	0.48		
913.95	159.83	5.72	156.80	15.03	0.003772		
1.34594	79966.69						
190.00	4659.20	10.40	8.83	8019.01	0.48		
908.63	159.47	5.70	156.45	15.04	0.003775		
1.34225	79787.78						
191.00	4659.15	10.35	8.79	7917.94	0.48		
900.85	158.95	5.67	155.94	15.06	0.003778		
1.33615	79528.30						
192.00	4659.15	10.35	8.79	7917.00	0.48		
900.77	158.94	5.67	155.93	15.07	0.003778		
1.33616	79525.54						
193.00	4659.15	10.35	8.79	7917.03	0.48		
900.77	158.94	5.67	155.93	15.07	0.003777		
1.33554	79525.51						
194.00	4659.15	10.35	8.79	7916.98	0.48		
900.77	158.94	5.67	155.93	15.07	0.003777		
1.33585	79525.52						
195.00	4659.15	10.35	8.79	7917.01	0.48		
900.77	158.94	5.67	155.93	15.07	0.003778		
1.33602	79525.54						
196.00	4659.15	10.35	8.79	7916.99	0.48		
900.77	158.94	5.67	155.93	15.07	0.003778		
1.33588	79525.53						
197.00	4659.15	10.35	8.79	7917.01	0.48		
900.77	158.94	5.67	155.93	15.07	0.003777		
1.33584	79525.52						
198.00	4659.15	10.35	8.79	7916.99	0.48		
900.77	158.94	5.67	155.93	15.07	0.003778		
1.33592	79525.52						
199.00	4659.15	10.35	8.79	7917.02	0.48		
900.77	158.94	5.67	155.93	15.07	0.003777		
1.33561	79525.55						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 59

MAXIMUM DISCHARGE (CFS) = 21658.05 AT TIME = 79.10  
 MAXIMUM STAGE = 4661.07 AT TIME = 79.14

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
BED SHEAR STRESS	SURFACE AREA							
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)							
0.00	0.00	4644.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00		0.00	0.00	0.00	0.00		
1.00	4648.14	3.44	2.70	1301.54	0.26			
482.94	73.85	6.54	73.09	21.24	0.004201			
1.71414	43854.34							
2.00	4654.19	9.49	7.11	5474.65	0.41			
769.56	149.59	5.14	146.86	15.48	0.004100			
1.31617	88115.41							
3.00	4654.19	9.49	7.10	5472.13	0.41			
770.22	149.64	5.15	146.91	15.48	0.004099			
1.31650	88143.08							
4.00	4654.13	9.43	7.06	5379.35	0.41			
761.55	148.99	5.11	146.28	15.51	0.004101			
1.30801	87765.78							
5.00	4654.09	9.39	7.04	5319.85	0.40			

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			HYCHAN.OUT			
756.13		148.57	5.09	145.88	15.53	0.004101
	1.30236	87525.18				
	6.00	4654.00	9.30	6.97	5169.83	0.40
742.09		147.51	5.03	144.84	15.58	0.004103
	1.28812	86902.25				
	7.00	4653.90	9.20	6.90	5017.66	0.40
727.63		146.39	4.97	143.76	15.63	0.004105
	1.27328	86253.78				
	8.00	4653.79	9.09	6.82	4866.31	0.40
713.09		145.26	4.91	142.66	15.69	0.004108
	1.25827	85593.11				
	9.00	4653.73	9.03	6.78	4773.50	0.40
703.97		144.54	4.87	141.96	15.72	0.004110
	1.24892	85177.61				
	10.00	4653.69	8.99	6.75	4713.37	0.40
698.25		144.09	4.85	141.52	15.74	0.004111
	1.24306	84910.66				
	11.00	4653.58	8.88	6.68	4563.99	0.39
683.61		142.91	4.78	140.38	15.80	0.004112
	1.22733	84227.80				
	12.00	4653.52	8.82	6.63	4470.56	0.39
674.22		142.16	4.74	139.65	15.84	0.004112
	1.21693	83788.38				
	13.00	4653.52	8.82	6.63	4468.95	0.39
674.05		142.15	4.74	139.63	15.84	0.004115
	1.21755	83780.55				
	14.00	4653.52	8.82	6.63	4469.02	0.39
674.04		142.15	4.74	139.63	15.84	0.004114
	1.21720	83780.35				
	15.00	4653.52	8.82	6.63	4468.98	0.39
674.04		142.15	4.74	139.63	15.84	0.004114
	1.21736	83780.37				
	16.00	4653.52	8.82	6.63	4468.97	0.39
674.05		142.15	4.74	139.63	15.84	0.004115
	1.21748	83780.75				
	17.00	4653.56	8.86	6.66	4527.72	0.39
679.75		142.61	4.77	140.09	15.82	0.004115
	1.22391	84051.04				
	18.00	4653.66	8.96	6.74	4678.02	0.40
694.53		143.80	4.83	141.24	15.76	0.004113
	1.23967	84742.28				
	19.00	4653.77	9.07	6.81	4829.43	0.40
709.26		144.96	4.89	142.37	15.70	0.004111
	1.25500	85422.04				
	20.00	4653.83	9.13	6.85	4922.63	0.40
718.36		145.68	4.93	143.06	15.67	0.004108
	1.26398	85836.85				
	21.00	4653.83	9.13	6.85	4923.95	0.40
718.51		145.69	4.93	143.07	15.66	0.004108
	1.26436	85843.12				
	22.00	4653.87	9.17	6.88	4982.58	0.40
724.05		146.12	4.96	143.49	15.64	0.004108
	1.27010	86095.80				
	23.00	4654.01	9.31	6.98	5192.21	0.40
743.81		147.64	5.04	144.97	15.57	0.004106
	1.29067	86982.70				
	24.00	4654.20	9.50	7.12	5495.03	0.41
771.93		149.77	5.15	147.03	15.47	0.004103
	1.31946	88220.72				
	25.00	4654.39	9.69	7.25	5799.10	0.41
799.71		151.82	5.27	149.03	15.38	0.004098
	1.34708	89416.23				
	26.00	4654.50	9.80	7.33	5982.56	0.41

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		HYCHAN.OUT				
816.54	153.04	5.34	150.21	15.32	0.004094	
1.36286	90127.44					
27.00	4654.50	9.80	7.33	5984.97	0.41	
816.81	153.06	5.34	150.23	15.32	0.004094	
1.36329	90138.09					
28.00	4654.54	9.84	7.36	6050.86	0.41	
822.49	153.47	5.36	150.63	15.30	0.004094	
1.36916	90377.39					
29.00	4654.60	9.90	7.40	6150.67	0.41	
831.37	154.11	5.39	151.24	15.28	0.004090	
1.37683	90746.86					
30.00	4654.60	9.90	7.40	6152.00	0.41	
831.51	154.12	5.40	151.25	15.27	0.004090	
1.37692	90752.49					
31.00	4654.64	9.94	7.43	6220.97	0.42	
837.50	154.55	5.42	151.67	15.26	0.004091	
1.38344	91001.94					
32.00	4654.70	10.00	7.47	6324.66	0.42	
846.75	155.20	5.46	152.30	15.23	0.004087	
1.39156	91382.46					
33.00	4654.70	10.00	7.47	6326.00	0.42	
846.89	155.21	5.46	152.31	15.23	0.004089	
1.39214	91387.84					
34.00	4654.66	9.96	7.44	6257.06	0.42	
840.94	154.79	5.43	151.90	15.25	0.004089	
1.38636	91140.88					
35.00	4654.60	9.90	7.40	6153.40	0.41	
831.66	154.13	5.40	151.26	15.27	0.004091	
1.37754	90758.36					
36.00	4654.56	9.86	7.37	6085.95	0.41	
825.87	153.71	5.37	150.86	15.29	0.004091	
1.37148	90515.38					
37.00	4654.51	9.81	7.33	5986.30	0.41	
816.95	153.07	5.34	150.24	15.32	0.004093	
1.36314	90143.95					
38.00	4654.50	9.80	7.33	5985.02	0.41	
816.81	153.06	5.34	150.23	15.32	0.004093	
1.36293	90138.07					
39.00	4654.50	9.81	7.33	5984.97	0.41	
816.81	153.06	5.34	150.23	15.32	0.004094	
1.36316	90138.24					
40.00	4654.50	9.81	7.33	5985.00	0.41	
816.81	153.06	5.34	150.23	15.32	0.004094	
1.36312	90138.26					
41.00	4654.50	9.81	7.33	5985.00	0.41	
816.81	153.06	5.34	150.23	15.32	0.004093	
1.36281	90138.21					
42.00	4654.54	9.84	7.36	6051.17	0.41	
822.50	153.47	5.36	150.63	15.30	0.004093	
1.36884	90377.98					
43.00	4654.60	9.90	7.40	6150.71	0.41	
831.37	154.11	5.39	151.25	15.28	0.004091	
1.37706	90747.03					
44.00	4654.64	9.94	7.43	6220.87	0.42	
837.49	154.55	5.42	151.67	15.26	0.004092	
1.38370	91001.63					
45.00	4654.74	10.04	7.50	6393.66	0.42	
852.68	155.62	5.48	152.71	15.21	0.004090	
1.39829	91626.53					
46.00	4654.84	10.14	7.57	6567.60	0.42	
867.85	156.68	5.54	153.74	15.16	0.004088	
1.41284	92243.59					
47.00	4654.94	10.24	7.64	6741.19	0.42	

				HYCHAN.OUT			
882.83		157.72		5.60	154.74	15.12	0.004086
	1.42723	92846.80					
	48.00	4655.03	10.33		7.70	6915.31	0.42
897.72		158.74		5.66	155.73	15.07	0.004084
	1.44118	93439.93					
	49.00	4655.12	10.42		7.77	7089.41	0.42
912.48		159.74		5.71	156.70	15.03	0.004082
	1.45511	94021.83					
	50.00	4655.25	10.55		7.86	7333.46	0.43
932.83		161.10		5.79	158.02	14.97	0.004081
	1.47443	94814.58					
	51.00	4655.36	10.66		7.94	7540.54	0.43
950.21		162.25		5.86	159.14	14.93	0.004077
	1.48993	95482.80					
	52.00	4655.40	10.70		7.96	7612.84	0.43
956.09		162.63		5.88	159.51	14.91	0.004077
	1.49566	95707.66					
	53.00	4655.56	10.86		8.08	7938.96	0.43
982.47		164.35		5.98	161.17	14.84	0.004075
	1.52015	96703.52					
	54.00	4655.87	11.17		8.30	8592.14	0.44
1034.61		167.65		6.17	164.37	14.71	0.004069
	1.56684	98624.22					
	55.00	4656.28	11.58		8.59	9479.66	0.44
1104.17		171.90		6.42	168.49	14.55	0.004066
	1.62967	101096.37					
	56.00	4656.89	12.19		8.87	10742.06	0.45
1211.50		178.14		6.80	174.54	14.31	0.004098
	1.73902	104724.84					
	57.00	4657.54	12.85		9.13	12144.03	0.45
1330.75		184.72		7.20	180.91	14.08	0.004109
	1.84729	108544.54					
	58.00	4658.04	13.34		9.32	13278.02	0.45
1424.88		189.65		7.51	185.68	13.92	0.004125
	1.93394	111407.95					
	59.00	4658.54	13.84		9.51	14484.22	0.45
1522.77		194.56		7.83	190.43	13.76	0.004147
	2.02555	114259.44					
	60.00	4659.00	14.30		9.69	15655.83	0.45
1616.02		199.07		8.12	194.80	13.62	0.004144
	2.09895	116879.89					
	61.00	4659.30	14.60		9.80	16440.34	0.45
1677.69		201.96		8.31	197.60	13.53	0.004153
	2.15263	118557.59					
	62.00	4659.56	14.86		9.89	17129.66	0.45
1731.24		204.42		8.47	199.97	13.46	0.004145
	2.19024	119984.75					
	63.00	4659.78	15.08		9.97	17724.10	0.45
1777.18		206.50		8.61	201.98	13.40	0.004144
	2.22526	121186.67					
	64.00	4660.03	15.33		10.07	18447.77	0.45
1832.45		208.95		8.77	204.35	13.33	0.004133
	2.26199	122608.62					
	65.00	4660.11	15.41		10.10	18670.71	0.45
1849.43		209.69		8.82	205.06	13.31	0.004123
	2.26899	123038.48					
	66.00	4660.11	15.41		10.10	18673.26	0.45
1849.28		209.68		8.82	205.06	13.31	0.004125
	2.27019	123034.61					
	67.00	4660.11	15.41		10.10	18674.13	0.45
1849.53		209.69		8.82	205.07	13.31	0.004124
	2.26983	123040.88					
	68.00	4660.11	15.41		10.10	18673.99	0.45

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				HYCHAN.OUT			
1849.43	209.69	8.82	205.06	13.31	0.004124		
2.26953	123038.52						
69.00	4660.11	15.41	10.10	18675.51	0.45		
1849.52	209.69	8.82	205.07	13.31	0.004125		
2.27016	123040.66						
70.00	4660.11	15.41	10.10	18676.13	0.45		
1849.61	209.70	8.82	205.07	13.31	0.004121		
2.26818	123042.88						
71.00	4660.11	15.41	10.10	18676.11	0.45		
1849.56	209.69	8.82	205.07	13.31	0.004119		
2.26731	123041.63						
72.00	4660.16	15.46	10.12	18825.57	0.45		
1860.74	210.18	8.85	205.54	13.29	0.004108		
2.26950	123325.56						
73.00	4660.24	15.54	10.15	19043.67	0.45		
1876.86	210.88	8.90	206.22	13.27	0.004105		
2.27967	123730.32						
74.00	4660.24	15.54	10.15	19048.71	0.45		
1877.26	210.90	8.90	206.23	13.27	0.004092		
2.27285	123740.12						
75.00	4660.29	15.59	10.17	19197.52	0.45		
1888.45	211.38	8.93	206.70	13.26	0.004080		
2.27437	124021.37						
76.00	4660.47	15.77	10.23	19717.82	0.45		
1927.45	213.05	9.05	208.32	13.21	0.004058		
2.29090	124990.83						
77.00	4660.67	15.97	10.30	20305.41	0.45		
1971.32	214.91	9.17	210.11	13.16	0.004042		
2.31343	126066.37						
78.00	4660.80	16.10	10.35	20694.79	0.45		
2000.23	216.12	9.26	211.28	13.13	0.004032		
2.32876	126766.86						
79.00	4660.94	16.24	10.45	21235.92	0.46		
2032.31	216.89	9.37	212.61	13.09	0.004018		
2.34957	127565.61						
80.00	4661.04	16.34	10.49	21526.00	0.46		
2052.56	217.08	9.46	213.47	13.07	0.004010		
2.36572	128079.95						
81.00	4660.93	16.23	10.42	21155.45	0.46		
2029.71	216.86	9.36	212.49	13.09	0.004015		
2.34514	127495.52						
82.00	4660.90	16.20	10.35	20926.70	0.45		
2022.46	216.79	9.33	212.19	13.10	0.004009		
2.33405	127312.54						
83.00	4660.90	16.20	10.34	20923.39	0.45		
2023.97	216.81	9.34	212.25	13.10	0.004012		
2.33705	127350.61						
84.00	4660.90	16.20	10.34	20923.47	0.45		
2023.90	216.81	9.34	212.25	13.10	0.004012		
2.33712	127348.80						
85.00	4660.78	16.08	10.32	20617.57	0.45		
1997.03	215.98	9.25	211.14	13.13	0.004034		
2.32779	126686.78						
86.00	4660.48	15.78	10.23	19752.45	0.45		
1930.03	213.14	9.06	208.40	13.21	0.004063		
2.29557	125041.63						
87.00	4660.10	15.40	10.10	18654.02	0.45		
1847.84	209.60	8.82	204.98	13.31	0.004112		
2.26235	122986.34						
88.00	4659.63	14.93	9.92	17341.14	0.45		
1747.85	205.14	8.52	200.67	13.44	0.004125		
2.19309	120401.41						
89.00	4659.14	14.44	9.74	16023.73	0.45		

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				HYCHAN.OUT			
1645.31		200.44		8.21	196.12	13.58	0.004130
	2.11531	117671.63					
90.00		4658.81	14.11	9.61	15164.92	0.45	
1577.34		197.21		8.00	192.99	13.68	0.004119
	2.05588	115796.79					
91.00		4658.44	13.74	9.47	14231.84	0.45	
1502.64		193.55		7.76	189.45	13.79	0.004106
	1.98900	113672.89					
92.00		4658.04	13.34	9.32	13279.50	0.45	
1425.07		189.64		7.51	185.68	13.92	0.004095
	1.91995	111405.69					
93.00		4657.71	13.01	9.19	12523.37	0.45	
1362.57		186.40		7.31	182.53	14.03	0.004084
	1.86271	109519.38					
94.00		4657.43	12.73	9.08	11893.46	0.45	
1309.78		183.59		7.13	179.81	14.12	0.004079
	1.81599	107887.46					
95.00		4657.20	12.50	8.99	11386.63	0.45	
1266.87		181.24		6.99	177.54	14.20	0.004066
	1.77347	106526.27					
96.00		4656.98	12.28	8.90	10920.33	0.45	
1227.02		179.03		6.85	175.40	14.28	0.004065
	1.73834	105240.66					
97.00		4656.79	12.10	8.83	10535.75	0.45	
1193.76		177.14		6.74	173.57	14.35	0.004055
	1.70526	104143.63					
98.00		4656.63	11.93	8.76	10190.39	0.45	
1163.67		175.41		6.63	171.90	14.41	0.004053
	1.67781	103139.33					
99.00		4656.48	11.78	8.70	9903.77	0.45	
1138.96		173.97		6.55	170.50	14.47	0.004053
	1.65568	102297.38					
100.00		4656.31	11.61	8.61	9550.77	0.45	
1109.28		172.21		6.44	168.79	14.53	0.004060
	1.63173	101275.42					
101.00		4656.18	11.48	8.52	9250.04	0.44	
1086.14		170.81		6.36	167.44	14.59	0.004061
	1.61143	100465.54					
102.00		4656.06	11.36	8.43	8991.03	0.44	
1066.21		169.60		6.29	166.27	14.63	0.004063
	1.59380	99760.74					
103.00		4655.97	11.27	8.37	8790.06	0.44	
1050.60		168.64		6.23	165.34	14.67	0.004065
	1.58018	99202.39					
104.00		4655.84	11.14	8.27	8509.41	0.44	
1028.73		167.28		6.15	164.01	14.72	0.004066
	1.56036	98407.76					
105.00		4655.69	10.99	8.17	8200.75	0.43	
1004.04		165.72		6.06	162.51	14.79	0.004070
	1.53880	97504.70					
106.00		4655.60	10.90	8.11	8022.28	0.43	
989.68		164.81		6.01	161.62	14.82	0.004071
	1.52549	96971.48					
107.00		4655.52	10.82	8.04	7848.35	0.43	
975.59		163.90		5.95	160.74	14.86	0.004073
	1.51275	96443.62					
108.00		4655.46	10.76	8.01	7744.24	0.43	
966.99		163.34		5.92	160.20	14.88	0.004074
	1.50490	96120.55					
109.00		4655.50	10.80	8.03	7813.09	0.43	
972.47		163.70		5.94	160.55	14.87	0.004075
	1.51047	96328.79					
110.00		4655.62	10.92	8.12	8058.40	0.43	

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				HYCHAN.OUT			
992.17	164.97	6.01	161.78	14.82	0.004074		
1.52885	97067.37						
111.00	4655.69	10.99	8.17	8195.29	0.43		
1003.52	165.69	6.06	162.48	14.79	0.004069		
1.53786	97486.11						
112.00	4655.60	10.90	8.11	8022.18	0.43		
989.67	164.81	6.01	161.62	14.82	0.004071		
1.52535	96971.15						
113.00	4655.62	10.92	8.12	8060.33	0.43		
992.37	164.98	6.01	161.79	14.82	0.004074		
1.52904	97074.48						
114.00	4655.80	11.10	8.25	8429.92	0.44		
1021.87	166.86	6.12	163.61	14.74	0.004070		
1.55555	98163.55						
115.00	4655.87	11.17	8.30	8586.08	0.44		
1034.58	167.65	6.17	164.37	14.71	0.004065		
1.56542	98623.98						
116.00	4655.82	11.12	8.26	8471.37	0.44		
1025.41	167.08	6.14	163.82	14.73	0.004068		
1.55777	98291.62						
117.00	4655.82	11.12	8.26	8469.97	0.44		
1025.26	167.07	6.14	163.81	14.73	0.004068		
1.55769	98286.55						
118.00	4655.86	11.16	8.29	8551.22	0.44		
1031.55	167.46	6.16	164.19	14.72	0.004068		
1.56367	98516.55						
119.00	4655.91	11.21	8.33	8668.71	0.44		
1040.84	168.04	6.19	164.75	14.69	0.004067		
1.57196	98852.57						
120.00	4655.91	11.21	8.33	8669.99	0.44		
1040.94	168.05	6.19	164.76	14.69	0.004067		
1.57211	98855.88						
121.00	4655.88	11.18	8.30	8588.85	0.44		
1034.81	167.66	6.17	164.39	14.71	0.004066		
1.56587	98632.20						
122.00	4655.82	11.12	8.26	8471.35	0.44		
1025.41	167.08	6.14	163.82	14.73	0.004068		
1.55811	98291.53						
123.00	4655.78	11.08	8.23	8389.01	0.44		
1019.01	166.67	6.11	163.43	14.75	0.004068		
1.55178	98055.93						
124.00	4655.72	11.02	8.19	8271.33	0.44		
1009.53	166.08	6.08	162.85	14.77	0.004070		
1.54380	97709.34						
125.00	4655.72	11.02	8.19	8270.00	0.44		
1009.40	166.07	6.08	162.84	14.77	0.004070		
1.54363	97704.95						
126.00	4655.69	10.99	8.17	8197.95	0.43		
1003.77	165.71	6.06	162.49	14.79	0.004068		
1.53769	97495.10						
127.00	4655.64	10.94	8.13	8092.25	0.43		
995.19	165.16	6.03	161.96	14.81	0.004071		
1.53060	97178.54						
128.00	4655.64	10.94	8.13	8091.00	0.43		
995.07	165.15	6.03	161.96	14.81	0.004071		
1.53043	97174.12						
129.00	4655.60	10.90	8.11	8020.90	0.43		
989.54	164.80	6.00	161.61	14.82	0.004071		
1.52539	96966.69						
130.00	4655.55	10.85	8.07	7918.18	0.43		
981.13	164.26	5.97	161.09	14.84	0.004074		
1.51836	96653.62						
131.00	4655.62	10.92	8.12	8059.71	0.43		

				HYCHAN.OUT			
992.30	164.98	6.01	161.79	14.82	0.004074		
132.00	97071.98	11.02	8.19	8267.68	0.44		
1009.17	4655.72	6.08	162.83	14.77	0.004071		
133.00	97696.68	11.02	8.19	8270.00	0.44		
1009.41	4655.72	6.08	162.84	14.77	0.004069		
134.00	97704.88	11.02	8.19	8270.00	0.44		
1009.40	4655.72	6.08	162.84	14.77	0.004071		
135.00	97704.80	11.02	8.19	8269.99	0.44		
1009.40	4655.72	6.08	162.84	14.77	0.004071		
136.00	97704.71	11.02	8.19	8270.01	0.44		
1009.40	4655.72	6.08	162.84	14.77	0.004069		
137.00	97704.79	11.02	8.19	8270.02	0.44		
1009.40	4655.72	6.08	162.84	14.77	0.004070		
138.00	97704.84	11.02	8.19	8269.97	0.44		
1009.40	4655.72	6.08	162.84	14.77	0.004069		
139.00	97704.72	10.99	8.17	8197.85	0.43		
1003.76	4655.69	6.06	162.49	14.79	0.004070		
140.00	97494.95	10.94	8.13	8092.28	0.43		
995.19	4655.64	6.03	161.96	14.81	0.004072		
141.00	97178.43	10.94	8.13	8090.97	0.43		
995.07	4655.64	6.03	161.96	14.81	0.004072		
142.00	97174.09	10.94	8.13	8091.02	0.43		
995.07	4655.64	6.03	161.96	14.81	0.004070		
143.00	97174.10	10.94	8.13	8090.99	0.43		
995.06	4655.64	6.03	161.96	14.81	0.004072		
144.00	97174.01	10.90	8.11	8020.83	0.43		
989.54	4655.60	6.00	161.61	14.82	0.004071		
145.00	96966.59	10.85	8.07	7918.19	0.43		
981.14	4655.55	5.97	161.09	14.84	0.004073		
146.00	96653.77	10.85	8.07	7917.00	0.43		
981.02	4655.55	5.97	161.08	14.84	0.004073		
147.00	96649.54	10.85	8.07	7917.00	0.43		
981.02	4655.55	5.97	161.08	14.84	0.004074		
148.00	96649.55	10.85	8.07	7917.00	0.43		
981.02	4655.55	5.97	161.08	14.84	0.004072		
149.00	96649.57	10.85	8.07	7917.00	0.43		
981.02	4655.55	5.97	161.08	14.84	0.004073		
150.00	96649.48	10.83	8.05	7870.28	0.43		
977.31	4655.53	5.96	160.85	14.85	0.004071		
151.00	96509.21	10.78	8.02	7778.50	0.43		
969.82	4655.48	5.93	160.38	14.87	0.004073		
152.00	96227.30	10.76	8.01	7743.42	0.43		

		HYCHAN.OUT				
966.91	163.34	5.92	160.20	14.88	0.004075	
1.50528	96117.68					
153.00	4655.46	10.76	8.01	7742.99	0.43	
966.87	163.34	5.92	160.19	14.88	0.004075	
1.50516	96116.20					
154.00	4655.43	10.73	7.98	7673.12	0.43	
961.27	162.97	5.90	159.84	14.90	0.004074	
1.49956	95902.31					
155.00	4655.45	10.75	8.00	7710.06	0.43	
963.90	163.14	5.91	160.01	14.89	0.004077	
1.50312	96004.43					
156.00	4655.55	10.85	8.07	7914.63	0.43	
980.78	164.24	5.97	161.07	14.85	0.004072	
1.51752	96640.93					
157.00	4655.55	10.85	8.07	7917.00	0.43	
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51779	96649.55					
158.00	4655.55	10.85	8.07	7917.01	0.43	
981.02	164.25	5.97	161.08	14.84	0.004072	
1.51772	96649.52					
159.00	4655.55	10.85	8.07	7916.98	0.43	
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51793	96649.53					
160.00	4655.55	10.85	8.07	7917.01	0.43	
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51794	96649.51					
161.00	4655.55	10.85	8.07	7917.00	0.43	
981.02	164.25	5.97	161.08	14.84	0.004072	
1.51772	96649.55					
162.00	4655.55	10.85	8.07	7917.01	0.43	
981.02	164.25	5.97	161.08	14.84	0.004072	
1.51771	96649.56					
163.00	4655.55	10.85	8.07	7916.97	0.43	
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51784	96649.54					
164.00	4655.52	10.82	8.04	7846.96	0.43	
975.46	163.89	5.95	160.73	14.86	0.004073	
1.51264	96438.87					
165.00	4655.46	10.76	8.01	7744.23	0.43	
966.98	163.34	5.92	160.20	14.88	0.004074	
1.50508	96120.54					
166.00	4655.46	10.76	8.01	7743.02	0.43	
966.86	163.34	5.92	160.19	14.88	0.004075	
1.50502	96116.16					
167.00	4655.46	10.76	8.01	7743.00	0.43	
966.87	163.34	5.92	160.19	14.88	0.004074	
1.50476	96116.23					
168.00	4655.46	10.76	8.01	7742.99	0.43	
966.87	163.34	5.92	160.19	14.88	0.004074	
1.50499	96116.27					
169.00	4655.46	10.76	8.01	7743.00	0.43	
966.87	163.34	5.92	160.19	14.88	0.004075	
1.50510	96116.30					
170.00	4655.46	10.76	8.01	7742.99	0.43	
966.87	163.34	5.92	160.19	14.88	0.004075	
1.50522	96116.27					
171.00	4655.46	10.76	8.01	7743.02	0.43	
966.87	163.34	5.92	160.19	14.88	0.004075	
1.50516	96116.25					
172.00	4655.43	10.73	7.98	7673.03	0.43	
961.27	162.97	5.90	159.84	14.90	0.004075	
1.49972	95902.16					
173.00	4655.38	10.68	7.95	7570.14	0.43	



		HYCHAN.OUT				
952.73	162.41	5.87	159.30	14.92	0.004076	
1.49184	95578.42					
174.00	4655.38	10.68	7.95	7569.00	0.43	
952.61	162.40	5.87	159.29	14.92	0.004076	
1.49173	95574.27					
175.00	4655.38	10.68	7.95	7569.00	0.43	
952.61	162.40	5.87	159.29	14.92	0.004076	
1.49205	95574.26					
176.00	4655.38	10.68	7.95	7569.00	0.43	
952.61	162.40	5.87	159.29	14.92	0.004076	
1.49205	95574.29					
177.00	4655.38	10.68	7.95	7569.00	0.43	
952.61	162.40	5.87	159.29	14.92	0.004076	
1.49205	95574.27					
178.00	4655.38	10.68	7.95	7569.00	0.43	
952.61	162.40	5.87	159.29	14.92	0.004076	
1.49205	95574.30					
179.00	4655.45	10.75	8.00	7709.18	0.43	
963.80	163.14	5.91	160.00	14.89	0.004078	
1.50326	96000.92					
180.00	4655.55	10.85	8.07	7914.64	0.43	
980.78	164.24	5.97	161.07	14.85	0.004073	
1.51777	96640.91					
181.00	4655.58	10.89	8.10	7987.26	0.43	
986.56	164.61	5.99	161.43	14.83	0.004073	
1.52328	96857.66					
182.00	4655.64	10.94	8.13	8089.84	0.43	
994.94	165.15	6.02	161.95	14.81	0.004071	
1.53041	97169.48					
183.00	4655.64	10.94	8.13	8090.99	0.43	
995.06	165.15	6.03	161.96	14.81	0.004071	
1.53044	97174.02					
184.00	4655.64	10.94	8.13	8091.01	0.43	
995.06	165.15	6.03	161.96	14.81	0.004070	
1.53019	97174.04					
185.00	4655.64	10.94	8.13	8091.01	0.43	
995.06	165.15	6.03	161.96	14.81	0.004071	
1.53050	97174.02					
186.00	4655.64	10.94	8.13	8091.00	0.43	
995.06	165.15	6.03	161.96	14.81	0.004072	
1.53075	97174.01					
187.00	4655.64	10.94	8.13	8090.98	0.43	
995.07	165.15	6.03	161.96	14.81	0.004071	
1.53059	97174.05					
188.00	4655.64	10.94	8.13	8091.01	0.43	
995.07	165.15	6.03	161.96	14.81	0.004071	
1.53066	97174.13					
189.00	4655.64	10.94	8.13	8091.01	0.43	
995.07	165.15	6.03	161.96	14.81	0.004072	
1.53084	97174.05					
190.00	4655.60	10.90	8.11	8020.75	0.43	
989.54	164.80	6.00	161.61	14.82	0.004072	
1.52571	96966.49					
191.00	4655.55	10.85	8.07	7918.18	0.43	
981.13	164.26	5.97	161.09	14.84	0.004072	
1.51788	96653.62					
192.00	4655.55	10.85	8.07	7916.99	0.43	
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51800	96649.62					
193.00	4655.55	10.85	8.07	7917.02	0.43	
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51797	96649.52					
194.00	4655.55	10.85	8.07	7916.98	0.43	



HYCHAN.OUT						
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51781	96649.51					
195.00	4655.55	10.85	8.07	7917.01	0.43	
981.02	164.25	5.97	161.08	14.84	0.004074	
1.51818	96649.62					
196.00	4655.55	10.85	8.07	7916.99	0.43	
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51782	96649.48					
197.00	4655.55	10.85	8.07	7917.01	0.43	
981.02	164.25	5.97	161.08	14.84	0.004074	
1.51829	96649.46					
198.00	4655.55	10.85	8.07	7917.00	0.43	
981.02	164.25	5.97	161.08	14.84	0.004072	
1.51750	96649.55					
199.00	4655.55	10.85	8.07	7917.00	0.43	
981.02	164.25	5.97	161.08	14.84	0.004073	
1.51789	96649.62					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 76

MAXIMUM DISCHARGE (CFS) = 21555.14 AT TIME = 79.14  
 MAXIMUM STAGE = 4658.43 AT TIME = 79.24

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4641.20	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00					
538.93	1.00	4644.66	3.46	7.28	2.22	1195.23	0.21	0.002849
	1.29359	38117.85						
847.65	2.00	4651.43	10.23	5.38	6.44	5458.61	0.35	0.002774
	0.93090	157.63						
850.49	3.00	4651.44	10.24	5.39	6.44	5474.32	0.35	0.002774
	0.93292	157.79						
841.06	4.00	4651.38	10.18	5.35	6.40	5379.73	0.35	0.002774
	0.92674	157.12						
835.44	5.00	4651.34	10.14	5.33	6.37	5322.08	0.35	0.002775
	0.92323	156.71						
820.40	6.00	4651.24	10.04	5.27	6.30	5172.48	0.35	0.002776
	0.91312	155.61						
804.84	7.00	4651.13	9.94	5.21	6.24	5020.31	0.35	0.002777
	0.90296	154.47						
789.17	8.00	4651.03	9.83	5.15	6.17	4869.05	0.35	0.002780
	0.89301	153.31						
779.05	9.00	4650.96	9.76	5.11	6.13	4773.87	0.35	0.002783
	0.88671	152.57						
773.06	10.00	4650.92	9.72	5.08	6.10	4715.74	0.34	0.002782
		152.11						

		HYCHAN.OUT					
	0.88213	77639.68					
757.29	11.00	4650.81	9.61	6.03	4566.75	0.34	
		150.91	5.02	148.14	15.42		0.002785
	0.87190	77035.33					
746.89	12.00	4650.74	9.54	5.99	4470.94	0.34	
		150.13	4.98	147.38	15.46		0.002786
	0.86494	76638.42					
746.66	13.00	4650.73	9.53	5.99	4469.00	0.34	
		150.11	4.97	147.37	15.46		0.002785
	0.86428	76630.29					
746.66	14.00	4650.73	9.53	5.99	4469.02	0.34	
		150.11	4.97	147.37	15.46		0.002786
	0.86483	76630.25					
746.66	15.00	4650.73	9.53	5.99	4468.96	0.34	
		150.11	4.97	147.37	15.46		0.002785
	0.86438	76630.13					
746.66	16.00	4650.73	9.53	5.99	4469.01	0.34	
		150.11	4.97	147.37	15.46		0.002786
	0.86481	76630.35					
752.58	17.00	4650.78	9.58	6.01	4525.31	0.34	
		150.57	5.00	147.81	15.43		0.002787
	0.86912	76863.48					
768.51	18.00	4650.89	9.69	6.08	4675.27	0.34	
		151.79	5.06	148.99	15.38		0.002785
	0.87976	77475.80					
784.40	19.00	4651.00	9.80	6.15	4826.70	0.35	
		152.98	5.13	150.15	15.33		0.002782
	0.89026	78078.70					
794.45	20.00	4651.07	9.87	6.20	4922.25	0.35	
		153.72	5.17	150.87	15.29		0.002780
	0.89640	78452.56					
794.65	21.00	4651.07	9.87	6.20	4923.96	0.35	
		153.74	5.17	150.88	15.29		0.002780
	0.89680	78459.29					
800.37	22.00	4651.11	9.91	6.22	4980.29	0.35	
		154.16	5.19	151.30	15.27		0.002781
	0.90085	78675.76					
821.47	23.00	4651.25	10.05	6.31	5187.25	0.35	
		155.71	5.28	152.80	15.20		0.002780
	0.91500	79455.82					
851.86	24.00	4651.45	10.25	6.44	5489.84	0.35	
		157.89	5.40	154.92	15.11		0.002774
	0.93389	80557.09					
881.75	25.00	4651.65	10.45	6.57	5793.99	0.36	
		160.00	5.51	156.96	15.02		0.002771
	0.95281	81620.85					
900.14	26.00	4651.77	10.57	6.65	5981.86	0.36	
		161.28	5.58	158.20	14.97		0.002768
	0.96390	82264.50					
900.50	27.00	4651.77	10.57	6.65	5985.00	0.36	
		161.30	5.58	158.22	14.97		0.002767
	0.96374	82276.30					
906.45	28.00	4651.81	10.61	6.67	6048.46	0.36	
		161.72	5.61	158.62	14.95		0.002767
	0.96785	82483.98					
916.26	29.00	4651.87	10.67	6.71	6150.28	0.36	
		162.39	5.64	159.27	14.92		0.002765
	0.97356	82821.99					
916.45	30.00	4651.88	10.68	6.71	6151.99	0.36	
		162.40	5.64	159.29	14.92		0.002765
	0.97366	82828.26					
922.65	31.00	4651.92	10.72	6.74	6218.51	0.36	
		162.82	5.67	159.70	14.90		0.002764

		HYCHAN.OUT					
	0.97744	83042.04					
932.76	32.00	4651.98	10.78	5.70	6.78	6324.28	0.36
		163.51			160.36	14.88	0.002764
	0.98405	83386.73					
932.94	33.00	4651.98	10.78	5.71	6.78	6326.00	0.36
		163.52			160.37	14.87	0.002763
	0.98366	83392.73					
926.80	34.00	4651.94	10.74	5.68	6.75	6259.53	0.36
		163.10			159.96	14.89	0.002763
	0.97976	83181.16					
916.65	35.00	4651.88	10.68	5.64	6.71	6153.79	0.36
		162.41			159.30	14.92	0.002765
	0.97388	82834.83					
910.53	36.00	4651.84	10.64	5.62	6.69	6088.31	0.36
		161.99			158.89	14.94	0.002767
	0.97036	82622.16					
900.69	37.00	4651.77	10.57	5.58	6.65	5986.68	0.36
		161.32			158.24	14.97	0.002768
	0.96422	82282.80					
900.50	38.00	4651.77	10.57	5.58	6.65	5985.02	0.36
		161.30			158.22	14.97	0.002767
	0.96406	82276.36					
900.50	39.00	4651.77	10.57	5.58	6.65	5984.99	0.36
		161.30			158.22	14.97	0.002767
	0.96382	82276.41					
900.49	40.00	4651.77	10.57	5.58	6.65	5985.01	0.36
		161.30			158.22	14.97	0.002767
	0.96394	82276.27					
900.49	41.00	4651.77	10.57	5.58	6.65	5985.00	0.36
		161.30			158.22	14.97	0.002766
	0.96362	82276.28					
906.48	42.00	4651.81	10.61	5.61	6.67	6048.78	0.36
		161.72			158.63	14.95	0.002768
	0.96800	82485.12					
916.27	43.00	4651.87	10.67	5.64	6.71	6150.33	0.36
		162.39			159.27	14.92	0.002764
	0.97330	82822.17					
922.64	44.00	4651.92	10.72	5.67	6.74	6218.40	0.36
		162.82			159.70	14.90	0.002765
	0.97769	83041.63					
938.89	45.00	4652.02	10.82	5.73	6.81	6390.83	0.36
		163.92			160.76	14.86	0.002763
	0.98742	83595.79					
955.18	46.00	4652.12	10.92	5.79	6.87	6564.81	0.37
		165.01			161.82	14.81	0.002761
	0.99726	84144.84					
971.26	47.00	4652.22	11.02	5.85	6.94	6738.43	0.37
		166.07			162.85	14.77	0.002759
	1.00688	84681.36					
987.24	48.00	4652.32	11.12	5.91	7.00	6912.53	0.37
		167.12			163.86	14.73	0.002757
	1.01623	85209.25					
1003.09	49.00	4652.42	11.22	5.97	7.06	7086.70	0.37
		168.15			164.86	14.69	0.002755
	1.02568	85727.58					
1024.72	50.00	4652.56	11.36	6.04	7.15	7328.41	0.37
		169.54			166.21	14.64	0.002752
	1.03808	86426.65					
1043.77	51.00	4652.67	11.47	6.11	7.22	7539.86	0.38
		170.74			167.37	14.59	0.002749
	1.04867	87034.30					
1049.94	52.00	4652.71	11.51	6.14	7.25	7610.52	0.38
		171.13			167.75	14.57	0.002750

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1077.85	1.05276	87230.48	11.68	6.24	7.36	7931.33	0.38	0.002746
	53.00	4652.88				169.43	14.51	
		172.87						
1133.89	1.06838	88104.86	12.01	6.43	7.57	8580.75	0.38	0.002736
	54.00	4653.21				172.73	14.38	
		176.27						
1208.52	1.09809	89819.77	12.44	6.69	7.83	9465.18	0.39	0.002728
	55.00	4653.64				176.97	14.22	
		180.65						
1312.98	1.13870	92024.33	13.02	7.04	8.17	10720.67	0.40	0.002763
	56.00	4654.22				182.63	14.02	
		186.50						
1424.68	1.21371	94967.90	13.63	7.40	8.51	12127.53	0.41	0.002770
	57.00	4654.83				188.41	13.83	
		192.47						
1512.15	1.27948	97975.24	14.08	7.68	8.77	13264.21	0.41	0.002791
	58.00	4655.28				192.74	13.68	
		196.95						
1601.56	1.33731	100225.56	14.54	7.95	9.03	14465.81	0.42	0.002805
	59.00	4655.74				197.00	13.55	
		201.35						
1689.37	1.39209	102439.14	14.98	8.22	9.26	15645.96	0.42	0.002799
	60.00	4656.18				201.05	13.43	
		205.54						
1747.09	1.43573	104547.80	15.26	8.39	9.40	16428.66	0.42	0.002800
	61.00	4656.46				203.64	13.35	
		208.21						
1801.41	1.46604	105892.84	15.52	8.55	9.51	17124.28	0.43	0.002783
	62.00	4656.72				206.03	13.28	
		210.69						
1846.73	1.48462	107135.53	15.73	8.68	9.59	17711.93	0.43	0.002770
	63.00	4656.93				207.99	13.22	
		212.71						
1905.16	1.50048	108153.09	16.01	8.85	9.68	18441.58	0.43	0.002752
	64.00	4657.21				210.47	13.15	
		215.28						
1924.54	1.51977	109444.20	16.10	8.91	9.70	18669.84	0.43	0.002738
	65.00	4657.30				211.28	13.13	
		216.12						
1925.19	1.52140	109865.59	16.10	8.91	9.70	18673.25	0.43	0.002741
	66.00	4657.30				211.31	13.13	
		216.15						
1925.31	1.52333	109879.42	16.10	8.91	9.70	18674.20	0.43	0.002740
	67.00	4657.30				211.31	13.13	
		216.15						
1925.33	1.52280	109881.95	16.10	8.91	9.70	18673.78	0.43	0.002745
	68.00	4657.30				211.31	13.13	
		216.15						
1925.52	1.52585	109882.52	16.10	8.91	9.70	18675.76	0.43	0.002742
	69.00	4657.30				211.32	13.13	
		216.16						
1925.58	1.52428	109886.63	16.10	8.91	9.70	18676.15	0.43	0.002740
	70.00	4657.30				211.32	13.13	
		216.16						
1925.57	1.52324	109888.02	16.10	8.91	9.70	18676.31	0.43	0.002734
	71.00	4657.30				211.32	13.13	
		216.16						
1938.06	1.51952	109887.70	16.16	8.94	9.71	18820.58	0.43	0.002726
	72.00	4657.36				211.85	13.11	
		216.71						
1960.35	1.52119	110162.15	16.26	9.04	9.71	19041.49	0.42	0.002721
	73.00	4657.46				212.79	13.08	
		216.93						

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1961.24	1.53449	110652.26	16.27	9.04	9.71	19047.79	0.42	0.002711
	74.00	4657.47				212.83	13.08	
		216.93						
1975.12	1.52963	110671.41	16.33	9.10	9.72	19189.42	0.42	0.002705
	75.00	4657.53				213.42	13.07	
		217.07						
2018.29	1.53578	110980.09	16.54	9.28	9.75	19686.21	0.42	0.002679
	76.00	4657.74				215.27	13.02	
		217.48						
2068.17	1.55136	111938.77	16.78	9.49	9.79	20253.30	0.42	0.002651
	77.00	4657.98				217.39	12.96	
		217.95						
2100.82	1.56956	113040.40	16.93	9.63	9.82	20629.60	0.42	0.002632
	78.00	4658.13				218.77	12.92	
		218.26						
2135.75	1.58095	113758.04	17.10	9.77	9.90	21145.70	0.42	0.002619
	79.00	4658.30				220.24	12.88	
		218.59						
2159.92	1.59686	114526.94	17.21	9.87	9.93	21437.32	0.42	0.002611
	80.00	4658.41				221.25	12.85	
		218.82						
2135.83	1.60794	115052.11	17.10	9.77	9.87	21086.20	0.42	0.002618
	81.00	4658.30				220.23	12.88	
		218.59						
2126.03	1.59625	114521.95	17.05	9.73	9.81	20855.40	0.42	0.002626
	82.00	4658.25				219.83	12.89	
		218.50						
2127.53	1.59441	114309.88	17.06	9.74	9.80	20851.99	0.42	0.002628
	83.00	4658.26				219.89	12.89	
		218.51						
2127.36	1.59666	114342.27	17.06	9.74	9.80	20852.07	0.42	0.002627
	84.00	4658.26				219.88	12.89	
		218.51						
2100.71	1.59618	114338.77	16.93	9.62	9.80	20577.92	0.42	0.002641
	85.00	4658.13				218.74	12.92	
		218.26						
2029.71	1.58605	113746.88	16.59	9.33	9.73	19755.43	0.42	0.002674
	86.00	4657.79				215.72	13.00	
		217.58						
1936.02	1.55629	112176.41	16.15	8.94	9.65	18682.65	0.42	0.002732
	87.00	4657.35				211.75	13.11	
		216.60						
1824.96	1.52398	110108.71	15.63	8.62	9.52	17367.43	0.42	0.002779
	88.00	4656.83				207.02	13.25	
		211.71						
1719.88	1.49500	107648.26	15.12	8.31	9.32	16036.60	0.42	0.002788
	89.00	4656.32				202.41	13.38	
		206.94						
1656.27	1.44577	105254.04	14.81	8.12	9.16	15175.60	0.42	0.002785
	90.00	4656.01				199.53	13.47	
		203.96						
1587.04	1.41107	103754.86	14.46	7.91	8.98	14245.41	0.42	0.002775
	91.00	4655.66				196.30	13.57	
		200.63						
1515.48	1.36978	102078.00	14.10	7.69	8.77	13289.98	0.41	0.002762
	92.00	4655.30				192.89	13.68	
		197.10						
1457.37	1.32524	100303.71	13.80	7.51	8.60	12533.47	0.41	0.002753
	93.00	4655.00				190.04	13.77	
		194.15						
1407.69	1.28926	98821.44	13.54	7.35	8.45	11900.36	0.41	0.002747
	94.00	4654.74				187.55	13.86	
		191.58						

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1367.40	1.25957	97528.12	13.32	7.22	8.33	11394.08	0.40	0.002736
	95.00	4654.52				185.49	13.92	
	1.23227	96454.56						
1329.69	96.00	4654.32	13.12	7.09	8.22	10925.36	0.40	0.002733
		187.43				183.53	13.99	
	1.20999	95435.48						
1298.49	97.00	4654.15	12.95	6.99	8.12	10541.87	0.40	0.002727
		185.72				181.88	14.05	
	1.18983	94575.20						
1269.84	98.00	4653.99	12.79	6.90	8.03	10193.70	0.40	0.002723
		184.13				180.34	14.10	
	1.17178	93777.55						
1246.48	99.00	4653.86	12.66	6.82	7.95	9909.24	0.39	0.002722
		182.82				179.07	14.15	
	1.15795	93114.88						
1215.27	100.00	4653.68	12.48	6.71	7.86	9555.51	0.39	0.002730
		181.04				177.35	14.21	
	1.14351	92220.91						
1190.11	101.00	4653.54	12.34	6.63	7.78	9254.30	0.39	0.002732
		179.59				175.94	14.26	
	1.12972	91489.59						
1168.72	102.00	4653.41	12.21	6.55	7.70	8994.09	0.39	0.002737
		178.34				174.73	14.31	
	1.11905	90860.80						
1151.93	103.00	4653.32	12.12	6.50	7.63	8792.94	0.39	0.002738
		177.35				173.77	14.34	
	1.10955	90361.83						
1128.63	104.00	4653.18	11.98	6.41	7.54	8514.87	0.38	0.002738
		175.95				172.42	14.39	
	1.09608	89658.79						
1101.92	105.00	4653.02	11.82	6.32	7.45	8203.83	0.38	0.002742
		174.34				170.86	14.45	
	1.08138	88847.21						
1086.45	106.00	4652.93	11.73	6.27	7.39	8024.88	0.38	0.002744
		173.40				169.94	14.49	
	1.07278	88370.60						
1071.33	107.00	4652.84	11.64	6.21	7.33	7850.99	0.38	0.002746
		172.46				169.04	14.52	
	1.06443	87900.09						
1061.88	108.00	4652.78	11.58	6.18	7.29	7744.58	0.38	0.002747
		171.88				168.47	14.55	
	1.05915	87605.73						
1067.53	109.00	4652.82	11.62	6.20	7.32	7810.80	0.38	0.002749
		172.23				168.82	14.53	
	1.06313	87783.87						
1088.43	110.00	4652.94	11.74	6.27	7.40	8053.45	0.38	0.002746
		173.52				170.07	14.48	
	1.07476	88434.23						
1101.22	111.00	4653.02	11.82	6.32	7.44	8196.94	0.38	0.002742
		174.30				170.82	14.45	
	1.08107	88826.59						
1086.43	112.00	4652.93	11.73	6.27	7.39	8024.81	0.38	0.002746
		173.40				169.94	14.49	
	1.07345	88370.07						
1088.71	113.00	4652.94	11.74	6.27	7.40	8056.05	0.38	0.002746
		173.54				170.08	14.48	
	1.07485	88442.73						
1120.40	114.00	4653.13	11.93	6.39	7.52	8424.07	0.38	0.002740
		175.47				171.95	14.41	
	1.09185	89414.37						
1134.62	115.00	4653.21	12.01	6.44	7.57	8587.93	0.38	0.002737
		176.32				172.77	14.38	

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1124.64	1.09897	89842.71	11.96	6.40	7.53	8471.78	0.38	0.002741
	116.00	4653.16						
		175.72				172.20	14.40	
1124.44	1.09484	89542.07	11.95	6.40	7.53	8469.93	0.38	0.002740
	117.00	4653.15				172.18	14.40	
		175.71						
1130.97	1.09407	89536.20	11.99	6.42	7.56	8548.68	0.38	0.002740
	118.00	4653.19				172.57	14.39	
		176.10						
1140.99	1.09784	89734.70	12.05	6.46	7.60	8668.40	0.39	0.002740
	119.00	4653.25				173.15	14.37	
		176.70						
1141.08	1.10389	90035.87	12.05	6.46	7.60	8670.00	0.39	0.002740
	120.00	4653.25				173.15	14.37	
		176.71						
1134.90	1.10401	90038.49	12.02	6.44	7.57	8591.35	0.39	0.002739
	121.00	4653.22				172.79	14.38	
		176.33						
1124.62	1.09993	89850.84	11.96	6.40	7.53	8471.77	0.38	0.002742
	122.00	4653.16				172.20	14.40	
		175.72						
1117.95	1.09523	89541.55	11.92	6.38	7.51	8391.53	0.38	0.002739
	123.00	4653.12				171.80	14.42	
		175.32						
1107.58	1.08995	89337.60	11.86	6.34	7.47	8271.74	0.38	0.002742
	124.00	4653.06				171.20	14.44	
		174.69						
1107.42	1.08491	89022.56	11.85	6.34	7.47	8269.95	0.38	0.002742
	125.00	4653.05				171.19	14.44	
		174.68						
1101.56	1.08482	89017.80	11.82	6.32	7.44	8200.27	0.38	0.002741
	126.00	4653.02				170.84	14.45	
		174.32						
1092.18	1.08098	88836.57	11.76	6.29	7.41	8092.60	0.38	0.002743
	127.00	4652.96				170.29	14.48	
		173.75						
1092.01	1.07585	88549.12	11.76	6.29	7.41	8091.00	0.38	0.002744
	128.00	4652.96				170.28	14.48	
		173.74						
1086.27	1.07625	88544.08	11.73	6.27	7.39	8023.18	0.38	0.002744
	129.00	4652.93				169.93	14.49	
		173.39						
1077.07	1.07257	88365.24	11.67	6.23	7.35	7918.53	0.38	0.002745
	130.00	4652.87				169.39	14.51	
		172.82						
1088.60	1.06764	88080.95	11.74	6.27	7.40	8055.11	0.38	0.002745
	131.00	4652.94				170.08	14.48	
		173.53						
1107.09	1.07459	88439.60	11.85	6.34	7.47	8267.06	0.38	0.002744
	132.00	4653.05				171.17	14.44	
		174.66						
1107.42	1.08542	89008.15	11.85	6.34	7.47	8269.95	0.38	0.002741
	133.00	4653.05				171.19	14.44	
		174.68						
1107.41	1.08441	89017.94	11.85	6.34	7.47	8270.04	0.38	0.002743
	134.00	4653.05				171.19	14.44	
		174.68						
1107.41	1.08527	89017.48	11.85	6.34	7.47	8269.96	0.38	0.002742
	135.00	4653.05				171.19	14.44	
		174.68						
1107.41	1.08454	89017.45	11.85	6.34	7.47	8270.00	0.38	0.002742
	136.00	4653.05				171.19	14.44	
		174.68						

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1107.41	1.08461	89017.56	11.85	6.34	7.47	8270.07	0.38	0.002744
137.00	4653.05	174.68				171.19	14.44	
1107.41	1.08547	89017.48	11.85	6.34	7.47	8269.92	0.38	0.002741
138.00	4653.05	174.68				171.19	14.44	
1101.55	1.08450	89017.56	11.82	6.32	7.44	8200.18	0.38	0.002742
139.00	4653.02	174.32				170.84	14.45	
1092.17	1.08125	88836.54	11.76	6.29	7.41	8092.68	0.38	0.002745
140.00	4652.96	173.75				170.29	14.48	
1092.01	1.07655	88548.93	11.76	6.29	7.41	8090.92	0.38	0.002744
141.00	4652.96	173.74				170.28	14.48	
1092.01	1.07610	88544.20	11.76	6.29	7.41	8091.03	0.38	0.002745
142.00	4652.96	173.74				170.28	14.48	
1092.00	1.07643	88544.06	11.76	6.29	7.41	8091.04	0.38	0.002745
143.00	4652.96	173.74				170.28	14.48	
1086.27	1.07650	88543.95	11.73	6.27	7.39	8023.08	0.38	0.002745
144.00	4652.93	173.39				169.93	14.49	
1077.08	1.07332	88365.13	11.67	6.23	7.35	7918.53	0.38	0.002747
145.00	4652.87	172.82				169.39	14.51	
1076.92	1.06816	88081.28	11.67	6.23	7.35	7916.98	0.38	0.002745
146.00	4652.87	172.81				169.38	14.51	
1076.93	1.06750	88076.47	11.67	6.23	7.35	7917.04	0.38	0.002747
147.00	4652.87	172.81				169.38	14.51	
1076.93	1.06819	88076.56	11.67	6.23	7.35	7916.97	0.38	0.002746
148.00	4652.87	172.81				169.38	14.51	
1076.92	1.06763	88076.58	11.67	6.23	7.35	7917.04	0.38	0.002747
149.00	4652.87	172.81				169.38	14.51	
1073.07	1.06817	88076.31	11.65	6.22	7.34	7871.77	0.38	0.002746
150.00	4652.85	172.57				169.15	14.52	
1064.98	1.06542	87955.47	11.60	6.19	7.30	7779.50	0.38	0.002747
151.00	4652.80	172.07				168.66	14.54	
1061.77	1.06078	87702.64	11.58	6.18	7.29	7743.56	0.38	0.002749
152.00	4652.78	171.87				168.47	14.55	
1061.72	1.05955	87602.38	11.58	6.18	7.29	7742.97	0.38	0.002748
153.00	4652.78	171.87				168.46	14.55	
1055.91	1.05941	87600.95	11.55	6.16	7.27	7675.43	0.38	0.002748
154.00	4652.75	171.50				168.11	14.56	
1058.04	1.05591	87416.55	11.56	6.16	7.28	7705.82	0.38	0.002750
155.00	4652.76	171.64				168.24	14.55	
1076.59	1.05783	87485.65	11.67	6.23	7.35	7913.95	0.38	0.002747
156.00	4652.87	172.79				169.36	14.51	
1076.93	1.06781	88066.37	11.67	6.23	7.35	7916.97	0.38	0.002746
157.00	4652.87	172.81				169.38	14.51	

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	1.06787	88076.47						
1076.92	158.00	4652.87	11.67	6.23	7.35	7917.03	0.38	0.002745
		172.81				169.38	14.51	
	1.06753	88076.43						
1076.93	159.00	4652.87	11.67	6.23	7.35	7916.98	0.38	0.002746
		172.81				169.38	14.51	
	1.06776	88076.56						
1076.92	160.00	4652.87	11.67	6.23	7.35	7917.03	0.38	0.002746
		172.81				169.38	14.51	
	1.06764	88076.32						
1076.93	161.00	4652.87	11.67	6.23	7.35	7916.97	0.38	0.002746
		172.81				169.38	14.51	
	1.06771	88076.54						
1076.92	162.00	4652.87	11.67	6.23	7.35	7917.02	0.38	0.002745
		172.81				169.38	14.51	
	1.06745	88076.42						
1076.93	163.00	4652.87	11.67	6.23	7.35	7916.97	0.38	0.002746
		172.81				169.38	14.51	
	1.06785	88076.55						
1071.15	164.00	4652.84	11.64	6.21	7.33	7849.27	0.38	0.002747
		172.45				169.03	14.52	
	1.06467	87894.89						
1061.88	165.00	4652.78	11.58	6.18	7.29	7744.57	0.38	0.002748
		171.88				168.47	14.55	
	1.05952	87605.65						
1061.71	166.00	4652.78	11.58	6.18	7.29	7742.99	0.38	0.002747
		171.87				168.46	14.55	
	1.05892	87600.74						
1061.72	167.00	4652.78	11.58	6.18	7.29	7743.01	0.38	0.002748
		171.87				168.46	14.55	
	1.05915	87600.85						
1061.72	168.00	4652.78	11.58	6.18	7.29	7742.99	0.38	0.002748
		171.87				168.46	14.55	
	1.05948	87601.08						
1061.72	169.00	4652.78	11.58	6.18	7.29	7742.98	0.38	0.002747
		171.87				168.46	14.55	
	1.05909	87600.94						
1061.72	170.00	4652.78	11.58	6.18	7.29	7742.99	0.38	0.002748
		171.87				168.46	14.55	
	1.05911	87600.96						
1061.72	171.00	4652.78	11.58	6.18	7.29	7743.04	0.38	0.002749
		171.87				168.46	14.55	
	1.05961	87600.84						
1055.91	172.00	4652.75	11.55	6.16	7.27	7675.32	0.38	0.002748
		171.50				168.11	14.56	
	1.05561	87416.47						
1046.56	173.00	4652.69	11.49	6.12	7.23	7570.48	0.38	0.002750
		170.92				167.54	14.58	
	1.05067	87122.25						
1046.40	174.00	4652.69	11.49	6.12	7.23	7569.00	0.38	0.002750
		170.91				167.53	14.58	
	1.05058	87117.34						
1046.40	175.00	4652.69	11.49	6.12	7.23	7569.00	0.38	0.002750
		170.91				167.53	14.58	
	1.05071	87117.33						
1046.40	176.00	4652.69	11.49	6.12	7.23	7569.00	0.38	0.002750
		170.91				167.53	14.58	
	1.05069	87117.37						
1046.40	177.00	4652.69	11.49	6.12	7.23	7569.00	0.38	0.002750
		170.91				167.53	14.58	
	1.05054	87117.36						
1046.40	178.00	4652.69	11.49	6.12	7.23	7569.00	0.38	0.002750
		170.91				167.53	14.58	

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1057.89	1.05054	87117.37	11.56	6.16	7.28	7704.61	0.38	0.002750
	179.00	4652.76				168.23	14.56	
	1.05769	87481.22						
1076.59	180.00	4652.87	11.67	6.23	7.35	7913.96	0.38	0.002746
		172.79				169.36	14.51	
	1.06760	88066.37						
1082.61	181.00	4652.91	11.71	6.25	7.38	7985.02	0.38	0.002747
		173.16				169.72	14.50	
	1.07179	88254.03						
1091.81	182.00	4652.96	11.76	6.28	7.41	8089.47	0.38	0.002743
		173.73				170.27	14.48	
	1.07578	88538.22						
1092.01	183.00	4652.96	11.76	6.29	7.41	8090.96	0.38	0.002743
		173.74				170.28	14.48	
	1.07580	88544.06						
1092.00	184.00	4652.96	11.76	6.29	7.41	8091.00	0.38	0.002744
		173.74				170.28	14.48	
	1.07615	88543.91						
1092.00	185.00	4652.96	11.76	6.29	7.41	8091.03	0.38	0.002744
		173.74				170.28	14.48	
	1.07638	88543.90						
1092.00	186.00	4652.96	11.76	6.29	7.41	8091.00	0.38	0.002744
		173.74				170.28	14.48	
	1.07618	88543.90						
1092.01	187.00	4652.96	11.76	6.29	7.41	8090.95	0.38	0.002743
		173.74				170.28	14.48	
	1.07594	88544.19						
1092.01	188.00	4652.96	11.76	6.29	7.41	8091.02	0.38	0.002745
		173.74				170.28	14.48	
	1.07660	88544.13						
1092.01	189.00	4652.96	11.76	6.29	7.41	8091.01	0.38	0.002743
		173.74				170.28	14.48	
	1.07593	88544.10						
1086.27	190.00	4652.93	11.73	6.27	7.39	8023.04	0.38	0.002744
		173.39				169.93	14.49	
	1.07285	88365.06						
1077.08	191.00	4652.87	11.67	6.23	7.35	7918.51	0.38	0.002747
		172.82				169.39	14.51	
	1.06818	88081.01						
1076.93	192.00	4652.87	11.67	6.23	7.35	7916.97	0.38	0.002746
		172.81				169.38	14.51	
	1.06768	88076.66						
1076.92	193.00	4652.87	11.67	6.23	7.35	7917.04	0.38	0.002748
		172.81				169.38	14.51	
	1.06860	88076.29						
1076.93	194.00	4652.87	11.67	6.23	7.35	7916.95	0.38	0.002746
		172.81				169.38	14.51	
	1.06783	88076.54						
1076.93	195.00	4652.87	11.67	6.23	7.35	7917.01	0.38	0.002746
		172.81				169.38	14.51	
	1.06767	88076.63						
1076.92	196.00	4652.87	11.67	6.23	7.35	7917.00	0.38	0.002746
		172.81				169.38	14.51	
	1.06797	88076.44						
1076.92	197.00	4652.87	11.67	6.23	7.35	7917.03	0.38	0.002746
		172.81				169.38	14.51	
	1.06781	88076.30						
1076.93	198.00	4652.87	11.67	6.23	7.35	7916.97	0.38	0.002746
		172.81				169.38	14.51	
	1.06779	88076.59						
1076.93	199.00	4652.87	11.67	6.23	7.35	7916.99	0.38	0.002745
		172.81				169.38	14.51	

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1.06761 88076.65

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 91

MAXIMUM DISCHARGE (CFS) = 21474.87 AT TIME = 79.15  
 MAXIMUM STAGE = 4657.09 AT TIME = 79.24

AREA BED	TIME WETTED (HRS)	ELEV. PERIMETER SURFACE (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY	FLOW SLOPE
(FT^2)	(LB/FT^2)	(FT)	(FT)	(FT)	(FT)		
0.00	0.00	4639.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00		
502.15	1.00	4642.77	3.27	2.24	1126.14	0.22	0.002549
		71.32	7.04		70.61	21.58	
	1.11996	36365.68					
812.15	2.00	4649.72	10.22	6.71	5447.07	0.37	0.002393
		157.54	5.16		154.57	15.13	
	0.76983	79604.64					
817.59	3.00	4649.74	10.24	6.70	5475.74	0.37	0.002395
		157.80	5.18		154.83	15.11	
	0.77440	79737.45					
807.58	4.00	4649.68	10.18	6.66	5379.99	0.37	0.002399
		157.12	5.14		154.17	15.14	
	0.76951	79397.92					
801.96	5.00	4649.64	10.14	6.64	5323.54	0.37	0.002401
		156.72	5.12		153.78	15.16	
	0.76659	79197.46					
786.40	6.00	4649.54	10.04	6.58	5174.26	0.37	0.002408
		155.62	5.05		152.71	15.21	
	0.75919	78647.42					
770.25	7.00	4649.43	9.93	6.52	5022.10	0.36	0.002413
		154.47	4.99		151.59	15.26	
	0.75094	78071.35					
754.05	8.00	4649.33	9.83	6.46	4870.89	0.36	0.002422
		153.29	4.92		150.46	15.31	
	0.74333	77484.48					
743.34	9.00	4649.26	9.76	6.42	4774.15	0.36	0.002425
		152.53	4.87		149.71	15.35	
	0.73759	77101.24					
737.35	10.00	4649.21	9.71	6.40	4717.30	0.36	0.002427
		152.07	4.85		149.27	15.37	
	0.73416	76873.85					
721.11	11.00	4649.10	9.60	6.34	4568.60	0.36	0.002434
		150.86	4.78		148.10	15.42	
	0.72595	76269.63					
710.17	12.00	4649.03	9.53	6.30	4471.23	0.36	0.002438
		150.06	4.73		147.31	15.46	
	0.72000	75866.48					
709.91	13.00	4649.03	9.53	6.30	4469.01	0.36	0.002437
		150.04	4.73		147.30	15.46	
	0.71957	75857.84					
709.90	14.00	4649.03	9.53	6.30	4469.01	0.36	0.002437
		150.04	4.73		147.30	15.46	
	0.71958	75857.43					
709.90	15.00	4649.03	9.53	6.30	4468.94	0.36	0.002438
		150.04	4.73		147.30	15.46	
	0.71970	75857.59					

HYCHAN.OUT							
709.92	16.00	4649.03	9.53	6.30	4469.04	0.36	
	0.71949	150.04	4.73	147.30	15.46		0.002437
	17.00	75857.84					
715.96		4649.07	9.57	6.32	4523.75	0.36	
	0.72215	150.50	4.76	147.74	15.44		0.002433
	18.00	76085.80					
732.40		4649.18	9.68	6.38	4673.41	0.36	
	0.73060	151.72	4.83	148.93	15.38		0.002425
	19.00	76698.12					
748.77		4649.29	9.79	6.44	4824.85	0.36	
	0.73927	152.93	4.90	150.10	15.33		0.002420
	20.00	77301.69					
759.17		4649.36	9.86	6.48	4921.98	0.36	
	0.74529	153.69	4.94	150.84	15.29		0.002418
	21.00	77680.86					
759.44		4649.36	9.86	6.48	4923.97	0.36	
	0.74521	153.70	4.94	150.85	15.29		0.002417
	22.00	77688.50					
765.22		4649.40	9.90	6.51	4978.75	0.36	
	0.74787	154.13	4.96	151.26	15.27		0.002414
	23.00	77900.52					
786.89		4649.55	10.05	6.59	5183.94	0.37	
	0.75865	155.69	5.05	152.77	15.21		0.002405
	24.00	78678.95					
818.42		4649.75	10.25	6.70	5486.32	0.37	
	0.77365	157.90	5.18	154.92	15.11		0.002392
	25.00	79785.05					
849.54		4649.95	10.45	6.82	5790.54	0.37	
	0.78865	160.04	5.31	156.99	15.02		0.002381
	26.00	80851.96					
869.28		4650.08	10.58	6.88	5981.35	0.37	
	0.79841	161.35	5.39	158.26	14.96		0.002375
	27.00	81505.70					
869.76		4650.08	10.58	6.88	5985.01	0.37	
	0.79853	161.37	5.39	158.29	14.96		0.002374
	28.00	81519.10					
875.71		4650.12	10.62	6.91	6046.86	0.37	
	0.80111	161.78	5.41	158.69	14.95		0.002372
	29.00	81723.66					
886.25		4650.18	10.68	6.94	6150.03	0.37	
	0.80615	162.47	5.45	159.35	14.92		0.002368
	30.00	82067.32					
886.52		4650.18	10.68	6.94	6151.98	0.37	
	0.80678	162.48	5.46	159.37	14.92		0.002370
	31.00	82074.49					
892.75		4650.22	10.72	6.96	6216.85	0.37	
	0.80867	162.91	5.48	159.78	14.90		0.002365
	32.00	82285.16					
903.66		4650.29	10.79	7.00	6324.01	0.38	
	0.81413	163.61	5.52	160.46	14.87		0.002362
	33.00	82635.77					
903.92		4650.29	10.79	7.00	6326.01	0.38	
	0.81420	163.62	5.52	160.47	14.87		0.002362
	34.00	82642.57					
897.75		4650.25	10.75	6.97	6261.17	0.37	
	0.81159	163.20	5.50	160.07	14.89		0.002364
	35.00	82433.99					
886.80		4650.19	10.69	6.94	6154.07	0.37	
	0.80639	162.50	5.46	159.38	14.92		0.002368
	36.00	82081.89					
880.63		4650.15	10.65	6.92	6089.90	0.37	
	0.80418	162.08	5.43	158.97	14.93		0.002372
		81871.63					

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870.04	37.00	4650.08	10.58	5.39	6.88	5986.96	0.37
	0.79933	161.39			158.30	14.96	0.002376
		81526.63					
869.76	38.00	4650.08	10.58	5.39	6.88	5985.01	0.37
	0.79866	161.37			158.29	14.96	0.002375
		81519.17					
869.78	39.00	4650.08	10.58	5.39	6.88	5984.98	0.37
	0.79885	161.37			158.29	14.96	0.002375
		81519.38					
869.76	40.00	4650.08	10.58	5.39	6.88	5985.02	0.37
	0.79858	161.37			158.29	14.96	0.002374
		81519.04					
869.76	41.00	4650.08	10.58	5.39	6.88	5985.00	0.37
	0.79871	161.37			158.29	14.96	0.002375
		81518.99					
875.74	42.00	4650.12	10.62	5.41	6.91	6047.21	0.37
	0.80132	161.78			158.69	14.95	0.002372
		81725.05					
886.25	43.00	4650.18	10.68	5.45	6.94	6150.07	0.37
	0.80629	162.47			159.35	14.92	0.002369
		82067.62					
892.73	44.00	4650.22	10.72	5.48	6.96	6216.73	0.37
	0.80860	162.91			159.78	14.90	0.002365
		82284.71					
909.80	45.00	4650.33	10.83	5.55	7.02	6388.91	0.38
	0.81632	164.02			160.86	14.85	0.002358
		82841.71					
927.03	46.00	4650.43	10.93	5.61	7.08	6562.95	0.38
	0.82360	165.13			161.93	14.81	0.002351
		83395.54					
944.03	47.00	4650.54	11.04	5.68	7.14	6736.50	0.38
	0.83112	166.21			162.98	14.77	0.002345
		83936.87					
961.01	48.00	4650.64	11.14	5.74	7.19	6910.66	0.38
	0.83825	167.28			164.02	14.72	0.002338
		84470.14					
977.87	49.00	4650.74	11.24	5.81	7.25	7084.89	0.38
	0.84479	168.33			165.04	14.68	0.002331
		84994.47					
1000.71	50.00	4650.88	11.38	5.90	7.32	7324.96	0.38
	0.85357	169.74			166.40	14.63	0.002320
		85698.10					
1021.62	51.00	4651.00	11.50	5.97	7.38	7539.34	0.38
	0.86284	170.99			167.61	14.58	0.002314
		86321.01					
1028.07	52.00	4651.03	11.53	6.00	7.40	7609.01	0.38
	0.86452	171.39			168.00	14.56	0.002310
		86517.66					
1057.38	53.00	4651.21	11.71	6.11	7.50	7926.11	0.39
	0.87457	173.15			169.71	14.50	0.002295
		87398.68					
1117.44	54.00	4651.55	12.05	6.33	7.67	8572.87	0.39
	0.89542	176.67			173.11	14.37	0.002269
		89154.13					
1198.16	55.00	4652.00	12.50	6.61	7.89	9455.17	0.39
	0.92137	181.20			177.50	14.21	0.002233
		91414.02					
1309.80	56.00	4652.59	13.09	7.00	8.17	10706.37	0.40
	0.95610	187.16			183.27	14.00	0.002189
		94385.55					
1430.16	57.00	4653.20	13.70	7.40	8.47	12116.12	0.40
	0.99282	193.22			189.14	13.80	0.002150
		97407.31					

HYCHAN.OUT							
58.00	4653.67	14.17	8.69	13254.97	0.41		
1524.62	197.77	7.71	193.54	13.66	0.002120		
1.01966	99672.07						
59.00	4654.13	14.63	8.92	14453.24	0.41		
1619.54	202.24	8.01	197.86	13.52	0.002087		
1.04268	101896.88						
60.00	4654.58	15.08	9.14	15639.08	0.41		
1711.43	206.57	8.29	202.05	13.40	0.002065		
1.06756	104055.45						
61.00	4654.88	15.38	9.27	16420.39	0.42		
1771.90	209.35	8.46	204.74	13.32	0.002028		
1.07082	105439.66						
62.00	4655.16	15.66	9.34	17120.09	0.42		
1832.32	212.07	8.64	207.37	13.24	0.001997		
1.07663	106795.10						
63.00	4655.40	15.90	9.40	17703.01	0.42		
1882.37	214.28	8.78	209.51	13.18	0.001946		
1.06649	107896.11						
64.00	4655.71	16.21	9.46	18434.16	0.41		
1949.00	216.82	8.99	212.31	13.10	0.001904		
1.06820	109342.16						
65.00	4655.82	16.32	9.47	18665.14	0.41		
1971.51	217.03	9.08	213.27	13.07	0.001893		
1.07278	109833.12						
66.00	4655.82	16.32	9.46	18670.65	0.41		
1972.61	217.04	9.09	213.31	13.07	0.001894		
1.07415	109856.45						
67.00	4655.82	16.32	9.46	18671.66	0.41		
1972.73	217.04	9.09	213.32	13.07	0.001892		
1.07299	109859.18						
68.00	4655.82	16.32	9.46	18671.22	0.41		
1972.81	217.04	9.09	213.32	13.07	0.001895		
1.07488	109860.84						
69.00	4655.82	16.32	9.46	18673.42	0.41		
1973.05	217.05	9.09	213.33	13.07	0.001892		
1.07303	109866.02						
70.00	4655.82	16.32	9.46	18673.85	0.41		
1973.12	217.05	9.09	213.34	13.07	0.001895		
1.07498	109867.59						
71.00	4655.82	16.32	9.46	18673.96	0.41		
1973.11	217.05	9.09	213.33	13.07	0.001891		
1.07248	109867.36						
72.00	4655.89	16.39	9.47	18808.11	0.41		
1986.04	217.17	9.15	213.89	13.05	0.001877		
1.07138	110153.38						
73.00	4656.00	16.50	9.46	19024.93	0.41		
2010.86	217.41	9.25	214.94	13.02	0.001864		
1.07564	110696.14						
74.00	4656.01	16.51	9.46	19031.48	0.41		
2012.06	217.42	9.25	214.99	13.02	0.001868		
1.07868	110722.16						
75.00	4656.08	16.58	9.46	19161.89	0.41		
2026.15	217.55	9.31	215.60	13.01	0.001854		
1.07774	111032.76						
76.00	4656.30	16.80	9.47	19634.69	0.41		
2072.63	217.99	9.51	217.57	12.95	0.001810		
1.07411	112050.13						
77.00	4656.57	17.07	9.48	20198.81	0.40		
2130.10	218.54	9.75	219.99	12.89	0.001765		
1.07353	113292.98						
78.00	4656.75	17.25	9.49	20564.88	0.40		
2167.37	218.89	9.90	221.55	12.85	0.001730		
1.06871	114098.38						

HYCHAN.OUT							
2206.91	79.00	4656.93	17.43	10.07	9.54	21062.50	0.40
	1.07100	219.27				223.21	12.80
		114952.18					0.001705
2235.30	80.00	4657.07	17.57	10.18	9.56	21365.76	0.40
	1.08175	219.53				224.38	12.77
		115555.53					0.001703
2209.25	81.00	4656.94	17.44	10.07	9.52	21027.38	0.40
	1.08094	219.28				223.29	12.80
		114994.30					0.001719
2194.93	82.00	4656.88	17.38	10.02	9.47	20791.74	0.40
	1.08592	219.15				222.70	12.82
		114689.48					0.001738
2196.02	83.00	4656.88	17.38	10.02	9.47	20788.26	0.40
	1.08763	219.16				222.74	12.82
		114712.83					0.001739
2195.76	84.00	4656.88	17.38	10.02	9.47	20788.21	0.40
	1.08647	219.16				222.73	12.82
		114707.29					0.001738
2169.79	85.00	4656.75	17.25	9.91	9.47	20540.85	0.40
	1.08544	218.91				221.63	12.84
		114140.86					0.001755
2093.12	86.00	4656.39	16.89	9.59	9.44	19757.59	0.40
	1.08744	218.18				218.40	12.93
		112473.80					0.001817
1988.16	87.00	4655.89	16.39	9.15	9.41	18705.73	0.41
	1.08705	217.18				213.96	13.05
		110186.97					0.001903
1862.16	88.00	4655.30	15.80	8.73	9.34	17390.24	0.41
	1.10226	213.36				208.61	13.20
		107433.66					0.002024
1744.94	89.00	4654.74	15.24	8.39	9.20	16045.77	0.42
	1.07872	208.10				203.53	13.35
		104817.38					0.002062
1678.63	90.00	4654.42	14.92	8.19	9.04	15182.97	0.41
	1.06624	205.02				200.55	13.44
		103283.12					0.002087
1607.06	91.00	4654.07	14.57	7.97	8.87	14254.67	0.41
	1.04761	201.60				197.25	13.54
		101581.43					0.002106
1531.07	92.00	4653.69	14.19	7.73	8.68	13297.10	0.41
	1.02654	198.00				193.76	13.65
		99787.79					0.002127
1468.49	93.00	4653.39	13.89	7.53	8.54	12540.38	0.40
	1.01054	195.00				190.86	13.75
		98292.70					0.002150
1414.76	94.00	4653.12	13.62	7.35	8.41	11905.05	0.40
	0.99410	192.38				188.32	13.83
		96984.80					0.002166
1371.58	95.00	4652.90	13.40	7.21	8.31	11399.16	0.40
	0.98138	190.20				186.21	13.90
		95900.28					0.002181
1330.95	96.00	4652.69	13.19	7.07	8.21	10928.76	0.40
	0.96843	188.14				184.22	13.97
		94871.51					0.002194
1297.73	97.00	4652.51	13.01	6.96	8.13	10546.08	0.40
	0.95816	186.40				182.53	14.03
		94005.38					0.002206
1266.73	98.00	4652.35	12.85	6.86	8.05	10195.93	0.40
	0.94787	184.78				180.97	14.08
		93200.04					0.002216
1241.88	99.00	4652.22	12.72	6.77	7.98	9912.97	0.39
	0.93925	183.46				179.69	14.13
		92539.02					0.002224



HYCHAN.OUT							
1208.16	100.00	4652.04	12.54	7.91	9558.87	0.39	
	0.92853	181.61	6.65		177.90	14.19	0.002237
		91616.40					
1180.52	101.00	4651.89	12.39	7.84	9257.17	0.39	
	0.92026	180.09	6.56		176.42	14.24	0.002250
		90858.62					
1157.03	102.00	4651.76	12.26	7.78	8996.26	0.39	
	0.91173	178.81	6.47		175.18	14.29	0.002258
		90220.18					
1138.75	103.00	4651.66	12.16	7.72	8794.94	0.39	
	0.90541	177.79	6.41		174.20	14.33	0.002265
		89711.55					
1113.80	104.00	4651.52	12.02	7.65	8518.56	0.39	
	0.89795	176.36	6.32		172.81	14.38	0.002279
		88998.55					
1084.64	105.00	4651.36	11.86	7.57	8205.92	0.39	
	0.88718	174.69	6.21		171.20	14.44	0.002290
		88168.39					
1067.90	106.00	4651.26	11.76	7.52	8026.70	0.39	
	0.88067	173.72	6.15		170.26	14.48	0.002296
		87683.16					
1051.63	107.00	4651.17	11.67	7.47	7852.76	0.39	
	0.87489	172.76	6.09		169.33	14.51	0.002303
		87205.10					
1041.20	108.00	4651.11	11.61	7.44	7744.83	0.38	
	0.87048	172.16	6.05		168.74	14.54	0.002307
		86902.48					
1046.94	109.00	4651.14	11.64	7.46	7809.32	0.39	
	0.87152	172.51	6.07		169.09	14.52	0.002301
		87078.91					
1069.09	110.00	4651.27	11.77	7.53	8050.04	0.39	
	0.87939	173.82	6.15		170.36	14.47	0.002291
		87733.62					
1083.67	111.00	4651.35	11.85	7.57	8198.02	0.39	
	0.88621	174.65	6.20		171.15	14.44	0.002289
		88144.77					
1067.88	112.00	4651.26	11.76	7.52	8026.63	0.39	
	0.88043	173.72	6.15		170.26	14.48	0.002295
		87682.23					
1069.49	113.00	4651.27	11.77	7.53	8053.13	0.39	
	0.87971	173.84	6.15		170.38	14.47	0.002292
		87743.80					
1103.46	114.00	4651.47	11.97	7.63	8420.03	0.39	
	0.89153	175.83	6.28		172.30	14.40	0.002277
		88736.11					
1119.81	115.00	4651.55	12.05	7.67	8589.17	0.39	
	0.89930	176.72	6.34		173.17	14.37	0.002274
		89180.95					
1108.87	116.00	4651.49	11.99	7.64	8472.14	0.39	
	0.89456	176.10	6.30		172.56	14.39	0.002277
		88870.90					
1108.60	117.00	4651.49	11.99	7.64	8469.86	0.39	
	0.89476	176.09	6.30		172.55	14.39	0.002278
		88864.06					
1115.37	118.00	4651.53	12.03	7.66	8546.94	0.39	
	0.89629	176.49	6.32		172.94	14.37	0.002273
		89062.09					
1126.48	119.00	4651.59	12.09	7.69	8668.21	0.39	
	0.90063	177.09	6.36		173.53	14.35	0.002269
		89365.91					
1126.62	120.00	4651.59	12.09	7.70	8670.00	0.39	
	0.90070	177.10	6.36		173.53	14.35	0.002269
		89367.38					



HYCHAN.OUT							
1120.22	121.00	4651.56	12.06	7.67	8593.04	0.39	
	0.89923	176.74	6.34		173.18	14.37	0.002274
		89188.88					
1108.85	122.00	4651.49	11.99	7.64	8472.09	0.39	
	0.89443	176.10	6.30		172.56	14.39	0.002276
		88869.94					
1101.89	123.00	4651.45	11.95	7.62	8393.17	0.39	
	0.89326	175.69	6.27		172.17	14.40	0.002282
		88666.98					
1090.42	124.00	4651.39	11.89	7.59	8272.03	0.39	
	0.88850	175.04	6.23		171.54	14.43	0.002286
		88342.42					
1090.19	125.00	4651.39	11.89	7.59	8269.95	0.39	
	0.88837	175.03	6.23		171.53	14.43	0.002286
		88337.55					
1084.14	126.00	4651.35	11.85	7.57	8201.83	0.39	
	0.88677	174.67	6.21		171.18	14.44	0.002290
		88156.27					
1073.79	127.00	4651.30	11.80	7.54	8092.84	0.39	
	0.88251	174.08	6.17		170.60	14.46	0.002293
		87861.06					
1073.56	128.00	4651.29	11.79	7.54	8091.04	0.39	
	0.88211	174.07	6.17		170.59	14.46	0.002292
		87855.08					
1067.65	129.00	4651.26	11.76	7.52	8024.70	0.39	
	0.88054	173.71	6.15		170.25	14.48	0.002296
		87676.91					
1057.53	130.00	4651.20	11.70	7.49	7918.76	0.39	
	0.87658	173.12	6.11		169.68	14.50	0.002300
		87384.98					
1069.32	131.00	4651.27	11.77	7.53	8052.02	0.39	
	0.87940	173.83	6.15		170.37	14.47	0.002291
		87739.84					
1089.73	132.00	4651.39	11.89	7.59	8266.59	0.39	
	0.88784	175.01	6.23		171.51	14.43	0.002285
		88325.52					
1090.19	133.00	4651.39	11.89	7.59	8269.91	0.39	
	0.88820	175.03	6.23		171.53	14.43	0.002285
		88337.84					
1090.18	134.00	4651.39	11.89	7.59	8270.11	0.39	
	0.88776	175.03	6.23		171.53	14.43	0.002284
		88336.57					
1090.18	135.00	4651.39	11.89	7.59	8269.88	0.39	
	0.88842	175.03	6.23		171.53	14.43	0.002286
		88337.01					
1090.17	136.00	4651.39	11.89	7.59	8270.02	0.39	
	0.88819	175.03	6.23		171.53	14.43	0.002285
		88336.75					
1090.18	137.00	4651.39	11.89	7.59	8270.13	0.39	
	0.88778	175.03	6.23		171.53	14.43	0.002284
		88336.48					
1090.18	138.00	4651.39	11.89	7.59	8269.83	0.39	
	0.88845	175.03	6.23		171.53	14.43	0.002286
		88337.23					
1084.14	139.00	4651.35	11.85	7.57	8201.77	0.39	
	0.88676	174.67	6.21		171.18	14.44	0.002290
		88156.30					
1073.78	140.00	4651.30	11.80	7.54	8092.96	0.39	
	0.88219	174.08	6.17		170.60	14.46	0.002292
		87860.41					
1073.56	141.00	4651.29	11.79	7.54	8090.89	0.39	
	0.88237	174.07	6.17		170.59	14.46	0.002293
		87855.69					

HYCHAN.OUT							
1073.56	142.00	4651.29	11.79	6.17	7.54	8091.06	0.39
	0.88211	174.07				170.59	14.46
		87854.98					0.002292
1073.55	143.00	4651.29	11.79	6.17	7.54	8091.02	0.39
	0.88220	174.07				170.59	14.46
		87854.88					0.002292
1067.65	144.00	4651.26	11.76	6.15	7.52	8024.67	0.39
	0.88039	173.71				170.25	14.48
		87676.90					0.002296
1057.54	145.00	4651.20	11.70	6.11	7.49	7918.76	0.39
	0.87613	173.13				169.68	14.50
		87385.65					0.002299
1057.31	146.00	4651.20	11.70	6.11	7.49	7916.93	0.39
	0.87639	173.11				169.67	14.50
		87380.20					0.002300
1057.32	147.00	4651.20	11.70	6.11	7.49	7917.12	0.39
	0.87580	173.11				169.67	14.50
		87380.01					0.002298
1057.32	148.00	4651.20	11.70	6.11	7.49	7916.91	0.39
	0.87625	173.11				169.67	14.50
		87380.45					0.002299
1057.31	149.00	4651.20	11.70	6.11	7.49	7917.05	0.39
	0.87621	173.11				169.67	14.50
		87379.55					0.002299
1053.36	150.00	4651.18	11.68	6.09	7.47	7872.80	0.39
	0.87513	172.87				169.44	14.51
		87259.67					0.002302
1044.60	151.00	4651.13	11.63	6.06	7.45	7780.17	0.39
	0.87176	172.36				168.94	14.53
		87002.08					0.002305
1041.04	152.00	4651.11	11.61	6.05	7.44	7743.66	0.38
	0.87014	172.15				168.73	14.54
		86898.48					0.002306
1040.98	153.00	4651.11	11.61	6.05	7.44	7742.99	0.38
	0.86993	172.15				168.73	14.54
		86897.23					0.002305
1035.02	154.00	4651.07	11.57	6.03	7.42	7676.97	0.38
	0.86835	171.78				168.38	14.55
		86713.63					0.002310
1036.51	155.00	4651.08	11.58	6.03	7.43	7703.01	0.38
	0.86728	171.89				168.48	14.55
		86767.12					0.002305
1056.85	156.00	4651.20	11.70	6.11	7.49	7913.41	0.39
	0.87603	173.09				169.65	14.50
		87367.91					0.002299
1057.32	157.00	4651.20	11.70	6.11	7.49	7916.97	0.39
	0.87627	173.11				169.67	14.50
		87380.20					0.002299
1057.31	158.00	4651.20	11.70	6.11	7.49	7917.00	0.39
	0.87649	173.11				169.67	14.50
		87379.95					0.002300
1057.32	159.00	4651.20	11.70	6.11	7.49	7917.02	0.39
	0.87611	173.11				169.67	14.50
		87380.23					0.002299
1057.31	160.00	4651.20	11.70	6.11	7.49	7917.00	0.39
	0.87640	173.11				169.67	14.50
		87379.64					0.002300
1057.32	161.00	4651.20	11.70	6.11	7.49	7917.00	0.39
	0.87621	173.11				169.67	14.50
		87380.23					0.002299
1057.32	162.00	4651.20	11.70	6.11	7.49	7916.98	0.39
	0.87650	173.11				169.67	14.50
		87380.02					0.002300

HYCHAN.OUT							
1057.32	163.00	4651.20	11.70	6.11	7.49	7917.03	0.39
	0.87606	173.11				169.67	14.50
		87380.23					0.002299
1051.40	164.00	4651.17	11.67	6.09	7.47	7850.83	0.39
	0.87428	172.75				169.32	14.51
		87199.29					0.002302
1041.20	165.00	4651.11	11.61	6.05	7.44	7744.81	0.38
	0.87007	172.16				168.74	14.54
		86902.36					0.002305
1040.97	166.00	4651.11	11.61	6.05	7.44	7742.94	0.38
	0.87010	172.15				168.73	14.54
		86896.89					0.002306
1040.97	167.00	4651.11	11.61	6.05	7.44	7743.00	0.38
	0.87036	172.15				168.73	14.54
		86896.94					0.002307
1040.98	168.00	4651.11	11.61	6.05	7.44	7743.06	0.38
	0.86988	172.15				168.73	14.54
		86897.32					0.002305
1040.98	169.00	4651.11	11.61	6.05	7.44	7742.93	0.38
	0.87011	172.15				168.73	14.54
		86897.22					0.002306
1040.98	170.00	4651.11	11.61	6.05	7.44	7742.98	0.38
	0.87029	172.15				168.73	14.54
		86897.20					0.002306
1040.97	171.00	4651.11	11.61	6.05	7.44	7743.10	0.38
	0.86989	172.15				168.73	14.54
		86896.73					0.002305
1035.02	172.00	4651.07	11.57	6.03	7.42	7676.82	0.38
	0.86844	171.78				168.38	14.55
		86713.82					0.002310
1024.76	173.00	4651.01	11.51	5.99	7.39	7570.78	0.38
	0.86377	171.17				167.79	14.57
		86412.20					0.002312
1024.54	174.00	4651.01	11.51	5.99	7.39	7569.00	0.38
	0.86364	171.16				167.78	14.57
		86406.53					0.002312
1024.53	175.00	4651.01	11.51	5.99	7.39	7568.99	0.38
	0.86376	171.16				167.78	14.57
		86406.48					0.002313
1024.53	176.00	4651.01	11.51	5.99	7.39	7569.00	0.38
	0.86382	171.16				167.78	14.57
		86406.58					0.002313
1024.53	177.00	4651.01	11.51	5.99	7.39	7568.99	0.38
	0.86378	171.16				167.78	14.57
		86406.57					0.002313
1024.53	178.00	4651.01	11.51	5.99	7.39	7569.00	0.38
	0.86382	171.16				167.78	14.57
		86406.53					0.002313
1036.30	179.00	4651.08	11.58	6.03	7.43	7701.52	0.38
	0.86717	171.87				168.47	14.55
		86761.41					0.002305
1056.85	180.00	4651.20	11.70	6.11	7.49	7913.42	0.39
	0.87600	173.09				169.65	14.50
		87367.87					0.002299
1063.17	181.00	4651.24	11.74	6.13	7.51	7983.56	0.39
	0.87747	173.46				170.01	14.49
		87553.75					0.002294
1073.30	182.00	4651.29	11.79	6.17	7.54	8089.12	0.39
	0.88237	174.05				170.58	14.46
		87847.55					0.002293
1073.56	183.00	4651.29	11.79	6.17	7.54	8090.97	0.39
	0.88238	174.07				170.59	14.46
		87855.27					0.002293

HYCHAN.OUT									
1073.55	184.00	4651.29	11.79	6.17	7.54	8091.02	14.46	0.39	0.002292
	0.88221	174.07				170.59			
		87854.73							
1073.55	185.00	4651.29	11.79	6.17	7.54	8091.07	14.46	0.39	0.002292
	0.88196	174.07				170.59			
		87854.69							
1073.55	186.00	4651.29	11.79	6.17	7.54	8090.95	14.46	0.39	0.002293
	0.88232	174.07				170.59			
		87854.93							
1073.57	187.00	4651.29	11.79	6.17	7.54	8090.97	14.46	0.39	0.002292
	0.88225	174.07				170.59			
		87855.50							
1073.56	188.00	4651.29	11.79	6.17	7.54	8091.07	14.46	0.39	0.002292
	0.88195	174.07				170.59			
		87855.09							
1073.56	189.00	4651.29	11.79	6.17	7.54	8090.95	14.46	0.39	0.002293
	0.88232	174.07				170.59			
		87855.27							
1067.65	190.00	4651.26	11.76	6.15	7.52	8024.59	14.48	0.39	0.002296
	0.88066	173.71				170.25			
		87676.90							
1057.53	191.00	4651.20	11.70	6.11	7.49	7918.82	14.50	0.39	0.002298
	0.87592	173.12				169.68			
		87385.05							
1057.32	192.00	4651.20	11.70	6.11	7.49	7916.92	14.50	0.39	0.002299
	0.87616	173.11				169.67			
		87380.61							
1057.31	193.00	4651.20	11.70	6.11	7.49	7917.07	14.50	0.39	0.002299
	0.87607	173.11				169.67			
		87379.50							
1057.32	194.00	4651.20	11.70	6.11	7.49	7916.92	14.50	0.39	0.002299
	0.87627	173.11				169.67			
		87380.41							
1057.32	195.00	4651.20	11.70	6.11	7.49	7916.99	14.50	0.39	0.002299
	0.87637	173.11				169.67			
		87380.41							
1057.31	196.00	4651.20	11.70	6.11	7.49	7917.04	14.50	0.39	0.002299
	0.87613	173.11				169.67			
		87379.84							
1057.31	197.00	4651.20	11.70	6.11	7.49	7916.99	14.50	0.39	0.002300
	0.87640	173.11				169.67			
		87379.63							
1057.32	198.00	4651.20	11.70	6.11	7.49	7917.01	14.50	0.39	0.002299
	0.87609	173.11				169.67			
		87380.31							
1057.32	199.00	4651.20	11.70	6.11	7.49	7916.96	14.50	0.39	0.002299
	0.87634	173.11				169.67			
		87380.49							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 107

MAXIMUM DISCHARGE (CFS) = 21610.30 AT TIME = 79.14  
 MAXIMUM STAGE = 4655.84 AT TIME = 79.23

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	SURFACE AREA	DEPTH					
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	4637.80	0.00	0.00	0.00	0.00	0.00	0.00

HYCHAN.OUT						
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.000000
556.36	1.00	4640.58	2.78	1.84	1023.10	0.19
	1.38624	63.70	8.73	63.15	22.70	0.002544
893.99	2.00	37892.05	9.75	6.06	5421.76	0.34
	0.85897	4647.55	5.86	149.64	15.35	0.002348
900.93	3.00	89786.52	9.80	6.08	5478.37	0.34
	0.86525	4647.60	5.89	150.17	15.32	0.002355
890.56	4.00	90100.97	9.73	6.04	5380.57	0.34
	0.86126	4647.53	5.85	149.41	15.36	0.002359
884.89	5.00	89643.38	9.69	6.02	5326.17	0.34
	0.86043	4647.49	5.83	148.98	15.38	0.002365
869.05	6.00	89388.83	9.57	5.96	5177.54	0.34
	0.85652	4647.37	5.77	147.80	15.44	0.002378
852.54	7.00	88677.55	9.46	5.89	5025.36	0.34
	0.85136	4647.26	5.71	146.55	15.50	0.002389
835.98	8.00	87928.79	9.34	5.83	4874.31	0.34
	0.84664	4647.14	5.65	145.28	15.56	0.002401
824.85	9.00	87169.23	9.26	5.79	4774.71	0.34
	0.84149	4647.06	5.61	144.43	15.60	0.002405
818.83	10.00	86657.16	9.22	5.76	4720.02	0.33
	0.84059	4647.02	5.59	143.96	15.62	0.002412
802.16	11.00	86374.27	9.09	5.70	4572.07	0.33
	0.83568	4646.89	5.52	142.65	15.69	0.002425
790.76	12.00	85590.48	9.01	5.66	4471.80	0.33
	0.83052	4646.81	5.48	141.75	15.73	0.002429
790.48	13.00	85052.88	9.01	5.65	4469.00	0.33
	0.82999	4646.31	5.48	141.73	15.73	0.002428
790.47	14.00	85039.85	9.01	5.65	4469.03	0.33
	0.82973	4646.81	5.48	141.73	15.73	0.002427
790.47	15.00	85039.24	9.01	5.65	4468.91	0.33
	0.83011	4646.31	5.48	141.73	15.73	0.002429
790.50	16.00	85039.62	9.01	5.65	4469.06	0.33
	0.82974	4646.81	5.48	141.73	15.73	0.002427
796.72	17.00	85040.58	9.06	5.67	4520.82	0.33
	0.82898	4646.85	5.50	142.23	15.71	0.002415
813.66	18.00	85338.09	9.18	5.74	4670.06	0.33
	0.83504	4646.98	5.57	143.56	15.64	0.002404
830.42	19.00	86137.03	9.30	5.81	4821.52	0.34
	0.84054	4647.10	5.63	144.86	15.58	0.002393
841.02	20.00	86917.66	9.38	5.85	4921.49	0.34
	0.84716	4647.18	5.67	145.68	15.54	0.002395
	21.00	87405.56	9.38	5.85	4923.93	0.34

		HYCHAN.OUT				
841.35	148.39	5.67	145.70	15.54	0.002392	
0.84630	87420.35					
22.00	4647.22	9.42	5.87	4976.00	0.34	
847.21	148.86	5.69	146.15	15.51	0.002382	
0.84606	87690.24					
23.00	4647.38	9.58	5.96	5177.89	0.34	
869.27	150.58	5.77	147.82	15.43	0.002363	
0.85108	88691.89					
24.00	4647.60	9.80	6.08	5479.90	0.34	
901.34	153.04	5.89	150.20	15.32	0.002342	
0.86069	90122.69					
25.00	4647.82	10.02	6.20	5784.22	0.35	
932.89	155.40	6.00	152.50	15.22	0.002322	
0.86973	91501.05					
26.00	4647.96	10.16	6.27	5980.28	0.35	
953.12	156.90	6.07	153.95	15.15	0.002314	
0.87698	92369.77					
27.00	4647.96	10.16	6.28	5985.02	0.35	
953.66	156.94	6.08	153.99	15.15	0.002314	
0.87737	92392.34					
28.00	4648.00	10.20	6.30	6043.99	0.35	
959.53	157.37	6.10	154.41	15.13	0.002306	
0.87744	92643.59					
29.00	4648.08	10.28	6.34	6149.46	0.35	
970.31	158.15	6.14	155.17	15.10	0.002302	
0.88126	93100.11					
30.00	4648.08	10.28	6.34	6151.96	0.35	
970.62	158.17	6.14	155.19	15.10	0.002302	
0.88139	93112.79					
31.00	4648.12	10.32	6.36	6213.87	0.35	
976.77	158.62	6.16	155.62	15.08	0.002293	
0.88118	93373.19					
32.00	4648.20	10.40	6.40	6323.45	0.35	
987.94	159.43	6.20	156.40	15.04	0.002287	
0.88439	93841.30					
33.00	4648.20	10.40	6.40	6326.00	0.35	
988.24	159.45	6.20	156.42	15.04	0.002289	
0.88509	93853.30					
34.00	4648.16	10.36	6.38	6264.13	0.35	
982.16	159.00	6.18	155.99	15.06	0.002298	
0.88556	93595.95					
35.00	4648.08	10.28	6.34	6154.66	0.35	
970.95	158.20	6.14	155.21	15.10	0.002301	
0.88123	93126.10					
36.00	4648.04	10.24	6.31	6092.77	0.35	
964.84	157.75	6.12	154.78	15.12	0.002309	
0.88116	92865.68					
37.00	4647.97	10.17	6.28	5987.57	0.35	
953.99	156.96	6.08	154.01	15.15	0.002316	
0.87834	92406.16					
38.00	4647.96	10.16	6.28	5984.98	0.35	
953.68	156.94	6.08	153.99	15.15	0.002313	
0.87719	92392.94					
39.00	4647.96	10.16	6.28	5985.02	0.35	
953.70	156.94	6.08	153.99	15.15	0.002315	
0.87780	92393.90					
40.00	4647.96	10.16	6.28	5984.96	0.35	
953.67	156.94	6.08	153.99	15.15	0.002314	
0.87741	92392.87					
41.00	4647.96	10.16	6.28	5985.01	0.35	
953.67	156.94	6.08	153.99	15.15	0.002313	
0.87720	92392.84					
42.00	4648.00	10.20	6.30	6044.39	0.35	

				HYCHAN.OUT			
959.56		157.37		6.10	154.41	15.13	0.002305
	0.87705	92644.78					
	43.00	4648.08	10.28	6.34	6149.42	0.35	
970.31		158.15		6.14	155.17	15.10	0.002302
	0.88116	93099.83					
	44.00	4648.12	10.32	6.36	6213.77	0.35	
976.75		158.62		6.16	155.62	15.08	0.002293
	0.88120	93372.32					
	45.00	4648.24	10.44	6.42	6385.38	0.35	
993.98		159.86		6.22	156.82	15.03	0.002281
	0.88502	94094.40					
	46.00	4648.35	10.55	6.49	6559.39	0.35	
1011.38		161.10		6.28	158.03	14.97	0.002267
	0.88815	94815.53					
	47.00	4648.47	10.67	6.55	6733.02	0.35	
1028.50		162.31		6.34	159.20	14.92	0.002255
	0.89159	95518.41					
	48.00	4648.58	10.78	6.61	6907.16	0.35	
1045.60		163.50		6.39	160.36	14.88	0.002244
	0.89558	96213.59					
	49.00	4648.69	10.89	6.66	7081.38	0.36	
1062.57		164.68		6.45	161.49	14.83	0.002230
	0.89779	96896.63					
	50.00	4648.84	11.04	6.74	7318.62	0.36	
1085.43		166.24		6.53	163.01	14.76	0.002209
	0.89997	97806.77					
	51.00	4648.98	11.18	6.81	7538.26	0.36	
1106.69		167.68		6.60	164.40	14.71	0.002202
	0.90678	98642.53					
	52.00	4649.02	11.22	6.83	7606.08	0.36	
1113.07		168.11		6.62	164.82	14.69	0.002191
	0.90521	98892.41					
	53.00	4649.20	11.40	6.93	7916.50	0.36	
1142.07		170.04		6.72	166.69	14.62	0.002162
	0.90593	100013.45					
	54.00	4649.58	11.78	7.12	8558.22	0.37	
1201.42		173.89		6.91	170.43	14.47	0.002112
	0.91059	102256.02					
	55.00	4650.07	12.27	7.37	9436.31	0.37	
1281.08		178.90		7.16	175.28	14.29	0.002046
	0.91417	105167.12					
	56.00	4650.72	12.92	7.68	10678.91	0.38	
1390.55		185.49		7.50	181.65	14.06	0.001944
	0.90922	108991.61					
	57.00	4651.41	13.61	8.02	12094.39	0.38	
1508.67		192.29		7.85	188.24	13.83	0.001865
	0.91307	112944.19					
	58.00	4651.93	14.13	8.27	13236.95	0.39	
1600.65		197.37		8.11	193.15	13.67	0.001795
	0.90857	115891.80					
	59.00	4652.44	14.64	8.52	14429.46	0.39	
1692.76		202.28		8.37	197.90	13.52	0.001718
	0.89696	118738.90					
	60.00	4652.93	15.13	8.76	15626.06	0.40	
1784.12		207.01		8.62	202.47	13.38	0.001674
	0.90014	121483.61					
	61.00	4653.25	15.45	8.89	16403.89	0.40	
1844.55		210.05		8.78	205.41	13.30	0.001602
	0.87799	123248.88					
	62.00	4653.59	15.79	8.96	17111.33	0.40	
1909.13		213.24		8.95	208.50	13.21	0.001553
	0.86739	125099.15					
	63.00	4653.87	16.07	9.01	17684.38	0.40	

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				HYCHAN.OUT			
1962.09		215.83		9.09	211.00	13.13	0.001476
	0.83717	126602.55					
64.00		4654.24	16.44	9.07	18413.65	0.39	
2029.36		217.28		9.34	214.40	13.04	0.001429
	0.83292	128640.20					
65.00		4654.37	16.57	9.09	18659.47	0.39	
2052.08		217.55		9.43	215.58	13.01	0.001425
	0.83905	129346.15					
66.00		4654.38	16.58	9.09	18670.80	0.39	
2053.32		217.56		9.44	215.64	13.01	0.001420
	0.83630	129382.86					
67.00		4654.38	16.58	9.09	18673.07	0.39	
2053.49		217.56		9.44	215.65	13.01	0.001424
	0.83870	129387.76					
68.00		4654.38	16.58	9.09	18673.50	0.39	
2053.62		217.56		9.44	215.65	13.01	0.001420
	0.83634	129391.45					
69.00		4654.38	16.58	9.09	18676.13	0.39	
2053.85		217.57		9.44	215.66	13.00	0.001423
	0.83825	129398.68					
70.00		4654.38	16.58	9.09	18676.80	0.39	
2053.94		217.57		9.44	215.67	13.00	0.001422
	0.83756	129401.28					
71.00		4654.38	16.58	9.09	18676.86	0.39	
2053.96		217.57		9.44	215.67	13.00	0.001425
	0.83922	129401.79					
72.00		4654.45	16.65	9.10	18802.90	0.39	
2065.35		217.70		9.49	216.27	12.99	0.001407
	0.83314	129760.10					
73.00		4654.58	16.78	9.11	19029.70	0.39	
2087.74		217.96		9.58	217.42	12.96	0.001397
	0.83511	130453.77					
74.00		4654.59	16.79	9.12	19046.60	0.39	
2089.38		217.98		9.59	217.50	12.95	0.001404
	0.83982	130501.01					
75.00		4654.66	16.86	9.12	19170.25	0.39	
2101.21		218.12		9.63	218.12	12.94	0.001383
	0.83159	130870.35					
76.00		4654.91	17.11	9.16	19647.12	0.39	
2144.30		218.62		9.81	220.33	12.88	0.001341
	0.82093	132200.61					
77.00		4655.22	17.42	9.21	20250.94	0.39	
2199.02		219.24		10.03	223.11	12.81	0.001298
	0.81226	133867.80					
78.00		4655.43	17.63	9.24	20639.59	0.39	
2234.48		219.65		10.17	224.90	12.76	0.001267
	0.80454	134942.48					
79.00		4655.64	17.84	9.31	21147.55	0.39	
2272.03		220.08		10.32	226.80	12.71	0.001246
	0.80275	136077.98					
80.00		4655.79	17.99	9.35	21495.47	0.39	
2298.98		220.39		10.43	228.13	12.68	0.001250
	0.81365	136878.97					
81.00		4655.66	17.86	9.30	21152.88	0.39	
2275.63		220.12		10.34	226.96	12.71	0.001263
	0.81486	136174.66					
82.00		4655.56	17.77	9.25	20898.34	0.39	
2258.87		219.93		10.27	226.12	12.73	0.001284
	0.82273	135673.38					
83.00		4655.57	17.77	9.25	20894.68	0.39	
2259.23		219.93		10.27	226.14	12.73	0.001281
	0.82111	135684.00					
84.00		4655.56	17.77	9.25	20894.13	0.39	

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				HYCHAN.OUT			
2258.91		219.93		10.27	226.12	12.73	0.001279
	0.81976	135674.58					
85.00		4655.45	17.65	9.23	20662.51	0.39	
2238.41		219.69		10.19	225.08	12.76	0.001295
	0.82343	135045.41					
86.00		4655.04	17.24	9.17	19879.18	0.39	
2167.82		218.87		9.90	221.48	12.85	0.001362
	0.84161	132885.52					
87.00		4654.46	16.66	9.09	18796.90	0.39	
2068.91		217.73		9.50	216.39	12.98	0.001442
	0.85478	129834.39					
88.00		4653.76	15.96	8.98	17442.92	0.40	
1943.08		214.87		9.04	210.08	13.16	0.001610
	0.90868	126046.26					
89.00		4653.11	15.31	8.83	16063.51	0.40	
1818.69		208.74		8.71	204.14	13.33	0.001683
	0.91519	122485.97					
90.00		4652.76	14.96	8.67	15197.05	0.40	
1752.95		205.40		8.53	200.91	13.43	0.001731
	0.92170	120548.62					
91.00		4652.38	14.58	8.48	14271.93	0.39	
1682.35		201.72		8.34	197.36	13.54	0.001785
	0.92878	118413.39					
92.00		4651.97	14.17	8.28	13310.76	0.39	
1608.02		197.76		8.13	193.53	13.66	0.001835
	0.93108	116116.06					
93.00		4651.63	13.83	8.11	12553.60	0.38	
1547.47		194.45		7.96	190.32	13.76	0.001881
	0.93427	114194.04					
94.00		4651.33	13.53	7.97	11914.11	0.38	
1495.17		191.53		7.81	187.50	13.86	0.001917
	0.93368	112502.03					
95.00		4651.09	13.29	7.85	11408.68	0.38	
1453.28		189.15		7.68	185.20	13.93	0.001948
	0.93399	111117.09					
96.00		4650.86	13.06	7.74	10935.35	0.38	
1413.51		186.85		7.56	182.97	14.01	0.001973
	0.93152	109783.92					
97.00		4650.67	12.87	7.64	10553.96	0.38	
1381.18		184.95		7.47	181.13	14.08	0.002000
	0.93191	108679.99					
98.00		4650.49	12.69	7.55	10200.29	0.37	
1350.53		183.13		7.37	179.37	14.14	0.002018
	0.92866	107623.68					
99.00		4650.34	12.54	7.48	9919.84	0.37	
1326.03		181.65		7.30	177.94	14.19	0.002040
	0.92918	106764.29					
100.00		4650.14	12.34	7.40	9565.09	0.37	
1293.24		179.65		7.20	176.01	14.26	0.002059
	0.92502	105603.38					
101.00		4649.98	12.18	7.32	9262.88	0.37	
1265.95		177.97		7.11	174.37	14.32	0.002084
	0.92501	104623.34					
102.00		4649.83	12.03	7.24	9000.27	0.37	
1242.30		176.49		7.04	172.94	14.37	0.002097
	0.92106	103764.98					
103.00		4649.72	11.92	7.19	8798.72	0.37	
1224.02		175.34		6.98	171.82	14.42	0.002112
	0.92022	103094.35					
104.00		4649.56	11.76	7.11	8525.64	0.37	
1199.33		173.76		6.90	170.29	14.48	0.002139
	0.92150	102175.09					
105.00		4649.38	11.58	7.02	8210.07	0.36	

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		HYCHAN.OUT					
1170.06	171.87	6.81	168.46	14.55	0.002157		
0.91625	101078.10						
106.00	4649.27	11.48	6.96	8030.06	0.36		
1153.29	170.77	6.75	167.40	14.59	0.002169		
0.91411	100440.87						
107.00	4649.17	11.37	6.91	7856.18	0.36		
1137.00	169.70	6.70	166.36	14.63	0.002181		
0.91195	99816.03						
108.00	4649.10	11.30	6.88	7745.38	0.36		
1126.41	169.00	6.67	165.68	14.66	0.002186		
0.90905	99409.16						
109.00	4649.14	11.34	6.90	7806.40	0.36		
1132.01	169.37	6.68	166.04	14.64	0.002175		
0.90710	99626.98						
110.00	4649.28	11.48	6.97	8043.78	0.36		
1154.08	170.83	6.76	167.46	14.59	0.002155		
0.90844	100474.28						
111.00	4649.37	11.57	7.01	8199.85	0.36		
1168.98	171.80	6.80	168.40	14.55	0.002156		
0.91549	101038.41						
112.00	4649.27	11.48	6.96	8030.00	0.36		
1153.27	170.77	6.75	167.40	14.59	0.002167		
0.91336	100440.02						
113.00	4649.28	11.48	6.97	8047.96	0.36		
1154.52	170.86	6.76	167.48	14.58	0.002156		
0.90912	100490.81						
114.00	4649.50	11.70	7.08	8412.46	0.37		
1188.14	173.05	6.87	169.61	14.50	0.002129		
0.91194	101763.16						
115.00	4649.60	11.80	7.13	8591.22	0.37		
1205.05	174.13	6.92	170.65	14.46	0.002129		
0.91944	102392.63						
116.00	4649.53	11.73	7.10	8472.71	0.37		
1194.12	173.43	6.89	169.98	14.49	0.002131		
0.91539	101985.92						
117.00	4649.53	11.73	7.09	8469.89	0.37		
1193.83	173.41	6.88	169.96	14.49	0.002133		
0.91643	101975.52						
118.00	4649.57	11.77	7.12	8543.70	0.37		
1200.45	173.84	6.91	170.37	14.47	0.002123		
0.91480	102223.62						
119.00	4649.64	11.84	7.15	8667.65	0.37		
1211.85	174.57	6.94	171.08	14.44	0.002117		
0.91705	102646.84						
120.00	4649.64	11.84	7.15	8670.00	0.37		
1212.07	174.58	6.94	171.09	14.44	0.002117		
0.91722	102654.66						
121.00	4649.60	11.80	7.13	8596.23	0.37		
1205.57	174.16	6.92	170.69	14.46	0.002128		
0.91907	102411.16						
122.00	4649.53	11.73	7.10	8472.71	0.37		
1194.12	173.43	6.89	169.98	14.49	0.002131		
0.91561	101985.98						
123.00	4649.49	11.69	7.07	8396.45	0.36		
1187.25	172.98	6.86	169.54	14.50	0.002145		
0.91852	101726.42						
124.00	4649.42	11.62	7.04	8272.65	0.36		
1175.67	172.24	6.83	168.82	14.53	0.002147		
0.91434	101292.40						
125.00	4649.42	11.62	7.04	8269.91	0.36		
1175.39	172.22	6.82	168.80	14.53	0.002149		
0.91505	101282.33						
126.00	4649.38	11.58	7.02	8204.75	0.36		

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		HYCHAN.OUT				
1169.50	171.83	6.81	168.43	14.55	0.002157	
0.91625	101057.48					
127.00	4649.31	11.51	6.98	8093.41	0.36	
1159.03	171.15	6.77	167.77	14.57	0.002162	
0.91347	100661.60					
128.00	4649.31	11.51	6.98	8091.01	0.36	
1158.79	171.14	6.77	167.75	14.57	0.002160	
0.91265	100652.63					
129.00	4649.27	11.47	6.96	8027.54	0.36	
1153.02	170.76	6.75	167.38	14.59	0.002169	
0.91403	100430.69					
130.00	4649.21	11.41	6.93	7919.33	0.36	
1142.77	170.08	6.72	166.73	14.61	0.002174	
0.91151	100040.20					
131.00	4649.28	11.48	6.97	8046.22	0.36	
1154.31	170.84	6.76	167.47	14.59	0.002155	
0.90858	100482.97					
132.00	4649.41	11.61	7.04	8265.54	0.36	
1174.92	172.19	6.82	168.77	14.53	0.002145	
0.91334	101264.81					
133.00	4649.42	11.62	7.04	8269.88	0.36	
1175.40	172.22	6.82	168.80	14.53	0.002148	
0.91471	101282.49					
134.00	4649.42	11.62	7.04	8270.09	0.36	
1175.40	172.22	6.82	168.80	14.53	0.002146	
0.91394	101282.62					
135.00	4649.42	11.62	7.04	8269.95	0.36	
1175.40	172.22	6.82	168.80	14.53	0.002149	
0.91515	101282.46					
136.00	4649.42	11.62	7.04	8269.97	0.36	
1175.39	172.22	6.82	168.80	14.53	0.002147	
0.91451	101282.33					
137.00	4649.42	11.62	7.04	8270.11	0.36	
1175.40	172.22	6.82	168.80	14.53	0.002145	
0.91344	101282.69					
138.00	4649.42	11.62	7.04	8269.89	0.36	
1175.38	172.22	6.82	168.80	14.53	0.002149	
0.91502	101282.01					
139.00	4649.38	11.58	7.02	8204.67	0.36	
1169.50	171.83	6.81	168.43	14.55	0.002158	
0.91632	101057.43					
140.00	4649.31	11.51	6.98	8093.51	0.36	
1159.04	171.15	6.77	167.77	14.57	0.002159	
0.91244	100661.88					
141.00	4649.31	11.51	6.98	8090.89	0.36	
1158.77	171.14	6.77	167.75	14.57	0.002161	
0.91317	100652.00					
142.00	4649.31	11.51	6.98	8091.04	0.36	
1158.78	171.14	6.77	167.75	14.57	0.002160	
0.91282	100652.55					
143.00	4649.31	11.51	6.98	8091.07	0.36	
1158.78	171.14	6.77	167.75	14.57	0.002160	
0.91262	100652.38					
144.00	4649.27	11.47	6.96	8027.46	0.36	
1153.01	170.76	6.75	167.38	14.59	0.002167	
0.91322	100430.71					
145.00	4649.21	11.41	6.93	7919.30	0.36	
1142.77	170.08	6.72	166.73	14.61	0.002172	
0.91066	100039.90					
146.00	4649.21	11.41	6.93	7916.96	0.36	
1142.51	170.07	6.72	166.72	14.62	0.002174	
0.91139	100030.41					
147.00	4649.21	11.41	6.93	7917.07	0.36	

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				HYCHAN.OUT			
1142.53	0.91002	170.07	6.72	166.72	14.62	0.002171	
148.00	4649.21	100031.01	11.41	6.93	7916.94	0.36	
1142.52	0.91099	170.07	6.72	166.72	14.62	0.002173	
149.00	4649.21	100030.58	11.41	6.93	7917.07	0.36	
1142.53	0.91014	170.07	6.72	166.72	14.62	0.002171	
150.00	4649.18	100030.93	11.38	6.92	7874.68	0.36	
1138.66	0.91152	169.81	6.71	166.47	14.63	0.002178	
151.00	4649.13	99880.97	11.33	6.89	7781.50	0.36	
1129.85	0.91050	169.23	6.68	165.90	14.65	0.002185	
152.00	4649.10	99541.93	11.30	6.88	7743.84	0.36	
1126.24	0.90816	168.99	6.66	165.67	14.66	0.002184	
153.00	4649.10	99402.99	11.30	6.88	7742.97	0.36	
1126.16	0.90877	168.98	6.66	165.67	14.66	0.002185	
154.00	4649.06	99399.97	11.27	6.85	7679.86	0.36	
1120.34	0.90914	168.59	6.65	165.29	14.67	0.002192	
155.00	4649.07	99172.04	11.27	6.86	7697.83	0.36	
1121.61	0.90451	168.68	6.65	165.37	14.67	0.002180	
156.00	4649.20	99224.27	11.40	6.93	7912.36	0.36	
1142.02	0.91018	170.03	6.72	166.69	14.62	0.002172	
157.00	4649.21	100011.88	11.41	6.93	7916.94	0.36	
1142.52	0.91104	170.07	6.72	166.72	14.62	0.002173	
158.00	4649.21	100030.62	11.41	6.93	7917.03	0.36	
1142.52	0.91128	170.07	6.72	166.72	14.62	0.002174	
159.00	4649.21	100030.52	11.41	6.93	7916.98	0.36	
1142.52	0.91091	170.07	6.72	166.72	14.62	0.002173	
160.00	4649.21	100030.63	11.41	6.93	7917.04	0.36	
1142.53	0.91113	170.07	6.72	166.72	14.62	0.002173	
161.00	4649.21	100030.98	11.41	6.93	7916.94	0.36	
1142.52	0.91070	170.07	6.72	166.72	14.62	0.002172	
162.00	4649.21	100030.85	11.41	6.93	7917.04	0.36	
1142.53	0.91121	170.07	6.72	166.72	14.62	0.002174	
163.00	4649.21	100030.88	11.41	6.93	7916.97	0.36	
1142.52	0.91087	170.07	6.72	166.72	14.62	0.002173	
164.00	4649.17	100030.75	11.37	6.91	7853.69	0.36	
1136.74	0.91166	169.68	6.70	166.34	14.63	0.002181	
165.00	4649.10	99806.53	11.30	6.88	7745.36	0.36	
1126.41	0.90851	169.00	6.67	165.68	14.66	0.002184	
166.00	4649.10	99409.34	11.30	6.88	7742.96	0.36	
1126.16	0.90922	168.98	6.66	165.67	14.66	0.002186	
167.00	4649.10	99399.73	11.30	6.88	7743.04	0.36	
1126.15	0.90903	168.98	6.66	165.67	14.66	0.002186	
168.00	4649.10	99399.64	11.30	6.88	7743.00	0.36	

				HYCHAN.OUT			
1126.16		168.98		6.66	165.67	14.66	0.002184
	0.90813	99399.84					
169.00		4649.10	11.30	6.88	7742.96	0.36	
1126.16		168.98		6.66	165.67	14.66	0.002186
	0.90903	99399.76					
170.00		4649.10	11.30	6.88	7743.01	0.36	
1126.16		168.98		6.66	165.67	14.66	0.002187
	0.90943	99399.79					
171.00		4649.10	11.30	6.88	7743.05	0.36	
1126.16		168.98		6.66	165.67	14.66	0.002184
	0.90817	99399.89					
172.00		4649.06	11.27	6.85	7679.72	0.36	
1120.33		168.59		6.65	165.29	14.67	0.002195
	0.91002	99171.86					
173.00		4649.00	11.20	6.82	7571.30	0.36	
1109.92		167.90		6.61	164.61	14.70	0.002198
	0.90675	98767.91					
174.00		4649.00	11.20	6.82	7569.00	0.36	
1109.67		167.88		6.61	164.60	14.70	0.002198
	0.90662	98758.53					
175.00		4649.00	11.20	6.82	7568.99	0.36	
1109.66		167.88		6.61	164.60	14.70	0.002198
	0.90643	98758.23					
176.00		4649.00	11.20	6.82	7569.01	0.36	
1109.67		167.88		6.61	164.60	14.70	0.002198
	0.90645	98758.45					
177.00		4649.00	11.20	6.82	7568.99	0.36	
1109.67		167.88		6.61	164.60	14.70	0.002198
	0.90677	98758.52					
178.00		4649.00	11.20	6.82	7569.01	0.36	
1109.67		167.88		6.61	164.60	14.70	0.002198
	0.90652	98758.44					
179.00		4649.07	11.27	6.86	7695.81	0.36	
1121.39		168.67		6.65	165.36	14.67	0.002180
	0.90461	99215.77					
180.00		4649.20	11.40	6.93	7912.36	0.36	
1142.02		170.03		6.72	166.69	14.62	0.002172
	0.91024	100012.04					
181.00		4649.24	11.44	6.95	7980.69	0.36	
1148.35		170.45		6.74	167.09	14.60	0.002162
	0.90890	100255.39					
182.00		4649.31	11.51	6.98	8088.63	0.36	
1158.53		171.12		6.77	167.74	14.57	0.002162
	0.91328	100643.07					
183.00		4649.31	11.51	6.98	8090.95	0.36	
1158.78		171.14		6.77	167.75	14.57	0.002162
	0.91338	100652.45					
184.00		4649.31	11.51	6.98	8090.99	0.36	
1158.77		171.14		6.77	167.75	14.57	0.002161
	0.91303	100652.09					
185.00		4649.31	11.51	6.98	8091.06	0.36	
1158.78		171.14		6.77	167.75	14.57	0.002159
	0.91222	100652.50					
186.00		4649.31	11.51	6.98	8091.02	0.36	
1158.78		171.14		6.77	167.75	14.57	0.002161
	0.91305	100652.49					
187.00		4649.31	11.51	6.98	8090.93	0.36	
1158.79		171.14		6.77	167.75	14.57	0.002161
	0.91316	100652.70					
188.00		4649.31	11.51	6.98	8091.03	0.36	
1158.78		171.14		6.77	167.75	14.57	0.002159
	0.91236	100652.52					
189.00		4649.31	11.51	6.98	8091.01	0.36	

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HYCHAN.OUT						
1158.79	0.91348	171.14	6.77	167.75	14.57	0.002162
190.00	4649.27	100652.76	11.47	6.96	8027.43	0.36
1153.01	0.91410	170.75	6.75	167.38	14.59	0.002169
191.00	4649.21	100430.34	11.41	6.93	7919.29	0.36
1142.77	0.91022	170.08	6.72	166.73	14.61	0.002171
192.00	4649.21	100040.00	11.41	6.93	7916.95	0.36
1142.52	0.91090	170.07	6.72	166.72	14.62	0.002173
193.00	4649.21	100030.48	11.41	6.93	7917.08	0.36
1142.53	0.91013	170.07	6.72	166.72	14.62	0.002171
194.00	4649.21	100031.07	11.41	6.93	7916.92	0.36
1142.52	0.91113	170.07	6.72	166.72	14.62	0.002173
195.00	4649.21	100030.73	11.41	6.93	7917.02	0.36
1142.52	0.91144	170.07	6.72	166.72	14.62	0.002174
196.00	4649.21	100030.75	11.41	6.93	7917.00	0.36
1142.52	0.91099	170.07	6.72	166.72	14.62	0.002173
197.00	4649.21	100030.92	11.41	6.93	7917.03	0.36
1142.53	0.91114	170.07	6.72	166.72	14.62	0.002173
198.00	4649.21	100030.92	11.41	6.93	7916.96	0.36
1142.52	0.91087	170.07	6.72	166.72	14.62	0.002173
199.00	4649.21	100030.65	11.41	6.93	7916.98	0.36
1142.52	0.91121	170.07	6.72	166.72	14.62	0.002174
		100030.66				

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 121

MAXIMUM DISCHARGE (CFS) = 21661.90 AT TIME = 79.14  
 MAXIMUM STAGE = 4654.40 AT TIME = 79.21

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(FT)		
0.00	0.00	4635.70	0.00	0.00	0.00	0.000000
0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4638.13	2.43	1.58	909.84	0.18	0.002525
576.08	133.39	4.32	132.23	54.31	0.35	0.002442
0.68040	92560.45	9.81	6.22	5399.58	0.35	0.002442
867.64	179.48	4.83	165.49	16.87	0.35	0.002441
0.73669	115839.59	9.87	6.26	5480.48	0.35	0.002442
874.80	179.70	4.87	165.64	16.79	0.35	0.002441
0.74167	115947.95	9.79	6.21	5381.07	0.35	0.002441
866.09	179.41	4.83	165.43	16.90	0.35	0.002439
0.73544	115803.73	9.75	6.18	5328.25	0.35	0.002439
861.54	179.24	4.81	165.32	16.96	0.35	0.002439

		HYCHAN.OUT					
	0.73164	115724.23					
848.33	6.00	4645.33	9.63	6.11	5180.24	0.35	
		178.78	4.75		165.00	17.13	0.002439
	0.72225	115496.98					
834.42	7.00	4645.21	9.50	6.03	5028.05	0.34	
		178.28	4.68		164.65	17.32	0.002442
	0.71322	115255.30					
820.33	8.00	4645.08	9.38	5.95	4877.17	0.34	
		177.78	4.61		164.30	17.52	0.002440
	0.70255	115007.01					
810.68	9.00	4644.99	9.29	5.89	4775.15	0.34	
		177.43	4.57		164.06	17.65	0.002441
	0.69587	114838.84					
805.72	10.00	4644.95	9.25	5.86	4722.34	0.34	
		177.24	4.55		163.92	17.73	0.002442
	0.69268	114746.45					
791.49	11.00	4644.82	9.12	5.78	4575.02	0.34	
		176.71	4.48		163.55	17.94	0.002438
	0.68147	114485.61					
781.40	12.00	4644.73	9.03	5.72	4472.31	0.34	
		176.35	4.43		163.30	18.08	0.002442
	0.67511	114307.39					
781.10	13.00	4644.73	9.03	5.72	4468.96	0.34	
		176.34	4.43		163.29	18.09	0.002443
	0.67528	114304.26					
781.01	14.00	4644.73	9.03	5.72	4469.01	0.34	
		176.34	4.43		163.29	18.09	0.002444
	0.67550	114303.84					
781.08	15.00	4644.73	9.03	5.72	4468.91	0.34	
		176.34	4.43		163.29	18.09	0.002444
	0.67537	114303.86					
781.13	16.00	4644.73	9.03	5.72	4469.07	0.34	
		176.34	4.43		163.29	18.09	0.002444
	0.67552	114304.77					
786.65	17.00	4644.78	9.08	5.74	4518.25	0.34	
		176.56	4.46		163.44	18.00	0.002443
	0.67928	114410.84					
801.14	18.00	4644.91	9.21	5.83	4667.26	0.34	
		177.10	4.52		163.82	17.78	0.002444
	0.68987	114676.77					
815.39	19.00	4645.04	9.34	5.91	4818.75	0.34	
		177.62	4.59		164.19	17.58	0.002444
	0.70004	114931.43					
824.44	20.00	4645.12	9.42	5.97	4921.23	0.34	
		177.93	4.63		164.40	17.46	0.002443
	0.70647	115082.37					
824.63	21.00	4645.12	9.42	5.97	4923.80	0.34	
		177.94	4.63		164.41	17.45	0.002444
	0.70668	115088.48					
829.61	22.00	4645.17	9.47	6.00	4973.71	0.34	
		178.13	4.66		164.54	17.38	0.002443
	0.71005	115180.47					
848.39	23.00	4645.34	9.64	6.10	5172.92	0.35	
		178.80	4.74		165.01	17.13	0.002443
	0.72319	115508.01					
875.34	24.00	4645.57	9.87	6.25	5474.70	0.35	
		179.73	4.87		165.66	16.78	0.002443
	0.74232	115963.77					
901.60	25.00	4645.80	10.10	6.41	5779.20	0.36	
		180.62	4.99		166.28	16.46	0.002441
	0.76039	116395.73					
918.37	26.00	4645.95	10.25	6.51	5979.39	0.36	
		181.18	5.07		166.67	16.26	0.002440



		HYCHAN.OUT						
	0.77171	116666.93						
918.78	27.00	4645.96	10.26	5.07	6.51	5985.02	0.36	0.002442
	0.77256	116673.61						
923.57	28.00	4646.00	10.30	5.09	6.54	6041.74	0.36	0.002442
	0.77607	116752.39						
932.55	29.00	4646.08	10.38	5.13	6.59	6148.98	0.36	0.002440
	0.78167	116894.04						
932.88	30.00	4646.08	10.38	5.14	6.59	6151.94	0.36	0.002442
	0.78246	116898.45						
937.74	31.00	4646.12	10.42	5.16	6.62	6211.53	0.36	0.002443
	0.78623	116978.47						
947.11	32.00	4646.20	10.50	5.20	6.68	6322.92	0.36	0.002440
	0.79175	117123.48						
947.45	33.00	4646.21	10.51	5.20	6.68	6326.02	0.36	0.002441
	0.79232	117127.41						
942.56	34.00	4646.16	10.46	5.18	6.65	6266.47	0.36	0.002440
	0.78852	117049.12						
933.14	35.00	4646.08	10.38	5.14	6.60	6155.17	0.36	0.002441
	0.78252	116902.62						
928.18	36.00	4646.04	10.34	5.11	6.57	6095.02	0.36	0.002439
	0.77828	116821.43						
919.09	37.00	4645.96	10.26	5.07	6.52	5988.12	0.36	0.002438
	0.77172	116677.62						
918.80	38.00	4645.96	10.26	5.07	6.51	5984.89	0.36	0.002441
	0.77244	116673.73						
918.81	39.00	4645.96	10.26	5.07	6.51	5985.08	0.36	0.002440
	0.77211	116673.62						
918.80	40.00	4645.96	10.26	5.07	6.51	5984.93	0.36	0.002442
	0.77275	116673.98						
918.77	41.00	4645.96	10.26	5.07	6.51	5985.01	0.36	0.002442
	0.77264	116673.45						
923.60	42.00	4646.00	10.30	5.09	6.54	6042.15	0.36	0.002440
	0.77556	116752.48						
932.53	43.00	4646.08	10.38	5.13	6.59	6148.90	0.36	0.002441
	0.78208	116894.12						
937.71	44.00	4646.12	10.42	5.16	6.62	6211.43	0.36	0.002443
	0.78621	116978.23						
951.81	45.00	4646.25	10.55	5.22	6.71	6382.56	0.36	0.002443
	0.79598	117199.63						
966.03	46.00	4646.37	10.67	5.29	6.79	6556.63	0.37	0.002442
	0.80571	117421.15						
980.00	47.00	4646.49	10.79	5.35	6.87	6730.27	0.37	0.002441
		183.17						



HYCHAN.OUT									
0.81492	117635.02								
48.00	4646.61	10.91	6.95	6904.48	0.37				
993.90	183.60	5.41	168.35	15.43	0.002441				
0.82462	117845.84								
49.00	4646.73	11.03	7.03	7078.67	0.37				
1007.62	184.03	5.48	168.64	15.29	0.002442				
0.83427	118051.22								
50.00	4646.89	11.19	7.13	7313.77	0.38				
1026.24	184.59	5.56	169.03	15.11	0.002441				
0.84680	118322.66								
51.00	4647.04	11.34	7.22	7537.38	0.38				
1043.53	185.10	5.64	169.39	14.94	0.002436				
0.85680	118572.91								
52.00	4647.08	11.38	7.25	7603.89	0.38				
1048.66	185.26	5.66	169.49	14.89	0.002437				
0.86067	118646.14								
53.00	4647.28	11.58	7.38	7909.27	0.38				
1071.62	185.93	5.76	169.96	14.68	0.002438				
0.87682	118973.02								
54.00	4647.67	11.97	7.64	8547.34	0.39				
1118.53	187.27	5.97	170.89	14.27	0.002436				
0.90804	119622.02								
55.00	4648.20	12.50	7.98	9422.57	0.40				
1180.78	188.99	6.25	172.07	13.77	0.002429				
0.94688	120448.27								
56.00	4648.90	13.19	8.43	10659.44	0.41				
1264.77	191.18	6.62	173.58	13.16	0.002426				
1.00143	121505.37								
57.00	4649.63	13.93	8.92	12079.38	0.42				
1354.05	193.40	7.00	175.10	12.57	0.002416				
1.05534	122567.36								
58.00	4650.18	14.48	9.30	13224.78	0.43				
1422.45	195.01	7.29	176.20	12.17	0.002409				
1.09640	123338.19								
59.00	4650.72	15.02	9.68	14413.69	0.44				
1489.55	196.53	7.58	177.24	11.80	0.002398				
1.13394	124066.53								
60.00	4651.25	15.55	10.04	15617.56	0.45				
1556.23	197.99	7.86	178.23	11.46	0.002389				
1.17178	124759.88								
61.00	4651.60	15.90	10.24	16392.37	0.45				
1600.89	198.93	8.05	178.87	11.25	0.002371				
1.19060	125208.45								
62.00	4652.00	16.30	10.35	17104.98	0.45				
1652.20	199.99	8.26	179.59	11.02	0.002354				
1.21337	125710.16								
63.00	4652.33	16.63	10.43	17671.82	0.45				
1693.91	200.83	8.43	180.16	10.84	0.002331				
1.22699	126111.73								
64.00	4652.75	17.05	10.53	18406.80	0.45				
1748.58	201.91	8.66	180.89	10.61	0.002327				
1.25728	126622.67								
65.00	4652.89	17.19	10.56	18658.40	0.45				
1767.36	202.27	8.74	181.13	10.54	0.002330				
1.27039	126793.30								
66.00	4652.90	17.20	10.56	18670.72	0.45				
1768.35	202.29	8.74	181.15	10.53	0.002329				
1.27025	126802.18								
67.00	4652.90	17.20	10.56	18673.01	0.45				
1768.47	202.29	8.74	181.15	10.53	0.002330				
1.27128	126803.38								
68.00	4652.90	17.20	10.56	18673.53	0.45				
1768.58	202.29	8.74	181.15	10.53	0.002326				

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1768.76	1.26907	126804.39	17.20	8.74	10.56	18676.18	0.45	0.002333
	69.00	4652.90				181.15	10.53	
	1.27282	126805.94						
1768.87	70.00	4652.90	17.20	8.74	10.56	18676.93	0.45	0.002328
		202.30				181.15	10.53	
	1.27021	126806.73						
1768.86	71.00	4652.90	17.20	8.74	10.56	18676.95	0.45	0.002333
		202.30				181.15	10.53	
	1.27282	126806.86						
1777.53	72.00	4652.97	17.27	8.78	10.58	18798.68	0.45	0.002335
		202.47				181.27	10.50	
	1.27894	126886.98						
1794.61	73.00	4653.10	17.40	8.85	10.60	19028.69	0.45	0.002335
		202.79				181.49	10.43	
	1.28943	127041.46						
1796.04	74.00	4653.11	17.41	8.86	10.60	19046.81	0.45	0.002336
		202.82				181.51	10.42	
	1.29059	127053.51						
1804.67	75.00	4653.18	17.48	8.89	10.62	19166.00	0.45	0.002338
		202.99				181.62	10.39	
	1.29718	127132.92						
1838.66	76.00	4653.44	17.74	9.03	10.68	19637.93	0.45	0.002341
		203.63				182.05	10.26	
	1.31879	127437.01						
1882.26	77.00	4653.77	18.07	9.21	10.76	20246.35	0.45	0.002338
		204.43				182.60	10.10	
	1.34345	127817.31						
1910.54	78.00	4653.98	18.28	9.32	10.81	20649.00	0.45	0.002330
		204.94				182.94	10.01	
	1.35546	128057.29						
1941.75	79.00	4654.21	18.50	9.45	10.90	21168.48	0.45	0.002328
		205.47				183.29	9.91	
	1.37302	128304.85						
1962.36	80.00	4654.35	18.65	9.54	10.98	21540.29	0.45	0.002336
		205.80				183.52	9.84	
	1.38999	128463.62						
1944.19	81.00	4654.22	18.52	9.46	10.90	21190.84	0.45	0.002332
		205.50				183.32	9.90	
	1.37678	128322.71						
1928.36	82.00	4654.11	18.41	9.40	10.85	20926.89	0.45	0.002342
		205.24				183.14	9.95	
	1.37304	128199.84						
1928.06	83.00	4654.11	18.41	9.39	10.85	20921.53	0.45	0.002344
		205.24				183.14	9.95	
	1.37414	128198.17						
1927.77	84.00	4654.11	18.41	9.39	10.85	20920.71	0.45	0.002345
		205.23				183.14	9.95	
	1.37425	128195.63						
1913.67	85.00	4654.00	18.30	9.34	10.81	20691.89	0.45	0.002333
		204.99				182.97	10.00	
	1.35914	128078.00						
1858.44	86.00	4653.58	17.88	9.11	10.71	19903.87	0.45	0.002330
		203.98				182.29	10.19	
	1.32458	127601.64						
1779.82	87.00	4652.98	17.28	8.79	10.57	18819.79	0.45	0.002323
		202.49				181.28	10.49	
	1.27405	126899.23						
1679.88	88.00	4652.21	16.50	8.38	10.40	17469.92	0.45	0.002366
		200.52				179.95	10.90	
	1.23703	125963.97						
1582.31	89.00	4651.45	15.75	7.97	10.16	16075.66	0.45	0.002387
		198.52				178.59	11.34	

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1534.61	90.00	1.18709	4651.07	125014.72	15.37	7.77	9.91	15206.29	0.45	0.002392
		1.15980	197.51	124529.51				177.90	11.57	
1483.36	91.00	4650.66	196.37	14.96	7.55	9.63	14283.44	0.44	0.002400	
		1.13105	123989.98				177.13	11.84		
1428.97	92.00	4650.23	195.14	14.53	7.32	9.32	13319.99	0.43	0.002406	
		1.09937	123401.05				176.29	12.14		
1384.20	93.00	4649.87	194.10	14.17	7.13	9.08	12562.62	0.43	0.002410	
		1.07227	122902.16				175.57	12.39		
1345.08	94.00	4649.55	193.17	13.85	6.96	8.86	11920.41	0.42	0.002415	
		1.04947	122456.57				174.94	12.63		
1313.62	95.00	4649.29	192.40	13.59	6.83	8.69	11415.30	0.42	0.002417	
		1.02970	122088.52				174.41	12.83		
1283.49	96.00	4649.05	191.65	13.35	6.70	8.52	10940.00	0.41	0.002420	
		1.01134	121729.84				173.90	13.03		
1258.97	97.00	4648.84	191.03	13.14	6.59	8.39	10559.55	0.41	0.002422	
		0.99618	121431.02				173.47	13.20		
1235.42	98.00	4648.65	190.43	12.95	6.49	8.26	10203.45	0.40	0.002424	
		0.98112	121140.32				173.06	13.36		
1216.67	99.00	4648.49	189.93	12.79	6.41	8.16	9924.77	0.40	0.002422	
		0.96828	120901.97				172.72	13.50		
1190.89	100.00	4648.28	189.26	12.58	6.29	8.04	9569.59	0.40	0.002429	
		0.95372	120581.64				172.26	13.69		
1169.59	101.00	4648.11	188.69	12.41	6.20	7.92	9267.05	0.40	0.002429	
		0.93960	120304.80				171.86	13.85		
1151.04	102.00	4647.95	188.18	12.25	6.12	7.82	9003.23	0.39	0.002431	
		0.92791	120060.42				171.51	14.00		
1136.70	103.00	4647.83	187.79	12.13	6.05	7.74	8801.58	0.39	0.002432	
		0.91871	119868.76				171.24	14.12		
1117.45	104.00	4647.67	187.24	11.97	5.97	7.63	8530.89	0.39	0.002433	
		0.90609	119606.51				170.87	14.28		
1094.19	105.00	4647.47	186.58	11.77	5.86	7.51	8213.21	0.39	0.002434	
		0.89065	119288.30				170.41	14.48		
1080.89	106.00	4647.36	186.20	11.66	5.81	7.43	8032.58	0.38	0.002435	
		0.88215	119102.77				170.15	14.60		
1067.94	107.00	4647.25	185.82	11.54	5.75	7.36	7858.74	0.38	0.002434	
		0.87293	118920.12				169.89	14.72		
1059.36	108.00	4647.17	185.57	11.47	5.71	7.31	7745.82	0.38	0.002434	
		0.86711	118799.52				169.71	14.79		
1063.76	109.00	4647.21	185.70	11.51	5.73	7.34	7804.23	0.38	0.002437	
		0.87103	118862.33				169.80	14.75		
1081.17	110.00	4647.36	186.21	11.66	5.81	7.44	8039.07	0.38	0.002438	

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	0.88338	119108.95						
1093.22	111.00	4647.46	11.76	5.86	7.50	8201.18	0.39	0.002434
		186.56				170.39	14.49	
	0.89001	119275.86						
1080.88	112.00	4647.36	11.66	5.80	7.43	8032.52	0.38	0.002436
		186.20				170.15	14.60	
	0.88245	119102.41						
1081.54	113.00	4647.36	11.66	5.81	7.44	8044.10	0.38	0.002439
		186.22				170.16	14.59	
	0.88374	119114.08						
1107.92	114.00	4647.59	11.89	5.93	7.59	8406.82	0.39	0.002437
		186.98				170.69	14.36	
	0.90122	119481.73						
1121.73	115.00	4647.70	12.00	5.99	7.66	8592.68	0.39	0.002434
		187.37				170.95	14.24	
	0.90925	119667.27						
1113.07	116.00	4647.63	11.93	5.95	7.61	8473.14	0.39	0.002434
		187.12				170.79	14.32	
	0.90356	119549.82						
1112.84	117.00	4647.63	11.93	5.95	7.61	8469.94	0.39	0.002436
		187.12				170.78	14.32	
	0.90402	119546.66						
1118.01	118.00	4647.67	11.97	5.97	7.64	8541.28	0.39	0.002435
		187.26				170.88	14.27	
	0.90707	119617.08						
1127.08	119.00	4647.75	12.05	6.01	7.69	8667.22	0.39	0.002434
		187.52				171.06	14.20	
	0.91304	119739.76						
1127.25	120.00	4647.75	12.05	6.01	7.69	8670.01	0.39	0.002433
		187.52				171.06	14.20	
	0.91273	119742.12						
1122.19	121.00	4647.71	12.01	5.99	7.66	8598.58	0.39	0.002433
		187.38				170.96	14.24	
	0.90927	119673.06						
1113.08	122.00	4647.63	11.93	5.95	7.61	8473.19	0.39	0.002434
		187.12				170.79	14.32	
	0.90331	119549.88						
1107.73	123.00	4647.58	11.88	5.92	7.58	8398.89	0.39	0.002434
		186.97				170.68	14.36	
	0.89970	119475.82						
1098.50	124.00	4647.51	11.81	5.88	7.53	8273.10	0.39	0.002433
		186.71				170.50	14.44	
	0.89319	119349.19						
1098.27	125.00	4647.50	11.80	5.88	7.53	8269.91	0.39	0.002435
		186.70				170.49	14.44	
	0.89396	119346.04						
1093.70	126.00	4647.46	11.76	5.86	7.50	8206.91	0.39	0.002434
		186.57				170.40	14.48	
	0.89035	119281.88						
1085.33	127.00	4647.39	11.69	5.82	7.46	8093.84	0.38	0.002435
		186.33				170.24	14.56	
	0.88520	119165.86						
1085.11	128.00	4647.39	11.69	5.82	7.46	8090.99	0.38	0.002438
		186.32				170.23	14.56	
	0.88596	119163.12						
1080.65	129.00	4647.35	11.65	5.80	7.43	8029.69	0.38	0.002436
		186.19				170.14	14.60	
	0.88215	119099.55						
1072.40	130.00	4647.28	11.58	5.77	7.39	7919.77	0.38	0.002435
		185.96				169.98	14.67	
	0.87638	118984.62						
1081.27	131.00	4647.36	11.66	5.81	7.44	8041.90	0.38	0.002438
		186.22				170.16	14.59	

## HYCHAN.OUT

	0.88347	119111.38						
1097.86	132.00	4647.50	11.80	5.88	7.53	8264.67	0.39	
		186.69				170.49	14.45	0.002434
	0.89303	119340.59						
1098.28	133.00	4647.50	11.80	5.88	7.53	8269.90	0.39	
		186.70				170.49	14.44	0.002435
	0.89375	119346.15						
1098.28	134.00	4647.50	11.80	5.88	7.53	8270.06	0.39	
		186.70				170.49	14.44	0.002434
	0.89355	119346.12						
1098.28	135.00	4647.50	11.80	5.88	7.53	8270.02	0.39	
		186.70				170.49	14.44	0.002435
	0.89377	119346.13						
1098.27	136.00	4647.50	11.80	5.88	7.53	8269.93	0.39	
		186.70				170.49	14.44	0.002435
	0.89396	119346.06						
1098.28	137.00	4647.50	11.80	5.88	7.53	8270.08	0.39	
		186.70				170.49	14.44	0.002435
	0.89392	119346.13						
1098.27	138.00	4647.50	11.80	5.88	7.53	8269.94	0.39	
		186.70				170.49	14.44	0.002435
	0.89380	119345.91						
1093.70	139.00	4647.46	11.76	5.86	7.50	8206.83	0.39	
		186.57				170.40	14.48	0.002434
	0.89033	119281.88						
1085.32	140.00	4647.39	11.69	5.82	7.46	8093.91	0.38	
		186.33				170.24	14.56	0.002434
	0.88450	119165.95						
1085.10	141.00	4647.39	11.69	5.82	7.46	8090.94	0.38	
		186.32				170.23	14.56	0.002436
	0.88509	119162.88						
1085.10	142.00	4647.39	11.69	5.82	7.46	8091.00	0.38	
		186.32				170.23	14.56	0.002436
	0.88515	119163.10						
1085.13	143.00	4647.39	11.69	5.82	7.46	8091.07	0.38	
		186.32				170.23	14.56	0.002433
	0.88415	119162.98						
1080.65	144.00	4647.35	11.65	5.80	7.43	8029.58	0.38	
		186.19				170.14	14.60	0.002435
	0.88200	119099.59						
1072.40	145.00	4647.28	11.58	5.77	7.39	7919.72	0.38	
		185.95				169.98	14.67	0.002436
	0.87678	118984.46						
1072.17	146.00	4647.28	11.58	5.77	7.38	7916.99	0.38	
		185.95				169.97	14.68	0.002436
	0.87650	118981.44						
1072.18	147.00	4647.28	11.58	5.77	7.38	7917.03	0.38	
		185.95				169.97	14.68	0.002436
	0.87636	118981.66						
1072.18	148.00	4647.28	11.58	5.77	7.38	7916.98	0.38	
		185.95				169.97	14.68	0.002437
	0.87667	118981.52						
1072.17	149.00	4647.28	11.58	5.77	7.38	7917.03	0.38	
		185.95				169.97	14.68	0.002434
	0.87586	118981.65						
1069.18	150.00	4647.26	11.56	5.75	7.37	7876.14	0.38	
		185.86				169.91	14.70	0.002435
	0.87419	118938.53						
1062.11	151.00	4647.20	11.50	5.72	7.33	7782.51	0.38	
		185.65				169.77	14.77	0.002436
	0.86963	118838.81						
1059.20	152.00	4647.17	11.47	5.71	7.31	7743.93	0.38	
		185.57				169.71	14.79	0.002438

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	0.86834	118797.62						
1059.14	153.00	4647.17	11.47	5.71	7.31	7742.99	0.38	0.002437
		185.57				169.71	14.80	
	0.86794	118796.71						
1054.63	154.00	4647.13	11.43	5.69	7.28	7682.03	0.38	0.002436
		185.43				169.62	14.84	
	0.86440	118730.77						
1055.28	155.00	4647.14	11.44	5.69	7.29	7693.97	0.38	0.002439
		185.46				169.63	14.83	
	0.86606	118743.02						
1071.75	156.00	4647.28	11.58	5.76	7.38	7911.49	0.38	0.002434
		185.94				169.97	14.68	
	0.87554	118975.62						
1072.17	157.00	4647.28	11.58	5.77	7.38	7916.96	0.38	0.002436
		185.95				169.97	14.68	
	0.87655	118981.52						
1072.17	158.00	4647.28	11.58	5.77	7.38	7917.03	0.38	0.002435
		185.95				169.97	14.68	
	0.87598	118981.46						
1072.17	159.00	4647.28	11.58	5.77	7.38	7916.98	0.38	0.002437
		185.95				169.97	14.68	
	0.87681	118981.48						
1072.18	160.00	4647.28	11.58	5.77	7.38	7917.06	0.38	0.002435
		185.95				169.97	14.68	
	0.87608	118981.73						
1072.18	161.00	4647.28	11.58	5.77	7.38	7916.95	0.38	0.002436
		185.95				169.97	14.68	
	0.87655	118981.65						
1072.18	162.00	4647.28	11.58	5.77	7.38	7917.05	0.38	0.002435
		185.95				169.97	14.68	
	0.87602	118981.66						
1072.18	163.00	4647.28	11.58	5.77	7.38	7916.93	0.38	0.002436
		185.95				169.97	14.68	
	0.87660	118981.55						
1067.70	164.00	4647.24	11.54	5.75	7.36	7855.83	0.38	0.002437
		185.82				169.88	14.72	
	0.87362	118917.19						
1059.36	165.00	4647.17	11.47	5.71	7.31	7745.80	0.38	0.002436
		185.57				169.71	14.79	
	0.86790	118799.65						
1059.14	166.00	4647.17	11.47	5.71	7.31	7742.99	0.38	0.002436
		185.57				169.71	14.80	
	0.86760	118796.62						
1059.13	167.00	4647.17	11.47	5.71	7.31	7743.04	0.38	0.002435
		185.57				169.71	14.80	
	0.86711	118796.53						
1059.12	168.00	4647.17	11.47	5.71	7.31	7742.96	0.38	0.002437
		185.57				169.71	14.80	
	0.86804	118796.59						
1059.13	169.00	4647.17	11.47	5.71	7.31	7743.01	0.38	0.002436
		185.57				169.71	14.80	
	0.86761	118796.62						
1059.14	170.00	4647.17	11.47	5.71	7.31	7743.01	0.38	0.002436
		185.57				169.71	14.80	
	0.86774	118796.61						
1059.14	171.00	4647.17	11.47	5.71	7.31	7743.00	0.38	0.002438
		185.57				169.71	14.80	
	0.86845	118796.62						
1054.63	172.00	4647.13	11.43	5.69	7.28	7681.91	0.38	0.002434
		185.43				169.62	14.84	
	0.86382	118730.77						
1046.18	173.00	4647.06	11.36	5.65	7.24	7571.73	0.38	0.002438
		185.18				169.44	14.92	

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	0.85938	118610.54						
1045.95	174.00	4647.06	11.36	5.65	7.24	7568.99	0.38	0.002437
	0.85893	118607.60						
1045.95	175.00	4647.06	11.36	5.65	7.24	7569.01	0.38	0.002437
	0.85896	118607.44						
1045.95	176.00	4647.06	11.36	5.65	7.24	7568.99	0.38	0.002438
	0.85920	118607.55						
1045.95	177.00	4647.06	11.36	5.65	7.24	7569.00	0.38	0.002437
	0.85904	118607.59						
1045.96	178.00	4647.06	11.36	5.65	7.24	7569.00	0.38	0.002437
	0.85906	118607.55						
1055.09	179.00	4647.14	11.44	5.69	7.29	7691.49	0.38	0.002439
	0.86591	118740.31						
1071.75	180.00	4647.28	11.58	5.76	7.38	7911.50	0.38	0.002434
	0.87562	118975.69						
1076.79	181.00	4647.32	11.62	5.79	7.41	7978.56	0.38	0.002438
	0.88048	119046.47						
1084.93	182.00	4647.39	11.69	5.82	7.46	8088.25	0.38	0.002434
	0.88423	119160.23						
1085.11	183.00	4647.39	11.69	5.82	7.46	8090.96	0.38	0.002436
	0.88520	119163.07						
1085.11	184.00	4647.39	11.69	5.82	7.46	8090.95	0.38	0.002436
	0.88512	119162.88						
1085.11	185.00	4647.39	11.69	5.82	7.46	8091.06	0.38	0.002436
	0.88512	119163.05						
1085.14	186.00	4647.39	11.69	5.82	7.46	8091.04	0.38	0.002433
	0.88434	119163.10						
1085.12	187.00	4647.39	11.69	5.82	7.46	8090.93	0.38	0.002436
	0.88523	119163.20						
1085.12	188.00	4647.39	11.69	5.82	7.46	8090.98	0.38	0.002436
	0.88535	119163.08						
1085.12	189.00	4647.39	11.69	5.82	7.46	8091.06	0.38	0.002434
	0.88464	119163.23						
1080.65	190.00	4647.35	11.65	5.80	7.43	8029.55	0.38	0.002433
	0.88113	119099.45						
1072.39	191.00	4647.28	11.58	5.77	7.39	7919.68	0.38	0.002436
	0.87677	118984.50						
1072.17	192.00	4647.28	11.58	5.77	7.38	7916.97	0.38	0.002436
	0.87657	118981.45						
1072.18	193.00	4647.28	11.58	5.77	7.38	7917.06	0.38	0.002436
	0.87644	118981.72						
1072.18	194.00	4647.28	11.58	5.77	7.38	7916.95	0.38	0.002436
		185.95						

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	0.87650	118981.59						
1072.18	195.00	4647.28	11.58	5.77	7.38	7917.04	0.38	0.002435
		185.95				169.97	14.68	
	0.87618	118981.57						
1072.18	196.00	4647.28	11.58	5.77	7.38	7916.98	0.38	0.002437
		185.95				169.97	14.68	
	0.87688	118981.65						
1072.18	197.00	4647.28	11.58	5.77	7.38	7917.03	0.38	0.002435
		185.95				169.97	14.68	
	0.87602	118981.70						
1072.18	198.00	4647.28	11.58	5.77	7.38	7916.95	0.38	0.002437
		185.95				169.97	14.68	
	0.87667	118981.52						
1072.18	199.00	4647.28	11.58	5.77	7.38	7917.01	0.38	0.002436
		185.95				169.97	14.68	
	0.87647	118981.54						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 135

MAXIMUM DISCHARGE (CFS) = 21794.03 AT TIME = 79.14  
 MAXIMUM STAGE = 4650.50 AT TIME = 79.30

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4633.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
568.47	1.00	4635.50	2.00	4.44	1.41	799.80	0.18		0.002793
		127.93			128.12	64.03			
	0.77445	89681.34							
843.99	2.00	4642.58	9.08	4.78	6.37	5375.54	0.37		0.002800
		176.55			163.44	18.00			
	0.83521	114407.77							
852.80	3.00	4642.65	9.15	4.82	6.43	5482.55	0.37		0.002786
		176.84			163.64	17.89			
	0.83827	114549.96							
844.34	4.00	4642.58	9.08	4.78	6.37	5381.52	0.37		0.002786
		176.55			163.44	18.00			
	0.83147	114407.16							
840.05	5.00	4642.54	9.04	4.76	6.35	5330.24	0.37		0.002776
		176.40			163.33	18.06			
	0.82502	114333.98							
827.30	6.00	4642.44	8.94	4.70	6.26	5182.92	0.37		0.002762
		175.96			163.02	18.24			
	0.81034	114116.88							
813.92	7.00	4642.32	8.82	4.64	6.18	5030.82	0.37		0.002753
		175.48			162.69	18.44			
	0.79664	113884.77							
800.28	8.00	4642.21	8.71	4.57	6.10	4879.89	0.36		0.002738
		175.00			162.35	18.64			
	0.78129	113645.77							
790.70	9.00	4642.13	8.63	4.53	6.04	4775.66	0.36		0.002741
		174.66			162.11	18.78			
	0.77426	113478.02							
786.04	10.00	4642.09	8.59	4.50	6.01	4724.66	0.36		0.002727
		174.48			161.99	18.86			
	0.76663	113393.83							



		HYCHAN.OUT			
772.45	11.00 4641.98	8.48	5.93	4577.70	0.36
	0.75160 173.98	4.44		161.64	19.07
	12.00 113147.10				0.002713
762.40	12.00 4641.89	8.39	5.87	4472.89	0.36
	0.74439 173.61	4.39		161.37	19.23
	13.00 112962.30				0.002716
762.00	13.00 4641.89	8.39	5.86	4469.08	0.36
	0.74401 173.59	4.39		161.36	19.24
	14.00 112954.66				0.002716
761.90	14.00 4641.88	8.38	5.87	4469.04	0.36
	0.74382 173.58	4.39		161.36	19.24
	15.00 112951.74				0.002716
761.98	15.00 4641.89	8.39	5.86	4468.89	0.36
	0.74341 173.59	4.39		161.36	19.24
	16.00 112954.35				0.002714
762.02	16.00 4641.89	8.39	5.86	4469.11	0.36
	0.74357 173.59	4.39		161.36	19.24
	17.00 112955.16				0.002715
766.60	17.00 4641.93	8.43	5.89	4515.76	0.36
	0.75240 173.78	4.41		161.50	19.16
	18.00 113049.81				0.002733
780.39	18.00 4642.05	8.55	5.98	4664.49	0.36
	0.76701 174.30	4.48		161.86	18.94
	19.00 113303.27				0.002745
794.32	19.00 4642.17	8.67	6.06	4816.01	0.36
	0.78164 174.80	4.54		162.22	18.72
	20.00 113551.34				0.002757
803.93	20.00 4642.24	8.74	6.12	4920.83	0.36
	0.78760 175.14	4.59		162.45	18.58
	21.00 113715.59				0.002750
804.16	21.00 4642.24	8.74	6.12	4923.78	0.37
	0.78826 175.14	4.59		162.45	18.58
	22.00 113716.04				0.002751
808.45	22.00 4642.28	8.78	6.15	4971.42	0.37
	0.79614 175.30	4.61		162.57	18.51
	23.00 113796.40				0.002767
826.40	23.00 4642.43	8.93	6.25	5168.02	0.37
	0.81706 175.94	4.70		163.01	18.25
	24.00 114110.01				0.002788
852.57	24.00 4642.65	9.15	6.42	5469.55	0.37
	0.84485 176.85	4.82		163.65	17.88
	25.00 114553.53				0.002808
878.18	25.00 4642.86	9.36	6.58	5774.18	0.38
	0.87165 177.71	4.94		164.25	17.54
	26.00 114974.73				0.002827
894.65	26.00 4643.00	9.50	6.68	5978.55	0.38
	0.88652 178.25	5.02		164.62	17.34
	27.00 115236.63				0.002831
895.10	27.00 4643.00	9.50	6.69	5985.10	0.38
	0.88663 178.26	5.02		164.63	17.33
	28.00 115242.40				0.002830
899.54	28.00 4643.04	9.54	6.71	6039.52	0.38
	0.89374 178.41	5.04		164.74	17.28
	29.00 115315.05				0.002841
908.44	29.00 4643.11	9.61	6.77	6148.43	0.38
	0.90057 178.69	5.08		164.93	17.17
	30.00 115453.88				0.002839
908.83	30.00 4643.11	9.61	6.77	6152.03	0.38
	0.90193 178.70	5.09		164.94	17.16
	31.00 115459.32				0.002842
913.25	31.00 4643.15	9.65	6.80	6209.26	0.39
	0.90874 178.85	5.11		165.04	17.11
					0.002852

		HYCHAN.OUT					
922.59	32.00	4643.22	9.72	6.85	6322.32	0.39	
	0.91740	179.14	5.15	165.25	17.00		0.002855
		115674.59					
923.02	33.00	4643.23	9.73	6.85	6326.07	0.39	
	0.91690	179.15	5.15	165.26	16.99		0.002852
		115680.76					
918.34	34.00	4643.19	9.69	6.83	6268.71	0.39	
	0.90871	179.00	5.13	165.15	17.05		0.002839
		115607.15					
909.06	35.00	4643.11	9.61	6.77	6155.70	0.39	
	0.90177	178.71	5.09	164.95	17.16		0.002841
		115462.95					
904.43	36.00	4643.07	9.57	6.74	6097.18	0.38	
	0.89475	178.56	5.07	164.84	17.22		0.002831
		115388.52					
895.48	37.00	4643.00	9.50	6.69	5988.56	0.38	
	0.88630	178.27	5.02	164.64	17.33		0.002828
		115247.99					
895.12	38.00	4643.00	9.50	6.69	5985.00	0.38	
	0.88682	178.26	5.02	164.63	17.33		0.002830
		115242.90					
895.16	39.00	4643.00	9.50	6.69	5985.05	0.38	
	0.88633	178.26	5.02	164.63	17.33		0.002829
		115243.34					
895.11	40.00	4643.00	9.50	6.69	5985.03	0.38	
	0.88607	178.26	5.02	164.63	17.33		0.002828
		115242.85					
895.08	41.00	4643.00	9.50	6.69	5985.00	0.38	
	0.88595	178.26	5.02	164.63	17.33		0.002828
		115242.20					
899.59	42.00	4643.04	9.54	6.71	6039.84	0.38	
	0.89371	178.41	5.04	164.74	17.28		0.002840
		115315.83					
908.40	43.00	4643.11	9.61	6.77	6148.49	0.38	
	0.90109	178.69	5.08	164.93	17.17		0.002841
		115452.94					
913.21	44.00	4643.15	9.65	6.80	6209.19	0.39	
	0.90870	178.85	5.11	165.04	17.11		0.002852
		115530.08					
926.90	45.00	4643.26	9.76	6.88	6379.86	0.39	
	0.92334	179.28	5.17	165.35	16.95		0.002862
		115742.59					
940.69	46.00	4643.37	9.87	6.97	6553.90	0.39	
	0.93876	179.71	5.23	165.65	16.79		0.002874
		115953.22					
954.31	47.00	4643.48	9.98	7.05	6727.59	0.39	
	0.95398	180.13	5.30	165.94	16.63		0.002886
		116158.37					
967.84	48.00	4643.58	10.08	7.13	6901.86	0.40	
	0.96849	180.55	5.36	166.23	16.48		0.002895
		116359.24					
981.22	49.00	4643.69	10.19	7.21	7076.06	0.40	
	0.98346	180.95	5.42	166.51	16.34		0.002906
		116555.29					
999.48	50.00	4643.84	10.34	7.31	7309.02	0.40	
	1.00535	181.50	5.51	166.89	16.15		0.002926
		116821.30					
1016.14	51.00	4643.97	10.47	7.42	7536.40	0.40	
	1.02125	181.99	5.58	167.23	15.97		0.002931
		117062.09					
1021.21	52.00	4644.01	10.51	7.44	7601.75	0.40	
	1.02869	182.14	5.61	167.33	15.92		0.002940
		117133.61					

HYCHAN.OUT							
53.00	4644.18	10.68	7.57	7902.37	0.41		
1043.76	182.78	5.71	167.78	15.70	0.002966		
1.05697	117444.51						
54.00	4644.54	11.04	7.84	8536.87	0.42		
1089.48	184.05	5.92	168.66	15.28	0.003009		
1.11149	118062.81						
55.00	4645.00	11.50	8.18	9409.21	0.43		
1149.78	185.67	6.19	169.78	14.76	0.003068		
1.18531	118848.75						
56.00	4645.62	12.12	8.65	10641.03	0.44		
1230.61	187.74	6.55	171.21	14.13	0.003153		
1.28946	119848.52						
57.00	4646.26	12.76	9.16	12064.97	0.45		
1317.59	189.84	6.94	172.65	13.53	0.003207		
1.38871	120858.05						
58.00	4646.75	13.25	9.54	13213.31	0.46		
1384.73	191.37	7.24	173.70	13.11	0.003251		
1.46771	121591.96						
59.00	4647.22	13.72	9.93	14398.67	0.47		
1450.75	192.79	7.52	174.68	12.73	0.003314		
1.55624	122275.79						
60.00	4647.69	14.19	10.29	15609.44	0.48		
1516.58	194.17	7.81	175.63	12.38	0.003347		
1.63130	122937.54						
61.00	4648.00	14.50	10.51	16381.42	0.49		
1559.18	195.07	7.99	176.24	12.15	0.003410		
1.70084	123366.15						
62.00	4648.36	14.86	10.66	17098.97	0.49		
1604.46	196.07	8.18	176.92	11.91	0.003455		
1.76422	123846.56						
63.00	4648.64	15.14	10.77	17659.81	0.49		
1640.02	196.86	8.33	177.46	11.72	0.003530		
1.83501	124223.11						
64.00	4649.01	15.51	10.91	18400.28	0.49		
1686.77	197.88	8.52	178.15	11.49	0.003577		
1.90249	124707.50						
65.00	4649.14	15.64	10.96	18657.42	0.49		
1702.97	198.22	8.59	178.39	11.41	0.003576		
1.91708	124871.61						
66.00	4649.14	15.64	10.96	18670.85	0.49		
1703.86	198.24	8.59	178.40	11.40	0.003585		
1.92290	124880.05						
67.00	4649.14	15.64	10.96	18672.77	0.49		
1703.96	198.24	8.60	178.40	11.40	0.003579		
1.91972	124881.02						
68.00	4649.14	15.64	10.96	18673.54	0.49		
1704.04	198.24	8.60	178.40	11.40	0.003582		
1.92126	124881.88						
69.00	4649.15	15.65	10.96	18676.39	0.49		
1704.20	198.25	8.60	178.41	11.40	0.003581		
1.92065	124883.64						
70.00	4649.15	15.65	10.96	18677.01	0.49		
1704.32	198.25	8.60	178.41	11.40	0.003584		
1.92266	124884.70						
71.00	4649.15	15.65	10.96	18677.05	0.49		
1704.30	198.25	8.60	178.41	11.40	0.003582		
1.92157	124884.37						
72.00	4649.20	15.70	10.98	18794.80	0.49		
1711.49	198.41	8.63	178.51	11.37	0.003610		
1.94319	124958.77						
73.00	4649.32	15.82	11.02	19027.68	0.49		
1726.10	198.71	8.69	178.72	11.30	0.003615		
1.95967	125104.75						

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HYCHAN.OUT							
1727.38	74.00	4649.33	15.83	11.03	19047.00	0.49	0.003613
	1.95948	198.74	8.69	11.29	178.74		
		125117.60					
1734.46	75.00	4649.38	15.88	11.05	19162.06	0.49	0.003647
	1.98466	198.89	8.72	11.26	178.84		
		125189.70					
1763.03	76.00	4649.61	16.11	11.13	19629.29	0.49	0.003706
	2.04386	199.49	8.84	11.13	179.25		
		125474.80					
1800.29	77.00	4649.90	16.40	11.24	20239.99	0.49	0.003751
	2.10407	200.25	8.99	10.96	179.77		
		125835.52					
1824.89	78.00	4650.09	16.59	11.31	20643.82	0.49	0.003773
	2.14007	200.74	9.09	10.86	180.10		
		126067.13					
1855.85	79.00	4650.31	16.81	11.40	21163.95	0.49	0.003784
	2.17691	201.30	9.22	10.74	180.48		
		126334.10					
1877.57	80.00	4650.45	16.95	11.48	21547.11	0.49	0.003784
	2.19823	201.67	9.31	10.66	180.73		
		126509.59					
1858.42	81.00	4650.32	16.82	11.41	21199.19	0.49	0.003766
	2.16922	201.34	9.23	10.73	180.51		
		126353.98					
1842.25	82.00	4650.21	16.71	11.36	20932.27	0.49	0.003767
	2.15410	201.05	9.16	10.79	180.31		
		126217.52					
1841.82	83.00	4650.21	16.71	11.36	20925.38	0.49	0.003775
	2.15776	201.05	9.16	10.79	180.31		
		126214.40					
1841.68	84.00	4650.21	16.71	11.36	20924.18	0.49	0.003783
	2.16252	201.04	9.16	10.79	180.30		
		126212.31					
1828.65	85.00	4650.11	16.61	11.32	20702.95	0.49	0.003734
	2.12208	200.80	9.11	10.84	180.14		
		126094.80					
1781.62	86.00	4649.74	16.24	11.18	19924.48	0.49	0.003638
	2.02378	199.84	8.92	11.05	179.49		
		125641.52					
1715.10	87.00	4649.22	15.72	10.99	18841.48	0.49	0.003536
	1.90697	198.45	8.64	11.36	178.54		
		124979.89					
1630.33	88.00	4648.54	15.04	10.73	17495.31	0.49	0.003375
	1.74635	196.60	8.29	11.78	177.28		
		124099.04					
1543.28	89.00	4647.87	14.37	10.42	16087.37	0.48	0.003324
	1.64393	194.70	7.93	12.24	175.99		
		123191.85					
1496.50	90.00	4647.54	14.04	10.17	15215.04	0.48	0.003288
	1.58468	193.74	7.72	12.48	175.33		
		122730.69					
1446.20	91.00	4647.19	13.69	9.88	14294.33	0.47	0.003243
	1.51872	192.68	7.51	12.76	174.60		
		122221.23					
1392.30	92.00	4646.80	13.30	9.57	13328.76	0.46	0.003208
	1.45534	191.52	7.27	13.06	173.81		
		121666.07					
1348.41	93.00	4646.49	12.99	9.32	12571.20	0.46	0.003174
	1.40162	190.53	7.08	13.33	173.13		
		121192.41					
1310.01	94.00	4646.20	12.70	9.10	11926.57	0.45	0.003154
	1.35944	189.65	6.91	13.58	172.52		
		120767.26					

HYCHAN.OUT							
1279.07	95.00	4645.98	12.48	8.93	11421.53	0.45	0.003128
	1.32133	188.92	6.77		172.02	13.79	
		120416.83					
1249.58	96.00	4645.76	12.26	8.76	10944.50	0.44	0.003112
	1.28906	188.21	6.64		171.54	13.99	
		120074.83					
1225.61	97.00	4645.58	12.08	8.62	10564.97	0.44	0.003091
	1.26010	187.62	6.53		171.13	14.17	
		119790.95					
1202.87	98.00	4645.41	11.91	8.49	10206.36	0.43	0.003078
	1.23493	187.05	6.43		170.74	14.34	
		119514.98					
1184.71	99.00	4645.27	11.77	8.38	9929.45	0.43	0.003056
	1.21093	186.59	6.35		170.42	14.48	
		119292.93					
1159.39	100.00	4645.08	11.58	8.26	9574.26	0.43	0.003039
	1.18257	185.93	6.24		169.96	14.68	
		118971.09					
1138.57	101.00	4644.92	11.42	8.14	9271.00	0.42	0.003021
	1.15785	185.38	6.14		169.58	14.85	
		118708.59					
1120.43	102.00	4644.78	11.28	8.04	9006.12	0.42	0.003010
	1.13829	184.91	6.06		169.25	15.00	
		118476.96					
1106.43	103.00	4644.67	11.17	7.96	8804.28	0.42	0.003000
	1.12253	184.53	6.00		168.99	15.12	
		118295.38					
1087.84	104.00	4644.53	11.03	7.85	8535.93	0.42	0.002976
	1.09768	184.02	5.91		168.64	15.29	
		118048.17					
1065.08	105.00	4644.35	10.85	7.71	8216.25	0.41	0.002967
	1.07515	183.40	5.81		168.21	15.50	
		117744.31					
1052.39	106.00	4644.25	10.75	7.64	8035.03	0.41	0.002955
	1.06008	183.03	5.75		167.95	15.62	
		117568.39					
1039.82	107.00	4644.16	10.66	7.56	7861.22	0.41	0.002946
	1.04628	182.68	5.69		167.71	15.74	
		117394.92					
1031.42	108.00	4644.09	10.59	7.51	7746.18	0.41	0.002944
	1.03865	182.44	5.65		167.54	15.82	
		117278.65					
1035.86	109.00	4644.12	10.62	7.53	7802.19	0.41	0.002950
	1.04462	182.56	5.67		167.63	15.78	
		117338.66					
1052.97	110.00	4644.26	10.76	7.63	8034.62	0.41	0.002969
	1.06564	183.04	5.75		167.96	15.62	
		117571.53					
1064.20	111.00	4644.35	10.85	7.71	8202.36	0.41	0.002968
	1.07488	183.37	5.80		168.19	15.51	
		117731.47					
1052.33	112.00	4644.25	10.75	7.64	8035.00	0.41	0.002955
	1.05998	183.03	5.75		167.95	15.62	
		117568.34					
1053.24	113.00	4644.26	10.76	7.63	8040.46	0.41	0.002968
	1.06568	183.05	5.75		167.97	15.61	
		117576.39					
1079.09	114.00	4644.46	10.96	7.79	8401.38	0.41	0.002991
	1.09597	183.76	5.87		168.46	15.38	
		117922.40					
1091.98	115.00	4644.56	11.06	7.87	8594.02	0.42	0.002990
	1.10643	184.14	5.93		168.72	15.25	
		118103.45					

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		HYCHAN.OUT					
1083.52	116.00 4644.50 11.00	5.89	7.82	8473.55	0.42	0.002986	
	1.09789 183.90 117991.34			168.56	15.33		
1083.40	117.00 4644.49 10.99	5.89	7.82	8470.01	0.42	0.002986	
	1.09782 183.90 117988.62			168.56	15.33		
1088.66	118.00 4644.53 11.03	5.92	7.84	8538.90	0.42	0.002994	
	1.10511 184.04 118056.14			168.65	15.29		
1097.40	119.00 4644.60 11.10	5.96	7.90	8666.83	0.42	0.002996	
	1.11340 184.28 118173.26			168.82	15.21		
1097.49	120.00 4644.60 11.10	5.96	7.90	8669.96	0.42	0.002997	
	1.11372 184.28 118175.27			168.82	15.21		
1092.30	121.00 4644.56 11.06	5.93	7.87	8600.87	0.42	0.002990	
	1.10664 184.15 118109.50			168.73	15.25		
1083.53	122.00 4644.50 11.00	5.89	7.82	8473.59	0.42	0.002985	
	1.09742 183.90 117991.46			168.56	15.33		
1078.21	123.00 4644.46 10.96	5.87	7.79	8401.23	0.42	0.002973	
	1.08835 183.76 117921.67			168.46	15.38		
1069.37	124.00 4644.39 10.89	5.83	7.74	8273.55	0.41	0.002974	
	1.08138 183.51 117801.33			168.29	15.46		
1069.21	125.00 4644.38 10.88	5.83	7.73	8269.96	0.41	0.002975	
	1.08175 183.51 117798.34			168.28	15.46		
1064.66	126.00 4644.35 10.85	5.81	7.71	8208.99	0.41	0.002965	
	1.07425 183.38 117737.99			168.20	15.50		
1056.60	127.00 4644.29 10.79	5.77	7.66	8094.30	0.41	0.002963	
	1.06668 183.15 117627.58			168.04	15.58		
1056.40	128.00 4644.29 10.79	5.77	7.66	8091.04	0.41	0.002964	
	1.06687 183.15 117624.57			168.04	15.58		
1052.06	129.00 4644.25 10.75	5.75	7.63	8031.64	0.41	0.002953	
	1.05920 183.03 117565.20			167.95	15.62		
1044.05	130.00 4644.19 10.69	5.71	7.59	7920.23	0.41	0.002952	
	1.05211 182.80 117454.61			167.79	15.70		
1053.01	131.00 4644.26 10.76	5.75	7.63	8037.79	0.41	0.002969	
	1.06572 183.04 117571.72			167.96	15.62		
1068.94	132.00 4644.38 10.88	5.83	7.73	8263.77	0.41	0.002974	
	1.08108 183.50 117793.05			168.28	15.46		
1069.21	133.00 4644.39 10.89	5.83	7.73	8269.92	0.41	0.002976	
	1.08182 183.51 117798.63			168.28	15.46		
1069.22	134.00 4644.39 10.89	5.83	7.73	8270.01	0.41	0.002975	
	1.08167 183.51 117798.76			168.28	15.46		
1069.22	135.00 4644.39 10.89	5.83	7.73	8270.09	0.41	0.002973	
	1.08102 183.51 117798.63			168.28	15.46		
1069.20	136.00 4644.38 10.88	5.83	7.73	8269.95	0.41	0.002975	
	1.08167 183.51 117798.41			168.28	15.46		

HYCHAN.OUT									
1069.20	137.00	4644.38	10.88	5.83	7.73	8270.00	15.46	0.41	0.002975
	1.08162	183.51				168.28			
		117798.46							
1069.21	138.00	4644.38	10.88	5.83	7.73	8270.00	15.46	0.41	0.002974
	1.08137	183.51				168.28			
		117798.41							
1064.66	139.00	4644.35	10.85	5.81	7.71	8208.87	15.50	0.41	0.002965
	1.07408	183.38				168.20			
		117738.12							
1056.51	140.00	4644.29	10.79	5.77	7.66	8094.27	15.58	0.41	0.002964
	1.06690	183.15				168.04			
		117627.26							
1056.39	141.00	4644.29	10.79	5.77	7.66	8091.01	15.58	0.41	0.002964
	1.06691	183.15				168.03			
		117624.49							
1056.39	142.00	4644.29	10.79	5.77	7.66	8090.98	15.58	0.41	0.002966
	1.06735	183.15				168.03			
		117624.35							
1056.41	143.00	4644.29	10.79	5.77	7.66	8091.01	15.58	0.41	0.002964
	1.06693	183.15				168.04			
		117625.12							
1052.05	144.00	4644.25	10.75	5.75	7.63	8031.72	15.62	0.41	0.002953
	1.05925	183.03				167.95			
		117565.09							
1044.07	145.00	4644.19	10.69	5.71	7.59	7920.13	15.70	0.41	0.002955
	1.05334	182.80				167.79			
		117454.78							
1043.82	146.00	4644.19	10.69	5.71	7.58	7917.05	15.70	0.41	0.002953
	1.05218	182.79				167.79			
		117451.67							
1043.82	147.00	4644.19	10.69	5.71	7.58	7916.93	15.70	0.41	0.002956
	1.05328	182.79				167.79			
		117451.67							
1043.82	148.00	4644.19	10.69	5.71	7.58	7917.06	15.70	0.41	0.002954
	1.05268	182.79				167.79			
		117451.66							
1043.80	149.00	4644.19	10.69	5.71	7.58	7916.95	15.70	0.41	0.002955
	1.05294	182.79				167.79			
		117451.49							
1040.88	150.00	4644.16	10.66	5.70	7.57	7877.56	15.73	0.41	0.002950
	1.04864	182.71				167.73			
		117411.24							
1033.94	151.00	4644.11	10.61	5.67	7.53	7783.53	15.79	0.41	0.002943
	1.04038	182.51				167.59			
		117315.56							
1031.16	152.00	4644.09	10.59	5.65	7.51	7744.07	15.82	0.41	0.002944
	1.03832	182.43				167.54			
		117276.10							
1031.15	153.00	4644.09	10.59	5.65	7.51	7742.97	15.82	0.41	0.002943
	1.03800	182.43				167.54			
		117275.55							
1026.97	154.00	4644.05	10.55	5.63	7.48	7684.05	15.87	0.41	0.002937
	1.03226	182.30				167.45			
		117214.50							
1027.81	155.00	4644.06	10.56	5.64	7.48	7690.32	15.86	0.41	0.002948
	1.03707	182.32				167.46			
		117221.66							
1043.55	156.00	4644.18	10.68	5.71	7.58	7910.55	15.70	0.41	0.002956
	1.05298	182.78				167.78			
		117446.07							
1043.81	157.00	4644.19	10.69	5.71	7.58	7917.02	15.70	0.41	0.002954
	1.05261	182.79				167.79			
		117451.43							



HYCHAN.OUT							
1043.81	158.00	4644.19	10.69	5.71	7.58	7917.01	0.41
		182.79				167.79	15.70
	1.05236	117451.56					0.002953
1043.81	159.00	4644.19	10.69	5.71	7.58	7917.05	0.41
		182.79				167.79	15.70
	1.05248	117451.41					0.002954
1043.82	160.00	4644.19	10.69	5.71	7.58	7916.98	0.41
		182.79				167.79	15.70
	1.05247	117451.68					0.002954
1043.82	161.00	4644.19	10.69	5.71	7.58	7917.00	0.41
		182.79				167.79	15.70
	1.05246	117451.70					0.002954
1043.82	162.00	4644.19	10.69	5.71	7.58	7917.00	0.41
		182.79				167.79	15.70
	1.05246	117451.73					0.002954
1043.82	163.00	4644.19	10.69	5.71	7.58	7916.97	0.41
		182.79				167.79	15.70
	1.05265	117451.65					0.002954
1039.55	164.00	4644.15	10.65	5.69	7.56	7857.87	0.41
		182.67				167.70	15.74
	1.04512	117391.31					0.002943
1031.36	165.00	4644.09	10.59	5.65	7.51	7746.22	0.41
		182.44				167.54	15.82
	1.03849	117278.50					0.002944
1031.15	166.00	4644.09	10.59	5.65	7.51	7742.99	0.41
		182.43				167.54	15.82
	1.03831	117275.56					0.002944
1031.13	167.00	4644.09	10.59	5.65	7.51	7743.02	0.41
		182.43				167.54	15.82
	1.03800	117275.26					0.002943
1031.14	168.00	4644.09	10.59	5.65	7.51	7742.99	0.41
		182.43				167.54	15.82
	1.03875	117275.12					0.002945
1031.14	169.00	4644.09	10.59	5.65	7.51	7742.99	0.41
		182.43				167.54	15.82
	1.03839	117275.27					0.002944
1031.15	170.00	4644.09	10.59	5.65	7.51	7743.03	0.41
		182.43				167.54	15.82
	1.03802	117275.55					0.002943
1031.15	171.00	4644.09	10.59	5.65	7.51	7743.04	0.41
		182.43				167.54	15.82
	1.03830	117275.56					0.002944
1026.94	172.00	4644.05	10.55	5.63	7.48	7683.88	0.41
		182.30				167.45	15.87
	1.03129	117214.45					0.002934
1018.65	173.00	4643.99	10.49	5.59	7.43	7572.23	0.40
		182.07				167.28	15.95
	1.02411	117098.67					0.002933
1018.35	174.00	4643.99	10.49	5.59	7.43	7568.98	0.40
		182.06				167.28	15.95
	1.02391	117095.23					0.002934
1018.35	175.00	4643.99	10.49	5.59	7.43	7569.03	0.40
		182.06				167.28	15.95
	1.02390	117095.35					0.002934
1018.35	176.00	4643.99	10.49	5.59	7.43	7569.00	0.40
		182.06				167.28	15.95
	1.02410	117095.26					0.002934
1018.35	177.00	4643.99	10.49	5.59	7.43	7568.99	0.40
		182.06				167.28	15.95
	1.02388	117095.30					0.002933
1018.35	178.00	4643.99	10.49	5.59	7.43	7569.03	0.40
		182.06				167.28	15.95
	1.02365	117095.45					0.002933



HYCHAN.OUT							
1027.58	179.00	4644.06	10.56	5.64	7.48	7687.34	0.41
	1.03670	182.31				167.46	15.86
		117219.28					0.002948
1043.55	180.00	4644.18	10.68	5.71	7.58	7910.58	0.41
	1.05250	182.78				167.78	15.70
		117446.19					0.002954
1048.52	181.00	4644.22	10.72	5.73	7.61	7976.61	0.41
	1.05873	182.92				167.88	15.66
		117514.01					0.002960
1056.31	182.00	4644.28	10.78	5.77	7.66	8087.76	0.41
	1.06600	183.14				168.03	15.58
		117622.74					0.002962
1056.40	183.00	4644.29	10.79	5.77	7.66	8091.02	0.41
	1.06646	183.15				168.04	15.58
		117624.65					0.002963
1056.40	184.00	4644.29	10.79	5.77	7.66	8090.91	0.41
	1.06697	183.15				168.04	15.58
		117624.88					0.002964
1056.40	185.00	4644.29	10.79	5.77	7.66	8091.03	0.41
	1.06749	183.15				168.04	15.58
		117624.68					0.002966
1056.42	186.00	4644.29	10.79	5.77	7.66	8091.05	0.41
	1.06617	183.15				168.04	15.58
		117625.27					0.002962
1056.41	187.00	4644.29	10.79	5.77	7.66	8091.00	0.41
	1.06646	183.15				168.04	15.58
		117624.78					0.002963
1056.40	188.00	4644.29	10.79	5.77	7.66	8090.98	0.41
	1.06661	183.15				168.04	15.58
		117624.88					0.002963
1056.40	189.00	4644.29	10.79	5.77	7.66	8091.00	0.41
	1.06639	183.15				168.04	15.58
		117624.77					0.002963
1052.10	190.00	4644.25	10.75	5.75	7.63	8031.54	0.41
	1.06025	183.03				167.95	15.62
		117565.21					0.002956
1044.00	191.00	4644.19	10.69	5.71	7.59	7920.19	0.41
	1.05252	182.80				167.79	15.70
		117454.45					0.002953
1043.82	192.00	4644.19	10.69	5.71	7.58	7916.95	0.41
	1.05264	182.79				167.79	15.70
		117451.70					0.002954
1043.82	193.00	4644.19	10.69	5.71	7.58	7917.06	0.41
	1.05235	182.79				167.79	15.70
		117451.59					0.002953
1043.81	194.00	4644.19	10.69	5.71	7.58	7916.92	0.41
	1.05260	182.79				167.79	15.70
		117451.59					0.002954
1043.82	195.00	4644.19	10.69	5.71	7.58	7917.04	0.41
	1.05238	182.79				167.79	15.70
		117451.63					0.002953
1043.82	196.00	4644.19	10.69	5.71	7.58	7917.06	0.41
	1.05215	182.79				167.79	15.70
		117451.60					0.002953
1043.81	197.00	4644.19	10.69	5.71	7.58	7916.92	0.41
	1.05252	182.79				167.79	15.70
		117451.66					0.002954
1043.82	198.00	4644.19	10.69	5.71	7.58	7917.02	0.41
	1.05237	182.79				167.79	15.70
		117451.73					0.002953
1043.82	199.00	4644.19	10.69	5.71	7.58	7916.97	0.41
	1.05259	182.79				167.79	15.70
		117451.63					0.002954

## HYCHAN.OUT

CHANNEL HYDROGRAPH FOR ELEMENT NO: 148

MAXIMUM DISCHARGE (CFS) = 21810.46 AT TIME = 79.15  
 MAXIMUM STAGE = 4646.76 AT TIME = 79.14

AREA (FT^2)	TIME (HRS)	ELEV. WETTED PERIMETER (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4631.80	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
539.62	1.00	4633.39	1.59	1.32	713.75	0.19	0.002884
	0.79735	121.79	4.43	123.44	77.73		
		74064.15					
818.74	2.00	4639.84	8.04	6.54	5354.60	0.41	0.002836
		172.03	4.76	160.27	19.94		
	0.84233	96159.45					
830.84	3.00	4639.92	8.12	6.60	5483.98	0.41	0.002826
		172.38	4.82	160.51	19.78		
	0.84998	96307.81					
822.11	4.00	4639.85	8.05	6.55	5382.01	0.41	0.002826
		172.10	4.78	160.31	19.91		
	0.84244	96188.95					
817.82	5.00	4639.82	8.02	6.52	5331.87	0.41	0.002819
		171.95	4.76	160.21	19.97		
	0.83665	96126.88					
804.99	6.00	4639.73	7.93	6.44	5184.96	0.40	0.002808
		171.51	4.69	159.90	20.18		
	0.82242	95941.57					
791.62	7.00	4639.63	7.83	6.36	5033.04	0.40	0.002796
		171.05	4.63	159.58	20.39		
	0.80748	95745.73					
777.03	8.00	4639.52	7.72	6.28	4882.14	0.40	0.002790
		170.57	4.56	159.24	20.62		
	0.79296	95542.53					
766.33	9.00	4639.45	7.65	6.23	4776.23	0.40	0.002794
		170.23	4.50	159.00	20.78		
	0.78496	95397.34					
761.38	10.00	4639.42	7.61	6.21	4726.34	0.40	0.002787
		170.06	4.48	158.88	20.86		
	0.77861	95326.00					
746.72	11.00	4639.31	7.51	6.13	4579.99	0.39	0.002782
		169.57	4.40	158.53	21.10		
	0.76457	95117.69					
735.91	12.00	4639.24	7.44	6.08	4473.55	0.39	0.002785
		169.21	4.35	158.27	21.28		
	0.75573	94963.80					
735.43	13.00	4639.23	7.43	6.08	4469.01	0.39	0.002782
		169.19	4.35	158.26	21.29		
	0.75446	94957.98					
735.42	14.00	4639.23	7.43	6.08	4469.02	0.39	0.002782
		169.19	4.35	158.26	21.29		
	0.75457	94957.68					
735.41	15.00	4639.23	7.43	6.08	4468.83	0.39	0.002783
		169.19	4.35	158.26	21.29		
	0.75488	94957.66					
	16.00	4639.23	7.43	6.08	4469.15	0.39	

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		HYCHAN.OUT				
735.44	169.19	4.35	158.26	21.29	0.002781	
0.75425	94958.25					
17.00	4639.26	7.46	6.10	4514.03	0.39	
739.74	169.34	4.37	158.37	21.22	0.002794	
0.76150	95020.56					
18.00	4639.37	7.57	6.18	4662.23	0.40	
754.52	169.84	4.44	158.72	20.97	0.002798	
0.77560	95231.64					
19.00	4639.47	7.67	6.25	4813.74	0.40	
769.73	170.34	4.52	159.08	20.73	0.002801	
0.78988	95445.02					
20.00	4639.55	7.75	6.30	4920.27	0.40	
780.60	170.69	4.57	159.32	20.56	0.002793	
0.79705	95594.19					
21.00	4639.55	7.75	6.30	4923.71	0.40	
781.07	170.71	4.58	159.33	20.55	0.002798	
0.79889	95600.81					
22.00	4639.58	7.78	6.33	4969.80	0.40	
785.40	170.85	4.60	159.43	20.49	0.002806	
0.80499	95660.51					
23.00	4639.72	7.92	6.43	5164.07	0.40	
803.16	171.47	4.68	159.87	20.20	0.002830	
0.82713	95922.68					
24.00	4639.91	8.11	6.59	5465.35	0.41	
829.47	172.36	4.81	160.50	19.79	0.002848	
0.85525	96299.25					
25.00	4640.10	8.30	6.74	5770.05	0.41	
855.78	173.21	4.94	161.10	19.41	0.002863	
0.88277	96659.41					
26.00	4640.22	8.42	6.84	5977.87	0.42	
873.50	173.76	5.03	161.48	19.17	0.002861	
0.89753	96889.18					
27.00	4640.23	8.43	6.85	5985.09	0.42	
874.11	173.78	5.03	161.49	19.16	0.002859	
0.89724	96896.06					
28.00	4640.26	8.46	6.87	6037.74	0.42	
878.57	173.92	5.05	161.59	19.10	0.002868	
0.90412	96955.52					
29.00	4640.33	8.53	6.92	6147.88	0.42	
888.06	174.21	5.10	161.80	18.98	0.002868	
0.91234	97077.57					
30.00	4640.33	8.53	6.92	6152.15	0.42	
888.48	174.22	5.10	161.81	18.97	0.002865	
0.91168	97083.10					
31.00	4640.36	8.56	6.95	6207.39	0.42	
893.03	174.36	5.12	161.90	18.91	0.002874	
0.91859	97141.45					
32.00	4640.43	8.63	7.00	6321.90	0.42	
902.96	174.66	5.17	162.11	18.78	0.002873	
0.92695	97267.78					
33.00	4640.43	8.63	7.00	6326.03	0.42	
903.40	174.67	5.17	162.12	18.78	0.002872	
0.92686	97273.68					
34.00	4640.40	8.60	6.98	6270.45	0.42	
898.66	174.52	5.15	162.02	18.84	0.002866	
0.92100	97210.70					
35.00	4640.33	8.53	6.93	6156.26	0.42	
888.81	174.23	5.10	161.81	18.97	0.002868	
0.91308	97086.01					
36.00	4640.30	8.50	6.90	6098.95	0.42	
884.02	174.08	5.08	161.71	19.03	0.002860	
0.90632	97023.76					
37.00	4640.23	8.43	6.85	5989.01	0.42	

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			HYCHAN.OUT			
874.53		173.79	5.03	161.50	19.16	0.002863
	0.89906	96901.64				
	38.00	4640.23	8.43	6.85	5985.02	0.42
874.12		173.78	5.03	161.49	19.16	0.002860
	0.89775	96896.23				
	39.00	4640.23	8.43	6.85	5985.01	0.42
874.15		173.78	5.03	161.50	19.16	0.002861
	0.89797	96897.05				
	40.00	4640.23	8.43	6.85	5984.99	0.42
874.11		173.77	5.03	161.49	19.16	0.002859
	0.89734	96895.95				
	41.00	4640.23	8.43	6.85	5984.97	0.42
874.10		173.77	5.03	161.49	19.16	0.002858
	0.89707	96895.90				
	42.00	4640.26	8.46	6.87	6038.17	0.42
878.61		173.92	5.05	161.59	19.10	0.002870
	0.90467	96956.15				
	43.00	4640.33	8.53	6.92	6148.02	0.42
888.05		174.20	5.10	161.80	18.98	0.002868
	0.91216	97077.10				
	44.00	4640.36	8.56	6.95	6207.37	0.42
893.01		174.36	5.12	161.90	18.91	0.002874
	0.91860	97140.95				
	45.00	4640.46	8.66	7.03	6377.54	0.42
907.50		174.79	5.19	162.21	18.73	0.002879
	0.93278	97324.28				
	46.00	4640.56	8.76	7.10	6551.67	0.42
922.28		175.23	5.26	162.51	18.54	0.002885
	0.94764	97507.17				
	47.00	4640.66	8.86	7.18	6725.37	0.43
937.00		175.65	5.33	162.81	18.37	0.002890
	0.96212	97685.73				
	48.00	4640.76	8.96	7.25	6899.67	0.43
951.73		176.07	5.41	163.10	18.20	0.002894
	0.97614	97861.22				
	49.00	4640.86	9.06	7.32	7073.84	0.43
966.41		176.48	5.48	163.39	18.03	0.002897
	0.99002	98033.10				
	50.00	4640.99	9.19	7.41	7304.99	0.43
986.04		177.02	5.57	163.77	17.81	0.002904
	1.00938	98261.94				
	51.00	4641.11	9.31	7.50	7535.87	0.43
1004.83		177.51	5.66	164.11	17.62	0.002905
	1.02598	98465.73				
	52.00	4641.15	9.35	7.52	7599.91	0.43
1010.02		177.66	5.69	164.21	17.56	0.002913
	1.03334	98528.52				
	53.00	4641.31	9.51	7.64	7896.37	0.44
1033.64		178.32	5.80	164.68	17.31	0.002929
	1.05943	98805.85				
	54.00	4641.64	9.84	7.88	8527.95	0.44
1082.89		179.62	6.03	165.58	16.82	0.002946
	1.10819	99347.46				
	55.00	4642.07	10.27	8.18	9398.20	0.45
1149.58		181.25	6.34	166.71	16.23	0.002961
	1.17192	100028.46				
	56.00	4642.63	10.83	8.58	10625.59	0.46
1238.02		183.31	6.75	168.15	15.52	0.002999
	1.26388	100889.48				
	57.00	4643.24	11.44	9.04	12052.53	0.47
1333.66		185.45	7.19	169.63	14.83	0.003011
	1.35130	101776.90				
	58.00	4643.70	11.90	9.37	13203.03	0.48

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				HYCHAN.OUT			
1409.83		187.03		7.54	170.72	14.35	0.003010
	1.41565	102430.71					
59.00		4644.16	12.36	9.67	14385.63	0.49	
1487.09		188.53		7.89	171.75	13.90	0.003009
	1.48098	103051.53					
60.00		4644.60	12.80	9.97	15602.33	0.49	
1564.52		189.97		8.24	172.74	13.49	0.003009
	1.54613	103645.42					
61.00		4644.88	13.08	10.16	16373.39	0.50	
1612.29		190.83		8.45	173.34	13.25	0.003041
	1.60299	104002.71					
62.00		4645.15	13.35	10.31	17095.10	0.50	
1657.96		191.65		8.65	173.90	13.03	0.003065
	1.65473	104340.25					
63.00		4645.35	13.55	10.43	17651.86	0.50	
1692.23		192.26		8.80	174.32	12.87	0.003130
	1.71903	104591.82					
64.00		4645.61	13.81	10.59	18396.24	0.50	
1736.55		193.05		9.00	174.86	12.66	0.003161
	1.77425	104915.72					
65.00		4645.70	13.90	10.65	18656.57	0.50	
1752.05		193.32		9.06	175.04	12.59	0.003160
	1.78707	105026.45					
66.00		4645.71	13.91	10.65	18670.98	0.50	
1752.95		193.34		9.07	175.05	12.59	0.003158
	1.78682	105032.80					
67.00		4645.71	13.91	10.65	18672.74	0.50	
1753.05		193.34		9.07	175.06	12.59	0.003156
	1.78541	105033.52					
68.00		4645.71	13.91	10.65	18673.47	0.50	
1753.11		193.34		9.07	175.06	12.59	0.003163
	1.78993	105033.98					
69.00		4645.71	13.91	10.65	18676.60	0.50	
1753.26		193.34		9.07	175.06	12.59	0.003154
	1.78498	105034.84					
70.00		4645.71	13.91	10.65	18677.06	0.50	
1753.35		193.35		9.07	175.06	12.59	0.003162
	1.78937	105035.86					
71.00		4645.71	13.91	10.65	18677.18	0.50	
1753.35		193.35		9.07	175.06	12.59	0.003157
	1.78646	105035.89					
72.00		4645.75	13.95	10.68	18792.19	0.50	
1759.98		193.46		9.10	175.14	12.56	0.003181
	1.80601	105083.48					
73.00		4645.83	14.03	10.73	19027.14	0.50	
1773.94		193.70		9.16	175.30	12.49	0.003178
	1.81621	105182.38					
74.00		4645.84	14.04	10.73	19046.99	0.50	
1775.17		193.72		9.16	175.32	12.49	0.003187
	1.82204	105190.80					
75.00		4645.88	14.08	10.75	19159.81	0.51	
1781.69		193.84		9.19	175.40	12.46	0.003204
	1.83786	105237.31					
76.00		4646.03	14.23	10.85	19623.76	0.51	
1808.72		194.29		9.31	175.71	12.35	0.003247
	1.88597	105424.97					
77.00		4646.24	14.44	10.97	20235.95	0.51	
1844.57		194.89		9.46	176.12	12.20	0.003276
	1.93481	105670.21					
78.00		4646.38	14.58	11.05	20640.07	0.51	
1868.28		195.29		9.57	176.39	12.10	0.003307
	1.97410	105832.48					
79.00		4646.57	14.77	11.14	21157.58	0.51	

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1899.72		195.83		9.70	176.76	11.97	0.003321
	2.01033	106053.51					
	80.00	4646.71	14.91	11.20	21548.89	0.51	
1923.58		196.22		9.80	177.02	11.87	0.003295
	2.01531	106214.61					
	81.00	4646.58	14.78	11.14	21202.52	0.51	
1902.83		195.87		9.71	176.79	11.96	0.003300
	2.00028	106072.12					
	82.00	4646.48	14.68	11.10	20933.46	0.51	
1886.13		195.59		9.64	176.59	12.03	0.003297
	1.98393	105955.48					
	83.00	4646.48	14.68	11.10	20925.76	0.51	
1885.63		195.58		9.64	176.59	12.03	0.003295
	1.98215	105952.17					
	84.00	4646.48	14.68	11.10	20924.41	0.51	
1885.58		195.58		9.64	176.59	12.03	0.003302
	1.98632	105951.94					
	85.00	4646.40	14.60	11.06	20708.12	0.51	
1872.80		195.36		9.59	176.44	12.08	0.003263
	1.95194	105861.41					
	86.00	4646.14	14.34	10.91	19942.67	0.51	
1828.57		194.61		9.40	175.93	12.27	0.003195
	1.87343	105555.29					
	87.00	4645.78	13.98	10.68	18862.12	0.50	
1765.35		193.54		9.12	175.19	12.54	0.003125
	1.77861	105115.29					
	88.00	4645.30	13.50	10.39	17518.78	0.50	
1685.51		192.12		8.77	174.22	12.90	0.003008
	1.64690	104533.06					
	89.00	4644.79	12.99	10.08	16101.03	0.49	
1596.60		190.53		8.38	173.13	13.33	0.002997
	1.56735	103879.16					
	90.00	4644.47	12.67	9.87	15222.98	0.49	
1542.07		189.54		8.14	172.45	13.61	0.002999
	1.52244	103470.39					
	91.00	4644.13	12.33	9.64	14304.12	0.48	
1483.12		188.44		7.87	171.69	13.93	0.003001
	1.47406	103014.04					
	92.00	4643.75	11.95	9.39	13336.67	0.48	
1419.60		187.21		7.58	170.84	14.29	0.003002
	1.42071	102505.44					
	93.00	4643.45	11.65	9.18	12578.81	0.47	
1369.58		186.19		7.36	170.14	14.60	0.002996
	1.37535	102084.02					
	94.00	4643.19	11.39	9.00	11932.07	0.47	
1326.35		185.28		7.16	169.51	14.89	0.002990
	1.33548	101706.90					
	95.00	4642.97	11.17	8.84	11426.97	0.47	
1292.20		184.53		7.00	168.99	15.13	0.002979
	1.30192	101393.78					
	96.00	4642.77	10.97	8.69	10948.41	0.46	
1259.85		183.80		6.85	168.49	15.36	0.002973
	1.27171	101091.64					
	97.00	4642.60	10.80	8.56	10569.69	0.46	
1234.06		183.19		6.74	168.07	15.56	0.002961
	1.24480	100840.34					
	98.00	4642.44	10.64	8.44	10208.80	0.46	
1209.62		182.62		6.62	167.67	15.76	0.002956
	1.22164	100602.11					
	99.00	4642.31	10.51	8.35	9933.46	0.45	
1190.05		182.15		6.53	167.34	15.92	0.002950
	1.20282	100405.29					
	100.00	4642.14	10.34	8.24	9577.93	0.45	

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1162.56		181.50		6.41	166.89	16.14	0.002940
	1.17506	100134.70					
101.00		4641.99	10.19	8.14	9274.41	0.45	
1139.14		180.94		6.30	166.50	16.34	0.002936
	1.15354	99901.98					
102.00		4641.86	10.06	8.05	9008.57	0.45	
1118.68		180.45		6.20	166.16	16.52	0.002935
	1.13557	99696.22					
103.00		4641.76	9.96	7.98	8806.63	0.45	
1103.09		180.06		6.13	165.89	16.66	0.002933
	1.12120	99535.36					
104.00		4641.63	9.83	7.89	8540.11	0.44	
1082.70		179.55		6.03	165.53	16.85	0.002922
	1.09939	99320.24					
105.00		4641.46	9.66	7.77	8218.89	0.44	
1057.70		178.91		5.91	165.09	17.09	0.002920
	1.07705	99052.23					
106.00		4641.37	9.57	7.70	8037.01	0.44	
1043.85		178.55		5.85	164.84	17.22	0.002914
	1.06314	98903.88					
107.00		4641.28	9.48	7.63	7863.35	0.44	
1030.33		178.19		5.78	164.59	17.36	0.002910
	1.05010	98752.61					
108.00		4641.22	9.42	7.59	7746.52	0.44	
1021.20		177.95		5.74	164.42	17.45	0.002913
	1.04309	98651.13					
109.00		4641.26	9.46	7.61	7800.27	0.44	
1025.66		178.09		5.76	164.51	17.40	0.002918
	1.04881	98707.51					
110.00		4641.38	9.58	7.69	8030.76	0.44	
1043.90		178.59		5.85	164.86	17.21	0.002926
	1.06718	98917.17					
111.00		4641.46	9.66	7.76	8203.74	0.44	
1056.60		178.89		5.91	165.07	17.09	0.002921
	1.07650	99043.49					
112.00		4641.37	9.57	7.70	8036.85	0.44	
1043.78		178.55		5.85	164.84	17.22	0.002916
	1.06388	98902.41					
113.00		4641.38	9.58	7.70	8037.24	0.44	
1044.28		178.59		5.85	164.87	17.21	0.002926
	1.06747	98919.10					
114.00		4641.57	9.77	7.83	8396.78	0.44	
1072.40		179.33		5.98	165.38	16.93	0.002935
	1.09500	99229.80					
115.00		4641.66	9.86	7.91	8595.52	0.44	
1086.98		179.67		6.05	165.62	16.80	0.002927
	1.10514	99370.38					
116.00		4641.60	9.80	7.86	8473.77	0.44	
1077.59		179.43		6.01	165.45	16.89	0.002930
	1.09793	99271.87					
117.00		4641.60	9.80	7.86	8470.06	0.44	
1077.41		179.43		6.00	165.45	16.89	0.002929
	1.09737	99271.61					
118.00		4641.64	9.84	7.88	8536.83	0.44	
1082.91		179.59		6.03	165.56	16.83	0.002935
	1.10423	99336.09					
119.00		4641.70	9.90	7.93	8666.53	0.44	
1092.73		179.83		6.08	165.73	16.74	0.002932
	1.11183	99435.84					
120.00		4641.70	9.90	7.93	8670.00	0.44	
1092.89		179.83		6.08	165.73	16.74	0.002933
	1.11246	99435.91					
121.00		4641.66	9.86	7.91	8602.92	0.44	

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		HYCHAN.OUT				
1087.40	179.67	6.05	165.62	16.80	0.002929	
	1.10623 99371.97					
122.00	4641.60	9.80	7.86	8473.83	0.44	
1077.60	179.43	6.01	165.45	16.89	0.002930	
	1.09799 99272.04					
123.00	4641.56	9.76	7.84	8403.11	0.44	
1071.95	179.28	5.98	165.35	16.95	0.002924	
	1.09101 99207.37					
124.00	4641.50	9.69	7.79	8274.00	0.44	
1062.13	179.04	5.93	165.18	17.04	0.002927	
	1.08339 99105.28					
125.00	4641.49	9.69	7.79	8270.08	0.44	
1061.90	179.03	5.93	165.17	17.04	0.002925	
	1.08251 99104.29					
126.00	4641.46	9.66	7.77	8210.70	0.44	
1057.14	178.90	5.91	165.08	17.09	0.002919	
	1.07641 99048.35					
127.00	4641.40	9.60	7.72	8094.62	0.44	
1048.25	178.67	5.87	164.92	17.17	0.002920	
	1.06911 98953.80					
128.00	4641.40	9.60	7.72	8091.05	0.44	
1047.99	178.67	5.87	164.92	17.18	0.002918	
	1.06809 98951.75					
129.00	4641.37	9.57	7.70	8033.25	0.44	
1043.47	178.54	5.84	164.83	17.22	0.002915	
	1.06293 98899.07					
130.00	4641.31	9.51	7.65	7920.64	0.44	
1034.73	178.32	5.80	164.67	17.31	0.002916	
	1.05599 98803.78					
131.00	4641.38	9.58	7.69	8034.17	0.44	
1044.08	178.59	5.85	164.86	17.21	0.002926	
	1.06739 98917.76					
132.00	4641.49	9.69	7.78	8263.21	0.44	
1061.53	179.03	5.93	165.17	17.04	0.002926	
	1.08269 99102.96					
133.00	4641.49	9.69	7.79	8270.02	0.44	
1061.90	179.03	5.93	165.17	17.04	0.002926	
	1.08305 99104.20					
134.00	4641.49	9.69	7.79	8269.97	0.44	
1061.89	179.03	5.93	165.17	17.04	0.002927	
	1.08332 99104.21					
135.00	4641.49	9.69	7.79	8270.07	0.44	
1061.90	179.03	5.93	165.17	17.04	0.002924	
	1.08229 99104.39					
136.00	4641.49	9.69	7.79	8269.97	0.44	
1061.89	179.03	5.93	165.17	17.04	0.002926	
	1.08277 99104.12					
137.00	4641.49	9.69	7.79	8269.96	0.44	
1061.89	179.03	5.93	165.17	17.04	0.002926	
	1.08299 99104.18					
138.00	4641.49	9.69	7.79	8270.05	0.44	
1061.90	179.03	5.93	165.17	17.04	0.002925	
	1.08249 99104.32					
139.00	4641.46	9.66	7.77	8210.63	0.44	
1057.13	178.90	5.91	165.08	17.09	0.002920	
	1.07650 99048.23					
140.00	4641.40	9.60	7.72	8094.59	0.44	
1048.16	178.67	5.87	164.92	17.18	0.002923	
	1.07010 98951.91					
141.00	4641.40	9.60	7.72	8091.05	0.44	
1047.99	178.67	5.87	164.92	17.18	0.002921	
	1.06899 98951.77					
142.00	4641.40	9.60	7.72	8091.03	0.44	

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		HYCHAN.OUT				
1047.99	178.67	5.87	164.92	17.18	0.002921	
	1.06921 98951.71					
143.00	4641.40	9.60	7.72	8090.96	0.44	
1047.98	178.67	5.87	164.92	17.18	0.002923	
	1.06993 98951.62					
144.00	4641.37	9.57	7.70	8033.27	0.44	
1043.46	178.54	5.84	164.83	17.22	0.002917	
	1.06369 98898.87					
145.00	4641.31	9.51	7.65	7920.68	0.44	
1034.75	178.32	5.80	164.67	17.31	0.002916	
	1.05591 98804.05					
146.00	4641.31	9.51	7.65	7916.97	0.44	
1034.43	178.31	5.80	164.67	17.31	0.002916	
	1.05561 98800.75					
147.00	4641.31	9.51	7.65	7917.01	0.44	
1034.44	178.31	5.80	164.67	17.31	0.002917	
	1.05609 98800.81					
148.00	4641.31	9.51	7.65	7917.02	0.44	
1034.44	178.31	5.80	164.67	17.31	0.002916	
	1.05556 98800.84					
149.00	4641.31	9.51	7.65	7916.96	0.44	
1034.43	178.31	5.80	164.67	17.31	0.002918	
	1.05639 98800.66					
150.00	4641.29	9.49	7.64	7878.80	0.44	
1031.39	178.22	5.79	164.61	17.35	0.002913	
	1.05177 98764.37					
151.00	4641.24	9.44	7.60	7784.25	0.44	
1023.95	178.02	5.75	164.47	17.42	0.002910	
	1.04462 98679.78					
152.00	4641.22	9.42	7.59	7744.16	0.44	
1020.90	177.94	5.74	164.41	17.45	0.002909	
	1.04157 98646.91					
153.00	4641.22	9.42	7.58	7742.98	0.44	
1020.86	177.94	5.74	164.41	17.45	0.002911	
	1.04209 98647.17					
154.00	4641.19	9.39	7.56	7685.83	0.43	
1016.56	177.82	5.72	164.33	17.50	0.002904	
	1.03594 98597.51					
155.00	4641.20	9.40	7.56	7687.02	0.43	
1017.08	177.86	5.72	164.36	17.48	0.002917	
	1.04077 98613.77					
156.00	4641.31	9.51	7.65	7910.07	0.44	
1034.07	178.31	5.80	164.67	17.31	0.002918	
	1.05597 98799.52					
157.00	4641.31	9.51	7.65	7917.00	0.44	
1034.44	178.31	5.80	164.67	17.31	0.002916	
	1.05574 98800.80					
158.00	4641.31	9.51	7.65	7916.99	0.44	
1034.44	178.31	5.80	164.67	17.31	0.002917	
	1.05609 98800.74					
159.00	4641.31	9.51	7.65	7917.04	0.44	
1034.44	178.31	5.80	164.67	17.31	0.002916	
	1.05544 98800.89					
160.00	4641.31	9.51	7.65	7916.98	0.44	
1034.44	178.31	5.80	164.67	17.31	0.002916	
	1.05570 98800.77					
161.00	4641.31	9.51	7.65	7916.96	0.44	
1034.43	178.31	5.80	164.67	17.31	0.002916	
	1.05565 98800.73					
162.00	4641.31	9.51	7.65	7917.02	0.44	
1034.44	178.31	5.80	164.67	17.31	0.002917	
	1.05585 98800.80					
163.00	4641.31	9.51	7.65	7916.98	0.44	

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1034.44		178.31		5.80	164.67	17.31	0.002917
	1.05587	98800.74					
164.00		4641.28	9.48	7.63	7859.50	0.44	
1030.01		178.19		5.78	164.58	17.36	0.002909
	1.04937	98749.46					
165.00		4641.22	9.42	7.59	7746.66	0.44	
1021.14		177.95		5.74	164.42	17.45	0.002912
	1.04260	98649.73					
166.00		4641.22	9.42	7.58	7743.03	0.44	
1020.87		177.94		5.74	164.41	17.45	0.002912
	1.04230	98647.24					
167.00		4641.22	9.42	7.58	7742.96	0.44	
1020.86		177.94		5.74	164.41	17.45	0.002912
	1.04259	98647.14					
168.00		4641.22	9.42	7.58	7743.05	0.44	
1020.87		177.94		5.74	164.41	17.45	0.002911
	1.04200	98647.27					
169.00		4641.22	9.42	7.58	7742.99	0.44	
1020.86		177.94		5.74	164.41	17.45	0.002911
	1.04221	98647.22					
170.00		4641.22	9.42	7.58	7743.01	0.44	
1020.86		177.94		5.74	164.41	17.45	0.002910
	1.04185	98647.24					
171.00		4641.22	9.42	7.58	7743.01	0.44	
1020.86		177.94		5.74	164.41	17.45	0.002909
	1.04145	98647.21					
172.00		4641.19	9.39	7.56	7685.63	0.43	
1016.52		177.82		5.72	164.33	17.50	0.002906
	1.03655	98596.94					
173.00		4641.13	9.33	7.52	7572.62	0.43	
1007.61		177.58		5.67	164.16	17.59	0.002905
	1.02843	98495.21					
174.00		4641.13	9.33	7.51	7568.99	0.43	
1007.26		177.57		5.67	164.15	17.60	0.002906
	1.02857	98490.76					
175.00		4641.13	9.33	7.51	7568.99	0.43	
1007.26		177.57		5.67	164.15	17.60	0.002906
	1.02852	98490.80					
176.00		4641.13	9.33	7.51	7569.02	0.43	
1007.26		177.57		5.67	164.15	17.60	0.002904
	1.02804	98490.85					
177.00		4641.13	9.33	7.51	7569.00	0.43	
1007.26		177.57		5.67	164.15	17.60	0.002905
	1.02843	98490.76					
178.00		4641.13	9.33	7.51	7568.98	0.43	
1007.25		177.57		5.67	164.15	17.60	0.002905
	1.02831	98490.77					
179.00		4641.20	9.40	7.56	7683.72	0.43	
1016.78		177.85		5.72	164.35	17.49	0.002917
	1.04054	98610.18					
180.00		4641.31	9.51	7.65	7910.04	0.44	
1034.07		178.31		5.80	164.67	17.31	0.002918
	1.05587	98799.51					
181.00		4641.35	9.55	7.67	7974.73	0.44	
1039.26		178.45		5.82	164.77	17.26	0.002919
	1.06094	98860.33					
182.00		4641.40	9.60	7.72	8087.52	0.44	
1047.82		178.67		5.86	164.92	17.18	0.002922
	1.06946	98951.51					
183.00		4641.40	9.60	7.72	8091.06	0.44	
1047.99		178.67		5.87	164.92	17.18	0.002920
	1.06866	98951.82					
184.00		4641.40	9.60	7.72	8090.94	0.44	

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HYCHAN.OUT									
1047.98	178.67	5.87	164.92	17.18	0.002922				
1.06934	98951.55								
185.00	4641.40	9.60	7.72	8091.06	0.44				
1047.99	178.67	5.87	164.92	17.18	0.002921				
1.06918	98951.79								
186.00	4641.40	9.60	7.72	8090.93	0.44				
1047.98	178.67	5.87	164.92	17.18	0.002922				
1.06955	98951.61								
187.00	4641.40	9.60	7.72	8091.04	0.44				
1047.99	178.67	5.87	164.92	17.18	0.002920				
1.06878	98951.74								
188.00	4641.40	9.60	7.72	8090.97	0.44				
1047.98	178.67	5.87	164.92	17.18	0.002921				
1.06903	98951.61								
189.00	4641.40	9.60	7.72	8091.03	0.44				
1047.99	178.67	5.87	164.92	17.18	0.002921				
1.06928	98951.73								
190.00	4641.37	9.57	7.70	8033.33	0.44				
1043.50	178.55	5.84	164.83	17.22	0.002916				
1.06355	98899.83								
191.00	4641.31	9.51	7.65	7920.40	0.44				
1034.68	178.31	5.80	164.67	17.31	0.002916				
1.05598	98802.71								
192.00	4641.31	9.51	7.65	7917.03	0.44				
1034.44	178.31	5.80	164.67	17.31	0.002916				
1.05570	98800.81								
193.00	4641.31	9.51	7.65	7917.01	0.44				
1034.44	178.31	5.80	164.67	17.31	0.002917				
1.05582	98800.82								
194.00	4641.31	9.51	7.65	7917.00	0.44				
1034.44	178.31	5.80	164.67	17.31	0.002916				
1.05577	98800.76								
195.00	4641.31	9.51	7.65	7917.02	0.44				
1034.44	178.31	5.80	164.67	17.31	0.002917				
1.05580	98800.84								
196.00	4641.31	9.51	7.65	7917.02	0.44				
1034.44	178.31	5.80	164.67	17.31	0.002915				
1.05529	98800.84								
197.00	4641.31	9.51	7.65	7916.97	0.44				
1034.43	178.31	5.80	164.67	17.31	0.002917				
1.05586	98800.72								
198.00	4641.31	9.51	7.65	7916.98	0.44				
1034.44	178.31	5.80	164.67	17.31	0.002916				
1.05559	98800.77								
199.00	4641.31	9.51	7.65	7916.99	0.44				
1034.44	178.31	5.80	164.67	17.31	0.002916				
1.05570	98800.77								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 147

MAXIMUM DISCHARGE (CFS) = 21724.45 AT TIME = 79.15  
 MAXIMUM STAGE = 4644.52 AT TIME = 79.15

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4630.45	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	

		HYCHAN.OUT					
	0.00000	0.00					
524.69	1.00	4631.54	1.09	-1.21	-634.25	0.20	
		112.31	4.67	116.11	106.94		0.001555
	0.45337	69665.62					
806.34	2.00	4637.12	6.67	-6.61	-5327.19	0.45	
		165.30	4.88	155.51	23.33		0.001348
	0.41016	93303.35					
821.18	3.00	4637.22	6.77	-6.68	-5485.67	0.45	
		165.85	4.95	155.89	23.03		0.001351
	0.41754	93536.53					
811.89	4.00	4637.16	6.71	-6.63	-5382.49	0.45	
		165.53	4.90	155.67	23.21		0.001351
	0.41348	93399.47					
807.51	5.00	4637.13	6.68	-6.61	-5333.64	0.45	
		165.37	4.88	155.56	23.29		0.001354
	0.41256	93333.71					
794.40	6.00	4637.04	6.59	-6.53	-5187.22	0.45	
		164.91	4.82	155.23	23.55		0.001359
	0.40862	93136.09					
780.73	7.00	4636.95	6.50	-6.45	-5035.40	0.45	
		164.42	4.75	154.88	23.83		0.001360
	0.40308	92927.14					
764.81	8.00	4636.84	6.39	-6.39	-4884.84	0.45	
		163.84	4.67	154.47	24.16		0.001365
	0.39760	92679.84					
752.77	9.00	4636.76	6.31	-6.35	-4776.97	0.45	
		163.40	4.61	154.15	24.42		0.001368
	0.39316	92490.63					
747.39	10.00	4636.73	6.28	-6.33	-4728.52	0.45	
		163.20	4.58	154.01	24.54		0.001370
	0.39154	92404.25					
731.21	11.00	4636.62	6.17	-6.27	-4582.69	0.44	
		162.59	4.50	153.57	24.90		0.001375
	0.38588	92142.90					
719.22	12.00	4636.54	6.09	-6.22	-4474.32	0.44	
		162.13	4.44	153.24	25.18		0.001377
	0.38108	91946.91					
718.63	13.00	4636.53	6.08	-6.22	-4468.96	0.44	
		162.11	4.43	153.23	25.19		0.001377
	0.38082	91937.41					
718.64	14.00	4636.53	6.08	-6.22	-4469.07	0.44	
		162.11	4.43	153.23	25.19		0.001377
	0.38104	91937.56					
718.62	15.00	4636.53	6.08	-6.22	-4468.86	0.44	
		162.11	4.43	153.23	25.20		0.001380
	0.38185	91937.18					
718.64	16.00	4636.53	6.08	-6.22	-4469.08	0.44	
		162.11	4.43	153.23	25.19		0.001379
	0.38139	91937.62					
723.39	17.00	4636.56	6.11	-6.24	-4511.94	0.44	
		162.29	4.46	153.36	25.08		0.001376
	0.38279	92016.34					
739.72	18.00	4636.68	6.22	-6.30	-4659.43	0.45	
		162.91	4.54	153.80	24.71		0.001371
	0.38838	92282.54					
756.56	19.00	4636.79	6.34	-6.36	-4810.91	0.45	
		163.54	4.63	154.25	24.34		0.001366
	0.39441	92551.66					
768.67	20.00	4636.87	6.42	-6.40	-4919.46	0.45	
		163.99	4.69	154.57	24.08		0.001362
	0.39848	92741.42					
769.16	21.00	4636.87	6.42	-6.40	-4923.90	0.45	
		164.00	4.69	154.58	24.07		0.001367

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		HYCHAN.OUT					
	0.39996	92748.87					
773.96	22.00	4636.91	6.46	-6.42	-4967.74	0.45	
		164.18	4.71		154.71	23.97	0.001362
	0.40077	92824.00					
792.02	23.00	4637.03	6.58	-6.52	-5160.06	0.45	
		164.83	4.81		155.17	23.60	0.001362
	0.40823	93101.07					
818.98	24.00	4637.21	6.76	-6.67	-5460.78	0.45	
		165.78	4.94		155.84	23.07	0.001355
	0.41781	93505.15					
846.48	25.00	4637.39	6.94	-6.81	-5765.45	0.46	
		166.71	5.08		156.51	22.56	0.001351
	0.42793	93905.31					
865.61	26.00	4637.51	7.06	-6.90	-5976.85	0.46	
		167.35	5.17		156.96	22.23	0.001343
	0.43330	94176.91					
866.35	27.00	4637.52	7.07	-6.91	-5985.05	0.46	
		167.38	5.18		156.98	22.21	0.001341
	0.43316	94187.15					
870.99	28.00	4637.55	7.10	-6.93	-6035.82	0.46	
		167.53	5.20		157.09	22.13	0.001343
	0.43578	94252.43					
881.14	29.00	4637.61	7.16	-6.98	-6147.30	0.46	
		167.86	5.25		157.32	21.96	0.001342
	0.43973	94393.60					
881.58	30.00	4637.62	7.17	-6.98	-6152.13	0.46	
		167.88	5.25		157.33	21.95	0.001337
	0.43822	94399.55					
886.45	31.00	4637.65	7.20	-7.00	-6205.34	0.46	
		168.04	5.28		157.45	21.87	0.001341
	0.44133	94467.19					
897.04	32.00	4637.72	7.27	-7.05	-6321.27	0.46	
		168.38	5.33		157.69	21.70	0.001335
	0.44371	94612.24					
897.48	33.00	4637.72	7.27	-7.05	-6326.00	0.46	
		168.39	5.33		157.70	21.69	0.001337
	0.44462	94618.00					
892.60	34.00	4637.69	7.24	-7.03	-6272.58	0.46	
		168.23	5.31		157.58	21.77	0.001341
	0.44386	94550.64					
882.01	35.00	4637.62	7.17	-6.98	-6156.91	0.46	
		167.89	5.25		157.34	21.95	0.001340
	0.43937	94405.44					
876.91	36.00	4637.59	7.14	-6.96	-6100.88	0.46	
		167.72	5.23		157.22	22.03	0.001339
	0.43682	94334.18					
866.77	37.00	4637.52	7.07	-6.91	-5989.60	0.46	
		167.39	5.18		156.99	22.21	0.001343
	0.43408	94192.80					
866.35	38.00	4637.52	7.07	-6.91	-5984.97	0.46	
		167.38	5.18		156.98	22.21	0.001342
	0.43357	94187.05					
866.35	39.00	4637.52	7.07	-6.91	-5985.02	0.46	
		167.38	5.18		156.98	22.21	0.001344
	0.43404	94187.10					
866.35	40.00	4637.52	7.07	-6.91	-5984.98	0.46	
		167.38	5.18		156.98	22.21	0.001344
	0.43422	94187.05					
866.34	41.00	4637.52	7.07	-6.91	-5984.92	0.46	
		167.38	5.18		156.98	22.21	0.001344
	0.43424	94186.98					
871.03	42.00	4637.55	7.10	-6.93	-6036.26	0.46	
		167.53	5.20		157.09	22.13	0.001343

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		HYCHAN.OUT					
	0.43580	94252.98					
881.16	43.00	4637.61	7.16	-6.98	-6147.49	0.46	
		167.86	5.25		157.32	21.96	0.001341
	0.43908	94393.83					
886.44	44.00	4637.65	7.20	-7.00	-6205.25	0.46	
		168.04	5.28		157.45	21.87	0.001341
	0.44150	94467.10					
901.97	45.00	4637.75	7.30	-7.07	-6374.87	0.46	
		168.54	5.35		157.80	21.62	0.001340
	0.44753	94679.56					
917.96	46.00	4637.85	7.40	-7.13	-6549.00	0.46	
		169.04	5.43		158.16	21.36	0.001337
	0.45288	94895.00					
933.97	47.00	4637.96	7.51	-7.20	-6722.70	0.46	
		169.54	5.51		158.51	21.12	0.001335
	0.45875	95107.38					
950.09	48.00	4638.06	7.61	-7.26	-6896.99	0.46	
		170.04	5.59		158.86	20.87	0.001332
	0.46430	95318.03					
966.25	49.00	4638.17	7.71	-7.32	-7071.14	0.46	
		170.53	5.67		159.21	20.64	0.001329
	0.47001	95526.13					
987.60	50.00	4638.30	7.85	-7.39	-7300.10	0.47	
		171.17	5.77		159.66	20.34	0.001329
	0.47844	95796.64					
1009.15	51.00	4638.44	7.99	-7.47	-7534.84	0.47	
		171.80	5.87		160.11	20.04	0.001317
	0.48273	96064.13					
1014.46	52.00	4638.47	8.02	-7.49	-7598.00	0.47	
		171.96	5.90		160.22	19.97	0.001321
	0.48628	96129.43					
1039.04	53.00	4638.63	8.18	-7.59	-7889.66	0.47	
		172.66	6.02		160.71	19.65	0.001325
	0.49757	96427.32					
1092.22	54.00	4638.96	8.51	-7.80	-8517.26	0.47	
		174.14	6.27		161.75	19.00	0.001323
	0.51762	97051.28					
1166.44	55.00	4639.42	8.97	-8.05	-9384.05	0.47	
		176.11	6.62		163.13	18.18	0.001315
	0.54327	97879.64					
1264.12	56.00	4640.02	9.57	-8.39	-10607.24	0.48	
		178.55	7.08		164.83	17.22	0.001340
	0.59198	98900.15					
1369.09	57.00	4640.66	10.21	-8.79	-12037.04	0.49	
		181.01	7.56		166.55	16.32	0.001348
	0.63635	99928.23					
1454.51	58.00	4641.17	10.71	-9.07	-13189.72	0.49	
		182.89	7.95		167.86	15.67	0.001364
	0.67670	100714.07					
1542.74	59.00	4641.68	11.23	-9.31	-14368.11	0.49	
		184.74	8.35		169.14	15.06	0.001393
	0.72572	101483.57					
1631.92	60.00	4642.20	11.75	-9.55	-15592.91	0.49	
		186.53	8.75		170.37	14.50	0.001408
	0.76844	102224.79					
1686.44	61.00	4642.52	12.07	-9.70	-16363.03	0.49	
		187.58	8.99		171.10	14.18	0.001445
	0.81082	102660.02					
1738.10	62.00	4642.81	12.36	-9.83	-17089.91	0.49	
		188.55	9.22		171.77	13.89	0.001458
	0.83847	103061.51					
1776.36	63.00	4643.03	12.58	-9.93	-17642.35	0.49	
		189.26	9.39		172.25	13.69	0.001504

HYCHAN.OUT									
	0.88110	103351.88							
1825.22	64.00	4643.31	12.86	9.60	-10.08	-18391.22	0.50		0.001519
	0.91001	103715.29				172.86	13.44		
1842.41	65.00	4643.41	12.96	9.67	-10.13	-18655.56	0.50		0.001527
	0.92193	103840.80				173.07	13.36		
1843.41	66.00	4643.41	12.96	9.68	-10.13	-18670.94	0.50		0.001518
	0.91700	103848.01				173.08	13.35		
1843.52	67.00	4643.41	12.96	9.68	-10.13	-18672.68	0.50		0.001521
	0.91884	103848.84				173.08	13.35		
1843.58	68.00	4643.41	12.96	9.68	-10.13	-18673.59	0.50		0.001524
	0.92031	103849.25				173.08	13.35		
1843.78	69.00	4643.41	12.96	9.68	-10.13	-18676.58	0.50		0.001521
	0.91858	103850.70				173.08	13.35		
1843.83	70.00	4643.41	12.96	9.68	-10.13	-18677.36	0.50		0.001519
	0.91772	103851.03				173.09	13.35		
1843.81	71.00	4643.41	12.96	9.68	-10.13	-18677.09	0.50		0.001522
	0.91936	103850.95				173.08	13.35		
1851.13	72.00	4643.46	13.00	9.71	-10.15	-18789.26	0.50		0.001538
	0.93230	103904.40				173.17	13.32		
1866.58	73.00	4643.54	13.09	9.78	-10.19	-19026.08	0.50		0.001538
	0.93870	104015.99				173.36	13.24		
1867.97	74.00	4643.55	13.10	9.79	-10.20	-19047.35	0.50		0.001544
	0.94301	104025.88				173.38	13.24		
1875.13	75.00	4643.59	13.14	9.82	-10.22	-19156.83	0.50		0.001553
	0.95156	104077.65				173.46	13.20		
1905.29	76.00	4643.76	13.31	9.95	-10.30	-19616.72	0.50		0.001589
	0.98623	104292.71				173.82	13.06		
1945.30	77.00	4643.98	13.53	10.12	-10.40	-20230.96	0.50		0.001609
	1.01603	104573.36				174.29	12.88		
1971.42	78.00	4644.13	13.68	10.23	-10.47	-20635.89	0.50		0.001638
	1.04585	104753.83				174.59	12.76		
2004.74	79.00	4644.31	13.86	10.38	-10.55	-21150.39	0.50		0.001675
	1.08443	104981.19				174.97	12.62		
2030.63	80.00	4644.46	14.01	10.49	-10.61	-21550.04	0.50		0.001649
	1.07937	105155.04				175.26	12.51		
2008.38	81.00	4644.33	13.88	10.39	-10.56	-21207.07	0.50		0.001648
	1.06832	105004.95				175.01	12.60		
1990.72	82.00	4644.24	13.79	10.32	-10.52	-20934.58	0.50		0.001639
	1.05501	104885.48				174.81	12.68		
1990.16	83.00	4644.23	13.78	10.31	-10.51	-20925.96	0.50		0.001633
	1.05096	104881.75				174.80	12.68		
1990.08	84.00	4644.23	13.78	10.31	-10.51	-20924.81	0.50		0.001631
	192.97			10.31		174.80	12.68		



HYCHAN.OUT									
1.04954	104881.22								
85.00	4644.16	13.71	-10.48	-20714.10	0.50				
1976.50	192.74	10.25		174.65	12.74	0.001599			
1.02288	104787.55								
86.00	4643.88	13.43	-10.35	-19962.51	0.50				
1927.90	191.92	10.05		174.08	12.96	0.001548			
0.97050	104448.97								
87.00	4643.49	13.04	-10.17	-18884.98	0.50				
1857.51	190.70	9.74		173.25	13.29	0.001494			
0.90815	103947.07								
88.00	4642.99	12.54	-9.92	-17545.98	0.49				
1769.44	189.11	9.36		172.16	13.73	0.001422			
0.83045	103293.93								
89.00	4642.42	11.96	-9.66	-16118.20	0.49				
1669.10	187.24	8.91		170.87	14.28	0.001392			
0.77415	102519.52								
90.00	4642.05	11.60	-9.48	-15233.54	0.49				
1606.52	186.02	8.64		170.02	14.65	0.001368			
0.73703	102014.97								
91.00	4641.66	11.21	-9.30	-14317.15	0.49				
1538.78	184.65	8.33		169.08	15.09	0.001351			
0.70232	101447.27								
92.00	4641.23	10.78	-9.10	-13347.05	0.49				
1466.12	183.13	8.01		168.03	15.58	0.001340			
0.66951	100815.46								
93.00	4640.90	10.45	-8.93	-12588.36	0.49				
1409.79	181.91	7.75		167.18	16.00	0.001331			
0.64379	100306.05								
94.00	4640.61	10.16	-8.77	-11938.70	0.48				
1361.54	180.83	7.53		166.43	16.38	0.001323			
0.62137	99856.23								
95.00	4640.39	9.94	-8.63	-11433.50	0.48				
1324.24	179.98	7.36		165.83	16.69	0.001317			
0.60455	99497.96								
96.00	4640.17	9.72	-8.50	-10953.10	0.48				
1288.91	179.15	7.19		165.25	17.00	0.001307			
0.58676	99151.18								
97.00	4640.00	9.55	-8.38	-10575.07	0.48				
1261.29	178.48	7.07		164.79	17.25	0.001291			
0.56921	98873.48								
98.00	4639.84	9.39	-8.27	-10211.76	0.48				
1234.80	177.84	6.94		164.34	17.49	0.001295			
0.56126	98603.17								
99.00	4639.71	9.26	-8.19	-9938.35	0.47				
1213.80	177.31	6.85		163.97	17.70	0.001295			
0.55298	98384.12								
100.00	4639.53	9.08	-8.10	-9582.53	0.47				
1183.29	176.54	6.70		163.43	18.00	0.001297			
0.54227	98060.96								
101.00	4639.37	8.92	-8.02	-9278.68	0.47				
1157.12	175.87	6.58		162.96	18.28	0.001298			
0.53284	97777.74								
102.00	4639.22	8.77	-7.95	-9011.72	0.47				
1134.20	175.27	6.47		162.54	18.53	0.001301			
0.52535	97525.48								
103.00	4639.12	8.67	-7.89	-8809.50	0.47				
1116.92	174.81	6.39		162.22	18.72	0.001302			
0.51892	97331.99								
104.00	4638.98	8.53	-7.81	-8545.16	0.47				
1094.43	174.20	6.28		161.79	18.98	0.001304			
0.51114	97075.55								
105.00	4638.80	8.35	-7.71	-8222.07	0.47				
1067.00	173.45	6.15		161.26	19.30	0.001308			



		HYCHAN.OUT					
	0.50202	96758.09					
1051.57	106.00	4638.71	8.26	-7.65	-8039.44	0.47	
		173.02		6.08	160.96	19.49	0.001311
	0.49726	96576.18					
1036.94	107.00	4638.61	8.16	-7.59	-7865.79	0.47	
		172.60		6.01	160.67	19.68	0.001311
	0.49162	96401.38					
1026.95	108.00	4638.55	8.10	-7.54	-7747.06	0.47	
		172.32		5.96	160.47	19.81	0.001316
	0.48948	96281.28					
1031.27	109.00	4638.58	8.13	-7.56	-7798.32	0.47	
		172.44		5.98	160.56	19.75	0.001321
	0.49289	96333.89					
1050.49	110.00	4638.70	8.25	-7.64	-8026.28	0.47	
		172.99		6.07	160.94	19.51	0.001321
	0.50071	96564.34					
1065.53	111.00	4638.79	8.34	-7.70	-8204.77	0.47	
		173.41		6.14	161.24	19.32	0.001306
	0.50081	96741.34					
1051.56	112.00	4638.71	8.26	-7.65	-8039.38	0.47	
		173.02		6.08	160.96	19.49	0.001312
	0.49764	96576.09					
1051.11	113.00	4638.70	8.25	-7.64	-8033.69	0.47	
		173.01		6.08	160.95	19.50	0.001321
	0.50084	96571.57					
1081.37	114.00	4638.90	8.44	-7.76	-8391.25	0.47	
		173.85		6.22	161.54	19.13	0.001318
	0.51176	96926.84					
1098.77	115.00	4639.00	8.55	-7.82	-8596.67	0.47	
		174.32		6.30	161.88	18.93	0.001303
	0.51233	97126.45					
1088.37	116.00	4638.94	8.49	-7.79	-8474.33	0.47	
		174.04		6.25	161.68	19.05	0.001310
	0.51119	97007.19					
1088.01	117.00	4638.94	8.49	-7.78	-8470.09	0.47	
		174.03		6.25	161.67	19.05	0.001309
	0.51071	97003.13					
1093.49	118.00	4638.97	8.52	-7.80	-8534.53	0.47	
		174.18		6.28	161.78	18.99	0.001313
	0.51452	97066.55					
1104.67	119.00	4639.04	8.59	-7.84	-8665.97	0.47	
		174.48		6.33	161.99	18.86	0.001307
	0.51639	97194.03					
1105.01	120.00	4639.04	8.59	-7.85	-8670.00	0.47	
		174.49		6.33	162.00	18.85	0.001306
	0.51624	97197.84					
1099.50	121.00	4639.01	8.56	-7.83	-8605.21	0.47	
		174.34		6.31	161.89	18.92	0.001303
	0.51288	97134.52					
1088.37	122.00	4638.94	8.49	-7.79	-8474.36	0.47	
		174.04		6.25	161.68	19.05	0.001310
	0.51100	97007.21					
1082.53	123.00	4638.90	8.45	-7.76	-8405.41	0.47	
		173.88		6.23	161.57	19.12	0.001310
	0.50893	96939.27					
1071.43	124.00	4638.83	8.38	-7.72	-8274.55	0.47	
		173.57		6.17	161.35	19.25	0.001312
	0.50531	96810.59					
1071.05	125.00	4638.83	8.38	-7.72	-8270.08	0.47	
		173.56		6.17	161.34	19.25	0.001310
	0.50437	96806.27					
1066.20	126.00	4638.80	8.35	-7.70	-8212.67	0.47	
		173.43		6.15	161.25	19.31	0.001308

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				HYCHAN.OUT			
	0.50193	96749.00					
1056.26	127.00	4638.74	8.29	6.10	-7.66	-8095.15	0.47
		173.15				161.05	19.44
	0.49968	96632.27					0.001313
1055.91	128.00	4638.73	8.28	6.10	-7.66	-8091.05	0.47
		173.14				161.05	19.44
	0.49924	96628.27					0.001312
1051.21	129.00	4638.70	8.25	6.08	-7.64	-8035.22	0.47
		173.01				160.95	19.50
	0.49817	96572.02					0.001314
1041.59	130.00	4638.64	8.19	6.03	-7.60	-7921.14	0.47
		172.74				160.76	19.62
	0.49497	96457.65					0.001315
1050.81	131.00	4638.70	8.25	6.07	-7.64	-8030.19	0.47
		173.00				160.95	19.50
	0.50055	96568.15					0.001321
1070.38	132.00	4638.83	8.38	6.17	-7.72	-8262.22	0.47
		173.54				161.33	19.26
	0.50506	96798.68					0.001312
1071.05	133.00	4638.83	8.38	6.17	-7.72	-8270.04	0.47
		173.56				161.34	19.25
	0.50424	96806.23					0.001309
1071.04	134.00	4638.83	8.38	6.17	-7.72	-8269.97	0.47
		173.56				161.34	19.25
	0.50445	96806.16					0.001310
1071.04	135.00	4638.83	8.38	6.17	-7.72	-8270.03	0.47
		173.56				161.34	19.25
	0.50448	96806.23					0.001310
1071.04	136.00	4638.83	8.38	6.17	-7.72	-8270.00	0.47
		173.56				161.34	19.25
	0.50441	96806.19					0.001310
1071.04	137.00	4638.83	8.38	6.17	-7.72	-8269.95	0.47
		173.56				161.34	19.25
	0.50494	96806.14					0.001311
1071.04	138.00	4638.83	8.38	6.17	-7.72	-8270.04	0.47
		173.56				161.34	19.25
	0.50429	96806.24					0.001310
1066.19	139.00	4638.80	8.35	6.15	-7.70	-8212.62	0.47
		173.43				161.25	19.31
	0.50194	96748.95					0.001308
1056.26	140.00	4638.74	8.29	6.10	-7.66	-8095.15	0.47
		173.15				161.05	19.44
	0.49955	96632.27					0.001312
1055.91	141.00	4638.73	8.28	6.10	-7.66	-8091.03	0.47
		173.14				161.05	19.44
	0.49932	96628.24					0.001312
1055.91	142.00	4638.73	8.28	6.10	-7.66	-8091.04	0.47
		173.14				161.05	19.44
	0.49890	96628.27					0.001311
1055.91	143.00	4638.73	8.28	6.10	-7.66	-8090.98	0.47
		173.14				161.05	19.44
	0.49938	96628.20					0.001312
1051.21	144.00	4638.70	8.25	6.08	-7.64	-8035.26	0.47
		173.01				160.95	19.50
	0.49871	96572.06					0.001315
1041.59	145.00	4638.64	8.19	6.03	-7.60	-7921.12	0.47
		172.74				160.76	19.62
	0.49417	96457.63					0.001313
1041.24	146.00	4638.64	8.19	6.03	-7.60	-7916.98	0.47
		172.73				160.76	19.62
	0.49460	96453.55					0.001315
1041.24	147.00	4638.64	8.19	6.03	-7.60	-7917.01	0.47
		172.73				160.76	19.62

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		HYCHAN.OUT					
	0.49408	96453.58					
1041.24	148.00	4638.64	8.19	6.03	-7.60	-7917.01	0.47
		172.73				160.76	19.62
	0.49400	96453.58					0.001313
1041.24	149.00	4638.64	8.19	6.03	-7.60	-7916.98	0.47
		172.73				160.76	19.62
	0.49454	96453.55					0.001315
1038.14	150.00	4638.62	8.17	6.01	-7.59	-7880.07	0.47
		172.64				160.69	19.66
	0.49180	96416.04					0.001311
1030.16	151.00	4638.57	8.12	5.98	-7.56	-7785.24	0.47
		172.41				160.53	19.77
	0.49033	96320.01					0.001315
1026.72	152.00	4638.55	8.10	5.96	-7.54	-7744.32	0.47
		172.31				160.46	19.81
	0.48984	96278.57					0.001317
1026.61	153.00	4638.55	8.10	5.96	-7.54	-7742.99	0.47
		172.31				160.46	19.81
	0.48971	96277.23					0.001317
1021.98	154.00	4638.52	8.07	5.94	-7.52	-7687.75	0.47
		172.17				160.37	19.87
	0.48646	96220.52					0.001313
1021.67	155.00	4638.52	8.07	5.93	-7.52	-7683.66	0.47
		172.17				160.36	19.88
	0.49066	96217.42					0.001325
1040.58	156.00	4638.64	8.19	6.03	-7.60	-7909.10	0.47
		172.71				160.74	19.63
	0.49358	96445.79					0.001313
1041.24	157.00	4638.64	8.19	6.03	-7.60	-7916.98	0.47
		172.73				160.76	19.62
	0.49435	96453.56					0.001314
1041.24	158.00	4638.64	8.19	6.03	-7.60	-7917.01	0.47
		172.73				160.76	19.62
	0.49442	96453.58					0.001314
1041.24	159.00	4638.64	8.19	6.03	-7.60	-7917.02	0.47
		172.73				160.76	19.62
	0.49455	96453.59					0.001315
1041.24	160.00	4638.64	8.19	6.03	-7.60	-7916.98	0.47
		172.73				160.76	19.62
	0.49427	96453.55					0.001314
1041.24	161.00	4638.64	8.19	6.03	-7.60	-7916.97	0.47
		172.73				160.76	19.62
	0.49474	96453.54					0.001315
1041.24	162.00	4638.64	8.19	6.03	-7.60	-7917.02	0.47
		172.73				160.76	19.62
	0.49426	96453.60					0.001314
1041.24	163.00	4638.64	8.19	6.03	-7.60	-7917.00	0.47
		172.73				160.76	19.62
	0.49416	96453.57					0.001314
1036.57	164.00	4638.61	8.16	6.01	-7.58	-7861.42	0.47
		172.59				160.66	19.68
	0.49310	96397.05					0.001316
1026.96	165.00	4638.55	8.10	5.96	-7.54	-7747.18	0.47
		172.32				160.47	19.81
	0.48973	96281.40					0.001317
1026.61	166.00	4638.55	8.10	5.96	-7.54	-7743.03	0.47
		172.31				160.46	19.81
	0.48893	96277.30					0.001315
1026.61	167.00	4638.55	8.10	5.96	-7.54	-7742.97	0.47
		172.31				160.46	19.81
	0.48950	96277.22					0.001317
1026.61	168.00	4638.55	8.10	5.96	-7.54	-7743.04	0.47
		172.31				160.46	19.81

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		HYCHAN.OUT					
	0.48913	96277.29					
1026.61	169.00	4638.55	8.10	5.96	-7.54	-7742.98	0.47
		172.31				160.46	19.81
	0.48908	96277.23					0.001316
1026.61	170.00	4638.55	8.10	5.96	-7.54	-7743.00	0.47
		172.31				160.46	19.81
	0.48913	96277.26					0.001316
1026.61	171.00	4638.55	8.10	5.96	-7.54	-7743.01	0.47
		172.31				160.46	19.81
	0.48962	96277.27					0.001317
1021.97	172.00	4638.52	8.07	5.94	-7.52	-7687.56	0.47
		172.17				160.37	19.87
	0.48721	96220.34					0.001315
1012.37	173.00	4638.46	8.01	5.89	-7.48	-7573.12	0.47
		171.90				160.17	20.00
	0.48413	96103.38					0.001317
1012.02	174.00	4638.46	8.01	5.89	-7.48	-7569.01	0.47
		171.89				160.17	20.00
	0.48424	96099.24					0.001318
1012.02	175.00	4638.46	8.01	5.89	-7.48	-7568.99	0.47
		171.89				160.17	20.00
	0.48425	96099.23					0.001318
1012.02	176.00	4638.46	8.01	5.89	-7.48	-7569.01	0.47
		171.89				160.17	20.00
	0.48396	96099.25					0.001317
1012.02	177.00	4638.46	8.01	5.89	-7.48	-7569.01	0.47
		171.89				160.17	20.00
	0.48416	96099.25					0.001318
1012.02	178.00	4638.46	8.01	5.89	-7.48	-7568.98	0.47
		171.89				160.17	20.00
	0.48433	96099.23					0.001318
1021.35	179.00	4638.52	8.07	5.93	-7.52	-7679.84	0.47
		172.16				160.36	19.88
	0.49046	96213.62					0.001325
1040.57	180.00	4638.64	8.19	6.03	-7.60	-7909.07	0.47
		172.71				160.74	19.63
	0.49445	96445.77					0.001315
1045.94	181.00	4638.67	8.22	6.05	-7.62	-7972.75	0.47
		172.86				160.85	19.56
	0.49797	96510.09					0.001319
1055.58	182.00	4638.73	8.28	6.10	-7.66	-8087.06	0.47
		173.13				161.04	19.44
	0.49970	96624.38					0.001313
1055.91	183.00	4638.73	8.28	6.10	-7.66	-8091.03	0.47
		173.14				161.05	19.44
	0.49928	96628.25					0.001312
1055.91	184.00	4638.73	8.28	6.10	-7.66	-8090.97	0.47
		173.14				161.05	19.44
	0.49930	96628.20					0.001312
1055.91	185.00	4638.73	8.28	6.10	-7.66	-8091.05	0.47
		173.14				161.05	19.44
	0.49879	96628.28					0.001311
1055.90	186.00	4638.73	8.28	6.10	-7.66	-8090.93	0.47
		173.14				161.05	19.44
	0.50001	96628.16					0.001314
1055.91	187.00	4638.73	8.28	6.10	-7.66	-8091.03	0.47
		173.14				161.05	19.44
	0.49968	96628.24					0.001313
1055.91	188.00	4638.73	8.28	6.10	-7.66	-8090.99	0.47
		173.14				161.05	19.44
	0.49987	96628.20					0.001314
1055.91	189.00	4638.73	8.28	6.10	-7.66	-8091.02	0.47
		173.14				161.05	19.44

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## HYCHAN.OUT

1051.21	0.49950	96628.25	8.25	-7.64	-8035.26	0.47	0.001309
	190.00	4638.70	6.08		160.95	19.50	
	0.49620	96572.08					
1041.57	191.00	4638.64	8.19	-7.60	-7920.93	0.47	0.001316
		172.74	6.03		160.76	19.62	
	0.49513	96457.43					
1041.24	192.00	4638.64	8.19	-7.60	-7917.03	0.47	0.001314
		172.73	6.03		160.76	19.62	
	0.49434	96453.60					
1041.24	193.00	4638.64	8.19	-7.60	-7917.01	0.47	0.001316
		172.73	6.03		160.76	19.62	
	0.49485	96453.57					
1041.24	194.00	4638.64	8.19	-7.60	-7917.00	0.47	0.001314
		172.73	6.03		160.76	19.62	
	0.49415	96453.56					
1041.24	195.00	4638.64	8.19	-7.60	-7917.01	0.47	0.001314
		172.73	6.03		160.76	19.62	
	0.49435	96453.58					
1041.24	196.00	4638.64	8.19	-7.60	-7917.02	0.47	0.001316
		172.73	6.03		160.76	19.62	
	0.49487	96453.59					
1041.24	197.00	4638.64	8.19	-7.60	-7916.97	0.47	0.001314
		172.73	6.03		160.76	19.62	
	0.49433	96453.55					
1041.24	198.00	4638.64	8.19	-7.60	-7916.99	0.47	0.001315
		172.73	6.03		160.76	19.62	
	0.49461	96453.56					
1041.24	199.00	4638.64	8.19	-7.60	-7917.00	0.47	0.001314
		172.73	6.03		160.76	19.62	
	0.49415	96453.56					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 159

MAXIMUM DISCHARGE (CFS) = 20871.24 AT TIME = 79.17  
 MAXIMUM STAGE = 4643.55 AT TIME = 79.16

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)				
0.00	0.00	4627.20	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
524.69	1.00	4628.81	1.61	1.21	634.25	0.17		0.001480
		35.25	14.88		34.92	21.70		
	1.37444	24094.77						
806.34	2.00	4637.10	9.90	6.61	5327.19	0.37		0.001252
		144.59	5.58		141.42	14.29		
	0.43552	97578.02						
821.18	3.00	4637.25	10.05	6.68	5485.67	0.37		0.001259
		146.36	5.61		143.14	14.24		
	0.44076	98765.39						
811.89	4.00	4637.18	9.98	6.63	5382.49	0.37		0.001261
		145.57	5.58		142.36	14.26		
	0.43903	98231.14						
807.51	5.00	4637.15	9.95	6.61	5333.64	0.37		0.001269
		145.20	5.56		142.01	14.27		
	0.44027	97986.11						

			HYCHAN.OUT			
794.40	6.00	4637.05	9.85	6.53	5187.22	0.37
		144.04	5.52	140.89	14.31	0.001279
	0.44027	97211.12				
780.73	7.00	4636.94	9.74	6.45	5035.40	0.36
		142.82	5.47	139.70	14.34	0.001287
	0.43915	96392.84				
764.81	8.00	4636.83	9.63	6.39	4884.84	0.36
		141.56	5.40	138.48	14.38	0.001293
	0.43603	95549.79				
752.77	9.00	4636.75	9.55	6.35	4776.97	0.36
		140.62	5.35	137.57	14.41	0.001293
	0.43186	94926.05				
747.39	10.00	4636.71	9.51	6.33	4728.52	0.36
		140.22	5.33	137.18	14.42	0.001293
	0.43013	94652.30				
731.21	11.00	4636.60	9.40	6.27	4582.69	0.36
		138.93	5.26	135.93	14.46	0.001302
	0.42756	93791.57				
719.22	12.00	4636.52	9.32	6.22	4474.32	0.36
		137.95	5.21	134.98	14.49	0.001301
	0.42330	93137.54				
718.63	13.00	4636.51	9.31	6.22	4468.96	0.36
		137.91	5.21	134.94	14.49	0.001301
	0.42319	93109.32				
718.64	14.00	4636.51	9.31	6.22	4469.07	0.36
		137.91	5.21	134.94	14.49	0.001300
	0.42266	93111.04				
718.62	15.00	4636.51	9.31	6.22	4468.86	0.36
		137.91	5.21	134.94	14.49	0.001301
	0.42292	93109.74				
718.64	16.00	4636.51	9.31	6.22	4469.08	0.36
		137.91	5.21	134.94	14.49	0.001302
	0.42327	93107.61				
723.39	17.00	4636.54	9.34	6.24	4511.94	0.36
		138.27	5.23	135.29	14.48	0.001300
	0.42429	93351.99				
739.72	18.00	4636.66	9.46	6.30	4659.43	0.36
		139.57	5.30	136.56	14.44	0.001295
	0.42833	94223.19				
756.56	19.00	4636.77	9.57	6.36	4810.91	0.36
		140.89	5.37	137.83	14.40	0.001291
	0.43263	95103.72				
768.67	20.00	4636.85	9.65	6.40	4919.46	0.36
		141.84	5.42	138.75	14.37	0.001291
	0.43642	95740.09				
769.16	21.00	4636.86	9.66	6.40	4923.90	0.36
		141.89	5.42	138.80	14.37	0.001287
	0.43550	95772.05				
773.96	22.00	4636.89	9.69	6.42	4967.74	0.36
		142.23	5.44	139.13	14.36	0.001286
	0.43665	96002.93				
792.02	23.00	4637.02	9.82	6.52	5160.06	0.37
		143.77	5.51	140.63	14.31	0.001271
	0.43679	97031.83				
818.98	24.00	4637.23	10.03	6.67	5460.78	0.37
		146.13	5.60	142.91	14.25	0.001253
	0.43822	98607.03				
846.48	25.00	4637.44	10.24	6.81	5765.45	0.38
		148.43	5.70	145.14	14.18	0.001240
	0.44115	100145.98				
865.61	26.00	4637.58	10.38	6.90	5976.85	0.38
		150.02	5.77	146.68	14.14	0.001234
	0.44420	101209.58				

HYCHAN.OUT							
866.35	27.00	4637.58	10.38	5.77	6.91	5985.05	0.38
	0.44424	150.09			146.75	14.13	0.001233
	28.00	101254.49					
870.99	28.00	4637.61	10.41	5.79	6.93	6035.82	0.38
	0.44460	150.44			147.08	14.12	0.001231
	29.00	101487.30					
881.14	29.00	4637.69	10.49	5.83	6.98	6147.30	0.38
	0.44647	151.24			147.87	14.10	0.001228
	30.00	102027.95					
881.58	30.00	4637.69	10.49	5.83	6.98	6152.13	0.38
	0.44609	151.28			147.90	14.10	0.001227
	31.00	102052.43					
886.45	31.00	4637.72	10.52	5.85	7.00	6205.34	0.38
	0.44700	151.64			148.25	14.09	0.001225
	32.00	102293.42					
897.04	32.00	4637.80	10.60	5.88	7.05	6321.27	0.38
	0.44865	152.47			149.05	14.07	0.001222
	33.00	102845.38					
897.48	33.00	4637.80	10.60	5.88	7.05	6326.00	0.38
	0.44917	152.51			149.09	14.07	0.001223
	34.00	102870.89					
892.60	34.00	4637.77	10.57	5.87	7.03	6272.58	0.38
	0.44917	152.13			148.73	14.08	0.001227
	35.00	102622.76					
882.01	35.00	4637.69	10.49	5.83	6.98	6156.91	0.38
	0.44598	151.31			147.93	14.10	0.001226
	36.00	102071.12					
876.91	36.00	4637.66	10.46	5.81	6.96	6100.88	0.38
	0.44643	150.92			147.55	14.11	0.001231
	37.00	101810.73					
866.77	37.00	4637.59	10.39	5.77	6.91	5989.60	0.38
	0.44405	150.11			146.77	14.13	0.001232
	38.00	101272.04					
866.35	38.00	4637.58	10.38	5.77	6.91	5984.97	0.38
	0.44437	150.09			146.74	14.13	0.001234
	39.00	101254.02					
866.35	39.00	4637.58	10.38	5.77	6.91	5985.02	0.38
	0.44430	150.09			146.75	14.13	0.001234
	40.00	101254.21					
866.35	40.00	4637.58	10.38	5.77	6.91	5984.98	0.38
	0.44450	150.09			146.75	14.13	0.001234
	41.00	101254.21					
866.34	41.00	4637.58	10.38	5.77	6.91	5984.92	0.38
	0.44472	150.09			146.74	14.13	0.001235
	42.00	101253.69					
871.03	42.00	4637.61	10.41	5.79	6.93	6036.26	0.38
	0.44447	150.44			147.08	14.12	0.001230
	43.00	101488.12					
881.16	43.00	4637.69	10.49	5.83	6.98	6147.49	0.38
	0.44554	151.25			147.87	14.10	0.001226
	44.00	102029.03					
886.44	44.00	4637.72	10.52	5.85	7.00	6205.25	0.38
	0.44691	151.64			148.25	14.09	0.001225
	45.00	102292.31					
901.97	45.00	4637.83	10.63	5.90	7.07	6374.87	0.38
	0.44973	152.82			149.39	14.06	0.001221
	46.00	103081.45					
917.96	46.00	4637.93	10.73	5.96	7.13	6549.00	0.38
	0.45222	154.01			150.55	14.03	0.001216
	47.00	103879.96					
933.97	47.00	4638.04	10.84	6.02	7.20	6722.70	0.39
	0.45511	155.19			151.69	13.99	0.001212
		104662.74					



HYCHAN.OUT							
950.09	48.00	4638.14	10.94	7.26	6896.99	0.39	
	0.45864	156.35	6.08	152.81	13.96		0.001210
		105439.46					
966.25	49.00	4638.25	11.05	7.32	7071.14	0.39	
	0.46167	157.50	6.13	153.92	13.93		0.001206
		106208.23					
987.60	50.00	4638.38	11.18	7.39	7300.10	0.39	
	0.46598	158.98	6.21	155.36	13.89		0.001202
		107195.64					
1009.15	51.00	4638.52	11.32	7.47	7534.84	0.39	
	0.46883	160.53	6.29	156.86	13.85		0.001195
		108234.16					
1014.46	52.00	4638.56	11.36	7.49	7598.00	0.39	
	0.46887	160.91	6.30	157.23	13.84		0.001192
		108490.56					
1039.04	53.00	4638.72	11.52	7.59	7889.66	0.39	
	0.47018	162.68	6.39	158.94	13.80		0.001180
		109668.10					
1092.22	54.00	4639.06	11.86	7.80	8517.26	0.40	
	0.47733	166.40	6.56	162.54	13.71		0.001165
		112153.21					
1166.44	55.00	4639.51	12.31	8.05	9384.05	0.40	
	0.49264	171.29	6.81	167.28	13.59		0.001159
		115421.80					
1264.12	56.00	4640.08	12.88	8.39	10607.24	0.41	
	0.53360	177.41	7.13	173.20	13.45		0.001200
		119508.45					
1369.09	57.00	4640.64	13.44	8.79	12037.04	0.42	
	0.56529	183.41	7.46	179.01	13.32		0.001214
		123514.88					
1454.51	58.00	4641.08	13.88	9.07	13189.72	0.43	
	0.60736	188.09	7.73	183.52	13.22		0.001259
		126632.25					
1542.74	59.00	4641.50	14.30	9.31	14368.11	0.43	
	0.67016	192.42	8.02	187.71	13.13		0.001339
		129520.42					
1631.92	60.00	4641.90	14.70	9.55	15592.91	0.44	
	0.72168	193.95	8.41	191.82	13.05		0.001375
		132353.59					
1686.44	61.00	4642.13	14.93	9.70	16363.03	0.44	
	0.77724	194.41	8.67	194.14	13.00		0.001436
		133956.12					
1738.10	62.00	4642.35	15.15	9.83	17089.91	0.45	
	0.81365	194.84	8.92	196.28	12.96		0.001462
		135431.17					
1776.36	63.00	4642.50	15.30	9.93	17642.35	0.45	
	0.86387	195.15	9.10	197.82	12.93		0.001521
		136493.38					
1825.22	64.00	4642.71	15.51	10.08	18391.22	0.45	
	0.90006	195.56	9.33	199.86	12.89		0.001545
		137905.11					
1842.41	65.00	4642.78	15.58	10.13	18655.56	0.45	
	0.91152	195.71	9.41	200.58	12.87		0.001552
		138402.69					
1843.41	66.00	4642.79	15.59	10.13	18670.94	0.45	
	0.91158	195.71	9.42	200.63	12.87		0.001551
		138435.58					
1843.52	67.00	4642.79	15.59	10.13	18672.68	0.45	
	0.91262	195.72	9.42	200.64	12.87		0.001553
		138438.39					
1843.58	68.00	4642.79	15.59	10.13	18673.59	0.45	
	0.91105	195.72	9.42	200.64	12.87		0.001550
		138440.84					

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		HYCHAN.OUT					
1843.78	69.00	4642.79	15.59	10.13	18676.58	0.45	
		195.72		9.42	200.65	12.87	0.001552
	0.91208	138446.55					
1843.83	70.00	4642.79	15.59	10.13	18677.36	0.45	
		195.72		9.42	200.65	12.87	0.001548
	0.91004	138449.45					
1843.81	71.00	4642.79	15.59	10.13	18677.09	0.45	
		195.72		9.42	200.65	12.87	0.001553
	0.91305	138448.81					
1851.13	72.00	4642.82	15.62	10.15	18789.26	0.45	
		195.77		9.46	200.93	12.87	0.001570
	0.92627	138639.73					
1866.58	73.00	4642.88	15.68	10.19	19026.08	0.45	
		195.91		9.53	201.58	12.85	0.001578
	0.93797	139087.05					
1867.97	74.00	4642.89	15.69	10.20	19047.35	0.45	
		195.92		9.53	201.64	12.85	0.001574
	0.93664	139132.62					
1875.13	75.00	4642.92	15.71	10.22	19156.83	0.45	
		195.97		9.57	201.91	12.85	0.001595
	0.95244	139316.73					
1905.29	76.00	4643.03	15.83	10.30	19616.72	0.46	
		196.21		9.71	203.07	12.83	0.001643
	0.99570	140114.89					
1945.30	77.00	4643.19	15.99	10.40	20230.96	0.46	
		196.52		9.90	204.62	12.80	0.001674
	1.03400	141189.02					
1971.42	78.00	4643.29	16.09	10.47	20635.89	0.46	
		196.73		10.02	205.65	12.78	0.001702
	1.06445	141895.72					
2004.74	79.00	4643.44	16.24	10.55	21150.39	0.46	
		197.03		10.17	207.11	12.75	0.001743
	1.10693	142907.55					
2030.63	80.00	4643.56	16.36	10.61	21550.04	0.46	
		197.27		10.29	208.30	12.73	0.001741
	1.11845	143726.80					
2008.38	81.00	4643.46	16.26	10.56	21207.07	0.46	
		197.07		10.19	207.31	12.75	0.001712
	1.08851	143046.83					
1990.72	82.00	4643.38	16.18	10.52	20934.58	0.46	
		196.90		10.11	206.49	12.76	0.001706
	1.07617	142478.97					
1990.16	83.00	4643.38	16.18	10.51	20925.96	0.46	
		196.90		10.11	206.46	12.76	0.001702
	1.07372	142457.86					
1990.08	84.00	4643.38	16.18	10.51	20924.81	0.46	
		196.90		10.11	206.46	12.76	0.001701
	1.07311	142460.48					
1976.50	85.00	4643.32	16.12	10.48	20714.10	0.46	
		196.78		10.04	205.91	12.77	0.001662
	1.04167	142075.80					
1927.90	86.00	4643.13	15.93	10.35	19962.51	0.46	
		196.41		9.82	204.05	12.81	0.001591
	0.97465	140797.17					
1857.51	87.00	4642.85	15.65	10.17	18884.98	0.45	
		195.85		9.48	201.31	12.86	0.001518
	0.89851	138903.92					
1769.44	88.00	4642.49	15.29	9.92	17545.98	0.45	
		195.12		9.07	197.70	12.93	0.001412
	0.79926	136410.67					
1669.10	89.00	4642.07	14.87	9.66	16118.20	0.44	
		194.29		8.59	193.52	13.01	0.001351
	0.72450	133525.66					

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HYCHAN.OUT							
1606.52	90.00	4641.80	14.60	8.29	9.48	15233.54	0.44
	0.67404	193.74				190.78	13.07
		131637.77					0.001303
1538.78	91.00	4641.49	14.29	8.00	9.30	14317.15	0.43
	0.62300	192.41				187.70	13.13
		129515.62					0.001248
1466.12	92.00	4641.15	13.95	7.76	9.10	13347.05	0.43
	0.58788	188.83				184.24	13.20
		127126.95					0.001213
1409.79	93.00	4640.87	13.67	7.59	8.93	12588.36	0.43
	0.56575	185.84				181.35	13.27
		125134.72					0.001195
1361.54	94.00	4640.61	13.41	7.44	8.77	11938.70	0.42
	0.55110	183.12				178.72	13.33
		123317.59					0.001188
1324.24	95.00	4640.40	13.20	7.32	8.63	11433.50	0.42
	0.54004	180.91				176.58	13.37
		121842.76					0.001182
1288.91	96.00	4640.22	13.02	7.20	8.50	10953.10	0.42
	0.52087	178.98				174.71	13.42
		120552.66					0.001159
1261.29	97.00	4640.09	12.89	7.10	8.38	10575.07	0.41
	0.50296	177.54				173.32	13.45
		119591.67					0.001135
1234.80	98.00	4639.93	12.73	7.02	8.27	10211.76	0.41
	0.50050	175.84				171.68	13.49
		118460.07					0.001142
1213.80	99.00	4639.80	12.60	6.96	8.19	9938.35	0.41
	0.49692	174.47				170.36	13.52
		117547.12					0.001145
1183.29	100.00	4639.62	12.42	6.86	8.10	9582.53	0.41
	0.49146	172.53				168.48	13.56
		116251.24					0.001148
1157.12	101.00	4639.47	12.27	6.77	8.02	9278.68	0.40
	0.48675	170.87				166.87	13.60
		115140.45					0.001152
1134.20	102.00	4639.33	12.13	6.70	7.95	9011.72	0.40
	0.48275	169.37				165.42	13.64
		114139.63					0.001155
1116.92	103.00	4639.23	12.03	6.64	7.89	8809.50	0.40
	0.47970	168.23				164.31	13.66
		113376.00					0.001158
1094.43	104.00	4639.09	11.89	6.56	7.81	8545.16	0.40
	0.47785	166.71				162.84	13.70
		112362.37					0.001166
1067.00	105.00	4638.91	11.71	6.47	7.71	8222.07	0.40
	0.47409	164.79				160.99	13.75
		111080.14					0.001173
1051.57	106.00	4638.81	11.61	6.42	7.65	8039.44	0.40
	0.47261	163.68				159.92	13.77
		110341.50					0.001179
1036.94	107.00	4638.71	11.51	6.38	7.59	7865.79	0.39
	0.47137	162.62				158.89	13.80
		109632.16					0.001185
1026.95	108.00	4638.64	11.44	6.34	7.54	7747.06	0.39
	0.46985	161.87				158.16	13.82
		109132.08					0.001187
1031.27	109.00	4638.67	11.47	6.36	7.56	7798.32	0.39
	0.47009	162.17				158.45	13.81
		109327.51					0.001185
1050.49	110.00	4638.80	11.60	6.42	7.64	8026.28	0.40
	0.47203	163.54				159.77	13.78
		110242.27					0.001178

HYCHAN.OUT							
1065.53	111.00	4638.90	11.70	6.47	7.70	8204.77	0.40
	0.47366	164.67				160.87	13.75
		110996.98					0.001173
1051.56	112.00	4638.81	11.61	6.42	7.65	8039.38	0.40
	0.47157	163.68				159.91	13.78
		110340.73					0.001176
1051.11	113.00	4638.80	11.60	6.43	7.64	8033.69	0.40
	0.47186	163.59				159.83	13.78
		110279.45					0.001177
1081.37	114.00	4638.99	11.79	6.53	7.76	8391.25	0.40
	0.47532	165.71				161.87	13.72
		111693.41					0.001167
1098.77	115.00	4639.11	11.91	6.58	7.82	8596.67	0.40
	0.47741	166.98				163.11	13.69
		112544.65					0.001163
1088.37	116.00	4639.05	11.85	6.55	7.79	8474.33	0.40
	0.47662	166.26				162.41	13.71
		112064.45					0.001167
1088.01	117.00	4639.04	11.84	6.54	7.78	8470.09	0.40
	0.47582	166.24				162.38	13.71
		112045.16					0.001165
1093.49	118.00	4639.07	11.87	6.56	7.80	8534.53	0.40
	0.47721	166.59				162.72	13.70
		112279.34					0.001165
1104.67	119.00	4639.15	11.95	6.60	7.84	8665.97	0.40
	0.47846	167.37				163.48	13.68
		112802.13					0.001162
1105.01	120.00	4639.15	11.95	6.60	7.85	8670.00	0.40
	0.47846	167.40				163.51	13.68
		112821.86					0.001162
1099.50	121.00	4639.12	11.92	6.58	7.83	8605.21	0.40
	0.47744	167.04				163.17	13.69
		112584.97					0.001162
1088.37	122.00	4639.05	11.85	6.55	7.79	8474.36	0.40
	0.47677	166.26				162.41	13.71
		112064.07					0.001167
1082.53	123.00	4639.01	11.81	6.53	7.76	8405.41	0.40
	0.47573	165.88				162.04	13.72
		111805.52					0.001168
1071.43	124.00	4638.94	11.74	6.49	7.72	8274.55	0.40
	0.47386	165.08				161.27	13.74
		111275.56					0.001170
1071.05	125.00	4638.93	11.73	6.49	7.72	8270.08	0.40
	0.47449	165.05				161.24	13.74
		111253.27					0.001172
1066.20	126.00	4638.90	11.70	6.47	7.70	8212.67	0.40
	0.47407	164.73				160.92	13.75
		111036.96					0.001174
1056.26	127.00	4638.84	11.64	6.44	7.66	8095.15	0.40
	0.47210	164.01				160.23	13.77
		110559.84					0.001175
1055.91	128.00	4638.84	11.64	6.44	7.66	8091.05	0.40
	0.47199	163.98				160.20	13.77
		110538.02					0.001175
1051.21	129.00	4638.81	11.61	6.42	7.64	8035.22	0.40
	0.47266	163.66				159.89	13.78
		110324.59					0.001179
1041.59	130.00	4638.74	11.54	6.39	7.60	7921.14	0.39
	0.47093	162.94				159.20	13.79
		109847.26					0.001181
1050.81	131.00	4638.80	11.60	6.42	7.64	8030.19	0.40
	0.47171	163.57				159.80	13.78
		110265.09					0.001177

HYCHAN.OUT									
1070.38	132.00	4638.93	11.73	6.49	7.72	8262.22	13.74	0.40	0.001170
	0.47375	164.99				161.18			
		111215.52							
1071.05	133.00	4638.93	11.73	6.49	7.72	8270.04	13.74	0.40	0.001171
	0.47413	165.05				161.23			
		111250.73							
1071.04	134.00	4638.93	11.73	6.49	7.72	8269.97	13.74	0.40	0.001170
	0.47363	165.05				161.23			
		111251.88							
1071.04	135.00	4638.93	11.73	6.49	7.72	8270.03	13.74	0.40	0.001170
	0.47378	165.05				161.23			
		111251.69							
1071.04	136.00	4638.93	11.73	6.49	7.72	8270.00	13.74	0.40	0.001169
	0.47338	165.05				161.24			
		111252.21							
1071.04	137.00	4638.93	11.73	6.49	7.72	8269.95	13.74	0.40	0.001171
	0.47412	165.05				161.23			
		111251.00							
1071.04	138.00	4638.93	11.73	6.49	7.72	8270.04	13.74	0.40	0.001170
	0.47395	165.05				161.24			
		111252.27							
1066.19	139.00	4638.90	11.70	6.47	7.70	8212.62	13.75	0.40	0.001174
	0.47408	164.73				160.92			
		111037.65							
1056.26	140.00	4638.84	11.64	6.44	7.66	8095.15	13.77	0.40	0.001175
	0.47215	164.01				160.23			
		110556.83							
1055.91	141.00	4638.84	11.64	6.44	7.66	8091.03	13.77	0.40	0.001176
	0.47254	163.98				160.20			
		110539.15							
1055.91	142.00	4638.84	11.64	6.44	7.66	8091.04	13.77	0.40	0.001176
	0.47255	163.98				160.20			
		110539.03							
1055.91	143.00	4638.84	11.64	6.44	7.66	8090.98	13.77	0.40	0.001176
	0.47249	163.98				160.20			
		110537.67							
1051.21	144.00	4638.81	11.61	6.42	7.64	8035.26	13.78	0.40	0.001178
	0.47221	163.66				159.89			
		110322.17							
1041.59	145.00	4638.74	11.54	6.39	7.60	7921.12	13.79	0.39	0.001181
	0.47118	162.95				159.20			
		109848.38							
1041.24	146.00	4638.74	11.54	6.39	7.60	7916.98	13.79	0.39	0.001182
	0.47132	162.92				159.17			
		109829.62							
1041.24	147.00	4638.74	11.54	6.39	7.60	7917.01	13.79	0.39	0.001182
	0.47145	162.92				159.17			
		109827.73							
1041.24	148.00	4638.74	11.54	6.39	7.60	7917.01	13.79	0.39	0.001181
	0.47090	162.92				159.17			
		109827.38							
1041.24	149.00	4638.74	11.54	6.39	7.60	7916.98	13.79	0.39	0.001181
	0.47114	162.91				159.17			
		109826.71							
1038.14	150.00	4638.72	11.52	6.38	7.59	7880.07	13.80	0.39	0.001183
	0.47117	162.70				158.97			
		109686.06							
1030.16	151.00	4638.67	11.47	6.35	7.56	7785.24	13.81	0.39	0.001186
	0.47039	162.12				158.40			
		109293.68							
1026.72	152.00	4638.64	11.44	6.34	7.54	7744.32	13.82	0.39	0.001187
	0.47004	161.85				158.14			
		109117.89							

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HYCHAN.OUT							
1026.61	153.00	4638.64	11.44	6.34	7.54	7742.99	0.39
	0.46987	161.85				158.13	13.82
		109113.06					0.001187
1021.98	154.00	4638.61	11.41	6.33	7.52	7687.75	0.39
	0.47053	161.52				157.82	13.83
		108893.19					0.001192
1021.67	155.00	4638.60	11.40	6.33	7.52	7683.66	0.39
	0.46916	161.44				157.74	13.83
		108840.31					0.001188
1040.58	156.00	4638.73	11.53	6.39	7.60	7909.10	0.39
	0.47055	162.86				159.11	13.80
		109788.91					0.001180
1041.24	157.00	4638.74	11.54	6.39	7.60	7916.98	0.39
	0.47092	162.92				159.17	13.79
		109829.75					0.001181
1041.24	158.00	4638.74	11.54	6.39	7.60	7917.01	0.39
	0.47135	162.91				159.17	13.79
		109825.82					0.001182
1041.24	159.00	4638.74	11.54	6.39	7.60	7917.02	0.39
	0.47168	162.92				159.17	13.79
		109828.23					0.001183
1041.24	160.00	4638.74	11.54	6.39	7.60	7916.98	0.39
	0.47095	162.92				159.17	13.79
		109830.10					0.001181
1041.24	161.00	4638.74	11.54	6.39	7.60	7916.97	0.39
	0.47089	162.92				159.17	13.79
		109830.09					0.001181
1041.24	162.00	4638.74	11.54	6.39	7.60	7917.02	0.39
	0.47097	162.92				159.17	13.79
		109829.57					0.001181
1041.24	163.00	4638.74	11.54	6.39	7.60	7917.00	0.39
	0.47077	162.92				159.17	13.79
		109829.52					0.001180
1036.57	164.00	4638.71	11.51	6.38	7.58	7861.42	0.39
	0.47185	162.59				158.86	13.80
		109610.79					0.001186
1026.96	165.00	4638.64	11.44	6.34	7.54	7747.18	0.39
	0.47000	161.87				158.16	13.82
		109130.35					0.001187
1026.61	166.00	4638.64	11.44	6.34	7.54	7743.03	0.39
	0.46978	161.85				158.14	13.82
		109113.45					0.001187
1026.61	167.00	4638.64	11.44	6.34	7.54	7742.97	0.39
	0.46985	161.84				158.13	13.82
		109111.75					0.001187
1026.61	168.00	4638.64	11.44	6.34	7.54	7743.04	0.39
	0.46970	161.85				158.14	13.82
		109115.02					0.001187
1026.61	169.00	4638.64	11.44	6.34	7.54	7742.98	0.39
	0.47008	161.84				158.13	13.82
		109112.04					0.001188
1026.61	170.00	4638.64	11.44	6.34	7.54	7743.00	0.39
	0.47007	161.84				158.13	13.82
		109109.50					0.001188
1026.61	171.00	4638.64	11.44	6.34	7.54	7743.01	0.39
	0.46993	161.85				158.14	13.82
		109114.66					0.001187
1021.97	172.00	4638.61	11.41	6.33	7.52	7687.56	0.39
	0.47075	161.52				157.81	13.83
		108892.26					0.001192
1012.37	173.00	4638.55	11.35	6.30	7.48	7573.12	0.39
	0.46914	160.79				157.11	13.85
		108405.92					0.001194

HYCHAN.OUT									
1012.02	174.00	4638.54	11.34	6.30	7.48	157.08	13.85	0.39	0.001194
	0.46899	160.76							
		108387.11							
1012.02	175.00	4638.54	11.34	6.30	7.48	157.08	13.85	0.39	0.001193
	0.46884	160.76							
		108387.05							
1012.02	176.00	4638.54	11.34	6.30	7.48	157.08	13.85	0.39	0.001194
	0.46904	160.76							
		108386.34							
1012.02	177.00	4638.54	11.34	6.30	7.48	157.08	13.85	0.39	0.001194
	0.46889	160.76							
		108386.59							
1012.02	178.00	4638.54	11.34	6.30	7.48	157.08	13.85	0.39	0.001194
	0.46894	160.76							
		108386.55							
1021.35	179.00	4638.60	11.40	6.33	7.52	157.71	13.83	0.39	0.001188
	0.46906	161.41							
		108822.30							
1040.57	180.00	4638.73	11.53	6.39	7.60	159.11	13.80	0.39	0.001182
	0.47128	162.86							
		109787.93							
1045.94	181.00	4638.77	11.57	6.41	7.62	159.48	13.79	0.40	0.001179
	0.47159	163.24							
		110042.77							
1055.58	182.00	4638.83	11.63	6.44	7.66	160.17	13.77	0.40	0.001174
	0.47186	163.95							
		110515.77							
1055.91	183.00	4638.84	11.64	6.44	7.66	160.20	13.77	0.40	0.001175
	0.47227	163.98							
		110538.49							
1055.91	184.00	4638.84	11.64	6.44	7.66	160.20	13.77	0.40	0.001174
	0.47193	163.98							
		110537.52							
1055.91	185.00	4638.84	11.64	6.44	7.66	160.20	13.77	0.40	0.001175
	0.47205	163.98							
		110538.88							
1055.90	186.00	4638.84	11.64	6.44	7.66	160.20	13.77	0.40	0.001176
	0.47258	163.98							
		110537.11							
1055.91	187.00	4638.84	11.64	6.44	7.66	160.20	13.77	0.40	0.001175
	0.47211	163.98							
		110536.13							
1055.91	188.00	4638.84	11.64	6.44	7.66	160.20	13.77	0.40	0.001175
	0.47196	163.98							
		110538.34							
1055.91	189.00	4638.84	11.64	6.44	7.66	160.20	13.77	0.40	0.001175
	0.47208	163.98							
		110536.12							
1051.21	190.00	4638.81	11.61	6.42	7.64	159.89	13.78	0.40	0.001179
	0.47244	163.66							
		110321.98							
1041.57	191.00	4638.74	11.54	6.39	7.60	159.20	13.79	0.39	0.001183
	0.47171	162.94							
		109845.82							
1041.24	192.00	4638.74	11.54	6.39	7.60	159.18	13.79	0.39	0.001181
	0.47086	162.92							
		109831.04							
1041.24	193.00	4638.74	11.54	6.39	7.60	159.17	13.79	0.39	0.001181
	0.47085	162.92							
		109829.73							
1041.24	194.00	4638.74	11.54	6.39	7.60	159.18	13.79	0.39	0.001181
	0.47088	162.92							
		109832.32							

HYCHAN.OUT							
195.00	4638.74	11.54	7.60	7917.01	0.39		
1041.24	162.92	6.39	159.18	13.79	0.001182		
0.47154	109831.65						
196.00	4638.74	11.54	7.60	7917.02	0.39		
1041.24	162.91	6.39	159.17	13.79	0.001183		
0.47162	109827.29						
197.00	4638.74	11.54	7.60	7916.97	0.39		
1041.24	162.91	6.39	159.17	13.79	0.001181		
0.47094	109826.27						
198.00	4638.74	11.54	7.60	7916.99	0.39		
1041.24	162.92	6.39	159.17	13.79	0.001180		
0.47079	109830.03						
199.00	4638.74	11.54	7.60	7917.00	0.39		
1041.24	162.92	6.39	159.17	13.79	0.001181		
0.47089	109830.58						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 172

MAXIMUM DISCHARGE (CFS) = 20249.65 AT TIME = 79.17  
 MAXIMUM STAGE = 4640.97 AT TIME = 79.32

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	4624.10	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4625.60	1.50	1.06	472.42	0.15	0.002810
445.35	33.31	13.37	33.01	22.07		
2.34442	21127.65					
2.00	4634.53	10.43	6.95	5254.92	0.38	0.002651
756.46	150.66	5.02	147.30	14.12		
0.83047	94271.28					
3.00	4634.72	10.62	7.05	5489.85	0.38	0.002655
778.80	152.71	5.10	149.29	14.06		
0.84481	95544.21					
4.00	4634.64	10.54	7.00	5383.66	0.38	0.002659
768.96	151.88	5.06	148.48	14.08		
0.83991	95028.45					
5.00	4634.61	10.51	6.98	5338.00	0.38	0.002658
764.47	151.49	5.05	148.11	14.09		
0.83703	94789.45					
6.00	4634.50	10.40	6.92	5192.85	0.38	0.002663
750.28	150.28	4.99	146.93	14.13		
0.82964	94033.84					
7.00	4634.39	10.29	6.85	5040.91	0.38	0.002667
735.68	149.01	4.94	145.70	14.16		
0.82163	93248.88					
8.00	4634.27	10.17	6.78	4890.58	0.37	0.002671
721.12	147.73	4.88	144.46	14.20		
0.81357	92456.73					
9.00	4634.19	10.09	6.72	4778.40	0.37	0.002672
710.66	146.81	4.84	143.57	14.23		
0.80703	91885.44					
10.00	4634.16	10.06	6.70	4732.88	0.37	0.002672
706.05	146.40	4.82	143.17	14.24		
0.80410	91628.80					
11.00	4634.04	9.94	6.64	4588.59	0.37	

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		HYCHAN.OUT				
691.35	145.08	4.77	141.89	14.28	0.002678	
0.79629	90808.57					
12.00	4633.95	9.85	6.58	4475.76	0.37	
680.51	144.10	4.72	140.94	14.30	0.002677	
0.78895	90201.84					
13.00	4633.95	9.85	6.57	4468.88	0.37	
680.27	144.08	4.72	140.92	14.31	0.002678	
0.78913	90188.84					
14.00	4633.95	9.85	6.57	4469.07	0.37	
680.30	144.08	4.72	140.92	14.31	0.002678	
0.78908	90190.44					
15.00	4633.95	9.85	6.57	4468.99	0.37	
680.29	144.08	4.72	140.92	14.31	0.002678	
0.78892	90189.80					
16.00	4633.95	9.85	6.57	4469.01	0.37	
680.17	144.07	4.72	140.91	14.31	0.002678	
0.78896	90183.12					
17.00	4633.98	9.88	6.59	4507.65	0.37	
684.16	144.43	4.74	141.27	14.29	0.002676	
0.79106	90409.83					
18.00	4634.10	10.00	6.66	4653.60	0.37	
698.79	145.75	4.79	142.55	14.26	0.002671	
0.79914	91229.95					
19.00	4634.22	10.12	6.73	4805.07	0.37	
713.78	147.09	4.85	143.84	14.22	0.002669	
0.80832	92059.66					
20.00	4634.30	10.20	6.79	4917.80	0.37	
724.75	148.06	4.90	144.78	14.19	0.002671	
0.81584	92659.66					
21.00	4634.31	10.21	6.79	4924.08	0.37	
725.36	148.11	4.90	144.83	14.19	0.002667	
0.81494	92692.10					
22.00	4634.34	10.24	6.81	4963.44	0.38	
729.24	148.45	4.91	145.16	14.18	0.002666	
0.81725	92904.45					
23.00	4634.48	10.38	6.89	5150.36	0.38	
747.33	150.03	4.98	146.69	14.13	0.002659	
0.82658	93880.45					
24.00	4634.69	10.59	7.03	5449.68	0.38	
775.74	152.46	5.09	149.04	14.07	0.002653	
0.84223	95386.89					
25.00	4634.91	10.81	7.16	5754.69	0.38	
804.04	154.83	5.19	151.34	14.00	0.002644	
0.85681	96855.98					
26.00	4635.06	10.96	7.25	5974.24	0.39	
824.06	156.47	5.27	152.93	13.96	0.002643	
0.86846	97877.12					
27.00	4635.06	10.96	7.26	5984.96	0.39	
824.86	156.54	5.27	153.00	13.96	0.002644	
0.86932	97917.23					
28.00	4635.09	10.99	7.27	6031.52	0.39	
829.20	156.89	5.29	153.34	13.95	0.002639	
0.87041	98137.66					
29.00	4635.17	11.07	7.32	6145.90	0.39	
839.46	157.73	5.32	154.15	13.93	0.002640	
0.87669	98653.34					
30.00	4635.17	11.07	7.32	6151.94	0.39	
839.92	157.76	5.32	154.18	13.93	0.002640	
0.87707	98675.51					
31.00	4635.20	11.10	7.34	6200.91	0.39	
844.44	158.13	5.34	154.54	13.92	0.002637	
0.87860	98903.12					
32.00	4635.28	11.18	7.39	6319.71	0.39	

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HYCHAN.OUT						
855.04	158.98	5.38	155.36	13.89	0.002637	
0.88495	99430.36					
33.00	4635.28	11.18	7.39	6326.04	0.39	
855.52	159.02	5.38	155.40	13.89	0.002637	
0.88524	99453.12					
34.00	4635.25	11.15	7.38	6277.41	0.39	
850.58	158.62	5.36	155.01	13.90	0.002637	
0.88237	99205.65					
35.00	4635.17	11.07	7.33	6158.17	0.39	
840.08	157.77	5.32	154.19	13.93	0.002638	
0.87654	98683.30					
36.00	4635.14	11.04	7.31	6105.40	0.39	
835.14	157.37	5.31	153.80	13.94	0.002642	
0.87486	98433.32					
37.00	4635.06	10.96	7.26	5990.93	0.39	
824.99	156.55	5.27	153.01	13.96	0.002641	
0.86858	97923.28					
38.00	4635.06	10.96	7.26	5984.97	0.39	
824.86	156.54	5.27	153.00	13.96	0.002643	
0.86916	97916.94					
39.00	4635.06	10.96	7.26	5985.04	0.39	
824.87	156.54	5.27	153.00	13.96	0.002643	
0.86894	97917.54					
40.00	4635.06	10.96	7.26	5985.00	0.39	
824.87	156.54	5.27	153.00	13.96	0.002643	
0.86919	97917.31					
41.00	4635.06	10.96	7.26	5984.88	0.39	
824.85	156.54	5.27	152.99	13.96	0.002645	
0.86960	97916.62					
42.00	4635.09	10.99	7.27	6031.85	0.39	
829.20	156.89	5.29	153.34	13.95	0.002640	
0.87079	98137.47					
43.00	4635.17	11.07	7.32	6146.06	0.39	
839.50	157.73	5.32	154.15	13.93	0.002639	
0.87632	98655.02					
44.00	4635.20	11.10	7.34	6200.68	0.39	
844.42	158.13	5.34	154.53	13.92	0.002636	
0.87840	98901.84					
45.00	4635.31	11.21	7.41	6368.89	0.39	
859.52	159.34	5.39	155.71	13.89	0.002632	
0.88584	99652.85					
46.00	4635.42	11.32	7.48	6542.97	0.39	
874.88	160.56	5.45	156.89	13.85	0.002631	
0.89448	100408.84					
47.00	4635.53	11.43	7.55	6716.81	0.39	
890.06	161.75	5.50	158.04	13.82	0.002626	
0.90178	101148.23					
48.00	4635.64	11.54	7.61	6891.04	0.40	
905.22	162.93	5.56	159.19	13.79	0.002623	
0.90925	101879.68					
49.00	4635.75	11.65	7.67	7065.14	0.40	
920.77	164.13	5.61	160.35	13.76	0.002616	
0.91563	102622.41					
50.00	4635.89	11.79	7.75	7289.41	0.40	
941.12	165.68	5.68	161.85	13.73	0.002598	
0.92088	103583.95					
51.00	4636.05	11.95	7.82	7532.11	0.40	
963.37	167.36	5.76	163.47	13.68	0.002592	
0.93114	104620.95					
52.00	4636.08	11.98	7.84	7593.46	0.40	
968.84	167.77	5.77	163.87	13.67	0.002586	
0.93201	104874.20					
53.00	4636.26	12.16	7.92	7873.83	0.40	

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		HYCHAN.OUT					
994.24	169.64	5.86	165.68	13.63	0.002564		
0.93752	106037.73						
54.00	4636.62	12.52	8.09	8492.34	0.40		
1049.41	173.63	6.04	169.54	13.54	0.002528		
0.95345	108506.41						
55.00	4637.11	13.01	8.32	9352.14	0.41		
1124.11	178.84	6.29	174.59	13.42	0.002483		
0.97395	111734.46						
56.00	4637.70	13.60	8.68	10570.59	0.42		
1217.23	185.06	6.58	180.59	13.28	0.002552		
1.04764	115580.19						
57.00	4638.21	14.11	9.23	12003.45	0.43		
1301.07	190.46	6.83	185.82	13.17	0.002558		
1.09021	118923.48						
58.00	4638.64	14.54	9.55	13151.36	0.44		
1376.68	193.62	7.11	190.19	13.08	0.002574		
1.14208	121721.03						
59.00	4639.03	14.93	9.85	14270.71	0.45		
1449.31	194.40	7.46	194.09	13.00	0.002596		
1.20765	124219.89						
60.00	4639.42	15.32	10.12	15412.18	0.46		
1522.45	195.19	7.80	198.02	12.92	0.002599		
1.26484	126735.26						
61.00	4639.64	15.54	10.29	16072.52	0.46		
1562.63	195.62	7.99	200.18	12.88	0.002615		
1.30337	128113.06						
62.00	4639.84	15.74	10.44	16698.82	0.46		
1599.39	196.02	8.16	202.14	12.84	0.002618		
1.33316	129368.20						
63.00	4639.98	15.88	10.56	17152.38	0.47		
1624.81	196.30	8.28	203.50	12.82	0.002640		
1.36378	130241.19						
64.00	4640.17	16.07	10.70	17767.33	0.47		
1659.88	196.68	8.44	205.38	12.78	0.002645		
1.39274	131441.59						
65.00	4640.24	16.14	10.75	17986.23	0.47		
1672.67	196.81	8.50	206.06	12.77	0.002644		
1.40221	131875.28						
66.00	4640.24	16.14	10.76	18000.24	0.47		
1673.62	196.82	8.50	206.10	12.77	0.002646		
1.40377	131907.09						
67.00	4640.24	16.14	10.76	18001.70	0.47		
1673.69	196.82	8.50	206.11	12.77	0.002646		
1.40407	131909.30						
68.00	4640.24	16.14	10.76	18002.63	0.47		
1673.76	196.82	8.50	206.11	12.77	0.002644		
1.40303	131911.42						
69.00	4640.24	16.14	10.76	18005.05	0.47		
1673.90	196.83	8.50	206.12	12.77	0.002643		
1.40283	131916.98						
70.00	4640.24	16.14	10.76	18005.74	0.47		
1673.97	196.83	8.50	206.12	12.77	0.002644		
1.40300	131919.20						
71.00	4640.24	16.14	10.76	18005.64	0.47		
1673.97	196.83	8.50	206.12	12.77	0.002646		
1.40404	131919.00						
72.00	4640.27	16.17	10.78	18085.73	0.47		
1678.42	196.88	8.53	206.36	12.76	0.002650		
1.40986	132073.16						
73.00	4640.33	16.23	10.81	18270.33	0.47		
1690.27	197.01	8.58	207.00	12.75	0.002648		
1.41795	132477.97						
74.00	4640.34	16.24	10.81	18289.23	0.47		

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				HYCHAN.OUT			
1691.61		197.02		8.59	207.07	12.75	0.002647
	1.41807	132522.53					
	75.00	4640.36	16.26	10.83	18366.36	0.47	
1695.92		197.07		8.61	207.30	12.75	0.002652
	1.42404	132671.89					
	76.00	4640.47	16.37	10.90	18706.54	0.48	
1715.77		197.28		8.70	208.36	12.73	0.002662
	1.44438	133352.48					
	77.00	4640.62	16.52	11.00	19165.32	0.48	
1742.85		197.58		8.82	209.81	12.70	0.002666
	1.46763	134277.78					
	78.00	4640.71	16.61	11.05	19459.90	0.48	
1760.48		197.77		8.90	210.75	12.68	0.002674
	1.48511	134879.41					
	79.00	4640.86	16.76	11.07	19783.83	0.48	
1786.74		198.06		9.02	212.16	12.66	0.002689
	1.51379	135781.27					
	80.00	4640.98	16.88	11.09	20056.55	0.48	
1809.13		198.30		9.12	213.34	12.64	0.002687
	1.52980	136540.20					
	81.00	4640.88	16.78	11.08	19853.79	0.48	
1791.45		198.11		9.04	212.39	12.66	0.002672
	1.50798	135931.72					
	82.00	4640.80	16.70	11.08	19676.23	0.48	
1775.87		197.94		8.97	211.56	12.67	0.002674
	1.49685	135400.73					
	83.00	4640.79	16.69	11.08	19667.41	0.48	
1775.18		197.93		8.97	211.53	12.67	0.002670
	1.49405	135378.33					
	84.00	4640.79	16.69	11.08	19665.99	0.48	
1775.31		197.93		8.97	211.54	12.67	0.002669
	1.49393	135382.72					
	85.00	4640.74	16.64	11.06	19535.20	0.48	
1766.03		197.83		8.93	211.03	12.68	0.002659
	1.48101	135061.36					
	86.00	4640.57	16.47	10.95	19003.19	0.48	
1735.06		197.49		8.79	209.37	12.71	0.002643
	1.44876	133997.73					
	87.00	4640.31	16.21	10.78	18196.68	0.47	
1687.68		196.97		8.57	206.84	12.76	0.002631
	1.40665	132374.83					
	88.00	4639.98	15.88	10.54	17141.11	0.47	
1625.64		196.30		8.28	203.51	12.82	0.002595
	1.34117	130244.31					
	89.00	4639.59	15.49	10.25	15923.42	0.46	
1553.51		195.52		7.95	199.66	12.89	0.002585
	1.28145	127781.89					
	90.00	4639.33	15.23	10.06	15143.29	0.45	
1505.51		195.00		7.72	197.09	12.94	0.002570
	1.23818	126138.02					
	91.00	4639.04	14.94	9.85	14293.98	0.45	
1451.63		194.42		7.47	194.19	13.00	0.002554
	1.19000	124283.63					
	92.00	4638.72	14.62	9.61	13362.22	0.44	
1391.08		193.77		7.18	190.94	13.06	0.002546
	1.14073	122203.60					
	93.00	4638.44	14.34	9.41	12608.33	0.44	
1340.57		192.90		6.95	188.18	13.12	0.002539
	1.10128	120432.95					
	94.00	4638.18	14.08	9.22	11952.62	0.43	
1297.03		190.20		6.82	185.57	13.18	0.002536
	1.07901	118766.27					
	95.00	4637.97	13.87	9.07	11447.45	0.43	

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		HYCHAN.OUT					
1262.08	187.98	6.71	183.42	13.22	0.002534		
1.06166	117389.34						
96.00	4637.82	13.72	8.86	10960.55	0.42		
1237.32	186.39	6.64	181.88	13.26	0.002478		
1.02628	116405.26						
97.00	4637.73	13.63	8.66	10584.57	0.41		
1222.13	185.40	6.59	180.92	13.28	0.002458		
1.01092	115791.87						
98.00	4637.57	13.47	8.54	10219.37	0.41		
1196.75	183.73	6.51	179.31	13.31	0.002469		
1.00346	114761.34						
99.00	4637.44	13.34	8.47	9949.54	0.41		
1175.20	182.30	6.45	177.93	13.34	0.002480		
0.99764	113872.82						
100.00	4637.24	13.14	8.38	9593.01	0.41		
1144.33	180.22	6.35	175.92	13.39	0.002496		
0.98899	112587.23						
101.00	4637.07	12.97	8.31	9288.41	0.41		
1118.41	178.45	6.27	174.21	13.43	0.002511		
0.98212	111492.66						
102.00	4636.93	12.83	8.23	9018.97	0.41		
1095.31	176.86	6.19	172.67	13.46	0.002522		
0.97467	110505.64						
103.00	4636.81	12.71	8.18	8816.04	0.40		
1077.89	175.64	6.14	171.49	13.49	0.002527		
0.96754	109752.69						
104.00	4636.66	12.56	8.11	8557.06	0.40		
1054.89	174.01	6.06	169.91	13.53	0.002546		
0.96309	108744.07						
105.00	4636.47	12.37	8.02	8229.66	0.40		
1026.01	171.95	5.97	167.92	13.58	0.002558		
0.95228	107466.50						
106.00	4636.36	12.26	7.97	8045.33	0.40		
1009.63	170.77	5.91	166.77	13.60	0.002568		
0.94754	106732.27						
107.00	4636.25	12.15	7.92	7871.68	0.40		
993.87	169.61	5.86	165.65	13.63	0.002578		
0.94252	106018.02						
108.00	4636.18	12.08	7.88	7748.44	0.40		
983.04	168.82	5.82	164.88	13.65	0.002580		
0.93765	105525.70						
109.00	4636.21	12.11	7.90	7793.83	0.40		
987.18	169.13	5.84	165.18	13.64	0.002575		
0.93773	105716.56						
110.00	4636.34	12.24	7.96	8015.79	0.40		
1007.05	170.58	5.90	166.59	13.61	0.002560		
0.94305	106619.74						
111.00	4636.46	12.36	8.01	8206.64	0.40		
1024.05	171.81	5.96	167.78	13.58	0.002559		
0.95179	107381.52						
112.00	4636.36	12.26	7.97	8045.27	0.40		
1009.56	170.76	5.91	166.76	13.60	0.002567		
0.94715	106728.73						
113.00	4636.35	12.25	7.96	8025.87	0.40		
1007.90	170.64	5.91	166.65	13.61	0.002557		
0.94255	106657.66						
114.00	4636.56	12.46	8.06	8378.19	0.40		
1039.32	172.92	6.01	168.85	13.55	0.002539		
0.95238	108063.89						
115.00	4636.69	12.59	8.12	8598.82	0.40		
1058.90	174.31	6.07	170.20	13.52	0.002539		
0.96249	108925.41						
116.00	4636.62	12.52	8.09	8475.92	0.40		

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				HYCHAN.OUT			
1047.99		173.53		6.04	169.45	13.54	0.002544
	0.95871	108445.64					
117.00		4636.61	12.51	8.09	8470.03	0.40	
1047.55		173.50		6.04	169.42	13.54	0.002542
	0.95760	108426.71					
118.00		4636.65	12.55	8.10	8529.40	0.40	
1052.63		173.86		6.05	169.77	13.53	0.002536
	0.95803	108651.71					
119.00		4636.73	12.63	8.14	8664.51	0.40	
1064.58		174.71		6.09	170.59	13.51	0.002533
	0.96325	109175.38					
120.00		4636.73	12.63	8.14	8670.00	0.40	
1065.08		174.74		6.10	170.62	13.51	0.002533
	0.96343	109196.92					
121.00		4636.69	12.59	8.12	8610.28	0.40	
1059.87		174.37		6.08	170.26	13.52	0.002538
	0.96262	108966.65					
122.00		4636.62	12.52	8.09	8475.94	0.40	
1047.95		173.53		6.04	169.44	13.54	0.002543
	0.95828	108443.66					
123.00		4636.58	12.48	8.07	8410.63	0.40	
1042.29		173.12		6.02	169.05	13.55	0.002550
	0.95794	108191.91					
124.00		4636.50	12.40	8.03	8275.87	0.40	
1030.39		172.27		5.98	168.23	13.57	0.002550
	0.95180	107665.03					
125.00		4636.50	12.40	8.03	8270.28	0.40	
1029.85		172.23		5.98	168.19	13.57	0.002552
	0.95231	107641.24					
126.00		4636.46	12.36	8.02	8217.15	0.40	
1025.04		171.88		5.96	167.85	13.58	0.002561
	0.95319	107424.59					
127.00		4636.39	12.29	7.98	8096.43	0.40	
1014.59		171.13		5.93	167.12	13.59	0.002562
	0.94790	106957.48					
128.00		4636.39	12.29	7.98	8091.06	0.40	
1014.06		171.09		5.93	167.08	13.60	0.002562
	0.94769	106934.27					
129.00		4636.36	12.26	7.97	8039.99	0.40	
1009.35		170.75		5.91	166.75	13.60	0.002567
	0.94684	106719.99					
130.00		4636.29	12.19	7.93	7922.34	0.40	
998.68		169.97		5.88	166.00	13.62	0.002570
	0.94231	106238.76					
131.00		4636.35	12.25	7.96	8021.04	0.40	
1007.69		170.63		5.91	166.64	13.61	0.002560
	0.94339	106648.45					
132.00		4636.49	12.39	8.03	8259.48	0.40	
1028.94		172.17		5.98	168.13	13.57	0.002552
	0.95183	107601.70					
133.00		4636.49	12.39	8.03	8270.16	0.40	
1029.69		172.22		5.98	168.18	13.57	0.002554
	0.95274	107633.91					
134.00		4636.49	12.39	8.03	8269.83	0.40	
1029.72		172.22		5.98	168.18	13.57	0.002554
	0.95304	107635.44					
135.00		4636.49	12.39	8.03	8269.99	0.40	
1029.76		172.23		5.98	168.18	13.57	0.002552
	0.95212	107637.42					
136.00		4636.49	12.39	8.03	8270.02	0.40	
1029.79		172.23		5.98	168.19	13.57	0.002552
	0.95218	107638.64					
137.00		4636.49	12.39	8.03	8270.07	0.40	

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				HYCHAN.OUT			
1029.72		172.22		5.98	168.18	13.57	0.002554
	0.95279	107635.30					
138.00		4636.50	12.39	8.03	8269.95	0.40	
1029.81		172.23		5.98	168.19	13.57	0.002555
	0.95328	107639.64					
139.00		4636.46	12.36	8.02	8217.29	0.40	
1025.15		171.89		5.96	167.86	13.58	0.002560
	0.95264	107429.47					
140.00		4636.39	12.29	7.98	8096.49	0.40	
1014.44		171.12		5.93	167.11	13.60	0.002562
	0.94768	106950.84					
141.00		4636.39	12.29	7.98	8091.09	0.40	
1014.11		171.09		5.93	167.09	13.60	0.002562
	0.94755	106936.24					
142.00		4636.39	12.29	7.98	8091.06	0.40	
1014.12		171.10		5.93	167.09	13.60	0.002561
	0.94703	106936.94					
143.00		4636.39	12.29	7.98	8091.00	0.40	
1014.03		171.09		5.93	167.08	13.60	0.002563
	0.94779	106932.75					
144.00		4636.36	12.26	7.97	8039.88	0.40	
1009.24		170.74		5.91	166.74	13.60	0.002565
	0.94627	106715.26					
145.00		4636.29	12.19	7.93	7922.33	0.40	
998.75		169.97		5.88	166.00	13.62	0.002573
	0.94332	106241.84					
146.00		4636.28	12.18	7.93	7917.08	0.40	
998.36		169.95		5.87	165.98	13.62	0.002574
	0.94339	106224.74					
147.00		4636.28	12.18	7.93	7917.05	0.40	
998.28		169.94		5.87	165.97	13.62	0.002571
	0.94257	106220.92					
148.00		4636.28	12.18	7.93	7916.88	0.40	
998.26		169.94		5.87	165.97	13.62	0.002573
	0.94297	106219.98					
149.00		4636.28	12.18	7.93	7917.03	0.40	
998.17		169.93		5.87	165.96	13.62	0.002572
	0.94271	106216.05					
150.00		4636.26	12.16	7.92	7883.03	0.40	
995.19		169.71		5.86	165.75	13.63	0.002575
	0.94222	106079.29					
151.00		4636.20	12.10	7.89	7787.71	0.40	
986.56		169.08		5.83	165.14	13.64	0.002580
	0.93956	105686.68					
152.00		4636.18	12.08	7.88	7744.73	0.40	
982.77		168.80		5.82	164.86	13.65	0.002580
	0.93747	105513.56					
153.00		4636.18	12.08	7.88	7742.99	0.40	
982.72		168.79		5.82	164.86	13.65	0.002580
	0.93739	105511.78					
154.00		4636.14	12.04	7.87	7692.35	0.40	
977.78		168.43		5.81	164.50	13.66	0.002586
	0.93665	105282.89					
155.00		4636.13	12.03	7.86	7675.94	0.40	
976.34		168.32		5.80	164.41	13.66	0.002579
	0.93329	105219.75					
156.00		4636.28	12.18	7.93	7906.30	0.40	
997.36		169.87		5.87	165.91	13.62	0.002571
	0.94179	106180.11					
157.00		4636.28	12.18	7.93	7916.99	0.40	
998.41		169.95		5.87	165.98	13.62	0.002570
	0.94224	106226.74					
158.00		4636.28	12.18	7.93	7917.20	0.40	

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		HYCHAN.OUT				
998.13	169.93	5.87	165.96	13.62	0.002572	
0.94267	106214.00					
159.00	4636.28	12.18	7.93	7917.00	0.40	
998.26	169.94	5.87	165.97	13.62	0.002571	
0.94237	106220.02					
160.00	4636.28	12.18	7.93	7916.78	0.40	
998.42	169.95	5.87	165.98	13.62	0.002572	
0.94272	106227.70					
161.00	4636.28	12.18	7.93	7916.99	0.40	
998.41	169.95	5.87	165.98	13.62	0.002571	
0.94244	106226.87					
162.00	4636.28	12.18	7.93	7917.05	0.40	
998.38	169.95	5.87	165.98	13.62	0.002573	
0.94329	106225.52					
163.00	4636.28	12.18	7.93	7916.98	0.40	
998.38	169.95	5.87	165.98	13.62	0.002572	
0.94276	106225.56					
164.00	4636.25	12.15	7.92	7866.14	0.40	
993.43	169.58	5.86	165.62	13.63	0.002577	
0.94189	105998.52					
165.00	4636.18	12.08	7.88	7748.40	0.40	
982.94	168.81	5.82	164.88	13.65	0.002579	
0.93711	105521.26					
166.00	4636.18	12.08	7.88	7743.02	0.40	
982.74	168.80	5.82	164.86	13.65	0.002581	
0.93779	105512.54					
167.00	4636.18	12.08	7.88	7742.97	0.40	
982.60	168.79	5.82	164.85	13.65	0.002582	
0.93794	105506.28					
168.00	4636.18	12.08	7.88	7742.99	0.40	
982.82	168.80	5.82	164.87	13.65	0.002581	
0.93756	105515.96					
169.00	4636.18	12.08	7.88	7743.08	0.40	
982.57	168.78	5.82	164.85	13.65	0.002582	
0.93800	105504.56					
170.00	4636.18	12.08	7.88	7742.98	0.40	
982.49	168.78	5.82	164.85	13.65	0.002580	
0.93716	105501.10					
171.00	4636.18	12.08	7.88	7742.96	0.40	
982.80	168.80	5.82	164.87	13.65	0.002581	
0.93771	105515.46					
172.00	4636.14	12.04	7.87	7692.26	0.40	
977.75	168.42	5.81	164.50	13.66	0.002588	
0.93763	105281.73					
173.00	4636.07	11.97	7.83	7574.38	0.40	
967.19	167.64	5.77	163.74	13.68	0.002591	
0.93295	104796.56					
174.00	4636.07	11.97	7.83	7569.01	0.40	
966.94	167.62	5.77	163.73	13.68	0.002589	
0.93192	104785.61					
175.00	4636.07	11.97	7.83	7569.00	0.40	
966.90	167.62	5.77	163.72	13.68	0.002592	
0.93306	104783.72					
176.00	4636.07	11.97	7.83	7568.99	0.40	
966.91	167.62	5.77	163.73	13.68	0.002591	
0.93250	104784.02					
177.00	4636.07	11.97	7.83	7569.02	0.40	
966.90	167.62	5.77	163.72	13.68	0.002591	
0.93247	104783.62					
178.00	4636.07	11.97	7.83	7568.98	0.40	
966.93	167.62	5.77	163.73	13.68	0.002589	
0.93205	104785.00					
179.00	4636.13	12.03	7.86	7670.75	0.40	



				HYCHAN.OUT			
976.02		168.30		5.80	164.38	13.66	0.002576
	0.93232	105205.20					
	180.00	4636.28	12.18		7.93	7906.42	0.40
997.29		169.87		5.87	165.90	13.62	0.002572
	0.94213	106177.12					
	181.00	4636.31	12.21		7.95	7968.19	0.40
1002.86		170.28		5.89	166.30	13.61	0.002566
	0.94308	106429.55					
	182.00	4636.39	12.29		7.98	8085.61	0.40
1013.46		171.05		5.92	167.04	13.60	0.002561
	0.94693	106907.83					
	183.00	4636.39	12.29		7.98	8091.02	0.40
1014.06		171.09		5.93	167.08	13.60	0.002562
	0.94749	106933.92					
	184.00	4636.39	12.29		7.98	8090.96	0.40
1014.03		171.09		5.93	167.08	13.60	0.002561
	0.94714	106932.84					
	185.00	4636.39	12.29		7.98	8091.03	0.40
1014.07		171.09		5.93	167.08	13.60	0.002561
	0.94706	106934.37					
	186.00	4636.39	12.29		7.98	8091.12	0.40
1014.02		171.09		5.93	167.08	13.60	0.002561
	0.94725	106932.46					
	187.00	4636.39	12.29		7.98	8090.83	0.40
1013.96		171.08		5.93	167.08	13.60	0.002563
	0.94771	106929.70					
	188.00	4636.39	12.29		7.98	8090.99	0.40
1014.05		171.09		5.93	167.08	13.60	0.002562
	0.94746	106933.54					
	189.00	4636.39	12.29		7.98	8091.02	0.40
1013.94		171.08		5.93	167.08	13.60	0.002561
	0.94719	106928.63					
	190.00	4636.36	12.26		7.97	8039.87	0.40
1009.19		170.73		5.91	166.74	13.60	0.002569
	0.94746	106712.70					
	191.00	4636.29	12.19		7.93	7922.42	0.40
998.58		169.96		5.88	165.99	13.62	0.002572
	0.94297	106234.02					
	192.00	4636.28	12.18		7.93	7916.84	0.40
998.48		169.95		5.87	165.98	13.62	0.002571
	0.94250	106230.30					
	193.00	4636.28	12.18		7.93	7917.01	0.40
998.39		169.95		5.87	165.98	13.62	0.002570
	0.94214	106225.98					
	194.00	4636.29	12.18		7.93	7917.00	0.40
998.54		169.96		5.88	165.99	13.62	0.002571
	0.94261	106232.84					
	195.00	4636.28	12.18		7.93	7917.21	0.40
998.49		169.96		5.88	165.99	13.62	0.002572
	0.94307	106230.73					
	196.00	4636.28	12.18		7.93	7916.97	0.40
998.24		169.94		5.87	165.97	13.62	0.002572
	0.94265	106219.09					
	197.00	4636.28	12.18		7.93	7916.82	0.40
998.14		169.93		5.87	165.96	13.62	0.002572
	0.94254	106214.99					
	198.00	4636.28	12.18		7.93	7916.97	0.40
998.40		169.95		5.87	165.98	13.62	0.002572
	0.94292	106226.70					
	199.00	4636.28	12.18		7.93	7917.03	0.40
998.41		169.95		5.87	165.98	13.62	0.002570
	0.94228	106227.04					



## HYCHAN.OUT

CHANNEL HYDROGRAPH FOR ELEMENT NO: 185

MAXIMUM DISCHARGE (CFS) = 19932.96 AT TIME = 79.17  
 MAXIMUM STAGE = 4638.72 AT TIME = 79.34

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
SHEAR STRESS	WETTED PERIMETER	SURFACE AREA	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT <sup>2</sup> )	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT <sup>2</sup> )	(FT)	(FT <sup>2</sup> )						
0.00	0.00	4621.45	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
442.99	1.00	4622.80	1.35	0.93	409.95	0.14		
		30.83	14.37	30.57	22.58		0.002835	
	2.54239	16203.55						
752.60	2.00	4632.12	10.67	6.94	5223.78	0.37		
		153.35	4.91	149.90	14.04		0.002706	
	0.82860	79448.30						
776.83	3.00	4632.33	10.88	7.07	5491.53	0.38		
		155.64	4.99	152.13	13.98		0.002707	
	0.84296	80628.46						
766.93	4.00	4632.25	10.80	7.02	5384.20	0.38		
		154.79	4.95	151.30	14.00		0.002713	
	0.83887	80189.79						
762.62	5.00	4632.22	10.77	7.00	5339.64	0.38		
		154.41	4.94	150.94	14.01		0.002711	
	0.83545	79995.62						
748.68	6.00	4632.11	10.66	6.94	5195.09	0.37		
		153.19	4.89	149.75	14.05		0.002714	
	0.82778	79367.78						
734.20	7.00	4632.00	10.55	6.87	5043.10	0.37		
		151.91	4.83	148.51	14.08		0.002719	
	0.82018	78708.95						
719.77	8.00	4631.88	10.43	6.80	4892.86	0.37		
		150.61	4.78	147.26	14.12		0.002724	
	0.81243	78045.19						
709.13	9.00	4631.79	10.34	6.74	4778.98	0.37		
		149.66	4.74	146.33	14.15		0.002730	
	0.80719	77553.37						
704.66	10.00	4631.76	10.31	6.72	4734.52	0.37		
		149.25	4.72	145.93	14.16		0.002728	
	0.80384	77343.04						
690.25	11.00	4631.64	10.19	6.65	4590.99	0.37		
		147.92	4.67	144.65	14.19		0.002734	
	0.79594	76663.24						
679.19	12.00	4631.55	10.10	6.59	4476.32	0.37		
		146.90	4.62	143.66	14.22		0.002739	
	0.79031	76139.12						
678.76	13.00	4631.55	10.10	6.58	4468.88	0.37		
		146.86	4.62	143.62	14.22		0.002740	
	0.79026	76119.25						
678.78	14.00	4631.55	10.10	6.58	4469.06	0.37		
		146.87	4.62	143.62	14.22		0.002740	
	0.79029	76120.40						
678.78	15.00	4631.55	10.10	6.58	4469.02	0.37		
		146.86	4.62	143.62	14.22		0.002740	
	0.79026	76120.12						
678.77	16.00	4631.55	10.10	6.58	4468.99	0.37		
		146.86	4.62	143.62	14.22		0.002739	

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		HYCHAN.OUT					
	0.79001	76119.94					
682.91	17.00	4631.58	10.13	6.60	4505.94	0.37	
		147.25	4.64	144.00	14.21		0.002739
	0.79264	76318.77					
697.60	18.00	4631.70	10.25	6.67	4651.23	0.37	
		148.61	4.69	145.31	14.17		0.002733
	0.80062	77015.01					
712.49	19.00	4631.82	10.37	6.74	4802.83	0.37	
		149.96	4.75	146.63	14.14		0.002728
	0.80891	77711.72					
723.15	20.00	4631.91	10.46	6.80	4917.25	0.37	
		150.92	4.79	147.56	14.11		0.002728
	0.81549	78204.71					
723.50	21.00	4631.91	10.46	6.81	4924.06	0.37	
		150.96	4.79	147.59	14.11		0.002725
	0.81483	78220.77					
727.57	22.00	4631.94	10.49	6.82	4961.76	0.37	
		151.32	4.81	147.94	14.10		0.002725
	0.81768	78408.92					
745.73	23.00	4632.09	10.64	6.90	5146.43	0.37	
		152.94	4.88	149.51	14.05		0.002718
	0.82695	79237.84					
773.97	24.00	4632.31	10.86	7.04	5445.34	0.38	
		155.40	4.98	151.90	13.99		0.002708
	0.84144	80504.47					
802.10	25.00	4632.53	11.08	7.17	5750.35	0.38	
		157.81	5.08	154.23	13.92		0.002698
	0.85579	81739.90					
821.69	26.00	4632.67	11.22	7.27	5973.29	0.38	
		159.46	5.15	155.82	13.88		0.002692
	0.86570	82585.05					
822.33	27.00	4632.68	11.23	7.28	5984.94	0.38	
		159.51	5.16	155.87	13.88		0.002693
	0.86645	82611.80					
826.80	28.00	4632.71	11.26	7.29	6029.73	0.38	
		159.88	5.17	156.23	13.87		0.002689
	0.86773	82804.44					
837.00	29.00	4632.79	11.34	7.34	6145.42	0.38	
		160.73	5.21	157.05	13.85		0.002686
	0.87288	83237.62					
837.29	30.00	4632.79	11.34	7.35	6151.90	0.38	
		160.75	5.21	157.08	13.85		0.002689
	0.87389	83249.77					
841.96	31.00	4632.83	11.38	7.36	6199.07	0.38	
		161.14	5.23	157.45	13.84		0.002684
	0.87496	83448.71					
852.55	32.00	4632.91	11.46	7.41	6319.17	0.39	
		162.01	5.26	158.29	13.82		0.002682
	0.88066	83893.91					
852.88	33.00	4632.91	11.46	7.42	6326.05	0.39	
		162.03	5.26	158.32	13.82		0.002681
	0.88069	83907.66					
848.30	34.00	4632.87	11.42	7.40	6279.25	0.39	
		161.65	5.25	157.95	13.83		0.002680
	0.87742	83713.06					
837.64	35.00	4632.79	11.34	7.35	6158.69	0.38	
		160.78	5.21	157.10	13.85		0.002686
	0.87336	83264.22					
832.86	36.00	4632.76	11.31	7.33	6107.21	0.38	
		160.38	5.19	156.72	13.86		0.002686
	0.87053	83059.78					
822.63	37.00	4632.68	11.23	7.28	5991.44	0.38	
		159.53	5.16	155.90	13.88		0.002691

HYCHAN.OUT									
	0.86585	82624.45							
822.33	38.00	4632.68	11.23	5.16	7.28	5985.01	13.88	0.38	0.002692
	0.86610	82612.05							
822.34	39.00	4632.68	11.23	5.16	7.28	5985.04	13.88	0.38	0.002692
	0.86604	82612.27							
822.33	40.00	4632.68	11.23	5.16	7.28	5985.01	13.88	0.38	0.002691
	0.86566	82612.16							
822.32	41.00	4632.68	11.23	5.16	7.28	5984.90	13.88	0.38	0.002693
	0.86631	82611.53							
826.84	42.00	4632.71	11.26	5.17	7.29	6030.03	13.87	0.38	0.002689
	0.86767	82805.73							
837.00	43.00	4632.79	11.34	5.21	7.34	6145.51	13.85	0.38	0.002686
	0.87284	83237.99							
841.94	44.00	4632.83	11.38	5.22	7.36	6198.84	13.84	0.38	0.002683
	0.87486	83447.67							
857.13	45.00	4632.94	11.49	5.28	7.43	6366.50	13.81	0.39	0.002677
	0.88179	84087.05							
872.36	46.00	4633.05	11.60	5.33	7.50	6540.68	13.78	0.39	0.002675
	0.89004	84720.90							
887.40	47.00	4633.16	11.71	5.38	7.57	6714.46	13.75	0.39	0.002671
	0.89737	85341.05							
902.37	48.00	4633.27	11.82	5.44	7.63	6888.69	13.72	0.39	0.002663
	0.90331	85952.07							
918.46	49.00	4633.39	11.94	5.49	7.69	7062.56	13.69	0.39	0.002655
	0.90958	86602.82							
940.59	50.00	4633.55	12.10	5.57	7.74	7284.62	13.65	0.39	0.002638
	0.91600	87487.16							
965.07	51.00	4633.72	12.27	5.65	7.80	7530.77	13.60	0.39	0.002634
	0.92812	88450.73							
970.94	52.00	4633.76	12.31	5.67	7.82	7591.53	13.59	0.39	0.002625
	0.92812	88679.84							
998.67	53.00	4633.96	12.51	5.76	7.88	7866.79	13.54	0.39	0.002601
	0.93456	89751.68							
1059.15	54.00	4634.37	12.92	5.95	8.01	8481.24	13.44	0.39	0.002565
	0.95320	92029.35							
1140.87	55.00	4634.91	13.46	6.21	8.18	9337.94	13.31	0.39	0.002517
	0.97579	94992.27							
1233.96	56.00	4635.51	14.06	6.50	8.56	10560.83	13.18	0.40	0.002593
	1.05107	98215.45							
1299.17	57.00	4635.90	14.45	6.72	9.22	11982.15	13.10	0.43	0.002590
	1.08528	100320.42							
1378.13	58.00	4636.33	14.88	7.09	9.50	13093.84	13.01	0.43	0.002587
		194.30							

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1453.48	1.14519	102595.66	15.28	7.45	9.75	14166.96	0.44	0.002579
	59.00	4636.73				197.61	12.93	
	1.19877	104731.00						
1530.48	60.00	4637.15	15.70	7.81	9.97	15255.99	0.44	0.002555
		195.93				201.72	12.85	
	1.24522	106909.76						
1571.56	61.00	4637.36	15.91	8.00	10.12	15908.20	0.45	0.002527
		196.37				203.87	12.81	
	1.26180	108052.56						
1607.92	62.00	4637.56	16.11	8.17	10.28	16524.46	0.45	0.002506
		196.76				205.78	12.78	
	1.27771	109064.44						
1632.67	63.00	4637.69	16.24	8.29	10.39	16959.01	0.45	0.002487
		197.02				207.08	12.75	
	1.28582	109754.66						
1668.00	64.00	4637.88	16.43	8.45	10.53	17560.33	0.46	0.002471
		197.40				208.93	12.72	
	1.30291	110734.88						
1681.21	65.00	4637.95	16.50	8.51	10.58	17778.96	0.46	0.002464
		197.54				209.62	12.71	
	1.30844	111097.85						
1682.29	66.00	4637.95	16.50	8.52	10.58	17794.04	0.46	0.002464
		197.55				209.67	12.70	
	1.30957	111126.77						
1682.32	67.00	4637.95	16.50	8.52	10.58	17795.57	0.46	0.002469
		197.55				209.67	12.70	
	1.31204	111127.74						
1682.42	68.00	4637.96	16.50	8.52	10.58	17796.48	0.46	0.002463
		197.55				209.68	12.70	
	1.30870	111130.41						
1682.55	69.00	4637.96	16.51	8.52	10.58	17799.01	0.46	0.002464
		197.55				209.69	12.70	
	1.30936	111134.38						
1682.65	70.00	4637.96	16.51	8.52	10.58	17799.80	0.46	0.002463
		197.56				209.69	12.70	
	1.30927	111137.00						
1682.65	71.00	4637.96	16.51	8.52	10.58	17799.80	0.46	0.002465
		197.56				209.69	12.70	
	1.31024	111136.95						
1687.15	72.00	4637.98	16.53	8.54	10.59	17871.82	0.46	0.002456
		197.60				209.93	12.70	
	1.30858	111263.83						
1700.75	73.00	4638.05	16.60	8.60	10.61	18046.34	0.46	0.002449
		197.75				210.64	12.69	
	1.31423	111641.84						
1702.34	74.00	4638.06	16.61	8.61	10.61	18066.33	0.46	0.002445
		197.77				210.73	12.69	
	1.31317	111684.82						
1706.80	75.00	4638.09	16.64	8.63	10.63	18135.72	0.46	0.002443
		197.82				210.96	12.68	
	1.31517	111810.36						
1728.15	76.00	4638.20	16.75	8.73	10.68	18453.38	0.46	0.002437
		198.05				212.08	12.66	
	1.32687	112404.84						
1757.56	77.00	4638.36	16.91	8.86	10.75	18888.68	0.46	0.002421
		198.36				213.62	12.63	
	1.33871	113219.26						
1776.59	78.00	4638.46	17.01	8.95	10.79	19168.62	0.46	0.002421
		198.56				214.61	12.62	
	1.35177	113744.88						
1802.59	79.00	4638.60	17.15	9.07	10.80	19464.66	0.46	0.002439
		198.84				215.97	12.59	

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1825.01	1.37976	114465.40	17.27	9.17	10.81	19732.10	0.46	0.002429
	80.00	4638.72				217.13	12.57	
	1.38961	115077.16						
1808.03	81.00	4638.63	17.18	9.09	10.81	19548.71	0.46	0.002418
		198.90				216.24	12.59	
	1.37164	114606.70						
1792.59	82.00	4638.55	17.10	9.02	10.81	19379.54	0.46	0.002424
		198.73				215.44	12.60	
	1.36447	114182.89						
1791.84	83.00	4638.54	17.09	9.02	10.81	19368.46	0.46	0.002419
		198.73				215.40	12.60	
	1.36073	114163.48						
1791.99	84.00	4638.54	17.09	9.02	10.81	19367.07	0.46	0.002419
		198.73				215.41	12.60	
	1.36089	114167.66						
1782.71	85.00	4638.49	17.04	8.98	10.80	19252.62	0.46	0.002416
		198.63				214.92	12.61	
	1.35308	113907.38						
1750.31	86.00	4638.32	16.87	8.83	10.72	18758.77	0.46	0.002427
		198.28				213.22	12.64	
	1.33681	113005.56						
1699.25	87.00	4638.04	16.59	8.59	10.59	17999.52	0.46	0.002462
		197.73				210.54	12.69	
	1.32001	111586.62						
1636.29	88.00	4637.71	16.25	8.30	10.38	16987.46	0.45	0.002502
		197.05				207.23	12.75	
	1.29659	109832.01						
1564.99	89.00	4637.33	15.87	7.97	10.10	15802.10	0.45	0.002533
		196.29				203.49	12.82	
	1.25992	107849.30						
1516.76	90.00	4637.07	15.62	7.75	9.91	15037.60	0.44	0.002553
		195.78				200.95	12.87	
	1.23424	106502.93						
1462.27	91.00	4636.77	15.32	7.49	9.73	14232.90	0.44	0.002561
		195.19				198.04	12.92	
	1.19703	104960.58						
1397.98	92.00	4636.43	14.98	7.19	9.54	13330.80	0.43	0.002569
		194.51				194.61	12.99	
	1.15220	103144.34						
1344.81	93.00	4636.15	14.70	6.93	9.37	12605.31	0.43	0.002570
		193.94				191.76	13.05	
	1.11212	101632.75						
1297.23	94.00	4635.89	14.44	6.71	9.22	11958.36	0.43	0.002569
		193.43				189.21	13.10	
	1.07498	100281.51						
1261.21	95.00	4635.68	14.23	6.58	9.08	11452.13	0.42	0.002581
		191.74				187.06	13.14	
	1.05921	99141.83						
1246.66	96.00	4635.59	14.14	6.53	8.79	10960.01	0.41	0.002520
		190.80				186.15	13.16	
	1.02757	98657.82						
1243.80	97.00	4635.57	14.12	6.53	8.51	10587.65	0.40	0.002497
		190.60				185.96	13.17	
	1.01695	98558.25						
1219.51	98.00	4635.42	13.97	6.45	8.38	10222.75	0.40	0.002513
		188.99				184.40	13.20	
	1.01175	97732.41						
1196.80	99.00	4635.27	13.82	6.38	8.32	9954.42	0.39	0.002520
		187.47				182.92	13.23	
	1.00395	96950.08						
1162.76	100.00	4635.05	13.60	6.28	8.25	9597.73	0.39	0.002535
		185.15				180.69	13.28	

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1134.60	101.00	0.99333	95764.25	13.42	6.19	8.19	9292.85	0.39	0.002552
			4634.87				178.81	13.32	
			183.21						
1109.24	102.00	0.98607	94767.88	13.25	6.11	8.13	9022.15	0.39	0.002561
			4634.70				177.09	13.36	
			181.44						
1090.44	103.00	0.97685	93859.64	13.13	6.05	8.09	8818.80	0.39	0.002566
			4634.58				175.81	13.39	
			180.11						
1065.65	104.00	0.96930	93178.10	12.96	5.98	8.03	8562.44	0.39	0.002583
			4634.41				174.09	13.43	
			178.33						
1034.00	105.00	0.96322	92265.54	12.75	5.87	7.96	8233.08	0.39	0.002597
			4634.20				171.87	13.48	
			176.03						
1016.04	106.00	0.95180	91088.50	12.63	5.82	7.92	8047.99	0.39	0.002609
			4634.08				170.59	13.51	
			174.71						
998.73	107.00	0.94682	90410.85	12.51	5.76	7.88	7874.30	0.39	0.002616
			4633.96				169.34	13.54	
			173.42						
986.52	108.00	0.94025	89750.48	12.42	5.72	7.86	7749.13	0.39	0.002621
			4633.87				168.46	13.56	
			172.51						
990.87	109.00	0.93528	89282.65	12.45	5.73	7.86	7791.77	0.39	0.002612
			4633.90				168.78	13.55	
			172.84						
1012.77	110.00	0.93440	89451.77	12.60	5.80	7.91	8011.16	0.39	0.002596
			4634.05				170.36	13.52	
			174.48						
1031.65	111.00	0.94043	90290.53	12.73	5.87	7.96	8207.33	0.39	0.002599
			4634.18				171.70	13.49	
			175.86						
1015.88	112.00	0.95144	91002.47	12.62	5.82	7.92	8047.91	0.39	0.002608
			4634.07				170.58	13.51	
			174.70						
1013.77	113.00	0.94627	90404.80	12.61	5.81	7.91	8022.46	0.39	0.002594
			4634.06				170.43	13.52	
			174.55						
1048.14	114.00	0.94004	90328.21	12.85	5.92	7.99	8372.38	0.39	0.002577
			4634.30				172.87	13.46	
			177.07						
1069.64	115.00	0.95200	91622.45	12.99	5.99	8.04	8599.76	0.39	0.002576
			4634.44				174.37	13.42	
			178.62						
1057.67	116.00	0.96267	92417.17	12.91	5.95	8.01	8476.69	0.39	0.002582
			4634.36				173.54	13.44	
			177.76						
1057.19	117.00	0.95858	91974.93	12.91	5.95	8.01	8469.91	0.39	0.002583
			4634.36				173.50	13.44	
			177.73						
1062.74	118.00	0.95861	91957.59	12.94	5.97	8.02	8527.14	0.39	0.002575
			4634.39				173.90	13.43	
			178.13						
1075.87	119.00	0.95863	92164.40	13.03	6.01	8.05	8663.86	0.39	0.002573
			4634.48				174.81	13.41	
			179.07						
1076.40	120.00	0.96447	92647.37	13.04	6.01	8.05	8669.96	0.39	0.002573
			4634.49				174.84	13.41	
			179.11						
1070.81	121.00	0.96478	92666.67	13.00	5.99	8.04	8612.58	0.39	0.002578
			4634.45				174.45	13.42	
			178.70						

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	0.96405	92459.22						
1057.65	122.00	4634.36	12.91	5.95	8.01	8476.68	0.39	0.002580
		177.76				173.54	13.44	
	0.95799	91973.95						
1051.61	123.00	4634.32	12.87	5.93	8.00	8412.94	0.39	0.002589
		177.32				173.11	13.45	
	0.95817	91748.09						
1038.28	124.00	4634.23	12.78	5.89	7.97	8276.48	0.39	0.002589
		176.35				172.17	13.47	
	0.95128	91251.81						
1037.73	125.00	4634.22	12.77	5.89	7.97	8270.35	0.39	0.002590
		176.31				172.13	13.48	
	0.95133	91231.52						
1032.69	126.00	4634.19	12.74	5.87	7.96	8219.28	0.39	0.002600
		175.94				171.77	13.48	
	0.95241	91040.51						
1021.08	127.00	4634.11	12.66	5.83	7.93	8096.99	0.39	0.002602
		175.09				170.95	13.50	
	0.94696	90603.66						
1020.51	128.00	4634.11	12.66	5.83	7.93	8090.99	0.39	0.002602
		175.05				170.91	13.50	
	0.94671	90582.72						
1015.55	129.00	4634.07	12.62	5.81	7.92	8041.98	0.39	0.002607
		174.67				170.55	13.51	
	0.94574	90392.74						
1003.71	130.00	4633.99	12.54	5.78	7.89	7922.94	0.39	0.002613
		173.80				169.70	13.53	
	0.94156	89942.97						
1013.43	131.00	4634.06	12.61	5.81	7.91	8017.10	0.39	0.002598
		174.52				170.41	13.52	
	0.94148	90315.27						
1036.77	132.00	4634.22	12.77	5.88	7.97	8258.16	0.39	0.002593
		176.24				172.07	13.48	
	0.95191	91196.34						
1037.72	133.00	4634.22	12.77	5.89	7.97	8270.22	0.39	0.002592
		176.31				172.13	13.48	
	0.95186	91231.36						
1037.61	134.00	4634.22	12.77	5.89	7.97	8269.87	0.39	0.002595
		176.30				172.13	13.48	
	0.95291	91226.98						
1037.61	135.00	4634.22	12.77	5.89	7.97	8269.90	0.39	0.002590
		176.30				172.13	13.48	
	0.95129	91227.17						
1037.63	136.00	4634.22	12.77	5.89	7.97	8269.97	0.39	0.002593
		176.30				172.13	13.48	
	0.95245	91227.88						
1037.64	137.00	4634.22	12.77	5.89	7.97	8270.17	0.39	0.002590
		176.30				172.13	13.48	
	0.95137	91228.26						
1037.70	138.00	4634.22	12.77	5.89	7.97	8270.05	0.39	0.002593
		176.31				172.13	13.48	
	0.95250	91230.31						
1032.74	139.00	4634.19	12.74	5.87	7.96	8219.26	0.39	0.002599
		175.94				171.78	13.48	
	0.95204	91042.48						
1021.00	140.00	4634.11	12.66	5.83	7.93	8097.11	0.39	0.002600
		175.08				170.94	13.50	
	0.94605	90600.70						
1020.54	141.00	4634.11	12.66	5.83	7.93	8091.05	0.39	0.002603
		175.05				170.91	13.50	
	0.94680	90583.77						
1020.54	142.00	4634.11	12.66	5.83	7.93	8091.05	0.39	0.002599
		175.05				170.91	13.50	

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	0.94560	90583.99						
1020.49	143.00	4634.11	12.66	5.83	7.93	8091.05	0.39	0.002602
		175.04				170.91	13.50	
	0.94667	90582.04						
1015.46	144.00	4634.07	12.62	5.81	7.92	8041.80	0.39	0.002604
		174.67				170.55	13.51	
	0.94476	90389.66						
1003.82	145.00	4633.99	12.54	5.78	7.89	7923.05	0.39	0.002612
		173.81				169.71	13.53	
	0.94124	89947.23						
1003.30	146.00	4633.99	12.54	5.77	7.89	7917.13	0.39	0.002609
		173.77				169.67	13.53	
	0.94010	89927.65						
1003.10	147.00	4633.99	12.54	5.77	7.89	7917.05	0.39	0.002611
		173.75				169.66	13.53	
	0.94072	89920.16						
1003.17	148.00	4633.99	12.54	5.77	7.89	7916.79	0.39	0.002613
		173.76				169.67	13.53	
	0.94118	89922.88						
1003.16	149.00	4633.99	12.54	5.77	7.89	7917.13	0.39	0.002611
		173.76				169.66	13.53	
	0.94063	89922.36						
999.96	150.00	4633.96	12.51	5.76	7.88	7884.22	0.39	0.002612
		173.52				169.43	13.54	
	0.93937	89798.80						
990.52	151.00	4633.90	12.45	5.73	7.86	7788.95	0.39	0.002618
		172.81				168.75	13.56	
	0.93639	89436.28						
986.06	152.00	4633.87	12.42	5.72	7.85	7744.89	0.39	0.002622
		172.48				168.42	13.56	
	0.93534	89265.23						
985.96	153.00	4633.87	12.42	5.72	7.85	7742.98	0.39	0.002621
		172.47				168.42	13.56	
	0.93492	89261.56						
981.05	154.00	4633.83	12.38	5.70	7.84	7694.34	0.39	0.002624
		172.10				168.06	13.57	
	0.93349	89069.70						
979.22	155.00	4633.82	12.37	5.69	7.84	7672.62	0.39	0.002618
		171.96				167.93	13.58	
	0.93032	89001.84						
1002.24	156.00	4633.98	12.53	5.77	7.89	7904.94	0.39	0.002612
		173.69				169.60	13.54	
	0.94052	89888.23						
1003.23	157.00	4633.99	12.54	5.77	7.89	7917.00	0.39	0.002612
		173.76				169.67	13.53	
	0.94086	89925.28						
1003.16	158.00	4633.99	12.54	5.77	7.89	7917.33	0.39	0.002608
		173.76				169.66	13.53	
	0.93972	89922.30						
1003.19	159.00	4633.99	12.54	5.77	7.89	7916.96	0.39	0.002609
		173.76				169.67	13.53	
	0.93976	89923.60						
1003.22	160.00	4633.99	12.54	5.77	7.89	7916.78	0.39	0.002612
		173.76				169.67	13.53	
	0.94106	89924.92						
1003.22	161.00	4633.99	12.54	5.77	7.89	7916.98	0.39	0.002611
		173.76				169.67	13.53	
	0.94084	89924.97						
1003.16	162.00	4633.99	12.54	5.77	7.89	7917.09	0.39	0.002610
		173.76				169.66	13.53	
	0.94020	89922.23						
1003.19	163.00	4633.99	12.54	5.77	7.89	7916.97	0.39	0.002613
		173.76				169.67	13.53	

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	0.94138	89923.60							
164.00	4633.95	12.50	7.88	7868.12	0.39				
998.20	173.38	5.76	169.30	13.54	0.002620				
	0.94138	89730.65							
165.00	4633.87	12.42	7.86	7748.97	0.39				
986.35	172.50	5.72	168.45	13.56	0.002620				
	0.93483	89276.32							
166.00	4633.87	12.42	7.85	7743.11	0.39				
985.99	172.47	5.72	168.42	13.56	0.002620				
	0.93477	89262.50							
167.00	4633.87	12.42	7.85	7742.95	0.39				
985.96	172.47	5.72	168.42	13.56	0.002619				
	0.93435	89261.56							
168.00	4633.87	12.42	7.85	7743.02	0.39				
986.19	172.49	5.72	168.43	13.56	0.002620				
	0.93472	89270.34							
169.00	4633.87	12.42	7.85	7743.15	0.39				
986.02	172.47	5.72	168.42	13.56	0.002622				
	0.93550	89263.64							
170.00	4633.87	12.42	7.85	7742.81	0.39				
985.78	172.46	5.72	168.41	13.56	0.002618				
	0.93375	89254.80							
171.00	4633.87	12.42	7.85	7743.10	0.39				
986.16	172.48	5.72	168.43	13.56	0.002622				
	0.93546	89268.96							
172.00	4633.83	12.38	7.84	7694.34	0.39				
980.99	172.09	5.70	168.05	13.57	0.002624				
	0.93340	89067.41							
173.00	4633.75	12.30	7.81	7574.95	0.39				
969.31	171.21	5.66	167.20	13.59	0.002631				
	0.92938	88614.88							
174.00	4633.75	12.30	7.81	7568.92	0.39				
968.86	171.17	5.66	167.17	13.59	0.002629				
	0.92839	88597.59							
175.00	4633.75	12.30	7.81	7569.12	0.39				
968.75	171.17	5.66	167.16	13.59	0.002630				
	0.92884	88593.52							
176.00	4633.75	12.30	7.81	7568.93	0.39				
968.77	171.17	5.66	167.16	13.59	0.002630				
	0.92897	88594.27							
177.00	4633.75	12.30	7.81	7569.04	0.39				
968.76	171.17	5.66	167.16	13.59	0.002629				
	0.92852	88593.74							
178.00	4633.75	12.30	7.81	7568.95	0.39				
968.82	171.17	5.66	167.16	13.59	0.002627				
	0.92765	88596.34							
179.00	4633.82	12.37	7.83	7666.62	0.39				
978.68	171.92	5.69	167.89	13.58	0.002616				
	0.92908	88981.16							
180.00	4633.98	12.53	7.89	7905.28	0.39				
1002.22	173.69	5.77	169.60	13.54	0.002612				
	0.94040	89887.04							
181.00	4634.02	12.57	7.90	7966.20	0.39				
1008.25	174.14	5.79	170.03	13.52	0.002603				
	0.94052	90117.81							
182.00	4634.10	12.65	7.93	8084.86	0.39				
1019.88	175.00	5.83	170.87	13.51	0.002603				
	0.94669	90559.15							
183.00	4634.11	12.66	7.93	8091.03	0.39				
1020.50	175.04	5.83	170.91	13.50	0.002602				
	0.94669	90582.19							
184.00	4634.11	12.66	7.93	8091.01	0.39				
1020.49	175.04	5.83	170.91	13.50	0.002602				

## HYCHAN.OUT

	0.94662	90581.86						
1020.53	185.00	4634.11	12.66	5.83	7.93	8090.99	0.39	0.002600
		175.05				170.91	13.50	
	0.94598	90583.34						
1020.51	186.00	4634.11	12.66	5.83	7.93	8091.16	0.39	0.002596
		175.04				170.91	13.50	
	0.94440	90582.57						
1020.48	187.00	4634.11	12.66	5.83	7.93	8090.84	0.39	0.002603
		175.04				170.91	13.50	
	0.94690	90581.45						
1020.52	188.00	4634.11	12.66	5.83	7.93	8090.98	0.39	0.002600
		175.05				170.91	13.50	
	0.94595	90582.98						
1020.49	189.00	4634.11	12.66	5.83	7.93	8090.99	0.39	0.002603
		175.04				170.91	13.50	
	0.94680	90582.12						
1015.46	190.00	4634.07	12.62	5.81	7.92	8041.93	0.39	0.002606
		174.67				170.55	13.51	
	0.94530	90389.51						
1003.63	191.00	4633.99	12.54	5.77	7.89	7923.07	0.39	0.002609
		173.79				169.70	13.53	
	0.94000	89940.06						
1003.27	192.00	4633.99	12.54	5.77	7.89	7916.81	0.39	0.002611
		173.77				169.67	13.53	
	0.94080	89926.60						
1003.19	193.00	4633.99	12.54	5.77	7.89	7917.01	0.39	0.002609
		173.76				169.67	13.53	
	0.93994	89923.48						
1003.26	194.00	4633.99	12.54	5.77	7.89	7917.05	0.39	0.002610
		173.77				169.67	13.53	
	0.94026	89926.21						
1003.23	195.00	4633.99	12.54	5.77	7.89	7917.25	0.39	0.002611
		173.76				169.67	13.53	
	0.94053	89925.23						
1003.17	196.00	4633.99	12.54	5.77	7.89	7916.96	0.39	0.002611
		173.76				169.67	13.53	
	0.94053	89922.67						
1003.07	197.00	4633.99	12.54	5.77	7.89	7916.81	0.39	0.002612
		173.75				169.66	13.53	
	0.94111	89918.88						
1003.25	198.00	4633.99	12.54	5.77	7.89	7916.98	0.39	0.002611
		173.76				169.67	13.53	
	0.94050	89925.77						
1003.25	199.00	4633.99	12.54	5.77	7.89	7916.98	0.39	0.002608
		173.76				169.67	13.53	
	0.93950	89925.99						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 197

MAXIMUM DISCHARGE (CFS) = 19674.54 AT TIME = 79.15  
 MAXIMUM STAGE = 4636.60 AT TIME = 79.21

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT^2)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FPS)	(CFS)		
0.00	0.00	4618.85	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
409.47	1.00	4620.05	1.20	0.85	349.73	0.14	0.004037
	3.67340	28.08	14.58	27.87	23.21		
		15609.73					
679.36	2.00	4629.64	10.79	7.64	5192.53	0.41	0.003856
		154.64	4.39	151.16	14.01		
	1.05701	84649.31					
706.42	3.00	4629.87	11.02	7.78	5493.09	0.41	0.003851
		157.19	4.49	153.63	13.94		
	1.07996	86031.09					
697.36	4.00	4629.79	10.94	7.72	5384.85	0.41	0.003857
		156.31	4.46	152.77	13.96		
	1.07374	85551.77					
693.75	5.00	4629.76	10.91	7.70	5341.15	0.41	0.003852
		155.94	4.45	152.42	13.97		
	1.06924	85355.15					
681.66	6.00	4629.65	10.80	7.62	5197.28	0.41	0.003850
		154.73	4.41	151.24	14.01		
	1.05849	84694.25					
668.76	7.00	4629.53	10.68	7.54	5045.29	0.41	0.003851
		153.43	4.36	149.98	14.04		
	1.04740	83990.09					
655.91	8.00	4629.41	10.56	7.46	4895.08	0.40	0.003850
		152.12	4.31	148.72	14.08		
	1.03594	83281.46					
645.84	9.00	4629.32	10.47	7.40	4779.67	0.40	0.003856
		151.11	4.27	147.74	14.10		
	1.02828	82732.56					
642.09	10.00	4629.29	10.44	7.38	4736.02	0.40	0.003851
		150.71	4.26	147.35	14.12		
	1.02378	82516.78					
629.58	11.00	4629.17	10.32	7.30	4593.33	0.40	0.003849
		149.40	4.21	146.08	14.15		
	1.01215	81804.91					
619.11	12.00	4629.08	10.23	7.23	4477.00	0.40	0.003856
		148.32	4.17	145.03	14.18		
	1.00428	81216.92					
618.35	13.00	4629.07	10.22	7.23	4468.89	0.40	0.003856
		148.25	4.17	144.96	14.18		
	1.00357	81178.80					
618.37	14.00	4629.07	10.22	7.23	4469.06	0.40	0.003856
		148.25	4.17	144.96	14.18		
	1.00351	81179.77					
618.36	15.00	4629.07	10.22	7.23	4469.02	0.40	0.003855
		148.25	4.17	144.96	14.18		
	1.00342	81179.56					
618.36	16.00	4629.07	10.22	7.23	4468.98	0.40	0.003855
		148.25	4.17	144.96	14.18		
	1.00345	81179.41					
621.44	17.00	4629.10	10.25	7.25	4504.36	0.40	0.003861
		148.59	4.18	145.30	14.18		
	1.00755	81365.25					
634.21	18.00	4629.22	10.37	7.33	4648.92	0.40	0.003863
		149.94	4.23	146.60	14.14		
	1.01949	82096.30					
647.51	19.00	4629.34	10.49	7.41	4800.60	0.40	0.003861
		151.32	4.28	147.94	14.10		
	1.03089	82845.35					
657.61	20.00	4629.43	10.58	7.48	4916.62	0.41	0.003856
		152.33	4.32	148.92	14.07		
	1.03878	83396.03					
658.27	21.00	4629.44	10.59	7.48	4924.02	0.41	0.003856
		152.39	4.32	148.98	14.07		
	1.03931	83428.14					

HYCHAN.OUT							
661.32	22.00	4629.47	10.62	7.50	4960.22	0.41	
	1.04325	152.72	4.33	149.29	14.06		0.003861
	23.00	83604.94					
676.75		4629.61	10.76	7.60	5142.69	0.41	
	1.05810	154.30	4.39	150.82	14.02		0.003866
	24.00	84461.20					
701.76		4629.83	10.98	7.75	5440.97	0.41	
	1.07915	156.79	4.48	153.24	13.95		0.003864
	25.00	85816.09					
726.85		4630.06	11.21	7.91	5746.10	0.42	
	1.10090	159.25	4.56	155.62	13.89		0.003865
	26.00	87146.51					
745.27		4630.21	11.36	8.01	5972.14	0.42	
	1.11362	160.99	4.63	157.31	13.84		0.003855
	27.00	88093.66					
746.37		4630.22	11.37	8.02	5984.92	0.42	
	1.11493	161.08	4.63	157.40	13.84		0.003856
	28.00	88142.84					
749.73		4630.25	11.40	8.04	6028.06	0.42	
	1.11866	161.42	4.64	157.72	13.83		0.003860
	29.00	88325.81					
759.09		4630.33	11.48	8.09	6144.82	0.42	
	1.12483	162.30	4.68	158.58	13.81		0.003854
	30.00	88803.95					
759.68		4630.34	11.49	8.10	6151.89	0.42	
	1.12593	162.35	4.68	158.62	13.81		0.003856
	31.00	88829.91					
763.22		4630.37	11.52	8.12	6197.30	0.42	
	1.12989	162.70	4.69	158.96	13.80		0.003860
	32.00	89019.90					
772.96		4630.45	11.60	8.17	6318.53	0.42	
	1.13658	163.62	4.72	159.85	13.78		0.003856
	33.00	89518.34					
773.58		4630.46	11.61	8.18	6326.05	0.42	
	1.13704	163.67	4.73	159.90	13.78		0.003855
	34.00	89545.66					
770.12		4630.43	11.58	8.16	6280.95	0.42	
	1.13307	163.33	4.72	159.57	13.78		0.003851
	35.00	89360.56					
760.31		4630.34	11.49	8.10	6159.37	0.42	
	1.12638	162.40	4.68	158.68	13.81		0.003856
	36.00	88858.39					
756.35		4630.31	11.46	8.08	6108.89	0.42	
	1.12176	162.02	4.67	158.30	13.82		0.003851
	37.00	88649.17					
746.97		4630.23	11.38	8.02	5992.05	0.42	
	1.11523	161.13	4.64	157.45	13.84		0.003855
	38.00	88169.44					
746.38		4630.22	11.37	8.02	5985.05	0.42	
	1.11467	161.09	4.63	157.40	13.84		0.003855
	39.00	88143.27					
746.38		4630.22	11.37	8.02	5985.03	0.42	
	1.11474	161.09	4.63	157.40	13.84		0.003856
	40.00	88143.29					
746.37		4630.22	11.37	8.02	5985.02	0.42	
	1.11446	161.09	4.63	157.40	13.84		0.003855
	41.00	88143.18					
746.37		4630.22	11.37	8.02	5984.92	0.42	
	1.11454	161.08	4.63	157.40	13.84		0.003855
	42.00	88142.72					
749.76		4630.25	11.40	8.04	6028.33	0.42	
	1.11858	161.42	4.64	157.73	13.83		0.003860
		88327.26					

HYCHAN.OUT							
759.10	43.00	4630.33	11.48	8.09	6144.88	0.42	0.003856
	1.12530	162.30	4.68	158.58	13.81		
	44.00	88804.18					
763.20		4630.37	11.52	8.12	6197.08	0.42	
	1.12982	162.70	4.69	158.96	13.80		0.003860
	45.00	89019.07					
776.46		4630.48	11.63	8.20	6364.14	0.42	
	1.14054	163.96	4.74	160.18	13.77		0.003860
	46.00	89703.55					
790.00		4630.60	11.75	8.28	6538.42	0.43	
	1.15142	165.22	4.78	161.40	13.74		0.003859
	47.00	90385.73					
803.38		4630.71	11.86	8.35	6712.17	0.43	
	1.16237	166.45	4.83	162.59	13.71		0.003859
	48.00	91052.85					
816.71		4630.82	11.97	8.43	6886.33	0.43	
	1.17166	167.67	4.87	163.77	13.68		0.003855
	49.00	91711.92					
831.34		4630.95	12.10	8.49	7059.92	0.43	
	1.18312	168.98	4.92	165.05	13.65		0.003854
	50.00	92425.52					
850.92		4631.11	12.26	8.56	7279.96	0.43	
	1.19928	170.76	4.98	166.77	13.60		0.003857
	51.00	93390.45					
873.57		4631.29	12.44	8.62	7529.40	0.43	
	1.21405	172.71	5.06	168.65	13.56		0.003847
	52.00	94445.99					
878.94		4631.33	12.48	8.63	7589.48	0.43	
	1.21759	173.17	5.08	169.10	13.55		0.003844
	53.00	94693.40					
902.89		4631.53	12.68	8.71	7859.80	0.43	
	1.23564	175.30	5.15	171.15	13.50		0.003845
	54.00	95845.55					
956.66		4631.96	13.10	8.85	8470.10	0.43	
	1.27186	179.85	5.32	175.56	13.40		0.003832
	55.00	98311.15					
1030.66		4632.51	13.66	9.05	9323.75	0.43	
	1.31571	185.78	5.55	181.30	13.27		0.003801
	56.00	101525.72					
1125.04		4633.13	14.28	9.38	10550.69	0.44	
	1.30539	192.29	5.85	187.59	13.13		0.003576
	57.00	105049.23					
1214.77		4633.55	14.70	9.83	11941.96	0.45	
	1.35966	193.95	6.26	191.82	13.05		0.003479
	58.00	107420.06					
1300.75		4634.03	15.18	10.00	13009.54	0.45	
	1.40918	194.90	6.67	196.56	12.95		0.003384
	59.00	110075.09					
1386.38		4634.48	15.63	10.12	14033.12	0.45	
	1.44347	195.80	7.08	201.05	12.86		0.003267
	60.00	112587.96					
1475.14		4634.95	16.10	10.23	15086.50	0.45	
	1.51017	196.75	7.50	205.72	12.78		0.003228
	61.00	115203.37					
1500.71		4635.18	16.32	10.49	15741.86	0.46	
	1.58579	197.19	7.61	207.92	12.74		0.003339
	62.00	116433.84					
1514.47		4635.36	16.51	10.80	16361.22	0.47	
	1.62509	197.57	7.67	209.76	12.70		0.003397
	63.00	117468.11					
1524.94		4635.49	16.64	11.01	16786.71	0.48	
	1.67262	197.82	7.71	211.01	12.68		0.003477
		118165.80					

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HYCHAN.OUT									
1544.26	64.00	4635.68	16.83	11.26	17386.43	0.48	0.003507		
	1.70484	198.20	7.79	212.85	12.65				
		119195.98							
1552.06	65.00	4635.75	16.90	11.35	17615.23	0.49	0.003520		
	1.71869	198.35	7.83	213.55	12.63				
		119588.09							
1552.57	66.00	4635.76	16.91	11.36	17633.64	0.49	0.003525		
	1.72171	198.36	7.83	213.61	12.63				
		119619.03							
1552.59	67.00	4635.76	16.91	11.36	17635.01	0.49	0.003506		
	1.71244	198.36	7.83	213.61	12.63				
		119620.03							
1552.68	68.00	4635.76	16.91	11.36	17635.93	0.49	0.003519		
	1.71865	198.36	7.83	213.61	12.63				
		119623.98							
1552.75	69.00	4635.76	16.91	11.36	17638.90	0.49	0.003517		
	1.71804	198.36	7.83	213.62	12.63				
		119627.66							
1552.83	70.00	4635.76	16.91	11.36	17639.78	0.49	0.003523		
	1.72103	198.36	7.83	213.63	12.63				
		119631.89							
1552.85	71.00	4635.76	16.91	11.36	17639.86	0.49	0.003515		
	1.71685	198.36	7.83	213.63	12.63				
		119631.56							
1555.96	72.00	4635.79	16.94	11.38	17702.24	0.49	0.003529		
	1.72662	198.42	7.84	213.90	12.63				
		119781.36							
1568.52	73.00	4635.88	17.03	11.39	17865.31	0.49	0.003525		
	1.73699	198.60	7.90	214.80	12.61				
		120287.76							
1570.38	74.00	4635.89	17.04	11.39	17887.80	0.49	0.003521		
	1.73720	198.62	7.91	214.90	12.61				
		120345.74							
1574.67	75.00	4635.92	17.07	11.40	17948.29	0.49	0.003518		
	1.73964	198.68	7.93	215.17	12.61				
		120494.75							
1596.47	76.00	4636.05	17.20	11.42	18238.07	0.49	0.003509		
	1.75699	198.95	8.02	216.49	12.58				
		121233.73							
1626.72	77.00	4636.24	17.39	11.46	18647.14	0.48	0.003491		
	1.77790	199.32	8.16	218.28	12.55				
		122237.14							
1646.18	78.00	4636.35	17.50	11.49	18915.51	0.48	0.003476		
	1.78946	199.55	8.25	219.38	12.53				
		122854.56							
1667.38	79.00	4636.48	17.63	11.52	19200.84	0.48	0.003498		
	1.82160	199.81	8.35	220.61	12.51				
		123543.21							
1687.01	80.00	4636.59	17.74	11.55	19479.25	0.48	0.003469		
	1.82565	200.02	8.43	221.66	12.49				
		124131.78							
1674.30	81.00	4636.51	17.66	11.53	19302.50	0.48	0.003465		
	1.81146	199.86	8.38	220.90	12.51				
		123702.84							
1661.36	82.00	4636.44	17.59	11.52	19130.99	0.48	0.003480		
	1.80619	199.71	8.32	220.18	12.52				
		123299.23							
1660.40	83.00	4636.43	17.58	11.51	19116.06	0.48	0.003477		
	1.80406	199.71	8.31	220.14	12.52				
		123279.81							
1660.51	84.00	4636.43	17.58	11.51	19114.81	0.48	0.003475		
	1.80306	199.71	8.31	220.15	12.52				
		123285.25							

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HYCHAN.OUT							
1653.06	85.00	4636.38	17.53	11.50	19015.06	0.48	0.003479
	1.79769	199.61	8.28	219.68	12.53		
		123023.47					
1620.80	86.00	4636.19	17.34	11.45	18561.29	0.48	0.003501
	1.77713	199.23	8.14	217.83	12.56		
		121986.73					
1569.34	87.00	4635.87	17.02	11.38	17854.79	0.49	0.003500
	1.72613	198.58	7.90	214.71	12.61		
		120236.94					
1527.26	88.00	4635.51	16.66	11.04	16864.87	0.48	0.003352
	1.61424	197.87	7.72	211.22	12.68		
		118282.33					
1488.08	89.00	4635.13	16.28	10.54	15687.09	0.46	0.003287
	1.54864	197.11	7.55	207.51	12.74		
		116203.79					
1458.26	90.00	4634.87	16.02	10.24	14925.72	0.45	0.003228
	1.49411	196.58	7.42	204.92	12.79		
		114757.10					
1404.53	91.00	4634.55	15.70	10.08	14156.22	0.45	0.003314
	1.48220	195.94	7.17	201.76	12.85		
		112986.29					
1330.82	92.00	4634.16	15.31	9.99	13289.72	0.45	0.003399
	1.44642	195.17	6.82	197.91	12.93		
		110827.12					
1271.10	93.00	4633.85	15.00	9.90	12583.22	0.45	0.003471
	1.41507	194.53	6.53	194.76	12.99		
		109064.34					
1218.62	94.00	4633.56	14.71	9.81	11953.67	0.45	0.003518
	1.37918	193.97	6.28	191.93	13.04		
		107480.72					
1180.70	95.00	4633.33	14.48	9.70	11458.55	0.45	0.003597
	1.36937	193.51	6.10	189.61	13.09		
		106181.07					
1152.55	96.00	4633.23	14.38	9.51	10959.45	0.44	0.003711
	1.38065	193.29	5.96	188.55	13.11		
		105589.30					
1135.71	97.00	4633.21	14.36	9.33	10590.70	0.43	0.003741
	1.37335	193.06	5.88	188.33	13.12		
		105466.11					
1108.47	98.00	4633.04	14.19	9.23	10226.29	0.43	0.003763
	1.36028	191.36	5.79	186.69	13.15		
		104547.45					
1085.49	99.00	4632.89	14.04	9.17	9959.20	0.43	0.003775
	1.34735	189.78	5.72	185.16	13.18		
		103691.39					
1055.40	100.00	4632.67	13.82	9.10	9602.56	0.43	0.003784
	1.32971	187.41	5.63	182.87	13.23		
		102409.35					
1029.17	101.00	4632.48	13.63	9.03	9297.26	0.43	0.003793
	1.31373	185.41	5.55	180.93	13.28		
		101322.27					
1005.62	102.00	4632.31	13.46	8.97	9025.37	0.43	0.003804
	1.30027	183.58	5.48	179.16	13.32		
		100331.38					
988.00	103.00	4632.18	13.33	8.93	8821.63	0.43	0.003816
	1.29125	182.19	5.42	177.83	13.35		
		99582.63					
965.88	104.00	4632.00	13.15	8.87	8567.64	0.43	0.003816
	1.27499	180.37	5.35	176.06	13.38		
		98596.36					
936.75	105.00	4631.78	12.93	8.79	8236.65	0.43	0.003826
	1.25635	178.00	5.26	173.77	13.44		
		97312.12					



HYCHAN.OUT							
106.00	4631.65	12.80	8.75	8050.73	0.43		
920.24	176.64	5.21	172.45	13.47		0.003830	
1.24504	96571.80						
107.00	4631.53	12.68	8.71	7876.87	0.43		
904.80	175.33	5.16	171.18	13.50		0.003835	
1.23509	95861.87						
108.00	4631.44	12.59	8.67	7749.78	0.43		
893.39	174.38	5.12	170.27	13.52		0.003839	
1.22729	95348.45						
109.00	4631.48	12.63	8.69	7789.75	0.43		
896.82	174.71	5.13	170.59	13.51		0.003841	
1.23047	95528.37						
110.00	4631.63	12.78	8.74	8006.51	0.43		
916.02	176.38	5.19	172.21	13.47		0.003837	
1.24337	96435.64						
111.00	4631.77	12.92	8.79	8208.05	0.43		
934.08	177.83	5.25	173.60	13.44		0.003830	
1.25519	97218.51						
112.00	4631.65	12.80	8.75	8050.53	0.43		
920.25	176.63	5.21	172.45	13.47		0.003833	
1.24601	96570.98						
113.00	4631.64	12.79	8.74	8019.04	0.43		
917.21	176.46	5.20	172.28	13.47		0.003839	
1.24516	96477.81						
114.00	4631.88	13.03	8.83	8366.62	0.43		
947.78	179.05	5.29	174.78	13.41		0.003829	
1.26476	97879.13						
115.00	4632.03	13.18	8.88	8600.56	0.43		
968.55	180.66	5.36	176.34	13.38		0.003816	
1.27664	98752.89						
116.00	4631.95	13.10	8.85	8477.51	0.43		
957.79	179.77	5.33	175.49	13.40		0.003820	
1.26995	98272.39						
117.00	4631.94	13.09	8.85	8469.88	0.43		
957.08	179.73	5.33	175.45	13.40		0.003825	
1.27091	98249.42						
118.00	4631.98	13.13	8.86	8524.86	0.43		
961.80	180.14	5.34	175.84	13.39		0.003824	
1.27388	98472.75						
119.00	4632.07	13.22	8.89	8663.15	0.43		
973.97	181.12	5.38	176.79	13.37		0.003815	
1.28022	99000.92						
120.00	4632.08	13.23	8.90	8669.93	0.43		
974.62	181.16	5.38	176.83	13.37		0.003818	
1.28161	99022.35						
121.00	4632.04	13.19	8.88	8614.77	0.43		
969.89	180.75	5.37	176.43	13.38		0.003818	
1.27826	98798.77						
122.00	4631.95	13.10	8.85	8477.47	0.43		
957.80	179.77	5.33	175.48	13.40		0.003823	
1.27112	98271.53						
123.00	4631.91	13.06	8.84	8415.20	0.43		
952.41	179.32	5.31	175.05	13.41		0.003822	
1.26657	98026.12						
124.00	4631.81	12.96	8.80	8277.20	0.43		
940.17	178.32	5.27	174.08	13.43		0.003832	
1.26058	97486.27						
125.00	4631.81	12.96	8.80	8270.35	0.43		
939.50	178.28	5.27	174.04	13.43		0.003828	
1.25891	97462.56						
126.00	4631.77	12.92	8.79	8221.40	0.43		
935.32	177.91	5.26	173.68	13.44		0.003822	
1.25394	97260.30						



HYCHAN.OUT							
127.00	4631.69	12.84	8.76	8097.56	0.43		
924.35	177.02	5.22	172.82	13.46		0.003831	
1.24832	96779.09						
128.00	4631.69	12.84	8.76	8091.02	0.43		
923.71	176.98	5.22	172.78	13.46		0.003834	
1.24868	96755.85						
129.00	4631.65	12.80	8.75	8043.99	0.43		
919.65	176.61	5.21	172.42	13.47		0.003834	
1.24578	96555.29						
130.00	4631.57	12.72	8.72	7923.54	0.43		
908.84	175.70	5.17	171.54	13.49		0.003840	
1.23943	96064.08						
131.00	4631.64	12.79	8.74	8013.05	0.43		
916.62	176.43	5.20	172.25	13.47		0.003837	
1.24382	96460.10						
132.00	4631.80	12.95	8.80	8256.93	0.43		
938.26	178.20	5.27	173.97	13.43		0.003831	
1.25858	97420.72						
133.00	4631.81	12.96	8.80	8270.23	0.43		
939.49	178.28	5.27	174.04	13.43		0.003827	
1.25839	97464.31						
134.00	4631.81	12.96	8.80	8269.85	0.43		
939.43	178.27	5.27	174.03	13.43		0.003827	
1.25841	97457.72						
135.00	4631.81	12.96	8.80	8269.84	0.43		
939.46	178.27	5.27	174.03	13.43		0.003830	
1.25955	97458.72						
136.00	4631.81	12.96	8.80	8270.00	0.43		
939.45	178.27	5.27	174.03	13.43		0.003831	
1.25960	97459.26						
137.00	4631.81	12.96	8.80	8270.10	0.43		
939.49	178.28	5.27	174.04	13.43		0.003829	
1.25922	97461.20						
138.00	4631.81	12.96	8.80	8270.20	0.43		
939.50	178.28	5.27	174.04	13.43		0.003823	
1.25730	97460.34						
139.00	4631.77	12.92	8.79	8221.23	0.43		
935.31	177.91	5.26	173.68	13.44		0.003828	
1.25564	97261.46						
140.00	4631.69	12.84	8.76	8097.78	0.43		
924.37	177.02	5.22	172.82	13.46		0.003832	
1.24852	96779.12						
141.00	4631.69	12.84	8.76	8091.11	0.43		
923.73	176.98	5.22	172.78	13.46		0.003834	
1.24869	96755.99						
142.00	4631.69	12.84	8.76	8090.85	0.43		
923.70	176.97	5.22	172.78	13.46		0.003833	
1.24849	96755.38						
143.00	4631.69	12.84	8.76	8091.23	0.43		
923.73	176.97	5.22	172.78	13.46		0.003831	
1.24783	96754.65						
144.00	4631.65	12.80	8.75	8043.70	0.43		
919.66	176.60	5.21	172.42	13.47		0.003833	
1.24552	96554.06						
145.00	4631.57	12.72	8.72	7923.69	0.43		
908.87	175.71	5.17	171.55	13.49		0.003836	
1.23829	96068.04						
146.00	4631.56	12.71	8.72	7917.24	0.43		
908.26	175.66	5.17	171.51	13.49		0.003832	
1.23629	96045.82						
147.00	4631.56	12.71	8.72	7917.01	0.43		
908.19	175.65	5.17	171.50	13.49		0.003835	
1.23737	96039.63						

HYCHAN.OUT							
908.19	148.00	4631.56	12.71	8.72	7916.83	0.43	
	1.23779	175.66	5.17	171.50	13.49		0.003837
		96041.04					
908.22	149.00	4631.56	12.71	8.72	7917.10	0.43	
	1.23714	175.66	5.17	171.50	13.49		0.003835
		96040.84					
905.52	150.00	4631.54	12.69	8.71	7885.51	0.43	
	1.23619	175.41	5.16	171.27	13.50		0.003838
		95909.30					
897.01	151.00	4631.47	12.62	8.68	7790.09	0.43	
	1.22973	174.69	5.13	170.57	13.51		0.003838
		95517.32					
892.94	152.00	4631.44	12.59	8.67	7745.20	0.43	
	1.22746	174.35	5.12	170.24	13.52		0.003841
		95331.70					
892.71	153.00	4631.44	12.59	8.67	7742.96	0.43	
	1.22739	174.33	5.12	170.22	13.52		0.003841
		95323.98					
888.67	154.00	4631.41	12.56	8.66	7696.25	0.43	
	1.22374	173.96	5.11	169.86	13.53		0.003839
		95122.08					
886.05	155.00	4631.39	12.54	8.66	7669.36	0.43	
	1.22329	173.81	5.10	169.71	13.53		0.003845
		95039.25					
906.97	156.00	4631.56	12.71	8.71	7903.57	0.43	
	1.23710	175.58	5.17	171.43	13.49		0.003838
		96000.24					
908.23	157.00	4631.56	12.71	8.72	7917.01	0.43	
	1.23851	175.66	5.17	171.50	13.49		0.003839
		96042.64					
908.24	158.00	4631.56	12.71	8.72	7917.33	0.43	
	1.23704	175.66	5.17	171.50	13.49		0.003834
		96041.68					
908.24	159.00	4631.56	12.71	8.72	7916.96	0.43	
	1.23738	175.66	5.17	171.51	13.49		0.003835
		96042.85					
908.20	160.00	4631.56	12.71	8.72	7916.84	0.43	
	1.23726	175.66	5.17	171.50	13.49		0.003835
		96041.58					
908.20	161.00	4631.56	12.71	8.72	7916.98	0.43	
	1.23759	175.66	5.17	171.51	13.49		0.003836
		96043.55					
908.21	162.00	4631.56	12.71	8.72	7917.07	0.43	
	1.23653	175.66	5.17	171.50	13.49		0.003833
		96041.55					
908.24	163.00	4631.56	12.71	8.72	7916.96	0.43	
	1.23789	175.66	5.17	171.50	13.49		0.003837
		96042.26					
904.15	164.00	4631.53	12.68	8.70	7870.18	0.43	
	1.23503	175.28	5.16	171.14	13.50		0.003837
		95837.63					
893.36	165.00	4631.44	12.59	8.67	7749.51	0.43	
	1.22907	174.37	5.12	170.26	13.52		0.003844
		95344.49					
892.77	166.00	4631.44	12.59	8.67	7743.21	0.43	
	1.22612	174.34	5.12	170.23	13.52		0.003837
		95326.20					
892.75	167.00	4631.44	12.59	8.67	7742.87	0.43	
	1.22694	174.33	5.12	170.22	13.52		0.003840
		95324.62					
892.79	168.00	4631.44	12.59	8.67	7743.09	0.43	
	1.22600	174.35	5.12	170.24	13.52		0.003837
		95332.16					

HYCHAN.OUT							
169.00	4631.44	12.59	8.67	7743.26	0.43		
892.77	174.34	5.12	170.23	13.52		0.003837	
1.22604	95327.34						
170.00	4631.44	12.59	8.67	7742.64	0.43		
892.67	174.32	5.12	170.21	13.52		0.003843	
1.22807	95318.77						
171.00	4631.44	12.59	8.67	7743.15	0.43		
892.81	174.35	5.12	170.24	13.52		0.003838	
1.22651	95333.29						
172.00	4631.41	12.56	8.66	7696.37	0.43		
888.65	173.96	5.11	169.86	13.53		0.003835	
1.22238	95121.77						
173.00	4631.32	12.47	8.63	7575.55	0.43		
877.84	173.05	5.07	168.98	13.55		0.003842	
1.21611	94627.42						
174.00	4631.32	12.47	8.63	7568.85	0.43		
877.21	173.01	5.07	168.94	13.55		0.003846	
1.21671	94605.38						
175.00	4631.32	12.47	8.63	7569.18	0.43		
877.19	173.00	5.07	168.93	13.55		0.003838	
1.21429	94602.03						
176.00	4631.32	12.47	8.63	7568.90	0.43		
877.18	172.99	5.07	168.93	13.55		0.003843	
1.21609	94598.85						
177.00	4631.32	12.47	8.63	7569.02	0.43		
877.19	173.00	5.07	168.93	13.55		0.003842	
1.21560	94602.43						
178.00	4631.32	12.47	8.63	7569.00	0.43		
877.25	173.00	5.07	168.93	13.55		0.003845	
1.21655	94602.78						
179.00	4631.39	12.54	8.65	7662.58	0.43		
885.40	173.76	5.10	169.67	13.53		0.003849	
1.22396	95013.88						
180.00	4631.56	12.71	8.71	7904.12	0.43		
907.04	175.58	5.17	171.43	13.49		0.003836	
1.23653	96001.24						
181.00	4631.60	12.75	8.73	7964.14	0.43		
912.38	176.04	5.18	171.87	13.48		0.003837	
1.24088	96247.73						
182.00	4631.68	12.83	8.76	8084.17	0.43		
923.07	176.93	5.22	172.73	13.46		0.003834	
1.24808	96730.00						
183.00	4631.69	12.84	8.76	8091.08	0.43		
923.73	176.98	5.22	172.78	13.46		0.003834	
1.24882	96756.99						
184.00	4631.69	12.84	8.76	8091.04	0.43		
923.72	176.97	5.22	172.78	13.46		0.003832	
1.24813	96754.43						
185.00	4631.69	12.84	8.76	8090.89	0.43		
923.72	176.98	5.22	172.78	13.46		0.003836	
1.24939	96757.16						
186.00	4631.69	12.84	8.76	8091.11	0.43		
923.75	176.98	5.22	172.78	13.46		0.003833	
1.24840	96757.81						
187.00	4631.69	12.84	8.76	8090.94	0.43		
923.70	176.98	5.22	172.78	13.46		0.003831	
1.24785	96755.98						
188.00	4631.69	12.84	8.76	8090.85	0.43		
923.72	176.98	5.22	172.78	13.46		0.003833	
1.24840	96756.31						
189.00	4631.69	12.84	8.76	8091.12	0.43		
923.71	176.98	5.22	172.78	13.46		0.003835	
1.24898	96756.24						

HYCHAN.OUT							
190.00	4631.65	12.80	8.75	8043.88	0.43		
919.62	176.60	5.21	172.42	13.47	0.003829		
1.24433	96552.48						
191.00	4631.57	12.72	8.72	7923.77	0.43		
908.84	175.70	5.17	171.54	13.49	0.003836		
1.23809	96063.12						
192.00	4631.56	12.71	8.72	7916.81	0.43		
908.23	175.66	5.17	171.51	13.49	0.003837		
1.23794	96043.24						
193.00	4631.56	12.71	8.72	7916.96	0.43		
908.24	175.66	5.17	171.51	13.49	0.003837		
1.23797	96043.78						
194.00	4631.56	12.71	8.72	7917.15	0.43		
908.25	175.66	5.17	171.51	13.49	0.003834		
1.23688	96044.12						
195.00	4631.56	12.71	8.72	7917.18	0.43		
908.28	175.66	5.17	171.51	13.49	0.003835		
1.23741	96045.14						
196.00	4631.56	12.71	8.72	7916.90	0.43		
908.25	175.66	5.17	171.51	13.49	0.003838		
1.23812	96043.92						
197.00	4631.56	12.71	8.72	7916.90	0.43		
908.21	175.66	5.17	171.50	13.49	0.003835		
1.23734	96040.56						
198.00	4631.56	12.71	8.72	7916.98	0.43		
908.20	175.66	5.17	171.50	13.49	0.003835		
1.23724	96041.87						
199.00	4631.56	12.71	8.72	7916.89	0.43		
908.22	175.66	5.17	171.50	13.49	0.003838		
1.23821	96041.71						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 211

MAXIMUM DISCHARGE (CFS) = 19832.50 AT TIME = 79.15  
 MAXIMUM STAGE = 4633.22 AT TIME = 79.46

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
STRESS	SURFACE AREA	DEPTH						
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(FT^2)	(LB/FT^2)	(FT^2)	(FT)	(FT)				
0.00	0.00	4616.20	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4617.06	0.86	9.02	0.63	295.72	0.12		
470.10	52.11			57.58	66.79	0.003947		
2.22178	34548.76							
2.00	4625.69	9.49	5.00	6.15	5159.59	0.35		
838.51	167.57			140.87	14.85	0.003685		
1.15049	84519.86							
3.00	4625.98	9.78	5.15	6.28	5494.41	0.35		
875.28	170.09			142.49	14.56	0.003680		
1.18166	85491.27							
4.00	4625.90	9.70	5.10	6.23	5385.52	0.35		
864.22	169.40			142.04	14.64	0.003684		
1.17293	85225.53							
5.00	4625.87	9.67	5.08	6.21	5342.43	0.35		
859.88	169.12			141.87	14.67	0.003680		
1.16738	85119.80							
6.00	4625.76	9.56		6.15	5199.23	0.35		

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		HYCHAN.OUT				
845.34	1.15362	168.20	5.03	141.27	14.77	0.003679
	7.00	84763.87				
829.69	1.13909	4625.65	9.45	6.08	5047.26	0.35
	8.00	167.20	4.96	140.63	14.89	0.003679
814.04	1.12394	84376.22	9.33	6.02	4897.10	0.35
	9.00	4625.53	4.90	139.97	15.00	0.003677
801.60	1.11333	166.18	9.23	5.96	4780.35	0.35
	10.00	83983.12	4.85	139.45	15.10	0.003681
797.11	1.10811	4625.43	9.20	5.94	4737.35	0.35
	11.00	165.37	4.83	139.25	15.14	0.003677
781.98	1.09302	83551.89	9.09	5.88	4595.42	0.34
	12.00	4625.28	4.77	138.60	15.26	0.003675
769.09	1.08204	164.06	8.99	5.82	4477.71	0.34
	13.00	83159.44	4.71	138.04	15.36	0.003679
768.05	1.08117	4625.19	8.98	5.82	4468.89	0.34
	14.00	163.19	4.71	137.99	15.37	0.003680
768.07	1.08118	82795.78	8.98	5.82	4469.05	0.34
	15.00	163.12	4.71	137.99	15.37	0.003680
768.07	1.08077	82796.29	8.98	5.82	4469.04	0.34
	16.00	4625.18	4.71	137.99	15.37	0.003678
768.06	1.08115	163.12	8.98	5.82	4468.96	0.34
	17.00	82795.95	4.71	137.99	15.37	0.003680
771.63	1.08567	4625.21	9.01	5.84	4502.99	0.34
	18.00	163.37	4.72	138.15	15.34	0.003684
787.09	1.10097	82890.79	9.12	5.90	4646.86	0.34
	19.00	4625.32	4.79	138.83	15.21	0.003685
803.25	1.11632	164.41	9.25	5.97	4798.55	0.35
	20.00	83295.15	4.85	139.52	15.09	0.003686
815.75	1.12698	4625.45	9.34	6.03	4915.97	0.35
	21.00	166.30	4.91	140.05	14.99	0.003682
816.65	1.12772	84028.59	9.35	6.03	4923.99	0.35
	22.00	4625.55	4.91	140.08	14.98	0.003681
820.20	1.13196	166.36	9.38	6.05	4958.89	0.35
	23.00	84050.96	4.92	140.23	14.96	0.003684
838.71	1.15120	4625.58	9.51	6.13	5139.36	0.35
	24.00	166.59	5.00	141.00	14.82	0.003691
868.94	1.18023	84140.78	9.74	6.26	5437.07	0.35
	25.00	4625.71	5.12	142.23	14.61	0.003694
899.25	1.20831	167.78	9.96	6.39	5742.32	0.36
	26.00	84602.71	5.24	143.44	14.40	0.003695
921.77	1.22668	4626.16	10.12	6.48	5970.98	0.36
	27.00	171.57	5.33	144.31	14.25	0.003688
		86061.26	10.13	6.48	5984.93	0.36
		86584.67				
		4626.33				

HYCHAN.OUT						
923.25	173.02	5.34	144.36	14.25	0.003688	
1.22815	86618.27					
28.00	4626.36	10.16	6.50	6026.62	0.36	
927.12	173.26	5.35	144.51	14.22	0.003694	
1.23334	86707.69					
29.00	4626.44	10.24	6.55	6144.20	0.36	
938.46	173.93	5.40	144.94	14.15	0.003689	
1.24211	86966.35					
30.00	4626.45	10.25	6.55	6151.92	0.36	
939.26	173.98	5.40	144.97	14.15	0.003690	
1.24307	86984.12					
31.00	4626.48	10.28	6.57	6195.83	0.36	
943.33	174.22	5.41	145.13	14.12	0.003695	
1.24828	87076.93					
32.00	4626.56	10.36	6.62	6317.90	0.36	
955.00	174.91	5.46	145.57	14.05	0.003692	
1.25795	87339.73					
33.00	4626.57	10.37	6.62	6326.05	0.36	
955.83	174.95	5.46	145.60	14.04	0.003692	
1.25867	87357.95					
34.00	4626.54	10.34	6.60	6282.41	0.36	
951.83	174.72	5.45	145.45	14.07	0.003688	
1.25373	87267.06					
35.00	4626.45	10.25	6.55	6159.99	0.36	
940.09	174.03	5.40	145.00	14.14	0.003691	
1.24411	87002.70					
36.00	4626.42	10.22	6.53	6110.30	0.36	
935.43	173.75	5.38	144.83	14.17	0.003686	
1.23848	86896.05					
37.00	4626.34	10.14	6.49	5992.66	0.36	
924.06	173.07	5.34	144.39	14.24	0.003690	
1.22925	86636.48					
38.00	4626.33	10.13	6.48	5985.08	0.36	
923.26	173.02	5.34	144.36	14.25	0.003687	
1.22783	86618.55					
39.00	4626.33	10.13	6.48	5985.03	0.36	
923.26	173.02	5.34	144.36	14.25	0.003688	
1.22796	86618.52					
40.00	4626.33	10.13	6.48	5985.00	0.36	
923.26	173.02	5.34	144.36	14.25	0.003689	
1.22834	86618.39					
41.00	4626.33	10.13	6.48	5984.94	0.36	
923.26	173.02	5.34	144.36	14.25	0.003688	
1.22800	86618.33					
42.00	4626.36	10.16	6.50	6026.90	0.36	
927.15	173.26	5.35	144.51	14.22	0.003694	
1.23346	86708.33					
43.00	4626.44	10.24	6.55	6144.26	0.36	
938.47	173.93	5.40	144.94	14.15	0.003692	
1.24293	86966.52					
44.00	4626.48	10.28	6.57	6195.62	0.36	
943.31	174.22	5.41	145.13	14.12	0.003695	
1.24848	87076.52					
45.00	4626.59	10.39	6.63	6362.05	0.36	
959.05	175.14	5.48	145.72	14.02	0.003697	
1.26306	87430.73					
46.00	4626.71	10.51	6.70	6536.41	0.36	
975.31	176.09	5.54	146.32	13.93	0.003697	
1.27784	87791.96					
47.00	4626.82	10.62	6.77	6710.13	0.37	
991.40	177.01	5.60	146.91	13.83	0.003698	
1.29237	88144.90					
48.00	4626.93	10.73	6.83	6884.14	0.37	

				HYCHAN.OUT			
1007.42		177.93		5.66	147.49	13.74	0.003698
	1.30664	88492.09					
49.00		4627.06	10.86	6.89	7057.70	0.37	
1025.04		178.92		5.73	148.12	13.64	0.003693
	1.32039	88869.31					
50.00		4627.22	11.02	6.94	7275.93	0.37	
1048.09		180.20		5.82	148.93	13.52	0.003677
	1.33456	89355.51					
51.00		4627.41	11.21	7.00	7527.95	0.37	
1075.80		181.71		5.92	149.88	13.38	0.003657
	1.35102	89928.78					
52.00		4627.45	11.25	7.01	7587.77	0.37	
1082.40		182.06		5.95	150.11	13.34	0.003656
	1.35625	90063.62					
53.00		4627.64	11.44	7.07	7853.82	0.37	
1110.28		183.55		6.05	151.05	13.20	0.003635
	1.37217	90627.11					
54.00		4628.07	11.87	7.21	8460.27	0.37	
1174.22		186.87		6.28	153.13	12.90	0.003586
	1.40610	91879.31					
55.00		4628.65	12.45	7.37	9310.79	0.37	
1263.44		191.30		6.60	155.91	12.52	0.003520
	1.45073	93543.67					
56.00		4629.44	13.24	7.59	10531.86	0.37	
1387.35		197.10		7.04	159.52	12.05	0.003166
	1.39065	95709.47					
57.00		4630.31	14.11	7.81	11927.05	0.37	
1527.17		203.27		7.51	163.33	11.58	0.003028
	1.41964	97995.31					
58.00		4630.94	14.74	7.96	12997.17	0.37	
1632.46		207.66		7.86	166.02	11.26	0.002889
	1.41718	99612.23					
59.00		4631.57	15.37	8.06	14017.54	0.36	
1739.20		211.92		8.21	168.62	10.97	0.002714
	1.39004	101171.39					
60.00		4632.20	16.00	8.15	15078.93	0.36	
1849.77		216.14		8.56	171.19	10.70	0.002687
	1.43502	102712.54					
61.00		4632.29	16.09	8.44	15747.71	0.37	
1865.95		216.74		8.61	171.55	10.66	0.002910
	1.56328	102929.91					
62.00		4632.27	16.07	8.79	16378.19	0.39	
1862.73		216.61		8.60	171.47	10.67	0.003041
	1.63194	102883.44					
63.00		4632.28	16.08	9.02	16813.40	0.40	
1863.12		216.62		8.60	171.48	10.67	0.003215
	1.72572	102885.93					
64.00		4632.32	16.12	9.31	17430.43	0.41	
1871.96		216.93		8.63	171.67	10.65	0.003286
	1.76924	103001.30					
65.00		4632.35	16.15	9.41	17663.34	0.41	
1876.10		217.09		8.64	171.76	10.64	0.003306
	1.78298	103056.28					
66.00		4632.35	16.15	9.42	17681.62	0.41	
1876.14		217.09		8.64	171.76	10.64	0.003318
	1.78928	103056.95					
67.00		4632.35	16.15	9.42	17681.69	0.41	
1876.16		217.09		8.64	171.76	10.64	0.003284
	1.77088	103057.50					
68.00		4632.35	16.15	9.43	17684.27	0.41	
1876.22		217.09		8.64	171.76	10.64	0.003312
	1.78624	103057.98					
69.00		4632.35	16.15	9.43	17686.46	0.41	

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				HYCHAN.OUT			
1876.27		217.09		8.64	171.76	10.64	0.003306
	1.78279	103058.83					
	70.00	4632.35	16.15	9.43	17687.83	0.41	
1876.30		217.09		8.64	171.77	10.64	0.003317
	1.78871	103059.04					
	71.00	4632.35	16.15	9.43	17687.34	0.41	
1876.35		217.10		8.64	171.77	10.64	0.003304
	1.78200	103059.83					
	72.00	4632.36	16.16	9.45	17749.36	0.41	
1878.38		217.17		8.65	171.81	10.63	0.003348
	1.80675	103087.23					
	73.00	4632.42	16.22	9.48	17920.75	0.42	
1889.45		217.57		8.68	172.06	10.61	0.003349
	1.81491	103233.97					
	74.00	4632.43	16.23	9.49	17946.85	0.42	
1891.57		217.65		8.69	172.10	10.60	0.003354
	1.81903	103261.52					
	75.00	4632.46	16.26	9.50	18007.52	0.42	
1896.19		217.82		8.71	172.21	10.59	0.003353
	1.82129	103323.29					
	76.00	4632.59	16.39	9.54	18310.56	0.42	
1920.02		218.68		8.78	172.73	10.54	0.003354
	1.83746	103636.93					
	77.00	4632.78	16.58	9.59	18743.04	0.42	
1953.56		219.89		8.88	173.46	10.46	0.003353
	1.85901	104073.05					
	78.00	4632.90	16.70	9.63	19031.11	0.42	
1975.98		220.68		8.95	173.93	10.41	0.003328
	1.85942	104360.52					
	79.00	4633.03	16.83	9.67	19343.15	0.42	
1999.82		221.51		9.03	174.44	10.36	0.003317
	1.86839	104661.97					
	80.00	4633.16	16.96	9.72	19657.09	0.42	
2023.21		222.32		9.10	174.92	10.32	0.003287
	1.86650	104953.55					
	81.00	4633.08	16.88	9.69	19463.68	0.42	
2009.46		221.84		9.06	174.64	10.34	0.003307
	1.86909	104781.81					
	82.00	4633.00	16.80	9.66	19271.60	0.42	
1994.48		221.32		9.01	174.32	10.38	0.003321
	1.86760	104594.07					
	83.00	4632.99	16.79	9.66	19252.82	0.42	
1993.07		221.28		9.01	174.29	10.38	0.003329
	1.87104	104576.66					
	84.00	4632.99	16.79	9.66	19252.00	0.42	
1993.12		221.28		9.01	174.30	10.38	0.003320
	1.86622	104577.31					
	85.00	4632.95	16.75	9.65	19148.43	0.42	
1985.25		221.00		8.98	174.13	10.40	0.003337
	1.87040	104476.43					
	86.00	4632.75	16.55	9.58	18669.52	0.42	
1948.21		219.68		8.87	173.33	10.48	0.003344
	1.85071	103999.78					
	87.00	4632.44	16.24	9.47	17927.26	0.41	
1892.36		217.67		8.69	172.11	10.60	0.003272
	1.77523	103267.74					
	88.00	4632.28	16.08	9.07	16905.54	0.40	
1863.46		216.62		8.60	171.48	10.67	0.002954
	1.58553	102886.10					
	89.00	4632.17	15.97	8.51	15701.12	0.38	
1845.05		215.95		8.54	171.07	10.71	0.002804
	1.49470	102642.13					
	90.00	4632.07	15.87	8.18	14932.56	0.36	

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				HYCHAN.OUT			
1826.23		215.25		8.48	170.65	10.75	0.002675
	1.41639	102387.20					
91.00		4631.71	15.52	8.03	14171.30	0.36	
1765.14		212.90		8.29	169.22	10.91	0.002798
	1.44739	101532.65					
92.00		4631.18	14.98	7.95	13300.65	0.36	
1673.05		209.29		7.99	167.01	11.15	0.002921
	1.45708	100208.67					
93.00		4630.74	14.54	7.87	12592.52	0.36	
1599.19		206.28		7.75	165.18	11.36	0.003020
	1.46111	99105.53					
94.00		4630.36	14.16	7.79	11960.08	0.37	
1535.18		203.61		7.54	163.53	11.55	0.003089
	1.45331	98119.18					
95.00		4630.06	13.86	7.71	11465.96	0.37	
1486.27		201.51		7.38	162.24	11.71	0.003167
	1.45777	97342.29					
96.00		4629.75	13.56	7.63	10964.36	0.37	
1437.23		199.36		7.21	160.91	11.87	0.003331
	1.49871	96545.66					
97.00		4629.53	13.33	7.56	10595.09	0.37	
1401.14		197.74		7.09	159.91	12.00	0.003412
	1.50874	95945.59					
98.00		4629.29	13.09	7.50	10229.98	0.37	
1363.16		196.01		6.95	158.84	12.13	0.003447
	1.49587	95302.06					
99.00		4629.10	12.90	7.47	9963.70	0.37	
1333.02		194.61		6.85	157.97	12.24	0.003479
	1.48712	94780.25					
100.00		4628.87	12.67	7.40	9606.85	0.37	
1297.58		192.94		6.73	156.93	12.38	0.003504
	1.47066	94155.96					
101.00		4628.67	12.47	7.35	9301.30	0.37	
1265.38		191.39		6.61	155.96	12.51	0.003524
	1.45379	93577.73					
102.00		4628.48	12.28	7.30	9028.44	0.37	
1236.50		189.98		6.51	155.08	12.63	0.003549
	1.44133	93049.84					
103.00		4628.34	12.14	7.26	8824.33	0.37	
1214.82		188.91		6.43	154.41	12.72	0.003571
	1.43309	92647.35					
104.00		4628.16	11.96	7.21	8572.17	0.37	
1188.45		187.58		6.34	153.58	12.84	0.003589
	1.41880	92148.64					
105.00		4627.93	11.73	7.15	8239.94	0.37	
1152.96		185.77		6.21	152.45	13.00	0.003610
	1.39813	91467.02					
106.00		4627.79	11.59	7.11	8053.10	0.37	
1132.85		184.73		6.13	151.79	13.09	0.003620
	1.38507	91073.62					
107.00		4627.67	11.47	7.07	7879.29	0.37	
1114.30		183.76		6.06	151.18	13.18	0.003639
	1.37679	90705.66					
108.00		4627.57	11.37	7.04	7750.44	0.37	
1100.24		183.02		6.01	150.71	13.25	0.003641
	1.36587	90424.62					
109.00		4627.60	11.40	7.06	7788.12	0.37	
1103.89		183.21		6.03	150.83	13.23	0.003642
	1.36925	90499.02					
110.00		4627.75	11.55	7.10	8002.46	0.37	
1126.43		184.40		6.11	151.58	13.12	0.003625
	1.38166	90949.01					
111.00		4627.90	11.70	7.14	8208.36	0.37	

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				HYCHAN.OUT			
1149.10		185.58		6.19	152.32	13.02	0.003607
	1.39367	91393.36					
112.00		4627.79	11.59	7.11	8052.90	0.37	
1132.90		184.74		6.13	151.79	13.09	0.003622
	1.38615	91074.77					
113.00		4627.76	11.56	7.11	8016.29	0.37	
1128.18		184.49		6.12	151.64	13.12	0.003629
	1.38488	90983.21					
114.00		4628.00	11.81	7.18	8361.44	0.37	
1164.52		186.38		6.25	152.82	12.95	0.003599
	1.40312	91693.80					
115.00		4628.18	11.98	7.22	8600.87	0.37	
1190.78		187.71		6.34	153.66	12.83	0.003584
	1.41883	92195.38					
116.00		4628.09	11.89	7.20	8478.32	0.37	
1177.91		187.06		6.30	153.25	12.88	0.003589
	1.41023	91949.95					
117.00		4628.09	11.89	7.20	8469.92	0.37	
1176.84		187.00		6.29	153.22	12.89	0.003590
	1.40988	91929.82					
118.00		4628.12	11.92	7.21	8522.95	0.37	
1182.21		187.28		6.31	153.39	12.87	0.003586
	1.41247	92033.09					
119.00		4628.22	12.02	7.24	8662.27	0.37	
1197.13		188.03		6.37	153.86	12.80	0.003574
	1.41995	92316.25					
120.00		4628.23	12.03	7.24	8670.01	0.37	
1198.09		188.08		6.37	153.89	12.79	0.003575
	1.42116	92334.13					
121.00		4628.19	11.99	7.22	8616.61	0.37	
1192.72		187.80		6.35	153.72	12.82	0.003582
	1.41942	92231.43					
122.00		4628.09	11.89	7.20	8478.30	0.37	
1177.97		187.06		6.30	153.25	12.88	0.003591
	1.41093	91950.99					
123.00		4628.05	11.85	7.18	8417.06	0.37	
1171.56		186.73		6.27	153.05	12.91	0.003593
	1.40677	91827.48					
124.00		4627.95	11.75	7.16	8278.04	0.37	
1156.63		185.97		6.22	152.57	12.98	0.003611
	1.40142	91539.73					
125.00		4627.95	11.75	7.16	8270.32	0.37	
1155.66		185.92		6.22	152.54	12.99	0.003607
	1.39890	91521.26					
126.00		4627.91	11.71	7.14	8223.06	0.37	
1150.94		185.67		6.20	152.38	13.01	0.003607
	1.39513	91428.53					
127.00		4627.82	11.62	7.12	8098.25	0.37	
1137.36		184.97		6.15	151.94	13.07	0.003619
	1.38871	91163.38					
128.00		4627.82	11.62	7.12	8091.12	0.37	
1136.45		184.92		6.15	151.91	13.08	0.003622
	1.38895	91145.76					
129.00		4627.79	11.59	7.11	8045.65	0.37	
1131.90		184.68		6.13	151.76	13.10	0.003624
	1.38579	91055.41					
130.00		4627.70	11.50	7.08	7924.28	0.37	
1118.83		184.00		6.08	151.33	13.16	0.003630
	1.37745	90796.80					
131.00		4627.75	11.56	7.11	8009.59	0.37	
1127.23		184.44		6.11	151.61	13.12	0.003623
	1.38182	90964.63					
132.00		4627.93	11.73	7.16	8255.64	0.37	

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				HYCHAN.OUT			
1153.82	185.83	6.21	152.48	12.99	0.003605		
1.39661	91486.06						
133.00	4627.95	11.75	7.16	8270.12	0.37		
1155.60	185.92	6.22	152.53	12.99	0.003605		
1.39823	91520.16						
134.00	4627.95	11.75	7.16	8269.91	0.37		
1155.61	185.92	6.22	152.53	12.99	0.003603		
1.39750	91520.35						
135.00	4627.95	11.75	7.16	8269.81	0.37		
1155.67	185.92	6.22	152.54	12.99	0.003610		
1.40041	91521.50						
136.00	4627.95	11.75	7.16	8270.02	0.37		
1155.64	185.92	6.22	152.53	12.99	0.003607		
1.39912	91520.86						
137.00	4627.95	11.75	7.16	8270.10	0.37		
1155.68	185.92	6.22	152.54	12.99	0.003608		
1.39938	91521.62						
138.00	4627.95	11.75	7.16	8270.06	0.37		
1155.71	185.92	6.22	152.54	12.99	0.003605		
1.39838	91522.27						
139.00	4627.91	11.71	7.15	8223.07	0.37		
1150.88	185.67	6.20	152.38	13.01	0.003610		
1.39644	91427.38						
140.00	4627.82	11.62	7.12	8098.39	0.37		
1137.39	184.97	6.15	151.94	13.07	0.003622		
1.38965	91163.98						
141.00	4627.82	11.62	7.12	8091.20	0.37		
1136.49	184.93	6.15	151.91	13.08	0.003618		
1.38741	91146.53						
142.00	4627.82	11.62	7.12	8090.82	0.37		
1136.44	184.92	6.15	151.91	13.08	0.003622		
1.38905	91145.58						
143.00	4627.82	11.62	7.12	8091.26	0.37		
1136.52	184.93	6.15	151.91	13.08	0.003616		
1.38662	91147.09						
144.00	4627.79	11.59	7.11	8045.35	0.37		
1131.96	184.69	6.13	151.76	13.10	0.003625		
1.38622	91056.55						
145.00	4627.70	11.50	7.08	7924.43	0.37		
1118.79	184.00	6.08	151.33	13.16	0.003633		
1.37833	90796.13						
146.00	4627.69	11.49	7.08	7917.15	0.37		
1117.91	183.95	6.08	151.30	13.17	0.003632		
1.37720	90779.03						
147.00	4627.69	11.49	7.08	7917.04	0.37		
1117.92	183.95	6.08	151.30	13.17	0.003629		
1.37602	90779.05						
148.00	4627.69	11.49	7.08	7916.85	0.37		
1117.88	183.95	6.08	151.30	13.17	0.003629		
1.37596	90778.21						
149.00	4627.69	11.49	7.08	7917.08	0.37		
1117.94	183.95	6.08	151.30	13.17	0.003632		
1.37723	90779.50						
150.00	4627.67	11.47	7.07	7886.64	0.37		
1114.85	183.79	6.07	151.20	13.18	0.003636		
1.37639	90717.42						
151.00	4627.60	11.40	7.05	7791.12	0.37		
1104.58	183.25	6.03	150.85	13.23	0.003642		
1.36982	90511.75						
152.00	4627.57	11.37	7.04	7745.44	0.37		
1099.61	182.98	6.01	150.69	13.26	0.003641		
1.36521	90412.16						
153.00	4627.57	11.37	7.04	7742.94	0.37		

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				HYCHAN.OUT			
1099.28		182.96		6.01	150.68	13.26	0.003646
	1.36673	90405.48					
154.00		4627.53	11.33	7.03	7697.83	0.37	
1094.70		182.72		5.99	150.52	13.28	0.003650
	1.36451	90312.11					
155.00		4627.51	11.31	7.03	7666.85	0.37	
1090.65		182.51		5.98	150.39	13.30	0.003649
	1.36056	90231.47					
156.00		4627.68	11.48	7.08	7902.14	0.37	
1116.04		183.85		6.07	151.24	13.17	0.003633
	1.37604	90742.11					
157.00		4627.69	11.49	7.08	7917.00	0.37	
1117.91		183.95		6.08	151.30	13.17	0.003633
	1.37752	90779.01					
158.00		4627.69	11.49	7.08	7917.27	0.37	
1117.97		183.96		6.08	151.30	13.17	0.003630
	1.37674	90780.08					
159.00		4627.69	11.49	7.08	7916.98	0.37	
1117.95		183.95		6.08	151.30	13.17	0.003631
	1.37709	90779.79					
160.00		4627.69	11.49	7.08	7916.81	0.37	
1117.88		183.95		6.08	151.30	13.17	0.003630
	1.37654	90778.32					
161.00		4627.69	11.49	7.08	7917.01	0.37	
1117.84		183.95		6.08	151.30	13.17	0.003633
	1.37780	90777.53					
162.00		4627.69	11.49	7.08	7917.04	0.37	
1117.90		183.95		6.08	151.30	13.17	0.003633
	1.37762	90778.80					
163.00		4627.69	11.49	7.08	7916.98	0.37	
1117.95		183.95		6.08	151.30	13.17	0.003629
	1.37634	90779.77					
164.00		4627.66	11.46	7.07	7871.88	0.37	
1113.40		183.71		6.06	151.15	13.19	0.003631
	1.37314	90688.03					
165.00		4627.57	11.37	7.04	7750.23	0.37	
1100.28		183.02		6.01	150.71	13.25	0.003646
	1.36772	90425.45					
166.00		4627.57	11.37	7.04	7743.07	0.37	
1099.35		182.97		6.01	150.68	13.26	0.003644
	1.36608	90407.05					
167.00		4627.57	11.37	7.04	7742.97	0.37	
1099.36		182.97		6.01	150.68	13.26	0.003647
	1.36722	90407.04					
168.00		4627.57	11.37	7.04	7743.00	0.37	
1099.24		182.96		6.01	150.67	13.26	0.003644
	1.36599	90404.79					
169.00		4627.57	11.37	7.04	7743.27	0.37	
1099.32		182.97		6.01	150.68	13.26	0.003641
	1.36519	90406.40					
170.00		4627.57	11.37	7.04	7742.71	0.37	
1099.30		182.97		6.01	150.68	13.26	0.003650
	1.36834	90405.89					
171.00		4627.57	11.37	7.04	7743.11	0.37	
1099.27		182.96		6.01	150.68	13.26	0.003642
	1.36548	90405.41					
172.00		4627.53	11.33	7.03	7698.00	0.37	
1094.67		182.72		5.99	150.52	13.28	0.003648
	1.36366	90311.45					
173.00		4627.44	11.24	7.01	7576.32	0.37	
1081.40		182.01		5.94	150.07	13.35	0.003655
	1.35494	90042.34					
174.00		4627.44	11.24	7.01	7568.90	0.37	

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				HYCHAN.OUT			
1080.46	181.96	5.94	150.04	13.35	0.003658		
	1.35553 90023.43						
175.00	4627.44	11.24	7.01	7569.06	0.37		
1080.50	181.96	5.94	150.04	13.35	0.003656		
	1.35462 90024.39						
176.00	4627.44	11.24	7.00	7568.94	0.37		
1080.57	181.96	5.94	150.04	13.35	0.003655		
	1.35444 90025.71						
177.00	4627.44	11.24	7.01	7569.03	0.37		
1080.50	181.96	5.94	150.04	13.35	0.003656		
	1.35485 90024.24						
178.00	4627.44	11.24	7.00	7569.00	0.37		
1080.61	181.96	5.94	150.04	13.35	0.003659		
	1.35582 90026.69						
179.00	4627.50	11.30	7.03	7659.31	0.37		
1089.74	182.46	5.97	150.36	13.30	0.003652		
	1.36096 90213.21						
180.00	4627.68	11.48	7.08	7902.69	0.37		
1116.18	183.86	6.07	151.24	13.17	0.003629		
	1.37474 90744.91						
181.00	4627.72	11.52	7.09	7962.49	0.37		
1122.59	184.20	6.09	151.45	13.14	0.003629		
	1.37998 90872.55						
182.00	4627.81	11.61	7.12	8083.45	0.37		
1135.60	184.88	6.14	151.88	13.08	0.003619		
	1.38713 91129.30						
183.00	4627.82	11.62	7.12	8091.09	0.37		
1136.45	184.92	6.15	151.91	13.08	0.003620		
	1.38837 91145.78						
184.00	4627.82	11.62	7.12	8090.99	0.37		
1136.50	184.93	6.15	151.91	13.08	0.003619		
	1.38778 91146.77						
185.00	4627.82	11.62	7.12	8090.97	0.37		
1136.44	184.92	6.15	151.91	13.08	0.003626		
	1.39041 91145.60						
186.00	4627.82	11.62	7.12	8091.05	0.37		
1136.47	184.92	6.15	151.91	13.08	0.003625		
	1.39023 91146.35						
187.00	4627.82	11.62	7.12	8090.94	0.37		
1136.40	184.92	6.15	151.91	13.08	0.003619		
	1.38782 91144.93						
188.00	4627.82	11.62	7.12	8090.89	0.37		
1136.44	184.92	6.15	151.91	13.08	0.003622		
	1.38912 91145.70						
189.00	4627.82	11.62	7.12	8091.16	0.37		
1136.43	184.92	6.15	151.91	13.08	0.003621		
	1.38843 91145.50						
190.00	4627.79	11.59	7.11	8045.43	0.37		
1131.90	184.68	6.13	151.76	13.10	0.003627		
	1.38706 91055.39						
191.00	4627.70	11.50	7.08	7924.50	0.37		
1118.85	184.00	6.08	151.33	13.16	0.003634		
	1.37882 90797.26						
192.00	4627.69	11.49	7.08	7916.88	0.37		
1117.91	183.95	6.08	151.30	13.17	0.003633		
	1.37755 90778.91						
193.00	4627.69	11.49	7.08	7916.94	0.37		
1117.92	183.95	6.08	151.30	13.17	0.003636		
	1.37884 90779.06						
194.00	4627.69	11.49	7.08	7917.06	0.37		
1117.94	183.95	6.08	151.30	13.17	0.003632		
	1.37724 90779.52						
195.00	4627.69	11.49	7.08	7917.24	0.37		

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HYCHAN.OUT							
1117.97	183.96	6.08	151.30	13.16	0.003631		
1.37708	90780.15						
196.00	4627.69	11.49	7.08	7916.94	0.37		
1117.94	183.95	6.08	151.30	13.17	0.003632		
1.37717	90779.55						
197.00	4627.69	11.49	7.08	7916.85	0.37		
1117.94	183.95	6.08	151.30	13.17	0.003631		
1.37681	90779.52						
198.00	4627.69	11.49	7.08	7916.99	0.37		
1117.88	183.95	6.08	151.30	13.17	0.003630		
1.37666	90778.20						
199.00	4627.69	11.49	7.08	7916.87	0.37		
1117.94	183.95	6.08	151.30	13.17	0.003636		
1.37882	90779.41						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 228

MAXIMUM DISCHARGE (CFS) = 19920.47 AT TIME = 79.16  
 MAXIMUM STAGE = 4631.70 AT TIME = 79.46

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRONDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)			
0.00	4613.70	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	
1.00	4614.37	0.67	0.44	210.20	0.10	
475.64	46.02	10.33	52.36	78.37	0.002672	
1.72323	30366.42					
2.00	4623.51	9.81	5.77	5099.93	0.32	
883.65	170.30	5.19	142.62	14.54	0.002349	
0.76073	82718.62					
3.00	4623.86	10.16	5.93	5496.59	0.33	
927.27	173.22	5.35	144.49	14.23	0.002353	
0.78587	83802.39					
4.00	4623.77	10.07	5.89	5386.72	0.33	
915.28	172.50	5.31	144.03	14.30	0.002358	
0.78081	83535.65					
5.00	4623.74	10.04	5.87	5344.55	0.33	
910.65	172.21	5.29	143.85	14.33	0.002362	
0.77928	83431.36					
6.00	4623.62	9.92	5.81	5202.51	0.33	
895.14	171.27	5.23	143.24	14.43	0.002372	
0.77353	83079.88					
7.00	4623.50	9.80	5.75	5050.61	0.32	
878.38	170.23	5.16	142.58	14.55	0.002382	
0.76679	82695.66					
8.00	4623.38	9.68	5.69	4900.48	0.32	
861.64	169.19	5.09	141.91	14.66	0.002391	
0.75997	82306.20					
9.00	4623.28	9.58	5.64	4781.56	0.32	
848.14	168.34	5.04	141.36	14.76	0.002397	
0.75362	81989.41					
10.00	4623.24	9.54	5.62	4739.54	0.32	
843.42	168.04	5.02	141.17	14.79	0.002403	
0.75259	81876.77					
11.00	4623.12	9.42	5.56	4598.93	0.32	
827.32	167.00	4.95	140.50	14.91	0.002412	

HYCHAN.OUT									
	0.74556	81489.73							
813.34	12.00	4623.02	9.32	5.51	4478.94	0.32			
		166.10	4.90		139.92	15.02		0.002420	
	0.73936	81151.39							
812.14	13.00	4623.01	9.31	5.50	4468.92	0.32			
		166.02	4.89		139.87	15.02		0.002420	
	0.73856	81122.39							
812.16	14.00	4623.01	9.31	5.50	4469.03	0.32			
		166.02	4.89		139.87	15.02		0.002419	
	0.73854	81122.97							
812.16	15.00	4623.01	9.31	5.50	4469.02	0.32			
		166.02	4.89		139.87	15.02		0.002420	
	0.73868	81122.98							
812.14	16.00	4623.01	9.31	5.50	4468.97	0.32			
		166.02	4.89		139.87	15.02		0.002419	
	0.73845	81122.52							
815.78	17.00	4623.04	9.34	5.52	4500.74	0.32			
		166.26	4.91		140.02	15.00		0.002414	
	0.73906	81212.05							
832.23	18.00	4623.16	9.46	5.58	4643.39	0.32			
		167.32	4.97		140.71	14.87		0.002404	
	0.74602	81610.88							
849.54	19.00	4623.29	9.59	5.64	4795.07	0.32			
		168.43	5.04		141.42	14.75		0.002393	
	0.75317	82023.95							
863.12	20.00	4623.39	9.69	5.69	4914.83	0.32			
		169.29	5.10		141.97	14.65		0.002387	
	0.75928	82343.17							
864.17	21.00	4623.40	9.70	5.70	4923.95	0.32			
		169.35	5.10		142.01	14.64		0.002387	
	0.76014	82367.21							
867.81	22.00	4623.42	9.72	5.71	4956.68	0.32			
		169.58	5.12		142.16	14.62		0.002382	
	0.76061	82452.86							
887.39	23.00	4623.57	9.87	5.79	5133.82	0.32			
		170.80	5.20		142.94	14.48		0.002367	
	0.76745	82905.18							
919.70	24.00	4623.80	10.10	5.90	5430.48	0.33			
		172.77	5.32		144.20	14.27		0.002349	
	0.78037	83635.66							
952.17	25.00	4624.04	10.34	6.02	5735.95	0.33			
		174.70	5.45		145.43	14.07		0.002329	
	0.79211	84350.33							
976.62	26.00	4624.21	10.51	6.11	5968.92	0.33			
		176.12	5.55		146.34	13.92		0.002319	
	0.80252	84876.27							
978.38	27.00	4624.22	10.52	6.12	5984.94	0.33			
		176.22	5.55		146.40	13.91		0.002320	
	0.80372	84913.06							
982.33	28.00	4624.25	10.55	6.13	6024.29	0.33			
		176.45	5.57		146.55	13.89		0.002315	
	0.80414	84997.59							
994.56	29.00	4624.34	10.64	6.18	6143.10	0.33			
		177.15	5.61		146.99	13.82		0.002310	
	0.80911	85255.82							
995.49	30.00	4624.34	10.64	6.18	6151.95	0.33			
		177.20	5.62		147.03	13.81		0.002310	
	0.80970	85275.02							
999.70	31.00	4624.37	10.67	6.20	6193.37	0.33			
		177.44	5.63		147.18	13.79		0.002303	
	0.80980	85363.85							
1012.30	32.00	4624.46	10.76	6.24	6316.81	0.34			
		178.15		5.68	147.63	13.72		0.002299	

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1013.26	0.81512	85626.24	10.77	5.69	6.24	6326.04	0.34	0.002299
	33.00	4624.47						
		178.21				147.67	13.71	
1009.11	0.81560	85645.75	10.74	5.67	6.23	6284.84	0.34	0.002305
	34.00	4624.44						
		177.97				147.52	13.74	
996.46	0.81539	85558.71	10.65	5.62	6.18	6161.08	0.33	0.002311
	35.00	4624.35						
		177.25				147.06	13.81	
991.58	0.81055	85295.00	10.61	5.60	6.16	6112.63	0.33	0.002315
	36.00	4624.31						
		176.97				146.88	13.84	
979.32	0.80943	85191.60	10.53	5.56	6.12	5993.75	0.33	0.002321
	37.00	4624.23						
		176.27				146.44	13.91	
978.39	0.80450	84932.69	10.52	5.55	6.12	5985.09	0.33	0.002320
	38.00	4624.22						
		176.22				146.40	13.91	
978.39	0.80383	84913.30	10.52	5.55	6.12	5985.03	0.33	0.002320
	39.00	4624.22						
		176.22				146.40	13.91	
978.38	0.80372	84913.30	10.52	5.55	6.12	5984.99	0.33	0.002320
	40.00	4624.22						
		176.22				146.40	13.91	
978.38	0.80364	84913.10	10.52	5.55	6.12	5984.97	0.33	0.002319
	41.00	4624.22						
		176.22				146.40	13.91	
982.36	0.80349	84913.20	10.55	5.57	6.13	6024.52	0.33	0.002315
	42.00	4624.25						
		176.45				146.55	13.89	
994.58	0.80420	84998.26	10.64	5.61	6.18	6143.20	0.33	0.002310
	43.00	4624.34						
		177.15				146.99	13.82	
999.69	0.80926	85256.05	10.67	5.63	6.20	6193.18	0.33	0.002304
	44.00	4624.37						
		177.44				147.18	13.79	
1016.49	0.80997	85363.44	10.79	5.70	6.26	6358.53	0.34	0.002294
	45.00	4624.49						
		178.39				147.78	13.70	
1033.88	0.81564	85713.37	10.91	5.76	6.32	6533.00	0.34	0.002283
	46.00	4624.61						
		179.36				148.40	13.60	
1051.15	0.82121	86070.55	11.03	5.83	6.38	6706.72	0.34	0.002272
	47.00	4624.73						
		180.32				149.00	13.51	
1068.25	0.82657	86420.95	11.15	5.89	6.44	6880.55	0.34	0.002262
	48.00	4624.85						
		181.25				149.59	13.42	
1087.47	0.83178	86763.61	11.28	5.97	6.49	7053.56	0.34	0.002248
	49.00	4624.98						
		182.29				150.25	13.32	
1115.45	0.83688	87144.12	11.47	6.07	6.52	7268.03	0.34	0.002205
	50.00	4625.17						
		183.78				151.19	13.18	
1150.20	0.83508	87689.30	11.70	6.20	6.54	7524.99	0.34	0.002189
	51.00	4625.40						
		185.59				152.33	13.02	
1158.42	0.84669	88350.70	11.76	6.23	6.55	7584.61	0.34	0.002179
	52.00	4625.46						
		186.01				152.59	12.98	
1192.27	0.84695	88505.05	11.98	6.35	6.58	7842.24	0.33	0.002126
	53.00	4625.68						
		187.74				153.68	12.82	



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1270.95	0.84258	89133.05	12.50	6.63	6.64	8441.20	0.33	0.002036
	54.00	4626.20				156.10	12.49	
	0.84277	90540.62						
1381.08	55.00	4626.90	13.20	7.02	6.72	9286.03	0.33	0.001941
		196.78				159.32	12.07	
	0.85021	92404.23						
1535.19	56.00	4627.85	14.15	7.54	6.84	10493.21	0.32	0.001751
		203.56				163.50	11.56	
	0.82405	94830.45						
1714.83	57.00	4628.92	15.22	8.13	6.94	11898.44	0.31	0.001655
		210.90				168.00	11.04	
	0.83964	97440.69						
1843.07	58.00	4629.66	15.96	8.54	7.04	12973.11	0.31	0.001560
		215.83				171.00	10.72	
	0.83104	99180.95						
1975.82	59.00	4630.40	16.70	8.95	7.08	13987.16	0.31	0.001419
		220.70				173.94	10.41	
	0.79300	100887.16						
2111.42	60.00	4631.15	17.45	9.37	7.14	15065.52	0.30	0.001344
		225.43				176.80	10.13	
	0.78551	102542.20						
2112.49	61.00	4631.15	17.45	9.37	7.46	15753.22	0.31	0.001345
		225.47				176.82	10.13	
	0.78647	102555.21						
2084.10	62.00	4631.00	17.30	9.28	7.87	16391.65	0.33	0.001338
		224.49				176.23	10.19	
	0.77527	102213.12						
2067.84	63.00	4630.91	17.21	9.23	8.14	16836.10	0.35	0.001333
		223.92				175.89	10.22	
	0.76785	102015.84						
2058.19	64.00	4630.85	17.16	9.21	8.48	17462.77	0.36	0.001340
		223.58				175.68	10.24	
	0.76974	101897.07						
2055.99	65.00	4630.84	17.14	9.20	8.61	17703.63	0.37	0.001340
		223.50				175.64	10.25	
	0.76923	101868.93						
2055.29	66.00	4630.84	17.14	9.20	8.62	17724.81	0.37	0.001345
		223.48				175.62	10.25	
	0.77213	101859.98						
2055.43	67.00	4630.84	17.14	9.20	8.62	17722.31	0.37	0.001334
		223.48				175.62	10.25	
	0.76544	101862.08						
2055.28	68.00	4630.84	17.14	9.20	8.63	17728.13	0.37	0.001335
		223.48				175.62	10.25	
	0.76597	101859.72						
2055.39	69.00	4630.84	17.14	9.20	8.63	17729.07	0.37	0.001342
		223.48				175.62	10.25	
	0.77018	101861.27						
2055.25	70.00	4630.84	17.14	9.20	8.63	17731.23	0.37	0.001343
		223.48				175.62	10.25	
	0.77075	101859.51						
2055.40	71.00	4630.84	17.14	9.20	8.63	17729.94	0.37	0.001342
		223.48				175.62	10.25	
	0.77007	101861.39						
2054.86	72.00	4630.84	17.14	9.20	8.66	17793.41	0.37	0.001349
		223.46				175.61	10.25	
	0.77424	101854.65						
2059.62	73.00	4630.86	17.16	9.21	8.72	17965.69	0.37	0.001337
		223.63				175.71	10.24	
	0.76826	101912.27						
2061.72	74.00	4630.87	17.17	9.22	8.73	17993.76	0.37	0.001347
		223.70				175.75	10.23	

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	0.77470	101937.49					
2066.17	75.00	4630.90	17.20	9.23	8.74	18053.08	0.37
		223.85				175.85	10.22
	0.76891	101991.54					0.001335
2088.50	76.00	4631.02	17.32	9.30	8.79	18364.48	0.37
		224.62				176.31	10.18
	0.76414	102259.38					0.001317
2121.46	77.00	4631.20	17.50	9.40	8.87	18818.03	0.37
		225.74				176.98	10.11
	0.76307	102650.26					0.001301
2145.94	78.00	4631.33	17.63	9.47	8.91	19122.20	0.37
		226.57				177.48	10.07
	0.75619	102937.56					0.001279
2175.59	79.00	4631.49	17.79	9.56	8.94	19452.28	0.37
		227.56				178.07	10.01
	0.73019	103282.28					0.001224
2206.11	80.00	4631.65	17.95	9.65	8.97	19795.45	0.37
		228.57				178.68	9.95
	0.73049	103632.35					0.001213
2188.98	81.00	4631.56	17.86	9.60	8.95	19594.26	0.37
		228.00				178.34	9.99
	0.74623	103435.30					0.001246
2169.88	82.00	4631.46	17.76	9.54	8.93	19385.72	0.37
		227.37				177.96	10.02
	0.74933	103215.24					0.001258
2167.77	83.00	4631.45	17.75	9.54	8.93	19362.84	0.37
		227.30				177.92	10.03
	0.75444	103191.20					0.001268
2167.73	84.00	4631.45	17.75	9.54	8.93	19361.97	0.37
		227.30				177.92	10.03
	0.75058	103190.74					0.001261
2158.89	85.00	4631.40	17.70	9.51	8.92	19259.65	0.37
		227.00				177.74	10.04
	0.76748	103086.89					0.001293
2118.40	86.00	4631.18	17.48	9.39	8.86	18767.63	0.37
		225.63				176.91	10.12
	0.76908	102610.39					0.001313
2066.04	87.00	4630.90	17.20	9.23	8.71	17991.07	0.37
		223.84				175.84	10.23
	0.76885	101986.46					0.001335
2065.12	88.00	4630.89	17.19	9.23	8.20	16931.89	0.35
		223.83				175.83	10.23
	0.76189	101984.02					0.001323
2081.74	89.00	4630.98	17.28	9.28	7.55	15709.38	0.32
		224.41				176.18	10.19
	0.80102	102183.76					0.001384
2079.70	90.00	4630.97	17.27	9.27	7.18	14934.57	0.30
		224.34				176.14	10.20
	0.80624	102161.49					0.001394
2010.62	91.00	4630.59	16.89	9.06	7.06	14193.68	0.30
		221.91				174.68	10.34
	0.84101	101313.51					0.001488
1896.41	92.00	4629.96	16.26	8.71	7.02	13320.65	0.31
		217.80				172.19	10.59
	0.85721	99871.45					0.001578
1805.25	93.00	4629.44	15.74	8.42	6.99	12610.36	0.31
		214.39				170.12	10.81
	0.86435	98672.23					0.001645
1727.02	94.00	4628.99	15.29	8.17	6.93	11972.56	0.31
		211.37				168.29	11.01
	0.86353	97607.54					0.001694
1666.89	95.00	4628.63	14.93	7.98	6.89	11479.65	0.31
		208.99				166.83	11.17

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0.85916	96762.32						
96.00	4628.26	14.56	6.84	10975.23	0.32		
1603.50	206.41	7.77		165.25	11.35	0.001790	
0.86747	95847.52						
97.00	4627.97	14.27	6.82	10604.30	0.32		
1555.82	204.43	7.61		164.04	11.49	0.001848	
0.87755	95140.68						
98.00	4627.68	13.98	6.79	10237.52	0.32		
1507.78	202.39	7.45		162.78	11.64	0.001882	
0.87502	94412.46						
99.00	4627.44	13.74	6.79	9972.40	0.32		
1468.62	200.69	7.32		161.73	11.77	0.001923	
0.87830	93804.55						
100.00	4627.18	13.48	6.74	9615.26	0.32		
1426.07	198.81	7.17		160.57	11.91	0.001956	
0.87560	93130.61						
101.00	4626.93	13.23	6.72	9309.01	0.33		
1386.02	197.00	7.04		159.45	12.05	0.001989	
0.87331	92482.42						
102.00	4626.70	13.00	6.69	9034.51	0.33		
1350.05	195.35	6.91		158.43	12.18	0.002019	
0.87054	91888.56						
103.00	4626.53	12.83	6.67	8829.71	0.33		
1323.08	194.09	6.82		157.65	12.29	0.002041	
0.86836	91435.08						
104.00	4626.32	12.62	6.65	8580.94	0.33		
1290.68	192.56	6.70		156.69	12.41	0.002085	
0.87190	90879.39						
105.00	4626.04	12.34	6.62	8246.40	0.33		
1246.55	190.43	6.55		155.36	12.59	0.002112	
0.86268	90108.38						
106.00	4625.87	12.17	6.60	8057.61	0.33		
1221.49	189.19	6.46		154.59	12.70	0.002134	
0.85954	89661.21						
107.00	4625.72	12.02	6.58	7884.12	0.33		
1198.56	188.05	6.37		153.87	12.80	0.002158	
0.85821	89245.36						
108.00	4625.61	11.91	6.56	7751.66	0.34		
1180.91	187.16	6.31		153.31	12.88	0.002162	
0.85122	88922.34						
109.00	4625.64	11.94	6.57	7785.03	0.34		
1185.10	187.37	6.32		153.45	12.86	0.002152	
0.84933	89000.77						
110.00	4625.82	12.12	6.59	7994.56	0.33		
1212.58	188.76	6.42		154.32	12.74	0.002118	
0.84885	89502.91						
111.00	4626.00	12.30	6.61	8208.71	0.33		
1241.32	190.17	6.53		155.20	12.61	0.002108	
0.85844	90017.13						
112.00	4625.87	12.17	6.60	8057.65	0.33		
1221.56	189.20	6.46		154.59	12.70	0.002131	
0.85858	89662.52						
113.00	4625.83	12.13	6.59	8011.38	0.33		
1214.98	188.87	6.43		154.39	12.73	0.002115	
0.84911	89545.95						
114.00	4626.12	12.42	6.63	8351.21	0.33		
1259.60	191.07	6.59		155.76	12.54	0.002073	
0.85294	90342.16						
115.00	4626.34	12.64	6.65	8601.29	0.33		
1292.99	192.67	6.71		156.76	12.40	0.002070	
0.86663	90921.98						
116.00	4626.24	12.54	6.64	8479.87	0.33		
1277.08	191.91	6.65		156.29	12.47	0.002076	

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117.00	0.86194	90646.16	12.53	6.65	6.64	8469.93	0.33	0.002072
1275.63	4626.23	191.84				156.24	12.47	
118.00	0.85988	90621.25	12.57	6.67	6.64	8519.40	0.33	0.002057
1282.11	4626.27	192.15				156.44	12.45	
119.00	0.85656	90734.56	12.69	6.74	6.66	8660.58	0.33	0.002054
1300.66	4626.39	193.04				156.99	12.37	
120.00	0.86344	91054.56	12.70	6.74	6.66	8670.09	0.33	0.002050
1302.01	4626.40	193.10				157.03	12.37	
121.00	0.86232	91077.35	12.66	6.72	6.65	8620.20	0.33	0.002068
1295.58	4626.35	192.79				156.84	12.39	
122.00	0.86732	90965.84	12.54	6.66	6.64	8479.85	0.33	0.002073
1277.21	4626.24	191.92				156.29	12.47	
123.00	0.86090	90648.44	12.49	6.63	6.63	8420.71	0.33	0.002086
1269.41	4626.19	191.54				156.05	12.50	
124.00	0.86261	90511.66	12.37	6.56	6.62	8279.82	0.33	0.002099
1250.70	4626.06	190.63				155.49	12.57	
125.00	0.85941	90183.20	12.36	6.56	6.62	8270.17	0.33	0.002097
1249.43	4626.06	190.57				155.45	12.58	
126.00	0.85792	90161.30	12.32	6.54	6.61	8226.35	0.33	0.002115
1243.82	4626.02	190.29				155.28	12.60	
127.00	0.86244	90060.91	12.21	6.48	6.60	8099.75	0.33	0.002122
1226.81	4625.91	189.46				154.75	12.67	
128.00	0.85724	89757.81	12.20	6.47	6.60	8091.15	0.33	0.002122
1225.60	4625.90	189.40				154.72	12.68	
129.00	0.85698	89736.39	12.17	6.45	6.60	8048.73	0.33	0.002133
1220.20	4625.87	189.13				154.55	12.70	
130.00	0.85885	89638.52	12.06	6.39	6.58	7925.82	0.33	0.002138
1203.92	4625.76	188.32				154.04	12.77	
131.00	0.85287	89344.20	12.12	6.43	6.59	8003.09	0.33	0.002116
1213.67	4625.82	188.81				154.35	12.73	
132.00	0.84856	89522.61	12.34	6.55	6.62	8252.76	0.33	0.002093
1246.94	4626.04	190.45				155.38	12.59	
133.00	0.85520	90117.76	12.36	6.56	6.62	8270.07	0.33	0.002097
1249.26	4626.06	190.56				155.45	12.58	
134.00	0.85781	90158.31	12.36	6.56	6.62	8269.99	0.33	0.002093
1249.41	4626.06	190.57				155.45	12.58	
135.00	0.85617	90160.90	12.36	6.56	6.62	8269.84	0.33	0.002098
1249.46	4626.06	190.57				155.45	12.58	
136.00	0.85844	90161.86	12.36	6.56	6.62	8270.00	0.33	0.002099
1249.39	4626.06	190.57				155.45	12.58	
137.00	0.85861	90160.51	12.36	6.56	6.62	8270.04	0.33	0.002097
1249.47	4626.06	190.57				155.45	12.58	

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1249.53	0.85778	90161.95	12.36	6.56	6.62	8270.01	0.33	0.002104
	138.00	4626.06				155.45	12.58	
	0.86069	90163.03						
1243.75	139.00	4626.02	12.32	6.54	6.61	8226.45	0.33	0.002110
		190.29				155.28	12.60	
	0.86065	90059.64						
1226.87	140.00	4625.91	12.21	6.48	6.60	8099.79	0.33	0.002123
		189.46				154.76	12.67	
	0.85767	89758.88						
1225.67	141.00	4625.90	12.20	6.47	6.60	8091.22	0.33	0.002117
		189.40				154.72	12.68	
	0.85496	89737.66						
1225.60	142.00	4625.90	12.20	6.47	6.60	8090.81	0.33	0.002125
		189.40				154.72	12.68	
	0.85814	89736.54						
1225.75	143.00	4625.90	12.20	6.47	6.60	8091.22	0.33	0.002117
		189.41				154.72	12.68	
	0.85491	89739.16						
1220.30	144.00	4625.87	12.17	6.45	6.60	8048.61	0.33	0.002131
		189.13				154.55	12.70	
	0.85813	89640.19						
1203.84	145.00	4625.76	12.06	6.39	6.58	7925.94	0.33	0.002140
		188.32				154.04	12.77	
	0.85362	89342.66						
1202.61	146.00	4625.75	12.05	6.39	6.58	7917.02	0.33	0.002143
		188.25				154.00	12.78	
	0.85412	89320.67						
1202.70	147.00	4625.75	12.05	6.39	6.58	7917.08	0.33	0.002139
		188.26				154.00	12.78	
	0.85283	89322.23						
1202.62	148.00	4625.75	12.05	6.39	6.58	7916.74	0.33	0.002141
		188.26				154.00	12.78	
	0.85350	89320.94						
1202.74	149.00	4625.75	12.05	6.39	6.58	7917.24	0.33	0.002142
		188.26				154.01	12.78	
	0.85390	89323.08						
1199.07	150.00	4625.73	12.03	6.38	6.58	7888.68	0.33	0.002151
		188.08				153.89	12.79	
	0.85557	89255.65						
1186.27	151.00	4625.64	11.94	6.33	6.57	7793.10	0.34	0.002162
		187.43				153.48	12.85	
	0.85397	89021.08						
1180.04	152.00	4625.60	11.90	6.31	6.56	7745.94	0.34	0.002159
		187.12				153.29	12.88	
	0.84948	88906.56						
1179.59	153.00	4625.60	11.90	6.30	6.56	7742.96	0.34	0.002166
		187.09				153.27	12.88	
	0.85229	88898.37						
1174.16	154.00	4625.56	11.86	6.29	6.56	7700.99	0.34	0.002179
		186.81				153.10	12.91	
	0.85453	88796.85						
1168.48	155.00	4625.52	11.83	6.26	6.56	7662.01	0.34	0.002163
		186.53				152.92	12.93	
	0.84538	88693.09						
1200.05	156.00	4625.73	12.03	6.38	6.58	7899.31	0.33	0.002143
		188.13				153.92	12.79	
	0.85282	89274.77						
1202.68	157.00	4625.75	12.05	6.39	6.58	7916.98	0.33	0.002139
		188.26				154.00	12.78	
	0.85278	89321.93						
1202.77	158.00	4625.75	12.05	6.39	6.58	7917.02	0.33	0.002141
		188.26				154.01	12.78	

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1202.76	0.85366	89323.64	12.05	6.39	6.58	7917.09	0.33	0.002144
1202.76	159.00	4625.75	12.05	6.39	6.58	7917.09	0.33	0.002144
1202.64	0.85488	89323.43	12.05	6.39	6.58	7916.82	0.33	0.002143
1202.64	160.00	4625.75	12.05	6.39	6.58	7916.82	0.33	0.002143
1202.49	0.85437	89321.27	12.05	6.39	6.58	7917.12	0.33	0.002145
1202.49	161.00	4625.75	12.05	6.39	6.58	7917.12	0.33	0.002145
1202.65	0.85482	89318.54	12.05	6.39	6.58	7916.98	0.33	0.002144
1202.65	162.00	4625.75	12.05	6.39	6.58	7916.98	0.33	0.002144
1202.74	0.85467	89321.38	12.05	6.39	6.58	7916.95	0.33	0.002143
1202.74	163.00	4625.75	12.05	6.39	6.58	7916.95	0.33	0.002143
1197.31	0.85434	89323.04	12.02	6.37	6.58	7875.03	0.33	0.002157
1197.31	164.00	4625.72	12.02	6.37	6.58	7875.03	0.33	0.002157
1180.95	0.85711	89223.02	11.91	6.31	6.56	7751.77	0.34	0.002163
1180.95	165.00	4625.61	11.91	6.31	6.56	7751.77	0.34	0.002163
1179.69	0.85153	88923.12	11.90	6.31	6.56	7743.08	0.34	0.002164
1179.69	166.00	4625.60	11.90	6.31	6.56	7743.08	0.34	0.002164
1179.70	0.85134	88900.12	11.90	6.31	6.56	7742.91	0.34	0.002167
1179.70	167.00	4625.60	11.90	6.31	6.56	7742.91	0.34	0.002167
1179.53	0.85249	88900.38	11.90	6.30	6.56	7742.92	0.34	0.002168
1179.53	168.00	4625.60	11.90	6.30	6.56	7742.92	0.34	0.002168
1179.65	0.85276	88897.30	11.90	6.31	6.56	7743.34	0.34	0.002166
1179.65	169.00	4625.60	11.90	6.31	6.56	7743.34	0.34	0.002166
1179.62	0.85221	88899.54	11.90	6.30	6.56	7742.83	0.34	0.002169
1179.62	170.00	4625.60	11.90	6.30	6.56	7742.83	0.34	0.002169
1179.55	0.85318	88898.84	11.90	6.30	6.56	7743.00	0.34	0.002163
1179.55	171.00	4625.60	11.90	6.30	6.56	7743.00	0.34	0.002163
1174.12	0.85092	88897.62	11.86	6.29	6.56	7701.19	0.34	0.002175
1174.12	172.00	4625.56	11.86	6.29	6.56	7701.19	0.34	0.002175
1157.51	0.85307	88796.11	11.75	6.22	6.55	7577.75	0.34	0.002186
1157.51	173.00	4625.45	11.75	6.22	6.55	7577.75	0.34	0.002186
1156.27	0.84894	88486.96	11.74	6.22	6.55	7568.97	0.34	0.002185
1156.27	174.00	4625.44	11.74	6.22	6.55	7568.97	0.34	0.002185
1156.30	0.84804	88464.12	11.74	6.22	6.55	7568.91	0.34	0.002192
1156.30	175.00	4625.44	11.74	6.22	6.55	7568.91	0.34	0.002192
1156.57	0.85092	88464.62	11.75	6.22	6.54	7569.02	0.34	0.002182
1156.57	176.00	4625.45	11.75	6.22	6.54	7569.02	0.34	0.002182
1156.28	0.84698	88469.70	11.74	6.22	6.55	7569.01	0.34	0.002187
1156.28	177.00	4625.44	11.74	6.22	6.55	7569.01	0.34	0.002187
1156.55	0.84870	88464.38	11.75	6.22	6.54	7568.99	0.34	0.002187
1156.55	178.00	4625.45	11.75	6.22	6.54	7568.99	0.34	0.002187
1167.31	0.84913	88469.38	11.82	6.26	6.56	7653.07	0.34	0.002158
1167.31	179.00	4625.52	11.82	6.26	6.56	7653.07	0.34	0.002158

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	0.84307	88671.55							
1200.27	180.00	4625.74	12.04	6.38	6.58	7899.71	0.33		
		188.14				153.93	12.79	0.002141	
	0.85233	89278.73							
1208.23	181.00	4625.79	12.09	6.41	6.59	7959.39	0.33		
		188.54				154.18	12.75	0.002129	
	0.85142	89423.48							
1224.51	182.00	4625.89	12.19	6.47	6.60	8082.01	0.33		
		189.35				154.68	12.68	0.002124	
	0.85713	89717.25							
1225.55	183.00	4625.90	12.20	6.47	6.60	8091.21	0.33		
		189.40				154.72	12.68	0.002119	
	0.85545	89735.57							
1225.72	184.00	4625.90	12.20	6.47	6.60	8090.81	0.33		
		189.41				154.72	12.68	0.002118	
	0.85529	89738.62							
1225.57	185.00	4625.90	12.20	6.47	6.60	8091.10	0.33		
		189.40				154.72	12.68	0.002128	
	0.85922	89735.82							
1225.63	186.00	4625.90	12.20	6.47	6.60	8091.03	0.33		
		189.40				154.72	12.68	0.002120	
	0.85604	89736.98							
1225.50	187.00	4625.90	12.20	6.47	6.60	8090.83	0.33		
		189.39				154.72	12.68	0.002122	
	0.85663	89734.71							
1225.56	188.00	4625.90	12.20	6.47	6.60	8091.04	0.33		
		189.40				154.72	12.68	0.002120	
	0.85594	89735.71							
1225.54	189.00	4625.90	12.20	6.47	6.60	8091.11	0.33		
		189.40				154.72	12.68	0.002121	
	0.85623	89735.30							
1220.21	190.00	4625.87	12.17	6.45	6.60	8048.54	0.33		
		189.13				154.55	12.70	0.002141	
	0.86181	89638.57							
1203.95	191.00	4625.76	12.06	6.39	6.58	7926.01	0.33		
		188.32				154.04	12.77	0.002140	
	0.85391	89344.79							
1202.67	192.00	4625.75	12.05	6.39	6.58	7916.78	0.33		
		188.26				154.00	12.78	0.002144	
	0.85487	89321.90							
1202.63	193.00	4625.75	12.05	6.39	6.58	7916.97	0.33		
		188.26				154.00	12.78	0.002147	
	0.85583	89321.07							
1202.66	194.00	4625.75	12.05	6.39	6.58	7916.95	0.33		
		188.26				154.00	12.78	0.002144	
	0.85451	89321.72							
1202.72	195.00	4625.75	12.05	6.39	6.58	7917.19	0.33		
		188.26				154.00	12.78	0.002146	
	0.85541	89322.77							
1202.68	196.00	4625.75	12.05	6.39	6.58	7917.10	0.33		
		188.26				154.00	12.78	0.002139	
	0.85266	89321.97							
1202.66	197.00	4625.75	12.05	6.39	6.58	7916.70	0.33		
		188.26				154.00	12.78	0.002145	
	0.85518	89321.61							
1202.63	198.00	4625.75	12.05	6.39	6.58	7916.99	0.33		
		188.26				154.00	12.78	0.002139	
	0.85253	89321.02							
1202.76	199.00	4625.75	12.05	6.39	6.58	7917.04	0.33		
		188.26				154.01	12.78	0.002141	
	0.85348	89323.33							



HYCHAN.OUT  
CHANNEL HYDROGRAPH FOR ELEMENT NO: 229

MAXIMUM DISCHARGE (CFS) = 21170.27 AT TIME = 79.47  
MAXIMUM STAGE = 4630.53 AT TIME = 79.47

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FOUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)								
0.00	0.00	4611.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
404.35	1.00	4611.82	0.62	9.11	0.42	170.10	0.09	0.003734	
	2.12370	20362.55							
715.83	2.00	4621.68	10.48	4.07	7.09	5072.38	0.39	0.003922	
	0.99611	58472.76							
749.72	3.00	4622.05	10.85	4.19	7.33	5497.55	0.39	0.003915	
	1.02389	59231.80							
740.73	4.00	4621.96	10.76	4.16	7.27	5387.26	0.39	0.003911	
	1.01459	59052.19							
737.31	5.00	4621.93	10.73	4.15	7.25	5345.49	0.39	0.003905	
	1.01011	58982.79							
725.68	6.00	4621.81	10.61	4.10	7.17	5204.00	0.39	0.003897	
	0.99740	58745.11							
713.03	7.00	4621.69	10.49	4.05	7.09	5052.11	0.39	0.003888	
	0.98325	58484.09							
700.48	8.00	4621.56	10.36	4.01	7.00	4902.01	0.38	0.003877	
	0.96896	58218.94							
690.36	9.00	4621.46	10.26	3.97	6.93	4782.12	0.38	0.003874	
	0.95893	58002.68							
686.84	10.00	4621.42	10.22	3.95	6.90	4740.54	0.38	0.003865	
	0.95353	57925.85							
674.85	11.00	4621.29	10.10	3.91	6.82	4600.49	0.38	0.003852	
	0.93919	57663.34							
664.31	12.00	4621.19	9.99	3.87	6.74	4479.54	0.38	0.003849	
	0.92869	57432.32							
663.36	13.00	4621.18	9.98	3.86	6.74	4468.91	0.38	0.003849	
	0.92780	57412.16							
663.37	14.00	4621.18	9.98	3.86	6.74	4469.03	0.38	0.003849	
	0.92787	57412.38							
663.37	15.00	4621.18	9.98	3.86	6.74	4469.04	0.38	0.003850	
	0.92812	57412.40							
663.37	16.00	4621.18	9.98	3.86	6.74	4468.95	0.38	0.003850	
	0.92818	57412.24							

HYCHAN.OUT							
666.03	17.00	4621.21	10.01	6.76	4499.72	0.38	0.003858
	0.93249	171.96	3.87	143.68	14.36		
	18.00	57472.51					
678.34		4621.33	10.13	6.84	4641.82	0.38	0.003871
	0.94696	173.02	3.92	144.36	14.25		
	19.00	57743.68					
691.28		4621.47	10.27	6.93	4793.51	0.38	0.003882
	0.96182	174.12	3.97	145.06	14.13		
	20.00	58024.84					
701.46		4621.57	10.37	7.01	4914.29	0.38	0.003885
	0.97199	174.97	4.01	145.61	14.04		
	21.00	58242.59					
702.28		4621.58	10.38	7.01	4923.94	0.38	0.003885
	0.97258	175.04	4.01	145.65	14.04		
	22.00	58259.46					
704.91		4621.60	10.40	7.03	4955.69	0.38	0.003895
	0.97761	175.26	4.02	145.79	14.01		
	23.00	58316.59					
719.55		4621.75	10.55	7.13	5131.32	0.39	0.003908
	0.99443	176.47	4.08	146.56	13.89		
	24.00	58623.49					
743.87		4621.99	10.79	7.30	5427.54	0.39	0.003925
	1.02126	178.42	4.17	147.80	13.69		
	25.00	59119.73					
768.29		4622.23	11.03	7.46	5733.05	0.40	0.003943
	1.04818	180.34	4.26	149.02	13.51		
	26.00	59606.79					
786.68		4622.41	11.21	7.59	5967.98	0.40	0.003947
	1.06601	181.76	4.33	149.91	13.37		
	27.00	59965.41					
788.03		4622.42	11.22	7.59	5984.95	0.40	0.003948
	1.06739	181.86	4.33	149.98	13.36		
	28.00	59990.39					
790.94		4622.45	11.25	7.62	6023.23	0.40	0.003955
	1.07204	182.08	4.34	150.12	13.34		
	29.00	60048.08					
800.09		4622.54	11.34	7.68	6142.59	0.40	0.003957
	1.08082	182.78	4.38	150.56	13.27		
	30.00	60224.16					
800.81		4622.55	11.35	7.68	6151.97	0.40	0.003957
	1.08152	182.84	4.38	150.59	13.27		
	31.00	60237.60					
803.85		4622.58	11.38	7.70	6192.26	0.40	0.003965
	1.08652	183.07	4.39	150.74	13.25		
	32.00	60296.95					
813.25		4622.67	11.47	7.77	6316.31	0.40	0.003967
	1.09531	183.78	4.43	151.19	13.18		
	33.00	60475.50					
814.01		4622.68	11.48	7.77	6326.04	0.40	0.003967
	1.09623	183.83	4.43	151.22	13.18		
	34.00	60489.09					
811.00		4622.65	11.45	7.75	6285.92	0.40	0.003960
	1.09140	183.60	4.42	151.08	13.20		
	35.00	60430.91					
801.57		4622.56	11.36	7.69	6161.61	0.40	0.003957
	1.08230	182.89	4.38	150.63	13.26		
	36.00	60251.35					
797.93		4622.52	11.32	7.66	6113.66	0.40	0.003949
	1.07685	182.61	4.37	150.45	13.29		
	37.00	60180.73					
788.76		4622.43	11.23	7.60	5994.25	0.40	0.003946
	1.06768	181.91	4.34	150.01	13.36		
		60004.02					

HYCHAN.OUT							
788.03	38.00	4622.42	11.23	7.59	5985.10	0.40	
	1.06729	181.86	4.33	149.98	13.36		0.003947
788.03	39.00	59990.62	11.22	7.59	5985.03	0.40	
	1.06743	181.86	4.33	149.98	13.36		0.003948
788.02	40.00	59990.53	11.22	7.59	5984.98	0.40	
	1.06700	181.86	4.33	149.98	13.36		0.003946
788.02	41.00	59990.46	11.22	7.59	5984.97	0.40	
	1.06731	181.86	4.33	149.98	13.36		0.003947
790.96	42.00	59990.45	11.25	7.62	6023.48	0.40	
	1.07170	182.09	4.34	150.12	13.34		0.003954
800.10	43.00	60048.45	11.34	7.68	6142.71	0.40	
	1.08091	182.78	4.38	150.56	13.27		0.003957
803.84	44.00	60224.32	11.38	7.70	6192.09	0.40	
	1.08666	183.07	4.39	150.74	13.25		0.003966
816.26	45.00	60296.69	11.50	7.79	6356.95	0.40	
	1.10062	184.01	4.44	151.33	13.16		0.003976
829.24	46.00	60533.94	11.62	7.88	6531.46	0.41	
	1.11506	184.98	4.48	151.95	13.07		0.003986
842.02	47.00	60778.69	11.75	7.96	6705.16	0.41	
	1.12967	185.93	4.53	152.54	12.99		0.003998
854.67	48.00	61016.83	11.87	8.05	6878.90	0.41	
	1.14455	186.86	4.57	153.13	12.90		0.004010
868.24	49.00	61251.59	12.00	8.12	7051.77	0.41	
	1.16298	187.90	4.62	153.78	12.81		0.004033
886.43	50.00	61511.89	12.20	8.20	7264.44	0.41	
	1.19683	189.37	4.68	154.70	12.68		0.004097
908.84	51.00	61879.88	12.44	8.28	7523.70	0.41	
	1.21928	191.16	4.75	155.82	12.53		0.004110
914.05	52.00	62327.21	12.49	8.30	7583.22	0.41	
	1.23193	191.58	4.77	156.08	12.49		0.004138
935.81	53.00	62431.13	12.72	8.37	7837.05	0.41	
	1.27439	193.28	4.84	157.14	12.35		0.004218
986.11	54.00	62855.30	13.24	8.55	8432.71	0.41	
	1.35925	197.11	5.00	159.52	12.04		0.004354
1055.41	55.00	63807.64	13.95	8.79	9275.15	0.41	
	1.47407	202.19	5.22	162.66	11.66		0.004526
1150.67	56.00	65064.28	14.92	9.10	10476.13	0.42	
	1.68296	208.87	5.51	166.76	11.18		0.004896
1260.21	57.00	66704.80	15.99	9.43	11885.97	0.42	
	1.86206	216.06	5.83	171.14	10.70		0.005116
1343.01	58.00	68455.21	16.73	9.66	12967.05	0.42	
	1.99762	220.88	6.08	174.06	10.40		0.005265
		69622.12					

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				HYCHAN.OUT			
1426.58	59.00	4628.68	17.48	6.32	9.88	14095.27	0.42
	2.13652	225.66				176.93	10.12
		70772.47					0.005416
1513.66	60.00	4629.43	18.23	6.57	10.15	15362.54	0.42
	2.21739	230.31				179.72	9.86
		71887.33					0.005407
1548.44	61.00	4629.52	18.32	6.71	10.45	16179.58	0.43
	2.09708	230.85				180.04	9.83
		72016.71					0.005010
1582.21	62.00	4629.51	18.31	6.86	10.70	16929.16	0.44
	2.03173	230.76				179.99	9.83
		71996.05					0.004749
1601.94	63.00	4629.50	18.30	6.94	10.89	17450.11	0.45
	1.92490	230.72				179.96	9.83
		71985.56					0.004443
1617.88	64.00	4629.48	18.28	7.02	11.26	18215.70	0.46
	1.94936	230.61				179.90	9.84
		71958.45					0.004453
1623.33	65.00	4629.47	18.27	7.04	11.41	18521.96	0.47
	1.96486	230.56				179.87	9.84
		71946.39					0.004472
1624.16	66.00	4629.47	18.27	7.04	11.42	18551.20	0.47
	1.95897	230.55				179.86	9.84
		71944.09					0.004456
1623.87	67.00	4629.47	18.27	7.04	11.42	18548.48	0.47
	1.97306	230.54				179.86	9.84
		71943.26					0.004489
1623.87	68.00	4629.47	18.27	7.04	11.43	18555.29	0.47
	1.95350	230.54				179.85	9.84
		71941.73					0.004444
1624.39	69.00	4629.47	18.27	7.05	11.42	18557.72	0.47
	1.95245	230.55				179.86	9.84
		71944.98					0.004441
1624.13	70.00	4629.47	18.27	7.04	11.43	18560.51	0.47
	1.95155	230.54				179.85	9.84
		71941.95					0.004439
1623.82	71.00	4629.47	18.27	7.04	11.43	18559.00	0.47
	1.95623	230.53				179.85	9.85
		71940.86					0.004451
1625.94	72.00	4629.47	18.27	7.05	11.46	18632.34	0.47
	1.94283	230.55				179.86	9.84
		71944.02					0.004415
1633.90	73.00	4629.51	18.31	7.08	11.55	18865.33	0.48
	1.95133	230.77				179.99	9.83
		71997.81					0.004417
1635.46	74.00	4629.52	18.32	7.08	11.56	18906.90	0.48
	1.95294	230.85				180.04	9.83
		72016.61					0.004418
1638.79	75.00	4629.55	18.35	7.09	11.58	18975.88	0.48
	1.95594	231.04				180.15	9.82
		72060.76					0.004419
1655.45	76.00	4629.67	18.47	7.15	11.69	19348.25	0.48
	1.97984	231.45				180.60	9.78
		72241.52					0.004436
1681.14	77.00	4629.84	18.64	7.25	11.84	19903.48	0.48
	2.00951	231.79				181.23	9.72
		72490.72					0.004440
1701.52	78.00	4629.98	18.78	7.33	11.91	20268.60	0.48
	2.03134	232.06				181.72	9.68
		72688.22					0.004440
1727.31	79.00	4630.16	18.96	7.43	11.96	20655.67	0.48
	2.04848	232.42				182.35	9.62
		72941.39					0.004417

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HYCHAN.OUT									
1754.16	80.00	4630.34	19.14	12.01	21071.01	0.48	0.004425		
	2.08082	232.77		7.54	182.99	9.56			
		73197.24							
1739.32	81.00	4630.24	19.04	11.98	20842.62	0.48	0.004422		
	2.06346	232.57		7.48	182.63	9.59			
		73053.78							
1722.53	82.00	4630.12	18.92	11.95	20590.94	0.48	0.004425		
	2.04724	232.35		7.41	182.23	9.63			
		72892.05							
1720.68	83.00	4630.11	18.91	11.95	20559.98	0.48	0.004432		
	2.04845	232.32		7.41	182.19	9.63			
		72874.63							
1720.62	84.00	4630.11	18.91	11.95	20559.36	0.48	0.004432		
	2.04841	232.32		7.41	182.19	9.63			
		72874.08							
1713.14	85.00	4630.06	18.86	11.94	20451.51	0.48	0.004437		
	2.04256	232.22		7.38	181.99	9.65			
		72797.85							
1679.55	86.00	4629.82	18.62	11.85	19903.39	0.48	0.004425		
	2.00092	231.75		7.25	181.15	9.73			
		72460.80							
1636.71	87.00	4629.53	18.33	11.58	18948.46	0.48	0.004484		
	1.98292	230.93		7.09	180.09	9.82			
		72035.89							
1604.19	88.00	4629.48	18.28	10.99	17636.07	0.45	0.004873		
	2.11509	230.62		6.96	179.90	9.84			
		71961.75							
1539.03	89.00	4629.37	18.17	10.51	16177.67	0.43	0.005279		
	2.20515	229.92		6.69	179.49	9.88			
		71794.82							
1499.35	90.00	4629.26	18.06	10.18	15267.36	0.42	0.005410		
	2.20768	229.28		6.54	179.10	9.91			
		71640.39							
1451.17	91.00	4628.88	17.68	9.94	14426.50	0.42	0.005289		
	2.11113	226.86		6.40	177.65	10.05			
		71061.51							
1379.47	92.00	4628.24	17.04	9.75	13449.69	0.42	0.005176		
	1.99930	222.83		6.19	175.23	10.29			
		70092.55							
1322.43	93.00	4627.72	16.52	9.59	12686.33	0.42	0.005067		
	1.90495	219.49		6.02	173.22	10.49			
		69287.37							
1270.54	94.00	4627.26	16.06	9.46	12013.65	0.42	0.004981		
	1.82386	216.54		5.87	171.43	10.67			
		68572.05							
1230.71	95.00	4626.91	15.71	9.34	11499.81	0.42	0.004869		
	1.74550	214.20		5.75	170.01	10.82			
		68004.02							
1190.79	96.00	4626.53	15.33	9.23	10985.72	0.42	0.004768		
	1.67368	211.67		5.63	168.47	10.99			
		67387.37							
1161.70	97.00	4626.24	15.04	9.13	10610.33	0.42	0.004683		
	1.61859	209.71		5.54	167.27	11.12			
		66909.38							
1133.12	98.00	4625.95	14.75	9.04	10242.30	0.41	0.004595		
	1.56421	207.71		5.46	166.05	11.26			
		66419.21							
1111.48	99.00	4625.71	14.51	8.98	9977.40	0.42	0.004526		
	1.52323	206.08		5.39	165.05	11.37			
		66019.80							
1083.76	100.00	4625.44	14.24	8.88	9619.86	0.41	0.004464		
	1.47842	204.19		5.31	163.89	11.51			
		65556.69							

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HYCHAN.OUT							
101.00	4625.19	13.99	8.80	9313.17	0.41		
1058.90	202.42	5.23	162.80	11.64	0.004412		
1.44004	65120.34						
102.00	4624.96	13.76	8.72	9037.79	0.41		
1036.40	200.80	5.16	161.80	11.76	0.004368		
1.40673	64720.23						
103.00	4624.78	13.58	8.66	8832.60	0.41		
1019.50	199.56	5.11	161.04	11.85	0.004329		
1.38005	64414.96						
104.00	4624.57	13.37	8.59	8585.34	0.41		
999.05	198.05	5.04	160.10	11.97	0.004266		
1.34290	64039.60						
105.00	4624.28	13.08	8.50	8249.58	0.41		
970.94	195.94	4.96	158.79	12.14	0.004225		
1.30637	63517.85						
106.00	4624.12	12.92	8.44	8059.91	0.41		
954.88	194.72	4.90	158.04	12.24	0.004196		
1.28387	63214.95						
107.00	4623.96	12.76	8.39	7886.51	0.41		
940.13	193.59	4.86	157.33	12.33	0.004154		
1.25878	62933.09						
108.00	4623.84	12.64	8.35	7752.44	0.41		
928.70	192.71	4.82	156.79	12.40	0.004155		
1.24957	62714.51						
109.00	4623.87	12.67	8.36	7783.83	0.41		
931.30	192.92	4.83	156.92	12.38	0.004176		
1.25785	62766.89						
110.00	4624.06	12.86	8.42	7991.16	0.41		
948.96	194.29	4.88	157.77	12.27	0.004230		
1.28920	63106.57						
111.00	4624.25	13.05	8.48	8209.03	0.41		
967.48	195.69	4.94	158.64	12.16	0.004228		
1.30445	63455.11						
112.00	4624.12	12.92	8.44	8059.73	0.41		
954.90	194.73	4.90	158.04	12.24	0.004191		
1.28256	63215.80						
113.00	4624.07	12.87	8.43	8009.23	0.41		
950.51	194.40	4.89	157.84	12.26	0.004227		
1.28967	63135.80						
114.00	4624.37	13.17	8.53	8346.70	0.41		
978.97	196.57	4.98	159.18	12.09	0.004297		
1.33536	63673.86						
115.00	4624.59	13.39	8.60	8601.49	0.41		
1000.35	198.16	5.05	160.17	11.96	0.004295		
1.35311	64067.32						
116.00	4624.48	13.28	8.56	8480.51	0.41		
990.27	197.40	5.02	159.70	12.02	0.004285		
1.34145	63880.74						
117.00	4624.47	13.27	8.56	8469.93	0.41		
989.34	197.33	5.01	159.66	12.03	0.004284		
1.34025	63863.54						
118.00	4624.52	13.32	8.57	8517.82	0.41		
993.35	197.64	5.03	159.85	12.00	0.004308		
1.35105	63940.03						
119.00	4624.64	13.44	8.62	8659.88	0.41		
1005.15	198.52	5.06	160.39	11.94	0.004320		
1.36504	64156.52						
120.00	4624.65	13.45	8.62	8670.06	0.41		
1006.05	198.58	5.07	160.43	11.93	0.004317		
1.36485	64172.41						
121.00	4624.60	13.41	8.60	8621.87	0.41		
1002.07	198.28	5.05	160.24	11.95	0.004295		
1.35447	64097.37						

HYCHAN.OUT							
122.00	4624.48	13.29	8.56	8480.48	0.41		
990.32	197.41	5.02	159.71	12.02	0.004288		
1.34227	63882.23						
123.00	4624.43	13.23	8.55	8422.34	0.41		
985.42	197.04	5.00	159.48	12.05	0.004257		
1.32852	63790.09						
124.00	4624.31	13.11	8.51	8280.64	0.41		
973.50	196.14	4.96	158.92	12.12	0.004247		
1.31541	63567.93						
125.00	4624.30	13.10	8.50	8270.09	0.41		
972.65	196.08	4.96	158.88	12.13	0.004242		
1.31312	63553.39						
126.00	4624.26	13.07	8.49	8227.81	0.41		
969.13	195.81	4.95	158.71	12.15	0.004223		
1.30428	63485.42						
127.00	4624.15	12.95	8.45	8100.44	0.41		
958.22	194.98	4.91	158.20	12.21	0.004214		
1.29237	63279.99						
128.00	4624.14	12.94	8.45	8091.16	0.41		
957.46	194.93	4.91	158.16	12.22	0.004210		
1.29042	63265.45						
129.00	4624.11	12.91	8.44	8050.10	0.41		
954.02	194.66	4.90	158.00	12.24	0.004189		
1.28119	63199.15						
130.00	4624.00	12.80	8.40	7926.44	0.41		
943.53	193.86	4.87	157.50	12.31	0.004184		
1.27069	63000.19						
131.00	4624.06	12.86	8.42	8000.29	0.41		
949.72	194.34	4.89	157.80	12.27	0.004226		
1.28856	63120.02						
132.00	4624.29	13.09	8.50	8251.45	0.41		
971.03	195.96	4.96	158.81	12.14	0.004247		
1.31323	63523.43						
133.00	4624.30	13.10	8.50	8270.00	0.41		
972.57	196.07	4.96	158.88	12.13	0.004248		
1.31495	63550.93						
134.00	4624.30	13.10	8.50	8270.01	0.41		
972.66	196.08	4.96	158.88	12.13	0.004245		
1.31407	63553.33						
135.00	4624.30	13.10	8.50	8269.91	0.41		
972.68	196.09	4.96	158.88	12.13	0.004243		
1.31333	63553.92						
136.00	4624.30	13.10	8.50	8270.00	0.41		
972.64	196.08	4.96	158.88	12.13	0.004250		
1.31558	63552.74						
137.00	4624.30	13.10	8.50	8270.00	0.41		
972.65	196.08	4.96	158.88	12.13	0.004252		
1.31608	63553.36						
138.00	4624.30	13.10	8.50	8270.02	0.41		
972.69	196.09	4.96	158.89	12.13	0.004247		
1.31470	63554.53						
139.00	4624.26	13.06	8.49	8227.91	0.41		
969.08	195.81	4.95	158.71	12.15	0.004219		
1.30301	63484.67						
140.00	4624.15	12.95	8.45	8100.46	0.41		
958.26	194.99	4.91	158.20	12.21	0.004215		
1.29268	63280.56						
141.00	4624.14	12.94	8.45	8091.16	0.41		
957.49	194.93	4.91	158.17	12.22	0.004216		
1.29211	63266.05						
142.00	4624.14	12.94	8.45	8090.87	0.41		
957.42	194.92	4.91	158.16	12.22	0.004214		
1.29150	63265.29						



HYCHAN.OUT							
143.00	4624.14	12.94	8.45	8091.13	0.41		
957.49	194.93	4.91	158.17	12.22	0.004215		
1.29201	63267.00						
144.00	4624.11	12.91	8.44	8050.05	0.41		
954.08	194.66	4.90	158.00	12.24	0.004190		
1.28152	63200.19						
145.00	4624.00	12.80	8.40	7926.64	0.41		
943.52	193.85	4.87	157.50	12.31	0.004178		
1.26899	62999.18						
146.00	4623.99	12.79	8.40	7916.99	0.41		
942.67	193.79	4.86	157.46	12.31	0.004179		
1.26857	62983.34						
147.00	4623.99	12.79	8.40	7917.05	0.41		
942.72	193.80	4.86	157.46	12.31	0.004180		
1.26891	62984.89						
148.00	4623.99	12.79	8.40	7916.73	0.41		
942.68	193.79	4.86	157.46	12.31	0.004186		
1.27046	62983.66						
149.00	4623.99	12.79	8.40	7917.32	0.41		
942.73	193.80	4.86	157.46	12.31	0.004177		
1.26782	62985.23						
150.00	4623.97	12.77	8.39	7889.58	0.41		
940.41	193.62	4.86	157.35	12.33	0.004168		
1.26314	62939.92						
151.00	4623.88	12.68	8.36	7794.00	0.41		
932.21	192.98	4.83	156.95	12.38	0.004152		
1.25155	62781.49						
152.00	4623.84	12.64	8.35	7746.11	0.41		
928.13	192.67	4.82	156.76	12.40	0.004151		
1.24764	62703.68						
153.00	4623.83	12.64	8.35	7743.02	0.41		
927.86	192.65	4.82	156.75	12.41	0.004148		
1.24677	62698.26						
154.00	4623.80	12.60	8.33	7702.39	0.41		
924.39	192.37	4.81	156.57	12.43	0.004128		
1.23772	62629.66						
155.00	4623.76	12.56	8.32	7659.88	0.41		
920.60	192.09	4.79	156.40	12.45	0.004163		
1.24490	62558.35						
156.00	4623.97	12.77	8.39	7898.02	0.41		
940.98	193.67	4.86	157.38	12.32	0.004180		
1.26744	62951.96						
157.00	4623.99	12.79	8.40	7916.95	0.41		
942.71	193.80	4.86	157.46	12.31	0.004180		
1.26886	62984.43						
158.00	4623.99	12.79	8.40	7916.92	0.41		
942.73	193.80	4.86	157.46	12.31	0.004185		
1.27034	62985.34						
159.00	4623.99	12.79	8.40	7917.18	0.41		
942.71	193.80	4.86	157.46	12.31	0.004183		
1.26977	62985.14						
160.00	4623.99	12.79	8.40	7916.80	0.41		
942.70	193.80	4.86	157.46	12.31	0.004186		
1.27051	62984.43						
161.00	4623.99	12.79	8.40	7917.15	0.41		
942.66	193.79	4.86	157.46	12.31	0.004178		
1.26811	62983.05						
162.00	4623.99	12.79	8.40	7916.93	0.41		
942.69	193.79	4.86	157.46	12.31	0.004185		
1.27034	62983.92						
163.00	4623.99	12.79	8.40	7916.96	0.41		
942.71	193.80	4.86	157.46	12.31	0.004184		
1.26989	62985.03						

HYCHAN.OUT							
164.00	4623.95	12.75	8.39	7876.43	0.41		
939.32	193.53	4.85	157.30	12.33	0.004161		
1.26024	62918.09						
165.00	4623.84	12.64	8.35	7752.45	0.41		
928.69	192.71	4.82	156.79	12.40	0.004152		
1.24850	62714.45						
166.00	4623.84	12.64	8.34	7743.04	0.41		
927.88	192.65	4.82	156.75	12.40	0.004152		
1.24770	62699.25						
167.00	4623.84	12.64	8.34	7742.95	0.41		
927.87	192.65	4.82	156.75	12.40	0.004151		
1.24753	62699.43						
168.00	4623.83	12.63	8.35	7742.87	0.41		
927.83	192.64	4.82	156.74	12.41	0.004153		
1.24814	62697.59						
169.00	4623.84	12.64	8.35	7743.35	0.41		
927.90	192.65	4.82	156.75	12.40	0.004151		
1.24759	62699.38						
170.00	4623.83	12.64	8.35	7742.91	0.41		
927.83	192.65	4.82	156.75	12.41	0.004150		
1.24732	62698.32						
171.00	4623.83	12.64	8.35	7742.92	0.41		
927.85	192.65	4.82	156.75	12.41	0.004150		
1.24719	62698.29						
172.00	4623.80	12.60	8.33	7702.58	0.41		
924.40	192.37	4.81	156.57	12.43	0.004124		
1.23652	62629.71						
173.00	4623.69	12.49	8.29	7578.43	0.41		
913.67	191.54	4.77	156.05	12.50	0.004119		
1.22597	62421.07						
174.00	4623.68	12.48	8.29	7568.98	0.41		
912.85	191.47	4.77	156.01	12.50	0.004121		
1.22608	62405.30						
175.00	4623.68	12.48	8.29	7568.90	0.41		
912.80	191.47	4.77	156.01	12.50	0.004124		
1.22667	62404.66						
176.00	4623.68	12.48	8.29	7568.98	0.41		
912.93	191.49	4.77	156.02	12.50	0.004121		
1.22596	62408.54						
177.00	4623.68	12.48	8.29	7569.01	0.41		
912.84	191.47	4.77	156.01	12.50	0.004122		
1.22616	62404.98						
178.00	4623.68	12.48	8.29	7569.01	0.41		
912.92	191.48	4.77	156.02	12.50	0.004122		
1.22629	62408.09						
179.00	4623.75	12.55	8.32	7650.29	0.41		
919.82	192.03	4.79	156.36	12.46	0.004167		
1.24536	62544.24						
180.00	4623.97	12.77	8.39	7898.38	0.41		
941.08	193.68	4.86	157.39	12.32	0.004182		
1.26813	62954.86						
181.00	4624.03	12.83	8.41	7957.99	0.41		
946.19	194.07	4.88	157.63	12.29	0.004203		
1.27880	63052.58						
182.00	4624.14	12.94	8.45	8081.42	0.41		
956.65	194.87	4.91	158.13	12.22	0.004216		
1.29148	63252.16						
183.00	4624.14	12.94	8.45	8091.19	0.41		
957.40	194.92	4.91	158.16	12.22	0.004212		
1.29106	63264.12						
184.00	4624.14	12.94	8.45	8090.77	0.41		
957.47	194.93	4.91	158.17	12.22	0.004216		
1.29229	63266.52						

HYCHAN.OUT							
185.00	4624.14	12.94	8.45	8091.25	0.41		
957.46	194.92	4.91	158.16	12.22	0.004212		
1.29085	63265.10						
186.00	4624.14	12.94	8.45	8090.96	0.41		
957.41	194.92	4.91	158.16	12.22	0.004206		
1.28912	63265.25						
187.00	4624.14	12.94	8.45	8090.76	0.41		
957.39	194.92	4.91	158.16	12.22	0.004214		
1.29146	63264.22						
188.00	4624.14	12.94	8.45	8091.09	0.41		
957.43	194.92	4.91	158.16	12.22	0.004211		
1.29066	63264.97						
189.00	4624.14	12.94	8.45	8091.10	0.41		
957.44	194.92	4.91	158.16	12.22	0.004211		
1.29063	63265.07						
190.00	4624.11	12.91	8.44	8049.99	0.41		
954.04	194.66	4.90	158.00	12.24	0.004190		
1.28138	63199.38						
191.00	4624.00	12.80	8.40	7926.61	0.41		
943.55	193.86	4.87	157.50	12.31	0.004182		
1.27015	62999.92						
192.00	4623.99	12.79	8.40	7916.76	0.41		
942.70	193.80	4.86	157.46	12.31	0.004184		
1.27007	62984.71						
193.00	4623.99	12.79	8.40	7917.01	0.41		
942.67	193.79	4.86	157.46	12.31	0.004182		
1.26949	62984.25						
194.00	4623.99	12.79	8.40	7916.88	0.41		
942.70	193.80	4.86	157.46	12.31	0.004184		
1.27008	62984.50						
195.00	4623.99	12.79	8.40	7917.21	0.41		
942.72	193.80	4.86	157.46	12.31	0.004182		
1.26944	62984.84						
196.00	4623.99	12.79	8.40	7917.10	0.41		
942.70	193.80	4.86	157.46	12.31	0.004180		
1.26876	62984.33						
197.00	4623.99	12.79	8.40	7916.69	0.41		
942.67	193.79	4.86	157.46	12.31	0.004184		
1.27003	62983.71						
198.00	4623.99	12.79	8.40	7916.95	0.41		
942.67	193.79	4.86	157.46	12.31	0.004186		
1.27046	62983.66						
199.00	4623.99	12.79	8.40	7917.11	0.41		
942.70	193.80	4.86	157.46	12.31	0.004183		
1.26964	62984.63						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 244

MAXIMUM DISCHARGE (CFS) = 21482.75 AT TIME = 79.51  
 MAXIMUM STAGE = 4624.63 AT TIME = 79.47

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4608.05	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4608.48	0.44	0.30	118.12	0.08		

HYCHAN.OUT						
391.35	3.96466	37.36	10.48	44.73	102.77	0.006065
	2.00	24604.16				
763.79	1.80169	4617.37	9.32	6.60	5041.34	0.38
	3.00	166.07	4.60	138.97	14.92	0.006278
805.92	1.86428	76432.98	9.63	6.82	5498.69	0.39
	4.00	168.82	4.77	140.71	14.60	0.006258
796.07	1.84607	77390.17	9.56	6.77	5387.89	0.39
	5.00	168.19	4.73	140.31	14.68	0.006250
792.40	1.83500	77171.04	9.53	6.75	5346.58	0.39
	6.00	167.95	4.72	140.16	14.70	0.006233
779.91	1.80661	77086.67	9.44	6.67	5205.77	0.38
	7.00	167.12	4.67	139.64	14.80	0.006204
766.34	1.77705	76799.77	9.33	6.59	5053.89	0.38
	8.00	166.22	4.61	139.06	14.90	0.006177
752.14	1.74776	76483.25	9.23	6.52	4903.76	0.38
	9.00	165.32	4.55	138.49	15.01	0.006156
740.18	1.72616	76169.74	9.15	6.46	4782.77	0.38
	10.00	164.60	4.50	138.03	15.09	0.006152
736.16	1.71507	75915.68	9.12	6.44	4741.66	0.38
	11.00	164.34	4.48	137.87	15.12	0.006136
722.42	1.68612	75826.75	9.02	6.37	4602.27	0.37
	12.00	163.47	4.42	137.31	15.23	0.006114
710.22	1.66350	75519.89	8.93	6.31	4480.25	0.37
	13.00	162.98	4.37	136.81	15.32	0.006107
709.06	1.66148	75245.95	8.92	6.30	4468.93	0.37
	14.00	162.62	4.36	136.77	15.33	0.006107
709.08	1.66147	75221.35	8.92	6.30	4469.02	0.37
	15.00	162.62	4.36	136.77	15.33	0.006106
709.08	1.66109	75221.72	8.92	6.30	4469.06	0.37
	16.00	162.62	4.36	136.77	15.33	0.006105
709.07	1.66178	75221.66	8.92	6.30	4468.95	0.37
	17.00	162.62	4.36	136.77	15.33	0.006108
711.96	1.67130	75221.36	8.94	6.32	4498.54	0.37
	18.00	162.81	4.37	136.89	15.30	0.006125
725.97	1.70066	75290.44	9.05	6.39	4640.04	0.37
	19.00	163.72	4.43	137.47	15.20	0.006146
740.94	1.73174	75608.55	9.15	6.47	4791.72	0.38
	20.00	164.66	4.50	138.07	15.08	0.006167
752.98	1.75322	75937.92	9.24	6.53	4913.66	0.38
	21.00	165.39	4.55	138.54	15.00	0.006171
754.03	1.75504	76194.57	9.24	6.53	4923.91	0.38
	22.00	165.45	4.56	138.57	14.99	0.006171
		76215.27				
		4617.32	9.27	6.55	4954.59	0.38

		HYCHAN.OUT				
756.96	165.64	4.57	138.69	14.97	0.006188	
23.00	76279.84					
772.88	4617.44	9.39	6.64	5128.38	0.38	
24.00	166.68	4.64	139.35	14.85	0.006237	
799.08	76644.84					
24.00	4617.64	9.59	6.79	5424.06	0.39	
1.86222	168.39	4.75	140.44	14.65	0.006289	
25.00	77242.93					
825.89	4617.83	9.78	6.94	5729.71	0.39	
26.00	170.07	4.86	141.50	14.46	0.006337	
1.92015	77827.60					
846.59	4617.98	9.93	7.05	5966.85	0.39	
27.00	171.32	4.94	142.29	14.33	0.006350	
1.95800	78259.43					
848.21	4617.99	9.94	7.06	5984.98	0.39	
28.00	171.41	4.95	142.35	14.32	0.006348	
1.96026	78291.23					
851.37	4618.01	9.96	7.07	6022.02	0.40	
29.00	171.60	4.96	142.47	14.30	0.006368	
1.97143	78357.66					
861.73	4618.09	10.04	7.13	6142.02	0.40	
30.00	172.20	5.00	142.85	14.23	0.006373	
1.98990	78567.09					
862.62	4618.09	10.04	7.13	6152.00	0.40	
31.00	172.25	5.01	142.88	14.23	0.006372	
1.99121	78583.58					
865.94	4618.12	10.07	7.15	6191.02	0.40	
32.00	172.45	5.02	143.00	14.21	0.006391	
2.00260	78652.37					
876.70	4618.19	10.14	7.20	6315.71	0.40	
33.00	173.07	5.07	143.39	14.14	0.006396	
2.02180	78865.33					
877.62	4618.19	10.15	7.21	6326.03	0.40	
34.00	173.12	5.07	143.42	14.14	0.006397	
2.02350	78882.67					
874.33	4618.17	10.12	7.19	6287.16	0.40	
35.00	172.92	5.06	143.30	14.16	0.006378	
2.01238	78814.99					
863.54	4618.10	10.05	7.14	6162.21	0.40	
36.00	172.30	5.01	142.91	14.22	0.006373	
1.99293	78601.20					
859.49	4618.07	10.02	7.11	6114.82	0.40	
37.00	172.06	5.00	142.76	14.25	0.006355	
1.98086	78518.47					
849.10	4618.00	9.95	7.06	5994.86	0.39	
38.00	171.46	4.95	142.38	14.31	0.006349	
1.96197	78308.23					
848.22	4617.99	9.94	7.06	5985.11	0.39	
39.00	171.41	4.95	142.35	14.32	0.006348	
1.96011	78291.27					
848.21	4617.99	9.94	7.06	5985.03	0.39	
40.00	171.41	4.95	142.35	14.32	0.006348	
1.96006	78291.12					
848.21	4617.99	9.94	7.06	5984.97	0.39	
41.00	171.41	4.95	142.35	14.32	0.006349	
1.96041	78290.96					
848.21	4617.99	9.94	7.06	5984.99	0.39	
42.00	171.41	4.95	142.35	14.32	0.006349	
1.96049	78290.97					
851.38	4618.01	9.96	7.07	6022.27	0.40	
43.00	171.60	4.96	142.47	14.30	0.006366	
1.97095	78357.99					
10.04	4618.09		7.13	6142.15	0.40	

		HYCHAN.OUT				
861.75	172.21	5.00	142.85	14.23	0.006373	
1.98990	78567.34					
44.00	4618.12	10.07	7.15	6190.85	0.40	
865.92	172.45	5.02	143.00	14.21	0.006391	
2.00262	78652.13					
45.00	4618.21	10.16	7.22	6355.16	0.40	
880.00	173.26	5.08	143.51	14.12	0.006414	
2.03286	78931.48					
46.00	4618.31	10.26	7.30	6529.70	0.40	
894.93	174.09	5.14	144.04	14.03	0.006434	
2.06397	79220.12					
47.00	4618.41	10.36	7.37	6703.42	0.40	
909.75	174.90	5.20	144.55	13.95	0.006456	
2.09555	79501.27					
48.00	4618.51	10.46	7.44	6877.13	0.41	
924.48	175.69	5.26	145.04	13.87	0.006483	
2.12879	79773.75					
49.00	4618.60	10.55	7.51	7050.03	0.41	
939.29	176.48	5.32	145.54	13.79	0.006512	
2.16268	80046.00					
50.00	4618.72	10.67	7.59	7261.63	0.41	
957.30	177.43	5.40	146.13	13.69	0.006596	
2.22065	80370.77					
51.00	4618.86	10.81	7.68	7522.48	0.41	
979.42	178.56	5.49	146.84	13.58	0.006614	
2.26364	80760.59					
52.00	4618.89	10.84	7.70	7582.18	0.41	
984.19	178.82	5.50	147.00	13.56	0.006650	
2.28401	80848.81					
53.00	4619.03	10.98	7.80	7832.79	0.42	
1003.87	179.90	5.58	147.67	13.45	0.006777	
2.35974	81219.31					
54.00	4619.33	11.28	8.02	8425.95	0.42	
1050.18	182.32	5.76	149.18	13.22	0.006975	
2.50705	82049.57					
55.00	4619.74	11.69	8.31	9266.52	0.43	
1115.08	185.51	6.01	151.16	12.93	0.007203	
2.70171	83136.31					
56.00	4620.27	12.22	8.53	10464.08	0.43	
1226.66	189.57	6.47	153.67	12.57	0.007185	
2.90117	84516.19					
57.00	4620.88	12.83	8.45	11874.79	0.42	
1405.29	194.07	7.24	156.43	12.19	0.006986	
3.15663	86036.84					
58.00	4621.37	13.32	8.49	12958.71	0.41	
1526.09	197.65	7.72	158.62	11.91	0.007181	
3.46000	87239.78					
59.00	4621.81	13.76	8.79	14100.96	0.42	
1604.42	200.83	7.99	160.55	11.67	0.007446	
3.71186	88304.31					
60.00	4622.27	14.22	9.17	15406.04	0.43	
1680.54	204.09	8.23	162.53	11.43	0.007642	
3.92664	89389.91					
61.00	4622.66	14.61	9.42	16222.52	0.43	
1722.52	206.74	8.33	164.13	11.24	0.007606	
3.95440	90272.66					
62.00	4623.13	15.08	9.58	16976.88	0.43	
1772.66	209.96	8.44	166.07	11.01	0.007579	
3.99303	91337.57					
63.00	4623.40	15.35	9.67	17493.14	0.44	
1808.95	211.79	8.54	167.17	10.89	0.008125	
4.33043	91942.05					
64.00	4623.62	15.57	9.75	18268.10	0.44	

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				HYCHAN.OUT			
1874.40		213.26		8.79	168.05	10.79	0.007963
	4.36748	92427.62					
	65.00	4623.69	15.64	9.77	18579.25	0.44	
1901.80		213.75		8.90	168.34	10.76	0.007919
	4.39654	92588.48					
	66.00	4623.70	15.65	9.77	18608.69	0.44	
1904.92		213.83		8.91	168.39	10.76	0.007893
	4.38748	92614.24					
	67.00	4623.70	15.65	9.77	18606.58	0.44	
1904.63		213.81		8.91	168.38	10.76	0.007961
	4.42534	92606.55					
	68.00	4623.70	15.65	9.77	18612.24	0.44	
1904.87		213.82		8.91	168.38	10.76	0.007920
	4.40270	92608.95					
	69.00	4623.71	15.66	9.77	18615.74	0.44	
1905.63		213.85		8.91	168.40	10.76	0.007913
	4.40030	92618.78					
	70.00	4623.70	15.65	9.77	18618.81	0.44	
1905.64		213.83		8.91	168.39	10.76	0.007900
	4.39292	92614.79					
	71.00	4623.70	15.65	9.77	18617.09	0.44	
1905.24		213.81		8.91	168.38	10.76	0.007919
	4.40304	92606.93					
	72.00	4623.73	15.68	9.78	18690.17	0.44	
1911.84		213.98		8.93	168.48	10.75	0.007867
	4.38567	92664.54					
	73.00	4623.80	15.75	9.79	18934.45	0.44	
1933.62		214.46		9.02	168.77	10.72	0.007841
	4.41121	92821.30					
	74.00	4623.81	15.76	9.80	18978.34	0.44	
1937.51		214.53		9.03	168.80	10.71	0.007832
	4.41375	92842.40					
	75.00	4623.83	15.78	9.80	19046.47	0.44	
1943.08		214.66		9.05	168.89	10.70	0.007810
	4.41135	92886.80					
	76.00	4623.93	15.88	9.84	19434.60	0.44	
1975.88		215.35		9.18	169.30	10.66	0.007745
	4.43416	93113.90					
	77.00	4624.10	16.05	9.89	20034.85	0.44	
2025.63		216.43		9.36	169.94	10.59	0.007686
	4.48878	93469.55					
	78.00	4624.23	16.18	9.93	20441.95	0.44	
2058.06		217.29		9.47	170.45	10.54	0.007701
	4.55148	93749.93					
	79.00	4624.39	16.34	9.99	20880.16	0.44	
2090.93		218.35		9.58	171.08	10.47	0.007722
	4.61430	94096.60					
	80.00	4624.56	16.51	10.04	21360.87	0.44	
2126.55		219.45		9.69	171.74	10.40	0.007718
	4.66698	94456.33					
	81.00	4624.47	16.42	10.01	21100.60	0.44	
2107.93		218.84		9.63	171.38	10.44	0.007702
	4.62904	94259.23					
	82.00	4624.36	16.31	9.98	20811.38	0.44	
2086.12		218.16		9.56	170.97	10.48	0.007696
	4.59214	94034.05					
	83.00	4624.35	16.30	9.97	20775.19	0.44	
2083.38		218.08		9.55	170.93	10.49	0.007698
	4.58892	94008.98					
	84.00	4624.35	16.30	9.97	20774.41	0.44	
2083.28		218.08		9.55	170.92	10.49	0.007702
	4.59093	94008.10					
	85.00	4624.30	16.25	9.96	20656.81	0.44	

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				HYCHAN.OUT			
2074.52		217.77		9.53	170.74	10.51	0.007667
	4.55771	93908.05					
86.00		4624.09	16.04	9.89	20055.16	0.44	
2028.19		216.38		9.37	169.91	10.59	0.007719
	4.51457	93451.99					
87.00		4623.80	15.75	9.80	19040.33	0.44	
1943.42		214.50		9.06	168.79	10.71	0.007943
	4.49085	92833.91					
88.00		4623.43	15.38	9.68	17702.96	0.44	
1828.92		211.99		8.63	167.29	10.88	0.007594
	4.08821	92008.57					
89.00		4622.67	14.62	9.42	16240.63	0.43	
1724.00		206.81		8.34	164.17	11.23	0.007491
	3.89653	90295.09					
90.00		4622.23	14.18	9.14	15315.81	0.43	
1676.59		203.81		8.23	162.36	11.45	0.007444
	3.82101	89297.50					
91.00		4621.95	13.90	8.87	14471.59	0.42	
1631.02		201.81		8.08	161.15	11.59	0.007245
	3.65387	88631.12					
92.00		4621.57	13.52	8.62	13479.84	0.41	
1563.19		199.12		7.85	159.51	11.80	0.007059
	3.45805	87730.77					
93.00		4621.26	13.21	8.42	12704.95	0.41	
1508.94		196.90		7.66	158.16	11.97	0.006943
	3.32037	86987.14					
94.00		4620.95	12.90	8.40	12026.36	0.41	
1431.60		194.61		7.36	156.76	12.15	0.007050
	3.23613	86219.77					
95.00		4620.71	12.66	8.45	11509.60	0.42	
1362.27		192.82		7.06	155.67	12.30	0.007136
	3.14567	85616.04					
96.00		4620.48	12.43	8.49	10989.88	0.42	
1294.66		191.13		6.77	154.63	12.44	0.007154
	3.02393	85045.62					
97.00		4620.32	12.28	8.51	10613.46	0.43	
1247.48		189.95		6.57	153.90	12.54	0.007218
	2.95779	84645.75					
98.00		4620.18	12.13	8.52	10244.24	0.43	
1201.81		188.82		6.36	153.21	12.63	0.007235
	2.87334	84263.07					
99.00		4620.07	12.02	8.51	9980.41	0.43	
1172.61		188.04		6.24	152.73	12.70	0.007196
	2.80021	83998.85					
100.00		4619.91	11.86	8.42	9622.69	0.43	
1142.93		186.78		6.12	151.94	12.81	0.007122
	2.71933	83568.98					
101.00		4619.77	11.72	8.32	9315.85	0.43	
1119.37		185.68		6.03	151.27	12.91	0.007048
	2.65139	83196.55					
102.00		4619.63	11.58	8.23	9039.93	0.43	
1098.07		184.67		5.95	150.64	13.00	0.006989
	2.59302	82851.80					
103.00		4619.54	11.49	8.16	8834.44	0.42	
1082.18		183.90		5.88	150.16	13.07	0.006939
	2.54804	82588.81					
104.00		4619.41	11.36	8.08	8588.49	0.42	
1063.18		182.95		5.81	149.57	13.16	0.006845
	2.48212	82264.30					
105.00		4619.24	11.19	7.96	8251.94	0.42	
1036.95		181.62		5.71	148.74	13.29	0.006787
	2.41784	81809.46					
106.00		4619.15	11.10	7.89	8061.64	0.42	

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1022.04		180.84		5.65	148.26	13.36	0.006740
	2.37675	81544.35					
107.00		4619.06	11.01	7.82	7888.08	0.42	
1008.43		180.12		5.60	147.81	13.43	0.006686
	2.33561	81297.01					
108.00		4618.98	10.94	7.77	7753.11	0.41	
997.76		179.55		5.56	147.46	13.48	0.006679
	2.31605	81101.60					
109.00		4619.00	10.95	7.78	7782.67	0.41	
999.98		179.68		5.57	147.54	13.47	0.006709
	2.33002	81144.78					
110.00		4619.11	11.06	7.86	7988.33	0.42	
1016.10		180.55		5.63	148.08	13.39	0.006790
	2.38455	81442.67					
111.00		4619.22	11.17	7.94	8209.12	0.42	
1033.50		181.45		5.70	148.64	13.30	0.006786
	2.41198	81752.05					
112.00		4619.15	11.10	7.89	8061.29	0.42	
1022.02		180.84		5.65	148.26	13.36	0.006741
	2.37704	81544.18					
113.00		4619.12	11.07	7.87	8007.54	0.42	
1017.63		180.62		5.63	148.13	13.38	0.006798
	2.38975	81468.86					
114.00		4619.29	11.24	7.99	8343.05	0.42	
1043.79		181.99		5.74	148.98	13.25	0.006893
	2.46702	81937.38					
115.00		4619.42	11.37	8.08	8601.63	0.42	
1064.04		183.01		5.81	149.61	13.16	0.006884
	2.49769	82284.24					
116.00		4619.36	11.31	8.04	8481.07	0.42	
1054.70		182.54		5.78	149.31	13.20	0.006872
	2.47756	82123.12					
117.00		4619.36	11.31	8.04	8469.91	0.42	
1053.82		182.49		5.77	149.29	13.20	0.006872
	2.47612	82108.93					
118.00		4619.38	11.33	8.05	8516.49	0.42	
1057.36		182.68		5.79	149.40	13.19	0.006914
	2.49705	82171.03					
119.00		4619.45	11.40	8.10	8659.31	0.42	
1068.46		183.23		5.83	149.75	13.14	0.006923
	2.51923	82360.39					
120.00		4619.46	11.41	8.11	8670.04	0.42	
1069.34		183.27		5.83	149.77	13.13	0.006925
	2.52132	82374.79					
121.00		4619.43	11.38	8.09	8623.25	0.42	
1065.79		183.09		5.82	149.66	13.15	0.006884
	2.50035	82312.62					
122.00		4619.36	11.31	8.04	8481.08	0.42	
1054.70		182.54		5.78	149.31	13.20	0.006873
	2.47791	82122.98					
123.00		4619.33	11.28	8.02	8423.51	0.42	
1050.25		182.31		5.76	149.17	13.22	0.006837
	2.45776	82044.50					
124.00		4619.26	11.21	7.97	8281.33	0.42	
1039.15		181.74		5.72	148.82	13.28	0.006819
	2.43277	81851.19					
125.00		4619.25	11.20	7.97	8269.93	0.42	
1038.22		181.70		5.71	148.79	13.28	0.006822
	2.43248	81835.75					
126.00		4619.23	11.18	7.95	8229.01	0.42	
1035.11		181.53		5.70	148.69	13.30	0.006784
	2.41380	81779.28					
127.00		4619.17	11.12	7.90	8101.07	0.42	

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				HYCHAN.OUT			
1025.02		181.00		5.66	148.36	13.35	0.006771
	2.39283	81599.09					
128.00		4619.16	11.11	7.90	8091.11	0.42	
1024.27		180.97		5.66	148.34	13.35	0.006768
	2.39018	81587.26					
129.00		4619.14	11.09	7.88	8051.24	0.42	
1021.19		180.80		5.65	148.24	13.36	0.006736
	2.37407	81529.84					
130.00		4619.08	11.03	7.84	7927.01	0.42	
1011.42		180.29		5.61	147.91	13.41	0.006728
	2.35513	81353.19					
131.00		4619.11	11.06	7.87	7997.91	0.42	
1016.89		180.59		5.63	148.10	13.38	0.006797
	2.38818	81456.70					
132.00		4619.24	11.19	7.96	8250.42	0.42	
1036.65		181.62		5.71	148.74	13.29	0.006823
	2.43028	81809.36					
133.00		4619.25	11.20	7.97	8270.02	0.42	
1038.24		181.70		5.71	148.79	13.28	0.006822
	2.43248	81836.03					
134.00		4619.25	11.20	7.97	8269.91	0.42	
1038.25		181.70		5.71	148.79	13.28	0.006827
	2.43424	81836.43					
135.00		4619.25	11.20	7.97	8269.92	0.42	
1038.24		181.70		5.71	148.79	13.28	0.006819
	2.43141	81836.25					
136.00		4619.25	11.20	7.97	8270.18	0.42	
1038.25		181.70		5.71	148.79	13.28	0.006820
	2.43174	81836.16					
137.00		4619.25	11.20	7.97	8270.02	0.42	
1038.23		181.70		5.71	148.79	13.28	0.006822
	2.43262	81835.73					
138.00		4619.25	11.20	7.97	8269.89	0.42	
1038.23		181.70		5.71	148.79	13.28	0.006818
	2.43099	81836.02					
139.00		4619.23	11.18	7.95	8228.99	0.42	
1035.08		181.53		5.70	148.69	13.30	0.006788
	2.41519	81778.16					
140.00		4619.17	11.12	7.90	8101.09	0.42	
1025.04		181.01		5.66	148.36	13.34	0.006772
	2.39315	81599.81					
141.00		4619.16	11.11	7.90	8091.17	0.42	
1024.28		180.97		5.66	148.34	13.35	0.006774
	2.39258	81587.59					
142.00		4619.16	11.11	7.90	8090.89	0.42	
1024.22		180.97		5.66	148.34	13.35	0.006767
	2.38979	81585.77					
143.00		4619.16	11.11	7.90	8091.03	0.42	
1024.23		180.97		5.66	148.34	13.35	0.006776
	2.39292	81586.21					
144.00		4619.14	11.09	7.88	8051.18	0.42	
1021.22		180.81		5.65	148.24	13.36	0.006739
	2.37495	81530.88					
145.00		4619.08	11.03	7.84	7927.22	0.42	
1011.46		180.29		5.61	147.92	13.41	0.006724
	2.35388	81354.40					
146.00		4619.07	11.02	7.83	7916.94	0.42	
1010.62		180.25		5.61	147.89	13.42	0.006726
	2.35325	81340.02					
147.00		4619.07	11.02	7.83	7916.99	0.42	
1010.62		180.25		5.61	147.89	13.42	0.006726
	2.35318	81340.01					
148.00		4619.07	11.02	7.83	7916.85	0.42	

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				HYCHAN.OUT			
1010.63	180.25	5.61	147.89	13.42	0.006725		
2.35291	81340.02						
149.00	4619.07	11.02	7.83	7917.25	0.42		
1010.62	180.25	5.61	147.89	13.42	0.006723		
2.35229	81339.68						
150.00	4619.06	11.01	7.82	7890.41	0.42		
1008.57	180.14	5.60	147.82	13.43	0.006700		
2.34082	81301.09						
151.00	4619.01	10.96	7.79	7794.76	0.41		
1001.06	179.73	5.57	147.57	13.47	0.006677		
2.32049	81162.91						
152.00	4618.98	10.93	7.77	7746.26	0.41		
997.21	179.53	5.55	147.44	13.49	0.006680		
2.31528	81092.05						
153.00	4618.98	10.93	7.77	7743.08	0.41		
996.95	179.51	5.55	147.43	13.49	0.006669		
2.31118	81087.82						
154.00	4618.96	10.91	7.75	7703.53	0.41		
993.89	179.34	5.54	147.33	13.51	0.006639		
2.29592	81028.78						
155.00	4618.93	10.88	7.73	7658.13	0.41		
990.19	179.15	5.53	147.21	13.52	0.006691		
2.30782	80962.93						
156.00	4619.06	11.01	7.83	7896.94	0.42		
1008.98	180.16	5.60	147.84	13.43	0.006724		
2.34978	81310.80						
157.00	4619.07	11.02	7.83	7916.90	0.42		
1010.63	180.25	5.61	147.89	13.42	0.006726		
2.35332	81340.21						
158.00	4619.07	11.02	7.83	7916.97	0.42		
1010.62	180.25	5.61	147.89	13.42	0.006727		
2.35367	81339.66						
159.00	4619.07	11.02	7.83	7917.17	0.42		
1010.60	180.25	5.61	147.89	13.42	0.006720		
2.35109	81339.12						
160.00	4619.07	11.02	7.83	7916.86	0.42		
1010.61	180.25	5.61	147.89	13.42	0.006723		
2.35215	81339.48						
161.00	4619.07	11.02	7.83	7917.06	0.42		
1010.63	180.25	5.61	147.89	13.42	0.006722		
2.35164	81339.90						
162.00	4619.07	11.02	7.83	7917.06	0.42		
1010.64	180.25	5.61	147.89	13.42	0.006724		
2.35269	81340.16						
163.00	4619.07	11.02	7.83	7916.92	0.42		
1010.60	180.25	5.61	147.89	13.42	0.006720		
2.35120	81339.36						
164.00	4619.05	11.00	7.82	7877.58	0.42		
1007.60	180.08	5.60	147.79	13.43	0.006683		
2.33317	81283.08						
165.00	4618.98	10.93	7.77	7753.04	0.41		
997.75	179.55	5.56	147.46	13.48	0.006672		
2.31360	81101.36						
166.00	4618.98	10.93	7.77	7742.93	0.41		
996.94	179.51	5.55	147.43	13.49	0.006678		
2.31418	81087.52						
167.00	4618.98	10.93	7.77	7743.01	0.41		
996.93	179.51	5.55	147.43	13.49	0.006672		
2.31204	81086.89						
168.00	4618.98	10.93	7.77	7742.88	0.41		
996.94	179.51	5.55	147.43	13.49	0.006675		
2.31303	81087.59						
169.00	4618.98	10.93	7.77	7743.33	0.41		

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996.98		179.51		5.55	147.43	13.49	0.006673
	2.31248	81088.27					
	170.00	4618.98	10.93	5.55	7.77	7743.00	0.41
996.93		179.51		5.55	147.43	13.49	0.006668
	2.31071	81086.70					
	171.00	4618.98	10.93	5.55	7.77	7742.80	0.41
996.93		179.51		5.55	147.43	13.49	0.006677
	2.31400	81087.44					
	172.00	4618.96	10.91	5.54	7.75	7703.64	0.41
993.91		179.34		5.54	147.33	13.51	0.006643
	2.29730	81029.33					
	173.00	4618.89	10.84	5.50	7.70	7579.07	0.41
984.04		178.80		5.50	146.99	13.56	0.006627
	2.27578	80844.30					
	174.00	4618.89	10.84	5.50	7.70	7569.09	0.41
983.24		178.76		5.50	146.96	13.56	0.006625
	2.27383	80830.13					
	175.00	4618.89	10.84	5.50	7.70	7568.91	0.41
983.20		178.76		5.50	146.96	13.56	0.006623
	2.27312	80829.05					
	176.00	4618.89	10.84	5.50	7.70	7568.91	0.41
983.20		178.76		5.50	146.96	13.56	0.006631
	2.27573	80829.02					
	177.00	4618.89	10.84	5.50	7.70	7569.01	0.41
983.23		178.76		5.50	146.96	13.56	0.006626
	2.27418	80830.12					
	178.00	4618.89	10.84	5.50	7.70	7569.04	0.41
983.21		178.76		5.50	146.96	13.56	0.006623
	2.27295	80829.39					
	179.00	4618.93	10.88	5.52	7.73	7648.00	0.41
989.37		179.11		5.52	147.18	13.53	0.006697
	2.30830	80948.16					
	180.00	4619.06	11.01	5.60	7.83	7897.18	0.42
1009.00		180.17		5.60	147.84	13.43	0.006722
	2.34925	81311.43					
	181.00	4619.09	11.04	5.62	7.85	7956.84	0.42
1013.71		180.42		5.62	148.00	13.40	0.006757
	2.36892	81397.56					
	182.00	4619.16	11.11	5.66	7.90	8080.99	0.42
1023.39		180.92		5.66	148.31	13.35	0.006768
	2.38886	81571.25					
	183.00	4619.16	11.11	5.66	7.90	8091.08	0.42
1024.24		180.97		5.66	148.34	13.35	0.006774
	2.39223	81586.40					
	184.00	4619.16	11.11	5.66	7.90	8090.82	0.42
1024.23		180.97		5.66	148.34	13.35	0.006776
	2.39289	81586.25					
	185.00	4619.16	11.11	5.66	7.90	8091.28	0.42
1024.28		180.97		5.66	148.34	13.35	0.006761
	2.38798	81587.56					
	186.00	4619.16	11.11	5.66	7.90	8090.76	0.42
1024.19		180.96		5.66	148.34	13.35	0.006772
	2.39153	81585.24					
	187.00	4619.16	11.11	5.66	7.90	8090.90	0.42
1024.22		180.97		5.66	148.34	13.35	0.006772
	2.39157	81585.77					
	188.00	4619.16	11.11	5.66	7.90	8091.05	0.42
1024.24		180.97		5.66	148.34	13.35	0.006772
	2.39184	81586.52					
	189.00	4619.16	11.11	5.66	7.90	8091.11	0.42
1024.26		180.97		5.66	148.34	13.35	0.006770
	2.39102	81586.98					
	190.00	4619.14	11.09		7.88	8051.20	0.42

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1021.20	180.80	5.65	148.24	13.36	0.006732		
2.37261	81530.45						
191.00	4619.08	11.03	7.84	7927.14	0.42		
1011.46	180.29	5.61	147.92	13.41	0.006725		
2.35432	81354.45						
192.00	4619.07	11.02	7.83	7916.81	0.42		
1010.60	180.25	5.61	147.89	13.42	0.006719		
2.35075	81339.35						
193.00	4619.07	11.02	7.83	7917.01	0.42		
1010.58	180.24	5.61	147.89	13.42	0.006718		
2.35052	81338.47						
194.00	4619.07	11.02	7.83	7916.84	0.42		
1010.61	180.25	5.61	147.89	13.42	0.006725		
2.35299	81339.77						
195.00	4619.07	11.02	7.83	7917.21	0.42		
1010.63	180.25	5.61	147.89	13.42	0.006716		
2.34984	81340.12						
196.00	4619.07	11.02	7.83	7917.01	0.42		
1010.63	180.25	5.61	147.89	13.42	0.006725		
2.35271	81339.95						
197.00	4619.07	11.02	7.83	7916.82	0.42		
1010.60	180.25	5.61	147.89	13.42	0.006720		
2.35113	81339.16						
198.00	4619.07	11.02	7.83	7916.91	0.42		
1010.61	180.25	5.61	147.89	13.42	0.006729		
2.35407	81339.48						
199.00	4619.07	11.02	7.83	7917.09	0.42		
1010.61	180.25	5.61	147.89	13.42	0.006726		
2.35330	81339.30						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 261

MAXIMUM DISCHARGE (CFS) = 21014.99 AT TIME = 79.52  
 MAXIMUM STAGE = 4621.49 AT TIME = 79.51

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4605.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00						
391.35	1.00	4605.31	0.21	0.30	31.93	118.12	0.12		
	3.95873	31.22	12.53			153.08			0.005062
		16283.51							
763.79	2.00	4612.72	7.62	6.60	178.34	5041.34	0.42		
	1.32895	182.10	4.19			23.39			0.005078
		90953.53							
805.92	3.00	4613.07	7.97	6.82	182.19	5498.69	0.43		
	1.36532	186.13	4.33			22.85			0.005053
		92915.73							
796.07	4.00	4613.01	7.91	6.77	181.48	5387.89	0.42		
	1.35170	185.38	4.29			22.95			0.005044
		92553.17							
792.40	5.00	4612.98	7.88	6.75	181.21	5346.58	0.42		
	1.34108	185.11	4.28			22.99			0.005021
		92419.21							
779.91	6.00	4612.90	7.80	6.67	180.31	5205.77	0.42		
		184.16	4.23			23.11			0.004987

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		HYCHAN.OUT					
	1.31785	91958.90					
766.34	7.00	4612.81	7.71	6.59	5053.89	0.42	
		183.13	4.18	179.33	23.25		0.004954
	1.29364	91456.84					
752.14	8.00	4612.71	7.61	6.52	4903.76	0.42	
		181.95	4.13	178.20	23.41		0.004922
	1.26960	90882.27					
740.18	9.00	4612.62	7.52	6.46	4782.77	0.42	
		180.90	4.09	177.20	23.56		0.004913
	1.25425	90371.46					
736.16	10.00	4612.59	7.49	6.44	4741.66	0.41	
		180.55	4.08	176.86	23.61		0.004891
	1.24432	90200.88					
722.42	11.00	4612.49	7.39	6.37	4602.27	0.41	
		179.36	4.03	175.72	23.77		0.004860
	1.22140	89616.45					
710.22	12.00	4612.40	7.30	6.31	4480.25	0.41	
		178.28	3.98	174.69	23.93		0.004850
	1.20566	89093.31					
709.06	13.00	4612.39	7.29	6.30	4468.93	0.41	
		178.18	3.98	174.59	23.94		0.004850
	1.20426	89041.76					
709.08	14.00	4612.39	7.29	6.30	4469.02	0.41	
		178.18	3.98	174.59	23.94		0.004850
	1.20432	89042.11					
709.08	15.00	4612.39	7.29	6.30	4469.06	0.41	
		178.18	3.98	174.59	23.94		0.004848
	1.20397	89042.30					
709.07	16.00	4612.39	7.29	6.30	4468.95	0.41	
		178.18	3.98	174.59	23.94		0.004848
	1.20396	89041.95					
711.96	17.00	4612.41	7.31	6.32	4498.54	0.41	
		178.42	3.99	174.83	23.91		0.004872
	1.21318	89162.66					
725.97	18.00	4612.52	7.42	6.39	4640.04	0.41	
		179.65	4.04	176.00	23.73		0.004904
	1.23650	89759.05					
740.94	19.00	4612.63	7.53	6.47	4791.72	0.42	
		180.96	4.09	177.25	23.55		0.004936
	1.26109	90397.04					
752.98	20.00	4612.72	7.62	6.53	4913.66	0.42	
		182.01	4.14	178.26	23.40		0.004944
	1.27617	90911.82					
754.03	21.00	4612.72	7.62	6.53	4923.91	0.42	
		182.11	4.14	178.35	23.39		0.004946
	1.27780	90957.73					
756.96	22.00	4612.75	7.65	6.55	4954.59	0.42	
		182.36	4.15	178.59	23.36		0.004966
	1.28635	91079.37					
772.88	23.00	4612.85	7.75	6.64	5128.38	0.42	
		183.61	4.21	179.78	23.19		0.005025
	1.31991	91690.17					
799.08	24.00	4613.03	7.93	6.79	5424.06	0.43	
		185.60	4.31	181.68	22.92		0.005090
	1.36742	92658.58					
825.89	25.00	4613.20	8.10	6.94	5729.71	0.43	
		187.64	4.40	183.63	22.66		0.005152
	1.41500	93649.93					
846.59	26.00	4613.34	8.24	7.05	5966.85	0.43	
		189.21	4.47	185.13	22.46		0.005168
	1.44296	94418.52					
848.21	27.00	4613.36	8.26	7.06	5984.98	0.43	
		189.34	4.48	185.26	22.44		0.005168

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		HYCHAN.OUT					
	1.44469	94480.12					
851.37	28.00	4613.38	8.28	7.07	6022.02	0.43	
		189.58	4.49		185.48	22.41	0.005192
	1.45498	94594.64					
861.73	29.00	4613.45	8.35	7.13	6142.02	0.43	
		190.36	4.53		186.23	22.31	0.005201
	1.46916	94978.23					
862.62	30.00	4613.45	8.35	7.13	6152.00	0.44	
		190.43	4.53		186.30	22.30	0.005200
	1.46986	95012.18					
865.94	31.00	4613.48	8.37	7.15	6191.02	0.44	
		190.68	4.54		186.53	22.27	0.005225
	1.48073	95131.85					
876.70	32.00	4613.55	8.45	7.20	6315.71	0.44	
		191.49	4.58		187.31	22.17	0.005234
	1.49526	95528.27					
877.62	33.00	4613.55	8.45	7.21	6326.03	0.44	
		191.57	4.58		187.38	22.16	0.005233
	1.49610	95563.02					
874.33	34.00	4613.53	8.43	7.19	6287.16	0.44	
		191.32	4.57		187.15	22.19	0.005209
	1.48547	95444.30					
863.54	35.00	4613.46	8.36	7.14	6162.21	0.44	
		190.50	4.53		186.37	22.29	0.005200
	1.47091	95046.70					
859.49	36.00	4613.43	8.33	7.11	6114.82	0.43	
		190.20	4.52		186.07	22.33	0.005177
	1.45992	94897.84					
849.10	37.00	4613.36	8.26	7.06	5994.86	0.43	
		189.41	4.48		185.32	22.43	0.005169
	1.44603	94513.70					
848.22	38.00	4613.36	8.26	7.06	5985.11	0.43	
		189.34	4.48		185.26	22.44	0.005169
	1.44482	94480.56					
848.21	39.00	4613.36	8.26	7.06	5985.03	0.43	
		189.34	4.48		185.26	22.44	0.005168
	1.44467	94480.32					
848.21	40.00	4613.36	8.26	7.06	5984.97	0.43	
		189.34	4.48		185.26	22.44	0.005169
	1.44503	94480.12					
848.21	41.00	4613.36	8.26	7.06	5984.99	0.43	
		189.34	4.48		185.26	22.44	0.005168
	1.44464	94480.20					
851.38	42.00	4613.38	8.28	7.07	6022.27	0.43	
		189.58	4.49		185.48	22.41	0.005193
	1.45517	94595.26					
861.75	43.00	4613.45	8.35	7.13	6142.15	0.43	
		190.37	4.53		186.23	22.31	0.005200
	1.46889	94978.84					
865.92	44.00	4613.47	8.37	7.15	6190.85	0.44	
		190.68	4.54		186.53	22.27	0.005225
	1.48050	95131.36					
880.00	45.00	4613.57	8.47	7.22	6355.16	0.44	
		191.74	4.59		187.55	22.14	0.005257
	1.50559	95648.59					
894.93	46.00	4613.67	8.57	7.30	6529.70	0.44	
		192.87	4.64		188.62	22.00	0.005288
	1.53095	96197.02					
909.75	47.00	4613.77	8.67	7.37	6703.42	0.44	
		193.98	4.69		189.69	21.87	0.005319
	1.55648	96739.55					
924.48	48.00	4613.88	8.78	7.44	6877.13	0.44	
		195.09	4.74		190.74	21.74	0.005349

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		HYCHAN.OUT					
	1.58162	97278.73					
939.29	49.00	4613.98	8.88	7.51	7050.03	0.44	
		196.19	4.79	191.79	21.61	0.005379	
	1.60702	97811.92					
957.30	50.00	4614.10	9.00	7.59	7261.63	0.45	
		197.51	4.85	193.05	21.45	0.005427	
	1.64139	98456.62					
979.42	51.00	4614.25	9.15	7.68	7522.48	0.45	
		199.13	4.92	194.59	21.27	0.005448	
	1.67224	99241.31					
984.19	52.00	4614.28	9.18	7.70	7582.18	0.45	
		199.45	4.93	194.90	21.23	0.005466	
	1.68305	99398.72					
1003.87	53.00	4614.40	9.30	7.80	7832.79	0.45	
		200.74	5.00	196.13	21.09	0.005549	
	1.73148	100026.62					
1050.18	54.00	4614.69	9.59	8.02	8425.95	0.46	
		203.79	5.15	199.03	20.75	0.005671	
	1.82343	101506.98					
1115.08	55.00	4615.10	10.00	8.31	9266.52	0.46	
		208.03	5.36	203.08	20.30	0.005827	
	1.94900	103569.05					
1226.66	56.00	4615.95	10.85	8.53	10464.08	0.46	
		216.44	5.67	211.08	19.46	0.005933	
	2.09804	107650.68					
1405.29	57.00	4617.46	12.36	8.45	11874.79	0.42	
		230.70	6.09	224.64	18.18	0.006030	
	2.29203	114564.03					
1526.09	58.00	4618.33	13.23	8.49	12958.71	0.41	
		238.59	6.40	232.12	17.54	0.006167	
	2.46130	118383.30					
1604.42	59.00	4618.75	13.65	8.79	14100.96	0.42	
		242.29	6.62	235.63	17.26	0.006361	
	2.62833	120171.99					
1680.54	60.00	4619.12	14.02	9.17	15406.04	0.43	
		245.44	6.85	238.62	17.02	0.006482	
	2.76970	121695.45					
1722.52	61.00	4619.19	14.09	9.42	16222.52	0.44	
		246.03	7.00	239.18	16.98	0.006728	
	2.93951	121981.02					
1772.66	62.00	4619.25	14.15	9.58	16976.88	0.45	
		246.54	7.19	239.67	16.94	0.006886	
	3.08963	122230.91					
1808.95	63.00	4619.36	14.26	9.67	17493.14	0.45	
		247.46	7.31	240.54	16.87	0.007146	
	3.25967	122675.60					
1874.40	64.00	4619.82	14.72	9.75	18268.10	0.45	
		250.09	7.49	244.24	16.59	0.006448	
	3.01559	124561.68					
1901.80	65.00	4620.03	14.93	9.77	18579.25	0.45	
		250.52	7.59	245.91	16.47	0.006409	
	3.03593	125412.51					
1904.92	66.00	4620.05	14.95	9.77	18608.69	0.45	
		250.56	7.60	246.07	16.46	0.006409	
	3.04042	125494.84					
1904.63	67.00	4620.05	14.95	9.77	18606.58	0.45	
		250.56	7.60	246.07	16.46	0.006420	
	3.04538	125495.91					
1904.87	68.00	4620.05	14.95	9.77	18612.24	0.45	
		250.56	7.60	246.08	16.46	0.006431	
	3.05067	125503.02					
1905.63	69.00	4620.06	14.96	9.77	18615.74	0.45	
		250.57	7.61	246.11	16.46	0.006443	

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1905.64	3.05750	125515.58	14.96	7.61	9.77	18618.81	0.45	0.006430
	70.00	4620.06				246.12	16.46	
		250.57						
1905.24	3.05146	125523.48	14.96	7.60	9.77	18617.09	0.45	0.006432
	71.00	4620.06				246.12	16.46	
		250.57						
1911.84	3.05200	125521.02	15.00	7.63	9.78	18690.17	0.45	0.006454
	72.00	4620.10				246.46	16.43	
		250.65						
1933.62	3.07187	125692.91	15.15	7.70	9.79	18934.45	0.44	0.006450
	73.00	4620.25				247.66	16.34	
		250.96						
1937.51	3.10120	126308.26	15.18	7.72	9.80	18978.34	0.44	0.006447
	74.00	4620.28				247.90	16.33	
		251.02						
1943.08	3.10501	126429.21	15.22	7.74	9.80	19046.47	0.44	0.006465
	75.00	4620.32				248.20	16.30	
		251.10						
1975.88	3.12156	126581.01	15.46	7.85	9.84	19434.60	0.44	0.006465
	76.00	4620.56				250.03	16.17	
		251.57						
2025.63	3.16863	127514.20	15.81	8.03	9.89	20034.85	0.44	0.006466
	77.00	4620.91				252.72	15.99	
		252.27						
2058.06	3.23998	128886.55	16.01	8.14	9.93	20441.95	0.44	0.006495
	78.00	4621.11				254.26	15.88	
		252.68						
2090.93	3.30087	129674.74	16.18	8.26	9.99	20880.16	0.44	0.006534
	79.00	4621.29				255.58	15.79	
		253.03						
2126.55	3.36904	130346.38	16.38	8.39	10.04	21360.87	0.44	0.006502
	80.00	4621.48				257.04	15.69	
		253.41						
2107.93	3.40466	131088.25	16.28	8.32	10.01	21100.60	0.44	0.006505
	81.00	4621.38				256.30	15.74	
		253.22						
2086.12	3.37889	130712.88	16.16	8.25	9.98	20811.38	0.44	0.006497
	82.00	4621.26				255.42	15.80	
		252.98						
2083.38	3.34308	130265.59	16.15	8.24	9.97	20775.19	0.44	0.006494
	83.00	4621.25				255.30	15.81	
		252.95						
2083.28	3.33759	130204.05	16.15	8.24	9.97	20774.41	0.44	0.006497
	84.00	4621.25				255.30	15.81	
		252.95						
2074.52	3.33919	130202.09	16.10	8.20	9.96	20656.81	0.44	0.006452
	85.00	4621.20				254.97	15.83	
		252.86						
2028.19	3.30286	130032.93	15.84	8.04	9.89	20055.16	0.44	0.006417
	86.00	4620.94				252.95	15.97	
		252.33						
1943.42	3.21874	129003.39	15.24	7.74	9.80	19040.33	0.44	0.006394
	87.00	4620.34				248.37	16.29	
		251.14						
1828.92	3.08763	126667.71	14.43	7.35	9.68	17702.96	0.45	0.006801
	88.00	4619.53				241.92	16.77	
		248.92						
1724.00	3.11812	123378.16	14.09	7.01	9.42	16240.63	0.44	0.006453
	89.00	4619.19				239.19	16.98	
		246.04						
1676.59	2.82149	121987.47	14.02	6.83	9.14	15315.81	0.43	0.006356
	90.00	4619.12				238.59	17.02	
		245.40						

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1631.02	91.00	2.70962	4618.90	121679.05	13.80	6.70	8.87	14471.59	0.42	0.006218
			243.57	120792.47				236.85	17.16	
1563.19	92.00	2.59800	4618.54	13.44	6.50	8.62	13479.84	0.41	0.006099	
			240.38	119250.30				233.82	17.40	
1508.94	93.00	2.47481	4618.24	13.14	6.35	8.42	12704.95	0.41	0.005995	
			237.77	117985.53				231.34	17.61	
1431.60	94.00	2.37406	4617.68	12.58	6.15	8.40	12026.36	0.42	0.005951	
			232.72	115542.48				226.55	18.01	
1362.27	95.00	2.28438	4617.12	12.02	5.99	8.45	11509.60	0.43	0.005904	
			227.60	113062.04				221.69	18.45	
1294.66	96.00	2.20488	4616.55	11.45	5.82	8.49	10989.88	0.44	0.005871	
			222.28	110479.42				216.63	18.92	
1247.48	97.00	2.13382	4616.15	11.05	5.71	8.51	10613.46	0.45	0.005859	
			218.37	108587.66				212.92	19.28	
1201.81	98.00	2.08841	4615.74	10.64	5.60	8.52	10244.24	0.46	0.005858	
			214.43	106675.54				209.17	19.65	
1172.61	99.00	2.04859	4615.49	10.39	5.53	8.51	9980.41	0.47	0.005816	
			211.90	105444.48				206.75	19.91	
1142.93	100.00	2.00831	4615.29	10.19	5.45	8.42	9622.69	0.47	0.005768	
			209.88	104465.05				204.83	20.11	
1119.37	101.00	1.96012	4615.14	10.03	5.37	8.32	9315.85	0.46	0.005719	
			208.35	103721.47				203.38	20.27	
1098.07	102.00	1.91739	4615.00	9.90	5.31	8.23	9039.93	0.46	0.005683	
			206.96	103046.62				202.05	20.41	
1082.18	103.00	1.88153	4614.90	9.80	5.26	8.16	8834.44	0.46	0.005650	
			205.92	102541.40				201.06	20.52	
1063.18	104.00	1.85278	4614.78	9.68	5.19	8.08	8588.49	0.46	0.005592	
			204.68	101937.20				199.88	20.65	
1036.95	105.00	1.81252	4614.61	9.51	5.11	7.96	8251.94	0.45	0.005551	
			202.95	101097.59				198.23	20.84	
1022.04	106.00	1.76992	4614.52	9.42	5.06	7.89	8061.64	0.45	0.005519	
			201.96	100618.80				197.29	20.95	
1008.43	107.00	1.74278	4614.43	9.33	5.02	7.82	7888.08	0.45	0.005494	
			201.06	100181.34				196.43	21.05	
997.76	108.00	1.71932	4614.36	9.26	4.98	7.77	7753.11	0.45	0.005481	
			200.35	99837.28				195.76	21.13	
999.98	109.00	1.70307	4614.38	9.28	4.99	7.78	7782.67	0.45	0.005503	
			200.50	99907.55				195.90	21.11	
1016.10	110.00	1.71248	4614.48	9.38	5.04	7.86	7988.33	0.45	0.005556	
			201.56	100422.30				196.91	20.99	
1033.50	111.00	1.74793	4614.59	9.49	5.10	7.94	8209.12	0.45	0.005549	
			202.71					198.01	20.87	

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## HYCHAN.OUT

1022.02	112.00	1.76525	4614.52	100984.17	9.42	5.06	7.89	8061.29	0.45	0.005522
		1.74385	201.96	100617.94				197.29	20.95	
1017.63	113.00	1.75027	4614.49	100473.83	9.39	5.05	7.87	8007.54	0.45	0.005558
		1.80141	201.66	101308.77				197.01	20.98	
1043.79	114.00	1.82093	4614.65	101961.34	9.55	5.13	7.99	8343.05	0.46	0.005625
		1.80814	203.38	101663.80				198.64	20.79	
1064.04	115.00	1.80701	4614.78	101634.51	9.68	5.20	8.08	8601.63	0.46	0.005615
		1.81985	204.72	101746.97				199.92	20.65	
1054.70	116.00	1.83482	4614.72	102102.29	9.62	5.17	8.04	8481.07	0.46	0.005608
		1.83647	204.11	102130.56				199.34	20.72	
1053.82	117.00	1.82319	4614.72	102018.29	9.62	5.16	8.04	8469.91	0.46	0.005607
		1.80728	204.05	101663.95				199.28	20.72	
1057.36	118.00	1.79574	4614.74	101522.59	9.64	5.18	8.05	8516.49	0.46	0.005635
		1.77938	204.28	101166.38				199.50	20.70	
1068.46	119.00	1.78017	4614.81	101136.20	9.71	5.21	8.10	8659.31	0.46	0.005642
		1.76841	205.01	101036.70				200.20	20.62	
1069.34	120.00	1.75391	4614.82	100714.84	9.72	5.21	8.11	8670.04	0.46	0.005644
		1.75375	205.07	100688.24				200.26	20.61	
1065.79	121.00	1.74283	4614.79	100591.09	9.69	5.20	8.09	8623.25	0.46	0.005616
		1.72824	204.84	100276.91				200.04	20.64	
1054.70	122.00	1.72824	4614.72	100276.91	9.62	5.17	8.04	8481.08	0.46	0.005605
		1.75054	204.11	100447.99				199.34	20.72	
1050.25	123.00	1.76841	4614.70	101036.70	9.60	5.15	8.02	8423.51	0.46	0.005585
		1.75391	203.82	100714.84				199.06	20.75	
1039.15	124.00	1.74283	4614.62	100591.09	9.52	5.12	7.97	8281.33	0.46	0.005573
		1.77938	203.09	101166.38				198.37	20.83	
1038.22	125.00	1.78017	4614.62	101136.20	9.52	5.11	7.97	8269.93	0.46	0.005579
		1.76841	203.03	101036.70				198.31	20.83	
1035.11	126.00	1.75391	4614.60	100714.84	9.50	5.10	7.95	8229.01	0.45	0.005553
		1.74283	202.82	100591.09				198.11	20.86	
1025.02	127.00	1.75391	4614.54	100714.84	9.44	5.07	7.90	8101.07	0.45	0.005543
		1.75391	202.16	100714.84				197.48	20.93	
1024.27	128.00	1.75391	4614.53	100714.84	9.43	5.07	7.90	8091.11	0.45	0.005546
		1.75375	202.10	100688.24				197.43	20.93	
1021.19	129.00	1.74283	4614.51	100591.09	9.41	5.06	7.88	8051.24	0.45	0.005522
		1.74283	201.90	100591.09				197.24	20.96	
1011.42	130.00	1.72824	4614.45	100276.91	9.35	5.03	7.84	7927.01	0.45	0.005511
		1.72824	201.26	100276.91				196.62	21.03	
1016.89	131.00	1.75054	4614.48	100447.99	9.38	5.04	7.87	7997.91	0.45	0.005562
		1.75054	201.61	100447.99				196.96	20.99	
1036.65	132.00	1.75054	4614.61	100447.99	9.51	5.11	7.96	8250.42	0.46	0.005575
		1.75054	202.92	100447.99				198.20	20.84	

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		HYCHAN.OUT						
	1.77719	101084.34						
1038.24	133.00	4614.62	9.52	5.11	7.97	8270.02	0.46	
		203.03				198.31	20.83	0.005574
	1.77860	101136.33						
1038.25	134.00	4614.62	9.52	5.11	7.97	8269.91	0.46	
		203.03				198.31	20.83	0.005578
	1.77991	101136.24						
1038.24	135.00	4614.62	9.52	5.11	7.97	8269.92	0.46	
		203.03				198.31	20.83	0.005577
	1.77960	101136.02						
1038.25	136.00	4614.62	9.52	5.11	7.97	8270.18	0.46	
		203.03				198.31	20.83	0.005570
	1.77728	101136.95						
1038.23	137.00	4614.62	9.52	5.11	7.97	8270.02	0.46	
		203.03				198.31	20.83	0.005569
	1.77698	101136.50						
1038.23	138.00	4614.62	9.52	5.11	7.97	8269.89	0.46	
		203.03				198.31	20.83	0.005574
	1.77860	101135.86						
1035.08	139.00	4614.60	9.50	5.10	7.95	8228.99	0.45	
		202.82				198.11	20.86	0.005555
	1.76899	101036.99						
1025.04	140.00	4614.54	9.44	5.07	7.90	8101.09	0.45	
		202.16				197.48	20.93	0.005543
	1.75379	100714.80						
1024.28	141.00	4614.53	9.43	5.07	7.90	8091.17	0.45	
		202.11				197.43	20.93	0.005542
	1.75278	100688.38						
1024.22	142.00	4614.53	9.43	5.07	7.90	8090.89	0.45	
		202.10				197.43	20.93	0.005543
	1.75278	100687.62						
1024.23	143.00	4614.53	9.43	5.07	7.90	8091.03	0.45	
		202.10				197.43	20.93	0.005545
	1.75339	100688.06						
1021.22	144.00	4614.51	9.41	5.06	7.88	8051.18	0.45	
		201.90				197.24	20.96	0.005523
	1.74308	100590.85						
1011.46	145.00	4614.45	9.35	5.03	7.84	7927.22	0.45	
		201.26				196.62	21.03	0.005515
	1.72954	100277.35						
1010.62	146.00	4614.45	9.35	5.02	7.83	7916.94	0.45	
		201.20				196.57	21.03	0.005517
	1.72924	100249.91						
1010.62	147.00	4614.45	9.35	5.02	7.83	7916.99	0.45	
		201.20				196.57	21.03	0.005516
	1.72897	100249.96						
1010.63	148.00	4614.45	9.35	5.02	7.83	7916.85	0.45	
		201.20				196.57	21.03	0.005513
	1.72779	100249.85						
1010.62	149.00	4614.45	9.35	5.02	7.83	7917.25	0.45	
		201.20				196.57	21.03	0.005518
	1.72935	100250.57						
1008.57	150.00	4614.43	9.33	5.02	7.82	7890.41	0.45	
		201.07				196.44	21.05	0.005498
	1.72085	100184.97						
1001.06	151.00	4614.39	9.29	4.99	7.79	7794.76	0.45	
		200.57				195.97	21.10	0.005486
	1.70867	99943.02						
997.21	152.00	4614.36	9.26	4.98	7.77	7746.26	0.45	
		200.32				195.72	21.13	0.005484
	1.70350	99818.88						
996.95	153.00	4614.36	9.26	4.98	7.77	7743.08	0.45	
		200.30				195.71	21.14	0.005482

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		HYCHAN.OUT				
1.70259	99810.08					
154.00	4614.34	9.24	7.75	7703.53	0.45	
993.89	200.10	4.97	195.52	21.16	0.005459	
1.69182	99712.96					
155.00	4614.32	9.22	7.73	7658.13	0.45	
990.19	199.85	4.95	195.28	21.19	0.005497	
1.69962	99590.27					
156.00	4614.44	9.33	7.83	7896.94	0.45	
1008.98	201.09	5.02	196.46	21.05	0.005514	
1.72627	100196.63					
157.00	4614.45	9.35	7.83	7916.90	0.45	
1010.63	201.20	5.02	196.57	21.03	0.005515	
1.72860	100249.82					
158.00	4614.45	9.35	7.83	7916.97	0.45	
1010.62	201.20	5.02	196.57	21.03	0.005514	
1.72817	100249.92					
159.00	4614.45	9.35	7.83	7917.17	0.45	
1010.60	201.20	5.02	196.57	21.03	0.005513	
1.72776	100250.27					
160.00	4614.45	9.35	7.83	7916.86	0.45	
1010.61	201.20	5.02	196.57	21.03	0.005511	
1.72732	100249.81					
161.00	4614.45	9.35	7.83	7917.06	0.45	
1010.63	201.20	5.02	196.57	21.03	0.005516	
1.72886	100250.27					
162.00	4614.45	9.35	7.83	7917.06	0.45	
1010.64	201.20	5.02	196.57	21.03	0.005511	
1.72724	100250.23					
163.00	4614.45	9.35	7.83	7916.92	0.45	
1010.60	201.20	5.02	196.57	21.03	0.005513	
1.72781	100249.72					
164.00	4614.43	9.33	7.82	7877.58	0.45	
1007.60	201.00	5.01	196.38	21.06	0.005487	
1.71644	100153.38					
165.00	4614.36	9.26	7.77	7753.04	0.45	
997.75	200.35	4.98	195.76	21.13	0.005478	
1.70243	99837.10					
166.00	4614.36	9.26	7.77	7742.93	0.45	
996.94	200.30	4.98	195.71	21.14	0.005482	
1.70274	99809.85					
167.00	4614.36	9.26	7.77	7743.01	0.45	
996.93	200.30	4.98	195.71	21.14	0.005481	
1.70219	99810.11					
168.00	4614.36	9.26	7.77	7742.88	0.45	
996.94	200.30	4.98	195.71	21.14	0.005481	
1.70233	99809.66					
169.00	4614.36	9.26	7.77	7743.33	0.45	
996.98	200.30	4.98	195.71	21.14	0.005481	
1.70248	99810.70					
170.00	4614.36	9.26	7.77	7743.00	0.45	
996.93	200.30	4.98	195.71	21.14	0.005479	
1.70164	99810.19					
171.00	4614.36	9.26	7.77	7742.80	0.45	
996.93	200.30	4.98	195.70	21.14	0.005483	
1.70295	99809.51					
172.00	4614.34	9.24	7.75	7703.64	0.45	
993.91	200.10	4.97	195.52	21.16	0.005464	
1.69353	99713.02					
173.00	4614.28	9.18	7.70	7579.07	0.45	
984.04	199.44	4.93	194.89	21.23	0.005452	
1.67862	99395.09					
174.00	4614.27	9.17	7.70	7569.09	0.45	
983.24	199.39	4.93	194.84	21.24	0.005447	



		HYCHAN.OUT				
	1.67618	99368.12				
983.20	175.00	4614.27	9.17	7.70	7568.91	0.45
		199.39	4.93		194.84	21.24
	1.67633	99367.66				0.005448
983.20	176.00	4614.27	9.17	7.70	7568.91	0.45
		199.39	4.93		194.84	21.24
	1.67694	99367.63				0.005450
983.23	177.00	4614.27	9.17	7.70	7569.01	0.45
		199.39	4.93		194.84	21.24
	1.67682	99367.90				0.005449
983.21	178.00	4614.27	9.17	7.70	7569.04	0.45
		199.39	4.93		194.84	21.24
	1.67660	99367.84				0.005449
989.37	179.00	4614.31	9.21	7.73	7648.00	0.45
		199.79	4.95		195.22	21.19
	1.69738	99563.31				0.005493
1009.00	180.00	4614.44	9.33	7.83	7897.18	0.45
		201.09	5.02		196.46	21.05
	1.72606	100196.89				0.005513
1013.71	181.00	4614.46	9.36	7.85	7956.84	0.45
		201.40	5.03		196.76	21.01
	1.73885	100347.60				0.005536
1023.39	182.00	4614.53	9.43	7.90	8080.99	0.45
		202.05	5.07		197.38	20.94
	1.75149	100661.48				0.005542
1024.24	183.00	4614.53	9.43	7.90	8091.08	0.45
		202.10	5.07		197.43	20.93
	1.75312	100688.24				0.005544
1024.23	184.00	4614.53	9.43	7.90	8090.82	0.45
		202.10	5.07		197.43	20.93
	1.75245	100687.48				0.005542
1024.28	185.00	4614.53	9.43	7.90	8091.28	0.45
		202.11	5.07		197.43	20.93
	1.75237	100688.66				0.005541
1024.19	186.00	4614.53	9.43	7.90	8090.76	0.45
		202.10	5.07		197.43	20.93
	1.75489	100687.34				0.005550
1024.22	187.00	4614.53	9.43	7.90	8090.90	0.45
		202.10	5.07		197.43	20.93
	1.75322	100687.84				0.005544
1024.24	188.00	4614.53	9.43	7.90	8091.05	0.45
		202.10	5.07		197.43	20.93
	1.75391	100688.11				0.005546
1024.26	189.00	4614.53	9.43	7.90	8091.11	0.45
		202.10	5.07		197.43	20.93
	1.75346	100688.23				0.005545
1021.20	190.00	4614.51	9.41	7.88	8051.20	0.45
		201.90	5.06		197.24	20.96
	1.74250	100590.89				0.005521
1011.46	191.00	4614.45	9.35	7.84	7927.14	0.45
		201.26	5.03		196.62	21.03
	1.72824	100277.16				0.005511
1010.60	192.00	4614.45	9.35	7.83	7916.81	0.45
		201.20	5.02		196.57	21.03
	1.72694	100249.48				0.005510
1010.58	193.00	4614.45	9.35	7.83	7917.01	0.45
		201.20	5.02		196.57	21.03
	1.72726	100250.14				0.005511
1010.61	194.00	4614.45	9.35	7.83	7916.84	0.45
		201.20	5.02		196.57	21.03
	1.72789	100249.69				0.005513
1010.63	195.00	4614.45	9.35	7.83	7917.21	0.45
		201.20	5.02		196.57	21.03

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1.72770	100250.41						
196.00	4614.45	9.35	7.83	7917.01	0.45		
1010.63	201.20	5.02		196.57	21.03	0.005515	
1.72845	100250.27						
197.00	4614.45	9.35	7.83	7916.82	0.45		
1010.60	201.20	5.02		196.57	21.03	0.005511	
1.72735	100249.53						
198.00	4614.45	9.35	7.83	7916.91	0.45		
1010.61	201.20	5.02		196.57	21.03	0.005512	
1.72771	100249.94						
199.00	4614.45	9.35	7.83	7917.09	0.45		
1010.61	201.20	5.02		196.57	21.03	0.005512	
1.72758	100250.36						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 277

MAXIMUM DISCHARGE (CFS) = 22276.38 AT TIME = 87.44  
 MAXIMUM STAGE = 4615.12 AT TIME = 79.80

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4603.65	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
137.01	1.00	4603.76	0.11	-0.09	-11.72	0.05			
	4.78430	4037.47	17.87	7.76	69.48	0.004291			
990.87	2.00	4609.74	6.09	-4.94	-4897.25	0.35			
	0.77899	112344.66	4.52	216.05	35.50	0.002764			
1079.39	3.00	4609.99	6.34	-5.10	-5501.85	0.36			
	0.81524	116300.98	4.75	223.66	35.25	0.002750			
1065.10	4.00	4609.95	6.30	-5.06	-5390.04	0.36			
	0.80710	115661.46	4.71	222.43	35.29	0.002744			
1059.97	5.00	4609.94	6.29	-5.05	-5349.79	0.35			
	0.80065	115429.78	4.70	221.98	35.30	0.002729			
1042.19	6.00	4609.88	6.23	-5.00	-5211.03	0.35			
	0.78749	114621.72	4.66	220.43	35.35	0.002711			
1022.45	7.00	4609.83	6.18	-4.95	-5059.30	0.35			
	0.77304	113717.39	4.60	218.69	35.41	0.002691			
1002.46	8.00	4609.77	6.12	-4.90	-4909.65	0.35			
	0.75633	112791.19	4.55	216.91	35.47	0.002663			
985.40	9.00	4609.71	6.06	-4.86	-4785.17	0.35			
	0.74627	111994.95	4.51	215.37	35.52	0.002654			
979.96	10.00	4609.70	6.05	-4.84	-4745.23	0.35			
	0.73858	111737.82	4.49	214.88	35.54	0.002636			
961.24	11.00	4609.64	5.99	-4.79	-4608.24	0.35			
	0.72281	110846.35	4.44	213.17	35.59	0.002608			

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		HYCHAN.OUT			
943.72	12.00 4609.58	5.93	-4.75	-4482.72	0.34
	214.80	4.39	211.55	35.65	0.002600
	0.71294 11008.09				
941.69	13.00 4609.58	5.93	-4.75	-4468.95	0.34
	214.61	4.39	211.37	35.65	0.002601
	0.71214 109912.00				
941.70	14.00 4609.58	5.93	-4.75	-4468.99	0.34
	214.61	4.39	211.37	35.65	0.002601
	0.71224 109912.38				
941.70	15.00 4609.58	5.93	-4.75	-4469.02	0.34
	214.61	4.39	211.37	35.65	0.002601
	0.71224 109912.58				
941.70	16.00 4609.58	5.93	-4.75	-4469.00	0.34
	214.61	4.39	211.37	35.65	0.002601
	0.71211 109912.48				
945.20	17.00 4609.59	5.94	-4.76	-4494.99	0.34
	214.94	4.40	211.70	35.64	0.002619
	0.71871 110082.50				
964.33	18.00 4609.65	6.00	-4.81	-4634.04	0.35
	216.75	4.45	213.46	35.58	0.002646
	0.73472 111000.27				
985.12	19.00 4609.71	6.06	-4.86	-4785.72	0.35
	218.69	4.50	215.36	35.52	0.002674
	0.75177 111985.44				
1002.33	20.00 4609.77	6.12	-4.90	-4911.22	0.35
	220.28	4.55	216.91	35.47	0.002683
	0.76178 112790.68				
1004.16	21.00 4609.77	6.12	-4.90	-4923.89	0.35
	220.44	4.56	217.07	35.46	0.002683
	0.76264 112874.59				
1007.70	22.00 4609.78	6.13	-4.91	-4951.10	0.35
	220.77	4.56	217.39	35.45	0.002702
	0.76949 113040.84				
1029.78	23.00 4609.85	6.20	-4.97	-5119.72	0.35
	222.77	4.62	219.35	35.39	0.002734
	0.78870 114059.83				
1067.61	24.00 4609.96	6.31	-5.07	-5413.36	0.36
	226.16	4.72	222.65	35.28	0.002773
	0.81692 115776.98				
1106.39	25.00 4610.07	6.42	-5.17	-5719.04	0.36
	229.55	4.82	225.96	35.18	0.002815
	0.84675 117500.27				
1137.11	26.00 4610.16	6.51	-5.24	-5962.95	0.36
	232.19	4.90	228.54	35.10	0.002826
	0.86346 118840.59				
1140.03	27.00 4610.17	6.52	-5.25	-5984.98	0.36
	232.44	4.90	228.78	35.09	0.002826
	0.86490 118965.54				
1144.05	28.00 4610.18	6.53	-5.26	-6018.40	0.36
	232.78	4.91	229.12	35.08	0.002843
	0.87183 119140.10				
1159.08	29.00 4610.22	6.57	-5.30	-6139.81	0.36
	234.06	4.95	230.36	35.04	0.002850
	0.88078 119785.97				
1160.68	30.00 4610.23	6.58	-5.30	-6152.03	0.36
	234.19	4.96	230.49	35.04	0.002850
	0.88132 119853.43				
1164.88	31.00 4610.24	6.59	-5.31	-6187.17	0.36
	234.54	4.97	230.83	35.03	0.002868
	0.88894 120033.72				
1180.40	32.00 4610.28	6.63	-5.35	-6313.51	0.37
	235.84	5.01	232.10	34.99	0.002875
	0.89788 120693.18				

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1182.02	33.00 4610.29	6.64	-5.35	-6326.04	0.37
	0.89850 235.98	5.01		232.23	34.98
	120761.15				0.002875
1177.87	34.00 4610.28	6.63	-5.34	-6290.99	0.37
	0.89097 235.63	5.00		231.89	34.99
	120583.23				0.002856
1162.30	35.00 4610.23	6.58	-5.30	-6164.43	0.36
	0.88204 234.32	4.96		230.62	35.03
	119921.50				0.002850
1156.68	36.00 4610.22	6.57	-5.29	-6118.49	0.36
	0.87413 233.85	4.95		230.15	35.05
	119679.84				0.002832
1141.61	37.00 4610.17	6.52	-5.25	-5996.97	0.36
	0.86571 232.57	4.91		228.91	35.09
	119032.66				0.002826
1140.04	38.00 4610.17	6.52	-5.25	-5985.09	0.36
	0.86495 232.44	4.90		228.78	35.09
	118966.03				0.002826
1140.03	39.00 4610.17	6.52	-5.25	-5985.03	0.36
	0.86507 232.44	4.90		228.78	35.09
	118965.81				0.002827
1140.03	40.00 4610.17	6.52	-5.25	-5984.97	0.36
	0.86502 232.44	4.90		228.78	35.09
	118965.45				0.002826
1140.03	41.00 4610.17	6.52	-5.25	-5985.01	0.36
	0.86486 232.44	4.90		228.78	35.09
	118965.54				0.002826
1144.06	42.00 4610.18	6.53	-5.26	-6018.57	0.36
	0.87220 232.78	4.91		229.12	35.08
	119140.88				0.002844
1159.12	43.00 4610.22	6.57	-5.30	-6140.05	0.36
	0.88066 234.06	4.95		230.36	35.04
	119787.27				0.002850
1164.86	44.00 4610.24	6.59	-5.31	-6187.03	0.36
	0.88885 234.54	4.97		230.83	35.03
	120033.03				0.002868
1184.62	45.00 4610.30	6.65	-5.36	-6349.11	0.37
	0.90551 236.20	5.02		232.45	34.98
	120872.67				0.002893
1205.85	46.00 4610.35	6.70	-5.41	-6523.67	0.37
	0.92306 237.95	5.07		234.16	34.92
	121764.82				0.002919
1226.81	47.00 4610.41	6.76	-5.46	-6697.46	0.37
	0.94054 239.67	5.12		235.84	34.87
	122637.11				0.002945
1247.74	48.00 4610.47	6.82	-5.51	-6871.02	0.37
	0.95745 241.37	5.17		237.50	34.82
	123499.45				0.002968
1269.76	49.00 4610.53	6.88	-5.55	-7043.93	0.37
	0.97628 243.14	5.22		239.23	34.77
	124397.32				0.002996
1294.27	50.00 4610.60	6.95	-5.60	-7251.97	0.37
	1.00173 245.09	5.28		241.13	34.72
	125385.81				0.003040
1325.59	51.00 4610.68	7.03	-5.67	-7518.01	0.38
	1.02125 247.55	5.35		243.53	34.65
	126633.80				0.003056
1332.53	52.00 4610.70	7.05	-5.69	-7578.76	0.38
	1.02899 248.09	5.37		244.05	34.63
	126907.52				0.003070
1359.52	53.00 4610.77	7.12	-5.75	-7819.62	0.38
	1.05998 250.18	5.43		246.09	34.58
	127964.95				0.003126

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1424.41	54.00	4610.93	7.28	-5.90	-8403.64	0.39	
		255.09	5.58	250.88	34.44	0.003217	
	1.12090	130456.16					
1514.37	55.00	4611.16	7.51	-6.10	-9237.07	0.39	
		261.69	5.79	257.32	34.27	0.003348	
	1.20895	133804.39					
1646.34	56.00	4611.48	7.83	-6.31	-10393.64	0.40	
		270.96	6.08	266.36	34.03	0.003882	
	1.47164	138505.80					
1823.31	57.00	4611.89	8.24	-6.48	-11809.49	0.40	
		282.79	6.45	277.89	33.74	0.004402	
	1.77119	144501.12					
1953.06	58.00	4612.17	8.52	-6.62	-12928.09	0.40	
		291.03	6.71	285.91	33.54	0.004523	
	1.89390	148675.58					
2060.82	59.00	4612.40	8.75	-6.82	-14063.38	0.41	
		297.62	6.92	292.34	33.39	0.004663	
	2.01490	152014.81					
2179.07	60.00	4612.65	9.00	-7.07	-15395.26	0.42	
		304.65	7.15	299.18	33.24	0.004634	
	2.06819	155574.00					
2247.45	61.00	4612.79	9.14	-7.22	-16227.43	0.42	
		308.61	7.28	303.03	33.15	0.004604	
	2.09236	157576.81					
2307.64	62.00	4612.91	9.26	-7.37	-17010.12	0.43	
		312.03	7.40	306.36	33.08	0.004591	
	2.11859	159309.64					
2348.94	63.00	4612.99	9.34	-7.46	-17516.62	0.43	
		314.35	7.47	308.63	33.03	0.004116	
	1.91901	160486.11					
2749.54	64.00	4614.19	10.54	-6.61	-18179.30	0.36	
		341.87	8.04	341.13	32.37	0.004170	
	2.09280	177390.11					
2820.95	65.00	4614.34	10.69	-6.59	-18591.84	0.36	
		342.17	8.24	345.19	32.29	0.004185	
	2.15311	179500.78					
2825.70	66.00	4614.35	10.70	-6.59	-18627.15	0.36	
		342.19	8.26	345.41	32.29	0.004197	
	2.16289	179610.81					
2825.99	67.00	4614.35	10.70	-6.59	-18629.05	0.36	
		342.19	8.26	345.42	32.29	0.004173	
	2.15040	179616.02					
2826.13	68.00	4614.35	10.70	-6.59	-18630.07	0.36	
		342.19	8.26	345.43	32.29	0.004194	
	2.16164	179621.30					
2826.83	69.00	4614.35	10.70	-6.59	-18636.02	0.36	
		342.19	8.26	345.46	32.29	0.004196	
	2.16289	179637.78					
2827.33	70.00	4614.35	10.70	-6.59	-18639.27	0.36	
		342.19	8.26	345.48	32.29	0.004199	
	2.16470	179649.06					
2827.21	71.00	4614.35	10.70	-6.59	-18638.89	0.36	
		342.19	8.26	345.47	32.29	0.004192	
	2.16096	179646.22					
2833.56	72.00	4614.36	10.71	-6.60	-18697.81	0.36	
		342.22	8.28	345.81	32.28	0.004242	
	2.19183	179820.59					
2860.75	73.00	4614.41	10.76	-6.62	-18936.94	0.36	
		342.32	8.36	347.19	32.25	0.004277	
	2.23021	180541.38					
2866.45	74.00	4614.43	10.78	-6.63	-18991.70	0.36	
		342.35	8.37	347.57	32.25	0.004277	
	2.23446	180736.31					

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2870.26	75.00	4614.44	10.79	8.38	-6.63	-19044.20	0.36	0.004338
	2.26908	342.38				347.94	32.24	
		180931.23						
2897.47	76.00	4614.54	10.89	8.46	-6.70	-19407.40	0.36	0.004462
	2.35483	342.57				350.52	32.19	
		182272.55						
2942.81	77.00	4614.69	11.04	8.58	-6.79	-19990.92	0.36	0.004562
	2.44301	342.88				354.67	32.12	
		184430.55						
2974.71	78.00	4614.80	11.15	8.67	-6.86	-20396.37	0.36	0.004602
	2.48970	343.10				357.56	32.06	
		185929.34						
3007.97	79.00	4614.91	11.26	8.76	-6.92	-20815.15	0.36	0.004656
	2.54573	343.32				360.56	32.01	
		187490.91						
3057.97	80.00	4615.07	11.42	8.90	-6.96	-21288.84	0.36	0.004638
	2.57556	343.63				364.71	31.94	
		189649.69						
3044.13	81.00	4615.02	11.37	8.86	-6.92	-21071.79	0.36	0.004628
	2.55928	343.53				363.35	31.96	
		188942.73						
3007.67	82.00	4614.91	11.26	8.76	-6.91	-20788.90	0.36	0.004616
	2.52344	343.31				360.44	32.01	
		187429.25						
3003.47	83.00	4614.90	11.25	8.75	-6.91	-20743.34	0.36	0.004615
	2.51941	343.29				360.09	32.02	
		187247.44						
3003.19	84.00	4614.90	11.25	8.75	-6.91	-20741.14	0.36	0.004615
	2.51914	343.28				360.07	32.02	
		187236.83						
2996.41	85.00	4614.87	11.22	8.73	-6.89	-20646.63	0.36	0.004568
	2.48852	343.23				359.42	32.03	
		186897.34						
2955.21	86.00	4614.73	11.08	8.62	-6.80	-20102.90	0.36	0.004419
	2.37614	342.95				355.60	32.10	
		184910.73						
2879.83	87.00	4614.48	10.83	8.41	-6.65	-19142.01	0.36	0.004146
	2.17566	342.44				348.83	32.22	
		181391.11						
2529.53	88.00	4613.54	9.89	7.67	-7.08	-17916.89	0.40	0.004589
	2.19748	329.62				323.49	32.72	
		168215.02						
2255.83	89.00	4612.81	9.16	7.30	-7.23	-16299.32	0.42	0.004627
	2.10756	309.05				303.46	33.14	
		157801.77						
2178.40	90.00	4612.65	9.00	7.15	-7.05	-15353.87	0.41	0.004660
	2.07949	304.59				299.12	33.24	
		155541.89						
2106.02	91.00	4612.50	8.85	7.01	-6.89	-14517.95	0.41	0.004559
	1.99481	300.31				294.95	33.33	
		153374.94						
2011.91	92.00	4612.30	8.65	6.83	-6.72	-13517.65	0.40	0.004480
	1.90881	294.64				289.43	33.46	
		150501.52						
1936.27	93.00	4612.14	8.49	6.68	-6.58	-12735.37	0.40	0.004362
	1.81758	289.96				284.87	33.57	
		148134.73						
1855.22	94.00	4611.96	8.31	6.51	-6.50	-12057.00	0.40	0.004120
	1.67439	284.84				279.88	33.69	
		145537.88						
1790.57	95.00	4611.81	8.16	6.38	-6.44	-11539.60	0.40	0.003873
	1.54185	280.65				275.80	33.79	
		143415.31						

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1724.72	96.00	4611.66	8.01	-6.38	-11010.96	0.40
		276.30	6.24		271.56	33.90
	1.44468	141209.80				0.003709
1676.94	97.00	4611.55	7.90	-6.34	-10634.85	0.40
		273.07	6.14		268.41	33.98
	1.35569	139575.69				0.003538
1628.83	98.00	4611.44	7.79	-6.30	-10258.83	0.40
		269.78	6.04		265.20	34.06
	1.29124	137905.50				0.003427
1596.80	99.00	4611.36	7.71	-6.26	-9993.88	0.40
		267.55	5.97		263.03	34.11
	1.24401	136774.50				0.003340
1557.50	100.00	4611.27	7.62	-6.18	-9632.70	0.40
		264.78	5.88		260.33	34.19
	1.21055	135371.08				0.003298
1525.04	101.00	4611.19	7.54	-6.11	-9325.04	0.39
		262.46	5.81		258.07	34.25
	1.18140	134195.88				0.003258
1495.10	102.00	4611.11	7.46	-6.05	-9047.29	0.39
		260.30	5.74		255.96	34.30
	1.15733	133099.61				0.003229
1472.71	103.00	4611.06	7.41	-6.00	-8840.69	0.39
		258.67	5.69		254.37	34.35
	1.13736	132271.02				0.003201
1447.11	104.00	4610.99	7.34	-5.94	-8598.72	0.39
		256.77	5.64		252.52	34.40
	1.11022	131310.61				0.003157
1409.65	105.00	4610.90	7.25	-5.86	-8259.92	0.38
		253.98	5.55		249.80	34.47
	1.08326	129893.62				0.003128
1388.00	106.00	4610.84	7.19	-5.81	-8067.21	0.38
		252.35	5.50		248.20	34.52
	1.06563	129065.48				0.003105
1368.55	107.00	4610.79	7.14	-5.77	-7893.51	0.38
		250.86	5.46		246.76	34.56
	1.05061	128313.25				0.003086
1352.79	108.00	4610.75	7.10	-5.73	-7755.19	0.38
		249.65	5.42		245.58	34.59
	1.04073	127700.94				0.003078
1355.26	109.00	4610.76	7.11	-5.74	-7779.08	0.38
		249.85	5.42		245.77	34.59
	1.04782	127799.60				0.003096
1377.58	110.00	4610.81	7.16	-5.79	-7979.11	0.38
		251.56	5.48		247.44	34.54
	1.07110	128667.55				0.003135
1403.56	111.00	4610.88	7.23	-5.85	-8208.87	0.38
		253.53	5.54		249.36	34.48
	1.08045	129665.18				0.003128
1388.04	112.00	4610.84	7.19	-5.81	-8066.90	0.38
		252.35	5.50		248.21	34.52
	1.06583	129067.02				0.003105
1380.35	113.00	4610.82	7.17	-5.80	-8002.41	0.38
		251.77	5.48		247.64	34.53
	1.07080	128773.70				0.003130
1416.72	114.00	4610.91	7.26	-5.88	-8330.90	0.38
		254.52	5.57		250.32	34.46
	1.10471	130168.72				0.003181
1446.95	115.00	4610.99	7.34	-5.94	-8601.29	0.39
		256.77	5.64		252.52	34.40
	1.11627	131310.44				0.003175
1434.10	116.00	4610.96	7.31	-5.92	-8483.16	0.39
		255.82	5.61		251.59	34.42
	1.10916	130825.58				0.003171

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1432.55	117.00 4610.96 255.70	7.31	-5.91	-8469.87	0.39	0.003170	
	1.10820 130767.72	5.60	251.48	34.43			
1437.09	118.00 4610.97 256.04	7.32	-5.92	-8512.60	0.39	0.003187	
	1.11621 130940.44	5.61	251.81	34.42			
1452.94	119.00 4611.01 257.22	7.36	-5.96	-8657.06	0.39	0.003195	
	1.12621 131536.30	5.65	252.95	34.38			
1454.49	120.00 4611.01 257.33	7.36	-5.96	-8670.00	0.39	0.003195	
	1.12699 131593.55	5.65	253.06	34.38			
1450.01	121.00 4611.00 257.00	7.35	-5.95	-8627.33	0.39	0.003176	
	1.11823 131423.92	5.64	252.74	34.39			
1434.11	122.00 4610.96 255.82	7.31	-5.92	-8483.28	0.39	0.003171	
	1.10913 130825.98	5.61	251.59	34.42			
1428.02	123.00 4610.94 255.36	7.29	-5.90	-8427.65	0.39	0.003150	
	1.09926 130594.42	5.59	251.14	34.43			
1412.04	124.00 4610.90 254.16	7.25	-5.87	-8283.55	0.38	0.003144	
	1.08984 129988.31	5.56	249.98	34.47			
1410.43	125.00 4610.90 254.05	7.25	-5.86	-8269.91	0.38	0.003142	
	1.08866 129928.09	5.55	249.86	34.47			
1406.42	126.00 4610.89 253.74	7.24	-5.85	-8232.52	0.38	0.003129	
	1.08217 129773.02	5.54	249.56	34.48			
1391.87	127.00 4610.85 252.64	7.20	-5.82	-8103.16	0.38	0.003122	
	1.07328 129215.97	5.51	248.49	34.51			
1390.46	128.00 4610.85 252.54	7.20	-5.82	-8091.12	0.38	0.003123	
	1.07311 129162.78	5.51	248.39	34.51			
1386.50	129.00 4610.84 252.23	7.19	-5.81	-8054.78	0.38	0.003105	
	1.06516 129008.56	5.50	248.09	34.52			
1372.42	130.00 4610.80 251.16	7.15	-5.78	-7929.05	0.38	0.003098	
	1.05642 128465.28	5.46	247.05	34.55			
1378.97	131.00 4610.82 251.67	7.17	-5.79	-7990.78	0.38	0.003131	
	1.07053 128720.79	5.48	247.54	34.54			
1407.60	132.00 4610.89 253.83	7.24	-5.86	-8246.40	0.38	0.003143	
	1.08740 129821.02	5.55	249.66	34.48			
1410.42	133.00 4610.90 254.04	7.25	-5.86	-8269.96	0.38	0.003145	
	1.08946 129927.41	5.55	249.86	34.47			
1410.46	134.00 4610.90 254.05	7.25	-5.86	-8269.99	0.38	0.003143	
	1.08897 129929.12	5.55	249.86	34.47			
1410.46	135.00 4610.90 254.05	7.25	-5.86	-8269.87	0.38	0.003145	
	1.08940 129928.94	5.55	249.86	34.47			
1410.47	136.00 4610.90 254.05	7.25	-5.86	-8270.24	0.38	0.003142	
	1.08856 129929.48	5.55	249.86	34.47			
1410.41	137.00 4610.90 254.04	7.25	-5.86	-8270.09	0.38	0.003141	
	1.08825 129927.19	5.55	249.86	34.47			

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		HYCHAN.OUT					
1410.40	138.00	4610.90	7.25	-5.86	-8269.71	0.38	
		254.04	5.55		249.86	34.47	0.003144
	1.08932	129926.89					
1406.40	139.00	4610.89	7.24	-5.85	-8232.79	0.38	
		253.74	5.54		249.56	34.48	0.003126
	1.08101	129772.03					
1391.88	140.00	4610.85	7.20	-5.82	-8103.10	0.38	
		252.64	5.51		248.49	34.51	0.003121
	1.07287	129216.62					
1390.39	141.00	4610.85	7.20	-5.82	-8091.06	0.38	
		252.53	5.51		248.39	34.51	0.003121
	1.07219	129160.40					
1390.38	142.00	4610.85	7.20	-5.82	-8090.88	0.38	
		252.53	5.51		248.38	34.51	0.003122
	1.07272	129159.62					
1390.42	143.00	4610.85	7.20	-5.82	-8091.02	0.38	
		252.53	5.51		248.39	34.51	0.003123
	1.07302	129161.30					
1386.54	144.00	4610.84	7.19	-5.81	-8054.69	0.38	
		252.24	5.50		248.10	34.52	0.003106
	1.06551	129010.28					
1372.43	145.00	4610.80	7.15	-5.78	-7929.25	0.38	
		251.16	5.46		247.05	34.55	0.003100
	1.05717	128465.64					
1370.91	146.00	4610.80	7.15	-5.77	-7916.94	0.38	
		251.05	5.46		246.94	34.55	0.003100
	1.05637	128407.71					
1370.94	147.00	4610.80	7.15	-5.77	-7916.88	0.38	
		251.05	5.46		246.94	34.55	0.003102
	1.05701	128408.63					
1370.94	148.00	4610.80	7.15	-5.77	-7916.98	0.38	
		251.05	5.46		246.94	34.55	0.003100
	1.05633	128408.70					
1370.92	149.00	4610.80	7.15	-5.78	-7917.18	0.38	
		251.05	5.46		246.94	34.55	0.003101
	1.05678	128408.20					
1368.29	150.00	4610.79	7.14	-5.77	-7892.77	0.38	
		250.85	5.45		246.74	34.56	0.003089
	1.05149	128304.73					
1357.55	151.00	4610.76	7.11	-5.74	-7797.17	0.38	
		250.02	5.43		245.94	34.58	0.003082
	1.04417	127886.64					
1351.82	152.00	4610.75	7.10	-5.73	-7746.98	0.38	
		249.58	5.42		245.51	34.59	0.003078
	1.04044	127664.01					
1351.34	153.00	4610.75	7.10	-5.73	-7743.00	0.38	
		249.55	5.42		245.47	34.59	0.003081
	1.04100	127645.26					
1347.43	154.00	4610.74	7.09	-5.72	-7707.12	0.38	
		249.24	5.41		245.17	34.60	0.003064
	1.03366	127490.34					
1340.97	155.00	4610.72	7.07	-5.71	-7653.04	0.38	
		248.75	5.39		244.69	34.62	0.003091
	1.03965	127239.55					
1368.08	156.00	4610.79	7.14	-5.77	-7893.15	0.38	
		250.83	5.45		246.73	34.56	0.003100
	1.05493	128298.77					
1370.91	157.00	4610.80	7.15	-5.77	-7916.92	0.38	
		251.05	5.46		246.94	34.55	0.003100
	1.05626	128407.64					
1370.86	158.00	4610.80	7.15	-5.78	-7916.98	0.38	
		251.04	5.46		246.93	34.55	0.003100
	1.05641	128405.70					

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1370.87	159.00	4610.80	7.15	-5.78	-7916.94	0.38	
		251.05	5.46		246.93	34.55	0.003102
	1.05692	128406.20					
1370.91	160.00	4610.80	7.15	-5.77	-7916.98	0.38	
		251.05	5.46		246.94	34.55	0.003101
	1.05669	128407.38					
1370.95	161.00	4610.80	7.15	-5.77	-7917.09	0.38	
		251.05	5.46		246.94	34.55	0.003101
	1.05685	128409.31					
1370.91	162.00	4610.80	7.15	-5.78	-7917.07	0.38	
		251.05	5.46		246.94	34.55	0.003101
	1.05663	128407.52					
1370.86	163.00	4610.80	7.15	-5.78	-7916.85	0.38	
		251.04	5.46		246.93	34.55	0.003103
	1.05720	128405.64					
1367.04	164.00	4610.79	7.14	-5.76	-7880.96	0.38	
		250.75	5.45		246.65	34.56	0.003087
	1.05004	128255.55					
1352.79	165.00	4610.75	7.10	-5.73	-7755.15	0.38	
		249.66	5.42		245.58	34.59	0.003080
	1.04134	127701.11					
1351.34	166.00	4610.75	7.10	-5.73	-7742.98	0.38	
		249.55	5.42		245.47	34.59	0.003081
	1.04101	127645.44					
1351.34	167.00	4610.75	7.10	-5.73	-7743.06	0.38	
		249.55	5.42		245.47	34.59	0.003079
	1.04052	127645.32					
1351.31	168.00	4610.75	7.10	-5.73	-7742.83	0.38	
		249.54	5.42		245.47	34.59	0.003079
	1.04053	127644.13					
1351.35	169.00	4610.75	7.10	-5.73	-7743.21	0.38	
		249.55	5.42		245.47	34.59	0.003082
	1.04130	127645.88					
1351.36	170.00	4610.75	7.10	-5.73	-7743.12	0.38	
		249.55	5.42		245.47	34.59	0.003080
	1.04066	127646.20					
1351.33	171.00	4610.75	7.10	-5.73	-7742.78	0.38	
		249.54	5.42		245.47	34.59	0.003079
	1.04055	127644.84					
1347.41	172.00	4610.74	7.09	-5.72	-7707.14	0.38	
		249.24	5.41		245.17	34.60	0.003064
	1.03358	127489.70					
1333.11	173.00	4610.70	7.05	-5.69	-7581.06	0.38	
		248.13	5.37		244.09	34.63	0.003058
	1.02506	126928.27					
1331.71	174.00	4610.69	7.04	-5.68	-7569.08	0.38	
		248.02	5.37		243.99	34.64	0.003058
	1.02456	126874.00					
1331.63	175.00	4610.69	7.04	-5.68	-7568.97	0.38	
		248.02	5.37		243.98	34.64	0.003059
	1.02500	126870.79					
1331.62	176.00	4610.69	7.04	-5.68	-7568.91	0.38	
		248.02	5.37		243.98	34.64	0.003058
	1.02456	126870.66					
1331.60	177.00	4610.69	7.04	-5.68	-7569.00	0.38	
		248.02	5.37		243.98	34.64	0.003059
	1.02481	126869.85					
1331.68	178.00	4610.69	7.04	-5.68	-7568.98	0.38	
		248.02	5.37		243.99	34.64	0.003061
	1.02548	126872.88					
1339.57	179.00	4610.71	7.07	-5.70	-7641.06	0.38	
		248.64	5.39		244.59	34.62	0.003088
	1.03825	127184.64					

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HYCHAN.OUT							
1368.05	180.00	4610.79	7.14	-5.77	-7893.10	0.38	0.003101
	1.05548	250.83	5.45	246.73	34.56		
		128297.73					
1374.89	181.00	4610.81	7.16	-5.78	-7953.29	0.38	0.003118
	1.06413	251.35	5.47	247.24	34.54		
		128562.97					
1389.01	182.00	4610.84	7.19	-5.82	-8079.19	0.38	0.003122
	1.07201	252.43	5.50	248.28	34.51		
		129107.77					
1390.44	183.00	4610.85	7.20	-5.82	-8091.08	0.38	0.003121
	1.07245	252.54	5.51	248.39	34.51		
		129162.03					
1390.43	184.00	4610.85	7.20	-5.82	-8090.76	0.38	0.003122
	1.07249	252.53	5.51	248.39	34.51		
		129161.53					
1390.47	185.00	4610.85	7.20	-5.82	-8091.27	0.38	0.003122
	1.07256	252.54	5.51	248.39	34.51		
		129163.26					
1390.39	186.00	4610.85	7.20	-5.82	-8090.76	0.38	0.003123
	1.07279	252.53	5.51	248.39	34.51		
		129160.20					
1390.45	187.00	4610.85	7.20	-5.82	-8091.00	0.38	0.003122
	1.07266	252.54	5.51	248.39	34.51		
		129162.58					
1390.43	188.00	4610.85	7.20	-5.82	-8091.07	0.38	0.003123
	1.07288	252.54	5.51	248.39	34.51		
		129161.84					
1390.45	189.00	4610.85	7.20	-5.82	-8091.02	0.38	0.003122
	1.07251	252.54	5.51	248.39	34.51		
		129162.70					
1386.50	190.00	4610.84	7.19	-5.81	-8054.75	0.38	0.003106
	1.06554	252.23	5.50	248.09	34.52		
		129008.58					
1372.36	191.00	4610.80	7.15	-5.78	-7929.06	0.38	0.003100
	1.05694	251.16	5.46	247.04	34.55		
		128463.11					
1370.91	192.00	4610.80	7.15	-5.77	-7916.74	0.38	0.003102
	1.05700	251.05	5.46	246.94	34.55		
		128407.48					
1370.93	193.00	4610.80	7.15	-5.77	-7917.09	0.38	0.003101
	1.05656	251.05	5.46	246.94	34.55		
		128408.23					
1370.86	194.00	4610.80	7.15	-5.78	-7916.91	0.38	0.003100
	1.05635	251.04	5.46	246.93	34.55		
		128405.70					
1370.88	195.00	4610.80	7.15	-5.78	-7916.98	0.38	0.003103
	1.05742	251.05	5.46	246.94	34.55		
		128406.56					
1370.92	196.00	4610.80	7.15	-5.78	-7917.15	0.38	0.003101
	1.05662	251.05	5.46	246.94	34.55		
		128407.91					
1370.87	197.00	4610.80	7.15	-5.78	-7916.81	0.38	0.003102
	1.05712	251.05	5.46	246.94	34.55		
		128406.22					
1370.89	198.00	4610.80	7.15	-5.78	-7916.98	0.38	0.003100
	1.05616	251.05	5.46	246.94	34.55		
		128406.66					
1370.89	199.00	4610.80	7.15	-5.78	-7917.12	0.38	0.003100
	1.05629	251.05	5.46	246.94	34.55		
		128407.00					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 292

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## HYCHAN.OUT

MAXIMUM DISCHARGE (CFS) = 21636.00 AT TIME = 79.51  
 MAXIMUM STAGE = 4612.70 AT TIME = 79.72

AREA BED SHEAR (FT^2)	TIME WETTED PERIMETER (HRS)	ELEV. SURFACE AREA (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4602.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4602.33	0.03	0.02	0.32	0.00	0.005037
	0.00000	0.00	0.00	0.00	0.00	0.00	
838.53	2.00	4608.32	6.02	5.66	4745.00	0.41	
	0.50630	217.51	3.86	214.20	35.56		0.002105
927.00	3.00	4608.68	6.38	5.94	5503.49	0.41	
	0.53342	228.36	4.06	224.80	35.21		0.002106
914.12	4.00	4608.64	6.34	5.90	5391.29	0.41	
	0.52992	227.03	4.03	223.50	35.25		0.002109
909.56	5.00	4608.62	6.32	5.88	5351.46	0.41	
	0.52848	226.56	4.01	223.04	35.27		0.002110
893.67	6.00	4608.57	6.27	5.83	5213.96	0.41	
	0.52424	224.89	3.97	221.41	35.32		0.002114
875.89	7.00	4608.51	6.21	5.78	5062.26	0.41	
	0.51936	223.01	3.93	219.58	35.38		0.002119
858.14	8.00	4608.44	6.14	5.72	4912.62	0.41	
	0.51400	221.11	3.88	217.72	35.44		0.002122
842.93	9.00	4608.39	6.09	5.68	4786.48	0.41	
	0.50950	219.47	3.84	216.12	35.49		0.002126
838.18	10.00	4608.37	6.07	5.66	4746.96	0.41	
	0.50808	218.95	3.83	215.61	35.51		0.002127
821.81	11.00	4608.31	6.01	5.61	4611.31	0.40	
	0.50322	217.15	3.78	213.86	35.57		0.002131
806.17	12.00	4608.25	5.96	5.56	4484.09	0.40	
	0.49833	215.42	3.74	212.17	35.63		0.002134
804.22	13.00	4608.25	5.95	5.56	4468.96	0.40	
	0.49753	215.21	3.74	211.96	35.63		0.002134
804.22	14.00	4608.25	5.95	5.56	4469.00	0.40	
	0.49774	215.21	3.74	211.96	35.63		0.002135
804.23	15.00	4608.25	5.95	5.56	4469.00	0.40	
	0.49774	215.21	3.74	211.96	35.63		0.002135
804.23	16.00	4608.25	5.95	5.56	4469.01	0.40	
	0.49768	215.21	3.74	211.96	35.63		0.002134
	17.00	4608.26	5.96	5.57	4493.26	0.40	

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		HYCHAN.OUT					
807.12	215.53	3.74	212.28	35.62	0.002134		
0.49862	127365.47						
18.00	4608.32	6.02	5.62	4630.96	0.40		
823.82	217.39	3.79	214.09	35.56	0.002130		
0.50360	128451.34						
19.00	4608.39	6.09	5.68	4782.67	0.41		
842.15	219.39	3.84	216.04	35.50	0.002126		
0.50918	129626.82						
20.00	4608.44	6.14	5.73	4909.87	0.41		
857.52	221.06	3.88	217.67	35.44	0.002122		
0.51360	130600.63						
21.00	4608.45	6.15	5.73	4923.88	0.41		
859.29	221.24	3.88	217.85	35.44	0.002122		
0.51426	130710.74						
22.00	4608.46	6.16	5.74	4949.43	0.41		
862.20	221.56	3.89	218.16	35.43	0.002122		
0.51525	130895.57						
23.00	4608.53	6.23	5.80	5114.98	0.41		
881.66	223.63	3.94	220.19	35.36	0.002115		
0.52041	132111.44						
24.00	4608.65	6.35	5.91	5407.49	0.41		
915.66	227.20	4.03	223.66	35.25	0.002107		
0.52977	134197.66						
25.00	4608.76	6.46	6.01	5713.29	0.42		
950.56	230.77	4.12	227.15	35.14	0.002099		
0.53937	136292.84						
26.00	4608.86	6.56	6.09	5960.66	0.42		
978.55	233.59	4.19	229.90	35.05	0.002092		
0.54679	137940.91						
27.00	4608.87	6.57	6.10	5985.00	0.42		
981.45	233.87	4.20	230.18	35.05	0.002092		
0.54777	138107.89						
28.00	4608.88	6.58	6.11	6016.56	0.42		
984.86	234.21	4.20	230.51	35.04	0.002091		
0.54877	138308.22						
29.00	4608.92	6.62	6.15	6138.55	0.42		
998.43	235.56	4.24	231.82	35.00	0.002088		
0.55213	139093.98						
30.00	4608.93	6.63	6.15	6152.05	0.42		
1000.00	235.71	4.24	231.97	34.99	0.002088		
0.55282	139183.02						
31.00	4608.94	6.64	6.16	6185.23	0.42		
1003.56	236.06	4.25	232.32	34.98	0.002086		
0.55343	139389.86						
32.00	4608.99	6.69	6.20	6312.25	0.42		
1017.55	237.43	4.29	233.65	34.94	0.002083		
0.55713	140190.89						
33.00	4608.99	6.69	6.21	6326.04	0.42		
1019.14	237.58	4.29	233.80	34.94	0.002083		
0.55766	140280.53						
34.00	4608.98	6.68	6.20	6292.93	0.42		
1015.61	237.24	4.28	233.46	34.95	0.002085		
0.55707	140076.64						
35.00	4608.93	6.63	6.16	6165.69	0.42		
1001.58	235.86	4.25	232.12	34.99	0.002087		
0.55312	139273.09						
36.00	4608.92	6.62	6.14	6120.34	0.42		
996.58	235.37	4.23	231.64	35.00	0.002088		
0.55180	138983.55						
37.00	4608.87	6.57	6.10	5998.21	0.42		
982.99	234.02	4.20	230.33	35.04	0.002092		
0.54831	138196.62						
38.00	4608.87	6.57	6.10	5985.07	0.42		

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		HYCHAN.OUT					
981.45	233.87	4.20	230.18	35.05	0.002092		
0.54774	138108.39						
39.00	4608.87	6.57	6.10	5985.03	0.42		
981.45	233.87	4.20	230.18	35.05	0.002092		
0.54777	138108.25						
40.00	4608.87	6.57	6.10	5984.97	0.42		
981.44	233.87	4.20	230.18	35.05	0.002092		
0.54778	138107.72						
41.00	4608.87	6.57	6.10	5985.01	0.42		
981.44	233.87	4.20	230.18	35.05	0.002092		
0.54774	138107.80						
42.00	4608.88	6.58	6.11	6016.71	0.42		
984.87	234.22	4.20	230.51	35.04	0.002092		
0.54894	138308.61						
43.00	4608.92	6.62	6.15	6138.82	0.42		
998.46	235.56	4.24	231.83	35.00	0.002087		
0.55211	139095.72						
44.00	4608.94	6.64	6.16	6185.11	0.42		
1003.55	236.06	4.25	232.32	34.98	0.002087		
0.55352	139389.09						
45.00	4609.00	6.70	6.21	6345.92	0.42		
1021.15	237.78	4.29	233.99	34.93	0.002082		
0.55795	140396.62						
46.00	4609.06	6.76	6.27	6520.51	0.43		
1040.17	239.62	4.34	235.79	34.88	0.002078		
0.56282	141474.16						
47.00	4609.12	6.82	6.32	6694.35	0.43		
1058.94	241.42	4.39	237.54	34.82	0.002074		
0.56762	142525.39						
48.00	4609.18	6.88	6.37	6867.65	0.43		
1077.70	243.20	4.43	239.28	34.77	0.002068		
0.57194	143566.50						
49.00	4609.25	6.95	6.41	7040.76	0.43		
1098.20	245.12	4.48	241.15	34.72	0.002063		
0.57686	144690.67						
50.00	4609.31	7.01	6.47	7247.12	0.43		
1119.90	247.13	4.53	243.11	34.66	0.002059		
0.58215	145867.62						
51.00	4609.40	7.10	6.55	7515.54	0.43		
1148.22	249.72	4.60	245.64	34.59	0.002052		
0.58867	147383.86						
52.00	4609.42	7.12	6.56	7576.95	0.43		
1154.59	250.29	4.61	246.20	34.57	0.002050		
0.59017	147721.66						
53.00	4609.50	7.20	6.63	7812.63	0.44		
1178.77	252.47	4.67	248.32	34.51	0.002043		
0.59521	148994.89						
54.00	4609.67	7.37	6.78	8391.82	0.44		
1237.59	257.65	4.80	253.38	34.37	0.002026		
0.60737	152025.72						
55.00	4609.91	7.61	6.99	9221.97	0.45		
1318.83	264.58	4.98	260.13	34.19	0.002009		
0.62491	156078.12						
56.00	4610.21	7.91	7.26	10371.12	0.46		
1427.93	273.48	5.22	268.81	33.96	0.002017		
0.65717	161285.97						
57.00	4610.57	8.27	7.56	11790.71	0.46		
1559.15	283.73	5.50	278.80	33.72	0.002024		
0.69386	167281.73						
58.00	4610.83	8.53	7.78	12913.15	0.47		
1660.37	291.30	5.70	286.17	33.54	0.002005		
0.71306	171702.38						
59.00	4611.08	8.78	7.99	14044.30	0.48		

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		HYCHAN.OUT					
1757.44	298.28	5.89	292.98	33.38	0.001983		
0.72909	175785.42						
60.00	4611.35	9.05	8.23	15380.46	0.48		
1869.47	306.09	6.11	300.58	33.21	0.001949		
0.74279	180349.36						
61.00	4611.52	9.22	8.36	16216.15	0.49		
1940.43	310.89	6.24	305.26	33.10	0.001924		
0.74949	183154.25						
62.00	4611.67	9.37	8.49	17006.63	0.49		
2003.15	315.05	6.36	309.30	33.02	0.001911		
0.75831	185582.52						
63.00	4611.76	9.46	8.57	17517.00	0.49		
2043.59	317.68	6.43	311.87	32.96	0.001841		
0.73914	187121.05						
64.00	4611.98	9.68	8.49	18175.53	0.48		
2141.67	323.91	6.61	317.93	32.83	0.002452		
1.01165	190757.77						
65.00	4612.08	9.78	8.53	18624.62	0.48		
2183.90	326.59	6.69	320.54	32.78	0.002446		
1.02069	192325.70						
66.00	4612.09	9.79	8.53	18664.79	0.48		
2187.94	326.84	6.69	320.78	32.77	0.002447		
1.02232	192470.66						
67.00	4612.09	9.79	8.53	18667.57	0.48		
2188.23	326.86	6.69	320.80	32.77	0.002440		
1.01928	192480.80						
68.00	4612.09	9.79	8.53	18667.77	0.48		
2188.32	326.87	6.69	320.81	32.77	0.002448		
1.02269	192484.22						
69.00	4612.09	9.79	8.53	18674.69	0.48		
2188.89	326.90	6.70	320.84	32.77	0.002446		
1.02203	192504.75						
70.00	4612.09	9.79	8.53	18678.35	0.48		
2189.32	326.93	6.70	320.87	32.77	0.002447		
1.02257	192520.03						
71.00	4612.09	9.79	8.53	18678.16	0.48		
2189.22	326.92	6.70	320.86	32.77	0.002445		
1.02185	192516.17						
72.00	4612.10	9.80	8.54	18734.82	0.48		
2193.93	327.22	6.70	321.15	32.77	0.002445		
1.02295	192688.67						
73.00	4612.15	9.85	8.57	18985.04	0.48		
2215.65	328.56	6.74	322.45	32.74	0.002445		
1.02872	193471.28						
74.00	4612.16	9.86	8.58	19048.36	0.48		
2221.38	328.90	6.75	322.79	32.73	0.002445		
1.03029	193674.33						
75.00	4612.17	9.87	8.58	19099.90	0.48		
2225.37	329.15	6.76	323.03	32.73	0.002454		
1.03531	193818.44						
76.00	4612.23	9.93	8.63	19465.10	0.48		
2254.78	330.96	6.81	324.79	32.69	0.002478		
1.05361	194873.19						
77.00	4612.34	10.05	8.71	20086.88	0.48		
2305.88	334.04	6.90	327.79	32.63	0.002495		
1.07466	196672.36						
78.00	4612.42	10.12	8.76	20521.84	0.49		
2342.67	336.23	6.97	329.92	32.59	0.002503		
1.08828	197953.44						
79.00	4612.51	10.21	8.80	20967.23	0.49		
2381.66	338.54	7.04	332.17	32.54	0.002511		
1.10220	199299.08						
80.00	4612.64	10.34	8.80	21484.31	0.48		

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2441.09	341.48	7.15	335.87	32.47	0.002499	
1.11479	201521.97					
81.00	4612.61	10.31	8.75	21269.71	0.48	
2429.51	341.42	7.12	335.04	32.49	0.002500	
1.11030	201022.81					
82.00	4612.51	10.21	8.79	20954.80	0.49	
2382.64	338.59	7.04	332.21	32.54	0.002503	
1.09891	199328.47					
83.00	4612.50	10.20	8.79	20901.98	0.49	
2377.27	338.27	7.03	331.91	32.55	0.002503	
1.09774	199145.17					
84.00	4612.50	10.20	8.79	20899.06	0.49	
2376.88	338.25	7.03	331.89	32.55	0.002502	
1.09704	199132.19					
85.00	4612.48	10.18	8.78	20805.05	0.49	
2369.44	337.81	7.01	331.45	32.56	0.002492	
1.09084	198872.42					
86.00	4612.38	10.08	8.72	20243.29	0.48	
2322.77	335.02	6.93	328.74	32.61	0.002464	
1.06581	197245.89					
87.00	4612.20	9.90	8.59	19238.74	0.48	
2240.28	330.02	6.79	323.88	32.71	0.002435	
1.03139	194327.38					
88.00	4611.90	9.60	8.54	17978.89	0.49	
2105.90	321.59	6.55	315.67	32.88	0.001909	
0.78019	189402.48					
89.00	4611.55	9.25	8.36	16321.48	0.48	
1951.42	311.59	6.26	305.93	33.09	0.001942	
0.75902	183559.64					
90.00	4611.35	9.05	8.22	15371.43	0.48	
1870.73	306.15	6.11	300.64	33.21	0.001969	
0.75064	180383.91					
91.00	4611.18	8.88	8.07	14535.05	0.48	
1801.25	301.34	5.98	295.96	33.31	0.001984	
0.74006	177574.77					
92.00	4610.97	8.67	7.89	13532.90	0.47	
1715.66	295.28	5.81	290.05	33.45	0.002003	
0.72615	174032.05					
93.00	4610.80	8.50	7.74	12747.39	0.47	
1647.41	290.32	5.67	285.22	33.56	0.002014	
0.71315	171134.03					
94.00	4610.64	8.34	7.61	12065.75	0.46	
1585.61	285.73	5.55	280.75	33.67	0.002009	
0.69566	168449.69					
95.00	4610.51	8.21	7.51	11548.05	0.46	
1538.10	282.12	5.45	277.23	33.75	0.002003	
0.68144	166340.77					
96.00	4610.38	8.08	7.40	11017.50	0.46	
1489.40	278.36	5.35	273.57	33.84	0.002005	
0.66945	164141.53					
97.00	4610.29	7.99	7.32	10641.22	0.46	
1453.73	275.56	5.28	270.84	33.91	0.002001	
0.65870	162501.88					
98.00	4610.19	7.89	7.24	10263.38	0.45	
1417.65	272.69	5.20	268.04	33.98	0.002000	
0.64888	160822.06					
99.00	4610.12	7.82	7.17	9999.14	0.45	
1393.67	270.75	5.15	266.15	34.03	0.001999	
0.64201	159688.12					
100.00	4610.02	7.72	7.09	9637.85	0.45	
1359.33	267.94	5.07	263.41	34.10	0.002005	
0.63462	158046.41					
101.00	4609.94	7.64	7.01	9329.74	0.45	

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				HYCHAN.OUT			
1330.45	0.62849	265.55	5.01	261.08	34.17	0.002010	
102.00	4609.86	156647.83	7.56	6.94	9051.22	0.45	
1303.28	0.62280	263.27	4.95	258.86	34.22	0.002016	
103.00	4609.80	155315.92	7.50	6.89	8843.88	0.44	
1282.89	0.61845	261.55	4.91	257.18	34.27	0.002021	
104.00	4609.74	154306.02	7.44	6.83	8604.08	0.44	
1260.10	0.61362	259.59	4.85	255.27	34.32	0.002026	
105.00	4609.64	153160.98	7.34	6.74	8264.35	0.44	
1225.80	0.60661	256.62	4.78	252.37	34.40	0.002035	
106.00	4609.58	151422.02	7.28	6.69	8070.18	0.44	
1205.82	0.60206	254.87	4.73	250.66	34.45	0.002039	
107.00	4609.52	150397.38	7.22	6.65	7896.50	0.44	
1188.04	0.59830	253.29	4.69	249.12	34.49	0.002044	
108.00	4609.48	149474.38	7.18	6.61	7756.39	0.43	
1173.43	0.59458	251.99	4.66	247.85	34.53	0.002046	
109.00	4609.48	148712.97	7.18	6.62	7777.27	0.44	
1175.39	0.59532	252.17	4.66	248.03	34.52	0.002047	
110.00	4609.55	148818.00	7.25	6.67	7974.20	0.44	
1195.51	0.59915	253.96	4.71	249.78	34.47	0.002040	
111.00	4609.62	149868.06	7.32	6.73	8208.45	0.44	
1219.71	0.60470	256.09	4.76	251.86	34.41	0.002035	
112.00	4609.58	151115.56	7.28	6.69	8069.86	0.44	
1205.88	0.60217	254.87	4.73	250.67	34.45	0.002040	
113.00	4609.55	150400.27	7.25	6.68	7999.87	0.44	
1198.28	0.59966	254.21	4.71	250.02	34.47	0.002039	
114.00	4609.65	150011.03	7.35	6.76	8324.42	0.44	
1231.15	0.60652	257.10	4.79	252.84	34.39	0.002030	
115.00	4609.74	151702.47	7.44	6.83	8600.79	0.44	
1259.36	0.61281	259.54	4.85	255.22	34.32	0.002024	
116.00	4609.70	153130.97	7.40	6.80	8484.44	0.44	
1247.83	0.61102	258.54	4.83	254.25	34.35	0.002029	
117.00	4609.70	152547.75	7.40	6.80	8469.87	0.44	
1246.27	0.61047	258.41	4.82	254.12	34.35	0.002028	
118.00	4609.71	152469.92	7.41	6.81	8510.59	0.44	
1250.23	0.61087	258.75	4.83	254.45	34.34	0.002026	
119.00	4609.75	152671.47	7.45	6.84	8655.82	0.44	
1264.75	0.61413	260.00	4.86	255.67	34.31	0.002023	
120.00	4609.76	153402.62	7.46	6.85	8669.96	0.44	
1266.30	0.61460	260.13	4.87	255.80	34.31	0.002023	
121.00	4609.74	153479.83	7.44	6.84	8629.38	0.44	
1262.44	0.61407	259.80	4.86	255.47	34.32	0.002025	
122.00	4609.70	153283.69	7.40	6.80	8484.59	0.44	

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1247.84		258.54		4.83	254.25	34.35	0.002029
	0.61108	152547.89					
123.00		4609.69	7.39		6.79	8429.75	0.44
1242.34		258.06		4.81		253.78	34.36
	0.60964	152268.31					0.002029
124.00		4609.64	7.34		6.75	8284.82	0.44
1227.67		256.79		4.78		252.54	34.40
	0.60643	151522.03					0.002033
125.00		4609.64	7.34		6.75	8269.84	0.44
1226.07		256.65		4.78		252.40	34.40
	0.60610	151441.16					0.002033
126.00		4609.63	7.33		6.74	8234.39	0.44
1222.58		256.34		4.77		252.10	34.41
	0.60556	151260.89					0.002035
127.00		4609.59	7.29		6.70	8104.41	0.44
1209.18		255.17		4.74		250.95	34.44
	0.60249	150572.94					0.002037
128.00		4609.58	7.28		6.70	8091.10	0.44
1207.78		255.05		4.74		250.84	34.44
	0.60215	150501.88					0.002038
129.00		4609.57	7.27		6.69	8056.54	0.44
1204.32		254.74		4.73		250.53	34.45
	0.60167	150320.94					0.002039
130.00		4609.53	7.23		6.66	7930.24	0.44
1191.40		253.59		4.70		249.42	34.48
	0.59873	149652.03					0.002042
131.00		4609.55	7.25		6.67	7987.09	0.44
1196.90		254.09		4.71		249.90	34.47
	0.59930	149940.20					0.002039
132.00		4609.63	7.33		6.74	8244.07	0.44
1223.22		256.40		4.77		252.16	34.41
	0.60505	151297.08					0.002032
133.00		4609.64	7.34		6.75	8269.95	0.44
1226.05		256.65		4.78		252.40	34.40
	0.60614	151440.41					0.002033
134.00		4609.64	7.34		6.74	8269.98	0.44
1226.11		256.65		4.78		252.41	34.40
	0.60634	151443.36					0.002034
135.00		4609.64	7.34		6.74	8269.91	0.44
1226.10		256.65		4.78		252.40	34.40
	0.60607	151442.98					0.002033
136.00		4609.64	7.34		6.75	8270.20	0.44
1226.11		256.65		4.78		252.41	34.40
	0.60611	151443.39					0.002033
137.00		4609.64	7.34		6.75	8270.11	0.44
1226.04		256.65		4.78		252.40	34.40
	0.60583	151439.70					0.002032
138.00		4609.64	7.34		6.75	8269.69	0.44
1226.04		256.65		4.78		252.40	34.40
	0.60619	151439.97					0.002034
139.00		4609.63	7.33		6.74	8234.70	0.44
1222.55		256.34		4.77		252.10	34.41
	0.60537	151259.05					0.002034
140.00		4609.59	7.29		6.70	8104.33	0.44
1209.21		255.17		4.74		250.96	34.44
	0.60239	150574.08					0.002037
141.00		4609.58	7.28		6.70	8090.96	0.44
1207.70		255.04		4.74		250.83	34.44
	0.60199	150497.44					0.002037
142.00		4609.58	7.28		6.70	8090.93	0.44
1207.70		255.04		4.74		250.83	34.44
	0.60221	150497.50					0.002038
143.00		4609.58	7.28		6.70	8091.01	0.44

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1207.74	255.04	4.74	250.83	34.44	0.002038	
0.60231	150499.88					
144.00	4609.57	7.27	6.69	8056.46	0.44	
1204.38	254.74	4.73	250.54	34.45	0.002039	
0.60148	150324.25					
145.00	4609.53	7.23	6.66	7930.46	0.44	
1191.40	253.59	4.70	249.42	34.48	0.002042	
0.59873	149652.03					
146.00	4609.53	7.23	6.65	7916.92	0.44	
1189.88	253.46	4.69	249.29	34.49	0.002042	
0.59812	149574.06					
147.00	4609.53	7.23	6.65	7916.87	0.44	
1189.91	253.46	4.69	249.29	34.49	0.002043	
0.59850	149575.59					
148.00	4609.53	7.23	6.65	7917.01	0.44	
1189.92	253.46	4.69	249.29	34.49	0.002042	
0.59824	149575.94					
149.00	4609.53	7.23	6.65	7917.17	0.44	
1189.89	253.46	4.69	249.29	34.49	0.002043	
0.59840	149574.56					
150.00	4609.52	7.22	6.65	7893.99	0.44	
1187.60	253.25	4.69	249.09	34.49	0.002043	
0.59783	149453.77					
151.00	4609.49	7.19	6.62	7798.52	0.44	
1177.80	252.38	4.67	248.24	34.52	0.002046	
0.59581	148941.81					
152.00	4609.48	7.18	6.61	7747.36	0.43	
1172.48	251.90	4.65	247.77	34.53	0.002046	
0.59437	148663.61					
153.00	4609.47	7.17	6.61	7743.03	0.43	
1171.99	251.86	4.65	247.73	34.53	0.002047	
0.59452	148638.52					
154.00	4609.46	7.16	6.60	7708.95	0.43	
1168.60	251.55	4.65	247.43	34.54	0.002049	
0.59400	148457.97					
155.00	4609.44	7.14	6.58	7650.57	0.43	
1162.27	250.99	4.63	246.88	34.55	0.002049	
0.59220	148127.28					
156.00	4609.52	7.22	6.65	7890.87	0.44	
1187.06	253.21	4.69	249.05	34.49	0.002043	
0.59770	149428.33					
157.00	4609.53	7.23	6.65	7916.89	0.44	
1189.88	253.46	4.69	249.29	34.49	0.002043	
0.59846	149574.06					
158.00	4609.53	7.23	6.65	7917.03	0.44	
1189.82	253.45	4.69	249.28	34.49	0.002043	
0.59839	149570.80					
159.00	4609.53	7.23	6.65	7916.87	0.44	
1189.83	253.46	4.69	249.29	34.49	0.002043	
0.59843	149571.25					
160.00	4609.53	7.23	6.65	7917.03	0.44	
1189.88	253.46	4.69	249.29	34.49	0.002042	
0.59824	149574.03					
161.00	4609.53	7.23	6.65	7917.07	0.44	
1189.93	253.46	4.69	249.29	34.49	0.002043	
0.59846	149576.28					
162.00	4609.53	7.23	6.65	7917.07	0.44	
1189.87	253.46	4.69	249.29	34.49	0.002043	
0.59835	149573.30					
163.00	4609.53	7.23	6.65	7916.87	0.44	
1189.82	253.45	4.69	249.28	34.49	0.002043	
0.59857	149570.89					
164.00	4609.52	7.22	6.64	7882.68	0.44	

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				HYCHAN.OUT			
1186.52		253.16		4.69	248.99	34.49	0.002044
	0.59786	149396.61					
165.00		4609.48	7.18		6.61	7756.38	0.43
1173.44		251.99		4.66		247.86	34.53
	0.59472	148713.20					0.002047
166.00		4609.47	7.17		6.61	7743.01	0.43
1172.00		251.86		4.65		247.73	34.53
	0.59441	148639.03					0.002047
167.00		4609.47	7.17		6.61	7743.05	0.43
1172.00		251.86		4.65		247.73	34.53
	0.59437	148638.64					0.002047
168.00		4609.47	7.17		6.61	7742.81	0.43
1171.96		251.86		4.65		247.73	34.53
	0.59417	148636.86					0.002046
169.00		4609.47	7.17		6.61	7743.21	0.43
1172.00		251.86		4.65		247.73	34.53
	0.59435	148639.11					0.002047
170.00		4609.47	7.17		6.61	7743.11	0.43
1172.02		251.86		4.65		247.73	34.53
	0.59454	148639.98					0.002047
171.00		4609.47	7.17		6.61	7742.79	0.43
1171.99		251.86		4.65		247.73	34.53
	0.59448	148638.53					0.002047
172.00		4609.46	7.16		6.60	7708.96	0.43
1168.57		251.55		4.65		247.43	34.54
	0.59363	148456.86					0.002048
173.00		4609.42	7.12		6.56	7582.23	0.43
1155.44		250.37		4.61		246.27	34.57
	0.59053	147764.36					0.002051
174.00		4609.42	7.12		6.56	7569.08	0.43
1154.06		250.24		4.61		246.15	34.57
	0.59038	147692.47					0.002052
175.00		4609.42	7.12		6.56	7569.03	0.43
1153.96		250.24		4.61		246.15	34.57
	0.59036	147687.31					0.002052
176.00		4609.42	7.12		6.56	7568.90	0.43
1153.96		250.24		4.61		246.15	34.57
	0.59053	147687.25					0.002052
177.00		4609.42	7.12		6.56	7568.99	0.43
1153.93		250.23		4.61		246.14	34.57
	0.59038	147685.44					0.002052
178.00		4609.42	7.12		6.56	7568.99	0.43
1154.03		250.24		4.61		246.15	34.57
	0.59034	147690.52					0.002051
179.00		4609.44	7.14		6.58	7637.38	0.43
1160.87		250.86		4.63		246.76	34.56
	0.59148	148054.03					0.002048
180.00		4609.52	7.22		6.65	7890.74	0.44
1187.02		253.21		4.69		249.04	34.49
	0.59727	149426.22					0.002042
181.00		4609.54	7.24		6.66	7951.43	0.44
1193.36		253.77		4.70		249.59	34.48
	0.59915	149755.89					0.002042
182.00		4609.58	7.28		6.70	8078.12	0.44
1206.34		254.92		4.73		250.71	34.45
	0.60163	150428.31					0.002037
183.00		4609.58	7.28		6.70	8091.06	0.44
1207.76		255.04		4.74		250.83	34.44
	0.60213	150500.52					0.002038
184.00		4609.58	7.28		6.70	8090.76	0.44
1207.76		255.04		4.74		250.83	34.44
	0.60214	150500.45					0.002038
185.00		4609.58	7.28		6.70	8091.24	0.44

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HYCHAN.OUT									
1207.79		255.05		4.74		250.84	34.44		0.002038
	0.60216	150502.36							
186.00		4609.58	7.28		6.70	8090.79	0.44		
1207.72		255.04		4.74		250.83	34.44		0.002038
	0.60222	150498.38							
187.00		4609.58	7.28		6.70	8091.01	0.44		
1207.78		255.05		4.74		250.84	34.44		0.002038
	0.60220	150501.86							
188.00		4609.58	7.28		6.70	8091.10	0.44		
1207.75		255.04		4.74		250.83	34.44		0.002038
	0.60211	150500.23							
189.00		4609.58	7.28		6.70	8090.93	0.44		
1207.78		255.05		4.74		250.84	34.44		0.002038
	0.60224	150502.00							
190.00		4609.57	7.27		6.69	8056.60	0.44		
1204.33		254.74		4.73		250.54	34.45		0.002038
	0.60137	150321.36							
191.00		4609.53	7.23		6.66	7930.20	0.44		
1191.32		253.59		4.70		249.41	34.48		0.002042
	0.59874	149647.98							
192.00		4609.53	7.23		6.65	7916.73	0.44		
1189.89		253.46		4.69		249.29	34.49		0.002043
	0.59853	149574.19							
193.00		4609.53	7.23		6.65	7917.12	0.44		
1189.90		253.46		4.69		249.29	34.49		0.002042
	0.59827	149574.89							
194.00		4609.53	7.23		6.65	7916.97	0.44		
1189.83		253.45		4.69		249.29	34.49		0.002041
	0.59797	149571.08							
195.00		4609.53	7.23		6.65	7916.89	0.44		
1189.84		253.46		4.69		249.29	34.49		0.002044
	0.59874	149571.97							
196.00		4609.53	7.23		6.65	7917.15	0.44		
1189.89		253.46		4.69		249.29	34.49		0.002042
	0.59829	149574.22							
197.00		4609.53	7.23		6.65	7916.89	0.44		
1189.85		253.46		4.69		249.29	34.49		0.002044
	0.59869	149572.09							
198.00		4609.53	7.23		6.65	7916.96	0.44		
1189.85		253.46		4.69		249.29	34.49		0.002042
	0.59814	149572.38							
199.00		4609.53	7.23		6.65	7917.11	0.44		
1189.86		253.46		4.69		249.29	34.49		0.002043
	0.59833	149572.70							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 310

MAXIMUM DISCHARGE (CFS) = 21657.58 AT TIME = 79.51  
 MAXIMUM STAGE = 4610.54 AT TIME = 79.73

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4599.90	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4599.90	0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00	0.004390

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		HYCHAN.OUT					
	0.00000	0.00					
810.82	2.00	4605.87	5.97	5.67	4597.00	0.41	
		215.77	3.76		212.50	35.62	0.002809
	0.65873	106251.33					
898.22	3.00	4606.41	6.51	6.13	5504.87	0.42	
		232.00	3.87		228.35	35.10	0.002809
	0.67865	114176.60					
885.72	4.00	4606.36	6.46	6.09	5392.37	0.42	
		230.65	3.84		227.03	35.14	0.002813
	0.67403	113516.21					
881.37	5.00	4606.34	6.44	6.07	5352.86	0.42	
		230.17	3.83		226.57	35.16	0.002812
	0.67195	113284.31					
866.08	6.00	4606.29	6.39	6.02	5216.51	0.42	
		228.49	3.79		224.93	35.21	0.002815
	0.66575	112464.27					
848.76	7.00	4606.22	6.32	5.97	5064.84	0.42	
		226.57	3.75		223.05	35.27	0.002818
	0.65874	111527.34					
831.48	8.00	4606.16	6.26	5.91	4915.18	0.42	
		224.64	3.70		221.16	35.33	0.002821
	0.65146	110581.27					
816.50	9.00	4606.10	6.20	5.86	4787.72	0.42	
		222.94	3.66		219.51	35.38	0.002823
	0.64508	109754.00					
811.88	10.00	4606.09	6.19	5.85	4748.40	0.41	
		222.41	3.65		218.99	35.40	0.002823
	0.64306	109496.30					
796.12	11.00	4606.03	6.13	5.80	4613.96	0.41	
		220.59	3.61		217.22	35.46	0.002826
	0.63652	108608.22					
780.71	12.00	4605.97	6.07	5.75	4485.37	0.41	
		218.81	3.57		215.47	35.52	0.002829
	0.62985	107735.22					
778.63	13.00	4605.96	6.06	5.74	4468.94	0.41	
		218.57	3.56		215.24	35.52	0.002829
	0.62887	107618.08					
778.63	14.00	4605.96	6.06	5.74	4469.00	0.41	
		218.57	3.56		215.24	35.52	0.002829
	0.62890	107618.20					
778.65	15.00	4605.96	6.06	5.74	4469.03	0.41	
		218.57	3.56		215.24	35.52	0.002829
	0.62889	107619.20					
778.66	16.00	4605.96	6.06	5.74	4469.00	0.41	
		218.57	3.56		215.24	35.52	0.002829
	0.62890	107619.91					
781.23	17.00	4605.97	6.07	5.75	4491.81	0.41	
		218.87	3.57		215.54	35.51	0.002829
	0.63018	107768.55					
797.21	18.00	4606.03	6.13	5.81	4628.29	0.41	
		220.73	3.61		217.35	35.45	0.002826
	0.63684	108676.45					
814.98	19.00	4606.10	6.20	5.87	4780.03	0.42	
		222.78	3.66		219.35	35.39	0.002824
	0.64461	109673.15					
830.25	20.00	4606.16	6.26	5.91	4908.63	0.42	
		224.51	3.70		221.04	35.33	0.002821
	0.65097	110518.81					
832.19	21.00	4606.16	6.26	5.92	4923.82	0.42	
		224.72	3.70		221.25	35.33	0.002822
	0.65201	110624.48					
834.73	22.00	4606.17	6.27	5.93	4948.10	0.42	
		225.01	3.71		221.53	35.32	0.002821

		HYCHAN.OUT					
	0.65296	110765.08					
853.43	23.00	4606.24	6.34	5.99	5110.85	0.42	
		227.10	3.76		223.57	35.25	0.002818
	0.66084	111786.61					
886.46	24.00	4606.36	6.46	6.09	5402.38	0.42	
		230.74	3.84		227.12	35.14	0.002813
	0.67442	113558.63					
920.39	25.00	4606.48	6.59	6.20	5708.30	0.43	
		234.38	3.93		230.68	35.03	0.002808
	0.68817	115338.85					
948.10	26.00	4606.58	6.68	6.28	5958.51	0.43	
		237.30	4.00		233.53	34.94	0.002803
	0.69891	116764.24					
951.29	27.00	4606.59	6.69	6.29	5985.02	0.43	
		237.63	4.00		233.85	34.93	0.002803
	0.70007	116925.20					
954.40	28.00	4606.60	6.71	6.30	6015.00	0.43	
		237.96	4.01		234.17	34.92	0.002803
	0.70156	117084.46					
967.69	29.00	4606.65	6.75	6.34	6137.42	0.43	
		239.34	4.04		235.51	34.88	0.002801
	0.70658	117757.11					
969.36	30.00	4606.66	6.76	6.35	6152.08	0.43	
		239.51	4.05		235.68	34.88	0.002801
	0.70741	117840.29					
972.63	31.00	4606.67	6.77	6.36	6183.55	0.43	
		239.85	4.06		236.01	34.87	0.002800
	0.70863	118005.84					
986.31	32.00	4606.72	6.82	6.40	6311.10	0.43	
		241.25	4.09		237.38	34.83	0.002798
	0.71370	118690.07					
988.02	33.00	4606.72	6.82	6.40	6326.09	0.43	
		241.42	4.09		237.55	34.82	0.002797
	0.71437	118774.27					
984.79	34.00	4606.71	6.81	6.39	6294.57	0.43	
		241.09	4.08		237.22	34.83	0.002797
	0.71300	118611.09					
971.08	35.00	4606.66	6.76	6.35	6166.84	0.43	
		239.68	4.05		235.85	34.87	0.002800
	0.70799	117925.06					
966.23	36.00	4606.65	6.75	6.34	6121.88	0.43	
		239.18	4.04		235.36	34.89	0.002800
	0.70583	117680.27					
952.95	37.00	4606.60	6.70	6.30	5999.34	0.43	
		237.80	4.01		234.02	34.93	0.002803
	0.70097	117008.20					
951.29	38.00	4606.59	6.69	6.29	5985.06	0.43	
		237.63	4.00		233.85	34.93	0.002803
	0.70027	116925.45					
951.29	39.00	4606.59	6.69	6.29	5985.05	0.43	
		237.63	4.00		233.85	34.93	0.002802
	0.70001	116925.41					
951.28	40.00	4606.59	6.69	6.29	5984.97	0.43	
		237.63	4.00		233.85	34.93	0.002803
	0.70028	116924.92					
951.28	41.00	4606.59	6.69	6.29	5985.00	0.43	
		237.63	4.00		233.85	34.93	0.002803
	0.70015	116924.76					
954.38	42.00	4606.60	6.70	6.30	6015.17	0.43	
		237.96	4.01		234.17	34.92	0.002803
	0.70146	117083.78					
967.73	43.00	4606.65	6.75	6.34	6137.67	0.43	
		239.34	4.04		235.52	34.88	0.002800

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		HYCHAN.OUT					
	0.70645	117758.79					
972.62	44.00	4606.67	6.77	4.06	6.36	6183.53	0.43
		239.85			236.01	34.87	0.002800
	0.70850	118005.12					
989.61	45.00	4606.73	6.83	4.10	6.41	6343.14	0.43
		241.59			237.71	34.82	0.002798
	0.71523	118854.88					
1008.17	46.00	4606.79	6.89	4.14	6.46	6517.76	0.43
		243.47			239.55	34.76	0.002796
	0.72233	119772.94					
1026.43	47.00	4606.85	6.95	4.18	6.52	6691.67	0.44
		245.30			241.33	34.71	0.002793
	0.72933	120666.55					
1044.77	48.00	4606.91	7.01	4.23	6.57	6864.54	0.44
		247.13			243.11	34.66	0.002790
	0.73608	121555.45					
1065.85	49.00	4606.98	7.08	4.28	6.60	7037.98	0.44
		249.19			245.13	34.60	0.002787
	0.74395	122564.95					
1086.89	50.00	4607.05	7.15	4.33	6.66	7242.91	0.44
		251.24			247.12	34.55	0.002783
	0.75141	123561.12					
1115.13	51.00	4607.15	7.25	4.39	6.74	7513.26	0.44
		253.94			249.76	34.47	0.002776
	0.76080	124880.40					
1121.58	52.00	4607.17	7.27	4.41	6.75	7575.37	0.44
		254.55			250.36	34.46	0.002776
	0.76323	125178.63					
1144.95	53.00	4607.24	7.34	4.46	6.82	7806.54	0.44
		256.75			252.50	34.40	0.002772
	0.77125	126251.81					
1202.98	54.00	4607.42	7.52	4.59	6.97	8381.37	0.45
		262.10			257.72	34.26	0.002756
	0.78941	128860.33					
1283.24	55.00	4607.67	7.77	4.77	7.18	9208.77	0.45
		269.26			264.70	34.07	0.002747
	0.81699	132350.59					
1385.85	56.00	4607.97	8.07	4.98	7.47	10352.49	0.46
		278.03			273.24	33.85	0.002753
	0.85634	136621.59					
1509.33	57.00	4608.32	8.42	5.24	7.80	11774.83	0.47
		288.14			283.10	33.61	0.002744
	0.89695	141550.17					
1606.23	58.00	4608.59	8.69	5.43	8.03	12900.14	0.48
		295.74			290.50	33.44	0.002734
	0.92659	145250.09					
1700.95	59.00	4608.84	8.94	5.62	8.25	14027.67	0.49
		302.89			297.47	33.28	0.002722
	0.95368	148733.75					
1812.99	60.00	4609.13	9.23	5.83	8.48	15366.86	0.49
		311.08			305.44	33.10	0.002704
	0.98348	152721.84					
1886.47	61.00	4609.31	9.41	5.96	8.59	16205.63	0.49
		316.29			310.51	32.99	0.002686
	0.99950	155256.30					
1951.13	62.00	4609.47	9.57	6.08	8.71	17000.10	0.50
		320.78			314.88	32.90	0.002675
	1.01528	157439.31					
1992.53	63.00	4609.57	9.67	6.16	8.79	17508.55	0.50
		323.60			317.63	32.84	0.002630
	1.01034	158813.52					
2058.86	64.00	4609.73	9.83	6.28	8.82	18166.22	0.50
		328.00			321.91	32.75	0.002663

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## HYCHAN.OUT

1.04295	160954.38						
65.00	4609.83	9.93	6.35	8.87	18622.39	0.50	
2100.10	330.78				324.62	32.70	0.002656
1.05236	162309.61						
66.00	4609.84	9.94	6.36	8.87	18669.30	0.50	
2104.91	331.09				324.92	32.69	0.002656
1.05364	162459.94						
67.00	4609.84	9.94	6.36	8.87	18672.25	0.50	
2105.29	331.12				324.94	32.69	0.002649
1.05100	162472.11						
68.00	4609.84	9.94	6.36	8.87	18672.50	0.50	
2105.39	331.12				324.95	32.69	0.002655
1.05342	162475.34						
69.00	4609.84	9.94	6.36	8.87	18679.63	0.50	
2105.99	331.16				324.99	32.69	0.002653
1.05287	162494.34						
70.00	4609.84	9.94	6.36	8.87	18683.93	0.50	
2106.48	331.19				325.02	32.69	0.002654
1.05338	162509.95						
71.00	4609.84	9.94	6.36	8.87	18683.62	0.50	
2106.36	331.19				325.01	32.69	0.002652
1.05259	162505.91						
72.00	4609.85	9.95	6.37	8.88	18737.68	0.50	
2110.86	331.48				325.30	32.68	0.002648
1.05207	162650.64						
73.00	4609.91	10.01	6.41	8.90	18988.53	0.50	
2132.98	332.93				326.71	32.65	0.002639
1.05486	163354.31						
74.00	4609.92	10.02	6.42	8.91	19054.86	0.50	
2139.37	333.34				327.11	32.65	0.002637
1.05614	163555.62						
75.00	4609.93	10.03	6.42	8.91	19104.19	0.50	
2143.30	333.60				327.36	32.64	0.002633
1.05553	163680.80						
76.00	4610.00	10.10	6.48	8.95	19465.07	0.50	
2173.90	335.58				329.29	32.60	0.002612
1.05565	164645.25						
77.00	4610.13	10.23	6.57	9.02	20088.85	0.50	
2228.27	339.06				332.67	32.53	0.002584
1.05946	166337.36						
78.00	4610.22	10.32	6.64	9.06	20532.41	0.50	
2267.47	341.43				335.18	32.48	0.002566
1.06347	167590.14						
79.00	4610.32	10.42	6.74	9.11	20970.75	0.50	
2302.38	341.63				337.94	32.43	0.002546
1.07077	168970.09						
80.00	4610.49	10.59	6.90	9.11	21481.11	0.49	
2358.02	341.97				342.43	32.34	0.002524
1.08594	171215.89						
81.00	4610.46	10.56	6.87	9.06	21283.78	0.49	
2349.43	341.91				341.72	32.36	0.002541
1.08949	170859.38						
82.00	4610.33	10.43	6.75	9.10	20969.83	0.50	
2304.88	341.65				338.13	32.43	0.002553
1.07492	169064.20						
83.00	4610.31	10.41	6.73	9.09	20913.01	0.50	
2299.56	341.62				337.71	32.44	0.002555
1.07322	168852.52						
84.00	4610.31	10.41	6.73	9.09	20909.61	0.50	
2299.16	341.61				337.67	32.44	0.002555
1.07308	168836.67						
85.00	4610.29	10.39	6.71	9.08	20822.83	0.50	
2293.19	341.58				337.18	32.45	0.002562

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1.07337	168590.66						
86.00	4610.18	10.28	6.61	9.01	20280.52	0.50	
2250.54	340.45				334.03	32.51	0.002588
1.06749	167013.48						
87.00	4609.97	10.07	6.46	8.91	19272.81	0.49	
2163.25	334.85				328.58	32.62	0.002641
1.06448	164288.97						
88.00	4609.70	9.80	6.26	8.80	18009.18	0.50	
2046.74	327.14				321.08	32.77	0.002662
1.03939	160538.78						
89.00	4609.35	9.45	5.99	8.59	16336.85	0.49	
1901.37	317.29				311.49	32.97	0.002691
1.00642	155744.50						
90.00	4609.14	9.24	5.84	8.47	15382.64	0.49	
1817.07	311.35				305.70	33.09	0.002706
0.98551	152852.34						
91.00	4608.96	9.06	5.71	8.32	14547.43	0.49	
1747.68	306.32				300.81	33.20	0.002715
0.96670	150403.56						
92.00	4608.74	8.84	5.54	8.14	13544.46	0.48	
1662.92	300.03				294.68	33.34	0.002727
0.94331	147339.53						
93.00	4608.56	8.66	5.41	7.99	12757.01	0.48	
1596.02	294.93				289.71	33.46	0.002733
0.92274	144857.14						
94.00	4608.40	8.50	5.29	7.86	12073.14	0.48	
1536.96	290.33				285.23	33.56	0.002737
0.90410	142616.42						
95.00	4608.27	8.37	5.20	7.74	11555.10	0.47	
1492.06	286.76				281.75	33.64	0.002738
0.88887	140875.64						
96.00	4608.15	8.25	5.11	7.62	11023.19	0.47	
1446.05	283.04				278.12	33.73	0.002744
0.87470	139062.11						
97.00	4608.05	8.15	5.04	7.54	10646.54	0.47	
1412.05	280.24				275.40	33.80	0.002745
0.86319	137698.78						
98.00	4607.95	8.05	4.97	7.45	10267.16	0.46	
1377.67	277.37				272.60	33.87	0.002748
0.85154	136302.25						
99.00	4607.89	7.99	4.92	7.38	10003.47	0.46	
1356.16	275.55				270.83	33.91	0.002741
0.84191	135415.59						
100.00	4607.79	7.89	4.85	7.28	9642.12	0.46	
1323.94	272.80				268.15	33.98	0.002737
0.82877	134073.66						
101.00	4607.71	7.81	4.80	7.20	9333.80	0.45	
1296.98	270.47				265.87	34.04	0.002738
0.81916	132936.41						
102.00	4607.63	7.73	4.74	7.13	9054.73	0.45	
1270.16	268.12				263.58	34.10	0.002743
0.81079	131792.02						
103.00	4607.57	7.67	4.69	7.08	8846.67	0.45	
1249.83	266.32				261.83	34.15	0.002747
0.80429	130914.97						
104.00	4607.50	7.60	4.64	7.01	8608.79	0.45	
1227.63	264.33				259.89	34.20	0.002752
0.79749	129944.09						
105.00	4607.39	7.49	4.57	6.93	8268.35	0.45	
1193.22	261.21				256.85	34.28	0.002761
0.78703	128424.34						
106.00	4607.33	7.43	4.52	6.88	8072.88	0.45	
1173.05	259.36				255.04	34.33	0.002765

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	0.78044	127522.20					
1155.29	107.00	4607.27	7.37	4.48	6.84	7899.14	0.44
		257.71				253.44	34.37
	0.77452	126719.40					0.002769
1140.61	108.00	4607.23	7.33	4.45	6.80	7757.46	0.44
		256.34				252.10	34.41
	0.76971	126051.62					0.002772
1142.17	109.00	4607.23	7.33	4.45	6.81	7775.78	0.44
		256.50				252.25	34.40
	0.77026	126125.27					0.002772
1161.80	110.00	4607.29	7.39	4.50	6.86	7969.86	0.44
		258.33				254.04	34.35
	0.77674	127019.09					0.002768
1186.44	111.00	4607.37	7.47	4.55	6.92	8207.86	0.45
		260.60				256.25	34.29
	0.78449	128126.60					0.002761
1173.09	112.00	4607.33	7.43	4.52	6.88	8072.56	0.45
		259.36				255.05	34.33
	0.78032	127523.98					0.002765
1164.89	113.00	4607.30	7.40	4.50	6.87	7997.79	0.44
		258.61				254.32	34.35
	0.77764	127157.88					0.002767
1197.18	114.00	4607.41	7.51	4.58	6.95	8318.63	0.45
		261.58				257.21	34.27
	0.78770	128606.84					0.002758
1226.11	115.00	4607.50	7.60	4.64	7.01	8600.16	0.45
		264.20				259.77	34.20
	0.79662	129883.57					0.002751
1214.90	116.00	4607.46	7.56	4.62	6.98	8485.68	0.45
		263.19				258.78	34.23
	0.79368	129388.88					0.002755
1213.11	117.00	4607.46	7.56	4.61	6.98	8469.84	0.45
		263.03				258.62	34.23
	0.79304	129311.16					0.002756
1216.88	118.00	4607.47	7.57	4.62	6.99	8508.83	0.45
		263.37				258.96	34.22
	0.79404	129478.67					0.002754
1231.47	119.00	4607.51	7.61	4.65	7.03	8654.62	0.45
		264.69				260.24	34.19
	0.79861	130119.09					0.002751
1233.23	120.00	4607.52	7.62	4.66	7.03	8669.96	0.45
		264.84				260.39	34.18
	0.79922	130195.10					0.002751
1229.57	121.00	4607.51	7.61	4.65	7.02	8631.14	0.45
		264.51				260.07	34.19
	0.79809	130033.08					0.002751
1214.87	122.00	4607.46	7.56	4.62	6.98	8485.85	0.45
		263.19				258.78	34.23
	0.79362	129387.89					0.002755
1209.46	123.00	4607.44	7.54	4.60	6.97	8431.50	0.45
		262.69				258.30	34.24
	0.79199	129147.96					0.002757
1194.68	124.00	4607.40	7.50	4.57	6.94	8286.11	0.45
		261.35				256.99	34.27
	0.78712	128492.68					0.002759
1192.88	125.00	4607.39	7.49	4.57	6.93	8269.74	0.45
		261.19				256.83	34.28
	0.78661	128413.77					0.002760
1189.65	126.00	4607.38	7.48	4.56	6.92	8236.04	0.45
		260.89				256.54	34.29
	0.78561	128267.84					0.002761
1176.22	127.00	4607.34	7.44	4.53	6.89	8105.48	0.45
		259.66				255.33	34.32
							0.002765

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1174.65	0.78162	127667.16	7.44	4.53	6.89	8091.16	0.45	0.002764
	128.00	4607.33				255.19	34.32	
	0.78075	127597.48						
1171.41	129.00	4607.32	7.42	4.52	6.88	8058.09	0.45	0.002766
		259.21				254.90	34.33	
	0.77991	127449.87						
1158.44	130.00	4607.28	7.38	4.49	6.85	7931.31	0.44	0.002769
		258.01				253.73	34.36	
	0.77582	126864.21						
1163.37	131.00	4607.30	7.40	4.50	6.86	7983.91	0.44	0.002767
		258.47				254.18	34.35	
	0.77713	127089.62						
1189.76	132.00	4607.38	7.48	4.56	6.93	8241.88	0.45	0.002760
		260.91				256.55	34.29	
	0.78546	128275.95						
1192.89	133.00	4607.39	7.49	4.57	6.93	8269.99	0.45	0.002760
		261.19				256.83	34.28	
	0.78661	128414.14						
1192.94	134.00	4607.39	7.49	4.57	6.93	8269.99	0.45	0.002760
		261.19				256.83	34.28	
	0.78668	128416.27						
1192.91	135.00	4607.39	7.49	4.57	6.93	8269.93	0.45	0.002760
		261.19				256.83	34.28	
	0.78660	128414.89						
1192.95	136.00	4607.39	7.49	4.57	6.93	8270.12	0.45	0.002760
		261.19				256.83	34.28	
	0.78670	128416.76						
1192.88	137.00	4607.39	7.49	4.57	6.93	8270.15	0.45	0.002760
		261.19				256.83	34.28	
	0.78654	128413.83						
1192.89	138.00	4607.39	7.49	4.57	6.93	8269.69	0.45	0.002760
		261.19				256.83	34.28	
	0.78666	128413.94						
1189.61	139.00	4607.38	7.48	4.56	6.92	8236.29	0.45	0.002761
		260.89				256.53	34.29	
	0.78566	128266.21						
1176.23	140.00	4607.34	7.44	4.53	6.89	8105.47	0.45	0.002764
		259.66				255.34	34.32	
	0.78141	127667.54						
1174.58	141.00	4607.33	7.43	4.53	6.89	8090.88	0.45	0.002765
		259.51				255.19	34.32	
	0.78089	127594.13						
1174.61	142.00	4607.33	7.43	4.53	6.89	8090.97	0.45	0.002764
		259.51				255.19	34.32	
	0.78073	127595.45						
1174.65	143.00	4607.33	7.44	4.53	6.89	8091.05	0.45	0.002764
		259.51				255.19	34.32	
	0.78076	127597.38						
1171.45	144.00	4607.32	7.42	4.52	6.88	8057.99	0.45	0.002765
		259.22				254.90	34.33	
	0.77972	127451.75						
1158.44	145.00	4607.28	7.38	4.49	6.85	7931.56	0.44	0.002769
		258.01				253.73	34.36	
	0.77582	126864.34						
1156.81	146.00	4607.28	7.38	4.49	6.84	7916.91	0.44	0.002769
		257.86				253.58	34.37	
	0.77503	126790.98						
1156.79	147.00	4607.28	7.38	4.49	6.84	7916.88	0.44	0.002769
		257.86				253.58	34.37	
	0.77511	126790.23						
1156.82	148.00	4607.28	7.38	4.49	6.84	7917.03	0.44	0.002768
		257.86				253.58	34.37	

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	0.77493	126791.84						
1156.82	149.00	4607.28	7.38	4.49	6.84	7917.14	0.44	0.002769
		257.86				253.58	34.37	
	0.77510	126791.55						
1154.65	150.00	4607.27	7.37	4.48	6.84	7895.06	0.44	0.002769
		257.66				253.38	34.37	
	0.77437	126691.91						
1144.94	151.00	4607.24	7.34	4.46	6.81	7799.74	0.44	0.002772
		256.75				252.50	34.40	
	0.77132	126249.56						
1139.53	152.00	4607.22	7.32	4.45	6.80	7747.72	0.44	0.002773
		256.24				252.01	34.41	
	0.76946	126003.12						
1139.02	153.00	4607.22	7.32	4.45	6.80	7743.04	0.44	0.002773
		256.20				251.96	34.41	
	0.76924	125979.94						
1135.87	154.00	4607.21	7.31	4.44	6.79	7710.53	0.44	0.002773
		255.90				251.67	34.42	
	0.76800	125833.88						
1129.13	155.00	4607.19	7.29	4.42	6.77	7648.52	0.44	0.002775
		255.27				251.05	34.44	
	0.76608	125526.59						
1153.67	156.00	4607.27	7.37	4.48	6.84	7888.73	0.44	0.002769
		257.57				253.30	34.38	
	0.77392	126649.69						
1156.79	157.00	4607.28	7.38	4.49	6.84	7916.89	0.44	0.002768
		257.86				253.58	34.37	
	0.77489	126790.35						
1156.76	158.00	4607.28	7.38	4.49	6.84	7917.04	0.44	0.002769
		257.86				253.58	34.37	
	0.77503	126788.86						
1156.75	159.00	4607.28	7.38	4.49	6.84	7916.84	0.44	0.002769
		257.86				253.58	34.37	
	0.77511	126788.38						
1156.80	160.00	4607.28	7.38	4.49	6.84	7917.03	0.44	0.002769
		257.86				253.58	34.37	
	0.77506	126790.80						
1156.80	161.00	4607.28	7.38	4.49	6.84	7917.08	0.44	0.002768
		257.86				253.58	34.37	
	0.77493	126790.95						
1156.77	162.00	4607.28	7.38	4.49	6.84	7917.04	0.44	0.002768
		257.86				253.58	34.37	
	0.77491	126789.30						
1156.74	163.00	4607.28	7.38	4.49	6.84	7916.90	0.44	0.002768
		257.85				253.58	34.37	
	0.77496	126787.98						
1153.62	164.00	4607.27	7.37	4.48	6.83	7884.21	0.44	0.002770
		257.56				253.29	34.38	
	0.77408	126644.47						
1140.59	165.00	4607.23	7.33	4.45	6.80	7757.46	0.44	0.002773
		256.34				252.10	34.41	
	0.76984	126050.73						
1139.02	166.00	4607.22	7.32	4.45	6.80	7743.08	0.44	0.002772
		256.20				251.96	34.41	
	0.76898	125980.08						
1139.03	167.00	4607.22	7.32	4.45	6.80	7743.03	0.44	0.002773
		256.20				251.96	34.41	
	0.76916	125980.35						
1138.99	168.00	4607.22	7.32	4.45	6.80	7742.75	0.44	0.002773
		256.19				251.96	34.41	
	0.76916	125978.71						
1139.03	169.00	4607.22	7.32	4.45	6.80	7743.26	0.44	0.002772
		256.20				251.96	34.41	

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	0.76914	125980.45						
1139.04	170.00	4607.22	7.32	4.45	6.80	7743.10	0.44	0.002772
		256.20				251.96	34.41	
	0.76908	125980.81						
1139.01	171.00	4607.22	7.32	4.45	6.80	7742.78	0.44	0.002773
		256.20				251.96	34.41	
	0.76924	125979.72						
1135.84	172.00	4607.21	7.31	4.44	6.79	7710.50	0.44	0.002773
		255.89				251.67	34.42	
	0.76800	125832.55						
1122.74	173.00	4607.17	7.27	4.41	6.75	7583.31	0.44	0.002776
		254.66				250.46	34.45	
	0.76373	125230.23						
1121.18	174.00	4607.16	7.26	4.41	6.75	7569.09	0.44	0.002776
		254.51				250.32	34.46	
	0.76303	125159.20						
1121.13	175.00	4607.16	7.26	4.41	6.75	7569.10	0.44	0.002776
		254.51				250.31	34.46	
	0.76308	125156.66						
1121.12	176.00	4607.16	7.26	4.41	6.75	7568.89	0.44	0.002776
		254.51				250.31	34.46	
	0.76314	125156.43						
1121.10	177.00	4607.16	7.26	4.40	6.75	7569.03	0.44	0.002777
		254.51				250.31	34.46	
	0.76328	125155.16						
1121.16	178.00	4607.16	7.26	4.41	6.75	7568.93	0.44	0.002777
		254.51				250.32	34.46	
	0.76331	125158.36						
1127.56	179.00	4607.19	7.29	4.42	6.77	7634.24	0.44	0.002776
		255.12				250.91	34.44	
	0.76550	125454.73						
1153.62	180.00	4607.27	7.37	4.48	6.84	7888.52	0.44	0.002769
		257.57				253.30	34.38	
	0.77381	126647.84						
1160.04	181.00	4607.29	7.39	4.49	6.85	7949.90	0.44	0.002768
		258.16				253.88	34.36	
	0.77610	126938.42						
1173.07	182.00	4607.33	7.43	4.52	6.89	8077.08	0.45	0.002764
		259.37				255.05	34.33	
	0.78006	127527.17						
1174.65	183.00	4607.33	7.44	4.53	6.89	8091.04	0.45	0.002765
		259.51				255.19	34.32	
	0.78084	127597.20						
1174.62	184.00	4607.33	7.43	4.53	6.89	8090.71	0.45	0.002765
		259.51				255.19	34.32	
	0.78095	127596.00						
1174.66	185.00	4607.33	7.44	4.53	6.89	8091.28	0.45	0.002764
		259.51				255.20	34.32	
	0.78080	127597.64						
1174.61	186.00	4607.33	7.43	4.53	6.89	8090.79	0.45	0.002765
		259.51				255.19	34.32	
	0.78097	127595.55						
1174.65	187.00	4607.33	7.44	4.53	6.89	8091.02	0.45	0.002765
		259.51				255.19	34.32	
	0.78084	127597.20						
1174.61	188.00	4607.33	7.43	4.53	6.89	8091.14	0.45	0.002764
		259.51				255.19	34.32	
	0.78059	127595.54						
1174.66	189.00	4607.33	7.44	4.53	6.89	8090.85	0.45	0.002765
		259.52				255.20	34.32	
	0.78099	127597.88						
1171.41	190.00	4607.32	7.42	4.52	6.88	8058.16	0.45	0.002765
		259.21				254.90	34.33	

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## HYCHAN.OUT

0.77971	127449.87							
191.00	4607.28	7.38	6.85	7931.28	0.44			
1158.38	258.00	4.49	253.72	34.36	0.002769			
0.77574	126861.30							
192.00	4607.28	7.38	6.84	7916.76	0.44			
1156.80	257.86	4.49	253.58	34.37	0.002769			
0.77521	126790.95							
193.00	4607.28	7.38	6.84	7917.10	0.44			
1156.79	257.86	4.49	253.58	34.37	0.002769			
0.77509	126790.48							
194.00	4607.28	7.38	6.84	7917.01	0.44			
1156.77	257.86	4.49	253.58	34.37	0.002768			
0.77490	126789.24							
195.00	4607.28	7.38	6.84	7916.87	0.44			
1156.77	257.86	4.49	253.58	34.37	0.002770			
0.77529	126789.37							
196.00	4607.28	7.38	6.84	7917.13	0.44			
1156.79	257.86	4.49	253.58	34.37	0.002769			
0.77513	126790.42							
197.00	4607.28	7.38	6.84	7916.95	0.44			
1156.76	257.86	4.49	253.58	34.37	0.002769			
0.77514	126788.76							
198.00	4607.28	7.38	6.84	7916.90	0.44			
1156.76	257.86	4.49	253.58	34.37	0.002769			
0.77502	126789.23							
199.00	4607.28	7.38	6.84	7917.17	0.44			
1156.79	257.86	4.49	253.58	34.37	0.002768			
0.77498	126790.09							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 327

MAXIMUM DISCHARGE (CFS) = 21583.32 AT TIME = 79.51  
 MAXIMUM STAGE = 4608.69 AT TIME = 79.81

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE AREA					
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)			
0.00	0.00	4597.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4597.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
879.53	2.00	4603.30	6.00	5.05	4443.57	0.36	
	0.69334	216.67	4.06	213.39	35.59	0.002737	
984.90	3.00	4604.11	6.81	5.59	5506.30	0.38	
	0.69776	241.10	4.08	237.23	34.83	0.002737	
970.60	4.00	4604.06	6.76	5.56	5393.68	0.38	
	0.69335	239.63	4.05	235.80	34.88	0.002743	
965.54	5.00	4604.04	6.74	5.55	5354.32	0.38	
	0.69184	239.11	4.04	235.29	34.89	0.002746	
948.54	6.00	4603.98	6.68	5.50	5219.22	0.38	
	0.68641	237.34	4.00	233.56	34.94	0.002752	
		128458.98					

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HYCHAN.OUT							
929.21	7.00	4603.92	6.62	5.45	5067.59	0.37	
	0.67945	235.31	3.95		231.58	35.00	0.002757
	8.00	127367.79					
909.91		4603.85	6.55	5.40	4917.93	0.37	
	0.67298	233.25	3.90		229.57	35.06	0.002765
	9.00	126265.30					
892.97		4603.79	6.49	5.36	4789.02	0.37	
	0.66717	231.43	3.86		227.80	35.12	0.002771
	10.00	125289.84					
887.88		4603.77	6.47	5.35	4749.92	0.37	
	0.66510	230.88	3.85		227.26	35.14	0.002772
	11.00	124993.16					
870.46		4603.70	6.40	5.30	4616.81	0.37	
	0.65914	228.97	3.80		225.40	35.19	0.002779
	12.00	123968.48					
852.98		4603.64	6.34	5.26	4486.72	0.37	
	0.65285	227.05	3.76		223.52	35.25	0.002785
	13.00	122934.55					
850.48		4603.63	6.33	5.25	4468.95	0.37	
	0.65180	226.77	3.75		223.25	35.26	0.002785
	14.00	122787.40					
850.50		4603.63	6.33	5.25	4469.02	0.37	
	0.65162	226.78	3.75		223.25	35.26	0.002784
	15.00	122788.74					
850.49		4603.63	6.33	5.25	4468.99	0.37	
	0.65178	226.78	3.75		223.25	35.26	0.002785
	16.00	122788.36					
850.52		4603.63	6.33	5.25	4469.03	0.37	
	0.65165	226.78	3.75		223.25	35.26	0.002784
	17.00	122789.66					
853.27		4603.64	6.34	5.26	4490.29	0.37	
	0.65246	227.09	3.76		223.56	35.25	0.002783
	18.00	122955.36					
871.23		4603.71	6.41	5.31	4625.44	0.37	
	0.65868	229.07	3.80		225.49	35.19	0.002775
	19.00	124021.59					
891.14		4603.78	6.48	5.36	4777.20	0.37	
	0.66578	231.24	3.85		227.61	35.13	0.002769
	20.00	125187.38					
908.13		4603.84	6.54	5.40	4907.31	0.37	
	0.67214	233.07	3.90		229.40	35.07	0.002765
	21.00	126169.45					
910.29		4603.85	6.55	5.41	4923.85	0.37	
	0.67312	233.30	3.90		229.62	35.06	0.002765
	22.00	126292.59					
913.16		4603.86	6.56	5.42	4946.61	0.37	
	0.67345	233.61	3.91		229.92	35.05	0.002761
	23.00	126458.65					
933.57		4603.93	6.63	5.47	5106.58	0.37	
	0.68033	235.78	3.96		232.04	34.99	0.002754
	24.00	127622.03					
970.34		4604.06	6.76	5.56	5396.89	0.38	
	0.69253	239.61	4.05		235.78	34.88	0.002741
	25.00	129680.29					
1008.49		4604.19	6.89	5.65	5702.98	0.38	
	0.70521	243.50	4.14		239.58	34.76	0.002729
	26.00	131767.72					
1039.80		4604.30	7.00	5.73	5956.18	0.38	
	0.71530	246.63	4.22		242.63	34.67	0.002719
	27.00	133446.89					
1043.63		4604.31	7.01	5.73	5985.04	0.38	
	0.71699	247.01	4.23		243.00	34.66	0.002720
		133648.20					

HYCHAN.OUT							
1046.90	28.00	4604.32	7.02	5.74	6013.39	0.38	
	0.71754	247.33	4.23	243.31	34.66	0.002717	
	29.00	4604.37	7.07	5.78	6136.13	0.38	
1061.85		248.80	4.27	244.75	34.61	0.002713	
	0.72244	134611.11					
1063.94	30.00	4604.38	7.08	5.78	6152.09	0.38	
	0.72293	249.00	4.27	244.94	34.61	0.002711	
	31.00	4604.39	7.09	5.79	6181.87	0.38	
1067.35		249.34	4.28	245.27	34.60	0.002711	
	0.72427	134899.50					
1082.70	32.00	4604.44	7.14	5.83	6309.82	0.38	
	0.72880	250.83	4.32	246.73	34.56	0.002706	
	33.00	4604.45	7.15	5.83	6326.07	0.38	
1084.80		251.03	4.32	246.92	34.55	0.002706	
	0.72972	135806.89					
1081.50	34.00	4604.44	7.14	5.82	6296.25	0.38	
	0.72824	250.71	4.31	246.61	34.56	0.002705	
	35.00	4604.38	7.08	5.79	6168.12	0.38	
1066.06		249.21	4.28	245.14	34.60	0.002712	
	0.72404	134828.72					
1060.64	36.00	4604.37	7.07	5.77	6123.51	0.38	
	0.72224	248.68	4.27	244.62	34.62	0.002714	
	37.00	4604.32	7.02	5.74	6000.61	0.38	
1045.71		247.21	4.23	243.19	34.66	0.002719	
	0.71777	133756.94					
1043.65	38.00	4604.31	7.01	5.73	5985.04	0.38	
	0.71685	247.01	4.23	243.00	34.66	0.002719	
	39.00	4604.31	7.01	5.73	5985.04	0.38	
1043.64		247.01	4.23	243.00	34.66	0.002719	
	0.71698	133648.62					
1043.64	40.00	4604.31	7.01	5.73	5984.97	0.38	
	0.71692	247.01	4.23	243.00	34.66	0.002719	
	41.00	4604.31	7.01	5.73	5985.00	0.38	
1043.62		247.01	4.23	243.00	34.66	0.002719	
	0.71693	133648.05					
1046.88	42.00	4604.32	7.02	5.74	6013.57	0.38	
	0.71716	247.33	4.23	243.31	34.66	0.002715	
	43.00	4604.37	7.07	5.78	6136.40	0.38	
1061.88		248.81	4.27	244.75	34.61	0.002712	
	0.72231	134612.50					
1067.34	44.00	4604.39	7.09	5.79	6181.85	0.38	
	0.72416	249.34	4.28	245.27	34.60	0.002711	
	45.00	4604.45	7.15	5.84	6340.17	0.38	
1086.11		251.16	4.32	247.05	34.55	0.002704	
	0.72960	135877.22					
1106.92	46.00	4604.52	7.22	5.89	6514.84	0.39	
	0.73617	253.16	4.37	249.00	34.49	0.002698	
	47.00	4604.58	7.28	5.93	6688.83	0.39	
1127.27		255.09	4.42	250.88	34.44	0.002691	
	0.74216	137986.19					
1147.65	48.00	4604.65	7.35	5.98	6861.34	0.39	
	0.74847	257.01	4.47	252.75	34.39	0.002686	
		139014.48					

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HYCHAN.OUT							
49.00	4604.72	7.42	6.01	7034.96	0.39		
1171.09	259.19	4.52	254.88	34.33	0.002680		
0.75569	140182.58						
50.00	4604.80	7.50	6.06	7238.36	0.39		
1194.64	261.35	4.57	256.99	34.27	0.002666		
0.76030	141343.50						
51.00	4604.90	7.60	6.12	7510.56	0.39		
1227.89	264.37	4.64	259.93	34.20	0.002653		
0.76885	142959.16						
52.00	4604.92	7.62	6.13	7573.71	0.39		
1235.64	265.06	4.66	260.60	34.18	0.002649		
0.77045	143331.81						
53.00	4605.01	7.71	6.18	7799.91	0.39		
1262.00	267.41	4.72	262.89	34.12	0.002630		
0.77442	144590.27						
54.00	4605.21	7.91	6.29	8369.43	0.39		
1330.06	273.33	4.87	268.67	33.97	0.002587		
0.78548	147766.83						
55.00	4605.49	8.19	6.45	9194.63	0.40		
1425.83	281.38	5.07	276.51	33.77	0.002563		
0.81035	152079.16						
56.00	4605.78	8.48	6.75	10333.99	0.41		
1531.67	289.89	5.28	284.80	33.57	0.002579		
0.85022	156641.03						
57.00	4606.15	8.85	7.05	11757.74	0.42		
1668.37	300.45	5.55	295.09	33.33	0.002551		
0.88406	162300.95						
58.00	4606.44	9.14	7.25	12886.12	0.42		
1777.46	308.52	5.76	302.95	33.15	0.002530		
0.90950	166620.48						
59.00	4606.71	9.41	7.43	14009.35	0.43		
1885.03	316.18	5.96	310.40	32.99	0.002485		
0.92439	170720.75						
60.00	4607.03	9.73	7.61	15351.61	0.43		
2016.79	325.24	6.20	319.22	32.81	0.002437		
0.94283	175571.83						
61.00	4607.24	9.94	7.69	16193.27	0.43		
2104.56	331.08	6.36	324.91	32.69	0.002385		
0.94606	178698.33						
62.00	4607.43	10.13	7.77	16992.01	0.43		
2186.05	336.37	6.50	330.06	32.59	0.002351		
0.95324	181532.69						
63.00	4607.55	10.25	7.82	17498.88	0.43		
2237.77	339.69	6.59	333.29	32.52	0.002314		
0.95141	183308.33						
64.00	4607.72	10.42	7.89	18151.94	0.43		
2300.55	341.63	6.73	337.92	32.43	0.002288		
0.96146	185858.31						
65.00	4607.85	10.55	7.94	18612.98	0.43		
2343.89	341.88	6.86	341.31	32.37	0.002280		
0.97541	187721.94						
66.00	4607.86	10.56	7.95	18663.59	0.43		
2349.09	341.91	6.87	341.73	32.36	0.002280		
0.97749	187950.28						
67.00	4607.86	10.56	7.94	18666.90	0.43		
2349.53	341.92	6.87	341.76	32.36	0.002273		
0.97477	187969.30						
68.00	4607.86	10.56	7.94	18667.31	0.43		
2349.72	341.92	6.87	341.78	32.36	0.002278		
0.97693	187977.81						
69.00	4607.86	10.56	7.95	18674.37	0.43		
2350.29	341.92	6.87	341.82	32.36	0.002275		
0.97597	188003.30						

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HYCHAN.OUT							
2350.81	70.00	4607.87	10.57	6.88	7.95	18678.88	0.43
	0.97687	341.92				341.87	32.36
		188026.02					0.002277
2350.68	71.00	4607.87	10.57	6.87	7.95	18678.62	0.43
	0.97617	341.92				341.86	32.36
		188020.42					0.002276
2354.77	72.00	4607.88	10.58	6.89	7.95	18728.94	0.43
	0.97622	341.95				342.19	32.35
		188203.75					0.002272
2376.15	73.00	4607.94	10.64	6.95	7.98	18971.48	0.43
	0.97920	342.08				343.92	32.32
		189156.28					0.002259
2383.03	74.00	4607.96	10.66	6.97	7.99	19039.62	0.43
	0.98105	342.12				344.47	32.31
		189459.30					0.002257
2386.63	75.00	4607.97	10.67	6.98	8.00	19085.29	0.43
	0.98079	342.14				344.77	32.30
		189620.86					0.002253
2415.90	76.00	4608.06	10.76	7.06	8.04	19430.81	0.43
	0.98253	342.32				347.13	32.26
		190923.89					0.002231
2468.95	77.00	4608.22	10.92	7.21	8.12	20036.83	0.43
	0.98909	342.64				351.41	32.18
		193275.66					0.002200
2508.21	78.00	4608.34	11.04	7.32	8.16	20474.36	0.43
	0.99814	342.87				354.56	32.12
		195008.50					0.002187
2544.92	79.00	4608.45	11.15	7.42	8.21	20906.10	0.43
	1.00732	343.09				357.50	32.06
		196624.66					0.002176
2604.64	80.00	4608.63	11.33	7.58	8.22	21403.56	0.43
	1.01764	343.45				362.28	31.98
		199255.45					0.002150
2598.40	81.00	4608.61	11.31	7.57	8.17	21236.01	0.43
	1.02197	343.41				361.75	31.99
		198962.67					0.002165
2549.87	82.00	4608.46	11.16	7.43	8.21	20924.35	0.43
	1.00906	343.12				357.87	32.06
		196831.12					0.002176
2543.45	83.00	4608.44	11.14	7.41	8.20	20862.29	0.43
	1.00677	343.08				357.37	32.07
		196552.25					0.002176
2542.96	84.00	4608.44	11.14	7.41	8.20	20858.24	0.43
	1.00685	343.08				357.33	32.07
		196531.31					0.002177
2537.31	85.00	4608.43	11.13	7.40	8.19	20778.29	0.43
	1.00468	343.04				356.87	32.08
		196278.08					0.002177
2494.73	86.00	4608.30	11.00	7.28	8.12	20258.40	0.43
	0.99883	342.79				353.44	32.14
		194390.33					0.002199
2410.58	87.00	4608.04	10.74	7.04	8.00	19280.46	0.43
	0.99163	342.28				346.65	32.26
		190655.52					0.002256
2297.92	88.00	4607.71	10.41	6.73	7.85	18036.97	0.43
	0.97815	341.62				337.71	32.44
		185740.78					0.002330
2128.91	89.00	4607.29	9.99	6.40	7.68	16354.94	0.43
	0.96295	332.63				326.42	32.66
		179528.66					0.002411
2026.27	90.00	4607.05	9.75	6.22	7.60	15394.83	0.43
	0.95135	325.85				319.82	32.79
		175899.39					0.002452

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		HYCHAN.OUT					
1944.28	91.00 4606.85	9.55	7.49	14560.69	0.43		
	0.94280 320.27	6.07		314.38	32.91	0.002489	
1845.24	92.00 4606.61	9.31	7.35	13556.98	0.42		
	0.92669 313.35	5.89		307.65	33.05	0.002522	
1769.06	93.00 4606.42	9.12	7.22	12767.18	0.42		
	0.90918 307.89	5.75		302.33	33.17	0.002536	
1702.70	94.00 4606.24	8.94	7.10	12081.08	0.42		
	0.89354 303.02	5.62		297.59	33.27	0.002548	
1652.27	95.00 4606.11	8.81	7.00	11562.55	0.42		
	0.88142 299.24	5.52		293.91	33.36	0.002558	
1600.34	96.00 4605.97	8.67	6.89	11029.37	0.41		
	0.86909 295.28	5.42		290.05	33.45	0.002570	
1562.11	97.00 4605.87	8.57	6.82	10652.24	0.41		
	0.85943 292.31	5.34		287.16	33.52	0.002577	
1523.48	98.00 4605.76	8.46	6.74	10271.29	0.41		
	0.84893 289.27	5.27		284.20	33.59	0.002583	
1501.50	99.00 4605.70	8.40	6.66	10007.42	0.41		
	0.83803 287.52	5.22		282.50	33.63	0.002572	
1471.44	100.00 4605.62	8.32	6.56	9645.75	0.40		
	0.82041 285.11	5.16		280.14	33.68	0.002547	
1445.13	101.00 4605.54	8.24	6.46	9337.97	0.40		
	0.81226 282.96	5.11		278.05	33.73	0.002549	
1414.23	102.00 4605.45	8.15	6.41	9058.72	0.40		
	0.80608 280.42	5.04		275.58	33.79	0.002561	
1389.89	103.00 4605.38	8.08	6.37	8849.92	0.39		
	0.80134 278.40	4.99		273.60	33.84	0.002572	
1362.92	104.00 4605.31	8.01	6.32	8614.07	0.39		
	0.79779 276.12	4.94		271.39	33.90	0.002590	
1321.54	105.00 4605.18	7.88	6.26	8273.10	0.39		
	0.78949 272.59	4.85		267.95	33.99	0.002610	
1297.15	106.00 4605.11	7.81	6.23	8075.90	0.39		
	0.78473 270.48	4.80		265.89	34.04	0.002622	
1275.96	107.00 4605.05	7.75	6.19	7902.13	0.39		
	0.78013 268.63	4.75		264.08	34.09	0.002632	
1258.40	108.00 4604.99	7.69	6.17	7758.78	0.39		
	0.77588 267.08	4.71		262.58	34.13	0.002639	
1259.65	109.00 4605.00	7.70	6.17	7774.16	0.39		
	0.77525 267.20	4.71		262.69	34.12	0.002635	
1282.25	110.00 4605.07	7.77	6.21	7965.09	0.39		
	0.77954 269.19	4.76		264.63	34.07	0.002623	
1312.31	111.00 4605.16	7.86	6.25	8206.97	0.39		
	0.78646 271.81	4.83		267.18	34.01	0.002610	

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HYCHAN.OUT							
1297.19	112.00	4605.11	7.81	6.23	8075.54	0.39	0.002621
	0.78448	270.49	4.80	265.89	34.04		
		146241.42					
1286.42	113.00	4605.08	7.78	6.22	7995.63	0.39	0.002622
	0.78071	269.56	4.77	264.99	34.06		
		145742.12					
1324.16	114.00	4605.19	7.89	6.28	8312.10	0.39	0.002597
	0.78646	272.83	4.85	268.18	33.98		
		147499.30					
1359.83	115.00	4605.30	8.00	6.32	8599.13	0.39	0.002586
	0.79552	275.88	4.93	271.15	33.91		
		149129.92					
1346.89	116.00	4605.26	7.96	6.30	8487.21	0.39	0.002594
	0.79355	274.77	4.90	270.07	33.93		
		148538.78					
1344.49	117.00	4605.25	7.95	6.30	8469.81	0.39	0.002594
	0.79250	274.57	4.90	269.87	33.94		
		148430.44					
1348.60	118.00	4605.26	7.96	6.31	8506.90	0.39	0.002589
	0.79262	274.92	4.91	270.22	33.93		
		148619.25					
1366.19	119.00	4605.32	8.02	6.33	8653.20	0.39	0.002581
	0.79606	276.42	4.94	271.67	33.89		
		149419.16					
1368.61	120.00	4605.32	8.02	6.33	8669.93	0.39	0.002581
	0.79697	276.62	4.95	271.87	33.89		
		149527.39					
1364.60	121.00	4605.31	8.01	6.33	8633.07	0.39	0.002585
	0.79659	276.27	4.94	271.53	33.90		
		149343.86					
1346.88	122.00	4605.26	7.96	6.30	8487.37	0.39	0.002593
	0.79322	274.77	4.90	270.07	33.93		
		148538.34					
1340.44	123.00	4605.24	7.94	6.29	8433.50	0.39	0.002599
	0.79265	274.22	4.89	269.53	33.95		
		148243.11					
1322.69	124.00	4605.19	7.89	6.27	8287.47	0.39	0.002606
	0.78873	272.70	4.85	268.05	33.98		
		147427.81					
1320.27	125.00	4605.18	7.88	6.26	8269.75	0.39	0.002606
	0.78780	272.49	4.85	267.85	33.99		
		147317.31					
1316.68	126.00	4605.17	7.87	6.26	8237.79	0.39	0.002612
	0.78834	272.18	4.84	267.54	34.00		
		147149.11					
1300.55	127.00	4605.12	7.82	6.23	8106.91	0.39	0.002619
	0.78479	270.78	4.80	266.18	34.03		
		146400.44					
1298.44	128.00	4605.12	7.82	6.23	8091.11	0.39	0.002619
	0.78409	270.60	4.80	266.01	34.04		
		146303.69					
1294.85	129.00	4605.10	7.80	6.22	8059.77	0.39	0.002622
	0.78393	270.29	4.79	265.70	34.04		
		146134.06					
1279.40	130.00	4605.06	7.76	6.20	7932.65	0.39	0.002629
	0.78038	268.94	4.76	264.38	34.08		
		145409.84					
1284.35	131.00	4605.07	7.77	6.21	7980.44	0.39	0.002621
	0.77966	269.38	4.77	264.81	34.07		
		145645.78					
1315.97	132.00	4605.17	7.87	6.26	8239.24	0.39	0.002607
	0.78673	272.13	4.84	267.49	34.00		
		147119.95					

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HYCHAN.OUT							
1320.23	133.00	4605.18	7.88	4.85	6.26	8269.98	0.39
	0.78816	272.49				267.85	33.99
		147315.31					0.002607
1320.34	134.00	4605.18	7.88	4.85	6.26	8270.00	0.39
	0.78806	272.50				267.86	33.99
		147320.47					0.002606
1320.27	135.00	4605.18	7.88	4.85	6.26	8269.95	0.39
	0.78834	272.49				267.85	33.99
		147317.33					0.002607
1320.28	136.00	4605.18	7.88	4.85	6.26	8270.10	0.39
	0.78788	272.50				267.85	33.99
		147317.75					0.002606
1320.22	137.00	4605.18	7.88	4.85	6.26	8270.14	0.39
	0.78830	272.49				267.85	33.99
		147315.00					0.002607
1320.24	138.00	4605.18	7.88	4.85	6.26	8269.71	0.39
	0.78840	272.49				267.85	33.99
		147315.69					0.002608
1316.66	139.00	4605.17	7.87	4.84	6.26	8238.07	0.39
	0.78819	272.18				267.54	34.00
		147148.22					0.002611
1300.58	140.00	4605.12	7.82	4.80	6.23	8106.86	0.39
	0.78484	270.79				266.19	34.03
		146401.81					0.002619
1298.28	141.00	4605.11	7.81	4.80	6.23	8090.82	0.39
	0.78406	270.59				265.99	34.04
		146295.98					0.002619
1298.36	142.00	4605.11	7.81	4.80	6.23	8090.98	0.39
	0.78370	270.60				266.00	34.04
		146299.62					0.002618
1298.41	143.00	4605.11	7.82	4.80	6.23	8091.06	0.39
	0.78407	270.60				266.00	34.04
		146301.97					0.002619
1294.94	144.00	4605.10	7.80	4.79	6.22	8059.63	0.39
	0.78405	270.29				265.71	34.04
		146138.06					0.002623
1279.42	145.00	4605.06	7.76	4.76	6.20	7932.95	0.39
	0.78043	268.94				264.38	34.08
		145410.81					0.002629
1277.18	146.00	4605.05	7.75	4.75	6.20	7916.86	0.39
	0.77967	268.74				264.19	34.08
		145306.92					0.002629
1277.21	147.00	4605.05	7.75	4.75	6.20	7916.91	0.39
	0.77981	268.75				264.20	34.08
		145308.16					0.002630
1277.22	148.00	4605.05	7.75	4.75	6.20	7916.99	0.39
	0.77978	268.75				264.20	34.08
		145308.56					0.002629
1277.18	149.00	4605.05	7.75	4.75	6.20	7917.17	0.39
	0.77961	268.74				264.19	34.08
		145306.55					0.002629
1274.78	150.00	4605.04	7.74	4.75	6.19	7896.16	0.39
	0.77953	268.53				263.99	34.09
		145192.14					0.002632
1263.41	151.00	4605.01	7.71	4.72	6.17	7801.17	0.39
	0.77721	267.53				263.01	34.11
		144654.02					0.002637
1256.96	152.00	4604.99	7.69	4.71	6.16	7748.13	0.39
	0.77566	266.96				262.45	34.13
		144349.06					0.002640
1256.27	153.00	4604.99	7.69	4.71	6.16	7743.08	0.39
	0.77527	266.90				262.39	34.13
		144316.77					0.002640

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HYCHAN.OUT							
1252.90	154.00	4604.98	7.68	4.70	6.16	7712.19	0.39
	0.77521	266.60				262.10	34.14
		144154.55					0.002643
1244.41	155.00	4604.95	7.65	4.68	6.14	7646.51	0.39
	0.77187	265.84				261.37	34.16
		143751.62					0.002643
1272.95	156.00	4605.04	7.74	4.74	6.20	7886.16	0.39
	0.77790	268.38				263.83	34.09
		145108.81					0.002628
1277.15	157.00	4605.05	7.75	4.75	6.20	7916.84	0.39
	0.77948	268.74				264.19	34.08
		145305.41					0.002629
1277.10	158.00	4605.05	7.75	4.75	6.20	7917.11	0.39
	0.77959	268.74				264.19	34.08
		145302.83					0.002629
1277.04	159.00	4605.05	7.75	4.75	6.20	7916.79	0.39
	0.77986	268.73				264.18	34.08
		145299.92					0.002630
1277.20	160.00	4605.05	7.75	4.75	6.20	7917.05	0.39
	0.77959	268.75				264.20	34.08
		145307.52					0.002629
1277.16	161.00	4605.05	7.75	4.75	6.20	7917.06	0.39
	0.77953	268.74				264.19	34.08
		145305.53					0.002629
1277.09	162.00	4605.05	7.75	4.75	6.20	7917.05	0.39
	0.77967	268.74				264.19	34.08
		145302.36					0.002629
1277.04	163.00	4605.05	7.75	4.75	6.20	7916.93	0.39
	0.77950	268.73				264.18	34.08
		145300.23					0.002629
1273.69	164.00	4605.04	7.74	4.74	6.19	7885.84	0.39
	0.77998	268.43				263.89	34.09
		145140.20					0.002634
1258.31	165.00	4604.99	7.69	4.71	6.17	7758.74	0.39
	0.77623	267.08				262.57	34.13
		144412.27					0.002640
1256.26	166.00	4604.99	7.69	4.71	6.16	7743.07	0.39
	0.77536	266.90				262.39	34.13
		144316.45					0.002640
1256.24	167.00	4604.99	7.69	4.71	6.16	7743.10	0.39
	0.77520	266.90				262.39	34.13
		144315.44					0.002639
1256.24	168.00	4604.99	7.69	4.71	6.16	7742.68	0.39
	0.77577	266.90				262.39	34.13
		144315.53					0.002641
1256.27	169.00	4604.99	7.69	4.71	6.16	7743.30	0.39
	0.77528	266.90				262.39	34.13
		144316.81					0.002640
1256.32	170.00	4604.99	7.69	4.71	6.16	7743.08	0.39
	0.77498	266.90				262.40	34.13
		144318.86					0.002639
1256.28	171.00	4604.99	7.69	4.71	6.16	7742.83	0.39
	0.77518	266.90				262.39	34.13
		144316.92					0.002639
1252.86	172.00	4604.98	7.68	4.70	6.16	7712.11	0.39
	0.77509	266.59				262.10	34.14
		144152.25					0.002643
1237.57	173.00	4604.93	7.63	4.67	6.13	7584.58	0.39
	0.77223	265.23				260.77	34.17
		143421.67					0.002652
1235.48	174.00	4604.92	7.62	4.66	6.13	7569.12	0.39
	0.77075	265.04				260.59	34.18
		143322.66					0.002650

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HYCHAN.OUT									
1235.36	175.00	4604.92	7.62	4.66	6.13	260.58	7569.08	34.18	0.002649
	0.77051	265.03							
		143317.20							
1235.40	176.00	4604.92	7.62	4.66	6.13	260.58	7568.98	34.18	0.002649
	0.77061	265.04							
		143318.66							
1235.37	177.00	4604.92	7.62	4.66	6.13	260.58	7568.96	34.18	0.002651
	0.77111	265.03							
		143317.70							
1235.46	178.00	4604.92	7.62	4.66	6.13	260.59	7568.96	34.18	0.002651
	0.77108	265.04							
		143321.81							
1242.29	179.00	4604.94	7.65	4.68	6.14	261.18	7630.90	34.16	0.002643
	0.77133	265.66							
		143650.95							
1272.85	180.00	4605.04	7.74	4.74	6.20	263.83	7885.89	34.09	0.002630
	0.77837	268.37							
		145104.55							
1280.71	181.00	4605.06	7.76	4.76	6.21	264.50	7948.18	34.08	0.002625
	0.77967	269.06							
		145474.14							
1296.27	182.00	4605.11	7.81	4.79	6.23	265.82	8075.81	34.04	0.002619
	0.78330	270.42							
		146203.22							
1298.41	183.00	4605.11	7.82	4.80	6.23	266.00	8091.06	34.04	0.002619
	0.78414	270.60							
		146302.12							
1298.40	184.00	4605.11	7.82	4.80	6.23	266.00	8090.73	34.04	0.002619
	0.78407	270.60							
		146301.72							
1298.42	185.00	4605.11	7.82	4.80	6.23	266.00	8091.22	34.04	0.002618
	0.78399	270.60							
		146302.58							
1298.33	186.00	4605.11	7.81	4.80	6.23	266.00	8090.85	34.04	0.002619
	0.78408	270.59							
		146298.34							
1298.43	187.00	4605.12	7.82	4.80	6.23	266.01	8091.04	34.04	0.002618
	0.78392	270.60							
		146303.09							
1298.40	188.00	4605.11	7.82	4.80	6.23	266.00	8091.09	34.04	0.002618
	0.78385	270.60							
		146301.61							
1298.43	189.00	4605.12	7.82	4.80	6.23	266.01	8090.88	34.04	0.002619
	0.78416	270.60							
		146302.89							
1294.86	190.00	4605.10	7.80	4.79	6.22	265.70	8059.82	34.04	0.002622
	0.78391	270.29							
		146134.50							
1279.30	191.00	4605.06	7.76	4.76	6.20	264.37	7932.61	34.08	0.002629
	0.78047	268.93							
		145405.12							
1277.20	192.00	4605.05	7.75	4.75	6.20	264.20	7916.78	34.08	0.002630
	0.77987	268.75							
		145307.77							
1277.19	193.00	4605.05	7.75	4.75	6.20	264.19	7917.08	34.08	0.002629
	0.77970	268.75							
		145307.09							
1277.09	194.00	4605.05	7.75	4.75	6.20	264.19	7917.01	34.08	0.002629
	0.77961	268.74							
		145302.42							
1277.15	195.00	4605.05	7.75	4.75	6.20	264.19	7916.90	34.08	0.002629
	0.77962	268.74							
		145305.08							

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HYCHAN.OUT							
1277.17	196.00	4605.05	7.75	6.20	7917.10	0.39	0.002630
	0.77996	268.74	4.75	264.19	34.08		
		145306.25					
1277.11	197.00	4605.05	7.75	6.20	7917.02	0.39	0.002629
	0.77960	268.74	4.75	264.19	34.08		
		145303.52					
1277.11	198.00	4605.05	7.75	6.20	7916.84	0.39	0.002629
	0.77973	268.74	4.75	264.19	34.08		
		145303.33					
1277.18	199.00	4605.05	7.75	6.20	7917.15	0.39	0.002629
	0.77976	268.74	4.75	264.19	34.08		
		145306.56					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 345

MAXIMUM DISCHARGE (CFS) = 21667.17 AT TIME = 79.91  
 MAXIMUM STAGE = 4607.50 AT TIME = 79.86

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4594.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4594.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
934.50	2.00	4601.06	6.26	4.54	4244.29	0.32		
	0.49277	224.75	4.16	220.46	35.20			0.001899
1064.05	3.00	4602.28	7.48	5.18	5508.14	0.33		
	0.48397	260.71	4.08	255.33	34.15			0.001900
1048.46	4.00	4602.22	7.42	5.15	5395.52	0.33		
	0.48132	259.08	4.05	253.75	34.20			0.001906
1042.94	5.00	4602.20	7.40	5.14	5356.19	0.33		
	0.48075	258.50	4.03	253.19	34.21			0.001910
1024.52	6.00	4602.13	7.33	5.10	5223.00	0.33		
	0.47905	256.53	3.99	251.29	34.27			0.001922
1003.16	7.00	4602.06	7.26	5.06	5071.26	0.33		
	0.47562	254.24	3.95	249.06	34.33			0.001932
981.92	8.00	4601.98	7.18	5.01	4921.74	0.33		
	0.47268	251.93	3.90	246.83	34.39			0.001944
962.88	9.00	4601.91	7.11	4.98	4790.96	0.33		
	0.46990	249.85	3.85	244.80	34.45			0.001954
957.24	10.00	4601.88	7.08	4.96	4751.82	0.33		
	0.46917	249.22	3.84	244.20	34.47			0.001958
938.47	11.00	4601.81	7.01	4.92	4620.70	0.33		
	0.46668	247.12	3.80	242.16	34.53			0.001969
	12.00	4601.74	6.94	4.88	4488.67	0.33		

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		HYCHAN.OUT					
918.99	244.93	3.75	240.04	34.59	0.001977		
0.46297	124818.53						
13.00	4601.73	6.93	4.88	4468.96	0.33		
916.14	244.61	3.75	239.73	34.60	0.001978		
0.46219	124657.70						
14.00	4601.73	6.93	4.88	4469.04	0.33		
916.13	244.61	3.75	239.72	34.60	0.001977		
0.46204	124656.87						
15.00	4601.73	6.93	4.88	4468.96	0.33		
916.15	244.61	3.75	239.73	34.60	0.001977		
0.46210	124658.34						
16.00	4601.73	6.93	4.88	4469.04	0.33		
916.14	244.61	3.75	239.73	34.60	0.001977		
0.46212	124657.53						
17.00	4601.74	6.94	4.88	4488.25	0.33		
919.05	244.94	3.75	240.05	34.59	0.001970		
0.46134	124826.22						
18.00	4601.81	7.02	4.92	4621.59	0.33		
938.68	247.16	3.80	242.20	34.53	0.001959		
0.46421	125943.65						
19.00	4601.90	7.10	4.97	4773.36	0.33		
960.54	249.60	3.85	244.56	34.46	0.001946		
0.46742	127171.62						
20.00	4601.97	7.17	5.01	4905.53	0.33		
979.35	251.67	3.89	246.57	34.40	0.001941		
0.47145	128214.69						
21.00	4601.98	7.18	5.02	4923.84	0.33		
981.66	251.92	3.90	246.81	34.39	0.001941		
0.47191	128340.57						
22.00	4601.99	7.19	5.02	4944.58	0.33		
984.76	252.26	3.90	247.14	34.38	0.001935		
0.47130	128512.77						
23.00	4602.07	7.27	5.07	5100.78	0.33		
1007.03	254.67	3.95	249.48	34.32	0.001918		
0.47337	129730.96						
24.00	4602.22	7.42	5.15	5389.45	0.33		
1047.27	258.96	4.04	253.64	34.20	0.001897		
0.47861	131890.84						
25.00	4602.36	7.57	5.23	5695.69	0.34		
1089.13	263.32	4.14	257.86	34.09	0.001875		
0.48398	134087.17						
26.00	4602.49	7.69	5.30	5952.81	0.34		
1124.06	266.89	4.21	261.31	33.99	0.001862		
0.48926	135883.33						
27.00	4602.50	7.70	5.30	5985.03	0.34		
1128.73	267.35	4.22	261.77	33.98	0.001863		
0.49078	136119.00						
28.00	4602.52	7.72	5.31	6011.23	0.34		
1132.11	267.70	4.23	262.10	33.97	0.001856		
0.48982	136291.91						
29.00	4602.57	7.77	5.34	6134.32	0.34		
1148.68	269.36	4.26	263.71	33.93	0.001851		
0.49247	137129.34						
30.00	4602.58	7.78	5.34	6152.08	0.34		
1151.18	269.61	4.27	263.95	33.92	0.001849		
0.49273	137253.72						
31.00	4602.59	7.79	5.35	6179.70	0.34		
1154.63	269.95	4.28	264.28	33.91	0.001846		
0.49265	137428.02						
32.00	4602.65	7.85	5.38	6307.93	0.34		
1171.61	271.64	4.31	265.92	33.87	0.001840		
0.49527	138276.05						
33.00	4602.66	7.86	5.39	6326.06	0.34		

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1174.15		271.89		4.32	266.16	33.86	0.001839
	0.49565	138401.47					
34.00	4602.65		7.85	5.38	6298.46	0.34	
1170.77		271.55		4.31	265.83	33.87	0.001843
	0.49596	138231.03					
35.00	4602.59		7.79	5.35	6170.04	0.34	
1153.75		269.86		4.28	264.19	33.92	0.001850
	0.49363	137380.83					
36.00	4602.57		7.77	5.34	6125.62	0.34	
1147.82		269.27		4.26	263.62	33.93	0.001855
	0.49340	137082.31					
37.00	4602.51		7.71	5.31	6002.47	0.34	
1131.31		267.61		4.23	262.02	33.97	0.001862
	0.49108	136248.00					
38.00	4602.50		7.70	5.30	5985.03	0.34	
1128.77		267.36		4.22	261.77	33.98	0.001862
	0.49067	136121.23					
39.00	4602.50		7.70	5.30	5985.01	0.34	
1128.75		267.36		4.22	261.77	33.98	0.001863
	0.49074	136119.81					
40.00	4602.50		7.70	5.30	5985.01	0.34	
1128.76		267.36		4.22	261.77	33.98	0.001863
	0.49070	136120.23					
41.00	4602.50		7.70	5.30	5984.96	0.34	
1128.73		267.35		4.22	261.77	33.98	0.001862
	0.49057	136119.05					
42.00	4602.52		7.72	5.31	6011.36	0.34	
1132.08		267.69		4.23	262.10	33.97	0.001857
	0.49012	136290.72					
43.00	4602.57		7.77	5.34	6134.64	0.34	
1148.70		269.36		4.26	263.71	33.93	0.001852
	0.49290	137130.03					
44.00	4602.59		7.79	5.35	6179.66	0.34	
1154.61		269.95		4.28	264.28	33.91	0.001848
	0.49313	137427.09					
45.00	4602.66		7.86	5.39	6336.08	0.34	
1175.12		271.99		4.32	266.25	33.86	0.001834
	0.49433	138451.56					
46.00	4602.74		7.94	5.43	6510.81	0.34	
1198.12		274.24		4.37	268.44	33.81	0.001823
	0.49691	139587.19					
47.00	4602.82		8.02	5.48	6684.82	0.34	
1220.73		276.43		4.42	270.56	33.75	0.001811
	0.49899	140691.06					
48.00	4602.89		8.09	5.52	6857.17	0.34	
1243.27		278.60		4.46	272.66	33.70	0.001800
	0.50125	141780.78					
49.00	4602.97		8.17	5.54	7030.82	0.34	
1268.44		280.99		4.51	274.97	33.64	0.001787
	0.50335	142983.19					
50.00	4603.06		8.26	5.59	7231.67	0.34	
1294.78		283.46		4.57	277.36	33.58	0.001763
	0.50255	144227.42					
51.00	4603.19		8.39	5.62	7506.37	0.34	
1334.92		287.17		4.65	280.95	33.49	0.001742
	0.50536	146094.80					
52.00	4603.22		8.42	5.63	7571.25	0.34	
1344.58		288.05		4.67	281.80	33.47	0.001732
	0.50456	146538.39					
53.00	4603.32		8.52	5.66	7790.18	0.34	
1375.16		290.82		4.73	284.49	33.41	0.001694
	0.49983	147934.70					
54.00	4603.57		8.77	5.73	8351.34	0.34	

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1456.23		298.00		4.89	291.44	33.24	0.001620
	0.49394	151546.89					
	55.00	4603.91	9.11	5.84	9175.09	0.34	
1570.45		307.73		5.10	300.85	33.03	0.001576
	0.50196	156439.61					
	56.00	4604.19	9.39	6.19	10312.65	0.36	
1666.90		315.61		5.28	308.47	32.86	0.001603
	0.52832	160403.91					
	57.00	4604.59	9.79	6.48	11734.36	0.37	
1810.44		326.94		5.54	319.42	32.62	0.001556
	0.53751	166099.09					
	58.00	4604.91	10.11	6.67	12866.92	0.37	
1928.96		335.91		5.74	328.08	32.44	0.001516
	0.54340	170603.09					
	59.00	4605.22	10.42	6.86	13981.71	0.37	
2039.35		341.64		5.97	336.47	32.28	0.001480
	0.55122	174962.34					
	60.00	4605.61	10.81	7.08	15319.94	0.38	
2162.50		342.42		6.32	346.83	32.08	0.001448
	0.57081	180349.30					
	61.00	4605.87	11.07	7.20	16168.75	0.38	
2244.98		342.93		6.55	353.65	31.95	0.001406
	0.57455	183897.42					
	62.00	4606.11	11.31	7.30	16973.43	0.38	
2323.75		343.42		6.77	360.08	31.83	0.001375
	0.58049	187239.41					
	63.00	4606.26	11.46	7.37	17481.05	0.38	
2373.39		343.72		6.91	364.08	31.76	0.001347
	0.58026	189321.22					
	64.00	4606.45	11.65	7.44	18133.55	0.38	
2436.32		344.10		7.08	369.07	31.67	0.001332
	0.58848	191918.83					
	65.00	4606.59	11.79	7.49	18608.09	0.38	
2482.89		344.38		7.21	372.80	31.61	0.001330
	0.59823	193854.05					
	66.00	4606.61	11.81	7.50	18665.11	0.38	
2488.90		344.42		7.23	373.26	31.60	0.001329
	0.59934	194096.66					
	67.00	4606.61	11.81	7.50	18671.51	0.38	
2489.45		344.42		7.23	373.30	31.60	0.001326
	0.59791	194117.03					
	68.00	4606.61	11.82	7.50	18672.80	0.38	
2489.74		344.42		7.23	373.32	31.60	0.001327
	0.59864	194128.62					
	69.00	4606.62	11.82	7.50	18679.75	0.38	
2490.34		344.43		7.23	373.37	31.60	0.001326
	0.59845	194153.17					
	70.00	4606.62	11.82	7.50	18684.76	0.38	
2490.93		344.43		7.23	373.42	31.60	0.001328
	0.59922	194177.14					
	71.00	4606.62	11.82	7.50	18684.54	0.38	
2490.79		344.43		7.23	373.41	31.60	0.001327
	0.59901	194171.30					
	72.00	4606.63	11.83	7.51	18731.43	0.38	
2494.92		344.45		7.24	373.74	31.59	0.001326
	0.59925	194342.80					
	73.00	4606.70	11.90	7.54	18976.81	0.39	
2517.95		344.59		7.31	375.55	31.56	0.001320
	0.60191	195283.59					
	74.00	4606.72	11.92	7.54	19054.88	0.39	
2525.96		344.64		7.33	376.16	31.55	0.001319
	0.60331	195604.23					
	75.00	4606.73	11.93	7.55	19098.18	0.39	

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2529.66		344.66		7.34	376.45	31.54	0.001318
	0.60356	195756.45					
	76.00	4606.83	12.03	7.59	19438.94	0.39	
2560.84		344.85		7.43	378.90	31.50	0.001310
	0.60699	197026.25					
	77.00	4607.00	12.20	7.66	20056.80	0.39	
2618.76		345.19		7.59	383.38	31.43	0.001295
	0.61303	199357.95					
	78.00	4607.13	12.33	7.70	20512.84	0.39	
2662.43		345.45		7.71	386.73	31.37	0.001286
	0.61871	201097.70					
	79.00	4607.25	12.45	7.75	20952.10	0.39	
2703.13		345.69		7.82	389.83	31.32	0.001276
	0.62242	202713.16					
	80.00	4607.44	12.64	7.76	21475.29	0.39	
2766.01		346.07		7.99	394.75	31.24	0.001260
	0.62837	205269.41					
	81.00	4607.42	12.62	7.73	21342.88	0.38	
2760.99		346.03		7.98	394.29	31.25	0.001268
	0.63137	205029.11					
	82.00	4607.27	12.47	7.75	21001.00	0.39	
2710.36		345.73		7.84	390.35	31.31	0.001278
	0.62537	202982.39					
	83.00	4607.25	12.45	7.74	20926.73	0.39	
2702.61		345.68		7.82	389.77	31.32	0.001278
	0.62363	202682.62					
	84.00	4607.24	12.44	7.74	20921.44	0.39	
2702.03		345.68		7.82	389.73	31.32	0.001278
	0.62315	202660.50					
	85.00	4607.23	12.43	7.73	20847.77	0.39	
2696.29		345.64		7.80	389.28	31.33	0.001281
	0.62355	202427.56					
	86.00	4607.09	12.29	7.67	20337.79	0.39	
2650.18		345.37		7.67	385.73	31.39	0.001289
	0.61725	200580.16					
	87.00	4606.82	12.02	7.56	19357.94	0.38	
2559.43		344.83		7.42	378.69	31.51	0.001314
	0.60871	196916.94					
	88.00	4606.46	11.66	7.42	18100.38	0.38	
2440.19		344.11		7.09	369.26	31.67	0.001360
	0.60162	192016.89					
	89.00	4605.95	11.15	7.21	16395.22	0.38	
2273.35		343.10		6.63	355.88	31.91	0.001428
	0.59029	185055.16					
	90.00	4605.65	10.85	7.09	15419.88	0.38	
2175.19		342.49		6.35	347.81	32.06	0.001457
	0.57734	180862.52					
	91.00	4605.41	10.61	6.95	14586.22	0.38	
2098.97		342.01		6.14	341.42	32.18	0.001482
	0.56743	177540.78					
	92.00	4605.12	10.32	6.77	13580.29	0.37	
2004.71		341.43		5.87	333.59	32.33	0.001514
	0.55460	173465.70					
	93.00	4604.90	10.10	6.65	12781.07	0.37	
1923.13		335.45		5.73	327.64	32.45	0.001541
	0.55125	170374.17					
	94.00	4604.70	9.90	6.53	12091.91	0.37	
1851.06		330.04		5.61	322.42	32.56	0.001563
	0.54688	167657.81					
	95.00	4604.55	9.75	6.44	11572.66	0.36	
1796.47		325.86		5.51	318.38	32.64	0.001581
	0.54380	165556.62					
	96.00	4604.40	9.60	6.34	11037.85	0.36	

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1740.17		321.48		5.41	314.14	32.73	0.001598
	0.53990	163352.52					
97.00		4604.28	9.48	6.28	10659.92	0.36	
1698.52		318.18		5.34	310.95	32.80	0.001613
	0.53726	161693.95					
98.00		4604.16	9.36	6.20	10276.82	0.36	
1656.81		314.83		5.26	307.71	32.87	0.001623
	0.53292	160010.66					
99.00		4604.11	9.31	6.11	10011.49	0.35	
1638.46		313.34		5.23	306.27	32.90	0.001608
	0.52455	159262.42					
100.00		4604.05	9.25	5.97	9648.16	0.35	
1617.18		311.61		5.19	304.59	32.94	0.001569
	0.50806	158388.59					
101.00		4603.99	9.19	5.85	9343.11	0.34	
1596.61		309.91		5.15	302.95	32.98	0.001569
	0.50433	157534.59					
102.00		4603.88	9.08	5.80	9064.64	0.34	
1561.76		307.01		5.09	300.15	33.04	0.001587
	0.50371	156076.19					
103.00		4603.80	9.00	5.78	8854.83	0.34	
1532.72		304.56		5.03	297.78	33.09	0.001604
	0.50382	154847.52					
104.00		4603.70	8.90	5.75	8622.04	0.34	
1500.06		301.78		4.97	295.09	33.16	0.001636
	0.50739	153444.98					
105.00		4603.55	8.75	5.71	8280.38	0.34	
1449.64		297.41		4.87	290.87	33.25	0.001667
	0.50706	151250.94					
106.00		4603.45	8.65	5.69	8080.56	0.34	
1419.76		294.79		4.82	288.33	33.31	0.001688
	0.50717	149931.47					
107.00		4603.38	8.57	5.67	7906.59	0.34	
1394.07		292.51		4.77	286.12	33.37	0.001705
	0.50698	148782.22					
108.00		4603.31	8.51	5.65	7760.80	0.34	
1372.84		290.61		4.72	284.28	33.41	0.001716
	0.50576	147825.34					
109.00		4603.31	8.51	5.66	7771.89	0.34	
1373.59		290.68		4.73	284.35	33.41	0.001709
	0.50390	147862.42					
110.00		4603.39	8.59	5.68	7958.08	0.34	
1399.96		293.05		4.78	286.64	33.35	0.001682
	0.50131	149053.39					
111.00		4603.51	8.71	5.71	8205.17	0.34	
1437.08		296.33		4.85	289.82	33.28	0.001668
	0.50487	150704.53					
112.00		4603.45	8.65	5.69	8080.14	0.34	
1419.71		294.79		4.82	288.33	33.31	0.001689
	0.50751	149929.20					
113.00		4603.41	8.61	5.69	7992.75	0.34	
1405.59		293.55		4.79	287.12	33.34	0.001683
	0.50278	149304.52					
114.00		4603.55	8.75	5.72	8302.15	0.34	
1450.30		297.49		4.88	290.94	33.25	0.001642
	0.49937	151289.45					
115.00		4603.68	8.88	5.75	8597.25	0.34	
1494.77		301.34		4.96	294.66	33.17	0.001628
	0.50406	153224.83					
116.00		4603.64	8.84	5.74	8489.64	0.34	
1479.73		300.04		4.93	293.41	33.20	0.001639
	0.50437	152570.86					
117.00		4603.63	8.83	5.74	8469.71	0.34	

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1476.43		299.76		4.93	293.13	33.20	0.001638
	0.50340	152429.16					
118.00		4603.64	8.84	5.74	8504.11	0.34	
1481.02		300.16		4.93	293.52	33.19	0.001630
	0.50178	152629.97					
119.00		4603.71	8.91	5.76	8650.85	0.34	
1502.48		302.00		4.98	295.30	33.15	0.001617
	0.50212	153558.16					
120.00		4603.72	8.92	5.76	8669.92	0.34	
1505.83		302.28		4.98	295.58	33.15	0.001618
	0.50290	153700.98					
121.00		4603.70	8.90	5.75	8635.81	0.34	
1501.34		301.90		4.97	295.20	33.15	0.001626
	0.50464	153505.55					
122.00		4603.64	8.84	5.74	8489.86	0.34	
1479.68		300.03		4.93	293.40	33.20	0.001639
	0.50441	152568.73					
123.00		4603.61	8.82	5.73	8436.37	0.34	
1471.96		299.36		4.92	292.75	33.21	0.001647
	0.50545	152232.20					
124.00		4603.55	8.75	5.72	8289.73	0.34	
1450.33		297.48		4.88	290.93	33.25	0.001659
	0.50477	151286.02					
125.00		4603.54	8.74	5.71	8269.74	0.34	
1447.03		297.20		4.87	290.66	33.26	0.001659
	0.50415	151142.41					
126.00		4603.53	8.73	5.71	8240.43	0.34	
1443.04		296.85		4.86	290.32	33.27	0.001669
	0.50627	150964.67					
127.00		4603.47	8.67	5.70	8109.06	0.34	
1423.45		295.12		4.82	288.65	33.31	0.001679
	0.50533	150097.92					
128.00		4603.46	8.66	5.70	8091.13	0.34	
1420.59		294.87		4.82	288.41	33.31	0.001679
	0.50464	149972.59					
129.00		4603.44	8.65	5.69	8062.17	0.34	
1416.61		294.52		4.81	288.06	33.32	0.001686
	0.50619	149793.47					
130.00		4603.39	8.59	5.68	7934.71	0.34	
1397.88		292.85		4.77	286.45	33.36	0.001698
	0.50573	148955.86					
131.00		4603.40	8.60	5.69	7975.42	0.34	
1402.85		293.30		4.78	286.89	33.35	0.001680
	0.50150	149182.58					
132.00		4603.52	8.72	5.71	8235.08	0.34	
1441.20		296.69		4.86	290.17	33.27	0.001660
	0.50327	150887.73					
133.00		4603.54	8.74	5.72	8269.97	0.34	
1446.95		297.19		4.87	290.65	33.26	0.001660
	0.50429	151139.11					
134.00		4603.54	8.74	5.71	8270.06	0.34	
1447.10		297.20		4.87	290.66	33.26	0.001661
	0.50457	151145.48					
135.00		4603.54	8.74	5.72	8269.97	0.34	
1446.97		297.19		4.87	290.65	33.26	0.001661
	0.50460	151139.97					
136.00		4603.54	8.74	5.72	8269.97	0.34	
1447.00		297.20		4.87	290.66	33.26	0.001660
	0.50426	151141.34					
137.00		4603.54	8.74	5.72	8270.20	0.34	
1446.95		297.19		4.87	290.65	33.26	0.001661
	0.50450	151139.08					
138.00		4603.54	8.74	5.72	8269.74	0.34	

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		HYCHAN.OUT					
1446.97	297.19	4.87	290.65	33.26	0.001661		
0.50453	151139.73						
139.00	4603.53	8.73	5.71	8240.59	0.34		
1443.04	296.85	4.86	290.32	33.27	0.001669		
0.50620	150964.86						
140.00	4603.47	8.67	5.70	8109.07	0.34		
1423.45	295.12	4.82	288.65	33.31	0.001680		
0.50570	150098.02						
141.00	4603.46	8.66	5.70	8090.71	0.34		
1420.36	294.85	4.82	288.39	33.31	0.001679		
0.50462	149962.31						
142.00	4603.46	8.66	5.70	8090.97	0.34		
1420.55	294.87	4.82	288.41	33.31	0.001678		
0.50453	149970.66						
143.00	4603.46	8.66	5.70	8091.12	0.34		
1420.61	294.88	4.82	288.41	33.31	0.001680		
0.50494	149973.42						
144.00	4603.45	8.65	5.69	8062.04	0.34		
1416.70	294.53	4.81	288.07	33.32	0.001689		
0.50699	149797.22						
145.00	4603.39	8.59	5.68	7935.04	0.34		
1397.93	292.86	4.77	286.46	33.36	0.001697		
0.50549	148957.91						
146.00	4603.38	8.58	5.68	7916.83	0.34		
1394.96	292.60	4.77	286.20	33.36	0.001698		
0.50515	148826.27						
147.00	4603.38	8.58	5.68	7916.97	0.34		
1394.98	292.60	4.77	286.21	33.36	0.001698		
0.50516	148827.00						
148.00	4603.38	8.58	5.68	7916.97	0.34		
1395.00	292.60	4.77	286.21	33.36	0.001699		
0.50548	148827.91						
149.00	4603.38	8.58	5.68	7917.17	0.34		
1394.92	292.59	4.77	286.20	33.36	0.001698		
0.50518	148824.56						
150.00	4603.37	8.57	5.67	7897.75	0.34		
1392.19	292.35	4.76	285.96	33.37	0.001703		
0.50617	148700.50						
151.00	4603.33	8.53	5.66	7803.35	0.34		
1378.76	291.14	4.74	284.80	33.40	0.001713		
0.50627	148093.69						
152.00	4603.30	8.50	5.65	7748.81	0.34		
1370.77	290.42	4.72	284.10	33.42	0.001717		
0.50569	147732.53						
153.00	4603.30	8.50	5.65	7743.08	0.34		
1369.87	290.34	4.72	284.02	33.42	0.001718		
0.50592	147692.34						
154.00	4603.29	8.49	5.65	7714.61	0.34		
1366.07	289.99	4.71	283.69	33.43	0.001728		
0.50782	147517.50						
155.00	4603.25	8.45	5.64	7643.81	0.34		
1355.11	289.01	4.69	282.73	33.45	0.001720		
0.50314	147020.72						
156.00	4603.36	8.56	5.67	7882.03	0.34		
1389.21	292.09	4.76	285.71	33.38	0.001698		
0.50385	148569.78						
157.00	4603.38	8.58	5.68	7916.84	0.34		
1394.89	292.59	4.77	286.20	33.36	0.001698		
0.50519	148823.03						
158.00	4603.38	8.58	5.68	7917.14	0.34		
1394.85	292.59	4.77	286.20	33.37	0.001697		
0.50496	148821.53						
159.00	4603.38	8.58	5.68	7916.80	0.34		

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			HYCHAN.OUT			
1394.71	292.57	4.77	286.18	33.37	0.001700	
0.50556	148815.12					
160.00	4603.38	8.58	5.68	7916.95	0.34	
1394.99	292.60	4.77	286.21	33.36	0.001696	
0.50470	148827.73					
161.00	4603.38	8.58	5.68	7917.14	0.34	
1394.82	292.58	4.77	286.19	33.37	0.001699	
0.50538	148820.06					
162.00	4603.38	8.58	5.68	7917.04	0.34	
1394.76	292.58	4.77	286.19	33.37	0.001698	
0.50518	148817.03					
163.00	4603.38	8.58	5.68	7916.95	0.34	
1394.73	292.57	4.77	286.18	33.37	0.001699	
0.50545	148815.86					
164.00	4603.37	8.57	5.67	7888.25	0.34	
1391.03	292.24	4.76	285.86	33.37	0.001706	
0.50673	148647.27					
165.00	4603.31	8.51	5.65	7760.72	0.34	
1372.64	290.59	4.72	284.26	33.41	0.001716	
0.50594	147816.48					
166.00	4603.30	8.50	5.65	7743.08	0.34	
1369.86	290.34	4.72	284.02	33.42	0.001716	
0.50533	147691.66					
167.00	4603.30	8.50	5.65	7743.09	0.34	
1369.82	290.34	4.72	284.02	33.42	0.001718	
0.50572	147689.91					
168.00	4603.30	8.50	5.65	7742.75	0.34	
1369.76	290.33	4.72	284.01	33.42	0.001718	
0.50582	147687.08					
169.00	4603.30	8.50	5.65	7743.19	0.34	
1369.76	290.33	4.72	284.01	33.42	0.001717	
0.50548	147687.31					
170.00	4603.30	8.50	5.65	7743.10	0.34	
1369.94	290.35	4.72	284.03	33.42	0.001717	
0.50554	147695.53					
171.00	4603.30	8.50	5.65	7742.84	0.34	
1369.87	290.34	4.72	284.02	33.42	0.001718	
0.50567	147692.19					
172.00	4603.29	8.49	5.65	7714.51	0.34	
1366.07	289.99	4.71	283.69	33.43	0.001726	
0.50739	147517.27					
173.00	4603.23	8.43	5.63	7586.73	0.34	
1347.52	288.31	4.67	282.06	33.46	0.001738	
0.50675	146670.27					
174.00	4603.22	8.42	5.63	7569.01	0.34	
1344.65	288.05	4.67	281.81	33.47	0.001738	
0.50621	146540.55					
175.00	4603.22	8.42	5.63	7569.08	0.34	
1344.58	288.05	4.67	281.80	33.47	0.001736	
0.50570	146537.19					
176.00	4603.22	8.42	5.63	7569.04	0.34	
1344.63	288.05	4.67	281.81	33.47	0.001739	
0.50648	146539.28					
177.00	4603.22	8.42	5.63	7569.01	0.34	
1344.61	288.05	4.67	281.80	33.47	0.001737	
0.50589	146538.28					
178.00	4603.22	8.42	5.63	7568.95	0.34	
1344.73	288.06	4.67	281.81	33.47	0.001735	
0.50552	146543.73					
179.00	4603.24	8.44	5.64	7626.11	0.34	
1352.28	288.75	4.68	282.48	33.45	0.001720	
0.50274	146891.98					
180.00	4603.36	8.56	5.67	7881.73	0.34	

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		HYCHAN.OUT				
1389.08	292.07	4.76	285.70	33.38	0.001699	
0.50428	148563.81					
181.00	4603.39	8.59	5.68	7945.74	0.34	
1398.77	292.94	4.77	286.54	33.36	0.001691	
0.50392	148998.72					
182.00	4603.45	8.65	5.70	8073.72	0.34	
1417.63	294.61	4.81	288.16	33.32	0.001679	
0.50411	149842.20					
183.00	4603.46	8.66	5.70	8091.10	0.34	
1420.59	294.87	4.82	288.41	33.31	0.001680	
0.50506	149972.23					
184.00	4603.46	8.66	5.70	8090.71	0.34	
1420.53	294.87	4.82	288.40	33.31	0.001679	
0.50460	149969.98					
185.00	4603.46	8.66	5.70	8091.18	0.34	
1420.52	294.87	4.82	288.40	33.31	0.001681	
0.50528	149969.30					
186.00	4603.46	8.66	5.70	8090.89	0.34	
1420.43	294.86	4.82	288.40	33.31	0.001680	
0.50492	149965.58					
187.00	4603.46	8.66	5.70	8091.03	0.34	
1420.56	294.87	4.82	288.41	33.31	0.001679	
0.50458	149971.03					
188.00	4603.46	8.66	5.70	8091.05	0.34	
1420.53	294.87	4.82	288.40	33.31	0.001680	
0.50493	149969.78					
189.00	4603.46	8.66	5.70	8090.93	0.34	
1420.54	294.87	4.82	288.40	33.31	0.001679	
0.50475	149970.03					
190.00	4603.44	8.65	5.69	8062.23	0.34	
1416.61	294.52	4.81	288.06	33.32	0.001688	
0.50650	149793.50					
191.00	4603.39	8.59	5.68	7934.69	0.34	
1397.75	292.84	4.77	286.44	33.36	0.001699	
0.50589	148950.17					
192.00	4603.38	8.58	5.68	7916.82	0.34	
1394.99	292.60	4.77	286.21	33.36	0.001699	
0.50540	148827.56					
193.00	4603.38	8.58	5.68	7917.02	0.34	
1394.94	292.59	4.77	286.20	33.36	0.001697	
0.50496	148825.44					
194.00	4603.38	8.58	5.68	7916.99	0.34	
1394.81	292.58	4.77	286.19	33.37	0.001697	
0.50490	148819.30					
195.00	4603.38	8.58	5.68	7916.96	0.34	
1394.94	292.59	4.77	286.20	33.36	0.001698	
0.50519	148825.47					
196.00	4603.38	8.58	5.68	7917.10	0.34	
1394.93	292.59	4.77	286.20	33.36	0.001698	
0.50505	148825.06					
197.00	4603.38	8.58	5.68	7917.09	0.34	
1394.81	292.58	4.77	286.19	33.37	0.001699	
0.50547	148819.44					
198.00	4603.38	8.58	5.68	7916.71	0.34	
1394.84	292.58	4.77	286.19	33.37	0.001697	
0.50491	148821.05					
199.00	4603.38	8.58	5.68	7917.17	0.34	
1395.00	292.60	4.77	286.21	33.36	0.001697	
0.50490	148828.19					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 363

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MAXIMUM DISCHARGE (CFS) = 21342.35 AT TIME = 79.90  
 MAXIMUM STAGE = 4606.34 AT TIME = 79.87

AREA	TIME WETTED PERIMETER BED SHEAR STRESS (FT^2)	ELEV. SURFACE AREA (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
	(HRS)	(FT)	(FT)	(FT)	(FT)		
	(LB/FT^2)	(FT)	(FT)	(FT)	(FT)		
0.00	0.00	4591.65	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4591.65	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
917.95	2.00	4598.96	7.31	4.34	3981.01	0.28	0.001576
	0.49212	183.43	5.00	178.56	24.41		
1028.71	3.00	4600.78	9.13	5.36	5510.02	0.31	0.001578
	0.45920	220.62	4.66	214.20	23.46		
1015.44	4.00	4600.72	9.07	5.32	5397.63	0.31	0.001582
	0.45700	219.40	4.63	213.03	23.49		
1010.81	5.00	4600.70	9.05	5.30	5358.29	0.31	0.001587
	0.45702	218.98	4.62	212.63	23.50		
995.05	6.00	4600.63	8.98	5.25	5227.54	0.31	0.001592
	0.45442	217.49	4.58	211.20	23.53		
976.38	7.00	4600.54	8.89	5.20	5075.56	0.31	0.001601
	0.45220	215.71	4.53	209.50	23.57		
957.75	8.00	4600.45	8.80	5.14	4926.16	0.31	0.001610
	0.44973	213.91	4.48	207.77	23.61		
940.82	9.00	4600.37	8.72	5.09	4793.39	0.30	0.001615
	0.44680	212.26	4.43	206.20	23.65		
935.80	10.00	4600.34	8.69	5.08	4754.05	0.30	0.001618
	0.44628	211.77	4.42	205.72	23.67		
919.52	11.00	4600.26	8.61	5.03	4625.36	0.30	0.001624
	0.44349	210.15	4.38	204.18	23.71		
902.12	12.00	4600.18	8.53	4.98	4490.98	0.30	0.001632
	0.44084	208.42	4.33	202.52	23.75		
899.43	13.00	4600.17	8.52	4.97	4468.98	0.30	0.001631
	0.43984	208.18	4.32	202.29	23.75		
899.43	14.00	4600.17	8.52	4.97	4469.02	0.30	0.001632
	0.43994	208.18	4.32	202.29	23.75		
899.42	15.00	4600.17	8.52	4.97	4468.95	0.30	0.001632
	0.43997	208.18	4.32	202.29	23.75		
899.44	16.00	4600.17	8.52	4.97	4469.06	0.30	0.001632
	0.44002	208.18	4.32	202.29	23.75		
901.84	17.00	4600.18	8.53	4.97	4485.75	0.30	0.001630
		208.46	4.33	202.56	23.75		

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		HYCHAN.OUT					
	0.44005	142802.69					
919.01	18.00	4600.27	8.62	5.02	4616.98	0.30	
		210.21	4.37		204.23	23.70	0.001622
	0.44243	143982.34					
938.23	19.00	4600.36	8.71	5.08	4768.83	0.30	
		212.09	4.42		206.03	23.66	0.001613
	0.44519	145254.62					
954.91	20.00	4600.44	8.79	5.14	4903.51	0.31	
		213.68	4.47		207.55	23.62	0.001607
	0.44805	146323.42					
957.07	21.00	4600.45	8.80	5.14	4923.83	0.31	
		213.84	4.48		207.71	23.62	0.001607
	0.44871	146434.20					
959.60	22.00	4600.46	8.81	5.15	4942.10	0.31	
		214.12	4.48		207.98	23.61	0.001605
	0.44897	146622.81					
978.80	23.00	4600.55	8.90	5.20	5093.97	0.31	
		216.02	4.53		209.79	23.56	0.001595
	0.45088	147904.58					
1013.78	24.00	4600.72	9.07	5.31	5380.75	0.31	
		219.33	4.62		212.97	23.49	0.001579
	0.45533	150140.62					
1050.22	25.00	4600.88	9.23	5.42	5687.22	0.31	
		222.69	4.72		216.18	23.41	0.001562
	0.45977	152406.89					
1080.92	26.00	4601.02	9.37	5.50	5948.74	0.32	
		225.47	4.79		218.83	23.35	0.001554
	0.46474	154277.50					
1085.28	27.00	4601.04	9.39	5.51	5985.12	0.32	
		225.85	4.81		219.20	23.34	0.001552
	0.46539	154536.25					
1088.01	28.00	4601.06	9.41	5.52	6008.64	0.32	
		226.11	4.81		219.45	23.33	0.001550
	0.46539	154710.41					
1102.37	29.00	4601.12	9.47	5.56	6132.25	0.32	
		227.40	4.85		220.68	23.30	0.001546
	0.46760	155580.23					
1104.70	30.00	4601.13	9.48	5.57	6152.05	0.32	
		227.60	4.85		220.87	23.30	0.001545
	0.46798	155715.20					
1107.50	31.00	4601.14	9.49	5.58	6177.22	0.32	
		227.85	4.86		221.12	23.29	0.001541
	0.46747	155888.14					
1122.24	32.00	4601.21	9.56	5.62	6305.75	0.32	
		229.16	4.90		222.37	23.27	0.001537
	0.46963	156768.86					
1124.62	33.00	4601.22	9.57	5.63	6326.03	0.32	
		229.36	4.90		222.56	23.26	0.001537
	0.47014	156906.61					
1121.87	34.00	4601.21	9.56	5.62	6300.92	0.32	
		229.11	4.90		222.32	23.27	0.001541
	0.47082	156738.23					
1107.09	35.00	4601.14	9.49	5.58	6172.29	0.32	
		227.80	4.86		221.07	23.30	0.001546
	0.46885	155853.59					
1101.98	36.00	4601.12	9.47	5.56	6128.09	0.32	
		227.34	4.85		220.63	23.31	0.001548
	0.46811	155544.30					
1087.67	37.00	4601.05	9.40	5.52	6004.58	0.32	
		226.06	4.81		219.40	23.33	0.001554
	0.46669	154678.19					
1085.31	38.00	4601.04	9.39	5.51	5985.14	0.32	
		225.85	4.81		219.21	23.34	0.001552

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	0.46543	154539.58							
1085.29	39.00	4601.04	9.39	4.81	5.51	5984.94	23.34	0.32	0.001554
	0.46591	154538.12							
1085.30	40.00	4601.04	9.39	4.81	5.51	5985.05	23.34	0.32	0.001554
	0.46595	154538.94							
1085.27	41.00	4601.04	9.39	4.81	5.51	5984.90	23.34	0.32	0.001553
	0.46579	154536.78							
1087.99	42.00	4601.06	9.40	4.81	5.52	6008.90	23.33	0.32	0.001551
	0.46564	154706.73							
1102.39	43.00	4601.12	9.47	4.85	5.56	6132.59	23.30	0.32	0.001545
	0.46742	155580.73							
1107.50	44.00	4601.14	9.49	4.86	5.58	6177.22	23.29	0.32	0.001541
	0.46731	155888.08							
1125.12	45.00	4601.22	9.57	4.90	5.63	6331.19	23.26	0.32	0.001534
	0.46951	156946.98							
1144.99	46.00	4601.31	9.66	4.95	5.68	6506.17	23.22	0.32	0.001525
	0.47125	158125.12							
1164.58	47.00	4601.40	9.74	5.00	5.74	6680.19	23.18	0.32	0.001517
	0.47335	159275.22							
1184.04	48.00	4601.48	9.83	5.05	5.79	6852.27	23.15	0.33	0.001511
	0.47601	160411.77							
1205.45	49.00	4601.57	9.92	5.10	5.83	7025.95	23.11	0.33	0.001502
	0.47783	161677.64							
1228.49	50.00	4601.67	10.02	5.15	5.88	7223.49	23.07	0.33	0.001488
	0.47855	162994.27							
1267.79	51.00	4601.84	10.19	5.25	5.92	7500.74	23.00	0.33	0.001471
	0.48161	165176.31							
1277.48	52.00	4601.88	10.23	5.27	5.92	7568.04	22.98	0.33	0.001466
	0.48217	165706.94							
1307.25	53.00	4602.00	10.35	5.34	5.95	7777.75	22.93	0.33	0.001435
	0.47818	167328.22							
1385.84	54.00	4602.31	10.66	5.52	6.01	8328.01	22.81	0.32	0.001380
	0.47545	171499.66							
1496.28	55.00	4602.73	11.08	5.77	6.12	9153.48	22.65	0.32	0.001334
	0.48049	176988.89							
1552.42	56.00	4602.94	11.29	5.90	6.63	10295.66	22.58	0.35	0.001340
	0.49319	179754.56							
1668.50	57.00	4603.36	11.71	6.15	7.02	11709.04	22.43	0.36	0.001291
	0.49521	185176.53							
1768.27	58.00	4603.71	12.06	6.36	7.26	12846.26	22.31	0.37	0.001258
	0.49915	189689.89							
1862.23	59.00	4604.03	12.38	6.55	7.49	13956.66	22.21	0.38	0.001239
		284.25							

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0.50650	193852.45						
60.00	4604.41	12.76	7.75	15293.16	0.38		
1973.73	288.54		6.84	281.75	22.09	0.001227	
0.52361	198634.00						
61.00	4604.66	13.01	7.89	16123.16	0.39		
2043.44	289.04		7.07	286.33	22.01	0.001218	
0.53739	201863.67						
62.00	4604.91	13.26	8.01	16905.33	0.39		
2110.41	289.54		7.29	290.85	21.93	0.001196	
0.54375	205051.77						
63.00	4605.07	13.42	8.08	17396.18	0.39		
2152.00	289.86		7.42	293.67	21.89	0.001185	
0.54891	207034.86						
64.00	4605.26	13.61	8.17	18015.80	0.39		
2204.58	290.25		7.60	297.20	21.83	0.001168	
0.55350	209526.94						
65.00	4605.42	13.76	8.23	18479.09	0.39		
2244.88	290.55		7.73	299.89	21.79	0.001163	
0.56052	211423.88						
66.00	4605.43	13.78	8.24	18537.35	0.39		
2250.21	290.59		7.74	300.24	21.78	0.001163	
0.56204	211668.44						
67.00	4605.44	13.79	8.24	18543.39	0.39		
2250.49	290.59		7.74	300.26	21.78	0.001160	
0.56056	211686.09						
68.00	4605.44	13.79	8.24	18545.21	0.39		
2250.87	290.60		7.75	300.28	21.78	0.001161	
0.56093	211700.19						
69.00	4605.44	13.79	8.24	18551.50	0.39		
2251.33	290.60		7.75	300.32	21.78	0.001161	
0.56118	211723.42						
70.00	4605.44	13.79	8.24	18556.64	0.39		
2251.87	290.60		7.75	300.35	21.78	0.001158	
0.56012	211747.64						
71.00	4605.44	13.79	8.24	18556.31	0.39		
2251.71	290.60		7.75	300.34	21.78	0.001158	
0.56012	211741.41						
72.00	4605.45	13.80	8.25	18596.75	0.39		
2255.02	290.63		7.76	300.57	21.78	0.001157	
0.56009	211901.48						
73.00	4605.53	13.87	8.28	18827.09	0.39		
2274.04	290.77		7.82	301.86	21.76	0.001151	
0.56151	212810.91						
74.00	4605.55	13.90	8.29	18905.43	0.39		
2281.02	290.82		7.84	302.32	21.75	0.001154	
0.56472	213133.23						
75.00	4605.56	13.91	8.29	18943.02	0.39		
2283.97	290.85		7.85	302.52	21.75	0.001150	
0.56371	213276.12						
76.00	4605.66	14.01	8.34	19254.65	0.39		
2309.61	291.04		7.94	304.25	21.72	0.001140	
0.56439	214498.58						
77.00	4605.84	14.19	8.41	19831.56	0.39		
2357.80	291.40		8.09	307.48	21.67	0.001123	
0.56724	216773.88						
78.00	4605.98	14.33	8.46	20264.84	0.39		
2394.34	291.68		8.21	309.91	21.63	0.001116	
0.57170	218487.91						
79.00	4606.10	14.45	8.51	20672.32	0.39		
2427.78	291.93		8.32	312.15	21.60	0.001099	
0.57025	220068.38						
80.00	4606.30	14.65	8.54	21153.86	0.39		
2475.88	292.31		8.47	315.53	21.55	0.001101	

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	0.58185	222449.89						
2471.50	81.00	4606.28	14.63	8.46	8.52	21053.84	0.39	0.001098
	0.57925	222234.14				315.23	21.55	
2434.48	82.00	4606.13	14.48	8.34	8.52	20739.63	0.39	0.001107
	0.57620	220363.91				312.57	21.59	
2427.92	83.00	4606.10	14.45	8.32	8.51	20663.64	0.39	0.001107
	0.57433	220060.50				312.14	21.60	
2427.50	84.00	4606.10	14.45	8.32	8.51	20657.84	0.39	0.001106
	0.57384	220039.06				312.11	21.60	
2423.28	85.00	4606.08	14.43	8.30	8.50	20595.92	0.39	0.001110
	0.57515	219825.00				311.81	21.60	
2385.39	86.00	4605.94	14.29	8.18	8.44	20133.74	0.39	0.001123
	0.57329	218030.84				309.26	21.64	
2310.55	87.00	4605.66	14.01	7.94	8.32	19225.82	0.39	0.001149
	0.56926	214475.58				304.22	21.72	
2211.05	88.00	4605.28	13.63	7.62	8.16	18041.79	0.39	0.001183
	0.56249	209739.66				297.50	21.83	
2071.05	89.00	4604.76	13.11	7.16	7.92	16394.42	0.39	0.001212
	0.54134	203077.47				288.05	21.98	
1988.06	90.00	4604.45	12.80	6.89	7.76	15430.90	0.38	0.001223
	0.52564	199173.72				282.52	22.07	
1919.36	91.00	4604.22	12.57	6.67	7.61	14603.34	0.38	0.001232
	0.51285	196235.27				278.35	22.15	
1835.45	92.00	4603.93	12.28	6.50	7.41	13598.19	0.37	0.001252
	0.50767	192587.91				273.17	22.24	
1766.75	93.00	4603.70	12.05	6.36	7.24	12796.00	0.37	0.001275
	0.50598	189537.62				268.85	22.32	
1706.47	94.00	4603.49	11.84	6.23	7.09	12103.56	0.36	0.001295
	0.50379	186817.39				264.99	22.39	
1660.40	95.00	4603.33	11.68	6.13	6.98	11583.47	0.36	0.001314
	0.50313	184720.97				262.02	22.44	
1612.40	96.00	4603.16	11.51	6.03	6.85	11047.02	0.36	0.001333
	0.50166	182523.17				258.90	22.50	
1576.43	97.00	4603.03	11.38	5.95	6.77	10668.30	0.35	0.001349
	0.50108	180852.48				256.53	22.55	
1540.57	98.00	4602.90	11.25	5.87	6.67	10282.00	0.35	0.001372
	0.50266	179188.61				254.17	22.59	
1532.54	99.00	4602.87	11.22	5.85	6.53	10013.70	0.34	0.001370
	0.50027	178804.84				253.62	22.60	
1530.39	100.00	4602.86	11.21	5.85	6.30	9648.08	0.33	0.001335
	0.48708	178650.91				253.41	22.61	
1524.97	101.00	4602.83	11.18	5.84	6.13	9346.91	0.32	0.001334
		261.11				252.89	22.62	

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1492.83	0.48605	178287.97	11.07	5.77	6.08	9071.93	0.32	0.001351
	102.00	4602.72				250.74	22.66	
		258.85						
1463.11	0.48631	176769.20	10.96	5.70	6.06	8861.00	0.32	0.001368
	103.00	4602.61				248.80	22.70	
		256.82						
1430.95	0.48647	175403.72	10.84	5.62	6.03	8632.06	0.32	0.001395
	104.00	4602.49				246.52	22.74	
		254.43						
1381.97	0.48956	173793.72	10.65	5.51	6.00	8289.95	0.32	0.001416
	105.00	4602.30				242.92	22.82	
		250.67						
1352.64	0.48719	171259.25	10.53	5.45	5.98	8086.50	0.32	0.001431
	106.00	4602.18				240.75	22.86	
		248.39						
1327.57	0.48633	169726.05	10.43	5.39	5.96	7912.30	0.33	0.001444
	107.00	4602.08				238.85	22.90	
		246.41						
1306.20	0.48549	168392.70	10.34	5.34	5.94	7763.48	0.33	0.001452
	108.00	4601.99				237.24	22.94	
		244.72						
1306.59	0.48348	167257.08	10.35	5.34	5.95	7769.10	0.33	0.001445
	109.00	4602.00				237.28	22.94	
		244.76						
1332.15	0.48138	167281.09	10.45	5.40	5.97	7949.09	0.33	0.001424
	110.00	4602.10				239.23	22.89	
		246.80						
1368.79	0.47961	168656.44	10.60	5.48	5.99	8202.75	0.32	0.001414
	111.00	4602.25				241.97	22.84	
		249.67						
1352.55	0.48383	170589.78	10.53	5.45	5.98	8085.99	0.32	0.001429
	112.00	4602.18				240.73	22.86	
		248.38						
1338.14	0.48544	169717.98	10.47	5.41	5.97	7989.39	0.33	0.001426
	113.00	4602.12				239.67	22.89	
		247.26						
1380.87	0.48145	168964.64	10.64	5.51	6.00	8289.46	0.32	0.001396
	114.00	4602.29				242.89	22.82	
		250.63						
1424.74	0.47994	171235.36	10.82	5.61	6.03	8594.50	0.32	0.001388
	115.00	4602.47				246.10	22.75	
		253.99						
1410.74	0.48587	173497.86	10.76	5.58	6.02	8492.70	0.32	0.001393
	116.00	4602.41				245.06	22.77	
		252.90						
1407.23	0.48498	172764.52	10.75	5.57	6.02	8469.63	0.32	0.001397
	117.00	4602.40				244.81	22.78	
		252.64						
1411.40	0.48542	172590.75	10.76	5.58	6.02	8500.70	0.32	0.001388
	118.00	4602.41				245.12	22.77	
		252.97						
1432.30	0.48332	172811.05	10.85	5.63	6.04	8647.59	0.32	0.001380
	119.00	4602.50				246.64	22.74	
		254.56						
1435.76	0.48438	173882.08	10.86	5.63	6.04	8670.00	0.32	0.001381
	120.00	4602.51				246.89	22.74	
		254.82						
1431.63	0.48563	174059.47	10.84	5.63	6.03	8639.27	0.32	0.001392
	121.00	4602.49				246.59	22.74	
		254.50						
1410.62	0.48860	173843.64	10.76	5.58	6.02	8493.08	0.32	0.001395
	122.00	4602.41				245.05	22.77	
		252.89						



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1403.21	0.48558	172758.69	10.73	5.56	6.01	8439.91	0.32	0.001402
	123.00	4602.38				244.51	22.79	
		252.32						
1382.13	0.48669	172376.14	10.65	5.51	6.00	8292.70	0.32	0.001411
	124.00	4602.30				242.95	22.82	
		250.70						
1378.62	0.48540	171281.31	10.63	5.50	6.00	8269.85	0.32	0.001410
	125.00	4602.28				242.70	22.82	
		250.43						
1374.93	0.48420	171103.78	10.62	5.50	6.00	8243.67	0.32	0.001416
	126.00	4602.27				242.42	22.83	
		250.15						
1356.05	0.48577	170909.00	10.54	5.45	5.98	8111.90	0.32	0.001423
	127.00	4602.19				241.00	22.86	
		248.66						
1352.97	0.48431	169905.56	10.53	5.45	5.98	8091.12	0.32	0.001422
	128.00	4602.18				240.78	22.86	
		248.43						
1349.47	0.48325	169752.64	10.52	5.44	5.98	8065.09	0.32	0.001430
	129.00	4602.17				240.51	22.87	
		248.14						
1331.04	0.48524	169556.53	10.44	5.40	5.96	7937.53	0.33	0.001439
	130.00	4602.09				239.13	22.90	
		246.69						
1335.26	0.48444	168583.55	10.46	5.40	5.97	7969.17	0.33	0.001425
	131.00	4602.11				239.46	22.89	
		247.04						
1372.60	0.48056	168819.50	10.61	5.49	6.00	8229.66	0.32	0.001411
	132.00	4602.26				242.26	22.83	
		249.97						
1378.57	0.48355	170793.98	10.63	5.50	6.00	8269.80	0.32	0.001412
	133.00	4602.28				242.69	22.82	
		250.43						
1378.63	0.48491	171099.61	10.63	5.50	6.00	8270.35	0.32	0.001410
	134.00	4602.28				242.70	22.82	
		250.44						
1378.52	0.48424	171106.88	10.63	5.50	6.00	8269.97	0.32	0.001410
	135.00	4602.28				242.69	22.82	
		250.43						
1378.53	0.48431	171097.41	10.63	5.50	6.00	8269.72	0.32	0.001410
	136.00	4602.28				242.70	22.82	
		250.43						
1378.53	0.48417	171101.92	10.63	5.50	6.00	8270.29	0.32	0.001409
	137.00	4602.28				242.69	22.82	
		250.43						
1378.52	0.48414	171099.47	10.63	5.50	6.00	8269.81	0.32	0.001409
	138.00	4602.28				242.70	22.82	
		250.43						
1375.09	0.48402	171100.09	10.62	5.50	6.00	8243.76	0.32	0.001415
	139.00	4602.27				242.43	22.83	
		250.15						
1356.03	0.48547	170911.03	10.54	5.45	5.98	8111.97	0.32	0.001422
	140.00	4602.19				241.00	22.86	
		248.65						
1352.74	0.48389	169903.47	10.53	5.45	5.98	8090.51	0.32	0.001425
	141.00	4602.18				240.77	22.86	
		248.41						
1353.05	0.48422	169739.62	10.53	5.45	5.98	8091.00	0.32	0.001424
	142.00	4602.18				240.79	22.86	
		248.43						
1353.10	0.48402	169755.17	10.53	5.45	5.98	8091.22	0.32	0.001424
	143.00	4602.18				240.79	22.86	
		248.44						

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1349.46	0.48393	169757.45	10.52	5.44	5.98	8065.05	0.32	0.001431
	144.00	4602.17				240.51	22.87	
		248.14						
1331.11	0.48561	169558.88	10.44	5.40	5.96	7937.82	0.33	0.001435
	145.00	4602.09				239.13	22.90	
		246.70						
1328.08	0.48321	168587.28	10.43	5.39	5.96	7916.76	0.33	0.001438
	146.00	4602.08				238.91	22.90	
		246.46						
1328.04	0.48364	168429.14	10.43	5.39	5.96	7917.02	0.33	0.001439
	147.00	4602.08				238.90	22.90	
		246.46						
1328.07	0.48378	168427.86	10.43	5.39	5.96	7917.00	0.33	0.001439
	148.00	4602.08				238.91	22.90	
		246.46						
1328.02	0.48375	168430.23	10.43	5.39	5.96	7917.11	0.33	0.001436
	149.00	4602.08				238.90	22.90	
		246.46						
1325.48	0.48290	168425.69	10.42	5.38	5.96	7899.76	0.33	0.001443
	150.00	4602.07				238.70	22.91	
		246.25						
1312.21	0.48475	168284.16	10.37	5.35	5.95	7806.20	0.33	0.001450
	151.00	4602.02				237.69	22.93	
		245.19						
1303.94	0.48432	167573.03	10.33	5.33	5.94	7749.74	0.33	0.001452
	152.00	4601.98				237.07	22.94	
		244.54						
1303.00	0.48312	167130.83	10.33	5.33	5.94	7743.21	0.33	0.001452
	153.00	4601.98				237.00	22.94	
		244.46						
1299.42	0.48308	167082.02	10.31	5.32	5.94	7717.68	0.33	0.001459
	154.00	4601.97				236.71	22.95	
		244.16						
1287.98	0.48458	166880.64	10.27	5.29	5.93	7640.39	0.33	0.001454
	155.00	4601.92				235.85	22.97	
		243.27						
1321.91	0.48040	166277.42	10.41	5.37	5.96	7876.57	0.33	0.001438
	156.00	4602.06				238.45	22.91	
		245.99						
1328.00	0.48204	168110.28	10.43	5.39	5.96	7916.81	0.33	0.001438
	157.00	4602.08				238.90	22.90	
		246.45						
1328.01	0.48338	168423.25	10.43	5.39	5.96	7917.08	0.33	0.001440
	158.00	4602.08				238.90	22.90	
		246.45						
1327.84	0.48423	168423.39	10.43	5.39	5.96	7916.97	0.33	0.001438
	159.00	4602.08				238.88	22.90	
		246.44						
1328.07	0.48360	168411.66	10.43	5.39	5.96	7916.67	0.33	0.001438
	160.00	4602.08				238.91	22.90	
		246.47						
1327.89	0.48341	168432.62	10.43	5.39	5.96	7917.36	0.33	0.001437
	161.00	4602.08				238.89	22.90	
		246.44						
1327.86	0.48323	168414.31	10.43	5.39	5.96	7916.98	0.33	0.001438
	162.00	4602.08				238.88	22.90	
		246.44						
1327.86	0.48350	168411.95	10.43	5.39	5.96	7917.06	0.33	0.001438
	163.00	4602.08				238.88	22.90	
		246.44						
1324.44	0.48355	168413.19	10.42	5.38	5.96	7891.19	0.33	0.001442
	164.00	4602.07				238.62	22.91	
		246.16						

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	0.48423	168227.36						
1305.95	165.00	4601.99	10.34	5.34	5.94	7763.50	0.33	0.001451
		244.69				237.21	22.94	
	0.48325	167236.30						
1302.87	166.00	4601.98	10.33	5.33	5.94	7743.07	0.33	0.001451
		244.46				236.99	22.94	
	0.48251	167080.14						
1302.93	167.00	4601.98	10.33	5.33	5.94	7743.13	0.33	0.001452
		244.46				236.99	22.94	
	0.48286	167080.73						
1302.90	168.00	4601.98	10.33	5.33	5.94	7742.63	0.33	0.001454
		244.45				236.99	22.94	
	0.48360	167074.69						
1302.81	169.00	4601.98	10.33	5.33	5.94	7743.17	0.33	0.001456
		244.45				236.98	22.94	
	0.48410	167073.75						
1302.95	170.00	4601.98	10.33	5.33	5.94	7743.12	0.33	0.001453
		244.47				237.00	22.94	
	0.48311	167087.11						
1302.92	171.00	4601.98	10.33	5.33	5.94	7743.00	0.33	0.001455
		244.47				237.00	22.94	
	0.48374	167084.45						
1299.41	172.00	4601.97	10.32	5.32	5.94	7717.48	0.33	0.001461
		244.17				236.71	22.95	
	0.48527	166883.94						
1280.80	173.00	4601.89	10.24	5.28	5.93	7589.50	0.33	0.001471
		242.67				235.29	22.98	
	0.48435	165876.25						
1277.51	174.00	4601.88	10.23	5.27	5.92	7569.04	0.33	0.001471
		242.42				235.05	22.98	
	0.48361	165708.94						
1277.63	175.00	4601.88	10.23	5.27	5.92	7569.09	0.33	0.001466
		242.42				235.05	22.98	
	0.48226	165708.05						
1277.67	176.00	4601.88	10.23	5.27	5.92	7569.12	0.33	0.001472
		242.43				235.05	22.98	
	0.48401	165712.25						
1277.74	177.00	4601.88	10.23	5.27	5.92	7568.98	0.33	0.001469
		242.43				235.05	22.98	
	0.48306	165710.22						
1277.75	178.00	4601.88	10.23	5.27	5.92	7568.87	0.33	0.001466
		242.44				235.06	22.98	
	0.48199	165717.91						
1284.94	179.00	4601.91	10.26	5.29	5.93	7620.06	0.33	0.001452
		243.02				235.62	22.97	
	0.47904	166111.27						
1321.88	180.00	4602.06	10.41	5.37	5.96	7876.19	0.33	0.001438
		245.98				238.44	22.91	
	0.48227	168101.48						
1331.47	181.00	4602.10	10.45	5.40	5.97	7942.68	0.33	0.001432
		246.74				239.17	22.90	
	0.48218	168612.75						
1349.93	182.00	4602.17	10.52	5.44	5.98	8070.84	0.32	0.001425
		248.19				240.56	22.87	
	0.48361	169592.53						
1353.08	183.00	4602.18	10.53	5.45	5.98	8091.22	0.32	0.001426
		248.43				240.79	22.86	
	0.48452	169753.66						
1352.99	184.00	4602.18	10.53	5.45	5.98	8090.60	0.32	0.001423
		248.42				240.78	22.86	
	0.48364	169748.97						
1352.93	185.00	4602.18	10.53	5.45	5.98	8091.31	0.32	0.001423
		248.42				240.77	22.86	

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## HYCHAN.OUT

1352.91	0.48376	169745.34	10.53	5.45	5.98	8090.79	22.86	0.001424
	186.00	4602.18						
		248.41				240.77		
1352.97	0.48404	169743.22	10.53	5.45	5.98	8090.98	22.86	0.001424
	187.00	4602.18						
		248.42				240.78		
1352.92	0.48404	169749.44	10.53	5.45	5.98	8091.13	22.86	0.001424
	188.00	4602.18						
		248.42				240.78		
1352.94	0.48407	169748.52	10.53	5.45	5.98	8090.94	22.86	0.001423
	189.00	4602.18						
		248.42				240.78		
1349.35	0.48369	169747.27	10.52	5.44	5.98	8065.29	22.87	0.001429
	190.00	4602.17						
		248.13				240.50		
1330.97	0.48487	169554.94	10.44	5.40	5.96	7937.35	22.90	0.001440
	191.00	4602.09						
		246.68				239.12		
1328.05	0.48469	168576.75	10.43	5.39	5.96	7916.93	22.90	0.001439
	192.00	4602.08						
		246.47				238.91		
1327.97	0.48375	168430.94	10.43	5.39	5.96	7916.96	22.90	0.001438
	193.00	4602.08						
		246.46				238.90		
1327.82	0.48348	168426.41	10.43	5.39	5.96	7916.91	22.90	0.001437
	194.00	4602.08						
		246.45				238.89		
1327.99	0.48315	168418.89	10.43	5.39	5.96	7917.12	22.90	0.001437
	195.00	4602.08						
		246.46				238.91		
1328.06	0.48308	168429.44	10.43	5.39	5.96	7917.01	22.90	0.001439
	196.00	4602.08						
		246.46				238.90		
1327.82	0.48392	168427.09	10.43	5.39	5.96	7917.24	22.90	0.001439
	197.00	4602.08						
		246.44				238.89		
1327.93	0.48389	168415.86	10.43	5.39	5.96	7916.51	22.90	0.001438
	198.00	4602.08						
		246.45				238.90		
1328.13	0.48362	168422.05	10.43	5.39	5.96	7917.19	22.90	0.001437
	199.00	4602.08						
		246.47				238.91		
	0.48314	168434.75						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 382

MAXIMUM DISCHARGE (CFS) = 21704.09 AT TIME = 79.90  
 MAXIMUM STAGE = 4604.53 AT TIME = 79.92

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
WETTED PERIMETER	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(LB/FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4590.30	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4590.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

				HYCHAN.OUT			
722.95	2.00	4596.95	6.65	5.28	3818.12	0.36	
		169.41	4.27		165.10	24.84	0.003130
	0.83338	110620.02					
793.36	3.00	4598.96	8.65	6.95	5511.26	0.42	
		210.99	3.76		204.98	23.68	0.003128
	0.73403	137338.86					
783.08	4.00	4598.90	8.59	6.89	5399.04	0.41	
		209.78	3.73		203.82	23.71	0.003129
	0.72893	136559.23					
779.45	5.00	4598.87	8.57	6.88	5359.71	0.41	
		209.35	3.72		203.41	23.72	0.003128
	0.72664	136283.92					
767.50	6.00	4598.80	8.50	6.81	5230.17	0.41	
		207.91	3.69		202.03	23.76	0.003122
	0.71917	135358.88					
753.29	7.00	4598.72	8.42	6.74	5078.37	0.41	
		206.19	3.65		200.38	23.80	0.003120
	0.71136	134257.66					
739.18	8.00	4598.63	8.33	6.67	4928.99	0.41	
		204.46	3.62		198.73	23.85	0.003117
	0.70317	133148.53					
726.36	9.00	4598.56	8.26	6.60	4794.92	0.41	
		202.88	3.58		197.22	23.89	0.003116
	0.69607	132134.77					
722.55	10.00	4598.53	8.23	6.58	4755.44	0.40	
		202.41	3.57		196.76	23.90	0.003111
	0.69298	131832.48					
710.29	11.00	4598.46	8.16	6.52	4628.12	0.40	
		200.86	3.54		195.28	23.94	0.003106
	0.68528	130837.12					
696.97	12.00	4598.38	8.08	6.45	4492.64	0.40	
		199.19	3.50		193.68	23.98	0.003108
	0.67864	129766.40					
694.57	13.00	4598.36	8.06	6.43	4468.97	0.40	
		198.91	3.49		193.41	23.99	0.003108
	0.67716	129584.28					
694.58	14.00	4598.36	8.06	6.43	4469.01	0.40	
		198.91	3.49		193.41	23.99	0.003108
	0.67725	129584.59					
694.57	15.00	4598.36	8.06	6.43	4468.96	0.40	
		198.91	3.49		193.41	23.99	0.003109
	0.67734	129584.14					
694.58	16.00	4598.36	8.06	6.43	4469.05	0.40	
		198.91	3.49		193.41	23.99	0.003108
	0.67723	129584.88					
696.05	17.00	4598.37	8.07	6.44	4484.39	0.40	
		199.11	3.50		193.60	23.98	0.003115
	0.67949	129714.27					
708.71	18.00	4598.45	8.15	6.51	4614.07	0.40	
		200.73	3.53		195.15	23.94	0.003119
	0.68709	130752.02					
723.40	19.00	4598.54	8.24	6.59	4765.94	0.40	
		202.57	3.57		196.91	23.89	0.003122
	0.69577	131932.27					
736.41	20.00	4598.62	8.32	6.66	4902.03	0.41	
		204.18	3.61		198.45	23.85	0.003119
	0.70204	132964.20					
738.53	21.00	4598.63	8.33	6.67	4923.82	0.41	
		204.42	3.61		198.69	23.85	0.003120
	0.70330	133120.66					
740.11	22.00	4598.64	8.34	6.68	4940.75	0.41	
		204.63	3.62		198.89	23.84	0.003126
	0.70545	133252.97					

		HYCHAN.OUT					
754.12	23.00	4598.73	8.43	6.75	5089.76	0.41	
	0.71444	206.36	3.65	200.54	23.80	0.003133	
	24.00	134364.61					
780.66		4598.88	8.58	6.89	5375.21	0.41	
	0.72949	209.55	3.73	203.60	23.72	0.003138	
	25.00	136413.98					
808.61		4599.05	8.75	7.03	5681.80	0.42	
	0.74490	212.84	3.80	206.75	23.64	0.003142	
	26.00	138524.61					
832.34		4599.18	8.88	7.14	5946.13	0.42	
	0.75711	215.57	3.86	209.36	23.58	0.003142	
	27.00	140273.81					
835.90		4599.20	8.90	7.16	5985.08	0.42	
	0.75871	215.96	3.87	209.73	23.57	0.003141	
	28.00	140521.25					
837.80		4599.21	8.91	7.17	6007.15	0.42	
	0.76090	216.18	3.88	209.95	23.56	0.003147	
	29.00	140668.55					
848.69		4599.27	8.97	7.22	6130.92	0.43	
	0.76591	217.43	3.90	211.14	23.53	0.003145	
	30.00	141466.05					
850.60		4599.28	8.98	7.23	6152.00	0.43	
	0.76718	217.63	3.91	211.34	23.53	0.003146	
	31.00	141596.91					
852.61		4599.30	8.99	7.24	6175.65	0.43	
	0.76886	217.87	3.91	211.57	23.52	0.003149	
	32.00	141751.02					
863.82		4599.36	9.06	7.30	6304.34	0.43	
	0.77409	219.14	3.94	212.78	23.49	0.003147	
	33.00	142563.38					
865.76		4599.37	9.07	7.31	6326.03	0.43	
	0.77545	219.35	3.95	212.98	23.49	0.003148	
	34.00	142695.38					
863.77		4599.36	9.06	7.30	6302.49	0.43	
	0.77369	219.11	3.94	212.75	23.49	0.003145	
	35.00	142544.33					
852.56		4599.29	8.99	7.24	6173.76	0.43	
	0.76822	217.84	3.91	211.54	23.52	0.003146	
	36.00	141731.27					
848.68		4599.27	8.97	7.22	6129.50	0.43	
	0.76528	217.40	3.90	211.12	23.53	0.003142	
	37.00	141449.05					
837.82		4599.21	8.91	7.17	6006.09	0.42	
	0.76002	216.16	3.88	209.93	23.56	0.003142	
	38.00	140653.61					
835.89		4599.20	8.90	7.16	5985.02	0.42	
	0.75866	215.95	3.87	209.73	23.57	0.003141	
	39.00	140521.16					
835.90		4599.20	8.90	7.16	5985.03	0.42	
	0.75898	215.95	3.87	209.73	23.57	0.003142	
	40.00	140520.91					
835.90		4599.20	8.90	7.16	5985.06	0.42	
	0.75861	215.96	3.87	209.73	23.57	0.003141	
	41.00	140521.22					
835.88		4599.20	8.90	7.16	5984.88	0.42	
	0.75909	215.95	3.87	209.73	23.57	0.003143	
	42.00	140519.92					
837.82		4599.21	8.91	7.17	6007.35	0.42	
	0.76085	216.19	3.88	209.95	23.56	0.003146	
	43.00	140669.70					
848.72		4599.27	8.97	7.22	6131.20	0.43	
	0.76568	217.43	3.90	211.15	23.53	0.003144	
		141467.81					

		HYCHAN.OUT				
852.61	44.00	4599.30	8.99	7.24	6175.62	0.43
	0.76841	217.87	3.91	211.57	23.52	0.003147
	45.00	141750.97				
865.85		4599.37	9.07	7.31	6328.29	0.43
	0.77632	219.38	3.95	213.01	23.49	0.003152
	46.00	142716.45				
880.92		4599.45	9.15	7.38	6503.19	0.43
	0.78442	221.07	3.98	214.63	23.45	0.003155
	47.00	143798.95				
895.78		4599.54	9.24	7.45	6677.29	0.43
	0.79246	222.71	4.02	216.20	23.41	0.003157
	48.00	144855.50				
910.47		4599.62	9.32	7.52	6849.36	0.43
	0.80100	224.33	4.06	217.75	23.37	0.003163
	49.00	145891.12				
926.19		4599.70	9.40	7.58	7022.90	0.44
	0.80935	226.05	4.10	219.39	23.33	0.003166
	50.00	146991.38				
942.98		4599.80	9.50	7.65	7218.50	0.44
	0.82132	227.93	4.14	221.19	23.29	0.003181
	51.00	148195.61				
969.77		4599.96	9.66	7.73	7496.91	0.44
	0.83448	231.13	4.20	224.25	23.22	0.003187
	52.00	150246.67				
976.43		4600.00	9.70	7.75	7565.98	0.44
	0.84028	231.91	4.21	225.00	23.21	0.003198
	53.00	150747.19				
996.10		4600.12	9.82	7.80	7769.63	0.44
	0.85619	234.29	4.25	227.27	23.15	0.003227
	54.00	152272.78				
1048.11		4600.43	10.13	7.93	8312.94	0.44
	0.89091	240.43	4.36	233.14	23.02	0.003275
	55.00	156206.03				
1122.51		4600.85	10.55	8.14	9139.28	0.44
	0.92174	248.70	4.51	241.05	22.86	0.003273
	56.00	161501.30				
1182.28		4601.04	10.74	8.69	10277.51	0.47
	0.94021	251.28	4.71	244.69	22.78	0.003202
	57.00	163940.03				
1275.28		4601.46	11.16	9.15	11670.54	0.48
	1.00475	252.11	5.06	252.42	22.63	0.003183
	58.00	169119.05				
1358.41		4601.81	11.51	9.43	12816.41	0.49
	1.06223	252.81	5.37	258.94	22.50	0.003168
	59.00	173488.44				
1438.13		4602.13	11.83	9.68	13922.15	0.50
	1.11594	253.47	5.67	264.94	22.39	0.003152
	60.00	177511.22				
1533.60		4602.52	12.22	9.95	15263.04	0.50
	1.17985	254.24	6.03	272.05	22.26	0.003135
	61.00	182272.42				
1595.29		4602.78	12.48	10.10	16112.03	0.50
	1.23009	254.75	6.26	276.66	22.18	0.003148
	62.00	185361.19				
1656.80		4603.04	12.74	10.22	16933.09	0.50
	1.27109	255.27	6.49	281.40	22.09	0.003138
	63.00	188539.50				
1694.63		4603.20	12.90	10.29	17441.01	0.51
	1.30169	255.59	6.63	284.33	22.04	0.003146
	64.00	190500.92				
1742.71		4603.40	13.10	10.38	18093.77	0.51
	1.33905	256.00	6.81	288.00	21.98	0.003152
		192963.05				

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				HYCHAN.OUT			
1780.11	65.00	4603.56	13.26	10.45	18595.81	0.51	
		256.32		6.94	290.87	21.93	0.003150
	1.36524	194880.31					
1785.15	66.00	4603.58	13.28	10.46	18664.93	0.51	
		256.36		6.96	291.24	21.93	0.003149
	1.36844	195130.34					
1785.42	67.00	4603.58	13.28	10.46	18670.54	0.51	
		256.36		6.96	291.25	21.93	0.003149
	1.36851	195139.80					
1785.80	68.00	4603.58	13.28	10.46	18673.08	0.51	
		256.37		6.97	291.29	21.93	0.003150
	1.36934	195161.02					
1786.22	69.00	4603.59	13.29	10.46	18679.86	0.51	
		256.37		6.97	291.32	21.93	0.003150
	1.36953	195181.30					
1786.69	70.00	4603.59	13.29	10.46	18685.85	0.51	
		256.37		6.97	291.35	21.93	0.003148
	1.36907	195207.23					
1786.61	71.00	4603.59	13.29	10.46	18685.17	0.51	
		256.37		6.97	291.34	21.93	0.003151
	1.37009	195199.06					
1789.46	72.00	4603.60	13.30	10.46	18723.02	0.51	
		256.40		6.98	291.58	21.92	0.003152
	1.37265	195355.81					
1806.78	73.00	4603.67	13.37	10.50	18964.65	0.51	
		256.55		7.04	292.90	21.90	0.003152
	1.38536	196240.48					
1813.41	74.00	4603.70	13.40	10.51	19055.08	0.51	
		256.60		7.07	293.39	21.89	0.003156
	1.39181	196568.48					
1816.00	75.00	4603.71	13.41	10.51	19090.65	0.51	
		256.62		7.08	293.59	21.89	0.003157
	1.39417	196707.09					
1839.18	76.00	4603.81	13.51	10.55	19409.45	0.51	
		256.82		7.16	295.38	21.86	0.003163
	1.41325	197907.11					
1883.31	77.00	4604.00	13.70	10.63	20022.25	0.51	
		257.20		7.32	298.74	21.81	0.003168
	1.44753	200158.00					
1917.05	78.00	4604.14	13.84	10.69	20494.41	0.51	
		257.48		7.45	301.28	21.76	0.003175
	1.47491	201858.23					
1947.73	79.00	4604.27	13.97	10.74	20928.14	0.51	
		257.74		7.56	303.59	21.73	0.003179
	1.49915	203407.31					
1987.78	80.00	4604.45	14.15	10.80	21464.73	0.51	
		258.09		7.70	306.74	21.68	0.003198
	1.53676	205515.36					
1983.48	81.00	4604.43	14.13	10.78	21390.74	0.51	
		258.06		7.69	306.40	21.68	0.003173
	1.52161	205289.92					
1954.66	82.00	4604.30	14.00	10.76	21028.77	0.51	
		257.79		7.58	304.05	21.72	0.003174
	1.50190	203710.36					
1948.38	83.00	4604.27	13.97	10.75	20938.14	0.51	
		257.74		7.56	303.60	21.73	0.003172
	1.49611	203410.53					
1947.94	84.00	4604.27	13.97	10.75	20930.67	0.51	
		257.74		7.56	303.57	21.73	0.003172
	1.49590	203393.92					
1944.18	85.00	4604.26	13.96	10.74	20873.46	0.51	
		257.71		7.54	303.29	21.73	0.003167
	1.49106	203202.72					

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				HYCHAN.OUT			
1910.13	86.00	4604.11	13.81	10.68	20396.65	0.51	
	1.46128	257.41	7.42	300.64	21.77	0.003156	
1841.85	87.00	4603.82	13.52	10.56	19443.68	0.51	
	1.40450	256.83	7.17	295.43	21.86	0.003139	
1751.09	88.00	4603.43	13.13	10.40	18203.24	0.51	
	1.33434	256.05	6.84	288.45	21.97	0.003127	
1623.13	89.00	4602.88	12.58	10.15	16476.31	0.50	
	1.24028	254.96	6.37	278.63	22.14	0.003122	
1548.69	90.00	4602.57	12.27	9.99	15465.06	0.50	
	1.18975	254.35	6.09	273.00	22.24	0.003131	
1489.96	91.00	4602.34	12.04	9.82	14629.23	0.50	
	1.15039	253.87	5.87	268.64	22.32	0.003141	
1418.65	92.00	4602.05	11.74	9.60	13624.16	0.49	
	1.10237	253.29	5.60	263.30	22.42	0.003154	
1360.05	93.00	4601.81	11.51	9.42	12817.50	0.49	
	1.06254	252.81	5.38	258.90	22.50	0.003165	
1308.94	94.00	4601.60	11.29	9.26	12121.22	0.49	
	1.02755	252.39	5.19	255.00	22.58	0.003175	
1271.56	95.00	4601.43	11.13	9.12	11599.09	0.48	
	1.00155	252.06	5.04	251.97	22.64	0.003182	
1233.30	96.00	4601.26	10.96	8.97	11061.72	0.48	
	0.97433	251.72	4.90	248.77	22.70	0.003187	
1206.19	97.00	4601.13	10.83	8.85	10680.69	0.47	
	0.95366	251.46	4.80	246.36	22.75	0.003186	
1178.80	98.00	4601.00	10.70	8.73	10289.53	0.47	
	0.93785	251.20	4.69	243.92	22.80	0.003203	
1166.84	99.00	4600.97	10.67	8.58	10014.98	0.46	
	0.93680	251.14	4.65	243.40	22.81	0.003231	
1154.05	100.00	4600.97	10.67	8.36	9647.20	0.45	
	0.93593	251.10	4.60	243.33	22.81	0.003263	
1142.55	101.00	4600.96	10.66	8.18	9348.96	0.44	
	0.93479	250.86	4.55	243.11	22.81	0.003289	
1120.21	102.00	4600.84	10.54	8.10	9077.06	0.44	
	0.92262	248.55	4.51	240.90	22.86	0.003281	
1100.38	103.00	4600.73	10.42	8.06	8865.39	0.44	
	0.91213	246.32	4.47	238.77	22.90	0.003272	
1079.25	104.00	4600.60	10.30	8.00	8638.62	0.44	
	0.89733	243.90	4.42	236.46	22.95	0.003250	
1046.80	105.00	4600.41	10.11	7.93	8296.18	0.44	
	0.87883	240.16	4.36	232.89	23.03	0.003231	
1027.10	106.00	4600.30	10.00	7.88	8090.43	0.44	
	0.86734	237.88	4.32	230.71	23.08	0.003219	
		154574.55					

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		HYCHAN.OUT				
1010.37	107.00 4600.20 235.92 0.85754 153314.50	9.90	4.28	7.83	7916.06	0.44
					228.83	23.12 0.003209
995.85	108.00 4600.11 234.21 0.85058 152222.97	9.81	4.25	7.80	7765.30	0.44
					227.20	23.16 0.003206
995.95	109.00 4600.11 234.25 0.85193 152246.44	9.81	4.25	7.80	7767.09	0.44
					227.23	23.15 0.003211
1012.86	110.00 4600.22 236.27 0.86407 153542.78	9.92	4.29	7.84	7943.31	0.44
					229.17	23.11 0.003230
1037.53	111.00 4600.36 239.14 0.87431 155377.98	10.06	4.34	7.90	8200.91	0.44
					231.91	23.05 0.003229
1027.08	112.00 4600.30 237.88 0.86694 154573.94	10.00	4.32	7.88	8089.86	0.44
					230.71	23.08 0.003218
1017.18	113.00 4600.24 236.75 0.86590 153851.17	9.94	4.30	7.85	7987.29	0.44
					229.63	23.10 0.003230
1045.16	114.00 4600.41 240.06 0.88463 155970.30	10.11	4.35	7.92	8281.19	0.44
					232.79	23.03 0.003256
1074.65	115.00 4600.58 243.43 0.89724 158123.19	10.28	4.41	8.00	8592.72	0.44
					236.00	22.96 0.003257
1065.63	116.00 4600.52 242.37 0.89227 157447.72	10.22	4.40	7.97	8494.82	0.44
					235.00	22.98 0.003252
1063.16	117.00 4600.51 242.10 0.89234 157272.83	10.21	4.39	7.97	8469.58	0.44
					234.74	22.99 0.003256
1065.78	118.00 4600.53 242.41 0.89464 157474.53	10.23	4.40	7.97	8498.41	0.44
					235.04	22.98 0.003261
1079.66	119.00 4600.61 244.00 0.90212 158493.36	10.31	4.42	8.01	8645.62	0.44
					236.56	22.95 0.003267
1081.99	120.00 4600.62 244.26 0.90322 158658.11	10.32	4.43	8.01	8669.91	0.44
					236.80	22.95 0.003268
1079.38	121.00 4600.60 243.95 0.90013 158457.98	10.30	4.42	8.01	8641.73	0.44
					236.50	22.95 0.003260
1065.54	122.00 4600.52 242.36 0.89209 157440.78	10.22	4.40	7.97	8494.96	0.44
					234.99	22.99 0.003252
1060.59	123.00 4600.50 241.79 0.88859 157077.80	10.19	4.39	7.96	8442.15	0.44
					234.44	23.00 0.003246
1046.59	124.00 4600.41 240.17 0.88164 156039.66	10.11	4.36	7.93	8294.68	0.44
					232.90	23.03 0.003242
1044.14	125.00 4600.40 239.90 0.88003 155864.55	10.10	4.35	7.92	8270.06	0.44
					232.63	23.04 0.003240
1041.81	126.00 4600.38 239.61 0.87676 155679.09	10.08	4.35	7.91	8245.62	0.44
					232.36	23.04 0.003232
1029.36	127.00 4600.31 238.16 0.87026 154750.53	10.01	4.32	7.88	8113.79	0.44
					230.97	23.07 0.003227

HYCHAN.OUT							
1027.10	128.00	4600.30	10.00	4.32	7.88	8091.11	0.44
	0.86949	237.91				230.73	23.08
		154591.50					0.003228
1024.93	129.00	4600.29	9.98	4.31	7.87	8067.14	0.44
	0.86698	237.65				230.48	23.08
		154421.83					0.003222
1012.60	130.00	4600.21	9.91	4.29	7.84	7939.32	0.44
	0.86029	236.19				229.09	23.11
		153490.16					0.003216
1015.04	131.00	4600.23	9.93	4.29	7.85	7965.13	0.44
	0.86521	236.52				229.40	23.11
		153700.83					0.003231
1039.92	132.00	4600.38	10.08	4.34	7.91	8225.97	0.44
	0.87800	239.43				232.19	23.05
		155566.58					0.003240
1044.14	133.00	4600.40	10.10	4.35	7.92	8269.81	0.44
	0.87983	239.90				232.63	23.04
		155863.41					0.003239
1044.14	134.00	4600.40	10.10	4.35	7.92	8270.51	0.44
	0.87923	239.90				232.63	23.04
		155862.59					0.003237
1044.09	135.00	4600.40	10.10	4.35	7.92	8269.89	0.44
	0.87942	239.89				232.63	23.04
		155860.70					0.003238
1044.08	136.00	4600.40	10.10	4.35	7.92	8269.73	0.44
	0.87971	239.89				232.62	23.04
		155857.64					0.003239
1044.13	137.00	4600.40	10.10	4.35	7.92	8270.30	0.44
	0.87974	239.89				232.63	23.04
		155859.95					0.003239
1044.07	138.00	4600.40	10.10	4.35	7.92	8269.71	0.44
	0.87944	239.89				232.62	23.04
		155858.23					0.003238
1041.93	139.00	4600.39	10.09	4.35	7.91	8245.74	0.44
	0.87651	239.63				232.38	23.04
		155693.16					0.003231
1029.35	140.00	4600.31	10.01	4.32	7.88	8113.83	0.44
	0.86996	238.16				230.97	23.07
		154750.53					0.003226
1027.00	141.00	4600.30	10.00	4.32	7.88	8090.61	0.44
	0.86979	237.89				230.72	23.08
		154580.38					0.003229
1027.14	142.00	4600.30	10.00	4.32	7.88	8091.01	0.44
	0.86964	237.92				230.74	23.08
		154596.98					0.003228
1027.19	143.00	4600.30	10.00	4.32	7.88	8091.16	0.44
	0.86895	237.92				230.75	23.08
		154599.36					0.003225
1024.89	144.00	4600.29	9.98	4.31	7.87	8067.04	0.44
	0.86605	237.64				230.48	23.08
		154419.11					0.003218
1012.59	145.00	4600.21	9.91	4.29	7.84	7939.60	0.44
	0.86019	236.20				229.09	23.11
		153493.42					0.003215
1010.47	146.00	4600.20	9.90	4.28	7.83	7916.75	0.44
	0.85902	235.96				228.87	23.12
		153340.78					0.003215
1010.47	147.00	4600.20	9.90	4.28	7.84	7917.14	0.44
	0.85928	235.95				228.86	23.12
		153337.86					0.003216
1010.46	148.00	4600.20	9.90	4.28	7.83	7916.92	0.44
	0.85864	235.95				228.86	23.12
		153338.38					0.003213

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		HYCHAN.OUT					
1010.45	149.00 4600.20 235.95 0.85889 153337.78	9.90	4.28	7.84	7917.12	0.44	0.003214
1008.91	150.00 4600.19 235.76 0.85776 153211.94	9.89	4.28	7.83	7901.11	0.44	0.003212
1000.01	151.00 4600.14 234.70 0.85249 152536.72	9.84	4.26	7.81	7808.22	0.44	0.003206
994.36	152.00 4600.10 234.04 0.84981 152114.47	9.80	4.25	7.79	7750.29	0.44	0.003205
993.67	153.00 4600.10 233.97 0.84894 152066.05	9.80	4.25	7.79	7743.05	0.44	0.003203
991.47	154.00 4600.09 233.69 0.84584 151885.41	9.79	4.24	7.79	7719.73	0.44	0.003195
983.44	155.00 4600.04 232.75 0.84544 151288.91	9.74	4.23	7.77	7638.43	0.44	0.003207
1006.10	156.00 4600.17 235.46 0.85745 153022.88	9.87	4.27	7.82	7872.70	0.44	0.003216
1010.43	157.00 4600.20 235.95 0.85925 153337.81	9.90	4.28	7.84	7916.88	0.44	0.003216
1010.47	158.00 4600.20 235.95 0.85938 153338.98	9.90	4.28	7.84	7917.13	0.44	0.003216
1010.40	159.00 4600.20 235.94 0.85887 153332.27	9.90	4.28	7.84	7916.97	0.44	0.003214
1010.40	160.00 4600.20 235.95 0.85982 153335.88	9.90	4.28	7.84	7916.66	0.44	0.003218
1010.43	161.00 4600.20 235.95 0.85922 153335.38	9.90	4.28	7.84	7917.28	0.44	0.003215
1010.41	162.00 4600.20 235.95 0.85932 153333.92	9.90	4.28	7.84	7917.04	0.44	0.003216
1010.42	163.00 4600.20 235.95 0.85872 153333.00	9.90	4.28	7.84	7917.07	0.44	0.003213
1008.19	164.00 4600.19 235.67 0.85652 153158.86	9.89	4.28	7.83	7893.15	0.44	0.003209
995.82	165.00 4600.11 234.20 0.85039 152217.08	9.81	4.25	7.80	7765.34	0.44	0.003205
993.60	166.00 4600.10 233.95 0.84928 152054.31	9.80	4.25	7.79	7743.13	0.44	0.003205
993.62	167.00 4600.10 233.96 0.84898 152059.75	9.80	4.25	7.79	7742.95	0.44	0.003204
993.66	168.00 4600.10 233.96 0.84948 152062.08	9.80	4.25	7.79	7742.80	0.44	0.003205
993.60	169.00 4600.10 233.95 0.84930 152053.73	9.80	4.25	7.79	7743.19	0.44	0.003205

		HYCHAN.OUT				
170.00	4600.10	9.80	7.79	7742.98	0.44	
993.60	233.95	4.25	226.95	23.16	0.003204	
0.84914	152056.05					
171.00	4600.10	9.80	7.79	7743.17	0.44	
993.59	233.95	4.25	226.95	23.16	0.003203	
0.84880	152054.48					
172.00	4600.09	9.78	7.79	7719.43	0.44	
991.41	233.68	4.24	226.69	23.17	0.003195	
0.84596	151881.78					
173.00	4600.01	9.71	7.75	7591.33	0.44	
978.97	232.18	4.22	225.26	23.20	0.003194	
0.84026	150922.12					
174.00	4600.00	9.70	7.75	7569.00	0.44	
976.61	231.91	4.21	224.99	23.21	0.003192	
0.83886	150745.03					
175.00	4600.00	9.70	7.75	7569.06	0.44	
976.72	231.93	4.21	225.01	23.20	0.003192	
0.83883	150758.02					
176.00	4600.00	9.70	7.75	7569.23	0.44	
976.72	231.93	4.21	225.01	23.20	0.003190	
0.83842	150758.36					
177.00	4600.00	9.70	7.75	7568.98	0.44	
976.78	231.94	4.21	225.03	23.20	0.003192	
0.83894	150767.33					
178.00	4600.00	9.70	7.75	7568.76	0.44	
976.71	231.93	4.21	225.02	23.20	0.003191	
0.83848	150761.59					
179.00	4600.03	9.73	7.76	7616.13	0.44	
981.34	232.52	4.22	225.58	23.19	0.003206	
0.84423	151136.03					
180.00	4600.18	9.88	7.82	7872.47	0.44	
1006.11	235.47	4.27	228.40	23.13	0.003213	
0.85658	153027.48					
181.00	4600.21	9.91	7.84	7940.77	0.44	
1012.67	236.22	4.29	229.12	23.11	0.003222	
0.86195	153511.59					
182.00	4600.29	9.99	7.87	8069.11	0.44	
1025.00	237.68	4.31	230.51	23.08	0.003229	
0.86898	154440.77					
183.00	4600.30	10.00	7.88	8091.19	0.44	
1027.20	237.93	4.32	230.75	23.08	0.003225	
0.86880	154601.05					
184.00	4600.30	10.00	7.88	8090.53	0.44	
1027.18	237.92	4.32	230.74	23.08	0.003227	
0.86934	154596.73					
185.00	4600.30	10.00	7.88	8091.22	0.44	
1027.16	237.91	4.32	230.74	23.08	0.003225	
0.86877	154593.64					
186.00	4600.30	10.00	7.88	8090.85	0.44	
1027.16	237.91	4.32	230.74	23.08	0.003228	
0.86956	154594.02					
187.00	4600.30	10.00	7.88	8090.96	0.44	
1027.11	237.91	4.32	230.74	23.08	0.003229	
0.86991	154593.84					
188.00	4600.30	10.00	7.88	8091.17	0.44	
1027.14	237.91	4.32	230.73	23.08	0.003224	
0.86868	154589.83					
189.00	4600.30	10.00	7.88	8091.02	0.44	
1027.15	237.91	4.32	230.74	23.08	0.003227	
0.86931	154592.89					
190.00	4600.28	9.98	7.87	8067.14	0.44	
1024.85	237.63	4.31	230.47	23.08	0.003220	
0.86649	154411.86					

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HYCHAN.OUT							
1012.59	191.00	4600.21	9.91	4.29	7.84	7939.31	0.44
	0.86033	236.19				229.09	23.11
		153488.84					0.003216
1010.42	192.00	4600.20	9.90	4.28	7.84	7916.91	0.44
	0.85844	235.95				228.86	23.12
		153335.58					0.003213
1010.40	193.00	4600.20	9.90	4.28	7.84	7916.97	0.44
	0.85909	235.94				228.85	23.12
		153331.33					0.003215
1010.32	194.00	4600.20	9.90	4.28	7.84	7916.83	0.44
	0.85949	235.93				228.84	23.12
		153323.86					0.003216
1010.38	195.00	4600.20	9.90	4.28	7.84	7917.12	0.44
	0.85846	235.94				228.85	23.12
		153331.30					0.003213
1010.45	196.00	4600.20	9.90	4.28	7.84	7917.04	0.44
	0.85965	235.96				228.87	23.12
		153340.55					0.003217
1010.36	197.00	4600.20	9.90	4.28	7.84	7917.25	0.44
	0.85929	235.93				228.85	23.12
		153326.22					0.003216
1010.36	198.00	4600.20	9.90	4.28	7.84	7916.57	0.44
	0.85939	235.94				228.85	23.12
		153332.06					0.003216
1010.45	199.00	4600.20	9.90	4.28	7.84	7917.16	0.44
	0.85889	235.96				228.87	23.12
		153339.86					0.003214

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 400

MAXIMUM DISCHARGE (CFS) = 21698.40 AT TIME = 79.90  
 MAXIMUM STAGE = 4600.05 AT TIME = 79.90

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)		
0.00	0.00	4587.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4587.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
854.39	2.00	4592.76	5.46	4.33	3699.46	0.33	0.004274
	1.11804	203.81	4.19	179.48	32.84		
940.89	3.00	4594.73	7.43	5.86	5512.14	0.38	0.004272
	1.06433	235.64	3.99	202.97	27.31		
928.75	4.00	4594.67	7.37	5.81	5400.10	0.38	0.004271
	1.05415	234.79	3.96	202.35	27.44		
924.42	5.00	4594.65	7.35	5.80	5360.66	0.38	0.004265
	1.04933	234.48	3.94	202.12	27.48		
910.38	6.00	4594.59	7.29	5.75	5232.10	0.38	0.004263
	1.03714	233.48	3.90	201.39	27.63		
	7.00	4594.51	7.21	5.69	5080.40	0.37	

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		HYCHAN.OUT					
893.59	1.02224	232.27	3.85	200.50	27.82	0.004258	
	8.00	106267.34					
876.98	1.00687	4594.43	7.13	5.62	4931.00	0.37	
	9.00	231.06	3.80	199.62	28.00	0.004251	
		105796.77					
861.86	0.99423	4594.36	7.06	5.56	4796.04	0.37	
	10.00	229.94	3.75	198.80	28.17	0.004251	
		105363.43					
857.34	0.98900	4594.33	7.03	5.55	4756.30	0.37	
	11.00	229.60	3.73	198.55	28.23	0.004245	
		105232.60					
843.00	0.97628	4594.26	6.96	5.49	4630.17	0.37	
	12.00	228.52	3.69	197.76	28.40	0.004241	
		104812.17					
827.17	0.96289	4594.19	6.89	5.43	4493.90	0.36	
	13.00	227.32	3.64	196.88	28.59	0.004241	
		104344.27					
824.17	0.96030	4594.17	6.87	5.42	4468.96	0.36	
	14.00	227.09	3.63	196.71	28.62	0.004240	
		104255.98					
824.18	0.96042	4594.17	6.87	5.42	4469.01	0.36	
	15.00	227.09	3.63	196.71	28.62	0.004241	
		104256.16					
824.17	0.96048	4594.17	6.87	5.42	4468.97	0.36	
	16.00	227.09	3.63	196.71	28.62	0.004241	
		104255.97					
824.18	0.96034	4594.18	6.88	5.43	4469.03	0.36	
	17.00	227.22	3.63	196.80	28.62	0.004241	
		104256.25					
825.80	0.96297	4594.25	6.95	5.49	4483.50	0.36	
	18.00	228.35	3.68	197.63	28.60	0.004246	
		104305.26					
840.58	0.97649	4594.34	7.04	5.55	4611.98	0.37	
	19.00	229.65	3.74	198.59	28.42	0.004251	
		104744.27					
857.93	0.99225	4594.41	7.11	5.61	4763.90	0.37	
	20.00	230.79	3.78	199.42	28.22	0.004257	
		105251.48					
873.27	1.00496	4594.42	7.12	5.62	4900.89	0.37	
	21.00	230.98	3.79	199.56	28.04	0.004256	
		105693.49					
875.93	1.00721	4594.43	7.13	5.63	4923.83	0.37	
	22.00	231.12	3.80	199.66	28.01	0.004256	
		105768.80					
877.68	1.00962	4594.51	7.21	5.69	4939.83	0.37	
	23.00	232.31	3.85	200.53	27.99	0.004261	
		105819.44					
894.02	1.02561	4594.66	7.36	5.80	5086.79	0.37	
	24.00	234.55	3.94	202.17	27.81	0.004271	
		106282.55					
925.28	1.05352	4594.81	7.51	5.92	5371.23	0.38	
	25.00	236.86	4.05	203.85	27.47	0.004280	
		107149.99					
958.32	1.08274	4594.94	7.64	6.03	5677.91	0.38	
	26.00	238.78	4.13	205.26	27.13	0.004289	
		108042.84					
986.54	1.10589	4594.96	7.66	6.04	5944.18	0.38	
	27.00	239.08	4.14	205.47	26.85	0.004290	
		108787.12					
990.94	1.10960	4594.97	7.67	6.05	5985.06	0.38	
	28.00				26.81	0.004290	
		108900.99					
					6006.15	0.38	

		HYCHAN.OUT					
993.08	239.22	4.15	205.58	26.79	0.004295		
1.11252	108956.99						
29.00	4595.03	7.73	6.09	6129.86	0.39		
1005.90	240.08	4.19	206.20	26.67	0.004293		
1.12234	109288.12						
30.00	4595.04	7.74	6.10	6152.01	0.39		
1008.26	240.24	4.20	206.32	26.65	0.004294		
1.12446	109348.24						
31.00	4595.05	7.75	6.11	6174.59	0.39		
1010.53	240.39	4.20	206.43	26.63	0.004300		
1.12782	109407.05						
32.00	4595.11	7.81	6.16	6303.26	0.39		
1023.72	241.26	4.24	207.06	26.50	0.004299		
1.13835	109743.12						
33.00	4595.12	7.82	6.17	6326.05	0.39		
1026.12	241.42	4.25	207.18	26.48	0.004299		
1.14029	109803.34						
34.00	4595.11	7.81	6.16	6303.54	0.39		
1023.87	241.27	4.24	207.07	26.50	0.004294		
1.13698	109745.61						
35.00	4595.05	7.75	6.11	6174.85	0.39		
1010.68	240.40	4.20	206.43	26.63	0.004293		
1.12624	109409.39						
36.00	4595.03	7.73	6.09	6130.48	0.39		
1006.10	240.09	4.19	206.21	26.67	0.004290		
1.12184	109291.93						
37.00	4594.97	7.67	6.05	6007.17	0.38		
993.31	239.23	4.15	205.59	26.79	0.004288		
1.11087	108961.77						
38.00	4594.96	7.66	6.04	5984.98	0.38		
990.93	239.08	4.14	205.47	26.81	0.004290		
1.10962	108900.80						
39.00	4594.96	7.66	6.04	5985.06	0.38		
990.94	239.08	4.14	205.47	26.81	0.004288		
1.10913	108900.89						
40.00	4594.96	7.66	6.04	5985.03	0.38		
990.94	239.08	4.14	205.47	26.81	0.004287		
1.10887	108900.90						
41.00	4594.96	7.66	6.04	5984.91	0.38		
990.93	239.08	4.14	205.47	26.81	0.004289		
1.10933	108900.64						
42.00	4594.97	7.67	6.05	6006.32	0.38		
993.10	239.22	4.15	205.58	26.79	0.004295		
1.11251	108957.54						
43.00	4595.03	7.73	6.09	6130.14	0.39		
1005.93	240.08	4.19	206.21	26.67	0.004294		
1.12277	109288.94						
44.00	4595.05	7.75	6.11	6174.55	0.39		
1010.52	240.39	4.20	206.43	26.63	0.004299		
1.12771	109406.80						
45.00	4595.12	7.82	6.17	6326.21	0.39		
1026.01	241.41	4.25	207.17	26.48	0.004304		
1.14134	109801.38						
46.00	4595.20	7.90	6.23	6501.07	0.39		
1043.74	242.57	4.30	208.01	26.32	0.004309		
1.15701	110247.36						
47.00	4595.28	7.98	6.29	6675.22	0.39		
1061.21	243.70	4.35	208.83	26.17	0.004314		
1.17214	110681.07						
48.00	4595.36	8.06	6.35	6847.30	0.39		
1078.48	244.80	4.41	209.63	26.02	0.004320		
1.18764	111104.37						
49.00	4595.44	8.14	6.40	7020.71	0.40		

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				HYCHAN.OUT			
1096.90		245.96		4.46	210.47	25.86	0.004323
	1.20294	111550.52					
	50.00	4595.52	8.22	6.47	7215.53	0.40	
1115.88		247.14		4.52	211.33	25.71	0.004342
	1.22349	112003.95					
	51.00	4595.64	8.34	6.56	7494.76	0.40	
1143.26		248.81		4.59	212.54	25.49	0.004354
	1.24844	112648.09					
	52.00	4595.67	8.37	6.58	7565.05	0.40	
1150.13		249.23		4.61	212.84	25.43	0.004365
	1.25690	112807.49					
	53.00	4595.75	8.45	6.64	7765.50	0.40	
1169.39		250.39		4.67	213.68	25.28	0.004409
	1.28491	113251.68					
	54.00	4595.97	8.67	6.81	8305.25	0.41	
1220.43		253.39		4.82	215.85	24.90	0.004479
	1.34611	114400.40					
	55.00	4596.28	8.98	7.05	9129.23	0.41	
1295.69		257.65		5.03	218.92	24.38	0.004510
	1.41521	116028.55					
	56.00	4596.66	9.36	7.39	10264.59	0.43	
1389.40		262.71		5.29	222.56	23.78	0.004430
	1.46212	117957.98					
	57.00	4597.11	9.81	7.75	11657.45	0.44	
1505.13		268.65		5.60	226.82	23.12	0.004407
	1.54050	120215.20					
	58.00	4597.49	10.19	7.98	12805.60	0.44	
1605.58		273.55		5.87	230.32	22.59	0.004375
	1.60221	122068.89					
	59.00	4597.84	10.54	8.18	13909.07	0.44	
1700.04		277.95		6.12	233.45	22.14	0.004343
	1.65755	123729.66					
	60.00	4598.26	10.96	8.41	15251.97	0.45	
1814.31		283.04		6.41	237.08	21.63	0.004312
	1.72482	125650.17					
	61.00	4598.52	11.22	8.53	16103.62	0.45	
1887.44		286.19		6.60	239.30	21.33	0.004328
	1.78110	126831.16					
	62.00	4598.76	11.46	8.65	16926.70	0.45	
1957.50		289.11		6.77	241.38	21.06	0.004335
	1.83142	127929.62					
	63.00	4598.91	11.61	8.72	17434.38	0.45	
2000.35		290.87		6.88	242.62	20.90	0.004353
	1.86810	128586.47					
	64.00	4599.10	11.80	8.80	18087.34	0.45	
2055.11		293.06		7.01	244.17	20.70	0.004375
	1.91464	129408.14					
	65.00	4599.24	11.94	8.86	18593.84	0.45	
2097.57		294.74		7.12	245.35	20.55	0.004379
	1.94483	130037.71					
	66.00	4599.26	11.96	8.87	18664.96	0.45	
2103.38		294.97		7.13	245.51	20.53	0.004373
	1.94595	130122.28					
	67.00	4599.26	11.96	8.87	18670.33	0.45	
2103.80		294.99		7.13	245.53	20.53	0.004379
	1.94875	130128.47					
	68.00	4599.26	11.96	8.87	18673.14	0.45	
2104.17		295.00		7.13	245.54	20.53	0.004381
	1.94975	130133.86					
	69.00	4599.26	11.96	8.88	18679.83	0.45	
2104.68		295.02		7.13	245.55	20.52	0.004378
	1.94877	130141.34					
	70.00	4599.27	11.97	8.88	18686.10	0.45	

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				HYCHAN.OUT			
2105.17		295.04		7.14	245.56	20.52	0.004382
	1.95106	130148.48					
	71.00	4599.27	11.97	8.88	18685.39	0.45	
2105.18		295.04		7.14	245.56	20.52	0.004387
	1.95343	130148.69					
	72.00	4599.28	11.98	8.88	18721.61	0.45	
2108.21		295.16		7.14	245.65	20.51	0.004390
	1.95663	130193.31					
	73.00	4599.34	12.04	8.91	18962.61	0.45	
2127.91		295.93		7.19	246.19	20.44	0.004398
	1.97338	130480.22					
	74.00	4599.37	12.07	8.92	19055.21	0.45	
2135.63		296.22		7.21	246.40	20.42	0.004393
	1.97618	130591.58					
	75.00	4599.38	12.08	8.93	19089.39	0.45	
2138.45		296.33		7.22	246.48	20.41	0.004398
	1.98046	130632.68					
	76.00	4599.46	12.16	8.97	19404.61	0.45	
2164.48		297.34		7.28	247.18	20.32	0.004418
	2.00695	131007.58					
	77.00	4599.63	12.33	9.04	20016.60	0.45	
2214.41		299.24		7.40	248.52	20.16	0.004439
	2.05001	131716.17					
	78.00	4599.75	12.46	9.10	20490.71	0.45	
2252.84		300.68		7.49	249.53	20.03	0.004449
	2.07985	132253.19					
	79.00	4599.87	12.57	9.15	20923.29	0.45	
2287.72		301.97		7.58	250.44	19.93	0.004481
	2.11845	132734.88					
	80.00	4600.01	12.71	9.21	21461.28	0.46	
2330.60		303.54		7.68	251.55	19.79	0.004479
	2.14605	133318.98					
	81.00	4599.99	12.69	9.20	21394.36	0.46	
2325.48		303.35		7.67	251.41	19.81	0.004459
	2.13289	133248.05					
	82.00	4599.90	12.60	9.16	21031.80	0.45	
2296.40		302.28		7.60	250.66	19.90	0.004454
	2.11134	132852.17					
	83.00	4599.87	12.57	9.15	20938.56	0.45	
2288.96		302.01		7.58	250.47	19.92	0.004453
	2.10619	132751.00					
	84.00	4599.87	12.57	9.15	20930.71	0.45	
2288.35		301.99		7.58	250.46	19.92	0.004457
	2.10754	132742.69					
	85.00	4599.86	12.56	9.14	20876.36	0.45	
2283.99		301.83		7.57	250.34	19.94	0.004447
	2.09966	132681.88					
	86.00	4599.73	12.43	9.09	20408.73	0.45	
2246.31		300.42		7.48	249.35	20.06	0.004414
	2.05938	132157.98					
	87.00	4599.48	12.18	8.97	19460.46	0.45	
2169.06		297.49		7.29	247.29	20.31	0.004372
	1.98928	131064.80					
	88.00	4599.13	11.83	8.82	18221.75	0.45	
2066.49		293.48		7.04	244.47	20.66	0.004320
	1.89823	129566.55					
	89.00	4598.63	11.33	8.58	16489.67	0.45	
1920.76		287.56		6.68	240.28	21.20	0.004300
	1.79234	127347.58					
	90.00	4598.33	11.03	8.44	15473.79	0.45	
1834.08		283.89		6.46	237.67	21.55	0.004316
	1.73997	125967.66					
	91.00	4598.08	10.78	8.30	14638.52	0.45	

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		HYCHAN.OUT					
1763.77	280.80	6.28	235.48	21.85	0.004335		
1.69923	124806.98						
92.00	4597.77	10.47	8.12	13633.57	0.44		
1678.78	276.96	6.06	232.75	22.24	0.004361		
1.64950	123357.11						
93.00	4597.51	10.21	7.97	12825.33	0.44		
1609.20	273.71	5.88	230.43	22.58	0.004381		
1.60741	122129.38						
94.00	4597.28	9.98	7.83	12127.44	0.44		
1548.13	270.77	5.72	228.34	22.89	0.004400		
1.56995	121018.16						
95.00	4597.10	9.80	7.73	11604.66	0.44		
1502.17	268.50	5.59	226.71	23.13	0.004413		
1.54061	120158.70						
96.00	4596.92	9.62	7.60	11066.34	0.43		
1455.47	266.15	5.47	225.03	23.39	0.004414		
1.50626	119265.16						
97.00	4596.79	9.49	7.50	10684.50	0.43		
1423.83	264.52	5.38	223.86	23.58	0.004405		
1.47942	118647.04						
98.00	4596.67	9.37	7.40	10293.07	0.43		
1391.54	262.84	5.29	222.65	23.77	0.004393		
1.45141	118005.25						
99.00	4596.58	9.28	7.31	10017.84	0.42		
1370.09	261.70	5.24	221.83	23.90	0.004411		
1.44098	117571.88						
100.00	4596.46	9.16	7.20	9649.66	0.42		
1340.60	260.11	5.15	220.69	24.09	0.004493		
1.44502	116968.18						
101.00	4596.36	9.06	7.10	9352.46	0.42		
1316.33	258.79	5.09	219.74	24.24	0.004514		
1.43271	116464.32						
102.00	4596.27	8.97	7.03	9079.68	0.41		
1292.26	257.46	5.02	218.79	24.40	0.004496		
1.40810	115957.66						
103.00	4596.19	8.89	6.97	8867.59	0.41		
1272.81	256.38	4.96	218.01	24.53	0.004477		
1.38705	115542.77						
104.00	4596.10	8.80	6.90	8641.88	0.41		
1252.25	255.21	4.91	217.17	24.68	0.004440		
1.35934	115097.53						
105.00	4595.97	8.67	6.80	8299.33	0.41		
1220.40	253.38	4.82	215.85	24.90	0.004419		
1.32799	114398.10						
106.00	4595.88	8.58	6.74	8092.50	0.41		
1200.77	252.24	4.76	215.02	25.05	0.004398		
1.30657	113961.18						
107.00	4595.81	8.51	6.69	7918.05	0.40		
1184.21	251.26	4.71	214.32	25.17	0.004383		
1.28893	113587.58						
108.00	4595.75	8.45	6.64	7766.32	0.40		
1169.62	250.40	4.67	213.69	25.28	0.004379		
1.27640	113255.60						
109.00	4595.75	8.45	6.64	7766.07	0.40		
1169.50	250.39	4.67	213.69	25.28	0.004388		
1.27889	113254.01						
110.00	4595.82	8.52	6.69	7940.34	0.40		
1186.07	251.38	4.72	214.40	25.16	0.004417		
1.30033	113631.88						
111.00	4595.93	8.63	6.77	8199.81	0.41		
1210.76	252.83	4.79	215.45	24.97	0.004419		
1.32044	114186.51						
112.00	4595.88	8.58	6.74	8091.94	0.41		

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				HYCHAN.OUT			
1200.74		252.24		4.76	215.02	25.05	0.004402
	1.30748	113960.69					
	113.00	4595.84	8.54	6.71	7986.28	0.40	
1190.63		251.65		4.73	214.59	25.12	0.004417
	1.30409	113734.70					
	114.00	4595.96	8.66	6.80	8276.97	0.41	
1217.87		253.24		4.81	215.75	24.92	0.004454
	1.33667	114345.19					
	115.00	4596.08	8.78	6.89	8591.63	0.41	
1247.31		254.94		4.89	216.97	24.71	0.004453
	1.35952	114992.72					
	116.00	4596.04	8.74	6.86	8495.94	0.41	
1238.62		254.44		4.87	216.61	24.77	0.004448
	1.35104	114801.69					
	117.00	4596.03	8.73	6.85	8469.68	0.41	
1236.10		254.29		4.86	216.50	24.79	0.004447
	1.34900	114747.16					
	118.00	4596.04	8.74	6.86	8497.13	0.41	
1238.56		254.44		4.87	216.61	24.77	0.004461
	1.35503	114801.62					
	119.00	4596.10	8.80	6.90	8644.68	0.41	
1252.17		255.21		4.91	217.17	24.68	0.004467
	1.36758	115098.53					
	120.00	4596.11	8.81	6.91	8669.90	0.41	
1254.54		255.35		4.91	217.26	24.66	0.004466
	1.36911	115149.83					
	121.00	4596.10	8.80	6.90	8642.83	0.41	
1252.12		255.21		4.91	217.16	24.68	0.004450
	1.36234	115096.47					
	122.00	4596.04	8.74	6.86	8495.95	0.41	
1238.54		254.43		4.87	216.60	24.77	0.004448
	1.35100	114800.07					
	123.00	4596.02	8.72	6.84	8443.34	0.41	
1233.65		254.15		4.85	216.40	24.81	0.004435
	1.34332	114692.53					
	124.00	4595.97	8.67	6.80	8295.83	0.41	
1219.87		253.36		4.81	215.83	24.91	0.004428
	1.33042	114388.24					
	125.00	4595.96	8.66	6.79	8269.97	0.41	
1217.37		253.21		4.81	215.72	24.92	0.004431
	1.32944	114333.56					
	126.00	4595.95	8.65	6.79	8246.63	0.41	
1215.27		253.09		4.80	215.63	24.94	0.004417
	1.32359	114286.05					
	127.00	4595.89	8.59	6.75	8114.81	0.41	
1202.93		252.37		4.77	215.11	25.03	0.004411
	1.31211	114010.50					
	128.00	4595.88	8.58	6.74	8091.08	0.41	
1200.55		252.23		4.76	215.01	25.05	0.004415
	1.31118	113957.75					
	129.00	4595.88	8.58	6.73	8068.19	0.41	
1198.47		252.11		4.75	214.93	25.06	0.004400
	1.30532	113910.46					
	130.00	4595.82	8.52	6.69	7940.31	0.40	
1186.33		251.39		4.72	214.41	25.15	0.004392
	1.29340	113636.40					
	131.00	4595.83	8.53	6.70	7963.05	0.40	
1188.34		251.51		4.72	214.50	25.14	0.004418
	1.30246	113683.22					
	132.00	4595.94	8.64	6.78	8224.00	0.41	
1212.96		252.96		4.80	215.54	24.96	0.004427
	1.32474	114235.89					
133.00		4595.96	8.66	6.79	8269.83	0.41	

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				HYCHAN.OUT			
1217.40		253.21		4.81	215.72	24.92	0.004426
	1.32788	114334.11					
134.00		4595.96	8.66	6.79	8270.48	0.41	
1217.41		253.22		4.81	215.73	24.92	0.004427
	1.32824	114334.32					
135.00		4595.95	8.65	6.79	8269.90	0.41	
1217.33		253.21		4.81	215.72	24.92	0.004428
	1.32836	114332.42					
136.00		4595.95	8.66	6.79	8269.74	0.41	
1217.35		253.21		4.81	215.72	24.92	0.004428
	1.32843	114333.09					
137.00		4595.96	8.66	6.79	8270.28	0.41	
1217.43		253.22		4.81	215.73	24.92	0.004429
	1.32866	114334.70					
138.00		4595.95	8.65	6.79	8269.71	0.41	
1217.33		253.21		4.81	215.72	24.92	0.004428
	1.32844	114332.54					
139.00		4595.95	8.65	6.79	8246.70	0.41	
1215.28		253.09		4.80	215.63	24.94	0.004417
	1.32345	114286.28					
140.00		4595.89	8.59	6.75	8114.87	0.41	
1202.91		252.37		4.77	215.11	25.03	0.004412
	1.31235	114010.16					
141.00		4595.88	8.58	6.74	8090.68	0.41	
1200.51		252.23		4.76	215.01	25.05	0.004411
	1.31003	113956.93					
142.00		4595.88	8.58	6.74	8090.93	0.41	
1200.53		252.23		4.76	215.01	25.05	0.004412
	1.31043	113957.32					
143.00		4595.88	8.58	6.74	8091.12	0.41	
1200.61		252.23		4.76	215.02	25.05	0.004410
	1.30989	113959.20					
144.00		4595.88	8.58	6.73	8068.11	0.41	
1198.43		252.10		4.75	214.92	25.06	0.004399
	1.30488	113909.40					
145.00		4595.82	8.52	6.69	7940.52	0.40	
1186.25		251.39		4.72	214.40	25.15	0.004399
	1.29526	113634.52					
146.00		4595.81	8.51	6.69	7916.74	0.40	
1184.02		251.26		4.71	214.31	25.17	0.004393
	1.29179	113584.62					
147.00		4595.81	8.51	6.69	7917.22	0.40	
1184.08		251.26		4.71	214.31	25.17	0.004392
	1.29154	113585.98					
148.00		4595.81	8.51	6.69	7916.88	0.40	
1184.05		251.26		4.71	214.31	25.17	0.004392
	1.29141	113585.24					
149.00		4595.81	8.51	6.69	7917.10	0.40	
1184.04		251.26		4.71	214.31	25.17	0.004397
	1.29290	113585.15					
150.00		4595.81	8.51	6.68	7901.83	0.40	
1182.66		251.18		4.71	214.25	25.18	0.004387
	1.28902	113553.32					
151.00		4595.77	8.47	6.65	7809.21	0.40	
1173.80		250.65		4.68	213.87	25.25	0.004380
	1.27992	113351.38					
152.00		4595.75	8.45	6.64	7750.63	0.40	
1168.08		250.31		4.67	213.62	25.29	0.004379
	1.27522	113220.75					
153.00		4595.74	8.44	6.63	7743.07	0.40	
1167.32		250.26		4.66	213.59	25.30	0.004378
	1.27415	113203.59					
154.00		4595.73	8.43	6.63	7720.73	0.40	

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1165.32		250.14		4.66	213.50	25.31	0.004366
	1.26906	113156.99					
155.00		4595.70	8.40	6.60	7637.36	0.40	
1157.07		249.65		4.63	213.15	25.38	0.004383
	1.26760	112968.04					
156.00		4595.79	8.49	6.67	7870.76	0.40	
1179.49		250.99		4.70	214.12	25.21	0.004394
	1.28846	113482.38					
157.00		4595.81	8.51	6.69	7916.93	0.40	
1183.99		251.26		4.71	214.31	25.17	0.004393
	1.29180	113583.97					
158.00		4595.81	8.51	6.69	7917.12	0.40	
1184.06		251.26		4.71	214.31	25.17	0.004390
	1.29101	113585.60					
159.00		4595.81	8.51	6.69	7916.92	0.40	
1184.01		251.26		4.71	214.31	25.17	0.004393
	1.29178	113584.54					
160.00		4595.81	8.51	6.69	7916.69	0.40	
1183.96		251.25		4.71	214.31	25.17	0.004397
	1.29284	113583.28					
161.00		4595.81	8.51	6.69	7917.30	0.40	
1184.03		251.26		4.71	214.31	25.17	0.004394
	1.29207	113584.91					
162.00		4595.81	8.51	6.69	7917.05	0.40	
1184.02		251.26		4.71	214.31	25.17	0.004393
	1.29191	113584.54					
163.00		4595.81	8.51	6.69	7916.97	0.40	
1184.05		251.26		4.71	214.31	25.17	0.004394
	1.29200	113585.27					
164.00		4595.80	8.50	6.68	7894.18	0.40	
1181.91		251.13		4.71	214.22	25.19	0.004386
	1.28795	113536.18					
165.00		4595.75	8.45	6.64	7766.33	0.40	
1169.67		250.40		4.67	213.69	25.28	0.004381
	1.27687	113256.81					
166.00		4595.74	8.44	6.63	7743.13	0.40	
1167.36		250.27		4.66	213.59	25.30	0.004379
	1.27470	113204.57					
167.00		4595.74	8.44	6.63	7742.99	0.40	
1167.33		250.26		4.66	213.59	25.30	0.004378
	1.27433	113203.73					
168.00		4595.74	8.44	6.63	7742.88	0.40	
1167.35		250.26		4.66	213.59	25.30	0.004373
	1.27290	113204.33					
169.00		4595.74	8.44	6.63	7743.12	0.40	
1167.38		250.27		4.66	213.59	25.30	0.004376
	1.27364	113204.95					
170.00		4595.74	8.44	6.63	7742.98	0.40	
1167.34		250.26		4.66	213.59	25.30	0.004377
	1.27389	113204.09					
171.00		4595.74	8.44	6.63	7743.08	0.40	
1167.34		250.26		4.66	213.59	25.30	0.004374
	1.27310	113204.05					
172.00		4595.73	8.43	6.63	7720.45	0.40	
1165.25		250.14		4.66	213.50	25.31	0.004363
	1.26831	113155.48					
173.00		4595.68	8.38	6.59	7592.40	0.40	
1152.97		249.40		4.62	212.97	25.41	0.004356
	1.25674	112872.12					
174.00		4595.67	8.37	6.58	7568.96	0.40	
1150.57		249.26		4.62	212.86	25.43	0.004356
	1.25471	112817.24					
175.00		4595.67	8.37	6.58	7569.07	0.40	

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				HYCHAN.OUT			
1150.60		249.26		4.62	212.86	25.43	0.004362
	1.25633	112817.84					
176.00		4595.67	8.37	6.58	7569.20	0.40	
1150.59		249.26		4.62	212.86	25.43	0.004353
	1.25395	112817.73					
177.00		4595.67	8.37	6.58	7569.00	0.40	
1150.59		249.26		4.62	212.86	25.43	0.004357
	1.25514	112817.60					
178.00		4595.67	8.37	6.58	7568.67	0.40	
1150.52		249.25		4.62	212.86	25.43	0.004362
	1.25644	112816.09					
179.00		4595.69	8.39	6.59	7614.18	0.40	
1154.83		249.51		4.63	213.05	25.40	0.004384
	1.26627	112916.64					
180.00		4595.79	8.49	6.67	7870.40	0.40	
1179.45		250.99		4.70	214.12	25.21	0.004393
	1.28826	113481.46					
181.00		4595.82	8.52	6.69	7939.85	0.40	
1186.16		251.38		4.72	214.40	25.16	0.004404
	1.29671	113633.51					
182.00		4595.87	8.57	6.73	8068.17	0.41	
1198.35		252.10		4.75	214.92	25.06	0.004410
	1.30821	113908.82					
183.00		4595.88	8.58	6.74	8091.12	0.41	
1200.60		252.23		4.76	215.02	25.05	0.004407
	1.30899	113958.97					
184.00		4595.88	8.58	6.74	8090.48	0.41	
1200.63		252.24		4.76	215.02	25.05	0.004412
	1.31057	113959.51					
185.00		4595.88	8.58	6.74	8091.19	0.41	
1200.64		252.24		4.76	215.02	25.05	0.004412
	1.31045	113959.84					
186.00		4595.88	8.58	6.74	8090.99	0.41	
1200.63		252.24		4.76	215.02	25.05	0.004410
	1.30992	113959.45					
187.00		4595.88	8.58	6.74	8090.95	0.41	
1200.53		252.23		4.76	215.01	25.05	0.004412
	1.31025	113957.24					
188.00		4595.88	8.58	6.74	8091.05	0.41	
1200.66		252.24		4.76	215.02	25.05	0.004409
	1.30955	113960.18					
189.00		4595.88	8.58	6.74	8091.04	0.41	
1200.63		252.24		4.76	215.02	25.05	0.004412
	1.31042	113959.54					
190.00		4595.88	8.58	6.73	8068.20	0.41	
1198.47		252.11		4.75	214.93	25.06	0.004401
	1.30563	113910.36					
191.00		4595.82	8.52	6.69	7940.30	0.40	
1186.33		251.39		4.72	214.41	25.15	0.004391
	1.29314	113636.39					
192.00		4595.81	8.51	6.69	7916.84	0.40	
1184.00		251.26		4.71	214.31	25.17	0.004392
	1.29136	113584.30					
193.00		4595.81	8.51	6.69	7916.97	0.40	
1184.03		251.26		4.71	214.31	25.17	0.004395
	1.29231	113584.84					
194.00		4595.81	8.51	6.69	7916.88	0.40	
1183.99		251.26		4.71	214.31	25.17	0.004397
	1.29284	113584.03					
195.00		4595.81	8.51	6.69	7917.03	0.40	
1183.99		251.26		4.71	214.31	25.17	0.004394
	1.29192	113583.98					
196.00		4595.81	8.51	6.69	7917.16	0.40	

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		HYCHAN.OUT					
1183.99	251.26	4.71	214.31	25.17	0.004392		
1.29153	113583.92						
197.00	4595.81	8.51	6.69	7917.28	0.40		
1184.03	251.26	4.71	214.31	25.17	0.004392		
1.29156	113584.91						
198.00	4595.81	8.51	6.69	7916.47	0.40		
1183.93	251.25	4.71	214.31	25.17	0.004395		
1.29220	113582.71						
199.00	4595.81	8.51	6.69	7917.11	0.40		
1184.01	251.26	4.71	214.31	25.17	0.004393		
1.29181	113584.42						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 418

MAXIMUM DISCHARGE (CFS) = 21683.60 AT TIME = 79.91  
 MAXIMUM STAGE = 4597.59 AT TIME = 80.00

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	AREA	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4584.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4584.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4589.64	5.24	3.86	3529.95	0.30			
913.92	199.80	4.57	176.48	33.68	0.003353			
0.95692	90005.43							
3.00	4591.93	7.53	5.47	5513.43	0.35			
1008.29	237.15	4.25	204.07	27.09	0.003354			
0.88971	104076.05							
4.00	4591.87	7.47	5.43	5401.71	0.35			
995.05	236.28	4.21	203.43	27.22	0.003358			
0.88232	103750.86							
5.00	4591.85	7.45	5.41	5362.01	0.35			
990.26	235.96	4.20	203.20	27.26	0.003357			
0.87916	103632.70							
6.00	4591.79	7.39	5.37	5234.93	0.35			
975.12	234.95	4.15	202.46	27.41	0.003365			
0.87145	103254.55							
7.00	4591.70	7.30	5.31	5083.39	0.35			
956.89	233.71	4.09	201.56	27.60	0.003369			
0.86068	102794.48							
8.00	4591.62	7.22	5.26	4933.92	0.34			
938.77	232.47	4.04	200.65	27.79	0.003376			
0.85060	102330.60							
9.00	4591.54	7.15	5.20	4797.71	0.34			
922.02	231.30	3.99	199.80	27.96	0.003381			
0.84095	101896.66							
10.00	4591.52	7.12	5.19	4757.58	0.34			
917.04	230.96	3.97	199.54	28.02	0.003380			
0.83740	101766.52							
11.00	4591.45	7.05	5.14	4633.19	0.34			
901.60	229.86	3.92	198.74	28.19	0.003387			
0.82888	101357.05							
12.00	4591.37	6.97	5.08	4495.78	0.34			
884.24	228.62	3.87	197.83	28.38	0.003391			

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		HYCHAN.OUT					
	0.81847	100893.10					
880.79	13.00	4591.35	6.95	5.07	4468.94	0.34	
		228.37	3.86		197.65	28.42	0.003392
	0.81629	100801.03					
880.79	14.00	4591.35	6.95	5.07	4469.00	0.34	
		228.37	3.86		197.65	28.42	0.003392
	0.81642	100801.17					
880.79	15.00	4591.35	6.95	5.07	4469.00	0.34	
		228.37	3.86		197.65	28.42	0.003392
	0.81634	100800.95					
880.80	16.00	4591.35	6.95	5.07	4469.02	0.34	
		228.37	3.86		197.65	28.42	0.003391
	0.81622	100801.35					
882.42	17.00	4591.36	6.96	5.08	4482.21	0.34	
		228.49	3.86		197.74	28.40	0.003391
	0.81717	100845.82					
898.37	18.00	4591.44	7.04	5.13	4608.90	0.34	
		229.64	3.91		198.58	28.22	0.003384
	0.82618	101274.54					
917.38	19.00	4591.52	7.12	5.19	4760.88	0.34	
		230.98	3.97		199.56	28.01	0.003378
	0.83727	101777.22					
934.40	20.00	4591.60	7.20	5.24	4899.18	0.34	
		232.17	4.02		200.43	27.83	0.003373
	0.84720	102220.51					
937.46	21.00	4591.62	7.22	5.25	4923.79	0.34	
		232.38	4.03		200.59	27.80	0.003374
	0.84934	102298.97					
939.23	22.00	4591.62	7.22	5.26	4938.55	0.34	
		232.51	4.04		200.68	27.78	0.003373
	0.85013	102345.18					
956.66	23.00	4591.70	7.30	5.31	5082.49	0.35	
		233.70	4.09		201.55	27.60	0.003366
	0.85986	102791.52					
990.46	24.00	4591.85	7.45	5.42	5365.38	0.35	
		235.98	4.20		203.21	27.26	0.003355
	0.87881	103639.05					
1026.35	25.00	4592.01	7.61	5.53	5672.19	0.35	
		238.33	4.31		204.93	26.92	0.003346
	0.89902	104515.48					
1057.32	26.00	4592.15	7.75	5.62	5941.23	0.36	
		240.32	4.40		206.38	26.64	0.003337
	0.91605	105253.09					
1062.42	27.00	4592.17	7.77	5.63	5985.08	0.36	
		240.64	4.41		206.61	26.59	0.003337
	0.91937	105372.09					
1064.59	28.00	4592.18	7.78	5.64	6004.70	0.36	
		240.78	4.42		206.71	26.57	0.003336
	0.92043	105423.63					
1078.50	29.00	4592.24	7.84	5.68	6128.27	0.36	
		241.65	4.46		207.35	26.45	0.003330
	0.92751	105747.70					
1081.25	30.00	4592.25	7.85	5.69	6152.02	0.36	
		241.82	4.47		207.47	26.43	0.003331
	0.92932	105810.84					
1083.58	31.00	4592.26	7.86	5.70	6173.12	0.36	
		241.97	4.48		207.58	26.41	0.003330
	0.93049	105865.35					
1097.89	32.00	4592.32	7.92	5.74	6301.62	0.36	
		242.86	4.52		208.22	26.28	0.003326
	0.93811	106194.40					
1100.67	33.00	4592.33	7.93	5.75	6326.03	0.36	
		243.03	4.53		208.35	26.26	0.003325

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	0.93972	106257.37						
1098.33	34.00	4592.32	7.92	4.52	5.74	6305.02	0.36	0.003326
	0.93849	106203.28						
1084.02	35.00	4592.26	7.86	4.48	5.70	6176.50	0.36	0.003330
	0.93075	105874.04						
1079.02	36.00	4592.24	7.84	4.46	5.68	6131.93	0.36	0.003332
	0.92826	105758.62						
1065.15	37.00	4592.18	7.78	4.42	5.64	6008.75	0.36	0.003336
	0.92081	105435.38						
1062.41	38.00	4592.17	7.77	4.41	5.63	5984.95	0.36	0.003338
	0.91952	105372.01						
1062.41	39.00	4592.17	7.77	4.41	5.63	5985.08	0.36	0.003336
	0.91907	105371.93						
1062.41	40.00	4592.17	7.77	4.41	5.63	5985.01	0.36	0.003336
	0.91898	105371.99						
1062.41	41.00	4592.17	7.77	4.41	5.63	5984.97	0.36	0.003336
	0.91893	105371.95						
1064.62	42.00	4592.18	7.78	4.42	5.64	6004.87	0.36	0.003336
	0.92036	105424.27						
1078.54	43.00	4592.24	7.84	4.46	5.68	6128.53	0.36	0.003332
	0.92790	105748.64						
1083.56	44.00	4592.26	7.86	4.48	5.70	6173.03	0.36	0.003330
	0.93054	105864.81						
1100.25	45.00	4592.33	7.93	4.53	5.75	6323.12	0.36	0.003324
	0.93900	106248.53						
1119.50	46.00	4592.41	8.01	4.58	5.80	6497.99	0.36	0.003319
	0.94961	106685.48						
1138.48	47.00	4592.49	8.09	4.64	5.86	6672.19	0.36	0.003313
	0.95924	107110.62						
1157.21	48.00	4592.57	8.17	4.70	5.91	6844.40	0.36	0.003308
	0.96917	107524.84						
1176.82	49.00	4592.65	8.25	4.75	5.96	7017.48	0.37	0.003303
	0.97945	107953.00						
1197.23	50.00	4592.74	8.34	4.81	6.02	7211.19	0.37	0.003294
	0.98899	108392.96						
1226.66	51.00	4592.86	8.46	4.90	6.11	7491.62	0.37	0.003289
	1.00513	109017.42						
1234.18	52.00	4592.89	8.49	4.92	6.13	7563.69	0.37	0.003288
	1.00920	109174.80						
1254.26	53.00	4592.97	8.57	4.98	6.19	7759.75	0.37	0.003282
	1.01907	109592.42						
1308.13	54.00	4593.19	8.79	5.13	6.34	8294.21	0.38	0.003265
		255.03						

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1388.28	1.04489	110686.78	9.10	5.35	6.57	9115.14	0.38	0.003255
	55.00	4593.50				220.10	24.18	
	1.08737	112251.95						
1493.38	56.00	4593.90	9.50	5.64	6.86	10244.50	0.39	0.003200
		264.62				223.93	23.57	
	1.12700	114204.27						
1629.01	57.00	4594.40	10.00	6.01	7.14	11635.13	0.40	0.003132
		271.13				228.59	22.85	
	1.17432	116581.17						
1758.10	58.00	4594.87	10.47	6.35	7.27	12786.89	0.40	0.003069
		276.97				232.76	22.24	
	1.21577	118705.26						
1879.48	59.00	4595.29	10.89	6.66	7.39	13886.19	0.39	0.003003
		282.17				236.46	21.72	
	1.24823	120594.01						
2026.39	60.00	4595.78	11.38	7.03	7.52	15232.57	0.39	0.002937
		288.17				240.71	21.15	
	1.28882	122761.27						
2117.41	61.00	4596.08	11.68	7.26	7.60	16091.19	0.39	0.002907
		291.72				243.22	20.82	
	1.31668	124044.05						
2191.80	62.00	4596.32	11.92	7.44	7.72	16916.95	0.39	0.002899
		294.55				245.22	20.57	
	1.34593	125061.61						
2236.40	63.00	4596.47	12.07	7.55	7.79	17425.08	0.40	0.002883
		296.21				246.39	20.42	
	1.35820	125658.72						
2294.60	64.00	4596.65	12.25	7.69	7.88	18078.77	0.40	0.002855
		298.34				247.89	20.23	
	1.37017	126422.59						
2338.42	65.00	4596.79	12.39	7.80	7.95	18590.95	0.40	0.002850
		299.92				249.00	20.10	
	1.38658	126991.46						
2344.78	66.00	4596.81	12.41	7.81	7.96	18664.22	0.40	0.002856
		300.15				249.16	20.08	
	1.39211	127072.79						
2345.76	67.00	4596.81	12.41	7.81	7.96	18670.64	0.40	0.002848
		300.18				249.19	20.08	
	1.38858	127085.15						
2345.80	68.00	4596.81	12.41	7.81	7.96	18673.37	0.40	0.002857
		300.18				249.19	20.08	
	1.39335	127085.66						
2346.43	69.00	4596.81	12.41	7.82	7.96	18679.71	0.40	0.002845
		300.21				249.20	20.07	
	1.38754	127093.79						
2346.77	70.00	4596.81	12.42	7.82	7.96	18686.44	0.40	0.002845
		300.22				249.21	20.07	
	1.38769	127098.05						
2347.09	71.00	4596.82	12.42	7.82	7.96	18685.69	0.40	0.002858
		300.23				249.22	20.07	
	1.39409	127102.23						
2349.73	72.00	4596.82	12.42	7.82	7.97	18719.51	0.40	0.002859
		300.33				249.29	20.06	
	1.39604	127136.30						
2370.74	73.00	4596.89	12.49	7.87	8.00	18959.98	0.40	0.002850
		301.07				249.81	20.00	
	1.40042	127404.41						
2379.19	74.00	4596.92	12.52	7.89	8.01	19054.97	0.40	0.002839
		301.37				250.02	19.98	
	1.39843	127511.36						
2381.78	75.00	4596.92	12.52	7.90	8.01	19087.40	0.40	0.002843
		301.46				250.09	19.97	

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1.40137	127544.40						
76.00	4597.01	12.61	7.96	8.06	19398.03	0.40	
2408.06	302.39				250.74	19.89	0.002839
1.41088	127876.24						
77.00	4597.16	12.76	8.09	8.14	20009.01	0.40	
2459.48	304.18				251.99	19.74	0.002813
1.41915	128516.87						
78.00	4597.29	12.89	8.18	8.19	20485.12	0.40	
2499.75	305.56				252.96	19.63	0.002804
1.43135	129011.64						
79.00	4597.40	13.00	8.27	8.25	20917.06	0.40	
2536.06	306.79				253.83	19.53	0.002797
1.44291	129452.36						
80.00	4597.54	13.14	8.37	8.31	21454.87	0.40	
2581.47	308.32				254.90	19.41	0.002768
1.44627	129997.24						
81.00	4597.52	13.12	8.36	8.30	21399.58	0.40	
2576.97	308.16				254.79	19.42	0.002783
1.45207	129941.75						
82.00	4597.43	13.03	8.29	8.26	21036.04	0.40	
2547.57	307.18				254.10	19.50	0.002794
1.44571	129589.70						
83.00	4597.41	13.01	8.27	8.25	20939.44	0.40	
2538.91	306.89				253.89	19.52	0.002785
1.43765	129485.99						
84.00	4597.40	13.00	8.27	8.25	20930.78	0.40	
2537.86	306.85				253.87	19.52	0.002802
1.44604	129473.48						
85.00	4597.39	12.99	8.26	8.24	20880.41	0.40	
2532.81	306.68				253.75	19.54	0.002806
1.44619	129411.72						
86.00	4597.28	12.88	8.17	8.18	20425.57	0.40	
2496.42	305.43				252.88	19.64	0.002801
1.42852	128966.73						
87.00	4597.03	12.63	7.98	8.06	19485.17	0.40	
2416.80	302.67				250.94	19.87	0.002840
1.41493	127978.02						
88.00	4596.70	12.30	7.73	7.90	18249.48	0.40	
2311.47	298.92				248.30	20.18	0.002870
1.38469	126631.43						
89.00	4596.21	11.81	7.36	7.65	16509.08	0.39	
2157.47	293.23				244.29	20.68	0.002921
1.34112	124585.62						
90.00	4595.88	11.48	7.11	7.53	15488.77	0.39	
2055.96	289.32				241.52	21.04	0.002962
1.31348	123176.75						
91.00	4595.58	11.18	6.88	7.46	14654.73	0.39	
1965.24	285.69				238.96	21.38	0.003011
1.29251	121867.62						
92.00	4595.20	10.80	6.60	7.36	13650.00	0.39	
1855.22	281.14				235.72	21.82	0.003065
1.26222	120217.60						
93.00	4594.89	10.49	6.37	7.27	12838.85	0.40	
1765.65	277.28				232.98	22.21	0.003105
1.23365	118819.86						
94.00	4594.61	10.21	6.16	7.19	12138.27	0.40	
1687.13	273.79				230.49	22.57	0.003141
1.20761	117549.56						
95.00	4594.40	10.00	6.01	7.13	11614.37	0.40	
1627.86	271.07				228.55	22.86	0.003173
1.18916	116559.55						
96.00	4594.18	9.78	5.85	7.06	11073.76	0.40	
1569.00	268.30				226.57	23.16	0.003194

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	1.16535	115549.38						
1533.72	97.00	4594.05	9.65	5.75	6.97	10690.10	0.40	0.003203
	1.14975	114929.95						
1498.35	98.00	4593.92	9.52	5.66	6.87	10297.72	0.39	0.003195
	1.12788	114297.85						
1473.61	99.00	4593.83	9.43	5.59	6.80	10021.76	0.39	0.003187
	1.11160	113848.32						
1439.76	100.00	4593.70	9.30	5.50	6.71	9655.11	0.39	0.003256
	1.11683	113223.59						
1411.81	101.00	4593.59	9.19	5.42	6.63	9357.34	0.39	0.003245
	1.09747	112700.57						
1385.73	102.00	4593.49	9.09	5.35	6.56	9083.50	0.38	0.003253
	1.08538	112204.98						
1365.02	103.00	4593.41	9.01	5.29	6.50	8870.78	0.38	0.003259
	1.07559	111806.35						
1343.30	104.00	4593.33	8.93	5.23	6.44	8646.38	0.38	0.003262
	1.06441	111382.16						
1309.49	105.00	4593.19	8.79	5.13	6.34	8304.12	0.38	0.003276
	1.04926	110712.22						
1288.44	106.00	4593.11	8.71	5.07	6.28	8095.32	0.38	0.003277
	1.03736	110289.81						
1270.82	107.00	4593.04	8.64	5.02	6.23	7920.87	0.37	0.003280
	1.02809	109931.23						
1255.17	108.00	4592.97	8.57	4.98	6.19	7767.90	0.37	0.003282
	1.01969	109610.06						
1254.78	109.00	4592.97	8.57	4.98	6.19	7764.67	0.37	0.003284
	1.01991	109603.13						
1272.17	110.00	4593.04	8.64	5.03	6.24	7936.12	0.37	0.003277
	1.02815	109960.91						
1298.66	111.00	4593.15	8.75	5.10	6.31	8198.17	0.38	0.003274
	1.04233	110497.73						
1288.41	112.00	4593.11	8.71	5.07	6.28	8094.80	0.38	0.003276
	1.03714	110289.33						
1277.28	113.00	4593.06	8.66	5.04	6.25	7985.10	0.37	0.003281
	1.03224	110064.72						
1305.83	114.00	4593.18	8.78	5.12	6.33	8270.83	0.38	0.003272
	1.04595	110642.24						
1337.48	115.00	4593.30	8.90	5.21	6.42	8589.88	0.38	0.003264
	1.06141	111270.39						
1328.56	116.00	4593.27	8.87	5.19	6.40	8497.59	0.38	0.003264
	1.05648	111093.37						
1325.73	117.00	4593.26	8.86	5.18	6.39	8469.74	0.38	0.003265
		255.98						

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	1.05521	111038.09						
1328.22	118.00	4593.27	8.87	5.19	6.40	8495.56	0.38	
	1.05781	111087.78				217.82	24.57	0.003269
1342.67	119.00	4593.32	8.92	5.23	6.44	8643.06	0.38	
	1.06354	111372.54				218.38	24.47	0.003261
1345.35	120.00	4593.33	8.93	5.23	6.44	8669.89	0.38	
	1.06522	111424.51				218.48	24.45	0.003261
1342.87	121.00	4593.32	8.92	5.23	6.44	8644.40	0.38	
	1.06401	111375.43				218.38	24.47	0.003262
1328.48	122.00	4593.27	8.87	5.19	6.40	8497.51	0.38	
	1.05760	111091.89				217.83	24.56	0.003268
1323.25	123.00	4593.25	8.85	5.17	6.38	8444.89	0.38	
	1.05380	110988.32				217.62	24.60	0.003265
1308.65	124.00	4593.19	8.79	5.13	6.34	8297.54	0.38	
	1.04697	110697.33				217.05	24.70	0.003270
1305.82	125.00	4593.18	8.78	5.12	6.33	8270.03	0.38	
	1.04638	110641.25				216.94	24.71	0.003273
1303.73	126.00	4593.17	8.77	5.12	6.33	8247.90	0.38	
	1.04488	110598.88				216.86	24.73	0.003272
1290.63	127.00	4593.12	8.72	5.08	6.29	8116.31	0.38	
	1.03762	110334.88				216.34	24.82	0.003273
1287.96	128.00	4593.11	8.71	5.07	6.28	8091.19	0.38	
	1.03739	110281.34				216.24	24.84	0.003278
1285.83	129.00	4593.10	8.70	5.07	6.28	8069.50	0.38	
	1.03548	110237.75				216.15	24.85	0.003275
1272.94	130.00	4593.05	8.65	5.03	6.24	7941.75	0.37	
	1.02875	109975.34				215.64	24.94	0.003278
1274.72	131.00	4593.05	8.65	5.03	6.24	7960.32	0.37	
	1.03043	110012.80				215.71	24.93	0.003280
1300.87	132.00	4593.16	8.76	5.11	6.32	8221.02	0.38	
	1.04286	110542.57				216.75	24.75	0.003271
1305.86	133.00	4593.18	8.78	5.12	6.33	8269.76	0.38	
	1.04569	110642.03				216.95	24.71	0.003271
1305.88	134.00	4593.18	8.78	5.12	6.33	8270.58	0.38	
	1.04571	110642.49				216.95	24.71	0.003271
1305.78	135.00	4593.18	8.78	5.12	6.33	8269.90	0.38	
	1.04560	110640.62				216.94	24.71	0.003271
1305.82	136.00	4593.18	8.78	5.12	6.33	8269.68	0.38	
	1.04509	110641.28				216.94	24.71	0.003269
1305.89	137.00	4593.18	8.78	5.12	6.33	8270.33	0.38	
	1.04523	110642.69				216.95	24.71	0.003270
1305.79	138.00	4593.18	8.78	5.12	6.33	8269.69	0.38	
		254.90				216.94	24.71	0.003271

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	1.04563	110640.72						
1303.72	139.00	4593.17	8.77	5.12	6.33	8247.98	0.38	
	1.04467	110598.76				216.86	24.73	0.003272
1290.62	140.00	4593.12	8.72	5.08	6.29	8116.46	0.38	
	1.03833	110334.74				216.34	24.82	0.003276
1287.94	141.00	4593.11	8.71	5.07	6.28	8090.78	0.38	
	1.03646	110280.94				216.24	24.84	0.003275
1287.93	142.00	4593.11	8.71	5.07	6.28	8090.93	0.38	
	1.03719	110280.83				216.24	24.84	0.003277
1288.02	143.00	4593.11	8.71	5.07	6.28	8091.00	0.38	
	1.03714	110282.64				216.24	24.84	0.003277
1285.81	144.00	4593.10	8.70	5.07	6.28	8069.57	0.38	
	1.03590	110237.42				216.15	24.85	0.003277
1272.88	145.00	4593.05	8.65	5.03	6.24	7942.01	0.37	
	1.03014	109973.99				215.64	24.94	0.003282
1270.35	146.00	4593.04	8.64	5.02	6.23	7916.60	0.37	
	1.02825	109922.87				215.54	24.96	0.003281
1270.43	147.00	4593.04	8.64	5.02	6.23	7917.27	0.37	
	1.02735	109924.55				215.54	24.96	0.003278
1270.40	148.00	4593.04	8.64	5.02	6.23	7916.86	0.37	
	1.02788	109923.85				215.54	24.96	0.003280
1270.39	149.00	4593.04	8.64	5.02	6.23	7917.16	0.37	
	1.02811	109923.65				215.54	24.96	0.003281
1269.01	150.00	4593.03	8.63	5.02	6.23	7902.75	0.37	
	1.02747	109895.07				215.48	24.97	0.003281
1259.62	151.00	4592.99	8.59	4.99	6.20	7810.72	0.37	
	1.02246	109701.92				215.10	25.03	0.003283
1253.44	152.00	4592.97	8.57	4.97	6.18	7751.11	0.37	
	1.01949	109574.80				214.85	25.08	0.003285
1252.59	153.00	4592.96	8.56	4.97	6.18	7743.02	0.37	
	1.01844	109557.55				214.82	25.08	0.003283
1250.56	154.00	4592.96	8.56	4.97	6.17	7722.12	0.37	
	1.01710	109514.78				214.73	25.10	0.003283
1241.54	155.00	4592.92	8.52	4.94	6.15	7636.10	0.37	
	1.01379	109328.23				214.37	25.16	0.003289
1265.30	156.00	4593.02	8.62	5.01	6.22	7867.72	0.37	
	1.02441	109819.96				215.33	24.99	0.003278
1270.33	157.00	4593.04	8.64	5.02	6.23	7916.99	0.37	
	1.02724	109922.52				215.53	24.96	0.003278
1270.40	158.00	4593.04	8.64	5.02	6.23	7917.07	0.37	
	1.02693	109923.89				215.54	24.96	0.003277
1270.34	159.00	4593.04	8.64	5.02	6.23	7916.92	0.37	
		252.95				215.53	24.96	0.003278

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				HYCHAN.OUT				
	1.02713	109922.78						
1270.33	160.00	4593.04	8.64	5.02	6.23	7916.82	0.37	0.003282
		252.95				215.53	24.96	
	1.02839	109922.52						
1270.41	161.00	4593.04	8.64	5.02	6.23	7917.21	0.37	0.003277
		252.96				215.54	24.96	
	1.02704	109924.16						
1270.39	162.00	4593.04	8.64	5.02	6.23	7917.03	0.37	0.003278
		252.95				215.54	24.96	
	1.02728	109923.64						
1270.41	163.00	4593.04	8.64	5.02	6.23	7917.01	0.37	0.003282
		252.96				215.54	24.96	
	1.02846	109924.10						
1268.22	164.00	4593.03	8.63	5.02	6.23	7895.58	0.37	0.003280
		252.83				215.45	24.97	
	1.02655	109878.63						
1255.23	165.00	4592.98	8.58	4.98	6.19	7767.88	0.37	0.003286
		252.11				214.92	25.06	
	1.02087	109611.35						
1252.65	166.00	4592.96	8.56	4.97	6.18	7743.02	0.37	0.003285
		251.96				214.82	25.08	
	1.01915	109558.59						
1252.60	167.00	4592.96	8.56	4.97	6.18	7743.04	0.37	0.003284
		251.96				214.82	25.08	
	1.01886	109557.59						
1252.62	168.00	4592.96	8.56	4.97	6.18	7742.80	0.37	0.003279
		251.96				214.82	25.08	
	1.01716	109557.98						
1252.65	169.00	4592.96	8.56	4.97	6.18	7743.20	0.37	0.003284
		251.96				214.82	25.08	
	1.01872	109558.73						
1252.63	170.00	4592.96	8.56	4.97	6.18	7742.90	0.37	0.003282
		251.96				214.82	25.08	
	1.01816	109558.30						
1252.63	171.00	4592.96	8.56	4.97	6.18	7743.00	0.37	0.003284
		251.96				214.82	25.08	
	1.01883	109558.33						
1250.51	172.00	4592.96	8.56	4.97	6.18	7721.88	0.37	0.003283
		251.84				214.73	25.10	
	1.01737	109513.69						
1237.44	173.00	4592.90	8.50	4.93	6.14	7593.98	0.37	0.003287
		251.10				214.20	25.19	
	1.01074	109241.88						
1234.76	174.00	4592.89	8.49	4.92	6.13	7568.88	0.37	0.003288
		250.95				214.09	25.21	
	1.00957	109186.64						
1234.80	175.00	4592.89	8.49	4.92	6.13	7569.13	0.37	0.003287
		250.96				214.09	25.21	
	1.00922	109187.40						
1234.79	176.00	4592.89	8.49	4.92	6.13	7569.07	0.37	0.003287
		250.96				214.09	25.21	
	1.00906	109187.15						
1234.78	177.00	4592.89	8.49	4.92	6.13	7569.15	0.37	0.003289
		250.95				214.09	25.21	
	1.00971	109186.84						
1234.69	178.00	4592.89	8.49	4.92	6.13	7568.68	0.37	0.003290
		250.95				214.09	25.21	
	1.01000	109185.05						
1239.04	179.00	4592.91	8.51	4.93	6.14	7611.42	0.37	0.003286
		251.20				214.27	25.18	
	1.01144	109276.58						
1265.21	180.00	4593.02	8.62	5.01	6.22	7867.36	0.37	0.003282
		252.67				215.33	24.99	

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1272.52	1.02544	109818.26	8.65	5.03	6.24	7938.47	0.37	0.003278	
	181.00	4593.04				215.62	24.94		
		253.07							
1285.47	1.02860	109967.75	8.70	5.07	6.28	8066.79	0.38	0.003275	
	182.00	4593.10				216.14	24.85		
		253.79							
1287.99	1.03502	110231.47	8.71	5.07	6.28	8091.03	0.38	0.003275	
	183.00	4593.11				216.24	24.84		
		253.93							
1288.04	1.03658	110282.12	8.71	5.07	6.28	8090.51	0.38	0.003277	
	184.00	4593.11				216.24	24.84		
		253.93							
1288.04	1.03724	110282.98	8.71	5.07	6.28	8091.16	0.38	0.003278	
	185.00	4593.11				216.24	24.84		
		253.93							
1288.03	1.03767	110283.02	8.71	5.07	6.28	8091.05	0.38	0.003273	
	186.00	4593.11				216.24	24.84		
		253.93							
1287.93	1.03581	110282.78	8.71	5.07	6.28	8091.01	0.38	0.003274	
	187.00	4593.11				216.24	24.84		
		253.92							
1288.05	1.03619	110280.76	8.71	5.07	6.28	8090.94	0.38	0.003276	
	188.00	4593.11				216.24	24.83		
		253.93							
1288.04	1.03685	110283.30	8.71	5.07	6.28	8091.15	0.38	0.003276	
	189.00	4593.11				216.24	24.83		
		253.93							
1285.86	1.03690	110283.13	8.70	5.07	6.28	8069.54	0.38	0.003273	
	190.00	4593.10				216.15	24.85		
		253.81							
1272.96	1.03486	110238.41	8.65	5.03	6.24	7941.69	0.37	0.003276	
	191.00	4593.05				215.64	24.94		
		253.10							
1270.34	1.02830	109975.75	8.64	5.02	6.23	7916.84	0.37	0.003280	
	192.00	4593.04				215.53	24.96		
		252.95							
1270.41	1.02778	109922.74	8.64	5.02	6.23	7917.05	0.37	0.003281	
	193.00	4593.04				215.54	24.96		
		252.95							
1270.36	1.02816	109924.03	8.64	5.02	6.23	7916.94	0.37	0.003280	
	194.00	4593.04				215.54	24.96		
		252.95							
1270.34	1.02785	109923.12	8.64	5.02	6.23	7916.90	0.37	0.003280	
	195.00	4593.04				215.53	24.96		
		252.95							
1270.34	1.02798	109922.72	8.64	5.02	6.23	7917.25	0.37	0.003278	
	196.00	4593.04				215.53	24.96		
		252.95							
1270.41	1.02729	109922.68	8.64	5.02	6.23	7917.28	0.37	0.003278	
	197.00	4593.04				215.54	24.96		
		252.96							
1270.27	1.02715	109924.08	8.64	5.02	6.23	7916.49	0.37	0.003280	
	198.00	4593.04				215.53	24.96		
		252.95							
1270.33	1.02797	109921.28	8.64	5.02	6.23	7917.01	0.37	0.003279	
	199.00	4593.04				215.53	24.96		
		252.95							
	1.02759	109922.50							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 437

MAXIMUM DISCHARGE (CFS) = 21769.93 AT TIME = 79.90  
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HYCHAN.OUT  
 MAXIMUM STAGE = 4595.35 AT TIME = 80.01

AREA BED (FT^2)	TIME WETTED (HRS)	ELEV. PERIMETER SURFACE (FT)	THALWEG HYDRAULIC AREA (FT^2)	DEPTH RADIUS (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY	FLOW SLOPE
0.00	0.00	4580.95	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4580.95	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
769.71	2.00	4586.56	5.61	3.73	4.39	3375.25	0.33	0.006047
826.18	1.40712	206.39	92515.88	8.43	6.67	5514.50	0.41	0.006037
815.95	3.00	4589.38	8.43	3.30	6.67	5514.50	0.41	0.006037
812.25	1.24486	250.03	108846.63	8.37	6.62	5403.06	0.40	0.006030
800.62	4.00	4589.32	8.37	3.27	6.62	5403.06	0.40	0.006030
786.32	1.23206	249.20	108539.75	8.35	6.60	5363.03	0.40	0.006019
772.06	5.00	4589.30	8.35	3.26	6.60	5363.03	0.40	0.006019
758.79	1.22570	248.90	108429.06	8.28	6.54	5237.43	0.40	0.006003
754.83	6.00	4589.23	8.28	3.23	6.54	5237.43	0.40	0.006003
742.87	1.20955	247.93	108069.94	8.19	6.47	5085.86	0.40	0.005984
729.16	7.00	4589.14	8.19	3.19	6.47	5085.86	0.40	0.005984
726.25	1.18994	246.74	107629.59	8.11	6.39	4936.44	0.40	0.005968
726.26	8.00	4589.06	8.11	3.14	6.39	4936.44	0.40	0.005968
727.45	1.17091	245.53	107184.94	8.03	6.32	4799.16	0.39	0.005957
727.45	9.00	4588.98	8.03	3.10	6.32	4799.16	0.39	0.005957
727.45	1.15410	244.41	106767.54	8.01	6.30	4758.59	0.39	0.005947
727.45	10.00	4588.96	8.01	3.09	6.30	4758.59	0.39	0.005947
727.45	1.14772	244.07	106642.05	7.93	6.24	4635.72	0.39	0.005929
727.45	11.00	4588.88	7.93	3.06	6.24	4635.72	0.39	0.005929
727.45	1.13098	243.01	106252.30	7.85	6.17	4497.43	0.39	0.005917
727.45	12.00	4588.80	7.85	3.02	6.17	4497.43	0.39	0.005917
727.45	1.11341	241.81	105807.45	7.83	6.15	4468.91	0.39	0.005919
727.45	13.00	4588.78	7.83	3.01	6.15	4468.91	0.39	0.005919
727.45	1.11039	241.57	105715.22	7.83	6.15	4469.03	0.39	0.005918
727.45	14.00	4588.78	7.83	3.01	6.15	4469.03	0.39	0.005918
727.45	1.11029	241.57	105715.58	7.83	6.15	4468.99	0.39	0.005918
727.45	15.00	4588.78	7.83	3.01	6.15	4468.99	0.39	0.005918
727.45	1.11016	241.57	105715.39	7.83	6.15	4468.99	0.39	0.005919
727.45	16.00	4588.78	7.83	3.01	6.15	4468.99	0.39	0.005919
727.45	1.11039	241.57	105715.52	7.84	6.16	4481.15	0.39	0.005927
727.45	17.00	4588.79	7.84	3.01	6.16	4481.15	0.39	0.005927
727.45	1.11329	241.68	105756.81					

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739.83	18.00	4588.87	7.92	6.23	4606.30	0.39	
		242.78	3.05	208.17	26.29	0.005946	
	1.13073	106165.04					
754.76	19.00	4588.96	8.01	6.30	4758.27	0.39	
		244.08	3.09	209.11	26.12	0.005966	
	1.15113	106647.82					
768.24	20.00	4589.04	8.09	6.38	4897.70	0.40	
		245.23	3.13	209.95	25.96	0.005976	
	1.16821	107072.88					
770.78	21.00	4589.05	8.10	6.39	4923.86	0.40	
		245.44	3.14	210.10	25.93	0.005976	
	1.17097	107149.88					
772.07	22.00	4589.06	8.11	6.40	4937.44	0.40	
		245.55	3.14	210.18	25.92	0.005985	
	1.17422	107192.42					
785.55	23.00	4589.14	8.19	6.47	5078.88	0.40	
		246.70	3.18	211.01	25.76	0.006012	
	1.19448	107616.60					
811.93	24.00	4589.30	8.35	6.60	5360.46	0.40	
		248.89	3.26	212.60	25.48	0.006046	
	1.23072	108426.66					
840.09	25.00	4589.46	8.51	6.75	5667.37	0.41	
		251.17	3.34	214.25	25.18	0.006081	
	1.26905	109267.54					
864.49	26.00	4589.60	8.65	6.87	5938.72	0.41	
		253.10	3.42	215.65	24.94	0.006096	
	1.29929	109979.06					
868.65	27.00	4589.62	8.67	6.89	5985.05	0.41	
		253.43	3.43	215.88	24.90	0.006097	
	1.30397	110098.05					
870.28	28.00	4589.63	8.68	6.90	6003.54	0.41	
		253.56	3.43	215.97	24.88	0.006105	
	1.30762	110145.71					
881.18	29.00	4589.69	8.74	6.95	6126.87	0.41	
		254.40	3.46	216.58	24.78	0.006115	
	1.32176	110456.07					
883.40	30.00	4589.70	8.75	6.96	6152.04	0.41	
		254.57	3.47	216.70	24.76	0.006115	
	1.32422	110518.58					
885.12	31.00	4589.71	8.76	6.97	6171.88	0.42	
		254.71	3.48	216.80	24.74	0.006124	
	1.32800	110569.47					
896.25	32.00	4589.78	8.83	7.03	6300.20	0.42	
		255.57	3.51	217.42	24.63	0.006133	
	1.34213	110886.34					
898.48	33.00	4589.79	8.84	7.04	6326.07	0.42	
		255.74	3.51	217.54	24.61	0.006132	
	1.34436	110947.79					
896.83	34.00	4589.78	8.83	7.03	6306.24	0.42	
		255.60	3.51	217.44	24.63	0.006123	
	1.34067	110896.13					
885.69	35.00	4589.72	8.77	6.98	6177.87	0.42	
		254.74	3.48	216.82	24.73	0.006114	
	1.32649	110580.16					
881.76	36.00	4589.69	8.74	6.96	6133.14	0.41	
		254.44	3.47	216.61	24.77	0.006104	
	1.32008	110469.80					
870.93	37.00	4589.63	8.68	6.90	6010.10	0.41	
		253.60	3.43	216.00	24.88	0.006097	
	1.30653	110160.02					
868.64	38.00	4589.62	8.67	6.89	5984.96	0.41	
		253.43	3.43	215.88	24.90	0.006097	
	1.30406	110097.63					



		HYCHAN.OUT					
868.65	39.00	4589.62	8.67	6.89	5985.07	0.41	
	1.30396	253.43	3.43	215.88	24.90		0.006097
868.64	40.00	110098.02	8.67	6.89	5984.98	0.41	
	1.30416	253.43	3.43	215.88	24.90		0.006098
868.64	41.00	110097.85	8.67	6.89	5985.01	0.41	
	1.30386	253.43	3.43	215.88	24.90		0.006096
870.29	42.00	110097.82	8.68	6.90	6003.71	0.41	
	1.30769	253.56	3.43	215.97	24.88		0.006106
881.21	43.00	110146.11	8.74	6.95	6127.15	0.41	
	1.32155	254.40	3.46	216.58	24.78		0.006114
885.11	44.00	110456.95	8.76	6.97	6171.78	0.42	
	1.32812	254.71	3.48	216.80	24.74		0.006125
898.02	45.00	110569.28	8.84	7.04	6320.54	0.42	
	1.34596	255.71	3.51	217.52	24.62		0.006142
913.06	46.00	110936.33	8.92	7.11	6495.40	0.42	
	1.36639	256.85	3.55	218.34	24.48		0.006160
927.89	47.00	111355.17	9.00	7.19	6669.63	0.42	
	1.38653	257.95	3.60	219.14	24.34		0.006177
942.59	48.00	111762.11	9.08	7.26	6841.81	0.42	
	1.40631	259.04	3.64	219.92	24.21		0.006194
958.57	49.00	112161.25	9.17	7.32	7014.80	0.43	
	1.42801	260.22	3.68	220.77	24.07		0.006212
974.45	50.00	112593.70	9.26	7.40	7207.56	0.43	
	1.45087	261.37	3.73	221.60	23.94		0.006237
997.32	51.00	113015.23	9.38	7.51	7489.04	0.43	
	1.47982	263.01	3.79	222.77	23.75		0.006254
1003.20	52.00	113614.20	9.41	7.54	7562.57	0.43	
	1.48809	263.42	3.81	223.07	23.70		0.006262
1018.68	53.00	113765.02	9.49	7.61	7754.98	0.44	
	1.51266	264.51	3.85	223.85	23.58		0.006294
1060.28	54.00	114163.40	9.71	7.81	8285.08	0.44	
	1.57275	267.36	3.97	225.90	23.26		0.006356
1122.36	55.00	115207.41	10.03	8.11	9103.63	0.45	
	1.65857	271.47	4.13	228.84	22.81		0.006429
1203.92	56.00	116706.75	10.44	8.50	10227.57	0.46	
	1.77511	276.65	4.35	232.53	22.27		0.006537
1306.74	57.00	118589.22	10.96	8.89	11616.47	0.47	
	1.92166	283.04	4.62	237.07	21.63		0.006670
1399.29	58.00	120907.59	11.44	9.13	12771.16	0.48	
	2.05125	288.81	4.84	241.16	21.09		0.006785
1485.26	59.00	122993.33	11.87	9.34	13867.21	0.48	
	2.18349	293.95	5.05	244.79	20.62		0.006925
		124844.34					

				HYCHAN.OUT			
1588.22	60.00	4593.33	12.38	5.30	9.58	15216.42	0.48
		299.83				248.94	20.11
	2.32534	126958.94					0.007035
1652.54	61.00	4593.64	12.69	5.45	9.73	16080.46	0.48
		303.34				251.41	19.81
	2.41167	128216.78					0.007094
1712.80	62.00	4593.91	12.96	5.59	9.87	16908.27	0.48
		306.33				253.51	19.57
	2.49528	129288.70					0.007152
1750.52	63.00	4594.07	13.12	5.68	9.95	17416.70	0.48
		308.15				254.78	19.42
	2.54811	129938.95					0.007188
1799.32	64.00	4594.28	13.33	5.80	10.04	18070.45	0.48
		310.48				256.41	19.23
	2.60968	130769.98					0.007217
1836.78	65.00	4594.44	13.49	5.88	10.12	18588.55	0.49
		312.22				257.63	19.10
	2.65255	131389.28					0.007226
1842.43	66.00	4594.46	13.51	5.90	10.13	18663.85	0.49
		312.47				257.81	19.08
	2.66273	131480.77					0.007237
1843.20	67.00	4594.47	13.52	5.90	10.13	18670.65	0.49
		312.51				257.83	19.07
	2.66090	131495.06					0.007230
1843.57	68.00	4594.47	13.52	5.90	10.13	18673.48	0.49
		312.52				257.84	19.07
	2.66108	131499.25					0.007229
1843.93	69.00	4594.47	13.52	5.90	10.13	18679.75	0.49
		312.54				257.86	19.07
	2.66069	131506.22					0.007227
1844.04	70.00	4594.47	13.52	5.90	10.13	18686.54	0.49
		312.55				257.86	19.07
	2.65876	131507.47					0.007222
1844.38	71.00	4594.47	13.52	5.90	10.13	18685.94	0.49
		312.57				257.87	19.07
	2.66106	131514.11					0.007227
1846.63	72.00	4594.48	13.53	5.91	10.14	18718.27	0.49
		312.67				257.94	19.06
	2.66687	131551.08					0.007236
1864.27	73.00	4594.56	13.61	5.95	10.17	18956.68	0.49
		313.49				258.52	19.00
	2.68824	131843.16					0.007244
1871.45	74.00	4594.59	13.64	5.96	10.18	19054.91	0.49
		313.81				258.74	18.97
	2.69773	131959.30					0.007250
1873.74	75.00	4594.60	13.65	5.97	10.19	19085.89	0.49
		313.92				258.82	18.97
	2.70475	131996.56					0.007262
1895.85	76.00	4594.69	13.74	6.02	10.23	19391.90	0.49
		314.93				259.52	18.89
	2.73896	132356.16					0.007291
1939.24	77.00	4594.87	13.92	6.12	10.31	20002.07	0.49
		316.88				260.88	18.74
	2.78900	133050.14					0.007303
1973.67	78.00	4595.01	14.06	6.20	10.38	20479.79	0.49
		318.40				261.94	18.63
	2.83925	133591.39					0.007340
2004.45	79.00	4595.14	14.19	6.27	10.43	20911.10	0.49
		319.75				262.88	18.53
	2.87994	134071.11					0.007362
2042.83	80.00	4595.30	14.35	6.36	10.50	21449.06	0.49
		321.41				264.04	18.41
	2.93331	134662.52					0.007396

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2039.68	81.00	4595.28	14.33	6.35	10.49	21404.62	0.49	0.007366
	2.91844	321.26				263.94	18.42	
		134607.75						
2014.43	82.00	4595.18	14.23	6.29	10.44	21039.90	0.49	0.007360
	2.88930	320.18				263.18	18.50	
		134223.59						
2006.93	83.00	4595.15	14.20	6.27	10.43	20940.20	0.49	0.007343
	2.87518	319.85				262.96	18.52	
		134108.73						
2006.06	84.00	4595.15	14.19	6.27	10.43	20930.52	0.49	0.007353
	2.87803	319.82				262.93	18.52	
		134094.72						
2002.31	85.00	4595.13	14.18	6.26	10.43	20884.21	0.49	0.007334
	2.86670	319.64				262.81	18.54	
		134030.66						
1971.75	86.00	4595.00	14.05	6.19	10.37	20440.78	0.49	0.007302
	2.82263	318.28				261.86	18.64	
		133549.28						
1904.35	87.00	4594.72	13.77	6.04	10.24	19508.07	0.49	0.007239
	2.72864	315.26				259.75	18.86	
		132473.38						
1815.17	88.00	4594.34	13.39	5.83	10.07	18274.79	0.48	0.007135
	2.59743	311.16				256.89	19.18	
		131012.29						
1685.51	89.00	4593.78	12.83	5.53	9.81	16526.68	0.48	0.007059
	2.43461	304.94				252.53	19.68	
		128791.30						
1610.12	90.00	4593.43	12.48	5.35	9.63	15501.05	0.48	0.006974
	2.32774	301.01				249.77	20.01	
		127380.95						
1547.19	91.00	4593.12	12.17	5.20	9.48	14668.25	0.48	0.006873
	2.23077	297.46				247.27	20.31	
		126107.37						
1469.71	92.00	4592.74	11.79	5.02	9.30	13663.70	0.48	0.006774
	2.12066	292.97				244.10	20.71	
		124491.55						
1405.83	93.00	4592.42	11.47	4.86	9.14	12850.22	0.48	0.006696
	2.03130	289.15				241.41	21.05	
		123116.59						
1349.75	94.00	4592.13	11.18	4.72	9.00	12147.39	0.47	0.006627
	1.95356	285.70				238.96	21.38	
		121869.89						
1307.36	95.00	4591.91	10.96	4.62	8.89	11622.37	0.47	0.006565
	1.89226	283.03				237.06	21.64	
		120901.96						
1264.18	96.00	4591.68	10.73	4.51	8.76	11080.00	0.47	0.006525
	1.83649	280.28				235.11	21.91	
		119907.80						
1236.88	97.00	4591.55	10.60	4.44	8.65	10694.72	0.47	0.006496
	1.79941	278.63				233.94	22.07	
		119309.86						
1209.24	98.00	4591.41	10.46	4.37	8.52	10301.45	0.46	0.006469
	1.76260	276.94				232.74	22.24	
		118696.93						
1189.75	99.00	4591.32	10.37	4.31	8.43	10024.69	0.46	0.006440
	1.73396	275.73				231.88	22.37	
		118257.31						
1163.40	100.00	4591.19	10.24	4.24	8.30	9660.51	0.46	0.006438
	1.70520	274.07				230.69	22.54	
		117652.95						
1141.51	101.00	4591.08	10.13	4.19	8.20	9361.07	0.45	0.006398
	1.67123	272.68				229.70	22.68	
		117146.90						

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1121.26	102.00 4590.97 271.37	10.02	8.10	9086.73	0.45		
	1.64432 116670.88		4.13	228.77	22.82	0.006378	
1105.13	103.00 4590.89 270.32	9.94	8.03	8873.41	0.45		
	1.62254 116287.12		4.09	228.01	22.94	0.006360	
1088.32	104.00 4590.80 269.21	9.85	7.95	8650.07	0.45		
	1.59828 115881.88		4.04	227.22	23.06	0.006336	
1062.07	105.00 4590.67 267.45	9.72	7.82	8308.14	0.44		
	1.56384 115240.12		3.97	225.96	23.25	0.006311	
1045.61	106.00 4590.58 266.34	9.63	7.74	8097.67	0.44		
	1.54233 114834.90		3.93	225.17	23.37	0.006296	
1031.91	107.00 4590.51 265.40	9.56	7.68	7923.26	0.44		
	1.52338 114491.62		3.89	224.49	23.48	0.006279	
1019.67	108.00 4590.45 264.56	9.50	7.62	7769.13	0.44		
	1.50820 114183.05		3.85	223.89	23.57	0.006271	
1019.22	109.00 4590.45 264.54	9.50	7.62	7763.52	0.44		
	1.50992 114174.16		3.85	223.87	23.58	0.006280	
1032.65	110.00 4590.52 265.47	9.57	7.68	7932.62	0.44		
	1.53001 114514.94		3.89	224.54	23.47	0.006303	
1053.37	111.00 4590.62 266.88	9.67	7.78	8196.76	0.44		
	1.55474 115030.17		3.95	225.55	23.31	0.006313	
1045.60	112.00 4590.58 266.34	9.63	7.74	8097.23	0.44		
	1.54197 114834.79		3.93	225.17	23.37	0.006295	
1036.79	113.00 4590.54 265.75	9.59	7.70	7984.10	0.44		
	1.53475 114618.28		3.90	224.74	23.44	0.006304	
1058.75	114.00 4590.65 267.25	9.70	7.81	8265.86	0.44		
	1.56642 115166.09		3.96	225.82	23.27	0.006336	
1083.56	115.00 4590.78 268.91	9.83	7.93	8588.30	0.45		
	1.59544 115771.02		4.03	227.00	23.09	0.006345	
1076.74	116.00 4590.75 268.45	9.80	7.89	8498.91	0.44		
	1.58589 115603.77		4.01	226.67	23.14	0.006336	
1074.52	117.00 4590.73 268.30	9.78	7.88	8469.87	0.44		
	1.58321 115550.39		4.00	226.57	23.16	0.006335	
1076.35	118.00 4590.74 268.43	9.79	7.89	8494.25	0.44		
	1.58769 115595.69		4.01	226.66	23.14	0.006345	
1087.58	119.00 4590.80 269.17	9.85	7.95	8641.78	0.45		
	1.60156 115867.93		4.04	227.19	23.06	0.006352	
1089.70	120.00 4590.81 269.31	9.86	7.96	8669.84	0.45		
	1.60384 115918.36		4.05	227.29	23.05	0.006352	
1087.87	121.00 4590.80 269.19	9.85	7.95	8645.61	0.45		
	1.60003 115873.04		4.04	227.20	23.06	0.006345	
1076.67	122.00 4590.75 268.44	9.80	7.89	8498.85	0.44		
	1.58572 115601.38		4.01	226.67	23.14	0.006336	

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1072.62	123.00 4590.72 268.17	9.77	4.00	7.87	8446.12	0.44	0.006327
	1.57910 115502.15				226.47	23.17	
1061.26	124.00 4590.67 267.41	9.72	3.97	7.82	8299.02	0.44	0.006318
	1.56464 115223.56				225.93	23.25	
1059.03	125.00 4590.65 267.26	9.70	3.96	7.81	8270.07	0.44	0.006318
	1.56222 115169.56				225.82	23.27	
1057.43	126.00 4590.65 267.15	9.70	3.96	7.80	8248.97	0.44	0.006311
	1.55866 115129.55				225.74	23.28	
1047.26	127.00 4590.59 266.46	9.64	3.93	7.75	8117.60	0.44	0.006302
	1.54561 114877.88				225.25	23.36	
1045.12	128.00 4590.58 266.31	9.63	3.92	7.74	8091.23	0.44	0.006302
	1.54316 114824.72				225.15	23.38	
1043.54	129.00 4590.57 266.21	9.62	3.92	7.73	8070.58	0.44	0.006294
	1.53958 114784.58				225.07	23.39	
1033.52	130.00 4590.52 265.52	9.57	3.89	7.69	7942.97	0.44	0.006288
	1.52724 114534.02				224.58	23.47	
1034.69	131.00 4590.53 265.61	9.58	3.90	7.69	7958.08	0.44	0.006303
	1.53210 114565.74				224.64	23.46	
1055.04	132.00 4590.63 266.99	9.68	3.95	7.79	8218.45	0.44	0.006319
	1.55812 115072.28				225.63	23.30	
1059.05	133.00 4590.65 267.26	9.70	3.96	7.81	8269.79	0.44	0.006319
	1.56238 115170.45				225.82	23.27	
1059.05	134.00 4590.65 267.26	9.70	3.96	7.81	8270.60	0.44	0.006318
	1.56215 115169.97				225.82	23.27	
1058.97	135.00 4590.65 267.25	9.70	3.96	7.81	8269.89	0.44	0.006318
	1.56224 115167.73				225.82	23.27	
1059.01	136.00 4590.65 267.26	9.70	3.96	7.81	8269.66	0.44	0.006319
	1.56252 115169.05				225.82	23.27	
1059.09	137.00 4590.65 267.26	9.70	3.96	7.81	8270.30	0.44	0.006319
	1.56246 115171.28				225.83	23.27	
1058.99	138.00 4590.65 267.26	9.70	3.96	7.81	8269.73	0.44	0.006320
	1.56268 115168.31				225.82	23.27	
1057.43	139.00 4590.65 267.15	9.70	3.96	7.80	8249.06	0.44	0.006311
	1.55886 115129.20				225.74	23.28	
1047.26	140.00 4590.59 266.46	9.64	3.93	7.75	8117.80	0.44	0.006303
	1.54579 114877.79				225.25	23.36	
1045.12	141.00 4590.58 266.32	9.63	3.92	7.74	8090.82	0.44	0.006302
	1.54329 114825.12				225.15	23.38	
1045.07	142.00 4590.58 266.31	9.63	3.92	7.74	8090.89	0.44	0.006303
	1.54355 114823.57				225.14	23.38	
1045.15	143.00 4590.58 266.32	9.63	3.92	7.74	8090.92	0.44	0.006304
	1.54385 114825.92				225.15	23.38	

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1043.51	144.00	4590.57	9.62	7.73	8070.79	0.44	
		266.20		3.92	225.07	23.39	0.006296
	1.53994	114783.16					
1033.41	145.00	4590.52	9.57	7.69	7943.25	0.44	
		265.51		3.89	224.57	23.47	0.006286
	1.52680	114530.41					
1031.42	146.00	4590.51	9.56	7.68	7916.51	0.44	
		265.38		3.89	224.47	23.48	0.006289
	1.52521	114481.84					
1031.50	147.00	4590.51	9.56	7.68	7917.26	0.44	
		265.38		3.89	224.48	23.48	0.006288
	1.52499	114484.18					
1031.45	148.00	4590.51	9.56	7.68	7916.88	0.44	
		265.38		3.89	224.48	23.48	0.006289
	1.52536	114482.73					
1031.46	149.00	4590.51	9.56	7.68	7917.18	0.44	
		265.38		3.89	224.48	23.48	0.006287
	1.52478	114482.91					
1030.43	150.00	4590.50	9.55	7.67	7903.57	0.44	
		265.31		3.88	224.42	23.49	0.006281
	1.52233	114456.35					
1023.14	151.00	4590.47	9.52	7.64	7811.88	0.44	
		264.80		3.86	224.06	23.55	0.006273
	1.51242	114271.89					
1018.28	152.00	4590.44	9.49	7.61	7751.60	0.44	
		264.47		3.85	223.82	23.58	0.006270
	1.50632	114148.97					
1017.57	153.00	4590.44	9.49	7.61	7742.96	0.44	
		264.42		3.85	223.79	23.59	0.006271
	1.50588	114131.16					
1016.11	154.00	4590.43	9.48	7.60	7723.24	0.44	
		264.31		3.84	223.71	23.60	0.006261
	1.50202	114093.05					
1008.95	155.00	4590.39	9.44	7.57	7635.12	0.43	
		263.82		3.82	223.36	23.66	0.006272
	1.49676	113911.11					
1027.35	156.00	4590.49	9.54	7.66	7865.15	0.44	
		265.10		3.88	224.28	23.51	0.006288
	1.52046	114380.72					
1031.40	157.00	4590.51	9.56	7.68	7917.08	0.44	
		265.37		3.89	224.47	23.48	0.006287
	1.52475	114481.13					
1031.47	158.00	4590.51	9.56	7.68	7916.96	0.44	
		265.38		3.89	224.48	23.48	0.006287
	1.52483	114483.64					
1031.44	159.00	4590.51	9.56	7.68	7916.91	0.44	
		265.38		3.89	224.48	23.48	0.006287
	1.52478	114482.48					
1031.38	160.00	4590.51	9.56	7.68	7916.97	0.44	
		265.37		3.89	224.47	23.48	0.006286
	1.52459	114480.38					
1031.41	161.00	4590.51	9.56	7.68	7917.10	0.44	
		265.38		3.89	224.47	23.48	0.006287
	1.52486	114481.72					
1031.43	162.00	4590.51	9.56	7.68	7917.12	0.44	
		265.38		3.89	224.47	23.48	0.006287
	1.52473	114482.06					
1031.47	163.00	4590.51	9.56	7.68	7916.97	0.44	
		265.38		3.89	224.48	23.48	0.006287
	1.52488	114483.34					
1029.87	164.00	4590.50	9.55	7.67	7896.69	0.44	
		265.27		3.88	224.40	23.49	0.006278
	1.52100	114441.76					

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1019.73	165.00 4590.45 264.56	9.50	7.62	7769.21	0.44	0.006271
	1.50818 114184.77	3.85		223.89	23.57	
1017.64	166.00 4590.44 264.42	9.49	7.61	7743.02	0.44	0.006270
	1.50580 114133.23	3.85		223.79	23.59	
1017.61	167.00 4590.44 264.42	9.49	7.61	7743.04	0.44	0.006272
	1.50606 114132.14	3.85		223.79	23.59	
1017.62	168.00 4590.44 264.42	9.49	7.61	7742.71	0.44	0.006271
	1.50586 114133.12	3.85		223.79	23.59	
1017.67	169.00 4590.44 264.43	9.49	7.61	7743.26	0.44	0.006270
	1.50586 114133.94	3.85		223.79	23.59	
1017.62	170.00 4590.44 264.42	9.49	7.61	7742.90	0.44	0.006271
	1.50594 114132.92	3.85		223.79	23.59	
1017.60	171.00 4590.44 264.42	9.49	7.61	7742.92	0.44	0.006272
	1.50614 114132.02	3.85		223.79	23.59	
1016.05	172.00 4590.43 264.31	9.48	7.60	7723.04	0.44	0.006263
	1.50241 114091.38	3.84		223.71	23.60	
1005.92	173.00 4590.38 263.60	9.42	7.55	7595.24	0.43	0.006256
	1.48961 113832.54	3.82		223.20	23.68	
1003.74	174.00 4590.36 263.45	9.41	7.54	7568.90	0.43	0.006257
	1.48764 113778.18	3.81		223.09	23.70	
1003.77	175.00 4590.36 263.46	9.41	7.54	7569.22	0.43	0.006253
	1.48672 113779.05	3.81		223.10	23.70	
1003.74	176.00 4590.36 263.45	9.41	7.54	7568.91	0.43	0.006257
	1.48756 113778.21	3.81		223.09	23.70	
1003.76	177.00 4590.36 263.45	9.41	7.54	7569.29	0.43	0.006255
	1.48708 113778.50	3.81		223.10	23.70	
1003.69	178.00 4590.36 263.45	9.41	7.54	7568.66	0.43	0.006255
	1.48693 113776.55	3.81		223.09	23.70	
1006.93	179.00 4590.38 263.68	9.43	7.56	7609.21	0.43	0.006269
	1.49395 113861.78	3.82		223.26	23.67	
1027.31	180.00 4590.49 265.10	9.54	7.66	7864.77	0.44	0.006289
	1.52078 114379.25	3.88		224.27	23.51	
1033.05	181.00 4590.52 265.49	9.57	7.68	7937.34	0.44	0.006295
	1.52841 114524.03	3.89		224.56	23.47	
1043.16	182.00 4590.57 266.18	9.62	7.73	8065.64	0.44	0.006301
	1.54074 114776.73	3.92		225.05	23.39	
1045.15	183.00 4590.58 266.32	9.63	7.74	8090.93	0.44	0.006304
	1.54365 114826.04	3.92		225.15	23.38	
1045.21	184.00 4590.58 266.32	9.63	7.74	8090.54	0.44	0.006303
	1.54363 114827.86	3.92		225.15	23.38	
1045.22	185.00 4590.58 266.32	9.63	7.74	8091.16	0.44	0.006303
	1.54370 114828.15	3.92		225.15	23.38	

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HYCHAN.OUT									
1045.21	186.00	4590.58	9.63	3.92	7.74	225.15	23.38	0.44	0.006303
	1.54357	266.32							
		114827.62							
1045.08	187.00	4590.58	9.63	3.92	7.74	225.14	23.38	0.44	0.006303
	1.54341	266.31							
		114823.62							
1045.24	188.00	4590.58	9.63	3.92	7.74	225.15	23.37	0.44	0.006305
	1.54413	266.33							
		114828.84							
1045.22	189.00	4590.58	9.63	3.92	7.74	225.15	23.38	0.44	0.006303
	1.54354	266.32							
		114827.95							
1043.57	190.00	4590.57	9.62	3.92	7.73	225.07	23.39	0.44	0.006293
	1.53941	266.21							
		114785.31							
1033.50	191.00	4590.52	9.57	3.89	7.69	224.58	23.47	0.44	0.006287
	1.52700	265.52							
		114533.35							
1031.44	192.00	4590.51	9.56	3.89	7.68	224.48	23.48	0.44	0.006287
	1.52481	265.38							
		114482.34							
1031.45	193.00	4590.51	9.56	3.89	7.68	224.48	23.48	0.44	0.006287
	1.52472	265.38							
		114482.59							
1031.44	194.00	4590.51	9.56	3.89	7.68	224.48	23.48	0.44	0.006286
	1.52451	265.38							
		114482.53							
1031.38	195.00	4590.51	9.56	3.89	7.68	224.47	23.48	0.44	0.006288
	1.52504	265.37							
		114480.86							
1031.39	196.00	4590.51	9.56	3.89	7.68	224.47	23.48	0.44	0.006288
	1.52490	265.37							
		114480.44							
1031.46	197.00	4590.51	9.56	3.89	7.68	224.48	23.48	0.44	0.006286
	1.52459	265.38							
		114483.14							
1031.36	198.00	4590.51	9.56	3.89	7.68	224.47	23.48	0.44	0.006286
	1.52456	265.37							
		114480.40							
1031.39	199.00	4590.51	9.56	3.89	7.68	224.47	23.48	0.44	0.006287
	1.52472	265.37							
		114480.95							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 456

MAXIMUM DISCHARGE (CFS) = 21777.39 AT TIME = 79.91  
 MAXIMUM STAGE = 4586.18 AT TIME = 79.90

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR STRESS	WETTED PERIMETER	HYDRAULIC RADIUS	VELOCITY	DISCHARGE	FROUDE NO.	FLOW		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4577.55	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4577.55	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4580.93	3.38	3.63	3292.70	0.35		

		HYCHAN.OUT					
906.91	2.77452	137.65	6.59	131.51	38.94	0.006749	
	3.00	66412.92					
		4582.70	5.15	5.56	5515.08	0.43	
991.81	2.33512	178.57	5.55	168.68	32.76	0.006738	
	4.00	85181.08					
		4582.66	5.11	5.52	5403.91	0.43	
978.85	2.31201	177.75	5.51	167.93	32.86	0.006728	
	5.00	84804.27					
		4582.65	5.10	5.51	5363.63	0.43	
974.11	2.30061	177.44	5.49	167.66	32.90	0.006716	
	6.00	84665.95					
		4582.60	5.05	5.46	5238.83	0.43	
959.67	2.27069	176.51	5.44	166.81	33.01	0.006693	
	7.00	84239.70					
		4582.55	5.00	5.40	5087.32	0.43	
941.63	2.23571	175.33	5.37	165.75	33.16	0.006671	
	8.00	83702.73					
		4582.49	4.94	5.35	4937.92	0.42	
923.60	2.19996	174.14	5.30	164.67	33.31	0.006647	
	9.00	83159.45					
		4582.44	4.89	5.29	4800.03	0.42	
906.75	2.17004	173.02	5.24	163.66	33.45	0.006636	
	10.00	82646.68					
		4582.43	4.88	5.28	4759.14	0.42	
901.72	2.15899	172.68	5.22	163.35	33.50	0.006626	
	11.00	82492.64					
		4582.38	4.83	5.23	4637.21	0.42	
886.86	2.12861	171.67	5.17	162.44	33.63	0.006603	
	12.00	82030.27					
		4582.33	4.78	5.17	4498.38	0.42	
869.51	2.09730	170.48	5.10	161.36	33.78	0.006590	
	13.00	81487.50					
		4582.31	4.76	5.16	4468.92	0.42	
865.73	2.09118	170.22	5.09	161.13	33.82	0.006589	
	14.00	81369.57					
		4582.31	4.76	5.16	4469.04	0.42	
865.73	2.09100	170.22	5.09	161.13	33.82	0.006589	
	15.00	81369.73					
		4582.31	4.76	5.16	4468.98	0.42	
865.74	2.09119	170.22	5.09	161.13	33.82	0.006589	
	16.00	81369.95					
		4582.31	4.76	5.16	4469.00	0.42	
865.73	2.09116	170.22	5.09	161.13	33.82	0.006589	
	17.00	81369.72					
		4582.32	4.77	5.17	4480.57	0.42	
867.15	2.09726	170.32	5.09	161.22	33.80	0.006602	
	18.00	81415.02					
		4582.37	4.82	5.22	4604.77	0.42	
882.53	2.12900	171.38	5.15	162.18	33.67	0.006626	
	19.00	81899.21					
		4582.43	4.88	5.28	4756.77	0.42	
901.26	2.16573	172.65	5.22	163.33	33.50	0.006649	
	20.00	82480.32					
		4582.48	4.93	5.33	4896.83	0.42	
918.43	2.19627	173.81	5.28	164.37	33.35	0.006661	
	21.00	83005.84					
		4582.49	4.94	5.34	4923.84	0.42	
921.78	2.20115	174.03	5.30	164.57	33.32	0.006660	
	22.00	83106.95					
		4582.49	4.94	5.35	4936.85	0.42	
923.33	2.20756	174.13	5.30	164.66	33.31	0.006672	
	23.00	83154.42					
		4582.54	4.99	5.40	5076.75	0.43	

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		HYCHAN.OUT					
940.14	2.24468	175.24	5.36	165.67	33.17	0.006705	
	24.00	83661.95					
		4582.64	5.09	5.50	5357.58	0.43	
973.34	2.31070	177.40	5.49	167.61	32.90	0.006749	
	25.00	84644.93					
		4582.75	5.20	5.61	5664.55	0.43	
1008.93	2.37966	179.65	5.62	169.65	32.63	0.006791	
	26.00	85674.98					
		4582.84	5.29	5.71	5937.22	0.44	
1039.82	2.43414	181.57	5.73	171.38	32.40	0.006812	
	27.00	86549.39					
		4582.86	5.31	5.73	5985.08	0.44	
1045.09	2.44233	181.89	5.75	171.68	32.36	0.006812	
	28.00	86695.97					
		4582.86	5.31	5.73	6002.83	0.44	
1047.10	2.44904	182.02	5.75	171.79	32.35	0.006822	
	29.00	86752.73					
		4582.90	5.35	5.77	6126.05	0.44	
1061.00	2.47475	182.87	5.80	172.55	32.25	0.006835	
	30.00	87138.88					
		4582.91	5.36	5.78	6152.05	0.44	
1063.80	2.47893	183.03	5.81	172.70	32.23	0.006835	
	31.00	87215.66					
		4582.92	5.37	5.79	6171.20	0.44	
1065.88	2.48594	183.16	5.82	172.82	32.21	0.006846	
	32.00	87273.68					
		4582.96	5.40	5.83	6299.39	0.44	
1079.76	2.51115	184.00	5.87	173.57	32.11	0.006858	
	33.00	87654.90					
		4582.96	5.41	5.84	6326.04	0.44	
1082.63	2.51547	184.17	5.88	173.73	32.09	0.006858	
	34.00	87732.46					
		4582.96	5.41	5.84	6306.91	0.44	
1080.85	2.50816	184.06	5.87	173.63	32.11	0.006845	
	35.00	87683.23					
		4582.92	5.37	5.79	6178.73	0.44	
1066.86	2.48372	183.22	5.82	172.87	32.20	0.006836	
	36.00	87299.09					
		4582.90	5.35	5.78	6133.80	0.44	
1061.84	2.47118	182.91	5.81	172.60	32.24	0.006822	
	37.00	87160.80					
		4582.86	5.31	5.73	6010.93	0.44	
1048.15	2.44710	182.08	5.76	171.84	32.34	0.006812	
	38.00	86780.49					
		4582.86	5.31	5.73	5984.99	0.44	
1045.07	2.44223	181.89	5.75	171.67	32.36	0.006812	
	39.00	86695.55					
		4582.86	5.31	5.73	5985.02	0.44	
1045.07	2.44232	181.89	5.75	171.67	32.36	0.006812	
	40.00	86695.70					
		4582.86	5.31	5.73	5985.00	0.44	
1045.07	2.44273	181.89	5.75	171.67	32.36	0.006813	
	41.00	86695.56					
		4582.86	5.31	5.73	5985.01	0.44	
1045.07	2.44250	181.89	5.75	171.67	32.36	0.006813	
	42.00	86695.50					
		4582.86	5.31	5.73	6003.02	0.44	
1047.11	2.44925	182.02	5.75	171.79	32.35	0.006823	
	43.00	86752.94					
		4582.90	5.35	5.77	6126.33	0.44	
1061.03	2.47432	182.87	5.80	172.55	32.25	0.006834	
	44.00	87139.76					
		4582.92	5.37	5.79	6171.08	0.44	

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				HYCHAN.OUT			
1065.86		183.16		5.82	172.82	32.21	0.006847
	2.48626	87273.17					
	45.00	4582.96	5.41	5.84	6319.00	0.44	
1081.98		184.13		5.88	173.69	32.10	0.006869
	2.51848	87715.77					
	46.00	4583.02	5.47	5.90	6493.88	0.44	
1101.05		185.27		5.94	174.72	31.97	0.006890
	2.55525	88233.29					
	47.00	4583.07	5.52	5.95	6668.11	0.45	
1119.92		186.38		6.01	175.72	31.84	0.006914
	2.59226	88739.64					
	48.00	4583.12	5.57	6.01	6840.37	0.45	
1138.61		187.47		6.07	176.70	31.72	0.006937
	2.62901	89235.56					
	49.00	4583.18	5.63	6.05	7013.19	0.45	
1158.59		188.62		6.14	177.74	31.59	0.006957
	2.66659	89760.05					
	50.00	4583.23	5.68	6.11	7205.45	0.45	
1178.70		189.77		6.21	178.78	31.46	0.006991
	2.70967	90281.77					
	51.00	4583.31	5.76	6.20	7487.48	0.46	
1207.61		191.39		6.31	180.24	31.28	0.007012
	2.76080	91021.15					
	52.00	4583.33	5.78	6.22	7561.91	0.46	
1215.13		191.81		6.33	180.62	31.24	0.007020
	2.77496	91211.27					
	53.00	4583.39	5.83	6.28	7752.15	0.46	
1234.66		192.89		6.40	181.59	31.12	0.007062
	2.82059	91702.79					
	54.00	4583.53	5.98	6.43	8279.68	0.46	
1287.37		195.75		6.58	184.16	30.82	0.007147
	2.93278	93001.12					
	55.00	4583.73	6.18	6.66	9096.55	0.47	
1366.28		199.89		6.84	187.88	30.39	0.007229
	3.08340	94879.77					
	56.00	4583.99	6.44	6.95	10217.79	0.48	
1469.73		205.09		7.17	192.55	29.88	0.007385
	3.30244	97237.86					
	57.00	4584.30	6.75	7.28	11607.49	0.49	
1593.53		211.02		7.55	197.87	29.32	0.007555
	3.56020	99925.40					
	58.00	4584.54	6.99	7.54	12763.98	0.50	
1693.39		215.59		7.85	201.97	28.90	0.007705
	3.77631	101994.68					
	59.00	4584.75	7.20	7.77	13858.88	0.51	
1784.64		219.61		8.13	205.57	28.55	0.007880
	3.99613	103812.22					
	60.00	4585.00	7.45	8.03	15209.19	0.52	
1893.12		224.22		8.44	209.70	28.16	0.008029
	4.23026	105897.53					
	61.00	4585.15	7.60	8.19	16074.98	0.52	
1961.67		227.05		8.64	212.23	27.93	0.008126
	4.38075	107175.61					
	62.00	4585.31	7.76	8.31	16903.97	0.53	
2034.04		229.97		8.84	214.83	27.69	0.008189
	4.51947	108491.37					
	63.00	4585.41	7.86	8.37	17412.10	0.53	
2080.03		231.79		8.97	216.46	27.55	0.008255
	4.62262	109311.56					
	64.00	4585.53	7.98	8.45	18065.54	0.53	
2138.65		234.06		9.14	218.49	27.37	0.008327
	4.74775	110337.31					
	65.00	4585.63	8.08	8.51	18587.06	0.53	

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				HYCHAN.OUT			
2184.89		235.84		9.26	220.07	27.23	0.008353
	4.82864	111136.51					
	66.00	4585.65	8.10		8.51	18663.93	0.53
2191.93		236.10		9.28	220.31	27.21	0.008346
	4.83499	111256.45					
	67.00	4585.65	8.10		8.51	18670.28	0.53
2192.67		236.13		9.29	220.34	27.21	0.008359
	4.84350	111269.24					
	68.00	4585.65	8.10		8.51	18673.74	0.53
2193.33		236.16		9.29	220.36	27.21	0.008339
	4.83257	111280.20					
	69.00	4585.65	8.10		8.52	18679.54	0.53
2193.67		236.17		9.29	220.37	27.21	0.008356
	4.84296	111286.39					
	70.00	4585.65	8.10		8.52	18686.57	0.53
2193.88		236.18		9.29	220.38	27.20	0.008358
	4.84456	111289.77					
	71.00	4585.65	8.10		8.52	18686.45	0.53
2194.14		236.19		9.29	220.38	27.20	0.008341
	4.83502	111294.01					
	72.00	4585.66	8.11		8.52	18717.48	0.53
2196.92		236.29		9.30	220.48	27.20	0.008354
	4.84679	111342.07					
	73.00	4585.70	8.15		8.55	18954.83	0.53
2218.06		237.09		9.36	221.19	27.13	0.008375
	4.88879	111702.20					
	74.00	4585.72	8.17		8.56	19055.12	0.53
2226.82		237.42		9.38	221.48	27.11	0.008387
	4.90849	111849.78					
	75.00	4585.73	8.18		8.56	19085.25	0.53
2229.66		237.53		9.39	221.58	27.10	0.008401
	4.92075	111898.05					
	76.00	4585.78	8.23		8.59	19388.65	0.53
2256.42		238.53		9.46	222.47	27.03	0.008444
	4.98414	112349.29					
	77.00	4585.89	8.34		8.66	19997.38	0.53
2309.13		240.48		9.60	224.21	26.88	0.008507
	5.09750	113226.45					
	78.00	4585.98	8.43		8.71	20477.55	0.53
2351.10		242.01		9.72	225.57	26.77	0.008545
	5.17993	113914.95					
	79.00	4586.05	8.50		8.75	20907.48	0.53
2388.38		243.35		9.81	226.77	26.67	0.008593
	5.26232	114520.31					
	80.00	4586.15	8.60		8.81	21446.38	0.53
2434.74		245.00		9.94	228.25	26.55	0.008646
	5.36131	115263.97					
	81.00	4586.14	8.59		8.80	21407.20	0.53
2431.56		244.89		9.93	228.14	26.56	0.008602
	5.32991	115211.02					
	82.00	4586.08	8.53		8.77	21042.54	0.53
2400.48		243.78		9.85	227.15	26.64	0.008577
	5.26996	114713.06					
	83.00	4586.06	8.51		8.76	20939.89	0.53
2391.36		243.46		9.82	226.87	26.66	0.008585
	5.26202	114567.57					
	84.00	4586.06	8.51		8.76	20930.96	0.53
2390.41		243.42		9.82	226.84	26.66	0.008564
	5.24802	114551.89					
	85.00	4586.05	8.50		8.75	20886.19	0.53
2386.51		243.28		9.81	226.71	26.67	0.008535
	5.22449	114488.03					
	86.00	4585.97	8.42		8.70	20453.54	0.53

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				HYCHAN.OUT			
2349.75		241.94		9.71	225.52	26.77	0.008494
	5.14784	113885.55					
87.00	4585.81		8.25	8.61	19524.21	0.53	
2268.16	238.94		9.49		222.84	27.00	0.008368
	4.95659	112533.59					
88.00	4585.58		8.03	8.47	18289.31	0.53	
2159.34	234.83		9.20		219.17	27.31	0.008200
	4.70514	110681.59					
89.00	4585.24		7.69	8.26	16536.57	0.53	
2001.87	228.66		8.75		213.66	27.80	0.008057
	4.40161	107898.02					
90.00	4585.05		7.50	8.09	15506.52	0.52	
1917.03	225.21		8.51		210.58	28.08	0.007945
	4.22006	106341.11					
91.00	4584.90		7.35	7.92	14674.12	0.52	
1851.66	222.47		8.32		208.13	28.31	0.007816
	4.05941	105104.79					
92.00	4584.72		7.17	7.72	13669.88	0.51	
1770.03	218.96		8.08		204.99	28.61	0.007688
	3.87809	103520.11					
93.00	4584.56		7.01	7.55	12855.45	0.50	
1701.87	215.96		7.88		202.30	28.87	0.007585
	3.73008	102161.80					
94.00	4584.42		6.86	7.40	12151.48	0.50	
1641.72	213.24		7.70		199.87	29.12	0.007500
	3.60330	100932.82					
95.00	4584.31		6.75	7.28	11626.11	0.49	
1595.96	211.13		7.56		197.97	29.31	0.007421
	3.50029	99977.01					
96.00	4584.19		6.64	7.16	11083.35	0.49	
1547.66	208.86		7.41		195.94	29.52	0.007368
	3.40702	98948.06					
97.00	4584.10		6.55	7.07	10697.48	0.49	
1513.13	207.21		7.30		194.45	29.68	0.007330
	3.34007	98199.67					
98.00	4584.02		6.47	6.97	10303.67	0.48	
1477.89	205.50		7.19		192.92	29.84	0.007305
	3.27834	97424.15					
99.00	4583.95		6.40	6.90	10026.44	0.48	
1453.11	204.28		7.11		191.82	29.96	0.007279
	3.23090	96870.82					
100.00	4583.87		6.32	6.81	9663.98	0.48	
1419.63	202.60		7.01		190.32	30.12	0.007236
	3.16397	96111.74					
101.00	4583.80		6.25	6.73	9363.02	0.47	
1391.68	201.19		6.92		189.05	30.26	0.007198
	3.10686	95472.33					
102.00	4583.73		6.18	6.65	9088.64	0.47	
1365.89	199.87		6.83		187.87	30.40	0.007173
	3.05885	94872.73					
103.00	4583.68		6.13	6.60	8874.99	0.47	
1345.34	198.81		6.77		186.91	30.50	0.007149
	3.01862	94390.30					
104.00	4583.62		6.07	6.54	8652.29	0.47	
1323.91	197.69		6.70		185.90	30.62	0.007116
	2.97358	93880.10					
105.00	4583.53		5.98	6.44	8310.55	0.46	
1290.47	195.91		6.59		184.31	30.80	0.007082
	2.91107	93074.37					
106.00	4583.48		5.93	6.38	8099.09	0.46	
1269.35	194.78		6.52		183.29	30.92	0.007064
	2.87269	92560.17					
107.00	4583.43		5.88	6.33	7924.63	0.46	

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				HYCHAN.OUT			
1251.91		193.83		6.46	182.44	31.02	0.007045
	2.83930	92129.91					
108.00		4583.39	5.84	6.28	7769.92	0.46	
1236.28		192.98		6.41	181.67	31.11	0.007036
	2.81258	91741.69					
109.00		4583.39	5.84	6.28	7762.86	0.46	
1235.59		192.94		6.40	181.63	31.12	0.007044
	2.81460	91725.64					
110.00		4583.43	5.88	6.33	7930.52	0.46	
1252.63		193.88		6.46	182.48	31.02	0.007074
	2.85179	92150.18					
111.00		4583.50	5.95	6.41	8195.96	0.46	
1279.20		195.31		6.55	183.77	30.86	0.007087
	2.89634	92803.29					
112.00		4583.48	5.93	6.38	8098.61	0.46	
1269.34		194.78		6.52	183.29	30.92	0.007065
	2.87314	92559.98					
113.00		4583.45	5.90	6.35	7983.59	0.46	
1257.91		194.16		6.48	182.73	30.99	0.007073
	2.85947	92280.18					
114.00		4583.52	5.97	6.43	8262.82	0.46	
1285.86		195.67		6.57	184.09	30.83	0.007115
	2.91761	92966.23					
115.00		4583.61	6.06	6.52	8587.40	0.47	
1317.68		197.36		6.68	185.61	30.65	0.007127
	2.96924	93734.17					
116.00		4583.58	6.03	6.49	8499.70	0.47	
1309.02		196.90		6.65	185.20	30.70	0.007119
	2.95327	93525.12					
117.00		4583.58	6.03	6.48	8469.90	0.47	
1306.17		196.75		6.64	185.06	30.71	0.007116
	2.94763	93457.37					
118.00		4583.58	6.03	6.49	8493.52	0.47	
1308.47		196.88		6.65	185.17	30.70	0.007126
	2.95518	93513.07					
119.00		4583.62	6.07	6.53	8640.93	0.47	
1322.85		197.64		6.69	185.86	30.62	0.007138
	2.98130	93857.97					
120.00		4583.63	6.08	6.54	8669.84	0.47	
1325.59		197.78		6.70	185.99	30.61	0.007137
	2.98475	93922.86					
121.00		4583.62	6.07	6.53	8646.38	0.47	
1323.31		197.66		6.69	185.88	30.62	0.007127
	2.97738	93867.66					
122.00		4583.58	6.03	6.49	8499.64	0.47	
1308.96		196.90		6.65	185.20	30.70	0.007116
	2.95208	93523.66					
123.00		4583.57	6.02	6.48	8446.86	0.47	
1303.84		196.63		6.63	184.95	30.73	0.007105
	2.93976	93400.38					
124.00		4583.53	5.98	6.44	8299.85	0.46	
1289.31		195.85		6.58	184.25	30.81	0.007093
	2.91371	93048.39					
125.00		4583.52	5.97	6.43	8270.11	0.46	
1286.46		195.70		6.57	184.12	30.82	0.007094
	2.90971	92979.81					
126.00		4583.52	5.97	6.42	8249.61	0.46	
1284.41		195.59		6.57	184.02	30.84	0.007083
	2.90250	92929.34					
127.00		4583.48	5.93	6.39	8118.32	0.46	
1271.37		194.89		6.52	183.39	30.91	0.007077
	2.88084	92610.52					
128.00		4583.48	5.93	6.38	8091.30	0.46	

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				HYCHAN.OUT			
1268.67		194.75		6.51	183.26	30.92	0.007071
	2.87454	92544.90					
129.00		4583.47	5.92	6.37	8071.18	0.46	
1266.67		194.64		6.51	183.16	30.94	0.007062
	2.86800	92495.29					
130.00		4583.44	5.89	6.34	7943.74	0.46	
1253.87		193.94		6.47	182.53	31.01	0.007057
	2.84681	92179.10					
131.00		4583.44	5.89	6.34	7956.76	0.46	
1255.25		194.02		6.47	182.60	31.00	0.007074
	2.85582	92214.77					
132.00		4583.51	5.96	6.41	8216.94	0.46	
1281.29		195.43		6.56	183.87	30.85	0.007094
	2.90225	92854.70					
133.00		4583.52	5.97	6.43	8269.78	0.46	
1286.45		195.70		6.57	184.12	30.82	0.007094
	2.90993	92979.65					
134.00		4583.52	5.97	6.43	8270.59	0.46	
1286.48		195.71		6.57	184.12	30.82	0.007095
	2.91029	92980.50					
135.00		4583.52	5.97	6.43	8269.92	0.46	
1286.39		195.70		6.57	184.12	30.82	0.007095
	2.91018	92978.26					
136.00		4583.52	5.97	6.43	8269.66	0.46	
1286.41		195.70		6.57	184.12	30.82	0.007098
	2.91143	92978.69					
137.00		4583.52	5.97	6.43	8270.29	0.46	
1286.48		195.71		6.57	184.12	30.82	0.007096
	2.91072	92980.55					
138.00		4583.52	5.97	6.43	8269.76	0.46	
1286.40		195.70		6.57	184.12	30.82	0.007095
	2.91034	92978.38					
139.00		4583.52	5.97	6.42	8249.68	0.46	
1284.42		195.59		6.57	184.02	30.84	0.007085
	2.90340	92929.67					
140.00		4583.48	5.93	6.39	8118.58	0.46	
1271.38		194.89		6.52	183.39	30.91	0.007074
	2.87960	92610.60					
141.00		4583.48	5.93	6.38	8090.86	0.46	
1268.64		194.74		6.51	183.26	30.92	0.007073
	2.87524	92544.23					
142.00		4583.48	5.93	6.38	8090.92	0.46	
1268.62		194.74		6.51	183.25	30.93	0.007073
	2.87528	92543.66					
143.00		4583.48	5.93	6.38	8090.89	0.46	
1268.68		194.75		6.51	183.26	30.92	0.007074
	2.87552	92545.18					
144.00		4583.47	5.92	6.37	8071.47	0.46	
1266.68		194.64		6.51	183.16	30.94	0.007064
	2.86858	92495.27					
145.00		4583.44	5.89	6.34	7943.98	0.46	
1253.78		193.94		6.46	182.53	31.01	0.007052
	2.84466	92176.91					
146.00		4583.43	5.88	6.33	7916.50	0.46	
1251.17		193.80		6.46	182.40	31.03	0.007055
	2.84231	92112.96					
147.00		4583.43	5.88	6.33	7917.24	0.46	
1251.25		193.80		6.46	182.41	31.02	0.007055
	2.84250	92115.18					
148.00		4583.43	5.88	6.33	7916.92	0.46	
1251.21		193.80		6.46	182.40	31.03	0.007057
	2.84293	92114.12					
149.00		4583.43	5.88	6.33	7917.17	0.46	

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				HYCHAN.OUT			
1251.22		193.80		6.46	182.40	31.03	0.007055
	2.84244	92114.35					
150.00		4583.43	5.88	6.32	7904.01	0.46	
1249.92		193.73		6.45	182.34	31.03	0.007046
	2.83670	92081.68					
151.00		4583.40	5.85	6.30	7812.59	0.46	
1240.63		193.22		6.42	181.88	31.09	0.007037
	2.81949	91850.21					
152.00		4583.38	5.83	6.28	7751.84	0.46	
1234.44		192.88		6.40	181.58	31.12	0.007032
	2.80832	91696.32					
153.00		4583.38	5.83	6.28	7742.98	0.46	
1233.55		192.83		6.40	181.53	31.13	0.007034
	2.80792	91674.09					
154.00		4583.38	5.83	6.27	7723.85	0.46	
1231.69		192.73		6.39	181.44	31.14	0.007023
	2.80066	91627.08					
155.00		4583.35	5.80	6.24	7634.64	0.46	
1222.57		192.22		6.36	180.99	31.19	0.007033
	2.79134	91398.83					
156.00		4583.42	5.87	6.31	7863.60	0.46	
1245.92		193.51		6.44	182.15	31.06	0.007055
	2.83463	91983.41					
157.00		4583.43	5.88	6.33	7917.08	0.46	
1251.18		193.80		6.46	182.40	31.03	0.007055
	2.84212	92113.37					
158.00		4583.43	5.88	6.33	7916.95	0.46	
1251.21		193.80		6.46	182.40	31.03	0.007056
	2.84249	92114.21					
159.00		4583.43	5.88	6.33	7916.92	0.46	
1251.19		193.80		6.46	182.40	31.03	0.007057
	2.84293	92113.56					
160.00		4583.43	5.88	6.33	7917.03	0.46	
1251.17		193.80		6.46	182.40	31.03	0.007052
	2.84107	92112.99					
161.00		4583.43	5.88	6.33	7917.06	0.46	
1251.16		193.80		6.46	182.40	31.03	0.007057
	2.84285	92112.98					
162.00		4583.43	5.88	6.33	7917.12	0.46	
1251.19		193.80		6.46	182.40	31.03	0.007056
	2.84242	92113.54					
163.00		4583.43	5.88	6.33	7916.98	0.46	
1251.21		193.80		6.46	182.40	31.03	0.007052
	2.84120	92114.12					
164.00		4583.42	5.87	6.32	7897.35	0.46	
1249.23		193.69		6.45	182.31	31.04	0.007045
	2.83524	92064.35					
165.00		4583.39	5.84	6.28	7769.99	0.46	
1236.33		192.98		6.41	181.67	31.11	0.007032
	2.81102	91742.91					
166.00		4583.38	5.83	6.28	7742.97	0.46	
1233.59		192.83		6.40	181.54	31.13	0.007031
	2.80674	91675.18					
167.00		4583.38	5.83	6.28	7743.09	0.46	
1233.58		192.83		6.40	181.53	31.13	0.007033
	2.80764	91674.92					
168.00		4583.38	5.83	6.28	7742.62	0.46	
1233.56		192.83		6.40	181.53	31.13	0.007036
	2.80859	91674.55					
169.00		4583.38	5.83	6.28	7743.35	0.46	
1233.65		192.84		6.40	181.54	31.13	0.007033
	2.80775	91676.55					
170.00		4583.38	5.83	6.28	7742.86	0.46	

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				HYCHAN.OUT			
1233.57		192.83		6.40	181.53	31.13	0.007036
	2.80870	91674.66					
	171.00	4583.38	5.83	6.28	7742.90	0.46	
1233.56		192.83		6.40	181.53	31.13	0.007034
	2.80787	91674.32					
	172.00	4583.38	5.83	6.27	7723.71	0.46	
1231.62		192.72		6.39	181.44	31.14	0.007027
	2.80207	91625.24					
	173.00	4583.34	5.79	6.23	7596.04	0.46	
1218.70		192.01		6.35	180.79	31.22	0.007014
	2.77788	91300.29					
	174.00	4583.33	5.78	6.23	7568.91	0.46	
1215.86		191.85		6.34	180.65	31.23	0.007014
	2.77361	91229.25					
	175.00	4583.33	5.78	6.23	7569.15	0.46	
1215.88		191.85		6.34	180.65	31.23	0.007013
	2.77350	91230.02					
	176.00	4583.33	5.78	6.23	7568.93	0.46	
1215.85		191.85		6.34	180.65	31.23	0.007014
	2.77385	91228.98					
	177.00	4583.33	5.78	6.23	7569.31	0.46	
1215.90		191.85		6.34	180.65	31.23	0.007012
	2.77293	91230.42					
	178.00	4583.33	5.78	6.23	7568.67	0.46	
1215.81		191.85		6.34	180.65	31.23	0.007014
	2.77360	91227.98					
	179.00	4583.35	5.79	6.24	7607.82	0.46	
1219.84		192.07		6.35	180.85	31.21	0.007036
	2.78825	91330.64					
	180.00	4583.42	5.87	6.31	7863.34	0.46	
1245.89		193.51		6.44	182.14	31.06	0.007056
	2.83488	91982.70					
	181.00	4583.44	5.88	6.33	7936.61	0.46	
1253.19		193.91		6.46	182.50	31.01	0.007064
	2.84894	92163.62					
	182.00	4583.47	5.92	6.37	8064.88	0.46	
1266.12		194.61		6.51	183.13	30.94	0.007072
	2.87092	92482.83					
	183.00	4583.48	5.93	6.38	8090.95	0.46	
1268.69		194.75		6.51	183.26	30.92	0.007075
	2.87603	92545.35					
	184.00	4583.48	5.93	6.38	8090.57	0.46	
1268.71		194.75		6.51	183.26	30.92	0.007074
	2.87572	92545.90					
	185.00	4583.48	5.93	6.38	8091.16	0.46	
1268.74		194.75		6.51	183.26	30.92	0.007073
	2.87546	92546.70					
	186.00	4583.48	5.93	6.38	8091.03	0.46	
1268.73		194.75		6.51	183.26	30.92	0.007075
	2.87619	92546.52					
	187.00	4583.48	5.93	6.38	8091.04	0.46	
1268.64		194.74		6.51	183.26	30.92	0.007074
	2.87558	92544.23					
	188.00	4583.48	5.93	6.38	8090.87	0.46	
1268.74		194.75		6.51	183.26	30.92	0.007078
	2.87732	92546.55					
	189.00	4583.48	5.93	6.38	8091.18	0.46	
1268.74		194.75		6.51	183.26	30.92	0.007075
	2.87602	92546.70					
	190.00	4583.47	5.92	6.37	8071.32	0.46	
1266.70		194.64		6.51	183.16	30.94	0.007067
	2.86969	92495.93					
	191.00	4583.44	5.89	6.34	7943.64	0.46	

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		HYCHAN.OUT					
1253.84	193.94	6.47	182.53	31.01	0.007057		
2.84674	92178.42						
192.00	4583.43	5.88	6.33	7916.87	0.46		
1251.19	193.80	6.46	182.40	31.03	0.007056		
2.84267	92113.53						
193.00	4583.43	5.88	6.33	7917.08	0.46		
1251.21	193.80	6.46	182.40	31.03	0.007055		
2.84227	92113.95						
194.00	4583.43	5.88	6.33	7917.02	0.46		
1251.19	193.80	6.46	182.40	31.03	0.007055		
2.84231	92113.51						
195.00	4583.43	5.88	6.33	7916.73	0.46		
1251.14	193.79	6.46	182.40	31.03	0.007057		
2.84288	92112.25						
196.00	4583.43	5.88	6.33	7917.31	0.46		
1251.18	193.80	6.46	182.40	31.03	0.007054		
2.84187	92113.30						
197.00	4583.43	5.88	6.33	7917.27	0.46		
1251.21	193.80	6.46	182.40	31.03	0.007054		
2.84168	92114.09						
198.00	4583.43	5.88	6.33	7916.55	0.46		
1251.11	193.79	6.46	182.40	31.03	0.007054		
2.84173	92111.59						
199.00	4583.43	5.88	6.33	7916.83	0.46		
1251.16	193.80	6.46	182.40	31.03	0.007057		
2.84297	92112.87						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 475

MAXIMUM DISCHARGE (CFS) = 21673.14 AT TIME = 79.91  
 MAXIMUM STAGE = 4582.77 AT TIME = 79.91

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4574.10	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4574.10	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4577.25	3.15	3.54	3086.21	0.35	0.003985
872.61	131.96	6.61	126.31	40.05		
1.64441	63785.47	5.21	5.71	5516.51	0.44	0.003986
965.85	179.83	5.37	169.81	32.61		
1.33573	85754.98	5.17	5.68	5406.19	0.44	0.003992
952.59	179.00	5.32	169.07	32.71		
1.32573	85378.01	5.15	5.66	5365.08	0.44	0.003993
947.59	178.69	5.30	168.78	32.74		
1.32137	85235.65	5.11	5.62	5242.49	0.44	0.004001
932.49	177.73	5.25	167.92	32.86		
1.30988	84799.44	5.05	5.57	5091.11	0.44	0.004010
913.43	176.52	5.17	166.82	33.01		

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		HYCHAN.OUT					
	1.29474	84243.69					
894.46	8.00	4579.10	5.00	5.52	4941.69	0.44	
		175.29	5.10	165.71	33.17		0.004018
	1.27923	83682.52					
876.54	9.00	4579.04	4.94	5.48	4802.46	0.43	
		174.11	5.03	164.65	33.31		0.004026
	1.26463	83146.21					
871.05	10.00	4579.03	4.93	5.47	4760.56	0.43	
		173.75	5.01	164.32	33.36		0.004028
	1.25996	82980.83					
855.69	11.00	4578.98	4.88	5.42	4641.13	0.43	
		172.72	4.95	163.39	33.49		0.004038
	1.24822	82509.92					
837.31	12.00	4578.92	4.82	5.38	4500.94	0.43	
		171.48	4.88	162.26	33.65		0.004046
	1.23274	81942.13					
833.02	13.00	4578.91	4.81	5.36	4468.94	0.43	
		171.19	4.87	162.00	33.69		0.004043
	1.22775	81810.04					
833.05	14.00	4578.91	4.81	5.36	4469.08	0.43	
		171.19	4.87	162.00	33.69		0.004043
	1.22766	81810.81					
833.04	15.00	4578.91	4.81	5.36	4468.91	0.43	
		171.19	4.87	162.00	33.69		0.004045
	1.22814	81810.46					
833.05	16.00	4578.91	4.81	5.36	4468.97	0.43	
		171.19	4.87	162.00	33.69		0.004044
	1.22802	81810.84					
834.33	17.00	4578.91	4.81	5.37	4479.22	0.43	
		171.28	4.87	162.08	33.68		0.004043
	1.22892	81851.45					
850.09	18.00	4578.96	4.86	5.41	4600.77	0.43	
		172.35	4.93	163.05	33.54		0.004034
	1.24159	82341.54					
869.87	19.00	4579.02	4.92	5.46	4752.86	0.43	
		173.68	5.01	164.25	33.37		0.004024
	1.25756	82946.87					
888.08	20.00	4579.08	4.98	5.51	4894.39	0.44	
		174.88	5.08	165.34	33.22		0.004017
	1.27305	83495.37					
891.95	21.00	4579.09	4.99	5.52	4923.90	0.44	
		175.13	5.09	165.57	33.19		0.004016
	1.27627	83610.43					
893.37	22.00	4579.09	4.99	5.52	4935.33	0.44	
		175.22	5.10	165.65	33.17		0.004016
	1.27766	83653.30					
910.88	23.00	4579.15	5.05	5.57	5071.23	0.44	
		176.36	5.16	166.68	33.03		0.004006
	1.29108	84172.62					
946.38	24.00	4579.25	5.15	5.65	5349.97	0.44	
		178.62	5.30	168.72	32.75		0.003989
	1.31897	85202.77					
984.39	25.00	4579.36	5.26	5.75	5657.11	0.44	
		180.97	5.44	170.85	32.47		0.003973
	1.34856	86276.78					
1017.58	26.00	4579.46	5.36	5.83	5933.27	0.44	
		182.98	5.56	172.66	32.23		0.003961
	1.37448	87191.44					
1022.74	27.00	4579.47	5.37	5.85	5985.13	0.45	
		183.29	5.58	172.93	32.20		0.003961
	1.37926	87330.87					
1024.95	28.00	4579.48	5.38	5.85	6000.92	0.45	
		183.42	5.59	173.05	32.18		0.003959

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		HYCHAN.OUT						
	1.38062	87391.41						
1040.14	29.00	4579.52	5.42	5.64	5.89	6124.01	0.45	
		184.32				173.86	32.08	0.003953
	1.39201	87801.08						
1042.74	30.00	4579.53	5.43	5.65	5.90	6152.08	0.45	
		184.47				174.00	32.06	0.003953
	1.39443	87870.31						
1045.11	31.00	4579.53	5.43	5.66	5.90	6169.18	0.45	
		184.61				174.13	32.04	0.003952
	1.39602	87934.47						
1060.79	32.00	4579.58	5.48	5.72	5.94	6297.27	0.45	
		185.53				174.95	31.94	0.003945
	1.40749	88351.48						
1063.47	33.00	4579.59	5.49	5.73	5.95	6326.06	0.45	
		185.68				175.09	31.92	0.003946
	1.41018	88422.05						
1061.58	34.00	4579.58	5.48	5.72	5.94	6308.56	0.45	
		185.57				174.99	31.93	0.003947
	1.40900	88371.08						
1046.50	35.00	4579.54	5.44	5.67	5.91	6181.20	0.45	
		184.69				174.20	32.03	0.003954
	1.39790	87969.65						
1040.98	36.00	4579.52	5.42	5.65	5.89	6135.35	0.45	
		184.37				173.91	32.07	0.003955
	1.39332	87822.25						
1026.59	37.00	4579.48	5.38	5.59	5.86	6013.32	0.45	
		183.51				173.14	32.17	0.003962
	1.38291	87434.16						
1022.71	38.00	4579.47	5.37	5.58	5.85	5985.00	0.45	
		183.29				172.93	32.20	0.003961
	1.37922	87329.92						
1022.69	39.00	4579.47	5.37	5.58	5.85	5984.99	0.45	
		183.28				172.93	32.20	0.003961
	1.37929	87329.49						
1022.69	40.00	4579.47	5.37	5.58	5.85	5985.03	0.45	
		183.28				172.93	32.20	0.003962
	1.37938	87329.55						
1022.69	41.00	4579.47	5.37	5.58	5.85	5985.00	0.45	
		183.28				172.93	32.20	0.003962
	1.37936	87329.45						
1024.97	42.00	4579.48	5.38	5.59	5.85	6001.13	0.45	
		183.42				173.05	32.18	0.003960
	1.38076	87392.15						
1040.17	43.00	4579.52	5.42	5.64	5.89	6124.25	0.45	
		184.32				173.87	32.08	0.003953
	1.39198	87801.88						
1045.13	44.00	4579.53	5.43	5.66	5.90	6169.14	0.45	
		184.61				174.13	32.04	0.003952
	1.39596	87934.94						
1063.17	45.00	4579.58	5.48	5.73	5.94	6314.89	0.45	
		185.67				175.08	31.92	0.003944
	1.40914	88415.05						
1083.85	46.00	4579.64	5.54	5.80	5.99	6489.85	0.45	
		186.86				176.15	31.79	0.003935
	1.42431	88957.99						
1104.24	47.00	4579.70	5.60	5.87	6.04	6664.13	0.45	
		188.02				177.20	31.66	0.003928
	1.43955	89486.43						
1124.45	48.00	4579.75	5.65	5.94	6.08	6836.64	0.45	
		189.16				178.22	31.53	0.003920
	1.45419	90003.62						
1145.58	49.00	4579.81	5.71	6.02	6.12	7008.85	0.45	
		190.33				179.28	31.40	0.003912

				HYCHAN.OUT				
	1.46942	90537.41						
1167.51	50.00	4579.87	5.77	6.10	6.17	7199.83	0.45	0.003904
	1.48481	91084.45						
1199.58	51.00	4579.95	5.85	6.21	6.24	7483.41	0.45	0.003893
	1.50783	91871.21						
1207.45	52.00	4579.97	5.87	6.23	6.26	7560.06	0.46	0.003891
	1.51377	92062.08						
1228.86	53.00	4580.03	5.93	6.31	6.30	7744.71	0.46	0.003882
	1.52783	92577.77						
1285.95	54.00	4580.18	6.08	6.50	6.43	8265.60	0.46	0.003862
	1.56705	93919.81						
1372.10	55.00	4580.39	6.29	6.79	6.62	9077.06	0.46	0.003816
	1.61690	95868.90						
1485.86	56.00	4580.67	6.57	7.16	6.86	10192.43	0.47	0.003793
	1.69507	98317.71						
1623.54	57.00	4580.99	6.89	7.60	7.13	11583.74	0.48	0.003758
	1.78200	101118.84						
1733.71	58.00	4581.23	7.13	7.94	7.35	12745.15	0.49	0.003732
	1.84909	103245.22						
1833.82	59.00	4581.45	7.35	8.24	7.55	13837.13	0.49	0.003707
	1.90716	105093.87						
1953.81	60.00	4581.71	7.61	8.60	7.77	15190.07	0.50	0.003686
	1.97822	107222.62						
2029.45	61.00	4581.86	7.76	8.82	7.91	16061.74	0.50	0.003679
	2.02554	108518.95						
2101.78	62.00	4582.01	7.91	9.03	8.04	16893.73	0.50	0.003661
	2.06337	109726.41						
2145.82	63.00	4582.10	8.00	9.16	8.11	17401.68	0.51	0.003663
	2.09319	110447.50						
2201.35	64.00	4582.21	8.11	9.32	8.20	18055.07	0.51	0.003659
	2.12721	111340.05						
2246.36	65.00	4582.30	8.20	9.44	8.27	18584.07	0.51	0.003666
	2.16039	112055.32						
2253.22	66.00	4582.31	8.21	9.46	8.28	18663.59	0.51	0.003660
	2.16086	112162.81						
2253.92	67.00	4582.31	8.21	9.46	8.28	18670.33	0.51	0.003664
	2.16406	112173.73						
2254.18	68.00	4582.31	8.21	9.47	8.28	18673.26	0.51	0.003655
	2.15871	112177.93						
2254.73	69.00	4582.31	8.21	9.47	8.28	18679.54	0.51	0.003662
	2.16300	112186.58						
2255.23	70.00	4582.31	8.21	9.47	8.29	18686.86	0.51	0.003667
		238.18						

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		HYCHAN.OUT					
	2.16682	112194.23					
2255.21	71.00	4582.31	8.21	9.47	8.29	18686.49	0.51
	2.15802	112193.99				222.17	27.05
2257.59	72.00	4582.32	8.22	9.48	8.29	18715.52	0.51
	2.16392	112231.68				222.24	27.05
2277.45	73.00	4582.36	8.26	9.53	8.32	18951.07	0.51
	2.17366	112542.69				222.86	26.99
2286.22	74.00	4582.37	8.27	9.56	8.33	19055.28	0.51
	2.17833	112678.69				223.13	26.97
2288.59	75.00	4582.38	8.28	9.56	8.34	19083.79	0.51
	2.18176	112715.77				223.20	26.96
2313.45	76.00	4582.43	8.33	9.63	8.38	19381.28	0.51
	2.19556	113101.27				223.96	26.90
2363.22	77.00	4582.52	8.42	9.77	8.46	19987.77	0.51
	2.23689	113863.48				225.47	26.78
2403.07	78.00	4582.60	8.50	9.88	8.52	20471.86	0.52
	2.24818	114465.52				226.66	26.68
2437.91	79.00	4582.66	8.56	9.98	8.57	20899.64	0.52
	2.26583	114986.48				227.70	26.59
2481.93	80.00	4582.74	8.64	10.10	8.64	21440.38	0.52
	2.29824	115637.14				228.98	26.49
2479.93	81.00	4582.74	8.64	10.09	8.63	21412.41	0.52
	2.29800	115605.98				228.92	26.49
2450.75	82.00	4582.69	8.59	10.01	8.59	21047.76	0.52
	2.27797	115175.12				228.07	26.56
2441.75	83.00	4582.67	8.57	9.99	8.58	20940.11	0.52
	2.28140	115042.79				227.81	26.58
2440.75	84.00	4582.67	8.57	9.98	8.58	20930.87	0.52
	2.27056	115027.97				227.78	26.59
2437.38	85.00	4582.66	8.56	9.97	8.57	20890.04	0.52
	2.26829	114976.91				227.68	26.60
2404.58	86.00	4582.60	8.50	9.88	8.51	20472.67	0.51
	2.25065	114483.26				226.70	26.67
2328.44	87.00	4582.45	8.35	9.67	8.40	19550.38	0.51
	2.20448	113322.73				224.40	26.86
2225.30	88.00	4582.25	8.15	9.39	8.23	18318.23	0.51
	2.14345	111709.06				221.21	27.13
2073.79	89.00	4581.95	7.85	8.95	7.99	16559.41	0.50
	2.05205	109250.70				216.34	27.56
1983.41	90.00	4581.77	7.67	8.69	7.83	15520.64	0.50
	1.99868	107728.15				213.32	27.83
1911.13	91.00	4581.62	7.52	8.48	7.69	14689.13	0.49
		225.49				210.83	28.05

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	1.95730	106470.55						
92.00	4581.42	7.32	7.51	13686.17	0.49			
1821.38	221.93	8.21	207.65	28.35	0.003725			
	1.90770	104862.47						
93.00	4581.26	7.16	7.37	12868.99	0.49			
1746.18	218.86	7.98	204.90	28.62	0.003738			
	1.86106	103474.52						
94.00	4581.11	7.01	7.24	12162.26	0.48			
1679.87	216.08	7.77	202.41	28.86	0.003756			
	1.82202	102216.12						
95.00	4581.00	6.90	7.14	11635.81	0.48			
1629.55	213.92	7.62	200.47	29.05	0.003768			
	1.79125	101237.32						
96.00	4580.88	6.78	7.04	11092.34	0.48			
1576.65	211.59	7.45	198.39	29.27	0.003782			
	1.75842	100185.21						
97.00	4580.79	6.69	6.96	10704.94	0.47			
1537.78	209.85	7.33	196.83	29.43	0.003792			
	1.73403	99396.76						
98.00	4580.70	6.60	6.88	10310.07	0.47			
1498.13	208.04	7.20	195.20	29.60	0.003811			
	1.71247	98577.93						
99.00	4580.63	6.53	6.82	10031.43	0.47			
1469.90	206.74	7.11	194.03	29.72	0.003828			
	1.69838	97985.63						
100.00	4580.54	6.44	6.75	9672.84	0.47			
1432.92	204.99	6.99	192.47	29.89	0.003821			
	1.66645	97196.09						
101.00	4580.46	6.36	6.68	9367.87	0.47			
1401.91	203.52	6.89	191.14	30.03	0.003830			
	1.64628	96525.95						
102.00	4580.39	6.29	6.62	9093.91	0.47			
1373.27	202.13	6.79	189.89	30.17	0.003841			
	1.62847	95896.17						
103.00	4580.34	6.24	6.57	8879.02	0.46			
1350.53	201.01	6.72	188.89	30.28	0.003847			
	1.61288	95390.36						
104.00	4580.28	6.18	6.53	8658.20	0.46			
1326.79	199.83	6.64	187.83	30.40	0.003856			
	1.59767	94854.23						
105.00	4580.19	6.09	6.45	8316.97	0.46			
1290.06	197.98	6.52	186.16	30.59	0.003867			
	1.57248	94012.51						
106.00	4580.13	6.03	6.40	8102.85	0.46			
1266.63	196.78	6.44	185.09	30.71	0.003873			
	1.55553	93468.97						
107.00	4580.08	5.98	6.35	7928.29	0.46			
1247.58	195.79	6.37	184.20	30.81	0.003881			
	1.54320	93020.31						
108.00	4580.03	5.93	6.32	7772.01	0.46			
1230.56	194.90	6.31	183.40	30.91	0.003885			
	1.53061	92616.55						
109.00	4580.03	5.93	6.31	7761.04	0.46			
1229.82	194.87	6.31	183.37	30.91	0.003884			
	1.52962	92600.22						
110.00	4580.08	5.98	6.35	7924.83	0.46			
1248.67	195.86	6.38	184.26	30.81	0.003875			
	1.54170	93048.88						
111.00	4580.16	6.06	6.41	8194.13	0.46			
1278.00	197.37	6.48	185.62	30.65	0.003867			
	1.56231	93736.18						
112.00	4580.13	6.03	6.40	8102.26	0.46			
1266.62	196.78	6.44	185.09	30.71	0.003874			

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	1.55586	93468.79						
1254.12	113.00	4580.09	5.99	6.39	6.36	7982.02	0.46	0.003875
	1.54610	93176.84				184.51	30.78	
1285.24	114.00	4580.17	6.07	6.50	6.42	8254.78	0.46	0.003864
	1.56727	93905.04				185.95	30.61	
1320.21	115.00	4580.26	6.16	6.62	6.50	8585.08	0.46	0.003854
	1.59141	94707.74				187.54	30.43	
1310.29	116.00	4580.24	6.14	6.58	6.49	8501.82	0.46	0.003859
	1.58568	94480.27				187.09	30.48	
1307.39	117.00	4580.23	6.13	6.57	6.48	8470.00	0.46	0.003860
	1.58343	94414.66				186.96	30.50	
1309.94	118.00	4580.24	6.14	6.58	6.48	8491.45	0.46	0.003857
	1.58438	94473.68				187.08	30.48	
1325.98	119.00	4580.28	6.18	6.64	6.51	8638.68	0.46	0.003852
	1.59517	94839.10				187.80	30.40	
1328.82	120.00	4580.28	6.18	6.65	6.52	8669.88	0.46	0.003853
	1.59792	94902.99				187.93	30.39	
1326.27	121.00	4580.28	6.18	6.64	6.52	8648.48	0.46	0.003853
	1.59578	94844.36				187.81	30.40	
1310.25	122.00	4580.24	6.14	6.58	6.49	8501.75	0.46	0.003859
	1.58527	94479.37				187.09	30.48	
1304.78	123.00	4580.22	6.12	6.57	6.48	8448.83	0.46	0.003861
	1.58173	94354.05				186.84	30.51	
1288.62	124.00	4580.18	6.08	6.51	6.44	8302.04	0.46	0.003868
	1.57152	93981.49				186.10	30.60	
1285.71	125.00	4580.18	6.08	6.50	6.43	8270.31	0.46	0.003866
	1.56841	93914.94				185.97	30.61	
1283.36	126.00	4580.17	6.07	6.49	6.43	8251.26	0.46	0.003868
	1.56709	93859.91				185.86	30.62	
1268.89	127.00	4580.13	6.03	6.44	6.40	8120.34	0.46	0.003874
	1.55790	93522.51				185.19	30.70	
1266.11	128.00	4580.13	6.03	6.43	6.39	8091.29	0.46	0.003871
	1.55448	93458.40				185.07	30.71	
1263.85	129.00	4580.12	6.02	6.43	6.39	8072.87	0.46	0.003874
	1.55377	93404.81				184.96	30.73	
1249.65	130.00	4580.08	5.98	6.38	6.36	7945.83	0.46	0.003878
	1.54357	93070.21				184.30	30.80	
1251.38	131.00	4580.09	5.99	6.38	6.36	7953.07	0.46	0.003876
	1.54435	93112.83				184.38	30.79	
1280.31	132.00	4580.16	6.06	6.48	6.41	8212.98	0.46	0.003866
	1.56408	93790.42				185.72	30.64	
1285.66	133.00	4580.18	6.08	6.50	6.43	8269.86	0.46	0.003868
		197.76				185.97	30.61	

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		HYCHAN.OUT						
	1.56893	93913.79						
1285.73	134.00	4580.18	6.08	6.50	6.43	8270.51	0.46	0.003866
	1.56851	93915.64						
1285.62	135.00	4580.18	6.08	6.50	6.43	8269.94	0.46	0.003866
	1.56821	93913.09						
1285.63	136.00	4580.18	6.08	6.50	6.43	8269.80	0.46	0.003867
	1.56886	93913.18						
1285.71	137.00	4580.18	6.08	6.50	6.43	8270.18	0.46	0.003866
	1.56821	93915.02						
1285.64	138.00	4580.18	6.08	6.50	6.43	8269.83	0.46	0.003865
	1.56786	93913.29						
1283.40	139.00	4580.17	6.07	6.49	6.43	8251.47	0.46	0.003869
	1.56768	93860.76						
1268.88	140.00	4580.13	6.03	6.44	6.40	8120.47	0.46	0.003872
	1.55710	93522.38						
1266.08	141.00	4580.13	6.03	6.43	6.39	8090.92	0.46	0.003871
	1.55443	93457.52						
1266.06	142.00	4580.13	6.03	6.43	6.39	8091.04	0.46	0.003872
	1.55460	93457.09						
1266.09	143.00	4580.13	6.03	6.43	6.39	8090.84	0.46	0.003872
	1.55474	93457.76						
1263.89	144.00	4580.12	6.02	6.43	6.39	8073.23	0.46	0.003873
	1.55316	93405.59						
1249.53	145.00	4580.08	5.98	6.38	6.36	7945.85	0.46	0.003877
	1.54323	93067.37						
1246.85	146.00	4580.08	5.98	6.37	6.35	7916.66	0.46	0.003879
	1.54167	93004.70						
1246.95	147.00	4580.08	5.98	6.37	6.35	7917.18	0.46	0.003880
	1.54227	93007.10						
1246.91	148.00	4580.08	5.98	6.37	6.35	7916.99	0.46	0.003878
	1.54128	93006.16						
1246.92	149.00	4580.08	5.98	6.37	6.35	7917.12	0.46	0.003878
	1.54155	93006.52						
1245.47	150.00	4580.07	5.97	6.36	6.35	7905.20	0.46	0.003881
	1.54122	92971.73						
1235.17	151.00	4580.05	5.95	6.33	6.33	7814.47	0.46	0.003884
	1.53400	92726.62						
1228.48	152.00	4580.03	5.93	6.31	6.31	7752.44	0.46	0.003887
	1.52968	92567.31						
1227.56	153.00	4580.03	5.93	6.30	6.31	7743.00	0.46	0.003885
	1.52798	92545.62						
1225.59	154.00	4580.02	5.92	6.30	6.30	7725.36	0.46	0.003887
	194.64			6.30		183.16	30.94	

				HYCHAN.OUT				
	1.52707	92497.88						
1215.79	155.00	4580.00	5.90	6.26	6.28	7633.43	0.46	
		194.13				182.70	30.99	0.003889
	1.51986	92263.26						
1241.43	156.00	4580.06	5.96	6.35	6.33	7859.62	0.46	
		195.48				183.91	30.85	0.003880
	1.53758	92876.88						
1246.88	157.00	4580.08	5.98	6.37	6.35	7916.92	0.46	
		195.76				184.17	30.82	0.003878
	1.54147	93005.45						
1246.89	158.00	4580.08	5.98	6.37	6.35	7916.93	0.46	
		195.76				184.17	30.82	0.003880
	1.54198	93005.75						
1246.88	159.00	4580.08	5.98	6.37	6.35	7917.03	0.46	
		195.76				184.17	30.82	0.003879
	1.54175	93005.43						
1246.89	160.00	4580.08	5.98	6.37	6.35	7917.13	0.46	
		195.76				184.17	30.82	0.003879
	1.54157	93005.75						
1246.84	161.00	4580.08	5.98	6.37	6.35	7917.06	0.46	
		195.76				184.17	30.82	0.003879
	1.54160	93004.50						
1246.87	162.00	4580.08	5.98	6.37	6.35	7917.05	0.46	
		195.76				184.17	30.82	0.003878
	1.54149	93005.38						
1246.87	163.00	4580.08	5.98	6.37	6.35	7916.89	0.46	
		195.76				184.17	30.82	0.003878
	1.54135	93005.28						
1244.71	164.00	4580.07	5.97	6.36	6.35	7899.21	0.46	
		195.65				184.07	30.83	0.003879
	1.53995	92953.39						
1230.59	165.00	4580.03	5.93	6.31	6.32	7771.96	0.46	
		194.91				183.40	30.91	0.003885
	1.53053	92617.19						
1227.60	166.00	4580.03	5.93	6.30	6.31	7742.85	0.46	
		194.75				183.26	30.92	0.003885
	1.52808	92546.56						
1227.61	167.00	4580.03	5.93	6.30	6.31	7743.24	0.46	
		194.75				183.26	30.92	0.003884
	1.52784	92546.83						
1227.55	168.00	4580.03	5.93	6.30	6.31	7742.50	0.46	
		194.75				183.26	30.92	0.003887
	1.52895	92545.39						
1227.69	169.00	4580.03	5.93	6.30	6.31	7743.46	0.46	
		194.75				183.26	30.92	0.003884
	1.52785	92548.66						
1227.57	170.00	4580.03	5.93	6.30	6.31	7742.89	0.46	
		194.75				183.26	30.92	0.003886
	1.52848	92545.83						
1227.55	171.00	4580.03	5.93	6.30	6.31	7742.81	0.46	
		194.75				183.26	30.92	0.003886
	1.52854	92545.48						
1225.45	172.00	4580.02	5.92	6.30	6.30	7725.54	0.46	
		194.64				183.16	30.94	0.003887
	1.52705	92494.43						
1211.46	173.00	4579.98	5.88	6.25	6.27	7598.09	0.46	
		193.89				182.49	31.01	0.003892
	1.51727	92157.64						
1208.22	174.00	4579.98	5.88	6.24	6.26	7568.91	0.46	
		193.72				182.34	31.03	0.003892
	1.51469	92080.30						
1208.23	175.00	4579.98	5.88	6.24	6.26	7568.93	0.46	
		193.72				182.34	31.03	0.003892

## HYCHAN.OUT

	1.51469	92080.45						
1208.22	176.00	4579.98	5.88	6.24	6.26	7569.00	0.46	0.003892
		193.72				182.34	31.03	
	1.51478	92080.04						
1208.30	177.00	4579.98	5.88	6.24	6.26	7569.38	0.46	0.003892
		193.73				182.34	31.03	
	1.51482	92082.06						
1208.17	178.00	4579.98	5.88	6.24	6.26	7568.71	0.46	0.003891
		193.72				182.33	31.03	
	1.51425	92078.99						
1212.61	179.00	4579.99	5.89	6.25	6.27	7604.18	0.46	0.003892
		193.96				182.55	31.01	
	1.51818	92187.18						
1241.42	180.00	4580.06	5.96	6.35	6.33	7859.56	0.46	0.003879
		195.48				183.91	30.85	
	1.53715	92876.75						
1249.08	181.00	4580.08	5.98	6.38	6.35	7934.64	0.46	0.003880
		195.88				184.27	30.81	
	1.54380	93058.04						
1263.45	182.00	4580.12	6.02	6.43	6.38	8062.80	0.46	0.003874
		196.62				184.94	30.73	
	1.55353	93396.52						
1266.12	183.00	4580.13	6.03	6.43	6.39	8091.01	0.46	0.003871
		196.76				185.07	30.71	
	1.55443	93458.57						
1266.13	184.00	4580.13	6.03	6.43	6.39	8090.74	0.46	0.003873
		196.76				185.07	30.71	
	1.55507	93458.69						
1266.17	185.00	4580.13	6.03	6.44	6.39	8091.13	0.46	0.003872
		196.76				185.07	30.71	
	1.55469	93459.81						
1266.17	186.00	4580.13	6.03	6.44	6.39	8090.97	0.46	0.003872
		196.76				185.07	30.71	
	1.55494	93459.65						
1266.10	187.00	4580.13	6.03	6.43	6.39	8091.15	0.46	0.003872
		196.76				185.07	30.71	
	1.55493	93458.01						
1266.15	188.00	4580.13	6.03	6.44	6.39	8090.96	0.46	0.003872
		196.76				185.07	30.71	
	1.55477	93459.20						
1266.16	189.00	4580.13	6.03	6.44	6.39	8091.10	0.46	0.003872
		196.76				185.07	30.71	
	1.55465	93459.48						
1263.91	190.00	4580.12	6.02	6.43	6.39	8073.01	0.46	0.003875
		196.64				184.96	30.73	
	1.55408	93406.19						
1249.60	191.00	4580.08	5.98	6.38	6.36	7945.54	0.46	0.003881
		195.90				184.30	30.80	
	1.54477	93069.09						
1246.89	192.00	4580.08	5.98	6.37	6.35	7916.89	0.46	0.003879
		195.76				184.17	30.82	
	1.54181	93005.64						
1246.90	193.00	4580.08	5.98	6.37	6.35	7917.15	0.46	0.003878
		195.76				184.17	30.82	
	1.54146	93005.90						
1246.87	194.00	4580.08	5.98	6.37	6.35	7917.06	0.46	0.003880
		195.76				184.17	30.82	
	1.54228	93005.18						
1246.81	195.00	4580.08	5.98	6.37	6.35	7916.73	0.46	0.003879
		195.76				184.17	30.82	
	1.54182	93003.80						
1246.88	196.00	4580.08	5.98	6.37	6.35	7917.29	0.46	0.003879
		195.76				184.17	30.82	

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1246.89	1.54168	93005.50	5.98	6.37	6.35	7917.22	0.46	0.003880
	197.00	4580.08						
	1.54207	93005.71						
1246.80	198.00	4580.08	5.98	6.37	6.35	7916.53	0.46	0.003878
		195.76				184.17	30.82	
	1.54137	93003.55						
1246.84	199.00	4580.08	5.98	6.37	6.35	7916.79	0.46	0.003881
		195.76				184.17	30.82	
	1.54237	93004.55						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 494

MAXIMUM DISCHARGE (CFS) = 21642.36 AT TIME = 79.92

MAXIMUM STAGE = 4580.43 AT TIME = 80.03

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)							
0.00	0.00	4569.21	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4569.21	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
815.35	2.00	4573.52	4.31	3.60	2939.00	0.31		
	1.44329	104.02	7.84	102.41	23.74		0.002951	
905.51	3.00	4576.53	7.32	6.09	5517.52	0.40		
	0.99171	168.31	5.38	165.61	22.63		0.002954	
893.51	4.00	4576.48	7.27	6.05	5407.89	0.40		
	0.98646	167.36	5.34	164.68	22.65		0.002961	
888.92	5.00	4576.46	7.25	6.04	5366.04	0.40		
	0.98415	167.00	5.32	164.33	22.65		0.002963	
875.41	6.00	4576.41	7.20	5.99	5245.24	0.39		
	0.97905	165.92	5.28	163.26	22.67		0.002974	
858.16	7.00	4576.35	7.14	5.94	5093.89	0.39		
	0.97096	164.53	5.22	161.90	22.69		0.002983	
840.99	8.00	4576.28	7.07	5.88	4944.46	0.39		
	0.96277	163.13	5.16	160.52	22.70		0.002993	
824.70	9.00	4576.22	7.01	5.83	4804.28	0.39		
	0.95439	161.79	5.10	159.21	22.72		0.003001	
819.67	10.00	4576.20	6.99	5.81	4761.54	0.39		
	0.95190	161.38	5.08	158.80	22.73		0.003003	
805.93	11.00	4576.14	6.93	5.76	4644.04	0.39		
	0.94607	160.22	5.03	157.67	22.75		0.003014	
789.21	12.00	4576.07	6.86	5.71	4502.84	0.38		
	0.93719	158.82	4.97	156.28	22.77		0.003022	
		80485.02						



		HYCHAN.OUT				
785.13	13.00	4576.06	6.85	5.69	4468.89	0.38
	0.93411	158.47	4.95	155.94	22.77	0.003022
785.15	14.00	80311.62	6.85	5.69	4469.08	0.38
	0.93377	158.47	4.95	155.95	22.77	0.003020
785.14	15.00	80312.40	6.85	5.69	4468.96	0.38
	0.93423	158.47	4.95	155.95	22.77	0.003022
785.14	16.00	80312.05	6.85	5.69	4468.93	0.38
	0.93439	158.47	4.95	155.95	22.77	0.003022
786.21	17.00	80311.93	6.85	5.70	4478.23	0.38
	0.93403	158.57	4.96	156.04	22.77	0.003019
800.36	18.00	80358.74	6.91	5.74	4597.86	0.39
	0.94035	159.77	5.01	157.22	22.75	0.003008
818.23	19.00	80966.30	6.98	5.81	4750.01	0.39
	0.94902	161.26	5.07	158.69	22.73	0.002997
834.85	20.00	81723.71	7.05	5.86	4892.60	0.39
	0.95757	162.64	5.13	160.04	22.71	0.002989
838.50	21.00	82418.96	7.06	5.87	4923.87	0.39
	0.95986	162.93	5.15	160.33	22.71	0.002989
839.67	22.00	82569.96	7.07	5.88	4934.33	0.39
	0.96033	163.03	5.15	160.43	22.71	0.002988
854.94	23.00	82619.05	7.12	5.93	5067.33	0.39
	0.96633	164.28	5.20	161.65	22.69	0.002976
886.41	24.00	83250.24	7.24	6.03	5344.43	0.39
	0.98032	166.80	5.31	164.13	22.66	0.002956
920.63	25.00	84528.22	7.37	6.14	5651.67	0.40
	0.99606	169.49	5.43	166.78	22.62	0.002939
951.13	26.00	85889.59	7.49	6.23	5930.12	0.40
	1.01047	171.84	5.53	169.08	22.59	0.002926
957.06	27.00	87078.21	7.51	6.25	5985.15	0.40
	1.01404	172.29	5.55	169.53	22.58	0.002925
958.65	28.00	87305.42	7.51	6.26	5999.70	0.40
	1.01435	172.41	5.56	169.65	22.58	0.002924
971.83	29.00	87367.32	7.56	6.30	6122.36	0.40
	1.01989	173.41	5.60	170.63	22.57	0.002916
974.94	30.00	87872.10	7.57	6.31	6152.09	0.40
	1.02178	173.64	5.61	170.85	22.57	0.002916
976.65	31.00	87989.63	7.58	6.32	6167.92	0.40
	1.02232	173.77	5.62	170.98	22.56	0.002915
990.33	32.00	88055.49	7.63	6.36	6295.52	0.41
	1.02799	174.79	5.67	171.99	22.55	0.002908
993.58	33.00	88573.73	7.64	6.37	6326.06	0.41
	1.02987	175.03	5.68	172.22	22.55	0.002907
		88695.20				

HYCHAN.OUT							
991.90	34.00	4576.84	7.63	6.36	6309.80	0.41	
	1.03041	174.91	5.67	172.10	22.55		0.002912
	35.00	88630.73					
978.32	1.02382	4576.79	7.58	6.32	6182.98	0.40	
	36.00	173.89	5.63	171.10	22.56		0.002916
	1.02382	88116.67					
973.31	1.02197	4576.78	7.57	6.30	6136.50	0.40	
	37.00	173.52	5.61	170.73	22.57		0.002920
	1.02197	87926.51					
960.32	1.01609	4576.73	7.52	6.26	6015.03	0.40	
	38.00	172.53	5.57	169.77	22.58		0.002926
	1.01609	87429.37					
957.04	1.01399	4576.72	7.51	6.25	5984.99	0.40	
	39.00	172.29	5.55	169.52	22.58		0.002925
	1.01399	87304.75					
957.04	1.01411	4576.72	7.51	6.25	5984.98	0.40	
	40.00	172.29	5.55	169.52	22.58		0.002926
	1.01411	87304.62					
957.04	1.01400	4576.72	7.51	6.25	5985.04	0.40	
	41.00	172.29	5.55	169.52	22.58		0.002925
	1.01400	87304.85					
957.04	1.01403	4576.72	7.51	6.25	5985.00	0.40	
	42.00	172.29	5.55	169.52	22.58		0.002925
	1.01403	87304.74					
958.67	1.01443	4576.72	7.51	6.26	5999.93	0.40	
	43.00	172.41	5.56	169.65	22.58		0.002924
	1.01443	87368.23					
971.86	1.01985	4576.77	7.56	6.30	6122.59	0.40	
	44.00	173.41	5.60	170.63	22.57		0.002916
	1.01985	87873.02					
976.65	1.02228	4576.79	7.58	6.32	6167.89	0.40	
	45.00	173.77	5.62	170.98	22.56		0.002915
	1.02228	88055.52					
992.08	1.02845	4576.84	7.63	6.36	6311.88	0.41	
	46.00	174.93	5.67	172.12	22.55		0.002906
	1.02845	88640.05					
1010.68	1.03625	4576.91	7.70	6.42	6486.92	0.41	
	47.00	176.30	5.73	173.47	22.53		0.002897
	1.03625	89337.09					
1028.97	1.04391	4576.97	7.76	6.47	6661.19	0.41	
	48.00	177.64	5.79	174.79	22.51		0.002888
	1.04391	90015.12					
1047.27	1.05161	4577.04	7.83	6.53	6833.73	0.41	
	49.00	178.97	5.85	176.09	22.50		0.002880
	1.05161	90686.91					
1066.62	1.06028	4577.10	7.89	6.57	7005.72	0.41	
	50.00	180.36	5.91	177.46	22.48		0.002873
	1.06028	91389.78					
1086.05	1.06737	4577.17	7.96	6.63	7195.82	0.41	
	51.00	181.74	5.98	178.81	22.46		0.002862
	1.06737	92088.19					
1114.72	1.07865	4577.27	8.06	6.71	7480.20	0.42	
	52.00	183.75	6.07	180.79	22.44		0.002849
	1.07865	93104.90					
1122.48	1.08285	4577.29	8.08	6.73	7558.81	0.42	
	53.00	184.29	6.09	181.32	22.43		0.002849
	1.08285	93377.59					
1140.57	1.08763	4577.35	8.14	6.79	7739.41	0.42	
	54.00	185.53	6.15	182.54	22.42		0.002835
	1.08763	94009.66					
1191.24	1.10446	4577.52	8.31	6.93	8255.32	0.42	
		188.96	6.30	185.91	22.38		0.002808
		95746.00					

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HYCHAN.OUT							
1268.43	55.00	4577.76	8.55	7.14	9062.04	0.43	0.002766
	1.12830	194.03	6.54		190.90	22.32	
		98311.30					
1371.21	56.00	4578.08	8.87	7.42	10173.88	0.44	0.002730
	1.16485	200.51	6.84		197.26	22.25	
		101590.31					
1495.04	57.00	4578.44	9.23	7.74	11565.72	0.45	0.002690
	1.20675	207.97	7.19		204.59	22.17	
		105365.56					
1594.41	58.00	4578.72	9.51	7.98	12730.78	0.46	0.002659
	1.23794	213.71	7.46		210.23	22.11	
		108268.64					
1684.51	59.00	4578.96	9.75	8.20	13820.58	0.46	0.002629
	1.26340	218.72	7.70		215.16	22.06	
		110806.36					
1792.86	60.00	4579.25	10.04	8.46	15175.54	0.47	0.002602
	1.29655	224.56	7.98		220.89	22.00	
		113759.60					
1861.39	61.00	4579.43	10.22	8.62	16051.58	0.48	0.002590
	1.31849	228.15	8.16		224.42	21.96	
		115576.23					
1926.34	62.00	4579.59	10.38	8.77	16885.65	0.48	0.002578
	1.33891	231.48	8.32		227.69	21.93	
		117260.23					
1965.23	63.00	4579.69	10.48	8.85	17394.11	0.48	0.002572
	1.35092	233.44	8.42		229.62	21.92	
		118253.09					
2014.57	64.00	4579.81	10.60	8.96	18047.03	0.49	0.002561
	1.36488	235.89	8.54		232.03	21.89	
		119493.12					
2054.64	65.00	4579.91	10.70	9.04	18582.01	0.49	0.002557
	1.37843	237.86	8.64		233.97	21.87	
		120492.02					
2060.78	66.00	4579.92	10.71	9.06	18663.17	0.49	0.002560
	1.38231	238.16	8.65		234.26	21.87	
		120643.18					
2061.36	67.00	4579.92	10.71	9.06	18670.24	0.49	0.002555
	1.37954	238.19	8.65		234.29	21.87	
		120657.47					
2061.49	68.00	4579.92	10.71	9.06	18673.00	0.49	0.002555
	1.37971	238.20	8.65		234.29	21.87	
		120660.66					
2061.99	69.00	4579.92	10.71	9.06	18679.51	0.49	0.002553
	1.37872	238.22	8.66		234.32	21.87	
		120672.88					
2062.61	70.00	4579.92	10.71	9.06	18687.19	0.49	0.002553
	1.37892	238.25	8.66		234.35	21.87	
		120688.06					
2062.51	71.00	4579.92	10.71	9.06	18686.43	0.49	0.002551
	1.37810	238.25	8.66		234.34	21.87	
		120685.79					
2064.53	72.00	4579.93	10.72	9.06	18714.18	0.49	0.002555
	1.38088	238.35	8.66		234.44	21.87	
		120736.09					
2081.96	73.00	4579.97	10.76	9.10	18948.13	0.49	0.002554
	1.38707	239.19	8.70		235.27	21.86	
		121165.42					
2089.95	74.00	4579.99	10.78	9.12	19055.42	0.49	0.002548
	1.38722	239.58	8.72		235.65	21.86	
		121360.20					
2091.85	75.00	4580.00	10.79	9.12	19082.74	0.49	0.002548
	1.38747	239.67	8.73		235.74	21.86	
		121407.07					

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2113.46	76.00	4580.05	10.84	9.17	19375.82	0.49	0.002549
	1.39638	240.72	8.78	236.77	21.85		
		121935.32					
2157.62	77.00	4580.15	10.94	9.26	19980.88	0.49	0.002551
	1.41466	242.83	8.89	238.84	21.83		
		123002.97					
2192.93	78.00	4580.23	11.02	9.33	20466.79	0.50	0.002539
	1.42090	244.50	8.97	240.48	21.82		
		123848.17					
2223.73	79.00	4580.31	11.10	9.40	20893.38	0.50	0.002535
	1.43015	245.94	9.04	241.90	21.80		
		124578.79					
2262.89	80.00	4580.40	11.19	9.47	21436.37	0.50	0.002541
	1.44797	247.76	9.13	243.69	21.79		
		125498.70					
2261.71	81.00	4580.39	11.18	9.47	21416.48	0.50	0.002540
	1.44701	247.70	9.13	243.63	21.79		
		125468.84					
2235.53	82.00	4580.33	11.12	9.42	21051.64	0.50	0.002542
	1.43865	246.48	9.07	242.44	21.80		
		124854.20					
2227.35	83.00	4580.31	11.10	9.40	20940.59	0.50	0.002540
	1.43417	246.11	9.05	242.06	21.80		
		124662.85					
2226.63	84.00	4580.31	11.10	9.40	20930.50	0.50	0.002541
	1.43489	246.07	9.05	242.03	21.80		
		124646.21					
2223.84	85.00	4580.31	11.10	9.40	20893.06	0.50	0.002540
	1.43291	245.94	9.04	241.90	21.80		
		124578.86					
2195.95	86.00	4580.24	11.03	9.33	20492.92	0.50	0.002540
	1.42307	244.62	8.98	240.60	21.81		
		123911.15					
2129.13	87.00	4580.08	10.87	9.19	19576.26	0.49	0.002549
	1.40272	241.44	8.82	237.48	21.84		
		122300.55					
2037.62	88.00	4579.86	10.65	9.00	18342.27	0.49	0.002569
	1.37821	236.99	8.60	233.11	21.88		
		120049.95					
1902.85	89.00	4579.53	10.32	8.71	16577.08	0.48	0.002596
	1.33876	230.25	8.26	226.48	21.95		
		116637.57					
1820.76	90.00	4579.32	10.11	8.53	15531.43	0.47	0.002614
	1.31384	226.01	8.06	222.32	21.99		
		114496.12					
1755.96	91.00	4579.15	9.94	8.37	14700.53	0.47	0.002632
	1.29559	222.58	7.89	218.95	22.02		
		112758.34					
1675.05	92.00	4578.94	9.73	8.18	13698.77	0.46	0.002659
	1.27391	218.19	7.68	214.63	22.06		
		110535.93					
1607.13	93.00	4578.75	9.54	8.01	12879.15	0.46	0.002676
	1.25183	214.41	7.50	210.92	22.10		
		108625.80					
1547.38	94.00	4578.59	9.38	7.87	12170.57	0.45	0.002693
	1.23249	211.02	7.33	207.58	22.13		
		106906.08					
1502.12	95.00	4578.46	9.25	7.75	11643.13	0.45	0.002710
	1.21897	208.39	7.21	205.00	22.16		
		105576.85					
1454.16	96.00	4578.32	9.11	7.63	11099.12	0.45	0.002724
	1.20263	205.56	7.07	202.22	22.19		
		104142.72					

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1419.29	97.00	4578.22	9.01	7.55	10710.43	0.44	
		203.46	6.98		200.16	22.21	0.002736
	1.19087	103083.11					
1383.98	98.00	4578.12	8.91	7.45	10315.11	0.44	
		201.31	6.87		198.05	22.24	0.002753
	1.18090	101994.28					
1359.17	99.00	4578.04	8.83	7.38	10035.54	0.44	
		199.78	6.80		196.54	22.25	0.002775
	1.17798	101219.45					
1326.14	100.00	4577.94	8.73	7.30	9678.37	0.44	
		197.71	6.71		194.51	22.28	0.002763
	1.15630	100173.56					
1297.75	101.00	4577.85	8.64	7.22	9371.89	0.43	
		195.92	6.62		192.75	22.30	0.002780
	1.14913	99265.26					
1272.06	102.00	4577.77	8.56	7.15	9097.89	0.43	
		194.27	6.55		191.13	22.32	0.002789
	1.13965	98431.95					
1251.42	103.00	4577.71	8.50	7.10	8882.01	0.43	
		192.94	6.49		189.82	22.33	0.002797
	1.13218	97755.93					
1230.43	104.00	4577.64	8.43	7.04	8662.55	0.43	
		191.56	6.42		188.47	22.35	0.002809
	1.12575	97059.70					
1197.63	105.00	4577.54	8.33	6.95	8321.70	0.42	
		189.39	6.32		186.33	22.37	0.002822
	1.11367	95959.41					
1176.46	106.00	4577.47	8.26	6.89	8105.63	0.42	
		187.97	6.26		184.94	22.39	0.002828
	1.10452	95242.44					
1159.31	107.00	4577.41	8.20	6.84	7931.12	0.42	
		186.81	6.21		183.80	22.40	0.002834
	1.09762	94654.55					
1143.69	108.00	4577.36	8.15	6.80	7773.59	0.42	
		185.74	6.16		182.75	22.42	0.002840
	1.09130	94115.72					
1142.42	109.00	4577.36	8.15	6.79	7759.84	0.42	
		185.66	6.15		182.67	22.42	0.002840
	1.09048	94073.34					
1110.00	110.00	4577.41	8.20	6.84	7920.77	0.42	
		186.75	6.20		183.74	22.40	0.002830
	1.09544	94625.61					
1185.10	111.00	4577.50	8.29	6.91	8192.23	0.42	
		188.56	6.29		185.51	22.38	0.002820
	1.10589	95539.85					
1176.43	112.00	4577.47	8.26	6.89	8105.01	0.42	
		187.97	6.26		184.94	22.39	0.002827
	1.10405	95241.75					
1164.31	113.00	4577.43	8.22	6.85	7981.21	0.42	
		187.15	6.22		184.13	22.40	0.002830
	1.09870	94828.88					
1190.62	114.00	4577.52	8.31	6.93	8248.95	0.42	
		188.93	6.30		185.88	22.38	0.002816
	1.10739	95727.43					
1222.76	115.00	4577.62	8.41	7.02	8582.96	0.43	
		191.06	6.40		187.98	22.35	0.002805
	1.12035	96808.45					
1215.05	116.00	4577.59	8.38	7.00	8503.55	0.43	
		190.55	6.38		187.47	22.36	0.002811
	1.11833	96548.70					
1211.94	117.00	4577.58	8.37	6.99	8469.97	0.43	
		190.35	6.37		187.27	22.36	0.002810
	1.11653	96445.61					

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1213.84	118.00 4577.59 190.47	8.38	6.37	6.99	8490.05	0.43	0.002810
	1.11748 96510.00				187.40	22.36	
1227.92	119.00 4577.64 191.40	8.43	6.42	7.03	8636.95	0.43	0.002803
	1.12194 96980.62				188.31	22.35	
1231.01	120.00 4577.65 191.61	8.44	6.42	7.04	8669.92	0.43	0.002805
	1.12438 97082.66				188.51	22.35	
1229.09	121.00 4577.64 191.48	8.43	6.42	7.04	8649.79	0.43	0.002805
	1.12348 97017.77				188.38	22.35	
1215.07	122.00 4577.59 190.55	8.38	6.38	7.00	8503.44	0.43	0.002811
	1.11859 96549.57				187.47	22.36	
1209.98	123.00 4577.58 190.22	8.37	6.36	6.98	8450.18	0.43	0.002816
	1.11758 96378.99				187.14	22.36	
1195.86	124.00 4577.53 189.27	8.32	6.32	6.94	8303.89	0.42	0.002822
	1.11245 95902.65				186.22	22.37	
1192.65	125.00 4577.52 189.06	8.31	6.31	6.93	8270.27	0.42	0.002819
	1.10965 95795.27				186.01	22.38	
1190.87	126.00 4577.52 188.94	8.31	6.30	6.93	8252.45	0.42	0.002822
	1.10983 95734.07				185.89	22.38	
1178.19	127.00 4577.48 188.09	8.27	6.26	6.89	8122.05	0.42	0.002826
	1.10468 95302.45				185.05	22.39	
1175.08	128.00 4577.47 187.88	8.26	6.25	6.89	8091.15	0.42	0.002827
	1.10336 95197.91				184.85	22.39	
1173.48	129.00 4577.46 187.77	8.25	6.25	6.88	8074.07	0.42	0.002829
	1.10303 95142.20				184.74	22.39	
1160.97	130.00 4577.42 186.92	8.21	6.21	6.85	7947.42	0.42	0.002831
	1.09718 94712.75				183.91	22.40	
1161.35	131.00 4577.42 186.95	8.21	6.21	6.85	7950.71	0.42	0.002831
	1.09747 94728.02				183.94	22.40	
1186.82	132.00 4577.50 188.67	8.29	6.29	6.92	8209.77	0.42	0.002821
	1.10713 95598.73				185.63	22.38	
1192.62	133.00 4577.52 189.06	8.31	6.31	6.93	8269.90	0.42	0.002820
	1.11018 95794.08				186.01	22.38	
1192.67	134.00 4577.52 189.06	8.31	6.31	6.93	8270.47	0.42	0.002819
	1.10954 95796.00				186.01	22.38	
1192.58	135.00 4577.52 189.06	8.31	6.31	6.93	8269.95	0.42	0.002819
	1.10977 95792.96				186.01	22.38	
1192.60	136.00 4577.52 189.06	8.31	6.31	6.93	8269.86	0.42	0.002817
	1.10893 95793.59				186.01	22.38	
1192.65	137.00 4577.52 189.06	8.31	6.31	6.93	8270.11	0.42	0.002818
	1.10934 95795.30				186.01	22.38	
1192.60	138.00 4577.52 189.06	8.31	6.31	6.93	8269.84	0.42	0.002817
	1.10900 95793.54				186.01	22.38	

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		HYCHAN.OUT					
1190.94	139.00 4577.52 188.95	8.31	6.30	6.93	8252.66	0.42	0.002821
	1.10963 95736.53				185.90	22.38	
1178.13	140.00 4577.48 188.08	8.27	6.26	6.89	8122.03	0.42	0.002827
	1.10478 95300.70				185.05	22.39	
1175.12	141.00 4577.47 187.88	8.26	6.25	6.89	8090.96	0.42	0.002826
	1.10312 95199.07				184.85	22.39	
1175.08	142.00 4577.47 187.88	8.26	6.25	6.89	8091.07	0.42	0.002827
	1.10315 95197.61				184.85	22.39	
1175.13	143.00 4577.47 187.88	8.26	6.25	6.88	8090.78	0.42	0.002828
	1.10353 95199.49				184.85	22.39	
1173.46	144.00 4577.46 187.77	8.25	6.25	6.88	8074.47	0.42	0.002828
	1.10284 95141.48				184.74	22.39	
1160.78	145.00 4577.42 186.91	8.21	6.21	6.85	7947.34	0.42	0.002835
	1.09851 94706.41				183.90	22.40	
1157.95	146.00 4577.41 186.72	8.20	6.20	6.84	7916.72	0.42	0.002834
	1.09652 94610.05				183.71	22.40	
1158.01	147.00 4577.41 186.72	8.20	6.20	6.84	7917.23	0.42	0.002834
	1.09686 94611.88				183.71	22.40	
1157.95	148.00 4577.41 186.72	8.20	6.20	6.84	7916.94	0.42	0.002832
	1.09582 94610.15				183.71	22.40	
1157.95	149.00 4577.41 186.72	8.20	6.20	6.84	7917.14	0.42	0.002833
	1.09643 94610.11				183.71	22.40	
1156.93	150.00 4577.41 186.65	8.20	6.20	6.83	7906.03	0.42	0.002836
	1.09708 94574.27				183.64	22.40	
1147.99	151.00 4577.38 186.04	8.17	6.17	6.81	7815.88	0.42	0.002839
	1.09332 94264.78				183.04	22.41	
1141.71	152.00 4577.36 185.61	8.15	6.15	6.79	7753.02	0.42	0.002842
	1.09084 94047.59				182.62	22.42	
1140.69	153.00 4577.35 185.54	8.14	6.15	6.79	7742.92	0.42	0.002841
	1.08999 94012.89				182.55	22.42	
1139.20	154.00 4577.35 185.44	8.14	6.14	6.78	7726.49	0.42	0.002844
	1.09028 93960.00				182.45	22.42	
1129.77	155.00 4577.32 184.79	8.11	6.11	6.76	7632.72	0.42	0.002846
	1.08563 93632.34				181.81	22.43	
1152.05	156.00 4577.39 186.32	8.18	6.18	6.82	7856.48	0.42	0.002834
	1.09355 94407.28				183.32	22.41	
1157.90	157.00 4577.41 186.72	8.20	6.20	6.84	7916.91	0.42	0.002833
	1.09629 94608.12				183.71	22.40	
1157.96	158.00 4577.41 186.72	8.20	6.20	6.84	7916.92	0.42	0.002835
	1.09694 94610.36				183.71	22.40	
1157.94	159.00 4577.41 186.72	8.20	6.20	6.84	7917.02	0.42	0.002833
	1.09634 94609.60				183.71	22.40	

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1157.90	160.00 4577.41 186.72 94608.23	8.20	6.84	7917.17	0.42
	1.09652	6.20		183.71	22.40
1157.86	161.00 4577.41 186.71 94607.09	8.20	6.84	7917.05	0.42
	1.09634	6.20		183.70	22.40
1157.88	162.00 4577.41 186.72 94607.44	8.20	6.84	7917.07	0.42
	1.09580	6.20		183.70	22.40
1157.91	163.00 4577.41 186.72 94608.62	8.20	6.84	7916.79	0.42
	1.09689	6.20		183.71	22.40
1156.32	164.00 4577.40 186.61 94552.95	8.19	6.83	7900.38	0.42
	1.09640	6.20		183.60	22.41
1143.83	165.00 4577.36 185.75 94120.38	8.15	6.80	7773.63	0.42
	1.09182	6.16		182.76	22.42
1140.76	166.00 4577.35 185.54 94014.98	8.14	6.79	7742.80	0.42
	1.09003	6.15		182.55	22.42
1140.76	167.00 4577.35 185.54 94015.01	8.14	6.79	7743.29	0.42
	1.08979	6.15		182.55	22.42
1140.73	168.00 4577.35 185.54 94014.12	8.14	6.79	7742.51	0.42
	1.09003	6.15		182.55	22.42
1140.84	169.00 4577.35 185.55 94018.07	8.14	6.79	7743.38	0.42
	1.08993	6.15		182.56	22.42
1140.73	170.00 4577.35 185.54 94014.08	8.14	6.79	7743.03	0.42
	1.08932	6.15		182.55	22.42
1140.69	171.00 4577.35 185.54 94012.91	8.14	6.79	7742.70	0.42
	1.08993	6.15		182.55	22.42
1139.20	172.00 4577.35 185.44 93959.95	8.14	6.78	7726.75	0.42
	1.08920	6.14		182.45	22.42
1126.67	173.00 4577.31 184.57 93522.40	8.10	6.75	7599.63	0.42
	1.08541	6.10		181.60	22.43
1123.53	174.00 4577.30 184.36 93413.75	8.09	6.74	7568.98	0.42
	1.08364	6.09		181.39	22.43
1123.53	175.00 4577.30 184.36 93413.59	8.09	6.74	7568.89	0.42
	1.08329	6.09		181.39	22.43
1123.49	176.00 4577.30 184.35 93412.24	8.09	6.74	7568.95	0.42
	1.08370	6.09		181.38	22.43
1123.59	177.00 4577.30 184.36 93415.81	8.09	6.74	7569.41	0.42
	1.08362	6.09		181.39	22.43
1123.46	178.00 4577.30 184.35 93411.19	8.09	6.74	7568.70	0.42
	1.08310	6.09		181.38	22.43
1126.79	179.00 4577.31 184.58 93528.93	8.10	6.75	7601.91	0.42
	1.08320	6.10		181.61	22.43
1152.04	180.00 4577.39 186.32 94406.88	8.18	6.82	7856.40	0.42
	1.09313	6.18		183.31	22.41

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1159.59	181.00	4577.42	8.21	6.84	7933.45	0.42	
	1.09716	186.83	6.21		183.82	22.40	0.002833
		94667.20					
1172.24	182.00	4577.46	8.25	6.88	8061.16	0.42	
	1.10227	187.69	6.25		184.66	22.39	0.002828
		95101.24					
1175.16	183.00	4577.47	8.26	6.88	8090.91	0.42	
	1.10297	187.89	6.25		184.85	22.39	0.002826
		95200.31					
1175.19	184.00	4577.47	8.26	6.88	8090.85	0.42	
	1.10307	187.89	6.25		184.86	22.39	0.002826
		95201.38					
1175.23	185.00	4577.47	8.26	6.88	8091.05	0.42	
	1.10292	187.89	6.25		184.86	22.39	0.002826
		95202.75					
1175.27	186.00	4577.47	8.26	6.88	8091.03	0.42	
	1.10318	187.89	6.25		184.86	22.39	0.002826
		95204.00					
1175.12	187.00	4577.47	8.26	6.89	8091.16	0.42	
	1.10331	187.88	6.25		184.85	22.39	0.002827
		95198.91					
1175.22	188.00	4577.47	8.26	6.88	8090.96	0.42	
	1.10250	187.89	6.25		184.86	22.39	0.002825
		95202.39					
1175.20	189.00	4577.47	8.26	6.88	8091.04	0.42	
	1.10318	187.89	6.25		184.86	22.39	0.002827
		95201.68					
1173.51	190.00	4577.46	8.25	6.88	8074.28	0.42	
	1.10240	187.77	6.25		184.74	22.39	0.002827
		95143.23					
1160.90	191.00	4577.42	8.21	6.85	7947.11	0.42	
	1.09793	186.92	6.21		183.90	22.40	0.002833
		94710.51					
1157.93	192.00	4577.41	8.20	6.84	7916.89	0.42	
	1.09612	186.72	6.20		183.71	22.40	0.002833
		94609.32					
1157.92	193.00	4577.41	8.20	6.84	7917.12	0.42	
	1.09606	186.72	6.20		183.71	22.40	0.002832
		94609.06					
1157.90	194.00	4577.41	8.20	6.84	7917.14	0.42	
	1.09590	186.72	6.20		183.70	22.40	0.002832
		94608.07					
1157.84	195.00	4577.41	8.20	6.84	7916.66	0.42	
	1.09647	186.71	6.20		183.70	22.40	0.002834
		94606.26					
1157.92	196.00	4577.41	8.20	6.84	7917.28	0.42	
	1.09717	186.72	6.20		183.71	22.40	0.002835
		94609.08					
1157.90	197.00	4577.41	8.20	6.84	7917.24	0.42	
	1.09663	186.72	6.20		183.70	22.40	0.002834
		94608.07					
1157.85	198.00	4577.41	8.20	6.84	7916.49	0.42	
	1.09663	186.71	6.20		183.70	22.40	0.002834
		94606.54					
1157.93	199.00	4577.41	8.20	6.84	7916.85	0.42	
	1.09630	186.72	6.20		183.71	22.40	0.002833
		94609.35					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 514

MAXIMUM DISCHARGE (CFS) = 21632.78 AT TIME = 80.05  
 MAXIMUM STAGE = 4578.32 AT TIME = 79.93

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AREA BED	TIME WETTED (HRS)	ELEV. PERIMETER SURFACE (FT)	THALWEG HYDRAULIC AREA (FT)	DEPTH RADIUS (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY	FLOW SLOPE
(FT^2)	(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)		
0.00	0.00	4566.90	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00		0.00	0.00	0.00		
0.00	1.00	4566.90	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00		0.00	0.00	0.00		
695.23	2.00	4571.17	4.27	4.05	2814.80	0.35		
	1.39618	103.06	6.75	101.47	23.76		0.003317	
763.86	3.00	4574.46	7.56	7.22	5518.35	0.46		
	0.91200	173.37	4.41	170.58	22.57		0.003317	
753.50	4.00	4574.41	7.51	7.18	5409.33	0.46		
	0.90483	172.42	4.37	169.65	22.58		0.003318	
749.38	5.00	4574.40	7.50	7.16	5366.81	0.46		
	0.90143	172.05	4.36	169.29	22.59		0.003317	
738.12	6.00	4574.34	7.44	7.11	5247.51	0.46		
	0.89334	170.98	4.32	168.24	22.60		0.003316	
723.47	7.00	4574.28	7.38	7.04	5096.13	0.46		
	0.88265	169.61	4.27	166.89	22.62		0.003316	
708.84	8.00	4574.21	7.31	6.98	4946.72	0.45		
	0.87134	168.23	4.21	165.53	22.64		0.003314	
694.89	9.00	4574.15	7.25	6.92	4805.77	0.45		
	0.86176	166.90	4.16	164.23	22.65		0.003317	
690.52	10.00	4574.13	7.23	6.90	4762.34	0.45		
	0.85802	166.49	4.15	163.83	22.66		0.003315	
679.08	11.00	4574.08	7.18	6.84	4646.40	0.45		
	0.84900	165.35	4.11	162.71	22.67		0.003313	
664.72	12.00	4574.01	7.11	6.78	4504.41	0.45		
	0.83883	163.96	4.05	161.33	22.69		0.003316	
661.01	13.00	4573.99	7.09	6.76	4468.85	0.45		
	0.83610	163.61	4.04	161.00	22.70		0.003316	
661.03	14.00	4573.99	7.09	6.76	4469.03	0.45		
	0.83599	163.61	4.04	161.00	22.70		0.003316	
661.03	15.00	4573.99	7.09	6.76	4469.02	0.45		
	0.83571	163.61	4.04	161.00	22.70		0.003315	
661.02	16.00	4573.99	7.09	6.76	4468.93	0.45		
	0.83586	163.61	4.04	161.00	22.70		0.003315	
661.84	17.00	4574.00	7.10	6.77	4477.42	0.45		
	0.83694	163.70	4.04	161.08	22.70		0.003317	
	18.00	4574.05	7.15	6.82	4595.49	0.45		

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673.67		164.88	4.09	162.25	22.68	0.003317
	0.84570	84368.27				
	19.00	4574.12	7.22	6.89	4747.66	0.45
688.87		166.37	4.14	163.70	22.66	0.003318
	0.85740	85126.16				
	20.00	4574.19	7.29	6.96	4891.12	0.45
703.10		167.73	4.19	165.04	22.64	0.003315
	0.86708	85822.40				
	21.00	4574.20	7.30	6.97	4923.83	0.45
706.44		168.03	4.20	165.34	22.64	0.003318
	0.87041	85974.80				
	22.00	4574.21	7.31	6.97	4933.57	0.45
707.35		168.12	4.21	165.43	22.64	0.003319
	0.87137	86023.25				
	23.00	4574.27	7.37	7.03	5064.16	0.46
720.00		169.35	4.25	166.63	22.62	0.003320
	0.88081	86648.44				
	24.00	4574.39	7.49	7.15	5339.90	0.46
746.51		171.84	4.34	169.08	22.59	0.003321
	0.90037	87923.27				
	25.00	4574.51	7.61	7.28	5647.26	0.47
775.84		174.49	4.45	171.69	22.55	0.003321
	0.92145	89280.45				
	26.00	4574.62	7.72	7.39	5927.52	0.47
802.31		176.82	4.54	173.98	22.52	0.003318
	0.93935	90467.52				
	27.00	4574.65	7.75	7.41	5985.16	0.47
807.87		177.27	4.56	174.42	22.52	0.003317
	0.94338	90700.05				
	28.00	4574.65	7.75	7.41	5998.73	0.47
809.08		177.39	4.56	174.54	22.52	0.003319
	0.94465	90758.77				
	29.00	4574.70	7.80	7.46	6120.99	0.47
820.40		178.37	4.60	175.50	22.51	0.003317
	0.95187	91261.94				
	30.00	4574.71	7.81	7.47	6152.10	0.47
823.37		178.61	4.61	175.74	22.50	0.003316
	0.95398	91384.28				
	31.00	4574.72	7.82	7.48	6166.92	0.47
824.68		178.73	4.61	175.86	22.50	0.003318
	0.95537	91446.99				
	32.00	4574.76	7.86	7.53	6294.11	0.47
836.37		179.74	4.65	176.85	22.49	0.003316
	0.96297	91960.50				
	33.00	4574.78	7.88	7.54	6326.07	0.47
839.41		179.98	4.66	177.08	22.49	0.003316
	0.96507	92084.05				
	34.00	4574.77	7.87	7.53	6310.82	0.47
838.08		179.86	4.66	176.96	22.49	0.003316
	0.96406	92020.87				
	35.00	4574.72	7.82	7.48	6184.36	0.47
826.46		178.86	4.62	175.98	22.50	0.003317
	0.95654	91511.23				
	36.00	4574.70	7.80	7.47	6137.43	0.47
822.07		178.49	4.61	175.62	22.50	0.003317
	0.95316	91322.39				
	37.00	4574.66	7.76	7.42	6016.45	0.47
810.89		177.52	4.57	174.66	22.52	0.003317
	0.94549	90825.27				
	38.00	4574.65	7.75	7.41	5984.98	0.47
807.85		177.27	4.56	174.42	22.52	0.003317
	0.94323	90699.31				
	39.00	4574.65	7.75	7.41	5984.99	0.47

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807.85		177.27	4.56	174.42	22.52	0.003317	
	0.94324	90699.33					
	40.00	4574.65	7.75	7.41	5985.04	0.47	
807.85		177.27	4.56	174.42	22.52	0.003317	
	0.94322	90699.55					
	41.00	4574.65	7.75	7.41	5985.01	0.47	
807.85		177.27	4.56	174.42	22.52	0.003317	
	0.94328	90699.38					
	42.00	4574.65	7.75	7.41	5998.97	0.47	
809.10		177.39	4.56	174.54	22.52	0.003319	
	0.94458	90759.77					
	43.00	4574.70	7.80	7.46	6121.19	0.47	
820.42		178.37	4.60	175.51	22.51	0.003318	
	0.95218	91262.80					
	44.00	4574.72	7.82	7.48	6166.92	0.47	
824.68		178.73	4.61	175.86	22.50	0.003319	
	0.95551	91447.02					
	45.00	4574.77	7.87	7.53	6309.47	0.47	
837.73		179.86	4.66	176.97	22.49	0.003318	
	0.96430	92024.06					
	46.00	4574.83	7.93	7.60	6484.52	0.48	
853.79		181.21	4.71	178.30	22.47	0.003318	
	0.97544	92714.79					
	47.00	4574.90	8.00	7.66	6658.82	0.48	
869.63		182.53	4.76	179.59	22.45	0.003317	
	0.98614	93389.06					
	48.00	4574.96	8.06	7.72	6831.45	0.48	
885.37		183.83	4.82	180.87	22.44	0.003318	
	0.99711	94052.10					
	49.00	4575.03	8.13	7.76	7003.21	0.48	
902.01		185.19	4.87	182.20	22.42	0.003317	
	1.00816	94745.85					
	50.00	4575.09	8.19	7.83	7192.61	0.48	
918.87		186.55	4.93	183.54	22.41	0.003319	
	1.01999	95439.02					
	51.00	4575.19	8.29	7.92	7477.49	0.49	
944.04		188.54	5.01	185.49	22.38	0.003313	
	1.03525	96456.29					
	52.00	4575.21	8.31	7.95	7557.87	0.49	
951.18		189.08	5.03	186.02	22.38	0.003316	
	1.04079	96732.77					
	53.00	4575.27	8.37	8.00	7735.10	0.49	
966.50		190.30	5.08	187.22	22.36	0.003315	
	1.05065	97355.66					
	54.00	4575.44	8.54	8.16	8247.00	0.49	
1010.40		193.67	5.22	190.54	22.32	0.003313	
	1.07842	99079.42					
	55.00	4575.68	8.78	8.40	9049.98	0.50	
1077.97		198.65	5.43	195.43	22.27	0.003313	
	1.12189	101624.78					
	56.00	4575.99	9.09	8.69	10159.11	0.51	
1168.74		205.01	5.70	201.68	22.20	0.003306	
	1.17609	104874.43					
	57.00	4576.34	9.44	9.02	11551.20	0.52	
1280.65		212.37	6.03	208.92	22.12	0.003293	
	1.23904	108635.81					
	58.00	4576.62	9.72	9.27	12719.25	0.52	
1372.33		218.04	6.29	214.49	22.06	0.003283	
	1.28954	111534.70					
	59.00	4576.86	9.96	9.48	13807.29	0.53	
1456.07		223.00	6.53	219.36	22.01	0.003272	
	1.33326	114066.36					
	60.00	4577.15	10.25	9.73	15163.84	0.54	

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1558.84		228.78		6.81	225.04	21.96	0.003255
	1.38397	117018.52					
61.00	4577.32	10.42		9.87	16043.50	0.54	
1625.50		232.34		7.00	228.53	21.93	0.003248
	1.41796	118838.14					
62.00	4577.49	10.59		9.99	16879.21	0.54	
1688.89		235.64		7.17	231.78	21.89	0.003235
	1.44691	120524.17					
63.00	4577.58	10.68		10.07	17388.09	0.54	
1727.19		237.58		7.27	233.68	21.88	0.003234
	1.46691	121515.89					
64.00	4577.70	10.80		10.16	18040.59	0.54	
1775.67		240.01		7.40	236.07	21.86	0.003225
	1.48878	122756.72					
65.00	4577.80	10.90		10.23	18580.18	0.55	
1816.42		241.97		7.51	238.00	21.84	0.003211
	1.50432	123760.05					
66.00	4577.81	10.91		10.24	18662.93	0.55	
1823.06		242.27		7.52	238.29	21.83	0.003215
	1.50970	123912.35					
67.00	4577.81	10.91		10.24	18670.04	0.55	
1823.68		242.30		7.53	238.32	21.83	0.003215
	1.51008	123926.59					
68.00	4577.81	10.92		10.24	18672.77	0.55	
1823.75		242.30		7.53	238.33	21.83	0.003215
	1.50993	123929.28					
69.00	4577.82	10.92		10.24	18679.50	0.55	
1824.25		242.33		7.53	238.35	21.83	0.003215
	1.51005	123941.52					
70.00	4577.82	10.92		10.24	18687.44	0.55	
1824.94		242.36		7.53	238.38	21.83	0.003212
	1.50925	123957.88					
71.00	4577.82	10.92		10.24	18686.41	0.55	
1824.83		242.35		7.53	238.37	21.83	0.003216
	1.51088	123954.77					
72.00	4577.82	10.92		10.24	18713.19	0.55	
1826.58		242.45		7.53	238.47	21.83	0.003214
	1.51107	124004.63					
73.00	4577.86	10.96		10.27	18945.86	0.55	
1844.38		243.29		7.58	239.29	21.83	0.003211
	1.51882	124432.37					
74.00	4577.88	10.98		10.28	19055.47	0.55	
1853.48		243.67		7.61	239.67	21.82	0.003207
	1.52200	124629.32					
75.00	4577.89	10.99		10.28	19081.84	0.55	
1855.32		243.76		7.61	239.76	21.82	0.003203
	1.52145	124674.52					
76.00	4577.94	11.04		10.32	19371.62	0.55	
1877.87		244.79		7.67	240.77	21.81	0.003196
	1.52991	125198.82					
77.00	4578.04	11.14		10.37	19975.30	0.55	
1925.72		246.88		7.80	242.82	21.79	0.003181
	1.54847	126267.36					
78.00	4578.12	11.22		10.41	20462.63	0.55	
1965.27		248.54		7.91	244.46	21.78	0.003169
	1.56344	127116.93					
79.00	4578.20	11.30		10.45	20888.45	0.55	
1999.54		249.98		8.00	245.87	21.77	0.003162
	1.57843	127851.64					
80.00	4578.29	11.39		10.49	21433.19	0.55	
2043.81		251.80		8.12	247.66	21.75	0.003143
	1.59204	128782.65					
81.00	4578.28	11.38		10.48	21419.63	0.55	

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2044.41	251.76	8.12	247.62	21.75	0.003144		
1.59338	128759.98						
82.00	4578.22	11.32	10.45	21054.98	0.55		
2015.22	250.54	8.04	246.42	21.76	0.003158		
1.58522	128137.41						
83.00	4578.20	11.30	10.44	20940.84	0.55		
2005.10	250.15	8.02	246.04	21.77	0.003156		
1.57857	127940.77						
84.00	4578.20	11.30	10.44	20930.35	0.55		
2004.25	250.12	8.01	246.01	21.77	0.003160		
1.57989	127924.70						
85.00	4578.20	11.30	10.44	20895.40	0.55		
2001.55	249.99	8.01	245.88	21.77	0.003157		
1.57743	127859.20						
86.00	4578.13	11.23	10.40	20514.59	0.55		
1973.33	248.71	7.93	244.63	21.78	0.003163		
1.56602	127205.19						
87.00	4577.98	11.08	10.31	19603.87	0.55		
1901.55	245.56	7.74	241.53	21.81	0.003194		
1.54341	125594.58						
88.00	4577.76	10.86	10.18	18364.55	0.54		
1804.56	241.14	7.48	237.19	21.84	0.003217		
1.50232	123337.70						
89.00	4577.43	10.53	9.93	16591.47	0.54		
1670.54	234.45	7.13	230.61	21.91	0.003244		
1.44215	119917.61						
90.00	4577.22	10.32	9.78	15540.10	0.54		
1589.53	230.24	6.90	226.48	21.95	0.003253		
1.40138	117769.10						
91.00	4577.05	10.15	9.63	14709.66	0.53		
1527.68	226.85	6.73	223.14	21.98	0.003262		
1.37072	116034.17						
92.00	4576.84	9.94	9.45	13708.96	0.53		
1451.35	222.51	6.52	218.88	22.02	0.003272		
1.33177	113815.13						
93.00	4576.66	9.76	9.29	12887.30	0.52		
1387.53	218.77	6.34	215.21	22.06	0.003279		
1.29780	111907.15						
94.00	4576.49	9.59	9.14	12177.22	0.52		
1332.01	215.41	6.18	211.91	22.09	0.003285		
1.26760	110190.93						
95.00	4576.37	9.47	9.03	11649.03	0.52		
1290.40	212.82	6.06	209.36	22.12	0.003289		
1.24453	108865.01						
96.00	4576.23	9.33	8.91	11104.58	0.51		
1246.60	210.02	5.94	206.60	22.15	0.003294		
1.22016	107432.96						
97.00	4576.13	9.23	8.82	10714.83	0.51		
1214.80	207.95	5.84	204.57	22.17	0.003297		
1.20177	106376.53						
98.00	4576.03	9.13	8.72	10319.25	0.51		
1182.98	205.83	5.75	202.49	22.19	0.003301		
1.18386	105292.62						
99.00	4575.95	9.05	8.65	10039.03	0.51		
1160.81	204.32	5.68	201.01	22.21	0.003311		
1.17385	104524.62						
100.00	4575.85	8.95	8.56	9682.35	0.50		
1131.38	202.30	5.59	199.02	22.23	0.003297		
1.15062	103487.88						
101.00	4575.77	8.87	8.48	9375.27	0.50		
1106.12	200.53	5.52	197.28	22.25	0.003304		
1.13737	102586.40						
102.00	4575.69	8.79	8.40	9101.04	0.50		

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1083.45	198.92	5.45	195.70	22.26	0.003305	
1.12325	101763.15					
103.00	4575.63	8.73	8.34	8884.44	0.50	
1065.13	197.61	5.39	194.41	22.28	0.003306	
1.11199	101092.95					
104.00	4575.56	8.66	8.28	8666.01	0.50	
1046.88	196.27	5.33	193.09	22.29	0.003306	
1.10033	100407.86					
105.00	4575.46	8.56	8.18	8325.58	0.49	
1017.99	194.12	5.24	190.99	22.32	0.003310	
1.08304	99312.42					
106.00	4575.39	8.49	8.12	8107.83	0.49	
999.11	192.73	5.18	189.61	22.33	0.003311	
1.07115	98597.55					
107.00	4575.33	8.43	8.06	7933.38	0.49	
984.07	191.58	5.14	188.49	22.35	0.003309	
1.06067	98013.51					
108.00	4575.28	8.38	8.01	7774.88	0.49	
970.23	190.53	5.09	187.45	22.36	0.003314	
1.05296	97475.58					
109.00	4575.28	8.38	8.01	7758.91	0.49	
968.69	190.44	5.09	187.36	22.36	0.003313	
1.05158	97427.32					
110.00	4575.33	8.43	8.06	7917.51	0.49	
982.31	191.50	5.13	188.41	22.35	0.003315	
1.06105	97972.47					
111.00	4575.42	8.52	8.14	8190.65	0.49	
1005.95	193.28	5.20	190.16	22.33	0.003310	
1.07499	98883.05					
112.00	4575.39	8.49	8.11	8107.21	0.49	
999.08	192.72	5.18	189.61	22.33	0.003310	
1.07061	98596.48					
113.00	4575.35	8.45	8.08	7980.63	0.49	
988.04	191.91	5.15	188.81	22.34	0.003315	
1.06486	98181.77					
114.00	4575.43	8.53	8.16	8244.29	0.49	
1010.37	193.64	5.22	190.51	22.32	0.003312	
1.07825	99065.27					
115.00	4575.54	8.64	8.26	8581.13	0.50	
1039.23	195.76	5.31	192.60	22.30	0.003307	
1.09536	100149.46					
116.00	4575.51	8.61	8.23	8504.97	0.49	
1033.06	195.27	5.29	192.11	22.31	0.003310	
1.09255	99898.37					
117.00	4575.50	8.60	8.22	8469.97	0.49	
1029.96	195.06	5.28	191.90	22.31	0.003308	
1.08980	99789.91					
118.00	4575.51	8.61	8.23	8489.00	0.49	
1031.49	195.18	5.28	192.02	22.31	0.003310	
1.09166	99852.51					
119.00	4575.55	8.65	8.27	8635.54	0.50	
1043.82	196.10	5.32	192.92	22.30	0.003308	
1.09890	100319.63					
120.00	4575.56	8.66	8.28	8669.95	0.50	
1046.83	196.30	5.33	193.12	22.29	0.003309	
1.10110	100424.92					
121.00	4575.56	8.66	8.28	8650.80	0.50	
1045.31	196.18	5.33	193.00	22.29	0.003308	
1.09976	100362.59					
122.00	4575.51	8.61	8.23	8504.86	0.49	
1033.02	195.27	5.29	192.11	22.31	0.003311	
1.09287	99897.14					
123.00	4575.50	8.60	8.22	8451.31	0.49	

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1028.40		194.93		5.28	191.78	22.31	0.003309
	1.08930	99725.69					
124.00		4575.45	8.55		8.17	8305.40	0.49
1016.00		194.00		5.24	190.87	22.32	0.003310
	1.08175	99250.92					
125.00		4575.44	8.54		8.16	8270.20	0.49
1012.89		193.79		5.23	190.65	22.32	0.003310
	1.07950	99140.58					
126.00		4575.44	8.54		8.16	8253.38	0.49
1011.53		193.68		5.22	190.55	22.32	0.003309
	1.07855	99083.48					
127.00		4575.40	8.50		8.12	8123.40	0.49
1000.48		192.84		5.19	189.72	22.33	0.003311
	1.07202	98654.95					
128.00		4575.38	8.49		8.11	8091.08	0.49
997.50		192.63		5.18	189.52	22.34	0.003312
	1.07014	98548.31					
129.00		4575.38	8.48		8.11	8074.98	0.49
996.23		192.52		5.17	189.41	22.34	0.003310
	1.06872	98494.25					
130.00		4575.34	8.44		8.07	7948.67	0.49
985.38		191.69		5.14	188.59	22.35	0.003312
	1.06243	98069.07					
131.00		4575.34	8.44		8.07	7948.93	0.49
985.18		191.71		5.14	188.61	22.35	0.003315
	1.06287	98077.45					
132.00		4575.42	8.52		8.15	8207.15	0.49
1007.30		193.39		5.21	190.27	22.33	0.003311
	1.07611	98939.30					
133.00		4575.44	8.54		8.16	8269.93	0.49
1012.88		193.79		5.23	190.65	22.32	0.003310
	1.07952	99140.01					
134.00		4575.44	8.54		8.17	8270.41	0.49
1012.90		193.79		5.23	190.66	22.32	0.003310
	1.07964	99140.95					
135.00		4575.44	8.54		8.17	8269.97	0.49
1012.83		193.78		5.23	190.65	22.32	0.003311
	1.07996	99138.05					
136.00		4575.44	8.54		8.16	8269.87	0.49
1012.87		193.79		5.23	190.65	22.32	0.003309
	1.07921	99139.28					
137.00		4575.44	8.54		8.16	8270.06	0.49
1012.91		193.79		5.23	190.66	22.32	0.003311
	1.07987	99141.16					
138.00		4575.44	8.54		8.16	8269.84	0.49
1012.84		193.78		5.23	190.65	22.32	0.003311
	1.07976	99138.71					
139.00		4575.44	8.54		8.16	8253.67	0.49
1011.54		193.68		5.22	190.55	22.32	0.003308
	1.07824	99083.67					
140.00		4575.40	8.50		8.12	8123.30	0.49
1000.43		192.83		5.19	189.72	22.33	0.003312
	1.07206	98653.08					
141.00		4575.39	8.49		8.11	8090.98	0.49
997.53		192.63		5.18	189.52	22.34	0.003312
	1.07031	98548.80					
142.00		4575.38	8.49		8.11	8091.08	0.49
997.51		192.63		5.18	189.52	22.34	0.003311
	1.06989	98548.18					
143.00		4575.39	8.49		8.11	8090.76	0.49
997.53		192.63		5.18	189.52	22.34	0.003311
	1.07000	98549.70					
144.00		4575.38	8.48		8.11	8075.43	0.49

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		HYCHAN.OUT				
996.24	192.52	5.17	189.41	22.34	0.003311	
1.06905	98494.20					
145.00	4575.34	8.44	8.07	7948.58	0.49	
985.26	191.68	5.14	188.59	22.35	0.003313	
1.06260	98064.65					
146.00	4575.33	8.43	8.06	7916.74	0.49	
982.50	191.49	5.13	188.39	22.35	0.003312	
1.06047	97964.70					
147.00	4575.33	8.43	8.06	7917.26	0.49	
982.55	191.49	5.13	188.40	22.35	0.003311	
1.06008	97966.45					
148.00	4575.33	8.43	8.06	7916.88	0.49	
982.51	191.49	5.13	188.39	22.35	0.003312	
1.06038	97964.95					
149.00	4575.33	8.43	8.06	7917.19	0.49	
982.53	191.49	5.13	188.40	22.35	0.003313	
1.06060	97965.81					
150.00	4575.33	8.43	8.05	7906.71	0.49	
981.69	191.42	5.13	188.33	22.35	0.003311	
1.05944	97929.73					
151.00	4575.30	8.40	8.03	7816.99	0.49	
973.94	190.82	5.10	187.74	22.36	0.003312	
1.05480	97622.62					
152.00	4575.28	8.38	8.01	7753.47	0.49	
968.32	190.39	5.09	187.32	22.36	0.003312	
1.05097	97405.23					
153.00	4575.27	8.37	8.00	7742.91	0.49	
967.35	190.32	5.08	187.25	22.36	0.003313	
1.05084	97369.78					
154.00	4575.27	8.37	8.00	7727.39	0.49	
966.14	190.22	5.08	187.15	22.36	0.003312	
1.04970	97317.22					
155.00	4575.24	8.34	7.97	7632.21	0.49	
957.67	189.57	5.05	186.51	22.37	0.003315	
1.04508	96987.36					
156.00	4575.31	8.41	8.04	7853.88	0.49	
976.84	191.08	5.11	187.99	22.35	0.003311	
1.05622	97756.67					
157.00	4575.33	8.43	8.06	7916.86	0.49	
982.45	191.48	5.13	188.39	22.35	0.003313	
1.06067	97962.85					
158.00	4575.33	8.43	8.06	7916.97	0.49	
982.51	191.49	5.13	188.39	22.35	0.003312	
1.06041	97965.24					
159.00	4575.33	8.43	8.06	7916.98	0.49	
982.50	191.49	5.13	188.39	22.35	0.003312	
1.06037	97964.74					
160.00	4575.33	8.43	8.06	7917.18	0.49	
982.48	191.49	5.13	188.39	22.35	0.003311	
1.05994	97963.79					
161.00	4575.33	8.43	8.06	7917.03	0.49	
982.47	191.48	5.13	188.39	22.35	0.003313	
1.06062	97963.39					
162.00	4575.33	8.43	8.06	7917.06	0.49	
982.49	191.49	5.13	188.39	22.35	0.003313	
1.06060	97964.19					
163.00	4575.33	8.43	8.06	7916.80	0.49	
982.51	191.49	5.13	188.39	22.35	0.003312	
1.06040	97965.07					
164.00	4575.32	8.42	8.05	7901.35	0.49	
981.24	191.38	5.13	188.29	22.35	0.003312	
1.05962	97910.75					
165.00	4575.28	8.38	8.01	7774.92	0.49	

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970.30	190.54	5.09	187.46	22.36	0.003312	
1.05259	97478.52					
166.00	4575.27	8.37	8.00	7742.75	0.49	
967.39	190.33	5.08	187.25	22.36	0.003313	
1.05069	97371.12					
167.00	4575.27	8.37	8.00	7743.35	0.49	
967.41	190.33	5.08	187.25	22.36	0.003313	
1.05070	97371.88					
168.00	4575.27	8.37	8.00	7742.53	0.49	
967.37	190.32	5.08	187.25	22.36	0.003312	
1.05046	97370.48					
169.00	4575.27	8.37	8.00	7743.35	0.49	
967.44	190.33	5.08	187.26	22.36	0.003313	
1.05084	97373.63					
170.00	4575.27	8.37	8.00	7743.05	0.49	
967.38	190.33	5.08	187.25	22.36	0.003312	
1.05038	97371.15					
171.00	4575.27	8.37	8.00	7742.66	0.49	
967.33	190.32	5.08	187.25	22.36	0.003311	
1.05022	97368.95					
172.00	4575.27	8.37	8.00	7727.70	0.49	
966.16	190.22	5.08	187.15	22.36	0.003311	
1.04953	97317.92					
173.00	4575.23	8.33	7.96	7600.99	0.49	
955.20	189.36	5.04	186.31	22.37	0.003313	
1.04292	96879.98					
174.00	4575.22	8.32	7.95	7569.00	0.49	
952.27	189.15	5.03	186.10	22.38	0.003313	
1.04068	96770.98					
175.00	4575.22	8.32	7.95	7568.84	0.49	
952.24	189.15	5.03	186.10	22.38	0.003314	
1.04107	96770.58					
176.00	4575.22	8.32	7.95	7568.95	0.49	
952.24	189.15	5.03	186.10	22.38	0.003313	
1.04084	96769.84					
177.00	4575.22	8.32	7.95	7569.44	0.49	
952.28	189.15	5.03	186.10	22.38	0.003313	
1.04078	96772.38					
178.00	4575.22	8.32	7.95	7568.69	0.49	
952.19	189.15	5.03	186.09	22.38	0.003313	
1.04085	96768.52					
179.00	4575.23	8.33	7.96	7600.05	0.49	
954.83	189.37	5.04	186.31	22.37	0.003314	
1.04276	96881.55					
180.00	4575.31	8.41	8.04	7853.84	0.49	
976.81	191.08	5.11	187.99	22.35	0.003311	
1.05634	97755.83					
181.00	4575.33	8.44	8.06	7932.51	0.49	
983.79	191.59	5.13	188.50	22.35	0.003312	
1.06134	98019.42					
182.00	4575.38	8.48	8.10	8059.86	0.49	
994.75	192.43	5.17	189.32	22.34	0.003310	
1.06768	98448.65					
183.00	4575.39	8.49	8.11	8090.83	0.49	
997.55	192.63	5.18	189.52	22.34	0.003313	
1.07053	98549.92					
184.00	4575.39	8.49	8.11	8090.89	0.49	
997.61	192.64	5.18	189.52	22.34	0.003310	
1.06974	98551.87					
185.00	4575.39	8.49	8.11	8091.02	0.49	
997.60	192.64	5.18	189.52	22.34	0.003312	
1.07012	98551.82					
186.00	4575.39	8.49	8.11	8091.09	0.49	

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997.61		192.64		5.18	189.52	22.34		0.003312	
	1.07014	98552.23							
	187.00	4575.38	8.49		8.11	8091.18	0.49		
997.52		192.63		5.18	189.52	22.34		0.003311	
	1.07005	98548.45							
	188.00	4575.39	8.49		8.11	8090.93	0.49		
997.62		192.64		5.18	189.52	22.34		0.003311	
	1.07007	98552.59							
	189.00	4575.39	8.49		8.11	8091.03	0.49		
997.59		192.64		5.18	189.52	22.34		0.003312	
	1.07012	98551.28							
	190.00	4575.38	8.48		8.11	8075.22	0.49		
996.25		192.53		5.17	189.41	22.34		0.003310	
	1.06880	98495.30							
	191.00	4575.34	8.44		8.07	7948.40	0.49		
985.35		191.69		5.14	188.59	22.35		0.003310	
	1.06183	98067.78							
	192.00	4575.33	8.43		8.06	7916.87	0.49		
982.50		191.49		5.13	188.39	22.35		0.003312	
	1.06047	97964.67							
	193.00	4575.33	8.43		8.06	7917.11	0.49		
982.51		191.49		5.13	188.39	22.35		0.003312	
	1.06034	97965.05							
	194.00	4575.33	8.43		8.06	7917.20	0.49		
982.50		191.49		5.13	188.39	22.35		0.003310	
	1.05984	97964.42							
	195.00	4575.33	8.43		8.06	7916.68	0.49		
982.44		191.48		5.13	188.39	22.35		0.003313	
	1.06054	97961.92							
	196.00	4575.33	8.43		8.06	7917.30	0.49		
982.48		191.49		5.13	188.39	22.35		0.003312	
	1.06053	97964.08							
	197.00	4575.33	8.43		8.06	7917.18	0.49		
982.48		191.49		5.13	188.39	22.35		0.003311	
	1.06007	97964.09							
	198.00	4575.33	8.43		8.06	7916.52	0.49		
982.43		191.48		5.13	188.39	22.35		0.003312	
	1.06050	97961.60							
	199.00	4575.33	8.43		8.06	7916.81	0.49		
982.47		191.49		5.13	188.39	22.35		0.003312	
	1.06027	97964.14							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 534

MAXIMUM DISCHARGE (CFS) = 21627.47 AT TIME = 80.05  
 MAXIMUM STAGE = 4575.82 AT TIME = 80.05

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(FT)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4564.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4564.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
752.31	2.00	4568.18	3.68	3.61	2718.33	0.33		
		90.07	8.35	88.69	24.08			0.003572

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		HYCHAN.OUT					
	1.86182	45229.52					
836.24	3.00	4571.30	6.80	6.60	5519.04	0.45	
		157.49	5.31	154.97	22.78		0.003572
	1.18348	79036.71					
824.26	4.00	4571.26	6.76	6.56	5410.64	0.45	
		156.53	5.27	154.03	22.80		0.003578
	1.17564	78556.26					
819.37	5.00	4571.24	6.74	6.55	5367.42	0.44	
		156.14	5.25	153.65	22.80		0.003577
	1.17136	78360.49					
806.75	6.00	4571.19	6.69	6.51	5249.41	0.44	
		155.11	5.20	152.64	22.82		0.003582
	1.16253	77846.98					
789.87	7.00	4571.12	6.62	6.45	5098.06	0.44	
		153.73	5.14	151.29	22.84		0.003587
	1.14988	77155.46					
772.97	8.00	4571.06	6.56	6.40	4948.67	0.44	
		152.34	5.07	149.91	22.86		0.003593
	1.13766	76454.95					
756.83	9.00	4570.99	6.49	6.35	4807.14	0.44	
		150.99	5.01	148.59	22.88		0.003600
	1.12618	75778.92					
751.70	10.00	4570.97	6.47	6.34	4762.96	0.44	
		150.56	4.99	148.16	22.89		0.003599
	1.12117	75562.95					
738.80	11.00	4570.92	6.42	6.29	4648.40	0.44	
		149.46	4.94	147.08	22.90		0.003603
	1.11151	75011.12					
722.18	12.00	4570.85	6.35	6.24	4505.83	0.44	
		148.03	4.88	145.68	22.92		0.003611
	1.09935	74295.80					
717.71	13.00	4570.84	6.34	6.23	4468.83	0.44	
		147.65	4.86	145.30	22.93		0.003611
	1.09535	74103.80					
717.73	14.00	4570.84	6.34	6.23	4469.02	0.44	
		147.65	4.86	145.30	22.93		0.003612
	1.09576	74104.84					
717.73	15.00	4570.84	6.34	6.23	4469.04	0.44	
		147.65	4.86	145.30	22.93		0.003610
	1.09517	74104.77					
717.73	16.00	4570.84	6.34	6.23	4468.94	0.44	
		147.65	4.86	145.30	22.93		0.003611
	1.09544	74104.46					
718.59	17.00	4570.84	6.34	6.23	4476.79	0.44	
		147.72	4.86	145.38	22.93		0.003613
	1.09661	74142.94					
732.00	18.00	4570.90	6.40	6.28	4593.46	0.44	
		148.88	4.92	146.52	22.91		0.003606
	1.10631	74723.88					
749.42	19.00	4570.97	6.47	6.33	4745.66	0.44	
		150.37	4.98	147.98	22.89		0.003601
	1.11999	75468.67					
765.87	20.00	4571.03	6.53	6.38	4889.71	0.44	
		151.75	5.05	149.34	22.87		0.003594
	1.13170	76162.52					
769.93	21.00	4571.05	6.55	6.40	4923.85	0.44	
		152.09	5.06	149.67	22.86		0.003594
	1.13541	76331.23					
770.91	22.00	4571.05	6.55	6.40	4932.95	0.44	
		152.17	5.07	149.75	22.86		0.003594
	1.13623	76372.86					
785.20	23.00	4571.11	6.61	6.45	5061.51	0.44	
		153.36	5.12	150.92	22.84		0.003590

## HYCHAN.OUT

1.14685	76967.52						
24.00	4571.22	6.72	6.54	5335.97	0.44		
815.48	155.83	5.23	153.34	22.81	0.003579		
1.16862	78205.17						
25.00	4571.35	6.85	6.64	5643.35	0.45		
849.61	158.55	5.36	156.02	22.77	0.003565		
1.19218	79568.91						
26.00	4571.47	6.97	6.73	5925.09	0.45		
880.76	160.98	5.47	158.40	22.73	0.003552		
1.21270	80786.50						
27.00	4571.49	6.99	6.74	5985.17	0.45		
887.63	161.50	5.50	158.92	22.73	0.003552		
1.21820	81050.55						
28.00	4571.50	7.00	6.75	5997.94	0.45		
888.95	161.60	5.50	159.02	22.73	0.003552		
1.21938	81101.85						
29.00	4571.55	7.05	6.78	6119.67	0.45		
902.17	162.62	5.55	160.02	22.71	0.003545		
1.22714	81608.61						
30.00	4571.56	7.06	6.79	6152.10	0.45		
905.85	162.89	5.56	160.29	22.71	0.003545		
1.23007	81747.81						
31.00	4571.56	7.06	6.80	6166.10	0.45		
907.29	163.00	5.57	160.40	22.71	0.003545		
1.23133	81803.09						
32.00	4571.61	7.11	6.83	6292.75	0.45		
920.96	164.04	5.61	161.41	22.69	0.003537		
1.23920	82321.12						
33.00	4571.63	7.13	6.84	6326.06	0.45		
924.74	164.32	5.63	161.69	22.69	0.003537		
1.24213	82462.33						
34.00	4571.62	7.12	6.84	6311.67	0.45		
923.27	164.21	5.62	161.58	22.69	0.003537		
1.24099	82406.21						
35.00	4571.57	7.07	6.80	6185.70	0.45		
909.68	163.18	5.57	160.57	22.70	0.003545		
1.23311	81891.64						
36.00	4571.55	7.05	6.79	6138.21	0.45		
904.43	162.78	5.56	160.18	22.71	0.003545		
1.22920	81692.62						
37.00	4571.51	7.01	6.75	6017.77	0.45		
891.37	161.79	5.51	159.20	22.72	0.003552		
1.22113	81192.43						
38.00	4571.49	6.99	6.74	5984.97	0.45		
887.61	161.50	5.50	158.92	22.73	0.003552		
1.21824	81049.65						
39.00	4571.49	6.99	6.74	5984.99	0.45		
887.61	161.50	5.50	158.92	22.73	0.003552		
1.21823	81049.72						
40.00	4571.49	6.99	6.74	5985.03	0.45		
887.62	161.50	5.50	158.92	22.73	0.003552		
1.21819	81049.86						
41.00	4571.49	6.99	6.74	5985.02	0.45		
887.62	161.50	5.50	158.92	22.73	0.003552		
1.21817	81049.90						
42.00	4571.50	7.00	6.75	5998.18	0.45		
888.98	161.61	5.50	159.03	22.73	0.003553		
1.21949	81102.88						
43.00	4571.55	7.05	6.78	6119.87	0.45		
902.19	162.62	5.55	160.02	22.71	0.003545		
1.22726	81609.34						
44.00	4571.56	7.06	6.80	6166.10	0.45		
907.29	163.00	5.57	160.40	22.71	0.003545		

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	1.23117	81803.06					
922.45	45.00	4571.62	7.12	6.84	6307.28	0.45	
		164.15	5.62		161.52	22.69	0.003537
	1.24042	82377.47					
941.43	46.00	4571.69	7.19	6.89	6482.34	0.45	
		165.57	5.69		162.92	22.67	0.003529
	1.25221	83087.93					
960.18	47.00	4571.75	7.25	6.93	6656.67	0.45	
		166.95	5.75		164.28	22.65	0.003522
	1.26391	83781.79					
978.80	48.00	4571.82	7.32	6.98	6829.35	0.45	
		168.31	5.82		165.61	22.63	0.003513
	1.27497	84463.08					
998.51	49.00	4571.88	7.38	7.01	7000.88	0.45	
		169.73	5.88		167.01	22.62	0.003504
	1.28633	85176.30					
1018.54	50.00	4571.95	7.45	7.06	7189.74	0.46	
		171.16	5.95		168.42	22.60	0.003497
	1.29868	85892.75					
1048.60	51.00	4572.05	7.55	7.13	7474.82	0.46	
		173.28	6.05		170.49	22.57	0.003482
	1.31496	86952.39					
1057.39	52.00	4572.08	7.58	7.15	7557.10	0.46	
		173.89	6.08		171.09	22.56	0.003482
	1.32133	87258.30					
1075.33	53.00	4572.14	7.64	7.19	7731.20	0.46	
		175.13	6.14		172.31	22.55	0.003473
	1.33081	87880.38					
1127.53	54.00	4572.31	7.81	7.31	8239.19	0.46	
		178.66	6.31		175.79	22.50	0.003446
	1.35716	89652.69					
1208.83	55.00	4572.57	8.07	7.48	9038.70	0.46	
		183.99	6.57		181.02	22.44	0.003412
	1.39872	92320.77					
1319.33	56.00	4572.90	8.40	7.69	10144.58	0.47	
		190.90	6.91		187.82	22.36	0.003354
	1.44629	95786.22					
1458.09	57.00	4573.30	8.80	7.91	11536.23	0.47	
		199.14	7.32		195.91	22.26	0.003284
	1.50052	99914.37					
1573.87	58.00	4573.62	9.12	8.07	12707.16	0.47	
		205.67	7.65		202.33	22.19	0.003230
	1.54226	103190.14					
1680.53	59.00	4573.90	9.40	8.21	13793.10	0.47	
		211.44	7.95		208.00	22.13	0.003167
	1.57079	106082.41					
1813.75	60.00	4574.24	9.74	8.35	15150.48	0.47	
		218.37	8.31		214.81	22.06	0.003095
	1.60422	109552.19					
1901.96	61.00	4574.45	9.95	8.43	16034.36	0.47	
		222.79	8.54		219.16	22.02	0.003052
	1.62559	111770.48					
1986.17	62.00	4574.66	10.16	8.49	16871.26	0.47	
		226.91	8.75		223.20	21.98	0.002999
	1.63829	113831.17					
2037.57	63.00	4574.78	10.28	8.53	17381.40	0.47	
		229.37	8.88		225.62	21.95	0.002977
	1.65006	115063.96					
2102.44	64.00	4574.93	10.43	8.58	18032.73	0.47	
		232.42	9.05		228.61	21.92	0.002934
	1.65589	116592.95					
2158.34	65.00	4575.05	10.55	8.61	18577.28	0.47	
		235.01	9.18		231.16	21.90	0.002905

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1.66496	117891.59						
66.00	4575.08	10.58	9.21	8.61	18662.75	0.47	
2167.85	235.44				231.59	21.90	0.002906
1.66976	118109.28						
67.00	4575.08	10.58	9.21	8.61	18669.99	0.47	
2168.75	235.48				231.63	21.90	0.002911
1.67279	118129.88						
68.00	4575.08	10.58	9.21	8.61	18672.63	0.47	
2168.80	235.49				231.63	21.90	0.002914
1.67466	118131.16						
69.00	4575.08	10.58	9.21	8.61	18679.49	0.47	
2169.49	235.52				231.66	21.90	0.002913
1.67412	118146.97						
70.00	4575.08	10.58	9.21	8.61	18687.54	0.47	
2170.45	235.56				231.70	21.90	0.002911
1.67355	118168.99						
71.00	4575.08	10.58	9.21	8.61	18686.56	0.47	
2170.32	235.56				231.70	21.90	0.002916
1.67629	118165.98						
72.00	4575.09	10.59	9.22	8.61	18711.93	0.47	
2172.42	235.65				231.79	21.89	0.002905
1.67125	118214.70						
73.00	4575.14	10.64	9.28	8.62	18942.85	0.47	
2197.08	236.78				232.90	21.88	0.002880
1.66781	118779.41						
74.00	4575.17	10.67	9.31	8.62	19055.28	0.47	
2210.56	237.39				233.50	21.88	0.002875
1.67080	119085.02						
75.00	4575.18	10.68	9.32	8.62	19080.63	0.47	
2213.06	237.50				233.61	21.88	0.002864
1.66523	119142.26						
76.00	4575.25	10.75	9.40	8.63	19365.74	0.46	
2244.90	238.94				235.03	21.86	0.002811
1.64782	119863.45						
77.00	4575.40	10.90	9.56	8.63	19967.35	0.46	
2313.93	242.02				238.05	21.84	0.002740
1.63469	121404.48						
78.00	4575.53	11.03	9.70	8.62	20456.70	0.46	
2372.14	244.57				240.56	21.81	0.002685
1.62523	122683.07						
79.00	4575.63	11.13	9.82	8.62	20881.69	0.46	
2422.40	246.75				242.69	21.80	0.002632
1.61248	123772.50						
80.00	4575.77	11.27	9.97	8.61	21427.53	0.45	
2487.82	249.54				245.43	21.77	0.002568
1.59776	125170.83						
81.00	4575.78	11.28	9.98	8.60	21423.60	0.45	
2490.23	249.63				245.53	21.77	0.002594
1.61494	125218.23						
82.00	4575.69	11.19	9.88	8.60	21060.11	0.45	
2447.50	247.81				243.74	21.79	0.002640
1.62718	124307.17						
83.00	4575.65	11.15	9.84	8.61	20941.16	0.45	
2431.85	247.15				243.09	21.79	0.002644
1.62332	123973.58						
84.00	4575.65	11.15	9.84	8.61	20930.33	0.45	
2430.52	247.09				243.03	21.79	0.002645
1.62364	123944.89						
85.00	4575.64	11.14	9.83	8.61	20898.13	0.45	
2426.87	246.93				242.87	21.79	0.002659
1.63093	123865.35						
86.00	4575.56	11.06	9.74	8.60	20530.75	0.46	
2387.30	245.21				241.18	21.81	0.002708

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1.64523	123003.11						
87.00	4575.33	10.83	8.59	19628.33	0.46		
2284.15	240.67		9.49	236.72	21.85	0.002850	
1.68793	120726.10						
88.00	4575.03	10.53	8.57	18387.05	0.47		
2146.76	234.43		9.16	230.59	21.91	0.002960	
1.69110	117603.36						
89.00	4574.61	10.11	8.45	16608.77	0.47		
1965.98	225.89		8.70	222.20	21.99	0.003057	
1.66021	113322.07						
90.00	4574.35	9.85	8.37	15549.97	0.47		
1857.65	220.56		8.42	216.97	22.04	0.003106	
1.63209	110653.50						
91.00	4574.14	9.64	8.28	14719.64	0.47		
1776.91	216.46		8.21	212.94	22.08	0.003152	
1.61441	108598.52						
92.00	4573.89	9.39	8.17	13719.96	0.47		
1678.33	211.31		7.94	207.87	22.13	0.003201	
1.58661	106013.98						
93.00	4573.68	9.18	8.08	12896.01	0.47		
1596.35	206.89		7.72	203.53	22.18	0.003243	
1.56153	103801.09						
94.00	4573.49	8.99	7.99	12184.20	0.47		
1525.73	202.98		7.52	199.69	22.22	0.003277	
1.53684	101841.40						
95.00	4573.34	8.84	7.91	11655.01	0.47		
1473.33	200.01		7.37	196.77	22.25	0.003301	
1.51710	100352.43						
96.00	4573.19	8.69	7.83	11110.22	0.47		
1418.55	196.84		7.21	193.65	22.29	0.003328	
1.49643	98762.20						
97.00	4573.08	8.58	7.77	10719.22	0.47		
1378.85	194.49		7.09	191.35	22.31	0.003345	
1.47977	97588.19						
98.00	4572.96	8.46	7.71	10323.35	0.47		
1339.48	192.13		6.97	189.03	22.34	0.003361	
1.46198	96403.53						
99.00	4572.88	8.38	7.65	10042.59	0.47		
1312.17	190.47		6.89	187.39	22.36	0.003378	
1.45236	95570.29						
100.00	4572.77	8.27	7.59	9686.04	0.47		
1276.06	188.24		6.78	185.20	22.39	0.003388	
1.43320	94451.52						
101.00	4572.68	8.18	7.53	9378.58	0.46		
1245.13	186.30		6.68	183.29	22.41	0.003403	
1.41906	93480.34						
102.00	4572.59	8.09	7.48	9104.07	0.46		
1217.50	184.54		6.60	181.57	22.43	0.003415	
1.40579	92599.95						
103.00	4572.53	8.03	7.44	8886.79	0.46		
1195.14	183.11		6.53	180.16	22.45	0.003425	
1.39483	91879.66						
104.00	4572.46	7.96	7.39	8669.25	0.46		
1173.15	181.67		6.46	178.75	22.46	0.003434	
1.38384	91161.66						
105.00	4572.35	7.85	7.32	8329.34	0.46		
1138.30	179.37		6.35	176.49	22.49	0.003450	
1.36631	90009.05						
106.00	4572.27	7.77	7.27	8109.93	0.46		
1115.32	177.84		6.27	174.98	22.51	0.003460	
1.35385	89240.34						
107.00	4572.21	7.71	7.23	7935.45	0.46		
1097.24	176.62		6.21	173.78	22.53	0.003467	

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	1.34396	88627.40						
1080.52	108.00	4572.16	7.66	6.16	7.20	7776.21	0.46	0.003475
	1.33523	88056.41						
1078.36	109.00	4572.15	7.65	6.15	7.19	7758.07	0.46	0.003472
	1.33241	87984.13						
1094.42	110.00	4572.21	7.71	6.20	7.23	7914.57	0.46	0.003466
	1.34143	88535.13						
1122.99	111.00	4572.30	7.80	6.30	7.29	8188.94	0.46	0.003451
	1.35584	89501.57						
1115.28	112.00	4572.27	7.77	6.27	7.27	8109.27	0.46	0.003459
	1.35355	89239.13						
1101.69	113.00	4572.23	7.73	6.23	7.24	7980.32	0.46	0.003465
	1.34633	88781.27						
1127.96	114.00	4572.31	7.81	6.31	7.31	8239.85	0.46	0.003448
	1.35791	89668.92						
1163.16	115.00	4572.43	7.93	6.43	7.38	8579.18	0.46	0.003433
	1.37653	90838.15						
1156.19	116.00	4572.40	7.90	6.40	7.36	8506.40	0.46	0.003442
	1.37516	90605.86						
1152.21	117.00	4572.39	7.89	6.39	7.35	8469.94	0.46	0.003441
	1.37229	90475.83						
1153.95	118.00	4572.40	7.90	6.40	7.36	8488.09	0.46	0.003440
	1.37273	90533.77						
1168.78	119.00	4572.44	7.94	6.44	7.39	8634.12	0.46	0.003433
	1.38023	91022.92						
1172.62	120.00	4572.46	7.96	6.46	7.39	8669.99	0.46	0.003432
	1.38257	91148.05						
1170.91	121.00	4572.45	7.95	6.45	7.39	8651.70	0.46	0.003434
	1.38196	91091.26						
1156.13	122.00	4572.40	7.90	6.40	7.36	8506.30	0.46	0.003442
	1.37524	90603.82						
1150.45	123.00	4572.39	7.89	6.38	7.35	8452.24	0.46	0.003441
	1.37089	90416.63						
1135.57	124.00	4572.34	7.84	6.34	7.32	8306.87	0.46	0.003449
	1.36387	89920.96						
1131.61	125.00	4572.33	7.83	6.32	7.31	8270.16	0.46	0.003450
	1.36134	89789.86						
1130.09	126.00	4572.32	7.82	6.32	7.30	8254.20	0.46	0.003450
	1.36052	89738.41						
1116.87	127.00	4572.28	7.78	6.28	7.27	8124.74	0.46	0.003459
	1.35457	89293.45						
1113.08	128.00	4572.27	7.77	6.26	7.27	8091.05	0.46	0.003458
		177.69						

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1111.66	1.35170	89166.92	7.76	7.26	8075.75	0.46	0.003459
129.00	4572.26	177.60	6.26	174.74	22.52		
1098.70	1.35099	89118.22	7.72	7.24	7949.93	0.46	0.003467
130.00	4572.22	176.72	6.22	173.88	22.53		
1098.05	1.34515	88678.14	7.72	7.24	7947.37	0.46	0.003464
131.00	4572.22	176.68	6.21	173.84	22.53		
1124.50	1.34352	88658.20	7.80	7.30	8204.57	0.46	0.003450
132.00	4572.30	178.46	6.30	175.59	22.50		
1131.60	1.35651	89552.95	7.83	7.31	8269.93	0.46	0.003449
133.00	4572.33	178.94	6.32	176.06	22.50		
1131.62	1.36122	89789.69	7.83	7.31	8270.37	0.46	0.003451
134.00	4572.33	178.94	6.32	176.06	22.50		
1131.52	1.36169	89790.30	7.83	7.31	8270.01	0.46	0.003450
135.00	4572.33	178.93	6.32	176.05	22.50		
1131.59	1.36153	89787.07	7.83	7.31	8269.84	0.46	0.003451
136.00	4572.33	178.94	6.32	176.06	22.50		
1131.62	1.36183	89789.41	7.83	7.31	8270.06	0.46	0.003451
137.00	4572.33	178.94	6.32	176.06	22.50		
1131.54	1.36200	89790.45	7.83	7.31	8269.85	0.46	0.003452
138.00	4572.33	178.93	6.32	176.05	22.50		
1130.09	1.36222	89787.51	7.82	7.30	8254.48	0.46	0.003450
139.00	4572.32	178.83	6.32	175.96	22.50		
1116.79	1.36034	89738.36	7.78	7.27	8124.60	0.46	0.003458
140.00	4572.28	177.94	6.28	175.08	22.51		
1113.11	1.35437	89291.09	7.77	7.27	8091.01	0.46	0.003458
141.00	4572.27	177.70	6.26	174.84	22.51		
1113.08	1.35185	89168.05	7.77	7.27	8091.08	0.46	0.003458
142.00	4572.27	177.69	6.26	174.84	22.51		
1113.10	1.35152	89167.17	7.77	7.27	8090.74	0.46	0.003457
143.00	4572.27	177.70	6.26	174.84	22.51		
1111.68	1.35138	89167.74	7.76	7.26	8076.27	0.46	0.003458
144.00	4572.26	177.60	6.26	174.74	22.52		
1098.55	1.35086	89118.98	7.72	7.24	7949.83	0.46	0.003466
145.00	4572.22	176.71	6.22	173.87	22.53		
1095.06	1.34455	88673.09	7.71	7.23	7916.75	0.46	0.003466
146.00	4572.21	176.47	6.21	173.64	22.53		
1095.12	1.34202	88555.38	7.71	7.23	7917.24	0.46	0.003464
147.00	4572.21	176.48	6.21	173.64	22.53		
1095.06	1.34145	88557.55	7.71	7.23	7916.87	0.46	0.003467
148.00	4572.21	176.47	6.21	173.64	22.53		
1095.10	1.34231	88555.49	7.71	7.23	7917.23	0.46	0.003466
149.00	4572.21	176.48	6.21	173.64	22.53		

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	1.34216	88556.61						
1094.15	150.00	4572.20	7.70	6.20	7.23	7907.27	0.46	0.003465
	1.34091	88523.95				173.58	22.53	
1084.93	151.00	4572.17	7.67	6.17	7.21	7818.08	0.46	0.003471
	1.33683	88208.14				172.96	22.54	
1078.10	152.00	4572.15	7.65	6.15	7.19	7753.90	0.46	0.003473
	1.33262	87973.96				172.50	22.54	
1076.87	153.00	4572.15	7.65	6.15	7.19	7742.92	0.46	0.003473
	1.33198	87932.27				172.42	22.55	
1075.54	154.00	4572.14	7.64	6.14	7.19	7728.15	0.46	0.003474
	1.33129	87885.45				172.32	22.55	
1065.25	155.00	4572.11	7.61	6.11	7.16	7631.93	0.46	0.003479
	1.32590	87530.76				171.63	22.56	
1087.89	156.00	4572.18	7.68	6.18	7.22	7851.30	0.46	0.003465
	1.33647	88311.42				173.16	22.54	
1095.00	157.00	4572.21	7.71	6.21	7.23	7916.87	0.46	0.003467
	1.34260	88553.34				173.63	22.53	
1095.06	158.00	4572.21	7.71	6.21	7.23	7916.97	0.46	0.003466
	1.34187	88555.58				173.64	22.53	
1095.05	159.00	4572.21	7.71	6.21	7.23	7916.94	0.46	0.003466
	1.34191	88555.23				173.64	22.53	
1095.02	160.00	4572.21	7.71	6.21	7.23	7917.19	0.46	0.003466
	1.34187	88554.16				173.64	22.53	
1095.02	161.00	4572.21	7.71	6.21	7.23	7917.05	0.46	0.003466
	1.34187	88554.05				173.64	22.53	
1095.05	162.00	4572.21	7.71	6.21	7.23	7917.08	0.46	0.003467
	1.34257	88555.12				173.64	22.53	
1095.06	163.00	4572.21	7.71	6.21	7.23	7916.76	0.46	0.003466
	1.34191	88555.52				173.64	22.53	
1093.65	164.00	4572.20	7.70	6.20	7.23	7902.18	0.46	0.003466
	1.34098	88506.56				173.54	22.53	
1080.61	165.00	4572.16	7.66	6.16	7.20	7776.20	0.46	0.003473
	1.33453	88059.32				172.67	22.54	
1076.92	166.00	4572.15	7.65	6.15	7.19	7742.73	0.46	0.003474
	1.33237	87933.86				172.42	22.55	
1076.96	167.00	4572.15	7.65	6.15	7.19	7743.36	0.46	0.003473
	1.33205	87935.09				172.42	22.54	
1076.90	168.00	4572.15	7.65	6.15	7.19	7742.54	0.46	0.003474
	1.33222	87933.25				172.42	22.55	
1076.97	169.00	4572.15	7.65	6.15	7.19	7743.32	0.46	0.003473
	1.33197	87935.67				172.42	22.54	
1076.91	170.00	4572.15	7.65	6.15	7.19	7743.06	0.46	0.003474
		175.23				172.42	22.55	

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1076.85	1.33216	87933.41	7.65	6.15	7.19	7742.61	0.46	0.003473	
	171.00	4572.15				172.41	22.55		
	1.33185	87931.37	7.64	6.14	7.19	7728.52	0.46	0.003475	
1075.56	172.00	4572.14				172.33	22.55		
	1.33149	87886.21	7.60	6.10	7.16	7602.31	0.46	0.003481	
1062.51	173.00	4572.10				171.44	22.56		
	1.32441	87434.46	7.59	6.09	7.15	7569.00	0.46	0.003480	
1058.82	174.00	4572.09				171.19	22.56		
	1.32165	87307.48	7.59	6.09	7.15	7568.84	0.46	0.003482	
1058.77	175.00	4572.09				171.19	22.56		
	1.32230	87305.84	7.59	6.09	7.15	7568.93	0.46	0.003481	
1058.79	176.00	4572.09				171.19	22.56		
	1.32182	87306.43	7.59	6.09	7.15	7569.47	0.46	0.003481	
1058.81	177.00	4572.09				171.19	22.56		
	1.32208	87307.35	7.59	6.09	7.15	7568.65	0.46	0.003481	
1058.71	178.00	4572.09				171.18	22.56		
	1.32181	87303.79	7.60	6.10	7.16	7598.46	0.46	0.003481	
1061.67	179.00	4572.10				171.39	22.56		
	1.32406	87407.62	7.68	6.18	7.22	7851.30	0.46	0.003465	
1087.86	180.00	4572.18				173.16	22.54		
	1.33672	88310.53	7.71	6.21	7.23	7931.71	0.46	0.003465	
1096.50	181.00	4572.21				173.74	22.53		
	1.34252	88605.00	7.75	6.25	7.26	8058.54	0.46	0.003457	
1109.59	182.00	4572.25				174.61	22.52		
	1.34888	89049.73	7.77	6.26	7.27	8090.83	0.46	0.003460	
1113.14	183.00	4572.27				174.84	22.51		
	1.35232	89169.02	7.77	6.26	7.27	8090.87	0.46	0.003458	
1113.21	184.00	4572.27				174.85	22.51		
	1.35160	89171.44	7.77	6.26	7.27	8091.03	0.46	0.003459	
1113.20	185.00	4572.27				174.85	22.51		
	1.35219	89170.97	7.77	6.26	7.27	8091.11	0.46	0.003458	
1113.21	186.00	4572.27				174.85	22.51		
	1.35180	89171.41	7.77	6.26	7.27	8091.20	0.46	0.003458	
1113.10	187.00	4572.27				174.84	22.51		
	1.35171	89167.66	7.77	6.26	7.27	8090.90	0.46	0.003458	
1113.22	188.00	4572.27				174.85	22.51		
	1.35193	89171.69	7.77	6.26	7.27	8091.03	0.46	0.003458	
1113.18	189.00	4572.27				174.84	22.51		
	1.35153	89170.40	7.76	6.26	7.26	8076.02	0.46	0.003459	
1111.68	190.00	4572.26				174.74	22.52		
	1.35111	89119.12	7.72	6.22	7.24	7949.67	0.46	0.003466	
1098.66	191.00	4572.22				173.88	22.53		
	176.72								



## HYCHAN.OUT

1095.06	1.34476	88676.98	7.71	6.21	7.23	7916.90	0.46	0.003467
	192.00	4572.21						
		176.47				173.64	22.53	
1095.08	1.34230	88555.30	7.71	6.21	7.23	7917.09	0.46	0.003467
	193.00	4572.21						
		176.47				173.64	22.53	
1095.05	1.34234	88556.02	7.71	6.21	7.23	7917.19	0.46	0.003467
	194.00	4572.21						
		176.47				173.64	22.53	
1095.00	1.34229	88555.23	7.71	6.21	7.23	7916.73	0.46	0.003466
	195.00	4572.21						
		176.47				173.63	22.53	
1095.03	1.34206	88553.26	7.71	6.21	7.23	7917.31	0.46	0.003465
	196.00	4572.21						
		176.47				173.64	22.53	
1095.03	1.34157	88554.31	7.71	6.21	7.23	7917.14	0.46	0.003466
	197.00	4572.21						
		176.47				173.64	22.53	
1094.97	1.34213	88554.22	7.71	6.20	7.23	7916.55	0.46	0.003466
	198.00	4572.21						
		176.47				173.63	22.53	
1095.01	1.34202	88552.28	7.71	6.21	7.23	7916.79	0.46	0.003467
	199.00	4572.21						
		176.47				173.63	22.53	
	1.34241	88553.63						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 553

MAXIMUM DISCHARGE (CFS) = 21613.75 AT TIME = 80.05  
 MAXIMUM STAGE = 4575.14 AT TIME = 80.05

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	DEPTH	TOP	WIDTH/DEPTH	ENERGY		SLOPE
SHEAR	STRESS	SURFACE	HYDRAULIC	RADIUS	WIDTH/DEPTH			
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4562.20	0.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4562.20	0.00	0.00	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
817.72	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4565.77	3.57	3.14	2569.98	0.29		
		87.58	9.34	86.24	24.14	0.002463		
920.02	1.43521	43551.05	7.03	6.00	5520.21	0.40		
	3.00	4569.23	5.67	159.67	22.72	0.002470		
		162.26						
906.48	0.87377	80634.55	6.97	5.97	5413.13	0.40		
	4.00	4569.17	5.63	158.52	22.73	0.002489		
		161.10						
900.75	0.87379	80055.09	6.95	5.96	5368.49	0.40		
	5.00	4569.15	5.61	158.04	22.74	0.002494		
		160.60						
886.52	0.87289	79810.13	6.89	5.93	5252.93	0.40		
	6.00	4569.09	5.56	156.82	22.76	0.002520		
		159.36						
867.22	0.87482	79193.03	6.81	5.88	5101.63	0.40		
	7.00	4569.01	5.50	155.15	22.78	0.002544		
		157.66						
	0.87315	78350.09						

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		HYCHAN.OUT					
847.95	8.00	4568.93	6.73	5.84	4952.23	0.40	
		155.95	5.44		153.46	22.81	0.002571
	0.87247	77498.84					
829.44	9.00	4568.85	6.65	5.80	4809.76	0.40	
		154.28	5.38		151.83	22.83	0.002591
	0.86921	76672.05					
823.42	10.00	4568.82	6.62	5.79	4763.98	0.40	
		153.74	5.36		151.29	22.84	0.002597
	0.86787	76402.42					
809.05	11.00	4568.76	6.56	5.75	4651.97	0.40	
		152.42	5.31		149.99	22.86	0.002622
	0.86859	75746.79					
790.14	12.00	4568.68	6.48	5.71	4508.52	0.40	
		150.67	5.24		148.28	22.88	0.002643
	0.86480	74879.82					
784.78	13.00	4568.66	6.46	5.69	4468.79	0.40	
		150.18	5.23		147.79	22.89	0.002644
	0.86211	74634.65					
784.81	14.00	4568.66	6.46	5.69	4468.98	0.40	
		150.18	5.23		147.79	22.89	0.002644
	0.86219	74635.99					
784.81	15.00	4568.66	6.46	5.69	4469.02	0.40	
		150.18	5.23		147.79	22.89	0.002644
	0.86213	74635.95					
784.80	16.00	4568.66	6.46	5.69	4468.98	0.40	
		150.18	5.23		147.79	22.89	0.002644
	0.86206	74635.80					
785.65	17.00	4568.66	6.46	5.70	4475.73	0.40	
		150.26	5.23		147.87	22.89	0.002640
	0.86121	74676.06					
800.49	18.00	4568.73	6.53	5.73	4589.76	0.40	
		151.64	5.28		149.23	22.87	0.002613
	0.86077	75361.33					
820.33	19.00	4568.81	6.61	5.78	4742.02	0.40	
		153.46	5.35		151.02	22.84	0.002585
	0.86230	76265.14					
839.15	20.00	4568.89	6.69	5.82	4887.11	0.40	
		155.17	5.41		152.70	22.82	0.002564
	0.86542	77111.52					
844.07	21.00	4568.91	6.71	5.83	4923.92	0.40	
		155.61	5.42		153.13	22.81	0.002565
	0.86804	77329.59					
845.05	22.00	4568.92	6.72	5.84	4931.86	0.40	
		155.70	5.43		153.22	22.81	0.002559
	0.86671	77374.23					
860.93	23.00	4568.98	6.78	5.87	5056.67	0.40	
		157.12	5.48		154.61	22.79	0.002527
	0.86407	78079.01					
895.34	24.00	4569.13	6.93	5.95	5328.73	0.40	
		160.14	5.59		157.58	22.75	0.002475
	0.86358	79579.70					
934.50	25.00	4569.29	7.09	6.03	5636.02	0.40	
		163.51	5.72		160.89	22.70	0.002424
	0.86459	81250.22					
970.57	26.00	4569.43	7.23	6.10	5920.36	0.40	
		166.54	5.83		163.87	22.66	0.002389
	0.86864	82755.09					
979.02	27.00	4569.47	7.27	6.11	5985.18	0.40	
		167.24	5.85		164.56	22.65	0.002389
	0.87268	83101.65					
980.39	28.00	4569.47	7.27	6.12	5996.55	0.40	
		167.35	5.86		164.67	22.65	0.002381
	0.87032	83158.57					

				HYCHAN.OUT			
995.52	29.00	4569.53	7.33	6.14	6117.10	0.40	
		168.60	5.90		165.90	22.63	0.002362
	0.87032	83778.05					
1000.03	30.00	4569.55	7.35	6.15	6152.11	0.40	
		168.96	5.92		166.26	22.63	0.002362
	0.87227	83960.31					
1001.53	31.00	4569.55	7.35	6.16	6164.64	0.40	
		169.09	5.92		166.38	22.62	0.002354
	0.87012	84022.03					
1017.21	32.00	4569.61	7.41	6.18	6290.08	0.40	
		170.37	5.97		167.64	22.61	0.002334
	0.86962	84656.23					
1021.87	33.00	4569.63	7.43	6.19	6326.06	0.40	
		170.74	5.98		168.00	22.60	0.002334
	0.87171	84842.23					
1020.33	34.00	4569.63	7.43	6.19	6313.18	0.40	
		170.62	5.98		167.88	22.60	0.002341
	0.87356	84779.41					
1004.73	35.00	4569.57	7.37	6.16	6188.33	0.40	
		169.35	5.93		166.63	22.62	0.002362
	0.87448	84149.01					
998.53	36.00	4569.54	7.34	6.15	6139.63	0.40	
		168.84	5.91		166.14	22.63	0.002370
	0.87465	83898.38					
983.61	37.00	4569.48	7.28	6.12	6020.31	0.40	
		167.61	5.87		164.93	22.64	0.002388
	0.87440	83287.98					
978.99	38.00	4569.46	7.27	6.11	5984.97	0.40	
		167.23	5.85		164.56	22.65	0.002388
	0.87241	83100.54					
978.99	39.00	4569.46	7.27	6.11	5984.98	0.40	
		167.23	5.85		164.56	22.65	0.002389
	0.87265	83100.52					
979.00	40.00	4569.47	7.27	6.11	5985.02	0.40	
		167.23	5.85		164.56	22.65	0.002389
	0.87253	83100.71					
979.00	41.00	4569.47	7.27	6.11	5985.04	0.40	
		167.23	5.85		164.56	22.65	0.002389
	0.87264	83100.84					
980.42	42.00	4569.47	7.27	6.12	5996.79	0.40	
		167.35	5.86		164.67	22.65	0.002381
	0.87030	83159.83					
995.54	43.00	4569.53	7.33	6.14	6117.29	0.40	
		168.60	5.90		165.90	22.63	0.002362
	0.87024	83778.84					
1001.53	44.00	4569.55	7.35	6.16	6164.64	0.40	
		169.09	5.92		166.38	22.62	0.002354
	0.87007	84021.98					
1018.77	45.00	4569.62	7.42	6.19	6303.13	0.40	
		170.49	5.98		167.76	22.61	0.002326
	0.86727	84719.41					
1040.86	46.00	4569.71	7.51	6.22	6478.15	0.40	
		172.27	6.04		169.51	22.58	0.002297
	0.86593	85602.68					
1062.64	47.00	4569.79	7.59	6.26	6652.56	0.40	
		174.01	6.11		171.21	22.56	0.002270
	0.86495	86463.28					
1084.19	48.00	4569.87	7.67	6.30	6825.37	0.40	
		175.70	6.17		172.88	22.54	0.002245
	0.86450	87305.64					
1106.74	49.00	4569.95	7.75	6.32	6996.37	0.40	
		177.46	6.24		174.61	22.52	0.002215
	0.86184	88177.32					

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HYCHAN.OUT							
1130.09	50.00	4570.04	7.84	6.30	6.36	7184.27	0.40
	0.85804	179.26				176.38	22.49
		89069.70					0.002181
1165.12	51.00	4570.17	7.97	6.40	6.41	7469.48	0.40
	0.85688	181.92				178.99	22.46
		90389.52					0.002144
1175.74	52.00	4570.21	8.01	6.43	6.43	7555.69	0.40
	0.85812	182.71				179.77	22.45
		90784.38					0.002137
1196.10	53.00	4570.28	8.08	6.49	6.46	7723.76	0.40
	0.84844	184.23				181.27	22.43
		91539.27					0.002094
1256.44	54.00	4570.49	8.29	6.66	6.55	8223.84	0.40
	0.83141	188.65				185.60	22.38
		93729.91					0.002001
1351.43	55.00	4570.82	8.62	6.92	6.67	9016.39	0.40
	0.80734	195.37				192.21	22.30
		97063.92					0.001870
1481.65	56.00	4571.24	9.04	7.26	6.83	10115.05	0.40
	0.76999	204.17				200.86	22.21
		101431.81					0.001700
1646.95	57.00	4571.76	9.56	7.67	6.99	11505.08	0.40
	0.72973	214.76				211.26	22.10
		106688.02					0.001525
1786.41	58.00	4572.18	9.98	8.00	7.10	12681.62	0.40
	0.69288	223.25				219.61	22.01
		110903.16					0.001388
1915.27	59.00	4572.55	10.35	8.30	7.19	13762.94	0.39
	0.63870	230.77				227.00	21.94
		114634.68					0.001233
2077.62	60.00	4572.99	10.79	8.66	7.28	15121.13	0.39
	0.58414	239.86				235.93	21.86
		119145.19					0.001081
2186.10	61.00	4573.28	11.08	8.90	7.33	16014.57	0.39
	0.54729	245.72				241.69	21.80
		122052.45					0.000986
2289.03	62.00	4573.55	11.35	9.11	7.36	16853.30	0.39
	0.50778	251.13				247.00	21.76
		124735.99					0.000893
2352.13	63.00	4573.71	11.51	9.25	7.38	17367.18	0.38
	0.47946	254.38				250.19	21.73
		126347.22					0.000831
2431.23	64.00	4573.91	11.71	9.41	7.41	18015.28	0.38
	0.43984	258.38				254.12	21.70
		128332.45					0.000749
2500.27	65.00	4574.08	11.88	9.55	7.43	18570.39	0.38
	0.42474	261.82				257.50	21.67
		130038.80					0.000713
2512.30	66.00	4574.11	11.91	9.57	7.43	18662.42	0.38
	0.42558	262.41				258.08	21.66
		130331.66					0.000712
2513.40	67.00	4574.12	11.92	9.58	7.43	18670.07	0.38
	0.42701	262.47				258.14	21.66
		130358.55					0.000715
2513.49	68.00	4574.12	11.92	9.58	7.43	18672.52	0.38
	0.42810	262.47				258.14	21.66
		130360.56					0.000716
2514.34	69.00	4574.12	11.92	9.58	7.43	18679.29	0.38
	0.42746	262.51				258.18	21.66
		130381.41					0.000715
2515.49	70.00	4574.12	11.92	9.58	7.43	18687.47	0.38
	0.42592	262.57				258.24	21.66
		130409.66					0.000712

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HYCHAN.OUT							
2515.39	71.00	4574.12	11.92	9.58	7.43	18687.00	0.38
	0.42873	262.56				258.23	21.66
		130407.09					0.000717
2517.72	72.00	4574.13	11.93	9.58	7.43	18708.93	0.38
	0.41917	262.68				258.35	21.66
		130464.70					0.000701
2542.63	73.00	4574.20	12.00	9.65	7.45	18938.89	0.38
	0.40875	263.61				259.83	21.65
		131216.19					0.000679
2553.09	74.00	4574.24	12.04	9.68	7.46	19054.46	0.38
	0.40720	263.70				260.67	21.64
		131640.50					0.000674
2554.93	75.00	4574.25	12.05	9.69	7.47	19079.04	0.38
	0.40262	263.71				260.83	21.64
		131718.61					0.000666
2578.10	76.00	4574.35	12.15	9.77	7.51	19355.02	0.38
	0.38067	263.91				262.77	21.62
		132697.86					0.000624
2628.12	77.00	4574.56	12.36	9.94	7.59	19949.10	0.38
	0.35672	264.33				266.92	21.59
		134797.12					0.000575
2669.88	78.00	4574.74	12.54	10.09	7.66	20443.69	0.38
	0.33604	264.68				270.37	21.56
		136536.78					0.000534
2705.27	79.00	4574.89	12.69	10.21	7.71	20868.31	0.38
	0.31385	264.98				273.28	21.54
		138006.36					0.000493
2750.60	80.00	4575.08	12.88	10.37	7.79	21413.85	0.38
	0.29291	265.36				276.99	21.51
		139881.73					0.000453
2752.63	81.00	4575.08	12.88	10.37	7.78	21426.50	0.38
	0.30567	265.38				277.14	21.51
		139955.97					0.000472
2723.33	82.00	4574.96	12.76	10.27	7.74	21069.80	0.38
	0.32338	265.13				274.73	21.53
		138740.78					0.000505
2712.26	83.00	4574.91	12.71	10.23	7.72	20943.45	0.38
	0.32336	265.04				273.84	21.54
		138287.66					0.000506
2711.28	84.00	4574.91	12.71	10.23	7.72	20931.10	0.38
	0.32395	265.03				273.76	21.54
		138247.86					0.000507
2708.84	85.00	4574.90	12.70	10.22	7.72	20901.67	0.38
	0.33171	265.01				273.55	21.54
		138144.97					0.000520
2681.62	86.00	4574.78	12.58	10.13	7.67	20555.25	0.38
	0.35360	264.78				271.29	21.56
		137001.41					0.000560
2608.61	87.00	4574.48	12.28	9.88	7.54	19676.05	0.38
	0.40946	264.16				265.21	21.61
		133933.22					0.000664
2488.22	88.00	4574.06	11.86	9.52	7.41	18438.36	0.38
	0.50094	261.25				256.94	21.67
		129753.66					0.000843
2268.33	89.00	4573.50	11.30	9.07	7.34	16646.70	0.38
	0.58013	250.01				245.89	21.77
		124176.49					0.001025
2135.08	90.00	4573.15	10.95	8.79	7.29	15571.43	0.39
	0.62062	242.96				238.97	21.83
		120681.83					0.001132
2036.48	91.00	4572.88	10.68	8.57	7.24	14741.09	0.39
	0.66304	237.57				233.68	21.88
		118008.60					0.001240

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HYCHAN.OUT							
1916.79	92.00	4572.55	10.35	8.30	7.17	13743.37	0.39
	0.70425	230.83				227.06	21.94
		114663.99					0.001359
1817.19	93.00	4572.27	10.07	8.07	7.11	12914.52	0.39
	0.73450	225.06				221.38	21.99
		111796.90					0.001458
1731.74	94.00	4572.01	9.82	7.87	7.04	12198.91	0.40
	0.75602	219.96				216.37	22.04
		109266.51					0.001539
1668.77	95.00	4571.83	9.63	7.72	6.99	11667.40	0.40
	0.77428	216.11				212.59	22.08
		107356.94					0.001607
1603.34	96.00	4571.63	9.43	7.56	6.94	11121.91	0.40
	0.78920	212.02				208.57	22.12
		105328.99					0.001672
1555.83	97.00	4571.48	9.28	7.44	6.90	10728.21	0.40
	0.80034	209.00				205.60	22.16
		103829.25					0.001723
1508.93	98.00	4571.33	9.13	7.33	6.85	10331.66	0.40
	0.80876	205.96				202.62	22.19
		102321.98					0.001769
1476.36	99.00	4571.23	9.03	7.24	6.81	10049.96	0.40
	0.82008	203.82				200.52	22.21
		101260.64					0.001814
1433.58	100.00	4571.09	8.89	7.13	6.76	9693.44	0.40
	0.82655	200.97				197.71	22.24
		99845.31					0.001857
1396.94	101.00	4570.97	8.77	7.04	6.72	9385.25	0.40
	0.83287	198.49				195.28	22.27
		98615.84					0.001897
1364.25	102.00	4570.86	8.66	6.95	6.68	9110.17	0.40
	0.83888	196.25				193.08	22.29
		97503.49					0.001934
1337.79	103.00	4570.77	8.57	6.88	6.65	8891.50	0.40
	0.84230	194.42				191.27	22.31
		96592.91					0.001962
1312.05	104.00	4570.68	8.48	6.81	6.61	8675.62	0.40
	0.85006	192.61				189.50	22.34
		95695.12					0.002000
1271.25	105.00	4570.54	8.34	6.70	6.56	8336.79	0.40
	0.85549	189.70				186.64	22.37
		94253.10					0.002046
1244.00	106.00	4570.45	8.25	6.63	6.52	8114.08	0.40
	0.85648	187.74				184.71	22.39
		93279.64					0.002071
1222.83	107.00	4570.37	8.17	6.57	6.49	7939.52	0.40
	0.85967	186.20				183.19	22.41
		92513.02					0.002098
1203.16	108.00	4570.30	8.10	6.51	6.47	7778.89	0.40
	0.85980	184.75				181.77	22.43
		91795.10					0.002116
1200.22	109.00	4570.29	8.09	6.50	6.46	7756.41	0.40
	0.85474	184.54				181.56	22.43
		91689.45					0.002106
1218.61	110.00	4570.36	8.16	6.56	6.49	7908.95	0.40
	0.84794	185.90				182.90	22.41
		92363.76					0.002073
1252.23	111.00	4570.48	8.28	6.65	6.54	8185.32	0.40
	0.84878	188.35				185.31	22.38
		93579.74					0.002046
1243.95	112.00	4570.45	8.25	6.63	6.52	8113.35	0.40
	0.85685	187.74				184.71	22.39
		93277.98					0.002072

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		HYCHAN.OUT					
1227.61	113.00 4570.39 186.55	8.19	6.58	6.50	7979.92	0.40	0.002074
	0.85146 92689.34				183.54	22.41	
1257.58	114.00 4570.50 188.73	8.30	6.66	6.55	8231.09	0.40	0.002020
	0.83979 93772.26				185.69	22.38	
1299.35	115.00 4570.64 191.72	8.44	6.78	6.60	8575.12	0.40	0.001991
	0.84194 95254.94				188.62	22.35	
1291.80	116.00 4570.61 191.18	8.42	6.76	6.59	8509.28	0.40	0.002009
	0.84705 94985.91				188.09	22.35	
1286.87	117.00 4570.60 190.83	8.40	6.74	6.58	8469.94	0.40	0.002011
	0.84613 94813.43				187.75	22.36	
1288.74	118.00 4570.60 190.97	8.40	6.75	6.58	8486.31	0.40	0.002000
	0.84205 94880.09				187.88	22.35	
1306.06	119.00 4570.66 192.20	8.46	6.80	6.61	8631.23	0.40	0.001981
	0.84018 95490.74				189.09	22.34	
1310.86	120.00 4570.68 192.53	8.48	6.81	6.61	8670.04	0.40	0.001980
	0.84137 95657.74				189.42	22.34	
1309.00	121.00 4570.67 192.40	8.47	6.80	6.61	8653.43	0.40	0.001990
	0.84497 95591.84				189.29	22.34	
1291.74	122.00 4570.61 191.17	8.41	6.76	6.59	8509.23	0.40	0.002009
	0.84716 94983.55				188.09	22.35	
1284.95	123.00 4570.59 190.69	8.39	6.74	6.58	8453.99	0.40	0.002018
	0.84866 94744.27				187.61	22.36	
1267.61	124.00 4570.53 189.45	8.33	6.69	6.56	8309.85	0.40	0.002038
	0.85079 94127.30				186.39	22.37	
1262.68	125.00 4570.51 189.10	8.31	6.68	6.55	8270.11	0.40	0.002038
	0.84933 93952.90				186.05	22.38	
1261.05	126.00 4570.51 188.98	8.31	6.67	6.55	8255.73	0.40	0.002046
	0.85183 93893.70				185.93	22.38	
1245.66	127.00 4570.45 187.86	8.25	6.63	6.52	8127.47	0.40	0.002064
	0.85419 93340.51				184.83	22.39	
1240.96	128.00 4570.44 187.53	8.24	6.62	6.52	8090.99	0.40	0.002064
	0.85228 93172.88				184.50	22.39	
1239.44	129.00 4570.43 187.41	8.23	6.61	6.52	8077.21	0.40	0.002072
	0.85506 93117.01				184.39	22.40	
1224.40	130.00 4570.38 186.31	8.18	6.57	6.50	7952.51	0.40	0.002090
	0.85698 92571.16				183.31	22.41	
1223.09	131.00 4570.38 186.22	8.18	6.57	6.50	7944.38	0.40	0.002073
	0.84943 92526.48				183.22	22.41	
1253.87	132.00 4570.48 188.46	8.28	6.65	6.54	8199.35	0.40	0.002038
	0.84599 93638.79				185.42	22.38	
1262.68	133.00 4570.51 189.10	8.31	6.68	6.55	8269.94	0.40	0.002039
	0.84942 93953.04				186.05	22.38	

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		HYCHAN.OUT					
1262.70	134.00 4570.51 189.10	8.31	6.55	8270.31	0.40	0.002039	
	0.84950 93953.70	6.68	186.05	22.38			
1262.59	135.00 4570.51 189.09	8.31	6.55	8270.04	0.40	0.002038	
	0.84899 93949.77	6.68	186.04	22.38			
1262.68	136.00 4570.51 189.10	8.31	6.55	8269.85	0.40	0.002039	
	0.84953 93952.87	6.68	186.05	22.38			
1262.70	137.00 4570.51 189.10	8.31	6.55	8270.06	0.40	0.002039	
	0.84949 93953.58	6.68	186.05	22.38			
1262.61	138.00 4570.51 189.09	8.31	6.55	8269.87	0.40	0.002039	
	0.84963 93950.34	6.68	186.04	22.38			
1261.06	139.00 4570.51 188.98	8.31	6.55	8255.96	0.40	0.002046	
	0.85203 93894.13	6.67	185.93	22.38			
1245.58	140.00 4570.45 187.86	8.25	6.52	8127.25	0.40	0.002064	
	0.85390 93337.70	6.63	184.83	22.39			
1241.01	141.00 4570.44 187.53	8.24	6.52	8091.05	0.40	0.002063	
	0.85198 93174.56	6.62	184.50	22.39			
1240.98	142.00 4570.44 187.53	8.24	6.52	8091.09	0.40	0.002064	
	0.85230 93173.41	6.62	184.50	22.39			
1240.99	143.00 4570.44 187.53	8.24	6.52	8090.70	0.40	0.002064	
	0.85221 93173.77	6.62	184.50	22.39			
1239.48	144.00 4570.43 187.42	8.23	6.52	8077.81	0.40	0.002071	
	0.85466 93118.59	6.61	184.39	22.40			
1224.23	145.00 4570.38 186.30	8.18	6.50	7952.40	0.40	0.002089	
	0.85652 92565.12	6.57	183.30	22.41			
1219.89	146.00 4570.36 185.99	8.16	6.49	7916.78	0.40	0.002090	
	0.85536 92408.47	6.56	182.99	22.41			
1219.96	147.00 4570.36 185.99	8.16	6.49	7917.17	0.40	0.002089	
	0.85500 92411.38	6.56	182.99	22.41			
1219.89	148.00 4570.36 185.99	8.16	6.49	7916.91	0.40	0.002090	
	0.85550 92408.79	6.56	182.99	22.41			
1219.93	149.00 4570.36 185.99	8.16	6.49	7917.26	0.40	0.002090	
	0.85529 92409.93	6.56	182.99	22.41			
1218.92	150.00 4570.36 185.91	8.16	6.49	7908.27	0.40	0.002094	
	0.85677 92372.76	6.56	182.92	22.41			
1208.26	151.00 4570.32 185.13	8.12	6.47	7820.28	0.40	0.002109	
	0.85893 91982.54	6.53	182.14	22.42			
1200.15	152.00 4570.29 184.53	8.09	6.46	7754.77	0.40	0.002115	
	0.85833 91685.73	6.50	181.56	22.43			
1198.63	153.00 4570.29 184.42	8.09	6.46	7742.92	0.40	0.002114	
	0.85746 91630.16	6.50	181.45	22.43			
1197.22	154.00 4570.28 184.31	8.08	6.46	7729.59	0.40	0.002122	
	0.86022 91577.34	6.50	181.34	22.43			

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			HYCHAN.OUT				
1185.05	155.00	4570.24	8.04	6.44	7631.59	0.40	
		183.41		6.46	180.45	22.44	0.002125
	0.85666	91129.00					
1210.99	156.00	4570.33	8.13	6.48	7846.10	0.40	
		185.33		6.53	182.35	22.42	0.002089
	0.85185	92085.27					
1219.82	157.00	4570.36	8.16	6.49	7916.93	0.40	
		185.98		6.56	182.98	22.41	0.002090
	0.85522	92406.02					
1219.88	158.00	4570.36	8.16	6.49	7916.95	0.40	
		185.99		6.56	182.99	22.41	0.002089
	0.85507	92408.39					
1219.87	159.00	4570.36	8.16	6.49	7916.89	0.40	
		185.99		6.56	182.99	22.41	0.002089
	0.85498	92408.09					
1219.84	160.00	4570.36	8.16	6.49	7917.25	0.40	
		185.98		6.56	182.98	22.41	0.002090
	0.85549	92406.77					
1219.83	161.00	4570.36	8.16	6.49	7917.06	0.40	
		185.98		6.56	182.98	22.41	0.002089
	0.85490	92406.55					
1219.87	162.00	4570.36	8.16	6.49	7917.07	0.40	
		185.99		6.56	182.99	22.41	0.002089
	0.85486	92408.03					
1219.89	163.00	4570.36	8.16	6.49	7916.70	0.40	
		185.99		6.56	182.99	22.41	0.002089
	0.85517	92408.71					
1218.39	164.00	4570.36	8.16	6.49	7903.69	0.40	
		185.87		6.55	182.88	22.41	0.002096
	0.85733	92352.94					
1203.25	165.00	4570.30	8.11	6.46	7778.81	0.40	
		184.76		6.51	181.78	22.43	0.002115
	0.85941	91798.33					
1198.68	166.00	4570.29	8.09	6.46	7742.72	0.40	
		184.42		6.50	181.45	22.43	0.002115
	0.85800	91632.23					
1198.74	167.00	4570.29	8.09	6.46	7743.35	0.40	
		184.43		6.50	181.45	22.43	0.002114
	0.85760	91634.18					
1198.66	168.00	4570.29	8.09	6.46	7742.58	0.40	
		184.42		6.50	181.45	22.43	0.002116
	0.85802	91631.47					
1198.74	169.00	4570.29	8.09	6.46	7743.25	0.40	
		184.43		6.50	181.45	22.43	0.002114
	0.85749	91634.37					
1198.67	170.00	4570.29	8.09	6.46	7743.10	0.40	
		184.42		6.50	181.45	22.43	0.002115
	0.85780	91631.80					
1198.60	171.00	4570.29	8.09	6.46	7742.54	0.40	
		184.42		6.50	181.44	22.43	0.002115
	0.85779	91629.20					
1197.25	172.00	4570.28	8.08	6.46	7730.05	0.40	
		184.31		6.50	181.34	22.43	0.002122
	0.86029	91578.48					
1182.13	173.00	4570.23	8.03	6.43	7604.97	0.40	
		183.19		6.45	180.24	22.45	0.002141
	0.86215	91019.20					
1177.57	174.00	4570.21	8.01	6.43	7569.00	0.40	
		182.85		6.44	179.90	22.45	0.002141
	0.86021	90851.49					
1177.49	175.00	4570.21	8.01	6.43	7568.84	0.40	
		182.84		6.44	179.90	22.45	0.002141
	0.86017	90848.62					

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		HYCHAN.OUT					
1177.52	176.00	4570.21	8.01	6.43	7568.93	0.40	
		182.85		6.44	179.90	22.45	0.002141
	0.86027	90849.85					
1177.53	177.00	4570.21	8.01	6.43	7569.51	0.40	
		182.85		6.44	179.90	22.45	0.002141
	0.86057	90850.18					
1177.43	178.00	4570.21	8.01	6.43	7568.54	0.40	
		182.84		6.44	179.89	22.45	0.002140
	0.85992	90846.38					
1180.61	179.00	4570.22	8.02	6.43	7595.55	0.40	
		183.08		6.45	180.13	22.45	0.002125
	0.85522	90965.56					
1210.97	180.00	4570.33	8.13	6.48	7846.13	0.40	
		185.33		6.53	182.35	22.42	0.002089
	0.85177	92084.53					
1221.42	181.00	4570.37	8.17	6.49	7930.20	0.40	
		186.10		6.56	183.10	22.41	0.002081
	0.85222	92465.21					
1236.63	182.00	4570.42	8.22	6.51	8055.89	0.40	
		187.21		6.61	184.19	22.40	0.002063
	0.85051	93017.47					
1241.03	183.00	4570.44	8.24	6.52	8090.88	0.40	
		187.53		6.62	184.51	22.39	0.002064
	0.85232	93175.39					
1241.11	184.00	4570.44	8.24	6.52	8090.81	0.40	
		187.54		6.62	184.51	22.39	0.002064
	0.85228	93178.16					
1241.10	185.00	4570.44	8.24	6.52	8091.10	0.40	
		187.54		6.62	184.51	22.39	0.002065
	0.85282	93177.65					
1241.12	186.00	4570.44	8.24	6.52	8091.09	0.40	
		187.54		6.62	184.51	22.39	0.002063
	0.85200	93178.57					
1241.00	187.00	4570.44	8.24	6.52	8091.26	0.40	
		187.53		6.62	184.50	22.39	0.002064
	0.85237	93174.22					
1241.12	188.00	4570.44	8.24	6.52	8090.85	0.40	
		187.54		6.62	184.51	22.39	0.002064
	0.85238	93178.61					
1241.08	189.00	4570.44	8.24	6.52	8090.99	0.40	
		187.53		6.62	184.51	22.39	0.002063
	0.85211	93177.08					
1239.48	190.00	4570.43	8.23	6.52	8077.53	0.40	
		187.42		6.61	184.39	22.40	0.002072
	0.85503	93118.42					
1224.36	191.00	4570.38	8.18	6.50	7952.28	0.40	
		186.31		6.57	183.31	22.41	0.002090
	0.85697	92569.64					
1219.87	192.00	4570.36	8.16	6.49	7916.92	0.40	
		185.98		6.56	182.99	22.41	0.002089
	0.85504	92407.90					
1219.90	193.00	4570.36	8.16	6.49	7917.07	0.40	
		185.99		6.56	182.99	22.41	0.002090
	0.85531	92408.93					
1219.89	194.00	4570.36	8.16	6.49	7917.20	0.40	
		185.99		6.56	182.99	22.41	0.002090
	0.85556	92408.48					
1219.82	195.00	4570.36	8.16	6.49	7916.77	0.40	
		185.98		6.56	182.98	22.41	0.002090
	0.85526	92406.15					
1219.85	196.00	4570.36	8.16	6.49	7917.27	0.40	
		185.98		6.56	182.98	22.41	0.002088
	0.85469	92407.13					

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HYCHAN.OUT							
1219.86	197.00	4570.36	8.16	6.49	7917.14	0.40	0.002091
	0.85565	185.98	6.56	182.99	22.41		
		92407.53					
1219.78	198.00	4570.36	8.16	6.49	7916.54	0.40	0.002089
	0.85503	185.98	6.56	182.98	22.41		
		92404.55					
1219.82	199.00	4570.36	8.16	6.49	7916.78	0.40	0.002090
	0.85546	185.98	6.56	182.98	22.41		
		92406.07					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 572

MAXIMUM DISCHARGE (CFS) = 21614.07 AT TIME = 80.06  
 MAXIMUM STAGE = 4574.47 AT TIME = 80.06

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	0.00	4559.83	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
	1.00	4559.83	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
	2.00	4563.54	3.71	3.19	2447.22	0.29	
765.97	1.12003	123.36	6.21	121.48	32.74	0.002891	
	3.00	4567.57	7.74	6.58	5520.95	0.42	
838.70	0.81174	186.52	4.50	182.05	23.52	0.002893	
	4.00	4567.50	7.67	6.54	5414.76	0.42	
828.54	0.80929	185.59	4.46	181.17	23.61	0.002905	
	5.00	4567.47	7.64	6.52	5369.17	0.42	
824.09	0.80757	185.19	4.45	180.78	23.65	0.002908	
	6.00	4567.40	7.57	6.46	5255.26	0.41	
813.05	0.80565	184.17	4.41	179.81	23.75	0.002925	
	7.00	4567.30	7.47	6.40	5103.97	0.41	
798.01	0.80192	182.79	4.37	178.49	23.90	0.002944	
	8.00	4567.20	7.37	6.33	4954.65	0.41	
782.99	0.79665	181.39	4.32	177.15	24.05	0.002958	
	9.00	4567.10	7.27	6.26	4811.50	0.41	
768.40	0.79181	180.02	4.27	175.84	24.19	0.002973	
	10.00	4567.07	7.24	6.24	4764.68	0.41	
763.52	0.78931	179.56	4.25	175.41	24.24	0.002975	
	11.00	4566.99	7.16	6.19	4654.38	0.41	
752.29	0.78673	178.48	4.21	174.37	24.36	0.002991	
	12.00	4566.89	7.06	6.12	4510.34	0.41	
737.29	0.78079	177.04	4.16	172.99	24.52	0.003005	
	13.00	4566.86	7.03	6.10	4468.79	0.41	

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		HYCHAN.OUT					
732.86	176.62	4.15	172.60	24.56	0.003005		
0.77799	86297.55						
14.00	4566.86	7.03	6.10	4468.99	0.41		
732.89	176.62	4.15	172.60	24.56	0.003006		
0.77825	86298.78						
15.00	4566.86	7.03	6.10	4469.00	0.41		
732.89	176.62	4.15	172.60	24.56	0.003004		
0.77794	86298.51						
16.00	4566.86	7.03	6.10	4469.01	0.41		
732.89	176.62	4.15	172.60	24.56	0.003004		
0.77790	86298.64						
17.00	4566.86	7.03	6.10	4475.05	0.41		
733.49	176.69	4.15	172.66	24.56	0.003003		
0.77802	86328.24						
18.00	4566.94	7.11	6.16	4587.25	0.41		
745.09	177.82	4.19	173.74	24.43	0.002986		
0.78087	86869.09						
19.00	4567.05	7.22	6.23	4739.58	0.41		
760.83	179.33	4.24	175.18	24.27	0.002968		
0.78581	87590.71						
20.00	4567.15	7.32	6.30	4885.35	0.41		
775.71	180.73	4.29	176.52	24.12	0.002955		
0.79130	88261.07						
21.00	4567.18	7.35	6.32	4923.92	0.41		
779.69	181.09	4.31	176.87	24.08	0.002956		
0.79409	88436.22						
22.00	4567.18	7.35	6.32	4931.18	0.41		
780.39	181.16	4.31	176.94	24.07	0.002952		
0.79356	88469.27						
23.00	4567.26	7.43	6.38	5053.48	0.41		
792.62	182.32	4.35	178.04	23.95	0.002932		
0.79533	89021.02						
24.00	4567.44	7.61	6.50	5323.96	0.42		
819.36	184.78	4.43	180.40	23.69	0.002898		
0.80185	90199.43						
25.00	4567.64	7.81	6.63	5631.29	0.42		
849.39	187.49	4.53	182.99	23.42	0.002866		
0.81010	91493.83						
26.00	4567.82	7.99	6.75	5917.32	0.42		
876.76	189.91	4.62	185.30	23.18	0.002842		
0.81865	92647.66						
27.00	4567.87	8.04	6.78	5985.18	0.42		
883.36	190.48	4.64	185.84	23.12	0.002843		
0.82261	92918.59						
28.00	4567.87	8.04	6.78	5995.71	0.42		
884.32	190.57	4.64	185.92	23.11	0.002838		
0.82173	92960.33						
29.00	4567.95	8.12	6.83	6115.43	0.42		
895.63	191.55	4.68	186.86	23.02	0.002825		
0.82430	93430.38						
30.00	4567.97	8.14	6.84	6152.12	0.42		
899.08	191.84	4.69	187.14	22.99	0.002825		
0.82622	93570.66						
31.00	4567.98	8.15	6.85	6163.74	0.42		
900.13	191.94	4.69	187.23	22.98	0.002821		
0.82544	93615.80						
32.00	4568.05	8.22	6.90	6288.39	0.42		
911.77	192.94	4.73	188.19	22.89	0.002808		
0.82792	94094.38						
33.00	4568.08	8.25	6.91	6326.07	0.42		
915.34	193.24	4.74	188.48	22.86	0.002807		
0.82969	94237.91						
34.00	4568.07	8.24	6.91	6314.10	0.42		

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		HYCHAN.OUT				
914.28	193.15	4.73	188.38	22.87	0.002811	
0.83042	94192.36					
35.00	4567.99	8.16	6.86	6190.01	0.42	
902.75	192.15	4.70	187.43	22.96	0.002825	
0.82826	93716.81					
36.00	4567.96	8.13	6.84	6140.51	0.42	
898.04	191.75	4.68	187.05	23.00	0.002830	
0.82707	93525.47					
37.00	4567.89	8.06	6.79	6021.95	0.42	
886.97	190.78	4.65	186.13	23.09	0.002842	
0.82447	93064.22					
38.00	4567.87	8.04	6.78	5984.96	0.42	
883.33	190.48	4.64	185.84	23.12	0.002843	
0.82262	92917.78					
39.00	4567.87	8.04	6.78	5984.99	0.42	
883.34	190.48	4.64	185.84	23.12	0.002841	
0.82223	92917.84					
40.00	4567.87	8.04	6.78	5985.01	0.42	
883.34	190.48	4.64	185.84	23.12	0.002842	
0.82233	92917.98					
41.00	4567.87	8.04	6.78	5985.05	0.42	
883.34	190.48	4.64	185.84	23.12	0.002843	
0.82257	92918.06					
42.00	4567.87	8.04	6.78	5995.95	0.42	
884.34	190.57	4.64	185.92	23.11	0.002838	
0.82180	92961.23					
43.00	4567.95	8.12	6.83	6115.62	0.42	
895.63	191.55	4.68	186.86	23.02	0.002825	
0.82432	93430.78					
44.00	4567.98	8.15	6.85	6163.75	0.42	
900.13	191.94	4.69	187.23	22.98	0.002820	
0.82522	93615.77					
45.00	4568.06	8.23	6.90	6300.53	0.42	
912.86	193.04	4.73	188.28	22.88	0.002802	
0.82669	94140.31					
46.00	4568.17	8.34	6.97	6475.50	0.43	
929.36	194.44	4.78	189.62	22.74	0.002784	
0.83021	94811.48					
47.00	4568.27	8.44	7.03	6650.03	0.43	
945.39	195.80	4.83	190.91	22.62	0.002767	
0.83355	95457.46					
48.00	4568.37	8.54	7.10	6823.00	0.43	
961.05	197.11	4.88	192.16	22.50	0.002752	
0.83716	96081.47					
49.00	4568.47	8.64	7.16	6993.58	0.43	
977.05	198.43	4.92	193.43	22.38	0.002733	
0.83976	96713.52					
50.00	4568.58	8.75	7.22	7181.00	0.43	
993.96	199.82	4.97	194.75	22.25	0.002712	
0.84166	97376.32					
51.00	4568.74	8.91	7.33	7466.26	0.43	
1018.94	201.85	5.05	196.68	22.07	0.002687	
0.84656	98342.23					
52.00	4568.79	8.96	7.36	7554.86	0.43	
1026.63	202.46	5.07	197.27	22.02	0.002684	
0.84918	98632.77					
53.00	4568.88	9.05	7.42	7719.42	0.43	
1040.76	203.59	5.11	198.35	21.92	0.002657	
0.84742	99175.43					
54.00	4569.14	9.31	7.59	8214.96	0.44	
1082.62	206.89	5.23	201.49	21.64	0.002597	
0.84807	100746.55					
55.00	4569.54	9.71	7.85	9003.82	0.44	

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				HYCHAN.OUT			
1147.44		211.84		5.42	206.21	21.24	0.002515
	0.84993	103106.91					
56.00		4570.07	10.24	8.18	10098.94	0.45	
1233.95		218.21		5.65	212.28	20.74	0.002406
	0.84915	106138.79					
57.00		4570.70	10.87	8.57	11488.76	0.46	
1339.88		225.68		5.94	219.39	20.19	0.002296
	0.85069	109693.89					
58.00		4571.20	11.37	8.88	12668.66	0.46	
1425.85		231.54		6.16	224.96	19.78	0.002207
	0.84826	112477.85					
59.00		4571.65	11.82	9.14	13748.10	0.47	
1504.20		236.63		6.36	229.80	19.44	0.002113
	0.83823	114899.34					
60.00		4572.20	12.37	9.45	15107.09	0.47	
1598.42		242.67		6.59	235.53	19.05	0.002025
	0.83235	117765.68					
61.00		4572.54	12.71	9.65	16005.41	0.48	
1659.03		246.48		6.73	239.15	18.81	0.001982
	0.83236	119576.88					
62.00		4572.86	13.03	9.83	16845.02	0.48	
1714.31		249.94		6.86	242.44	18.60	0.001941
	0.83077	121218.67					
63.00		4573.05	13.22	9.93	17360.84	0.48	
1747.53		251.99		6.93	244.39	18.48	0.001914
	0.82829	122194.19					
64.00		4573.29	13.46	10.07	18007.53	0.48	
1788.07		254.50		7.03	246.77	18.33	0.001881
	0.82448	123383.81					
65.00		4573.49	13.66	10.18	18567.36	0.49	
1823.03		256.64		7.10	248.79	18.21	0.001865
	0.82660	124396.33					
66.00		4573.52	13.69	10.20	18662.31	0.49	
1829.14		257.00		7.12	249.14	18.19	0.001865
	0.82809	124568.71					
67.00		4573.53	13.70	10.20	18670.12	0.49	
1829.68		257.03		7.12	249.17	18.19	0.001865
	0.82857	124584.16					
68.00		4573.53	13.70	10.21	18672.47	0.49	
1829.73		257.03		7.12	249.17	18.19	0.001867
	0.82912	124585.80					
69.00		4573.53	13.70	10.21	18679.28	0.49	
1830.16		257.06		7.12	249.20	18.19	0.001867
	0.82965	124598.24					
70.00		4573.53	13.70	10.21	18687.54	0.49	
1830.74		257.10		7.12	249.23	18.19	0.001865
	0.82885	124614.62					
71.00		4573.53	13.70	10.21	18687.31	0.49	
1830.70		257.09		7.12	249.23	18.19	0.001866
	0.82925	124613.30					
72.00		4573.54	13.71	10.21	18707.57	0.49	
1831.79		257.16		7.12	249.29	18.18	0.001861
	0.82731	124647.36					
73.00		4573.62	13.79	10.26	18936.48	0.49	
1845.53		258.00		7.15	250.09	18.14	0.001865
	0.83226	125043.45					
74.00		4573.66	13.83	10.29	19054.34	0.49	
1852.62		258.41		7.17	250.48	18.11	0.001863
	0.83343	125240.10					
75.00		4573.67	13.84	10.29	19078.11	0.49	
1853.85		258.49		7.17	250.55	18.11	0.001866
	0.83506	125275.87					
76.00		4573.76	13.93	10.35	19350.47	0.49	

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1869.43		259.42		7.21	251.44	18.06	0.001872
	0.84192	125719.52					
	77.00	4573.95	14.12	10.48	19943.17	0.49	
1903.23		261.42		7.28	253.34	17.94	0.001883
	0.85536	126667.55					
	78.00	4574.11	14.28	10.58	20439.21	0.49	
1931.38		263.07		7.34	254.90	17.85	0.001897
	0.86894	127448.02					
	79.00	4574.24	14.41	10.67	20863.53	0.50	
1954.99		264.45		7.39	256.20	17.78	0.001909
	0.88051	128102.30					
	80.00	4574.41	14.58	10.79	21409.66	0.50	
1985.09		266.20		7.46	257.86	17.69	0.001916
	0.89172	128931.52					
	81.00	4574.42	14.59	10.79	21429.35	0.50	
1986.71		266.27		7.46	257.93	17.68	0.001903
	0.88596	128965.83					
	82.00	4574.31	14.48	10.71	21073.72	0.50	
1967.35		265.14		7.42	256.86	17.74	0.001900
	0.87986	128430.01					
	83.00	4574.27	14.44	10.69	20943.71	0.50	
1959.82		264.72		7.40	256.46	17.77	0.001898
	0.87694	128228.45					
	84.00	4574.26	14.43	10.68	20931.14	0.50	
1959.16		264.68		7.40	256.42	17.77	0.001902
	0.87838	128210.58					
	85.00	4574.25	14.42	10.68	20903.65	0.50	
1957.65		264.58		7.40	256.33	17.77	0.001896
	0.87531	128166.07					
	86.00	4574.15	14.32	10.60	20566.57	0.49	
1939.92		263.51		7.36	255.32	17.83	0.001881
	0.86417	127659.00					
	87.00	4573.87	14.04	10.41	19693.92	0.49	
1891.12		260.62		7.26	252.57	17.99	0.001856
	0.84056	126284.99					
	88.00	4573.45	13.62	10.15	18458.62	0.48	
1818.44		256.25		7.10	248.43	18.23	0.001911
	0.84619	124214.49					
	89.00	4572.80	12.97	9.78	16664.05	0.48	
1704.71		249.22		6.84	241.76	18.64	0.001994
	0.85108	120880.04					
	90.00	4572.38	12.55	9.55	15581.54	0.48	
1631.96		244.70		6.67	237.46	18.92	0.002051
	0.85355	118732.09					
	91.00	4572.06	12.23	9.36	14751.47	0.47	
1576.23		241.17		6.54	234.11	19.14	0.002109
	0.86018	117054.74					
	92.00	4571.66	11.83	9.13	13754.88	0.47	
1506.38		236.69		6.36	229.85	19.43	0.002188
	0.86881	114926.29					
	93.00	4571.31	11.48	8.94	12923.90	0.46	
1446.28		232.79		6.21	226.14	19.69	0.002256
	0.87449	113072.23					
	94.00	4571.01	11.18	8.76	12206.47	0.46	
1393.27		229.30		6.08	222.83	19.93	0.002304
	0.87368	111412.88					
	95.00	4570.78	10.95	8.62	11673.85	0.46	
1354.39		226.64		5.98	220.30	20.12	0.002347
	0.87533	110150.61					
	96.00	4570.54	10.71	8.47	11128.06	0.46	
1313.30		223.80		5.87	217.60	20.32	0.002388
	0.87424	108798.54					
	97.00	4570.36	10.53	8.37	10733.01	0.45	

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1282.95		221.68		5.79	215.58	20.48	0.002420
	0.87382	107788.63					
98.00		4570.18	10.35	8.25	10336.14	0.45	
1252.64		219.52		5.71	213.53	20.64	0.002450
	0.87222	106763.73					
99.00		4570.05	10.22	8.17	10054.05	0.45	
1231.33		217.99		5.65	212.07	20.75	0.002477
	0.87292	106034.97					
100.00		4569.88	10.05	8.06	9697.47	0.45	
1203.20		215.95		5.57	210.12	20.91	0.002507
	0.87162	105060.55					
101.00		4569.73	9.90	7.96	9389.01	0.45	
1178.81		214.15		5.50	208.41	21.05	0.002531
	0.86935	104206.92					
102.00		4569.60	9.77	7.88	9113.62	0.44	
1156.88		212.52		5.44	206.86	21.18	0.002554
	0.86763	103429.49					
103.00		4569.49	9.66	7.81	8894.15	0.44	
1138.98		211.18		5.39	205.58	21.29	0.002572
	0.86557	102789.86					
104.00		4569.38	9.55	7.74	8679.27	0.44	
1121.52		209.85		5.34	204.31	21.40	0.002596
	0.86589	102157.20					
105.00		4569.21	9.38	7.63	8341.08	0.44	
1093.59		207.70		5.27	202.27	21.57	0.002625
	0.86258	101134.16					
106.00		4569.09	9.26	7.55	8116.50	0.44	
1074.64		206.24		5.21	200.87	21.70	0.002641
	0.85867	100436.63					
107.00		4569.00	9.17	7.49	7941.92	0.44	
1059.91		205.09		5.17	199.77	21.79	0.002658
	0.85703	99886.34					
108.00		4568.91	9.08	7.44	7780.47	0.44	
1046.09		204.00		5.13	198.74	21.89	0.002669
	0.85393	99367.91					
109.00		4568.90	9.07	7.43	7755.43	0.43	
1043.87		203.83		5.12	198.58	21.90	0.002665
	0.85155	99288.57					
110.00		4568.98	9.15	7.48	7905.68	0.44	
1056.62		204.85		5.16	199.54	21.81	0.002643
	0.85058	99772.45					
111.00		4569.12	9.29	7.58	8183.18	0.44	
1080.09		206.68		5.23	201.29	21.66	0.002625
	0.85593	100646.74					
112.00		4569.09	9.26	7.55	8115.74	0.44	
1074.60		206.24		5.21	200.87	21.70	0.002642
	0.85900	100435.38					
113.00		4569.02	9.19	7.51	7979.71	0.44	
1063.08		205.34		5.18	200.02	21.77	0.002643
	0.85379	100009.92					
114.00		4569.15	9.32	7.59	8226.03	0.44	
1083.62		206.96		5.24	201.56	21.64	0.002610
	0.85270	100781.06					
115.00		4569.32	9.49	7.71	8572.75	0.44	
1112.53		209.18		5.32	203.68	21.45	0.002591
	0.85980	101839.72					
116.00		4569.29	9.46	7.68	8510.94	0.44	
1107.56		208.79		5.30	203.31	21.48	0.002602
	0.86133	101652.54					
117.00		4569.27	9.44	7.67	8469.96	0.44	
1104.10		208.53		5.29	203.06	21.51	0.002603
	0.86015	101528.80					
118.00		4569.28	9.45	7.68	8485.27	0.44	

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1105.32	208.63	5.30	203.15	21.50	0.002597		
0.85859	101575.03						
119.00	4569.35	9.52	7.72	8629.59	0.44		
1117.16	209.54	5.33	204.02	21.42	0.002584		
0.85964	102007.62						
120.00	4569.37	9.54	7.74	8670.04	0.44		
1120.53	209.79	5.34	204.26	21.40	0.002584		
0.86127	102127.67						
121.00	4569.37	9.54	7.73	8654.43	0.44		
1119.31	209.69	5.34	204.16	21.41	0.002590		
0.86274	102081.69						
122.00	4569.29	9.46	7.68	8510.92	0.44		
1107.53	208.79	5.30	203.30	21.48	0.002602		
0.86129	101651.27						
123.00	4569.26	9.43	7.67	8454.97	0.44		
1102.84	208.43	5.29	202.96	21.51	0.002609		
0.86148	101480.55						
124.00	4569.19	9.36	7.62	8311.59	0.44		
1090.94	207.51	5.26	202.08	21.59	0.002621		
0.85972	101041.88						
125.00	4569.17	9.34	7.61	8270.10	0.44		
1087.43	207.25	5.25	201.83	21.61	0.002621		
0.85807	100915.70						
126.00	4569.16	9.33	7.60	8256.59	0.44		
1086.35	207.16	5.24	201.75	21.62	0.002626		
0.85916	100874.04						
127.00	4569.10	9.27	7.56	8129.08	0.44		
1075.73	206.33	5.21	200.96	21.69	0.002636		
0.85774	100479.02						
128.00	4569.08	9.25	7.54	8090.94	0.44		
1072.39	206.07	5.20	200.72	21.71	0.002637		
0.85640	100357.58						
129.00	4569.07	9.24	7.54	8078.06	0.44		
1071.38	205.99	5.20	200.64	21.72	0.002642		
0.85746	100318.25						
130.00	4569.00	9.17	7.50	7954.05	0.44		
1060.94	205.17	5.17	199.85	21.79	0.002653		
0.85618	99926.88						
131.00	4569.00	9.17	7.49	7942.62	0.44		
1059.84	205.10	5.17	199.78	21.79	0.002643		
0.85226	99891.16						
132.00	4569.13	9.30	7.58	8196.29	0.44		
1081.16	206.77	5.23	201.38	21.65	0.002621		
0.85503	100687.97						
133.00	4569.17	9.34	7.60	8269.96	0.44		
1087.44	207.25	5.25	201.83	21.61	0.002622		
0.85835	100915.82						
134.00	4569.17	9.34	7.61	8270.29	0.44		
1087.45	207.25	5.25	201.83	21.61	0.002621		
0.85829	100916.42						
135.00	4569.17	9.34	7.61	8270.03	0.44		
1087.38	207.24	5.25	201.83	21.61	0.002620		
0.85794	100913.62						
136.00	4569.17	9.34	7.60	8269.87	0.44		
1087.44	207.25	5.25	201.83	21.61	0.002621		
0.85809	100915.83						
137.00	4569.17	9.34	7.60	8270.06	0.44		
1087.45	207.25	5.25	201.83	21.61	0.002621		
0.85809	100916.18						
138.00	4569.17	9.34	7.61	8269.88	0.44		
1087.40	207.24	5.25	201.83	21.61	0.002621		
0.85809	100914.11						
139.00	4569.16	9.33	7.60	8256.81	0.44		

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1086.37	207.16	5.24	201.75	21.62	0.002625		
0.85911	100874.78						
140.00	4569.10	9.27	7.56	8128.79	0.44		
1075.69	206.33	5.21	200.95	21.69	0.002637		
0.85789	100477.30						
141.00	4569.08	9.25	7.54	8091.06	0.44		
1072.42	206.08	5.20	200.72	21.71	0.002636		
0.85606	100358.65						
142.00	4569.08	9.25	7.54	8091.10	0.44		
1072.40	206.08	5.20	200.72	21.71	0.002637		
0.85637	100358.01						
143.00	4569.08	9.25	7.54	8090.68	0.44		
1072.40	206.08	5.20	200.72	21.71	0.002638		
0.85648	100358.30						
144.00	4569.07	9.24	7.54	8078.69	0.44		
1071.41	205.99	5.20	200.64	21.72	0.002641		
0.85719	100319.56						
145.00	4569.00	9.17	7.50	7953.91	0.44		
1060.84	205.16	5.17	199.85	21.79	0.002653		
0.85593	99922.98						
146.00	4568.98	9.15	7.48	7916.81	0.44		
1057.70	204.92	5.16	199.62	21.81	0.002654		
0.85479	99808.22						
147.00	4568.98	9.15	7.48	7917.13	0.44		
1057.75	204.93	5.16	199.62	21.81	0.002654		
0.85476	99810.10						
148.00	4568.98	9.15	7.48	7916.95	0.44		
1057.71	204.92	5.16	199.62	21.81	0.002654		
0.85465	99808.55						
149.00	4568.98	9.15	7.49	7917.29	0.44		
1057.73	204.92	5.16	199.62	21.81	0.002653		
0.85435	99809.32						
150.00	4568.98	9.15	7.48	7908.81	0.44		
1057.05	204.87	5.16	199.57	21.81	0.002657		
0.85541	99782.88						
151.00	4568.93	9.10	7.45	7821.60	0.44		
1049.64	204.28	5.14	199.01	21.86	0.002665		
0.85446	99502.61						
152.00	4568.90	9.07	7.43	7755.28	0.43		
1043.90	203.83	5.12	198.57	21.90	0.002671		
0.85346	99287.28						
153.00	4568.89	9.06	7.43	7742.91	0.43		
1042.81	203.74	5.12	198.49	21.91	0.002669		
0.85250	99246.69						
154.00	4568.88	9.05	7.42	7730.44	0.43		
1041.86	203.67	5.12	198.42	21.92	0.002674		
0.85369	99209.30						
155.00	4568.83	9.00	7.39	7631.43	0.43		
1033.25	202.98	5.09	197.77	21.97	0.002677		
0.85018	98883.72						
156.00	4568.94	9.11	7.46	7843.01	0.44		
1051.29	204.43	5.14	199.14	21.85	0.002654		
0.85157	99571.68						
157.00	4568.98	9.15	7.49	7916.97	0.44		
1057.66	204.92	5.16	199.61	21.81	0.002653		
0.85436	99806.39						
158.00	4568.98	9.15	7.49	7916.93	0.44		
1057.70	204.92	5.16	199.62	21.81	0.002653		
0.85449	99808.09						
159.00	4568.98	9.15	7.48	7916.86	0.44		
1057.70	204.92	5.16	199.62	21.81	0.002653		
0.85432	99808.08						
160.00	4568.98	9.15	7.49	7917.31	0.44		

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1057.68	204.92		5.16	199.61	21.81	0.002653	
0.85460	99807.09						
161.00	4568.98	9.15	7.49	7917.04	0.44		
1057.66	204.92		5.16	199.61	21.81	0.002653	
0.85451	99806.87						
162.00	4568.98	9.15	7.49	7917.06	0.44		
1057.69	204.92		5.16	199.62	21.81	0.002652	
0.85420	99807.85						
163.00	4568.98	9.15	7.48	7916.67	0.44		
1057.70	204.92		5.16	199.62	21.81	0.002654	
0.85465	99808.37						
164.00	4568.98	9.15	7.48	7904.55	0.44		
1056.71	204.84		5.16	199.54	21.82	0.002658	
0.85547	99769.33						
165.00	4568.91	9.08	7.44	7780.36	0.44		
1046.14	204.00		5.13	198.74	21.89	0.002669	
0.85414	99369.85						
166.00	4568.89	9.06	7.42	7742.73	0.43		
1042.85	203.75		5.12	198.50	21.91	0.002670	
0.85264	99248.14						
167.00	4568.89	9.06	7.42	7743.34	0.43		
1042.89	203.75		5.12	198.50	21.91	0.002668	
0.85229	99249.75						
168.00	4568.89	9.06	7.42	7742.62	0.43		
1042.84	203.75		5.12	198.49	21.91	0.002670	
0.85285	99247.49						
169.00	4568.89	9.06	7.42	7743.19	0.43		
1042.88	203.75		5.12	198.50	21.91	0.002668	
0.85229	99249.60						
170.00	4568.89	9.06	7.42	7743.14	0.43		
1042.85	203.75		5.12	198.50	21.91	0.002669	
0.85245	99248.01						
171.00	4568.89	9.06	7.42	7742.49	0.43		
1042.78	203.74		5.12	198.49	21.91	0.002670	
0.85285	99245.95						
172.00	4568.88	9.05	7.42	7730.94	0.43		
1041.89	203.67		5.12	198.42	21.92	0.002674	
0.85350	99210.38						
173.00	4568.82	8.99	7.38	7606.54	0.43		
1031.28	202.82		5.08	197.61	21.99	0.002687	
0.85241	98805.70						
174.00	4568.80	8.97	7.36	7569.00	0.43		
1027.96	202.56		5.07	197.36	22.01	0.002686	
0.85054	98682.32						
175.00	4568.80	8.97	7.36	7568.85	0.43		
1027.90	202.56		5.07	197.36	22.01	0.002686	
0.85061	98680.00						
176.00	4568.80	8.97	7.36	7568.95	0.43		
1027.94	202.56		5.07	197.36	22.01	0.002685	
0.85031	98681.08						
177.00	4568.80	8.97	7.36	7569.51	0.43		
1027.93	202.56		5.07	197.36	22.01	0.002687	
0.85083	98681.16						
178.00	4568.80	8.97	7.36	7568.48	0.43		
1027.87	202.55		5.07	197.36	22.01	0.002685	
0.85023	98678.72						
179.00	4568.81	8.98	7.37	7593.87	0.43		
1030.00	202.73		5.08	197.53	22.00	0.002676	
0.84846	98762.92						
180.00	4568.94	9.11	7.46	7843.04	0.44		
1051.28	204.42		5.14	199.14	21.85	0.002653	
0.85141	99571.38						
181.00	4568.99	9.16	7.49	7929.32	0.44		

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		HYCHAN.OUT					
1058.72	205.01	5.16	199.70	21.80	0.002649		
0.85351	99848.05						
182.00	4569.06	9.23	7.53	8054.34	0.44		
1069.29	205.84	5.19	200.49	21.73	0.002637		
0.85486	100244.39						
183.00	4569.08	9.25	7.54	8090.91	0.44		
1072.43	206.08	5.20	200.72	21.71	0.002636		
0.85611	100359.18						
184.00	4569.08	9.25	7.54	8090.78	0.44		
1072.48	206.08	5.20	200.72	21.71	0.002637		
0.85626	100360.91						
185.00	4569.08	9.25	7.54	8091.14	0.44		
1072.47	206.08	5.20	200.72	21.71	0.002638		
0.85658	100360.52						
186.00	4569.08	9.25	7.54	8091.06	0.44		
1072.49	206.08	5.20	200.72	21.71	0.002637		
0.85637	100361.38						
187.00	4569.08	9.25	7.54	8091.30	0.44		
1072.42	206.08	5.20	200.72	21.71	0.002638		
0.85652	100358.46						
188.00	4569.08	9.25	7.54	8090.84	0.44		
1072.48	206.08	5.20	200.72	21.71	0.002637		
0.85642	100361.25						
189.00	4569.08	9.25	7.54	8090.96	0.44		
1072.45	206.08	5.20	200.72	21.71	0.002637		
0.85617	100360.15						
190.00	4569.07	9.24	7.54	8078.41	0.44		
1071.41	205.99	5.20	200.64	21.72	0.002641		
0.85730	100319.35						
191.00	4569.00	9.17	7.50	7953.82	0.44		
1060.92	205.17	5.17	199.85	21.79	0.002653		
0.85612	99925.84						
192.00	4568.98	9.15	7.49	7916.92	0.44		
1057.69	204.92	5.16	199.62	21.81	0.002652		
0.85416	99807.67						
193.00	4568.98	9.15	7.49	7917.07	0.44		
1057.71	204.92	5.16	199.62	21.81	0.002653		
0.85457	99808.43						
194.00	4568.98	9.15	7.49	7917.23	0.44		
1057.71	204.92	5.16	199.62	21.81	0.002653		
0.85438	99808.38						
195.00	4568.98	9.15	7.49	7916.78	0.44		
1057.66	204.92	5.16	199.61	21.81	0.002653		
0.85460	99806.70						
196.00	4568.98	9.15	7.49	7917.24	0.44		
1057.68	204.92	5.16	199.61	21.81	0.002653		
0.85439	99807.36						
197.00	4568.98	9.15	7.49	7917.17	0.44		
1057.69	204.92	5.16	199.62	21.81	0.002654		
0.85476	99807.84						
198.00	4568.98	9.15	7.49	7916.53	0.44		
1057.63	204.92	5.16	199.61	21.81	0.002653		
0.85443	99805.35						
199.00	4568.98	9.15	7.49	7916.79	0.44		
1057.66	204.92	5.16	199.61	21.81	0.002654		
0.85461	99806.71						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 591

MAXIMUM DISCHARGE (CFS) = 20438.80 AT TIME = 80.06  
 MAXIMUM STAGE = 4570.90 AT TIME = 80.07

HYCHAN.OUT									
AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4557.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4557.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
720.71	2.00	4560.59	3.39	3.24	2337.32	0.31			
		110.46	6.52	109.43	32.28				0.003592
	1.46259	55810.78							
779.70	3.00	4564.63	7.43	7.08	5521.48	0.46			
		138.79	5.62	136.75	18.41				0.003591
	1.25895	69742.70							
771.09	4.00	4564.57	7.37	7.02	5416.04	0.46			
		138.45	5.57	136.42	18.52				0.003592
	1.24826	69573.41							
767.18	5.00	4564.54	7.34	7.00	5369.69	0.46			
		138.29	5.55	136.27	18.57				0.003588
	1.24203	69497.96							
757.85	6.00	4564.47	7.27	6.94	5257.10	0.45			
		137.91	5.50	135.90	18.70				0.003587
	1.22997	69309.38							
744.92	7.00	4564.37	7.17	6.85	5105.86	0.45			
		137.38	5.42	135.39	18.87				0.003584
	1.21264	69049.08							
732.00	8.00	4564.28	7.08	6.77	4956.52	0.45			
		136.84	5.35	134.87	19.06				0.003580
	1.19505	68785.60							
719.39	9.00	4564.18	6.98	6.69	4812.91	0.45			
		136.31	5.28	134.36	19.24				0.003583
	1.17978	68525.92							
715.03	10.00	4564.15	6.95	6.66	4765.20	0.45			
		136.13	5.25	134.19	19.30				0.003579
	1.17311	68437.50							
705.48	11.00	4564.08	6.88	6.60	4656.29	0.44			
		135.72	5.20	133.79	19.45				0.003578
	1.16062	68233.84							
692.42	12.00	4563.98	6.78	6.52	4511.80	0.44			
		135.15	5.12	133.25	19.65				0.003578
	1.14391	67957.34							
688.38	13.00	4563.95	6.75	6.49	4468.79	0.44			
		134.98	5.10	133.09	19.71				0.003577
	1.13825	67874.10							
688.40	14.00	4563.95	6.75	6.49	4468.99	0.44			
		134.98	5.10	133.09	19.71				0.003579
	1.13885	67874.48							
688.40	15.00	4563.95	6.75	6.49	4468.99	0.44			
		134.99	5.10	133.09	19.71				0.003577
	1.13841	67874.66							
688.40	16.00	4563.95	6.75	6.49	4469.03	0.44			
		134.98	5.10	133.09	19.71				0.003577
	1.13828	67874.49							
688.95	17.00	4563.96	6.76	6.49	4474.53	0.44			
		135.01	5.10	133.11	19.70				0.003578
	1.13922	67885.58							
699.24	18.00	4564.03	6.83	6.56	4585.26	0.44			
		135.44	5.16	133.53	19.55				0.003579



		HYCHAN.OUT					
	1.15292	68099.83					
712.85	19.00	4564.13	6.93	5.24	6.65	4737.62	0.44
	1.17141	68386.85					
725.71	20.00	4564.23	7.03	5.31	6.73	4883.93	0.45
	1.18845	68655.27					
728.93	21.00	4564.26	7.06	5.33	6.76	4923.98	0.45
	1.19281	68726.76					
729.56	22.00	4564.26	7.06	5.34	6.76	4930.63	0.45
	1.19344	68738.93					
740.28	23.00	4564.34	7.14	5.40	6.82	5051.00	0.45
	1.20811	68952.97					
763.31	24.00	4564.51	7.31	5.53	6.97	5320.23	0.45
	1.23879	69413.59					
788.92	25.00	4564.70	7.50	5.67	7.13	5627.62	0.46
	1.27277	69918.14					
812.17	26.00	4564.87	7.67	5.80	7.28	5914.94	0.46
	1.30305	70366.07					
817.47	27.00	4564.91	7.71	5.83	7.32	5985.20	0.46
	1.30961	70472.87					
818.32	28.00	4564.91	7.71	5.83	7.33	5995.04	0.47
	1.31131	70488.12					
828.02	29.00	4564.98	7.78	5.89	7.38	6114.17	0.47
	1.32365	70668.08					
830.80	30.00	4565.00	7.80	5.90	7.41	6152.12	0.47
	1.32720	70722.97					
831.68	31.00	4565.01	7.81	5.91	7.41	6163.07	0.47
	1.32834	70739.33					
841.64	32.00	4565.08	7.88	5.96	7.47	6287.07	0.47
	1.34183	70921.83					
844.52	33.00	4565.10	7.90	5.98	7.49	6326.06	0.47
	1.34458	70977.80					
843.75	34.00	4565.10	7.90	5.97	7.48	6314.75	0.47
	1.34318	70961.56					
834.14	35.00	4565.03	7.83	5.92	7.42	6191.36	0.47
	1.33120	70781.57					
830.00	36.00	4565.00	7.80	5.90	7.40	6141.16	0.47
	1.32503	70706.68					
820.77	37.00	4564.93	7.73	5.85	7.34	6023.21	0.47
	1.31414	70531.23					
817.44	38.00	4564.91	7.71	5.83	7.32	5984.97	0.46
	1.31007	70472.53					
817.44	39.00	4564.91	7.71	5.83	7.32	5985.00	0.46
		140.28					

		HYCHAN.OUT					
	1.30951	70472.54					
817.44	40.00	4564.91	7.71	7.32	5985.01	0.46	
		140.28	5.83	138.18	17.93		0.003602
	1.30976	70472.57					
817.45	41.00	4564.91	7.71	7.32	5985.06	0.46	
		140.28	5.83	138.18	17.93		0.003602
	1.30958	70472.63					
818.34	42.00	4564.91	7.71	7.33	5995.28	0.47	
		140.31	5.83	138.21	17.92		0.003603
	1.31135	70488.50					
828.03	43.00	4564.98	7.78	7.38	6114.35	0.47	
		140.68	5.89	138.57	17.80		0.003604
	1.32369	70668.20					
831.69	44.00	4565.01	7.81	7.41	6163.07	0.47	
		140.83	5.91	138.70	17.76		0.003605
	1.32843	70739.35					
842.59	45.00	4565.09	7.89	7.48	6298.52	0.47	
		141.23	5.97	139.10	17.63		0.003608
	1.34311	70938.54					
856.32	46.00	4565.19	7.99	7.56	6473.48	0.47	
		141.75	6.04	139.60	17.47		0.003613
	1.36179	71193.74					
869.74	47.00	4565.29	8.09	7.64	6648.10	0.47	
		142.25	6.11	140.07	17.32		0.003615
	1.37939	71438.16					
882.93	48.00	4565.38	8.18	7.73	6821.22	0.48	
		142.73	6.19	140.54	17.18		0.003616
	1.39570	71673.49					
896.64	49.00	4565.48	8.28	7.80	6991.47	0.48	
		143.22	6.26	141.00	17.04		0.003620
	1.41439	71910.95					
910.65	50.00	4565.58	8.38	7.88	7178.55	0.48	
		143.72	6.34	141.49	16.89		0.003625
	1.43339	72157.59					
931.37	51.00	4565.72	8.52	8.01	7463.82	0.48	
		144.45	6.45	142.19	16.68		0.003625
	1.45839	72516.32					
938.01	52.00	4565.77	8.57	8.05	7554.27	0.49	
		144.68	6.48	142.40	16.62		0.003628
	1.46768	72626.32					
949.52	53.00	4565.85	8.65	8.13	7716.21	0.49	
		145.08	6.54	142.79	16.50		0.003634
	1.48395	72823.62					
983.94	54.00	4566.09	8.89	8.34	8208.42	0.49	
		146.25	6.73	143.91	16.18		0.003647
	1.53119	73396.49					
1037.10	55.00	4566.46	9.26	8.67	8994.69	0.50	
		147.99	7.01	145.59	15.72		0.003662
	1.60135	74249.84					
1107.34	56.00	4566.95	9.75	9.11	10087.40	0.51	
		150.20	7.37	147.70	15.16		0.003681
	1.69356	75329.02					
1192.48	57.00	4567.52	10.32	9.62	11477.18	0.53	
		152.73	7.81	150.14	14.54		0.003694
	1.79974	76571.21					
1262.95	58.00	4567.99	10.79	10.01	12647.75	0.54	
		154.34	8.18	152.04	14.09		0.003701
	1.88981	77539.12					
1324.87	59.00	4568.42	11.22	10.33	13682.82	0.54	
		155.20	8.54	153.74	13.70		0.003741
	1.99255	78407.56					
1396.31	60.00	4568.93	11.73	10.70	14943.08	0.55	
		156.22	8.94	155.70	13.27		0.003759

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				HYCHAN.OUT			
	2.09657	79406.09					
1443.00	61.00	4569.26	12.06	9.20	10.91	15749.08	0.55
		156.88				156.92	13.01
	2.17236	80027.56					0.003785
1484.26	62.00	4569.55	12.35	9.43	11.10	16480.89	0.56
		157.46				157.99	12.79
	2.23851	80575.18					0.003806
1508.77	63.00	4569.73	12.53	9.56	11.22	16927.48	0.56
		157.81				158.62	12.66
	2.28362	80897.38					0.003828
1537.70	64.00	4569.94	12.74	9.72	11.37	17476.72	0.56
		158.23				159.38	12.51
	2.33698	81281.55					0.003854
1562.86	65.00	4570.12	12.92	9.85	11.49	17954.36	0.56
		158.60				160.02	12.38
	2.37508	81609.54					0.003863
1567.37	66.00	4570.15	12.95	9.88	11.51	18037.24	0.56
		158.66				160.13	12.36
	2.37994	81666.66					0.003861
1567.79	67.00	4570.15	12.96	9.88	11.51	18043.95	0.56
		158.67				160.14	12.36
	2.38105	81671.80					0.003862
1567.79	68.00	4570.16	12.96	9.88	11.51	18046.22	0.56
		158.67				160.14	12.36
	2.38227	81672.12					0.003864
1568.09	69.00	4570.16	12.96	9.88	11.51	18051.69	0.56
		158.67				160.15	12.36
	2.38409	81676.49					0.003866
1568.53	70.00	4570.16	12.96	9.88	11.51	18058.55	0.56
		158.68				160.16	12.36
	2.38405	81681.82					0.003865
1568.50	71.00	4570.16	12.96	9.88	11.51	18058.60	0.56
		158.68				160.16	12.36
	2.38218	81681.48					0.003862
1569.15	72.00	4570.17	12.97	9.89	11.52	18074.04	0.56
		158.69				160.18	12.35
	2.38827	81690.83					0.003871
1578.86	73.00	4570.24	13.04	9.94	11.57	18263.15	0.56
		158.83				160.43	12.31
	2.40685	81818.60					0.003880
1584.15	74.00	4570.27	13.08	9.97	11.59	18363.70	0.57
		158.91				160.56	12.28
	2.41367	81885.90					0.003880
1584.95	75.00	4570.28	13.08	9.97	11.60	18382.84	0.57
		158.92				160.58	12.28
	2.41817	81897.15					0.003886
1595.96	76.00	4570.36	13.16	10.03	11.66	18603.78	0.57
		159.08				160.87	12.22
	2.44209	82042.23					0.003901
1620.04	77.00	4570.54	13.34	10.16	11.78	19089.68	0.57
		159.44				161.48	12.10
	2.48303	82355.11					0.003916
1640.20	78.00	4570.69	13.49	10.27	11.89	19496.94	0.57
		159.73				161.99	12.01
	2.52519	82613.61					0.003941
1656.88	79.00	4570.81	13.61	10.36	11.97	19839.21	0.57
		159.98				162.41	11.93
	2.55900	82827.43					0.003960
1678.07	80.00	4570.97	13.77	10.47	12.08	20276.76	0.57
		160.30				162.94	11.83
	2.59511	83097.41					0.003973
1679.63	81.00	4570.98	13.78	10.48	12.09	20299.65	0.57
		160.31				162.97	11.83
							0.003954

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HYCHAN.OUT									
	2.58507	83113.12							
1666.19	82.00	4570.88	13.68	10.41	12.01	20017.19	0.57		
		160.11				162.63	11.89	0.003946	
	2.56207	82940.44							
1660.63	83.00	4570.84	13.64	10.38	11.99	19908.96	0.57		
		160.03				162.49	11.91	0.003946	
	2.55531	82872.10							
1660.15	84.00	4570.83	13.63	10.37	11.99	19898.54	0.57		
		160.03				162.48	11.92	0.003947	
	2.55536	82866.17							
1659.18	85.00	4570.83	13.63	10.37	11.98	19878.83	0.57		
		160.01				162.46	11.92	0.003939	
	2.54856	82852.84							
1647.29	86.00	4570.74	13.54	10.31	11.91	19617.55	0.57		
		159.83				162.15	11.98	0.003914	
	2.51703	82694.40							
1613.04	87.00	4570.48	13.28	10.12	11.73	18913.94	0.57		
		159.32				161.27	12.14	0.003866	
	2.44270	82247.62							
1561.17	88.00	4570.10	12.90	9.85	11.46	17889.56	0.56		
		158.55				159.94	12.40	0.003799	
	2.33392	81570.34							
1479.12	89.00	4569.50	12.30	9.40	11.06	16353.77	0.56		
		157.37				157.81	12.83	0.003754	
	2.20164	80485.48							
1424.24	90.00	4569.12	11.92	9.10	10.81	15391.95	0.55		
		156.59				156.39	13.12	0.003735	
	2.11985	79758.55							
1381.71	91.00	4568.82	11.62	8.86	10.60	14641.40	0.55		
		155.99				155.26	13.36	0.003710	
	2.05056	79182.94							
1328.38	92.00	4568.44	11.24	8.56	10.32	13713.89	0.54		
		155.23				153.80	13.69	0.003681	
	1.96558	78438.07							
1282.05	93.00	4568.11	10.91	8.29	10.08	12921.80	0.54		
		154.57				152.50	13.98	0.003680	
	1.90482	77777.12							
1237.72	94.00	4567.81	10.62	8.04	9.87	12212.81	0.53		
		153.98				151.33	14.26	0.003682	
	1.84672	77179.52							
1205.26	95.00	4567.60	10.40	7.87	9.69	11678.42	0.53		
		153.08				150.47	14.46	0.003676	
	1.80623	76741.79							
1172.09	96.00	4567.38	10.18	7.70	9.50	11132.43	0.52		
		152.12				149.56	14.69	0.003672	
	1.76548	76273.32							
1147.64	97.00	4567.22	10.02	7.58	9.36	10736.43	0.52		
		151.40				148.86	14.86	0.003667	
	1.73423	75920.81							
1123.27	98.00	4567.05	9.85	7.46	9.20	10339.33	0.52		
		150.67				148.16	15.04	0.003660	
	1.70269	75561.59							
1106.15	99.00	4566.93	9.73	7.37	9.09	10056.94	0.51		
		150.15				147.66	15.17	0.003648	
	1.67696	75304.87							
1083.37	100.00	4566.78	9.58	7.25	8.95	9700.50	0.51		
		149.44				146.98	15.34	0.003656	
	1.65387	74959.87							
1063.50	101.00	4566.64	9.44	7.15	8.83	9391.68	0.51		
		148.82				146.38	15.50	0.003647	
	1.62651	74655.48							
1045.62	102.00	4566.52	9.32	7.05	8.72	9116.14	0.50		
		148.25				145.84	15.65	0.003645	

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		HYCHAN.OUT					
	1.60409	74377.12					
1030.94	103.00	4566.42	9.22	8.63	8896.09	0.50	
	1.58555	74146.56	6.98	145.39	15.77	0.003642	
1016.70	104.00	4566.32	9.12	8.54	8681.93	0.50	
	1.56651	73918.99	6.90	144.94	15.89	0.003638	
993.77	105.00	4566.16	8.96	8.40	8344.24	0.49	
	1.53648	73548.27	6.78	144.21	16.10	0.003631	
978.03	106.00	4566.05	8.85	8.30	8118.28	0.49	
	1.51721	73292.40	6.70	143.71	16.24	0.003631	
965.84	107.00	4565.96	8.76	8.22	7943.71	0.49	
	1.50165	73090.87	6.63	143.32	16.35	0.003628	
954.36	108.00	4565.88	8.68	8.15	7781.65	0.49	
	1.48748	72899.67	6.57	142.94	16.46	0.003628	
952.35	109.00	4565.87	8.67	8.14	7754.75	0.49	
	1.48594	72868.34	6.56	142.88	16.48	0.003630	
962.76	110.00	4565.94	8.74	8.21	7903.26	0.49	
	1.50090	73044.39	6.62	143.22	16.38	0.003636	
982.23	111.00	4566.08	8.88	8.33	8181.53	0.49	
	1.52307	73365.40	6.72	143.85	16.20	0.003633	
977.99	112.00	4566.05	8.85	8.30	8117.52	0.49	
	1.51711	73291.96	6.70	143.71	16.24	0.003630	
968.28	113.00	4565.98	8.78	8.24	7979.60	0.49	
	1.50806	73134.02	6.65	143.40	16.33	0.003637	
984.97	114.00	4566.10	8.90	8.35	8222.30	0.49	
	1.52903	73412.17	6.73	143.95	16.17	0.003639	
1008.94	115.00	4566.27	9.07	8.49	8570.95	0.50	
	1.55750	73799.47	6.86	144.70	15.96	0.003638	
1005.10	116.00	4566.24	9.04	8.47	8512.17	0.50	
	1.55340	73734.48	6.84	144.58	16.00	0.003639	
1002.16	117.00	4566.22	9.02	8.45	8469.98	0.50	
	1.54918	73688.49	6.82	144.49	16.02	0.003638	
1003.12	118.00	4566.23	9.03	8.46	8484.53	0.50	
	1.55174	73704.52	6.83	144.52	16.01	0.003641	
1012.81	119.00	4566.29	9.09	8.52	8628.35	0.50	
	1.56358	73860.91	6.88	144.83	15.93	0.003642	
1015.69	120.00	4566.31	9.11	8.54	8670.04	0.50	
	1.56694	73905.68	6.90	144.91	15.90	0.003641	
1014.73	121.00	4566.31	9.11	8.53	8655.14	0.50	
	1.56429	73889.73	6.89	144.88	15.91	0.003638	
1005.10	122.00	4566.24	9.04	8.47	8512.18	0.50	
	1.55255	73734.27	6.84	144.58	16.00	0.003637	
1001.19	123.00	4566.21	9.01	8.45	8455.70	0.50	
		146.81	6.82	144.45	16.03	0.003636	

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		HYCHAN.OUT					
	1.54712	73671.89					
991.44	124.00	4566.14	8.94	8.38	8312.87	0.49	
		146.49	6.77		144.14	16.12	0.003636
	1.53570	73512.74					
988.45	125.00	4566.12	8.92	8.37	8270.08	0.49	
		146.39	6.75		144.05	16.14	0.003635
	1.53151	73465.36					
987.60	126.00	4566.12	8.92	8.36	8257.22	0.49	
		146.36	6.75		144.02	16.15	0.003633
	1.52961	73450.88					
978.87	127.00	4566.06	8.86	8.31	8130.28	0.49	
		146.07	6.70		143.74	16.23	0.003632
	1.51893	73307.19					
976.02	128.00	4566.04	8.84	8.29	8090.92	0.49	
		145.97	6.69		143.65	16.26	0.003633
	1.51576	73261.57					
975.21	129.00	4566.03	8.83	8.28	8078.66	0.49	
		145.94	6.68		143.62	16.26	0.003629
	1.51319	73247.84					
966.63	130.00	4565.97	8.77	8.23	7955.21	0.49	
		145.65	6.64		143.34	16.34	0.003630
	1.50339	73105.05					
965.51	131.00	4565.96	8.76	8.23	7941.36	0.49	
		145.62	6.63		143.31	16.35	0.003636
	1.50450	73089.18					
983.03	132.00	4566.09	8.89	8.34	8193.99	0.49	
		146.21	6.72		143.88	16.19	0.003635
	1.52514	73379.64					
988.46	133.00	4566.12	8.92	8.37	8269.99	0.49	
		146.39	6.75		144.05	16.14	0.003635
	1.53175	73465.49					
988.45	134.00	4566.12	8.92	8.37	8270.28	0.49	
		146.39	6.75		144.05	16.14	0.003635
	1.53175	73465.56					
988.41	135.00	4566.12	8.92	8.37	8270.00	0.49	
		146.39	6.75		144.05	16.14	0.003635
	1.53164	73464.65					
988.43	136.00	4566.12	8.92	8.37	8269.89	0.49	
		146.39	6.75		144.05	16.14	0.003636
	1.53207	73465.47					
988.46	137.00	4566.12	8.92	8.37	8270.05	0.49	
		146.39	6.75		144.05	16.14	0.003636
	1.53194	73465.62					
988.41	138.00	4566.12	8.92	8.37	8269.89	0.49	
		146.39	6.75		144.05	16.14	0.003635
	1.53165	73464.87					
987.61	139.00	4566.12	8.92	8.36	8257.41	0.49	
		146.36	6.75		144.02	16.15	0.003632
	1.52928	73451.17					
978.83	140.00	4566.06	8.86	8.31	8129.96	0.49	
		146.06	6.70		143.74	16.23	0.003634
	1.51960	73306.60					
976.04	141.00	4566.04	8.84	8.29	8091.06	0.49	
		145.97	6.69		143.65	16.26	0.003632
	1.51541	73261.95					
976.03	142.00	4566.04	8.84	8.29	8091.12	0.49	
		145.97	6.69		143.65	16.26	0.003633
	1.51559	73261.71					
976.01	143.00	4566.04	8.84	8.29	8090.67	0.49	
		145.97	6.69		143.65	16.26	0.003632
	1.51545	73261.59					
975.26	144.00	4566.03	8.83	8.28	8079.31	0.49	
		145.95	6.68		143.62	16.26	0.003631

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		HYCHAN.OUT					
	1.51395	73248.38					
966.58	145.00	4565.97	8.77	8.23	7955.06	0.49	
		145.65	6.64	143.34	16.35		0.003629
	1.50284	73103.76					
963.85	146.00	4565.95	8.75	8.21	7916.85	0.49	
		145.56	6.62	143.26	16.37		0.003630
	1.49978	73060.23					
963.87	147.00	4565.95	8.75	8.21	7917.10	0.49	
		145.56	6.62	143.26	16.37		0.003631
	1.50030	73060.71					
963.87	148.00	4565.95	8.75	8.21	7916.97	0.49	
		145.56	6.62	143.26	16.37		0.003630
	1.50000	73060.33					
963.88	149.00	4565.95	8.75	8.21	7917.29	0.49	
		145.56	6.62	143.26	16.37		0.003629
	1.49968	73060.64					
963.34	150.00	4565.95	8.75	8.21	7909.23	0.49	
		145.54	6.62	143.24	16.38		0.003628
	1.49849	73051.27					
957.24	151.00	4565.90	8.70	8.17	7822.54	0.49	
		145.33	6.59	143.04	16.43		0.003628
	1.49091	72948.89					
952.46	152.00	4565.87	8.67	8.14	7755.70	0.49	
		145.17	6.56	142.88	16.48		0.003626
	1.48460	72869.03					
951.53	153.00	4565.86	8.66	8.14	7742.89	0.49	
		145.14	6.56	142.85	16.49		0.003628
	1.48433	72853.85					
950.76	154.00	4565.86	8.66	8.13	7731.05	0.49	
		145.11	6.55	142.82	16.50		0.003625
	1.48214	72840.54					
943.59	155.00	4565.81	8.61	8.09	7631.36	0.49	
		144.87	6.51	142.59	16.56		0.003630
	1.47554	72719.72					
958.30	156.00	4565.91	8.71	8.18	7840.68	0.49	
		145.38	6.59	143.08	16.42		0.003630
	1.49323	72970.51					
963.83	157.00	4565.95	8.75	8.21	7916.98	0.49	
		145.56	6.62	143.25	16.37		0.003630
	1.49998	73059.61					
963.85	158.00	4565.95	8.75	8.21	7916.92	0.49	
		145.56	6.62	143.26	16.37		0.003630
	1.50000	73060.20					
963.87	159.00	4565.95	8.75	8.21	7916.83	0.49	
		145.56	6.62	143.26	16.37		0.003631
	1.50052	73060.29					
963.84	160.00	4565.95	8.75	8.21	7917.35	0.49	
		145.56	6.62	143.25	16.37		0.003628
	1.49894	73059.91					
963.81	161.00	4565.95	8.75	8.21	7917.04	0.49	
		145.56	6.62	143.25	16.37		0.003630
	1.49987	73059.59					
963.86	162.00	4565.95	8.75	8.21	7917.04	0.49	
		145.56	6.62	143.26	16.37		0.003630
	1.50003	73060.09					
963.86	163.00	4565.95	8.75	8.21	7916.67	0.49	
		145.56	6.62	143.26	16.37		0.003630
	1.49993	73060.18					
963.08	164.00	4565.94	8.75	8.21	7905.17	0.49	
		145.53	6.62	143.23	16.38		0.003628
	1.49821	73046.67					
954.38	165.00	4565.88	8.68	8.15	7781.53	0.49	
		145.24	6.57	142.94	16.46		0.003627

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		HYCHAN.OUT					
	1.48710	72900.36					
951.54	166.00	4565.86	8.66	8.14	7742.75	0.49	
		145.14	6.56		142.85	16.49	0.003627
	1.48396	72854.32					
951.58	167.00	4565.86	8.66	8.14	7743.32	0.49	
		145.14	6.56		142.85	16.49	0.003628
	1.48419	72854.79					
951.55	168.00	4565.86	8.66	8.14	7742.67	0.49	
		145.14	6.56		142.85	16.49	0.003627
	1.48360	72854.11					
951.57	169.00	4565.86	8.66	8.14	7743.13	0.49	
		145.14	6.56		142.85	16.49	0.003629
	1.48459	72854.71					
951.55	170.00	4565.86	8.66	8.14	7743.16	0.49	
		145.14	6.56		142.85	16.49	0.003628
	1.48410	72854.26					
951.48	171.00	4565.86	8.66	8.14	7742.48	0.49	
		145.14	6.56		142.85	16.49	0.003628
	1.48391	72853.27					
950.78	172.00	4565.86	8.66	8.13	7731.55	0.49	
		145.11	6.55		142.83	16.49	0.003625
	1.48220	72840.97					
942.02	173.00	4565.80	8.60	8.08	7607.75	0.49	
		144.81	6.51		142.53	16.58	0.003626
	1.47172	72692.29					
939.15	174.00	4565.78	8.58	8.06	7568.98	0.49	
		144.71	6.49		142.44	16.61	0.003624
	1.46763	72645.19					
939.12	175.00	4565.78	8.58	8.06	7568.86	0.49	
		144.71	6.49		142.44	16.61	0.003625
	1.46805	72644.34					
939.16	176.00	4565.78	8.58	8.06	7568.95	0.49	
		144.71	6.49		142.44	16.61	0.003624
	1.46759	72645.04					
939.17	177.00	4565.78	8.58	8.06	7569.53	0.49	
		144.71	6.49		142.44	16.61	0.003622
	1.46692	72644.95					
939.08	178.00	4565.78	8.58	8.06	7568.42	0.49	
		144.71	6.49		142.44	16.61	0.003626
	1.46840	72644.01					
940.75	179.00	4565.79	8.59	8.07	7592.65	0.49	
		144.77	6.50		142.50	16.59	0.003630
	1.47171	72673.63					
958.29	180.00	4565.91	8.71	8.18	7840.71	0.49	
		145.38	6.59		143.08	16.42	0.003630
	1.49328	72970.40					
964.64	181.00	4565.96	8.76	8.22	7928.69	0.49	
		145.59	6.63		143.28	16.36	0.003631
	1.50123	73074.06					
973.35	182.00	4566.02	8.82	8.27	8053.17	0.49	
		145.89	6.67		143.57	16.28	0.003632
	1.51198	73218.82					
976.04	183.00	4566.04	8.84	8.29	8090.92	0.49	
		145.97	6.69		143.65	16.26	0.003632
	1.51556	73262.09					
976.07	184.00	4566.04	8.84	8.29	8090.76	0.49	
		145.98	6.69		143.65	16.26	0.003633
	1.51573	73262.66					
976.08	185.00	4566.04	8.84	8.29	8091.18	0.49	
		145.97	6.69		143.65	16.26	0.003632
	1.51549	73262.52					
976.08	186.00	4566.04	8.84	8.29	8091.04	0.49	
		145.98	6.69		143.65	16.26	0.003633

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1.51586	73262.87						
187.00	4566.04	8.84	8.29	8091.33	0.49		
976.04	145.97	6.69	143.65	16.26	0.003632		
1.51526	73261.91						
188.00	4566.04	8.84	8.29	8090.83	0.49		
976.05	145.97	6.69	143.65	16.26	0.003633		
1.51583	73262.60						
189.00	4566.04	8.84	8.29	8090.93	0.49		
976.05	145.97	6.69	143.65	16.26	0.003633		
1.51564	73262.28						
190.00	4566.03	8.83	8.28	8079.06	0.49		
975.25	145.95	6.68	143.62	16.26	0.003631		
1.51406	73248.26						
191.00	4565.97	8.77	8.23	7954.98	0.49		
966.63	145.65	6.64	143.34	16.35	0.003631		
1.50371	73104.71						
192.00	4565.95	8.75	8.21	7916.90	0.49		
963.84	145.56	6.62	143.25	16.37	0.003630		
1.49984	73060.04						
193.00	4565.95	8.75	8.21	7917.08	0.49		
963.86	145.56	6.62	143.26	16.37	0.003630		
1.49994	73060.21						
194.00	4565.95	8.75	8.21	7917.24	0.49		
963.88	145.56	6.62	143.26	16.37	0.003629		
1.49959	73060.31						
195.00	4565.95	8.75	8.21	7916.79	0.49		
963.83	145.56	6.62	143.25	16.37	0.003631		
1.50023	73059.70						
196.00	4565.95	8.75	8.21	7917.20	0.49		
963.85	145.56	6.62	143.25	16.37	0.003629		
1.49953	73059.92						
197.00	4565.95	8.75	8.21	7917.20	0.49		
963.85	145.56	6.62	143.26	16.37	0.003631		
1.50020	73060.05						
198.00	4565.95	8.75	8.21	7916.52	0.49		
963.80	145.56	6.62	143.25	16.37	0.003631		
1.50038	73059.20						
199.00	4565.95	8.75	8.21	7916.80	0.49		
963.82	145.56	6.62	143.25	16.37	0.003630		
1.49988	73059.71						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 610

MAXIMUM DISCHARGE (CFS) = 20382.82 AT TIME = 80.06  
 MAXIMUM STAGE = 4567.89 AT TIME = 80.10

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)	
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4554.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4554.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
714.22	2.00	4557.87	3.17	3.12	2231.38	0.31		
		108.34	6.59	107.39	33.85	0.003387		
	1.39311	54230.12						

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			HYCHAN.OUT			
771.10	3.00	4562.01	7.31	7.16	5522.05	0.47
		138.11	5.58	136.10	18.63	0.003387
	1.17982	68728.55				
762.63	4.00	4561.94	7.24	7.10	5417.33	0.47
		137.77	5.54	135.77	18.74	0.003386
	1.16959	68563.45				
758.71	5.00	4561.92	7.22	7.08	5370.09	0.46
		137.62	5.51	135.62	18.79	0.003384
	1.16419	68487.24				
749.66	6.00	4561.85	7.15	7.02	5258.90	0.46
		137.25	5.46	135.26	18.92	0.003383
	1.15313	68308.12				
736.96	7.00	4561.76	7.06	6.93	5107.59	0.46
		136.73	5.39	134.76	19.10	0.003380
	1.13677	68055.11				
724.25	8.00	4561.66	6.96	6.85	4958.32	0.46
		136.20	5.32	134.25	19.28	0.003380
	1.12155	67798.48				
711.83	9.00	4561.57	6.87	6.76	4814.34	0.45
		135.68	5.25	133.75	19.46	0.003379
	1.10619	67544.57				
707.43	10.00	4561.54	6.84	6.74	4765.68	0.45
		135.49	5.22	133.57	19.53	0.003377
	1.10035	67454.48				
698.15	11.00	4561.47	6.77	6.67	4658.14	0.45
		135.09	5.17	133.19	19.67	0.003376
	1.08873	67260.21				
685.25	12.00	4561.37	6.67	6.59	4513.23	0.45
		134.53	5.09	132.65	19.87	0.003378
	1.07363	66988.65				
681.15	13.00	4561.34	6.64	6.56	4468.76	0.45
		134.35	5.07	132.48	19.94	0.003378
	1.06859	66902.39				
681.17	14.00	4561.34	6.64	6.56	4469.01	0.45
		134.35	5.07	132.48	19.94	0.003378
	1.06874	66902.80				
681.16	15.00	4561.34	6.64	6.56	4468.95	0.45
		134.35	5.07	132.48	19.94	0.003379
	1.06891	66902.76				
681.17	16.00	4561.34	6.64	6.56	4469.01	0.45
		134.35	5.07	132.48	19.94	0.003378
	1.06862	66902.91				
681.76	17.00	4561.35	6.65	6.56	4474.00	0.45
		134.38	5.07	132.51	19.93	0.003380
	1.06989	66915.73				
692.18	18.00	4561.43	6.73	6.62	4583.33	0.45
		134.84	5.13	132.94	19.76	0.003381
	1.08301	67136.73				
705.58	19.00	4561.53	6.83	6.71	4735.76	0.45
		135.41	5.21	133.50	19.56	0.003382
	1.09970	67416.84				
718.19	20.00	4561.62	6.92	6.80	4882.64	0.46
		135.95	5.28	134.01	19.37	0.003381
	1.11459	67676.43				
721.09	21.00	4561.64	6.94	6.83	4924.05	0.46
		136.07	5.30	134.13	19.33	0.003381
	1.11804	67735.23				
721.75	22.00	4561.65	6.95	6.83	4930.04	0.46
		136.10	5.30	134.16	19.32	0.003384
	1.11987	67749.09				
732.57	23.00	4561.73	7.03	6.89	5048.57	0.46
		136.55	5.36	134.59	19.16	0.003388
	1.13410	67968.68				

HYCHAN.OUT							
755.33	24.00	4561.89	7.19	7.04	5316.66	0.46	0.003391
	1.16247	137.48	5.49	135.49	18.84		
	25.00	68421.51	7.37	7.21	5624.15	0.47	
780.40		138.48	5.64	136.45	18.51		0.003393
	1.19330	68908.16	7.54	7.36	5912.77	0.47	
803.10	26.00	4562.24	5.76	137.30	18.22		0.003393
	1.22003	139.37	7.57	7.41	5985.22	0.47	
807.91	27.00	69338.59	5.79	137.48	18.16		0.003393
	1.22554	69428.22	7.58	7.41	5994.37	0.47	
808.80	28.00	4562.28	5.79	137.51	18.15		0.003396
	1.22771	139.59	7.65	7.47	6113.01	0.48	
818.43	29.00	69444.98	5.85	137.87	18.03		0.003395
	1.23879	69623.79	7.66	7.49	6152.13	0.48	
820.98	30.00	4562.36	5.86	137.96	18.00		0.003394
	1.24159	140.05	7.67	7.50	6162.35	0.48	
821.86	31.00	69670.47	5.87	137.99	17.99		0.003396
	1.24308	4562.37	7.74	7.56	6285.92	0.48	
831.74	32.00	140.09	5.92	138.35	17.87		0.003397
	1.25503	69686.87	7.76	7.58	6325.99	0.48	
834.37	33.00	4562.44	5.94	138.45	17.84		0.003397
	1.25832	140.46	7.75	7.58	6315.41	0.48	
833.71	34.00	69915.70	5.93	138.42	17.85		0.003393
	1.25622	4562.45	7.69	7.51	6192.62	0.48	
824.41	35.00	140.53	5.88	138.09	17.96		0.003395
	1.24577	69903.37	7.66	7.49	6141.77	0.48	
820.26	36.00	4562.36	5.86	137.93	18.01		0.003392
	1.23975	140.02	7.60	7.43	6024.45	0.48	
811.32	37.00	69656.87	5.81	137.61	18.12		0.003393
	1.22984	4562.29	7.57	7.41	5984.98	0.47	
807.88	38.00	139.68	5.79	137.48	18.16		0.003393
	1.22556	69491.00	7.57	7.41	5984.98	0.47	
807.88	39.00	4562.27	5.79	137.48	18.16		0.003394
	1.22589	139.55	7.57	7.41	5985.01	0.47	
807.88	40.00	69427.54	5.79	137.48	18.16		0.003393
	1.22582	4562.27	7.57	7.41	5985.07	0.47	
807.88	41.00	69427.47	5.79	137.48	18.16		0.003393
	1.22554	139.55	7.58	7.41	5994.61	0.47	
808.83	42.00	69427.64	5.79	137.52	18.15		0.003395
	1.22736	4562.28	7.65	7.47	6113.18	0.48	
818.44	43.00	139.96	5.85	137.87	18.03		0.003394
	1.23832	69445.46	7.67	7.50	6162.36	0.48	
821.87	44.00	4562.37	5.87	137.99	17.99		0.003398
	1.24398	140.09					
		69687.07					

HYCHAN.OUT							
832.72	45.00	4562.45	7.75	7.56	6296.65	0.48	0.003401
	1.25770	140.50	5.93	138.39	17.86		
	46.00	69886.06					
845.96	1.27418	4562.54	7.84	7.65	6471.65	0.48	0.003403
	47.00	140.99	6.00	138.86	17.71		
	1.29029	70125.85					
859.01	48.00	4562.63	7.93	7.74	6646.28	0.48	0.003405
	49.00	141.47	6.07	139.33	17.56		
	1.30566	70359.32					
871.95	50.00	4562.73	8.03	7.82	6819.39	0.49	0.003406
	51.00	141.94	6.14	139.78	17.42		
	1.32270	70588.03					
885.65	52.00	4562.82	8.12	7.89	6989.55	0.49	0.003409
	53.00	142.44	6.22	140.25	17.27		
	1.33947	70827.43					
899.24	54.00	4562.92	8.22	7.98	7176.27	0.49	0.003412
	55.00	142.92	6.29	140.72	17.13		
	1.36253	71062.02					
919.39	56.00	4563.06	8.36	8.12	7461.46	0.49	0.003411
	57.00	143.63	6.40	141.40	16.92		
	1.37182	71404.61					
926.04	58.00	4563.10	8.40	8.16	7553.71	0.50	0.003415
	59.00	143.86	6.44	141.62	16.85		
	1.38715	71516.27					
937.13	60.00	4563.18	8.48	8.23	7713.20	0.50	0.003421
	61.00	144.24	6.50	141.98	16.74		
	1.43058	71701.73					
970.58	62.00	4563.41	8.71	8.45	8202.33	0.50	0.003434
	63.00	145.37	6.68	143.07	16.42		
	1.49376	72249.05					
1022.30	64.00	4563.76	9.06	8.79	8986.14	0.51	0.003443
	65.00	147.05	6.95	144.69	15.96		
	1.57986	73066.91					
1090.43	66.00	4564.22	9.52	9.24	10076.69	0.53	0.003464
	67.00	149.18	7.31	146.73	15.41		
	1.67435	74096.48					
1172.79	68.00	4564.77	10.07	9.78	11466.26	0.54	0.003469
	69.00	151.61	7.74	149.06	14.81		
	1.74945	75277.45					
1242.37	70.00	4565.22	10.52	10.17	12638.52	0.55	0.003466
	71.00	153.57	8.09	150.95	14.35		
	1.85700	76227.96					
1301.76	72.00	4565.61	10.91	10.50	13669.82	0.56	0.003534
	73.00	154.58	8.42	152.52	13.98		
	1.95020	77020.82					
1369.05	74.00	4566.06	11.36	10.90	14926.58	0.57	0.003549
	75.00	155.47	8.81	154.26	13.58		
	2.01821	77900.73					
1414.66	76.00	4566.36	11.66	11.12	15736.53	0.57	0.003568
	77.00	156.07	9.06	155.41	13.33		
	2.07847	78482.82					
1454.63	78.00	4566.62	11.92	11.32	16464.60	0.58	0.003586
	79.00	156.60	9.29	156.40	13.12		
	2.11753	78984.52					
1478.31	80.00	4566.78	12.08	11.44	16910.03	0.58	0.003602
	81.00	156.91	9.42	156.99	13.00		
	2.16280	79277.95					
1505.82	82.00	4566.96	12.26	11.59	17452.40	0.58	0.003620
	83.00	157.28	9.57	157.66	12.86		
	2.19713	79615.94					
1529.95	84.00	4567.12	12.42	11.72	17928.69	0.59	0.003627
	85.00	157.60	9.71	158.24	12.74		
	2.19713	79909.43					

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1534.34	66.00	4567.15	12.45	11.74	18012.71	0.59	0.003627
	2.20233	157.66	9.73	158.34	12.72		
		79962.21					
1534.75	67.00	4567.15	12.45	11.74	18019.59	0.59	0.003626
	2.20265	157.66	9.73	158.35	12.72		
		79967.09					
1534.72	68.00	4567.15	12.45	11.74	18021.91	0.59	0.003627
	2.20317	157.66	9.73	158.35	12.72		
		79966.78					
1535.01	69.00	4567.15	12.45	11.74	18027.30	0.59	0.003628
	2.20432	157.67	9.74	158.36	12.72		
		79970.35					
1535.45	70.00	4567.16	12.46	11.75	18034.07	0.59	0.003628
	2.20461	157.67	9.74	158.37	12.71		
		79975.60					
1535.43	71.00	4567.16	12.46	11.75	18034.22	0.59	0.003625
	2.20284	157.67	9.74	158.37	12.71		
		79975.34					
1535.99	72.00	4567.16	12.46	11.75	18048.39	0.59	0.003634
	2.20889	157.68	9.74	158.38	12.71		
		79982.30					
1545.22	73.00	4567.22	12.52	11.80	18234.06	0.59	0.003638
	2.22322	157.80	9.79	158.60	12.67		
		80093.99					
1550.34	74.00	4567.26	12.56	11.83	18335.15	0.59	0.003640
	2.23072	157.87	9.82	158.72	12.64		
		80155.33					
1551.06	75.00	4567.26	12.56	11.83	18353.55	0.59	0.003647
	2.23547	157.88	9.82	158.74	12.64		
		80164.09					
1561.49	76.00	4567.33	12.63	11.89	18568.54	0.59	0.003660
	2.25677	158.02	9.88	158.99	12.59		
		80289.75					
1584.39	77.00	4567.48	12.78	12.02	19045.82	0.59	0.003674
	2.29413	158.32	10.01	159.53	12.48		
		80563.23					
1603.67	78.00	4567.61	12.91	12.13	19447.78	0.60	0.003692
	2.32974	158.58	10.11	159.98	12.39		
		80791.55					
1619.60	79.00	4567.72	13.02	12.22	19783.58	0.60	0.003707
	2.35943	158.79	10.20	160.35	12.32		
		80979.21					
1639.87	80.00	4567.85	13.15	12.33	20212.93	0.60	0.003717
	2.39152	159.06	10.31	160.82	12.23		
		81216.47					
1641.55	81.00	4567.86	13.16	12.33	20240.28	0.60	0.003705
	2.38543	159.08	10.32	160.86	12.22		
		81235.14					
1628.78	82.00	4567.78	13.08	12.26	19964.41	0.60	0.003697
	2.36485	158.91	10.25	160.57	12.28		
		81085.78					
1623.35	83.00	4567.74	13.04	12.23	19855.58	0.60	0.003697
	2.35763	158.84	10.22	160.44	12.30		
		81022.62					
1622.89	84.00	4567.74	13.04	12.23	19845.11	0.60	0.003698
	2.35759	158.83	10.22	160.43	12.30		
		81017.34					
1621.99	85.00	4567.73	13.03	12.22	19827.20	0.60	0.003691
	2.35199	158.82	10.21	160.41	12.31		
		81006.49					
1610.90	86.00	4567.66	12.96	12.15	19577.26	0.60	0.003670
	2.32525	158.67	10.15	160.15	12.36		
		80874.68					

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HYCHAN.OUT							
1578.45	87.00	4567.44	12.74	9.98	11.97	18891.03	0.59
	2.26025	158.24				159.38	12.51
		80488.21					0.003631
1529.03	88.00	4567.11	12.41	9.70	11.70	17882.14	0.59
	2.16603	157.58				158.20	12.75
		79893.02					0.003577
1450.61	89.00	4566.59	11.89	9.27	11.28	16360.56	0.58
	2.04776	156.54				156.29	13.14
		78927.80					0.003541
1397.50	90.00	4566.24	11.54	8.97	11.02	15397.77	0.57
	1.97175	155.84				154.97	13.43
		78260.82					0.003524
1356.48	91.00	4565.97	11.27	8.73	10.80	14650.11	0.57
	1.90832	155.30				153.93	13.66
		77733.71					0.003501
1306.09	92.00	4565.64	10.94	8.45	10.51	13729.42	0.56
	1.81442	154.63				152.62	13.96
		77072.46					0.003442
1262.64	93.00	4565.35	10.65	8.20	10.25	12939.71	0.55
	1.76116	154.06				151.47	14.22
		76493.61					0.003444
1218.24	94.00	4565.06	10.36	7.97	10.03	12219.79	0.55
	1.71894	152.90				150.30	14.50
		75901.22					0.003457
1185.89	95.00	4564.85	10.15	7.80	9.85	11682.72	0.55
	1.68362	151.99				149.43	14.72
		75459.86					0.003458
1153.59	96.00	4564.64	9.94	7.64	9.65	11136.55	0.54
	1.64578	151.06				148.53	14.94
		75008.73					0.003454
1129.86	97.00	4564.48	9.78	7.51	9.51	10739.59	0.54
	1.61686	150.36				147.86	15.11
		74671.42					0.003448
1106.29	98.00	4564.33	9.63	7.39	9.35	10342.30	0.53
	1.58745	149.66				147.19	15.29
		74330.48					0.003442
1089.81	99.00	4564.22	9.52	7.31	9.23	10059.47	0.53
	1.56397	149.16				146.71	15.42
		74088.84					0.003430
1067.72	100.00	4564.07	9.37	7.19	9.09	9703.51	0.52
	1.54326	148.48				146.06	15.59
		73759.83					0.003439
1048.39	101.00	4563.94	9.24	7.09	8.96	9394.11	0.52
	1.51803	147.88				145.48	15.75
		73468.23					0.003431
1031.04	102.00	4563.82	9.12	7.00	8.84	9118.53	0.52
	1.49677	147.33				144.96	15.89
		73202.48					0.003428
1016.75	103.00	4563.73	9.03	6.92	8.75	8897.87	0.51
	1.48037	146.88				144.52	16.01
		72981.29					0.003427
1002.92	104.00	4563.63	8.93	6.85	8.66	8684.42	0.51
	1.46198	146.43				144.09	16.13
		72764.20					0.003421
980.62	105.00	4563.48	8.78	6.73	8.51	8347.19	0.51
	1.43544	145.70				143.38	16.33
		72409.34					0.003418
965.22	106.00	4563.37	8.67	6.65	8.41	8119.96	0.50
	1.41718	145.19				142.89	16.47
		72161.82					0.003416
953.33	107.00	4563.29	8.59	6.58	8.33	7945.42	0.50
	1.40328	144.79				142.51	16.59
		71967.80					0.003415



		HYCHAN.OUT			
108.00	4563.21	8.51	8.26	7782.75	0.50
942.12	144.41	6.52	142.15	16.69	0.003416
1.39053	71783.38				
109.00	4563.20	8.50	8.25	7754.16	0.50
940.05	144.34	6.51	142.08	16.71	0.003416
1.38831	71749.78				
110.00	4563.27	8.57	8.32	7901.03	0.50
950.10	144.68	6.57	142.41	16.62	0.003421
1.40177	71915.98				
111.00	4563.40	8.70	8.44	8179.89	0.50
969.13	145.32	6.67	143.02	16.44	0.003418
1.42255	72226.06				
112.00	4563.37	8.67	8.41	8119.20	0.50
965.19	145.19	6.65	142.89	16.47	0.003415
1.41653	72161.20				
113.00	4563.31	8.61	8.35	7979.60	0.50
955.60	144.86	6.60	142.59	16.56	0.003422
1.40852	72005.72				
114.00	4563.42	8.72	8.46	8218.69	0.51
971.69	145.40	6.68	143.10	16.41	0.003425
1.42839	72267.63				
115.00	4563.58	8.88	8.61	8569.28	0.51
995.15	146.18	6.81	143.85	16.20	0.003422
1.45373	72642.75				
116.00	4563.55	8.85	8.59	8513.35	0.51
991.57	146.06	6.79	143.73	16.23	0.003424
1.45068	72585.28				
117.00	4563.53	8.83	8.57	8469.94	0.51
988.63	145.96	6.77	143.64	16.26	0.003424
1.44705	72538.86				
118.00	4563.54	8.84	8.57	8483.88	0.51
989.55	145.99	6.78	143.67	16.25	0.003425
1.44877	72553.77				
119.00	4563.60	8.90	8.64	8627.17	0.51
998.97	146.30	6.83	143.97	16.17	0.003425
1.45920	72703.23				
120.00	4563.62	8.92	8.65	8670.04	0.51
1001.83	146.40	6.84	144.06	16.14	0.003425
1.46252	72748.08				
121.00	4563.62	8.92	8.65	8655.77	0.51
1000.93	146.37	6.84	144.03	16.15	0.003423
1.46085	72733.64				
122.00	4563.55	8.85	8.59	8513.41	0.51
991.58	146.06	6.79	143.73	16.23	0.003423
1.44992	72585.32				
123.00	4563.53	8.83	8.56	8456.36	0.51
987.74	145.93	6.77	143.61	16.27	0.003420
1.44427	72524.45				
124.00	4563.46	8.76	8.50	8314.10	0.51
978.27	145.62	6.72	143.31	16.35	0.003421
1.43395	72372.69				
125.00	4563.44	8.74	8.48	8270.07	0.51
975.30	145.52	6.70	143.22	16.38	0.003420
1.43045	72325.38				
126.00	4563.44	8.74	8.47	8257.76	0.51
974.51	145.50	6.70	143.19	16.39	0.003418
1.42865	72312.44				
127.00	4563.38	8.68	8.42	8131.39	0.50
966.01	145.21	6.65	142.92	16.47	0.003419
1.41945	72174.79				
128.00	4563.36	8.66	8.40	8090.94	0.50
963.18	145.12	6.64	142.83	16.49	0.003419
1.41612	72129.31				

		HYCHAN.OUT			
129.00	4563.35	8.65	8.39	8079.18	0.50
962.39	145.09	6.63	142.80	16.50	0.003415
1.41348	72116.34				
130.00	4563.30	8.60	8.34	7956.34	0.50
954.06	144.81	6.59	142.53	16.58	0.003416
1.40438	71980.03				
131.00	4563.29	8.59	8.33	7940.26	0.50
952.84	144.77	6.58	142.50	16.59	0.003422
1.40530	71960.73				
132.00	4563.41	8.71	8.45	8191.78	0.50
969.87	145.34	6.67	143.05	16.43	0.003420
1.42410	72238.05				
133.00	4563.44	8.74	8.48	8270.00	0.51
975.31	145.52	6.70	143.22	16.38	0.003421
1.43056	72325.62				
134.00	4563.44	8.74	8.48	8270.22	0.51
975.29	145.52	6.70	143.22	16.38	0.003420
1.43041	72325.22				
135.00	4563.44	8.74	8.48	8270.01	0.51
975.27	145.52	6.70	143.22	16.38	0.003421
1.43065	72324.94				
136.00	4563.44	8.74	8.48	8269.90	0.51
975.26	145.52	6.70	143.22	16.38	0.003423
1.43144	72324.83				
137.00	4563.44	8.74	8.48	8270.08	0.51
975.30	145.52	6.70	143.22	16.38	0.003420
1.43019	72325.46				
138.00	4563.44	8.74	8.48	8269.87	0.51
975.25	145.52	6.70	143.22	16.38	0.003421
1.43069	72324.62				
139.00	4563.44	8.74	8.47	8257.96	0.51
974.50	145.50	6.70	143.19	16.39	0.003419
1.42886	72312.38				
140.00	4563.38	8.68	8.42	8131.13	0.50
965.96	145.21	6.65	142.92	16.47	0.003419
1.41924	72173.97				
141.00	4563.36	8.66	8.40	8091.00	0.50
963.18	145.12	6.64	142.83	16.49	0.003418
1.41546	72129.35				
142.00	4563.36	8.66	8.40	8091.17	0.50
963.18	145.12	6.64	142.83	16.49	0.003418
1.41563	72129.27				
143.00	4563.36	8.66	8.40	8090.65	0.50
963.15	145.12	6.64	142.83	16.49	0.003417
1.41519	72128.85				
144.00	4563.35	8.65	8.39	8079.85	0.50
962.46	145.09	6.63	142.81	16.50	0.003417
1.41446	72117.43				
145.00	4563.30	8.60	8.34	7956.16	0.50
954.04	144.81	6.59	142.53	16.58	0.003416
1.40423	71979.72				
146.00	4563.28	8.58	8.32	7916.88	0.50
951.29	144.72	6.57	142.45	16.61	0.003416
1.40130	71935.11				
147.00	4563.28	8.58	8.32	7917.12	0.50
951.30	144.72	6.57	142.45	16.61	0.003416
1.40110	71935.15				
148.00	4563.28	8.58	8.32	7916.94	0.50
951.32	144.72	6.57	142.45	16.61	0.003416
1.40110	71935.48				
149.00	4563.28	8.58	8.32	7917.28	0.50
951.33	144.72	6.57	142.45	16.61	0.003415
1.40071	71935.73				

HYCHAN.OUT							
150.00	4563.27	8.57	8.32	7909.65	0.50		
950.80	144.70	6.57	142.43	16.61		0.003413	
1.39947	71926.89						
151.00	4563.23	8.53	8.28	7823.44	0.50		
944.88	144.50	6.54	142.24	16.67		0.003416	
1.39394	71829.18						
152.00	4563.20	8.50	8.25	7756.03	0.50		
940.22	144.34	6.51	142.08	16.71		0.003414	
1.38747	71752.26						
153.00	4563.19	8.50	8.24	7742.92	0.50		
939.29	144.31	6.51	142.05	16.72		0.003416	
1.38739	71736.99						
154.00	4563.19	8.49	8.24	7731.60	0.50		
938.54	144.28	6.50	142.03	16.73		0.003413	
1.38516	71724.40						
155.00	4563.14	8.44	8.19	7631.39	0.50		
931.54	144.04	6.47	141.80	16.80		0.003416	
1.37855	71608.05						
156.00	4563.24	8.54	8.29	7838.43	0.50		
945.72	144.53	6.54	142.26	16.66		0.003417	
1.39514	71843.78						
157.00	4563.28	8.58	8.32	7916.97	0.50		
951.28	144.72	6.57	142.45	16.61		0.003418	
1.40209	71934.83						
158.00	4563.28	8.58	8.32	7916.94	0.50		
951.30	144.72	6.57	142.45	16.61		0.003416	
1.40112	71935.19						
159.00	4563.28	8.58	8.32	7916.86	0.50		
951.33	144.72	6.57	142.45	16.61		0.003417	
1.40153	71935.73						
160.00	4563.28	8.58	8.32	7917.28	0.50		
951.29	144.72	6.57	142.45	16.61		0.003416	
1.40106	71935.03						
161.00	4563.28	8.58	8.32	7917.06	0.50		
951.25	144.72	6.57	142.44	16.61		0.003417	
1.40169	71934.34						
162.00	4563.28	8.58	8.32	7917.03	0.50		
951.32	144.72	6.57	142.45	16.61		0.003418	
1.40218	71935.62						
163.00	4563.28	8.58	8.32	7916.69	0.50		
951.32	144.72	6.57	142.45	16.61		0.003417	
1.40152	71935.50						
164.00	4563.27	8.57	8.32	7905.72	0.50		
950.56	144.69	6.57	142.42	16.61		0.003414	
1.39954	71922.94						
165.00	4563.21	8.51	8.26	7782.66	0.50		
942.11	144.41	6.52	142.15	16.69		0.003413	
1.38952	71783.35						
166.00	4563.19	8.50	8.24	7742.74	0.50		
939.28	144.31	6.51	142.05	16.72		0.003416	
1.38727	71736.86						
167.00	4563.20	8.50	8.24	7743.31	0.50		
939.32	144.31	6.51	142.05	16.72		0.003415	
1.38686	71737.56						
168.00	4563.19	8.50	8.24	7742.65	0.50		
939.30	144.31	6.51	142.05	16.72		0.003414	
1.38657	71737.24						
169.00	4563.20	8.50	8.24	7743.16	0.50		
939.32	144.31	6.51	142.05	16.72		0.003415	
1.38717	71737.58						
170.00	4563.19	8.50	8.24	7743.16	0.50		
939.29	144.31	6.51	142.05	16.72		0.003414	
1.38652	71737.09						

		HYCHAN.OUT					
171.00	4563.19	8.49	8.24	7742.45	0.50		
939.22	144.31	6.51		142.05	16.72	0.003415	
1.38693	71735.91						
172.00	4563.19	8.49	8.24	7732.13	0.50		
938.55	144.29	6.50		142.03	16.73	0.003413	
1.38521	71724.62						
173.00	4563.13	8.43	8.18	7608.98	0.50		
930.04	143.99	6.46		141.75	16.81	0.003412	
1.37514	71582.59						
174.00	4563.11	8.41	8.16	7568.93	0.50		
927.17	143.89	6.44		141.65	16.84	0.003411	
1.37162	71535.11						
175.00	4563.11	8.41	8.16	7568.85	0.50		
927.16	143.89	6.44		141.65	16.84	0.003413	
1.37222	71534.91						
176.00	4563.11	8.41	8.16	7568.92	0.50		
927.20	143.90	6.44		141.65	16.84	0.003413	
1.37232	71535.51						
177.00	4563.11	8.41	8.16	7569.52	0.50		
927.22	143.90	6.44		141.66	16.84	0.003410	
1.37106	71535.88						
178.00	4563.11	8.41	8.16	7568.48	0.50		
927.11	143.89	6.44		141.65	16.84	0.003413	
1.37207	71534.07						
179.00	4563.12	8.42	8.17	7591.44	0.50		
928.67	143.95	6.45		141.70	16.83	0.003419	
1.37629	71560.41						
180.00	4563.24	8.54	8.29	7838.54	0.50		
945.72	144.53	6.54		142.26	16.66	0.003417	
1.39517	71843.63						
181.00	4563.28	8.58	8.33	7928.08	0.50		
952.03	144.74	6.58		142.47	16.60	0.003417	
1.40244	71947.43						
182.00	4563.34	8.64	8.38	8052.06	0.50		
960.50	145.03	6.62		142.74	16.52	0.003418	
1.41265	72085.98						
183.00	4563.36	8.66	8.40	8090.95	0.50		
963.18	145.12	6.64		142.83	16.49	0.003419	
1.41585	72129.38						
184.00	4563.36	8.66	8.40	8090.79	0.50		
963.21	145.12	6.64		142.83	16.49	0.003418	
1.41554	72129.77						
185.00	4563.36	8.66	8.40	8091.16	0.50		
963.23	145.12	6.64		142.83	16.49	0.003419	
1.41608	72130.22						
186.00	4563.36	8.66	8.40	8091.03	0.50		
963.21	145.12	6.64		142.83	16.49	0.003419	
1.41586	72129.83						
187.00	4563.36	8.66	8.40	8091.36	0.50		
963.19	145.12	6.64		142.83	16.49	0.003417	
1.41538	72129.53						
188.00	4563.36	8.66	8.40	8090.82	0.50		
963.18	145.12	6.64		142.83	16.49	0.003417	
1.41503	72129.27						
189.00	4563.36	8.66	8.40	8090.90	0.50		
963.18	145.12	6.64		142.83	16.49	0.003420	
1.41639	72129.35						
190.00	4563.35	8.65	8.39	8079.64	0.50		
962.45	145.09	6.63		142.81	16.50	0.003417	
1.41422	72117.29						
191.00	4563.30	8.60	8.34	7956.10	0.50		
954.07	144.81	6.59		142.54	16.58	0.003417	
1.40475	71980.20						

HYCHAN.OUT							
192.00	4563.28	8.58	8.32	7916.87	0.50		
951.28	144.72	6.57	142.45	16.61	0.003417		
1.40140	71934.97						
193.00	4563.28	8.58	8.32	7917.08	0.50		
951.32	144.72	6.57	142.45	16.61	0.003416		
1.40111	71935.47						
194.00	4563.28	8.58	8.32	7917.21	0.50		
951.34	144.72	6.57	142.45	16.61	0.003418		
1.40214	71935.90						
195.00	4563.28	8.58	8.32	7916.84	0.50		
951.28	144.72	6.57	142.45	16.61	0.003417		
1.40159	71934.94						
196.00	4563.28	8.58	8.32	7917.18	0.50		
951.30	144.72	6.57	142.45	16.61	0.003415		
1.40090	71935.17						
197.00	4563.28	8.58	8.32	7917.23	0.50		
951.30	144.72	6.57	142.45	16.61	0.003416		
1.40117	71935.16						
198.00	4563.28	8.58	8.32	7916.50	0.50		
951.26	144.72	6.57	142.44	16.61	0.003418		
1.40201	71934.52						
199.00	4563.28	8.58	8.32	7916.78	0.50		
951.26	144.72	6.57	142.44	16.61	0.003416		
1.40108	71934.56						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 628

MAXIMUM DISCHARGE (CFS) = 19997.65 AT TIME = 80.12  
 MAXIMUM STAGE = 4565.25 AT TIME = 80.11

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	SURFACE AREA	AREA						
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4552.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4552.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
736.60	2.00	4555.09	3.09	2.88	2121.32	0.29		
	1.29011	107.49	6.85	106.56	34.52	0.003017		
798.28	3.00	4559.50	7.50	6.92	5522.56	0.45		
	1.07863	139.18	5.74	137.12	18.28	0.003014		
789.65	4.00	4559.44	7.44	6.86	5418.63	0.44		
	1.06927	138.84	5.69	136.80	18.39	0.003013		
785.53	5.00	4559.41	7.41	6.84	5370.56	0.44		
	1.06566	138.68	5.66	136.65	18.44	0.003015		
776.32	6.00	4559.34	7.34	6.78	5260.74	0.44		
	1.05462	138.32	5.61	136.29	18.56	0.003011		
763.41	7.00	4559.25	7.25	6.69	5109.38	0.44		
	1.04245	137.80	5.54	135.80	18.73	0.003016		
	8.00	4559.16	7.16	6.61	4960.18	0.44		

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		HYCHAN.OUT				
750.53	1.02901	137.28	5.47	135.30	18.91	0.003016
	9.00	69001.70				
737.84	1.01568	4559.06	7.06	6.53	4815.73	0.43
	10.00	136.76	5.40	134.80	19.08	0.003017
733.41	1.01049	68746.99	7.03	6.50	4766.13	0.43
	11.00	4559.03	5.37	134.62	19.15	0.003016
724.01	1.00003	68657.89	6.96	6.44	4660.07	0.43
	12.00	4558.96	5.32	134.24	19.28	0.003015
710.86	0.98768	136.19	6.86	6.35	4514.74	0.43
	13.00	68464.75	5.24	133.71	19.48	0.003020
706.60	0.98263	4558.86	6.83	6.32	4468.75	0.43
	14.00	135.63	5.22	133.54	19.54	0.003019
706.62	0.98270	68193.09	6.83	6.32	4469.02	0.43
	15.00	4558.83	5.22	133.54	19.54	0.003019
706.61	0.98298	135.45	6.83	6.32	4468.94	0.43
	16.00	68105.08	5.22	133.54	19.54	0.003020
706.62	0.98343	4558.83	6.83	6.32	4468.99	0.43
	17.00	135.46	5.22	133.54	19.54	0.003021
707.04	0.98514	68105.51	6.84	6.33	4473.55	0.43
	18.00	4558.84	5.22	133.56	19.53	0.003025
716.88	0.99489	135.47	6.91	6.39	4581.38	0.43
	19.00	68114.51	5.28	133.96	19.39	0.003022
730.57	1.00985	68319.69	7.01	6.48	4733.81	0.43
	20.00	4559.01	5.35	134.51	19.19	0.003023
743.59	1.02187	136.46	7.11	6.56	4881.21	0.43
	21.00	68600.77	5.43	135.03	19.00	0.003017
747.31	1.02571	4559.11	7.13	6.59	4924.08	0.43
	22.00	137.00	5.45	135.17	18.95	0.003017
747.79	1.02732	68938.50	7.14	6.59	4929.56	0.44
	23.00	4559.13	5.45	135.19	18.94	0.003020
757.95	1.03879	137.15	7.21	6.66	5046.19	0.44
	24.00	68948.32	5.51	135.59	18.80	0.003022
780.73	1.06250	4559.21	7.38	6.81	5312.99	0.44
	25.00	69150.95	5.64	136.46	18.50	0.003021
806.26	1.08913	138.50	7.56	6.97	5620.54	0.45
	26.00	4559.38	5.78	137.42	18.18	0.003020
829.74	1.11068	70084.84	7.73	7.12	5910.39	0.45
	27.00	4559.73	5.91	138.28	17.90	0.003011
835.68	1.11685	140.38	7.77	7.16	5985.21	0.45
	28.00	70522.90	5.94	138.49	17.83	0.003011
836.35	1.11845	4559.77	7.77	7.17	5993.81	0.45
	29.00	140.61	5.95	138.52	17.82	0.003014
		70644.41	7.84	7.23	6111.70	0.46

		HYCHAN.OUT					
845.71	1.12644	140.98	6.00	138.85	17.71	0.003009	
	30.00	70815.52					
848.85	1.12956	4559.86	7.86	7.25	6152.16	0.46	
	31.00	141.10	6.02	138.97	17.67	0.003009	
		70872.20					
849.62	1.13208	4559.87	7.87	7.25	6161.72	0.46	
	32.00	141.13	6.02	138.99	17.67	0.003014	
		70886.35					
859.25	1.14027	4559.94	7.94	7.31	6284.63	0.46	
	33.00	141.48	6.07	139.33	17.56	0.003009	
		71060.02					
862.42	1.14400	4559.96	7.96	7.34	6325.97	0.46	
	34.00	141.60	6.09	139.44	17.52	0.003010	
		71116.57					
861.69	1.14238	4559.95	7.95	7.33	6315.99	0.46	
	35.00	141.57	6.09	139.42	17.53	0.003008	
		71103.26					
852.22	1.13320	4559.89	7.89	7.27	6193.97	0.46	
	36.00	141.22	6.03	139.08	17.64	0.003009	
		70932.41					
848.13	1.12858	4559.86	7.86	7.24	6142.35	0.46	
	37.00	141.07	6.01	138.94	17.68	0.003008	
		70858.83					
838.97	1.12031	4559.79	7.79	7.18	6025.72	0.45	
	38.00	140.73	5.96	138.61	17.79	0.003012	
		70691.61					
835.66	1.11614	4559.77	7.77	7.16	5984.98	0.45	
	39.00	140.61	5.94	138.49	17.83	0.003010	
		70631.60					
835.67	1.11659	4559.77	7.77	7.16	5985.00	0.45	
	40.00	140.61	5.94	138.49	17.83	0.003011	
		70631.70					
835.66	1.11667	4559.77	7.77	7.16	5984.99	0.45	
	41.00	140.61	5.94	138.49	17.83	0.003011	
		70631.48					
835.68	1.11617	4559.77	7.77	7.16	5985.09	0.45	
	42.00	140.61	5.94	138.49	17.83	0.003010	
		70631.84					
836.37	1.11861	4559.77	7.77	7.17	5994.03	0.45	
	43.00	140.63	5.95	138.52	17.82	0.003014	
		70644.88					
845.73	1.12664	4559.84	7.84	7.23	6111.88	0.46	
	44.00	140.98	6.00	138.85	17.71	0.003010	
		70815.73					
849.62	1.13180	4559.87	7.87	7.25	6161.75	0.46	
	45.00	141.13	6.02	138.99	17.67	0.003013	
		70886.37					
860.03	1.14211	4559.94	7.94	7.32	6294.72	0.46	
	46.00	141.51	6.08	139.36	17.55	0.003012	
		71074.23					
873.49	1.15565	4560.04	8.04	7.41	6469.76	0.46	
	47.00	142.00	6.15	139.83	17.40	0.003011	
		71314.19					
886.75	1.16908	4560.13	8.13	7.49	6644.39	0.46	
	48.00	142.48	6.22	140.29	17.26	0.003010	
		71547.95					
899.85	1.18074	4560.22	8.22	7.58	6817.62	0.47	
	49.00	142.94	6.30	140.74	17.12	0.003006	
		71776.08					
913.41	1.19461	4560.32	8.32	7.65	6987.56	0.47	
	50.00	143.42	6.37	141.20	16.98	0.003006	
		72009.56					
		4560.41	8.41	7.74	7173.94	0.47	

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				HYCHAN.OUT			
927.08		143.89		6.44	141.65	16.84	0.003007
	1.20882	72242.23					
	51.00	4560.55	8.55	7.87	7458.99	0.47	
947.59		144.59		6.55	142.33	16.64	0.003002
	1.22768	72586.14					
	52.00	4560.60	8.60	7.91	7553.22	0.48	
954.34		144.82		6.59	142.54	16.58	0.003005
	1.23561	72697.94					
	53.00	4560.68	8.68	7.99	7710.17	0.48	
965.37		145.19		6.65	142.90	16.47	0.003008
	1.24791	72879.78					
	54.00	4560.90	8.90	8.21	8196.16	0.48	
998.91		146.30		6.83	143.96	16.17	0.003005
	1.28027	73421.58					
	55.00	4561.26	9.26	8.54	8977.43	0.50	
1050.84		147.96		7.10	145.55	15.73	0.003002
	1.33043	74232.87					
	56.00	4561.71	9.71	8.99	10065.86	0.51	
1119.40		150.05		7.46	147.56	15.19	0.003001
	1.39692	75257.30					
	57.00	4562.26	10.26	9.52	11454.86	0.52	
1202.78		152.47		7.89	149.88	14.61	0.002978
	1.46595	76440.65					
	58.00	4562.75	10.75	9.88	12618.37	0.53	
1277.10		154.25		8.28	151.87	14.13	0.002945
	1.52159	77454.36					
	59.00	4563.13	11.13	10.21	13621.12	0.54	
1334.47		155.02		8.61	153.38	13.78	0.003026
	1.62529	78226.16					
	60.00	4563.53	11.53	10.64	14848.01	0.55	
1395.00		155.83		8.95	154.94	13.43	0.003046
	1.70177	79021.65					
	61.00	4563.83	11.83	10.87	15645.83	0.56	
1439.58		156.42		9.20	156.07	13.19	0.003070
	1.76280	79593.38					
	62.00	4564.08	12.08	11.06	16340.65	0.56	
1477.31		156.92		9.41	157.01	12.99	0.003093
	1.81699	80073.00					
	63.00	4564.23	12.24	11.18	16761.01	0.56	
1499.73		157.23		9.54	157.56	12.88	0.003109
	1.85029	80355.72					
	64.00	4564.41	12.41	11.32	17271.16	0.57	
1525.28		157.57		9.68	158.19	12.75	0.003125
	1.88778	80675.05					
	65.00	4564.56	12.56	11.45	17723.61	0.57	
1547.84		157.87		9.80	158.73	12.64	0.003130
	1.91486	80954.20					
	66.00	4564.59	12.59	11.47	17805.01	0.57	
1552.08		157.93		9.83	158.84	12.62	0.003134
	1.92164	81005.87					
	67.00	4564.59	12.59	11.47	17811.57	0.57	
1552.42		157.94		9.83	158.84	12.62	0.003131
	1.92042	81010.16					
	68.00	4564.59	12.59	11.47	17813.97	0.57	
1552.46		157.94		9.83	158.84	12.62	0.003132
	1.92102	81010.48					
	69.00	4564.59	12.59	11.48	17818.98	0.57	
1552.70		157.94		9.83	158.85	12.62	0.003132
	1.92141	81013.71					
	70.00	4564.59	12.59	11.48	17825.29	0.57	
1553.10		157.94		9.83	158.86	12.61	0.003133
	1.92238	81018.55					
	71.00	4564.59	12.59	11.48	17825.45	0.57	

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				HYCHAN.OUT			
1553.09		157.94		9.83	158.86	12.61	0.003131
	1.92137	81018.42					
	72.00	4564.60	12.60	11.48	17837.74	0.57	
1553.54		157.95		9.84	158.87	12.61	0.003137
	1.92535	81024.14					
	73.00	4564.65	12.65	11.53	18010.02	0.57	
1561.92		158.06		9.88	159.07	12.57	0.003143
	1.93782	81127.73					
	74.00	4564.69	12.69	11.56	18106.68	0.57	
1566.77		158.13		9.91	159.19	12.55	0.003144
	1.94399	81186.84					
	75.00	4564.69	12.69	11.56	18123.31	0.57	
1567.44		158.14		9.91	159.21	12.54	0.003148
	1.94696	81195.20					
	76.00	4564.75	12.75	11.62	18320.43	0.57	
1576.78		158.27		9.96	159.43	12.50	0.003162
	1.96570	81310.41					
	77.00	4564.90	12.90	11.74	18763.18	0.58	
1597.70		158.55		10.08	159.93	12.40	0.003177
	1.99781	81565.77					
	78.00	4565.02	13.02	11.85	19138.67	0.58	
1615.49		158.79		10.17	160.36	12.32	0.003192
	2.02646	81781.09					
	79.00	4565.12	13.12	11.93	19448.61	0.58	
1630.07		158.99		10.25	160.70	12.25	0.003212
	2.05465	81957.09					
	80.00	4565.24	13.24	12.04	19844.57	0.58	
1648.72		159.24		10.35	161.14	12.17	0.003225
	2.08360	82180.84					
	81.00	4565.25	13.25	12.04	19875.89	0.58	
1650.56		159.26		10.36	161.18	12.16	0.003214
	2.07860	82201.59					
	82.00	4565.17	13.17	11.97	19622.71	0.58	
1639.00		159.11		10.30	160.91	12.21	0.003204
	2.05956	82062.73					
	83.00	4565.14	13.14	11.95	19518.99	0.58	
1633.77		159.04		10.27	160.79	12.24	0.003200
	2.05135	82000.81					
	84.00	4565.14	13.14	11.94	19509.11	0.58	
1633.34		159.03		10.27	160.78	12.24	0.003201
	2.05145	81995.66					
	85.00	4565.13	13.13	11.94	19494.10	0.58	
1632.67		159.02		10.27	160.76	12.24	0.003193
	2.04583	81987.28					
	86.00	4565.06	13.07	11.88	19273.06	0.58	
1622.93		158.89		10.21	160.53	12.29	0.003171
	2.02133	81867.77					
	87.00	4564.87	12.87	11.70	18644.60	0.58	
1593.62		158.49		10.06	159.82	12.42	0.003138
	1.96864	81509.98					
	88.00	4564.56	12.56	11.43	17703.42	0.57	
1548.21		157.87		9.81	158.73	12.64	0.003087
	1.88889	80952.11					
	89.00	4564.07	12.07	11.03	16269.27	0.56	
1475.25		156.89		9.40	156.94	13.01	0.003048
	1.78825	80038.80					
	90.00	4563.73	11.73	10.77	15348.06	0.55	
1424.87		156.21		9.12	155.68	13.27	0.003024
	1.72098	79397.84					
	91.00	4563.46	11.46	10.56	14622.36	0.55	
1384.94		155.68		8.90	154.67	13.49	0.003004
	1.66778	78881.59					
	92.00	4563.16	11.16	10.25	13719.41	0.54	

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		HYCHAN.OUT					
1339.04	155.07	8.64	153.49	13.76	0.002926		
	1.57639 78278.38						
93.00	4562.90	10.90	9.95	12940.64	0.53		
1300.39	154.56	8.41	152.48	13.99	0.002944		
	1.54554 77763.37						
94.00	4562.58	10.58	9.76	12225.83	0.53		
1252.20	153.84	8.14	151.20	14.29	0.002971		
	1.50876 77112.95						
95.00	4562.35	10.35	9.60	11687.38	0.53		
1216.93	152.87	7.96	150.27	14.51	0.002985		
	1.48294 76635.71						
96.00	4562.14	10.14	9.41	11140.65	0.52		
1184.14	151.94	7.79	149.38	14.73	0.002986		
	1.45212 76182.61						
97.00	4561.99	9.99	9.26	10742.80	0.52		
1160.46	151.26	7.67	148.72	14.89	0.002988		
	1.43068 75849.63						
98.00	4561.83	9.83	9.10	10345.31	0.51		
1136.67	150.56	7.55	148.06	15.06	0.002992		
	1.40966 75509.29						
99.00	4561.72	9.72	8.99	10062.03	0.51		
1119.65	150.06	7.46	147.57	15.19	0.002990		
	1.39189 75262.55						
100.00	4561.57	9.57	8.84	9706.69	0.50		
1097.58	149.40	7.35	146.94	15.36	0.002998		
	1.37457 74937.57						
101.00	4561.44	9.44	8.72	9396.55	0.50		
1078.03	148.80	7.24	146.36	15.51	0.002998		
	1.35523 74646.07						
102.00	4561.32	9.32	8.60	9120.94	0.50		
1060.51	148.26	7.15	145.85	15.65	0.002996		
	1.33705 74381.06						
103.00	4561.22	9.22	8.51	8899.72	0.49		
1046.06	147.81	7.08	145.41	15.77	0.002997		
	1.32361 74160.01						
104.00	4561.13	9.13	8.42	8686.95	0.49		
1032.18	147.37	7.00	144.99	15.88	0.002997		
	1.30979 73944.95						
105.00	4560.98	8.98	8.27	8350.26	0.49		
1009.72	146.65	6.89	144.30	16.07	0.003003		
	1.29027 73592.05						
106.00	4560.87	8.87	8.17	8121.68	0.48		
994.08	146.14	6.80	143.81	16.21	0.003000		
	1.27333 73343.93						
107.00	4560.79	8.79	8.09	7947.12	0.48		
982.10	145.75	6.74	143.43	16.32	0.003002		
	1.26208 73151.04						
108.00	4560.71	8.71	8.02	7783.93	0.48		
970.73	145.37	6.68	143.07	16.42	0.003003		
	1.25111 72966.53						
109.00	4560.70	8.70	8.01	7753.56	0.48		
968.51	145.30	6.67	143.00	16.44	0.003004		
	1.24956 72930.95						
110.00	4560.77	8.77	8.07	7898.75	0.48		
978.54	145.63	6.72	143.32	16.35	0.003006		
	1.26033 73094.62						
111.00	4560.90	8.90	8.20	8178.16	0.48		
997.80	146.26	6.82	143.93	16.18	0.002999		
	1.27652 73404.35						
112.00	4560.87	8.87	8.17	8120.90	0.48		
994.06	146.14	6.80	143.81	16.21	0.003000		
	1.27332 73343.52						
113.00	4560.80	8.80	8.11	7979.67	0.48		

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		HYCHAN.OUT					
984.30	145.82	6.75	143.50	16.30	0.003000		
114.00	73187.21	8.91	8.21	8215.05	0.48		
1000.24	4560.91	6.83	144.01	16.16	0.003005		
115.00	73443.43	9.08	8.37	8567.45	0.49		
1024.06	4561.08	6.96	144.74	15.95	0.002998		
116.00	73819.52	9.05	8.34	8514.61	0.49		
1020.66	4561.05	6.94	144.64	15.98	0.002998		
117.00	73765.51	9.03	8.32	8469.96	0.49		
1017.58	4561.03	6.93	144.54	16.00	0.003002		
118.00	73717.70	9.04	8.33	8483.20	0.49		
1018.46	4561.04	6.93	144.57	16.00	0.003000		
119.00	73731.65	9.10	8.39	8625.95	0.49		
1027.94	4561.10	6.98	144.86	15.92	0.002998		
120.00	73880.14	9.12	8.41	8670.03	0.49		
1030.89	4561.12	7.00	144.95	15.89	0.003000		
121.00	73925.91	9.12	8.40	8656.42	0.49		
1030.03	4561.12	6.99	144.93	15.90	0.003001		
122.00	73912.38	9.05	8.34	8514.68	0.49		
1020.65	4561.05	6.94	144.64	15.98	0.003001		
123.00	73765.41	9.03	8.32	8457.00	0.49		
1016.73	4561.03	6.92	144.52	16.01	0.002997		
124.00	73704.08	8.96	8.26	8315.36	0.49		
1007.20	4560.96	6.87	144.22	16.10	0.002999		
125.00	73553.21	8.94	8.24	8270.08	0.49		
1004.13	4560.94	6.86	144.13	16.12	0.003003		
126.00	73504.96	8.93	8.23	8258.32	0.49		
1003.36	4560.93	6.85	144.10	16.13	0.002998		
127.00	73492.53	8.88	8.17	8132.54	0.48		
994.82	4560.88	6.81	143.84	16.20	0.003000		
128.00	73356.08	8.86	8.16	8090.94	0.48		
991.92	4560.86	6.79	143.75	16.23	0.003002		
129.00	73310.04	8.85	8.15	8079.70	0.48		
991.18	4560.85	6.79	143.72	16.24	0.003005		
130.00	73297.86	8.79	8.10	7957.52	0.48		
982.78	4560.79	6.74	143.46	16.31	0.003002		
131.00	73162.26	8.79	8.09	7939.12	0.48		
981.43	4560.79	6.73	143.41	16.32	0.003003		
132.00	73141.19	8.90	8.20	8189.48	0.48		
998.50	4560.90	6.83	143.95	16.17	0.003002		
133.00	73415.69	8.94	8.24	8270.03	0.49		
1004.15	4560.94	6.86	144.13	16.12	0.003003		
134.00	73505.30	8.94	8.24	8270.21	0.49		

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		HYCHAN.OUT				
1004.11	146.47	6.86	144.13	16.12	0.003002	
	1.28440 73504.70					
135.00	4560.94	8.94	8.24	8270.00	0.49	
1004.08	146.47	6.86	144.13	16.12	0.003003	
	1.28447 73504.23					
136.00	4560.94	8.94	8.24	8269.92	0.49	
1004.10	146.47	6.86	144.13	16.12	0.003000	
	1.28338 73504.45					
137.00	4560.94	8.94	8.24	8270.06	0.49	
1004.14	146.47	6.86	144.13	16.12	0.003000	
	1.28330 73505.12					
138.00	4560.94	8.94	8.24	8269.90	0.49	
1004.07	146.47	6.86	144.13	16.12	0.003001	
	1.28375 73503.97					
139.00	4560.93	8.93	8.23	8258.54	0.49	
1003.35	146.44	6.85	144.10	16.13	0.003001	
	1.28300 73492.39					
140.00	4560.88	8.88	8.17	8132.27	0.48	
994.81	146.17	6.81	143.84	16.20	0.003000	
	1.27411 73355.87					
141.00	4560.86	8.86	8.16	8090.98	0.48	
991.91	146.07	6.79	143.74	16.23	0.003002	
	1.27219 73309.80					
142.00	4560.86	8.86	8.16	8091.22	0.48	
991.93	146.07	6.79	143.75	16.23	0.003001	
	1.27174 73310.05					
143.00	4560.86	8.86	8.16	8090.59	0.48	
991.89	146.07	6.79	143.74	16.23	0.003001	
	1.27145 73309.45					
144.00	4560.85	8.85	8.15	8080.44	0.48	
991.19	146.05	6.79	143.72	16.24	0.003000	
	1.27047 73298.02					
145.00	4560.79	8.79	8.10	7957.29	0.48	
982.73	145.77	6.74	143.45	16.31	0.003003	
	1.26346 73161.49					
146.00	4560.77	8.77	8.08	7916.93	0.48	
979.91	145.68	6.73	143.37	16.34	0.003002	
	1.25997 73116.32					
147.00	4560.77	8.77	8.08	7917.07	0.48	
979.94	145.68	6.73	143.37	16.34	0.003002	
	1.25994 73116.84					
148.00	4560.77	8.77	8.08	7916.97	0.48	
979.94	145.68	6.73	143.37	16.34	0.003003	
	1.26034 73116.88					
149.00	4560.77	8.77	8.08	7917.26	0.48	
979.96	145.68	6.73	143.37	16.34	0.003002	
	1.26003 73117.11					
150.00	4560.77	8.77	8.08	7910.02	0.48	
979.45	145.66	6.72	143.35	16.34	0.003004	
	1.26030 73108.83					
151.00	4560.73	8.73	8.04	7824.44	0.48	
973.49	145.46	6.69	143.16	16.40	0.003005	
	1.25482 73011.63					
152.00	4560.70	8.70	8.01	7756.39	0.48	
968.77	145.31	6.67	143.01	16.44	0.003008	
	1.25124 72934.88					
153.00	4560.69	8.69	8.00	7742.98	0.48	
967.77	145.27	6.66	142.98	16.45	0.003003	
	1.24820 72918.73					
154.00	4560.69	8.69	8.00	7732.13	0.48	
967.06	145.25	6.66	142.95	16.46	0.003005	
	1.24824 72906.89					
155.00	4560.64	8.64	7.95	7631.45	0.48	

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		HYCHAN.OUT				
959.92	145.01	6.62	142.73	16.52	0.003007	
1.24213	72789.78					
156.00	4560.74	8.74	8.04	7836.11	0.48	
974.19	145.49	6.70	143.18	16.39	0.003004	
1.25522	73023.80					
157.00	4560.77	8.77	8.08	7916.97	0.48	
979.88	145.68	6.73	143.36	16.34	0.003003	
1.26033	73115.81					
158.00	4560.77	8.77	8.08	7916.90	0.48	
979.92	145.68	6.73	143.37	16.34	0.003003	
1.26042	73116.57					
159.00	4560.77	8.77	8.08	7916.89	0.48	
979.92	145.68	6.73	143.37	16.34	0.003001	
1.25986	73116.55					
160.00	4560.77	8.77	8.08	7917.31	0.48	
979.90	145.68	6.73	143.36	16.34	0.003007	
1.26206	73116.12					
161.00	4560.77	8.77	8.08	7917.05	0.48	
979.87	145.68	6.73	143.36	16.34	0.003003	
1.26056	73115.69					
162.00	4560.77	8.77	8.08	7917.02	0.48	
979.92	145.68	6.73	143.37	16.34	0.003004	
1.26080	73116.54					
163.00	4560.77	8.77	8.08	7916.67	0.48	
979.92	145.68	6.73	143.37	16.34	0.003004	
1.26093	73116.45					
164.00	4560.77	8.77	8.07	7906.29	0.48	
979.21	145.65	6.72	143.34	16.35	0.003001	
1.25876	73104.84					
165.00	4560.71	8.71	8.02	7783.81	0.48	
970.69	145.37	6.68	143.07	16.42	0.003002	
1.25068	72965.90					
166.00	4560.69	8.69	8.00	7742.80	0.48	
967.75	145.27	6.66	142.98	16.45	0.003007	
1.24978	72918.37					
167.00	4560.69	8.69	8.00	7743.25	0.48	
967.78	145.27	6.66	142.98	16.45	0.003003	
1.24836	72918.91					
168.00	4560.69	8.69	8.00	7742.71	0.48	
967.80	145.27	6.66	142.98	16.45	0.003006	
1.24954	72919.17					
169.00	4560.69	8.69	8.00	7743.10	0.48	
967.79	145.27	6.66	142.98	16.45	0.003001	
1.24760	72918.98					
170.00	4560.69	8.69	8.00	7743.17	0.48	
967.78	145.27	6.66	142.98	16.45	0.003002	
1.24774	72918.93					
171.00	4560.69	8.69	8.00	7742.44	0.48	
967.73	145.27	6.66	142.98	16.45	0.003007	
1.24998	72917.96					
172.00	4560.69	8.69	8.00	7732.68	0.48	
967.09	145.25	6.66	142.96	16.46	0.003002	
1.24712	72907.46					
173.00	4560.63	8.63	7.94	7610.22	0.48	
958.53	144.96	6.61	142.68	16.54	0.003003	
1.23910	72766.52					
174.00	4560.61	8.61	7.92	7568.86	0.48	
955.56	144.86	6.60	142.58	16.57	0.003005	
1.23691	72717.91					
175.00	4560.61	8.61	7.92	7568.92	0.48	
955.52	144.86	6.60	142.58	16.57	0.003005	
1.23700	72717.31					
176.00	4560.61	8.61	7.92	7568.92	0.48	

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		HYCHAN.OUT				
955.56	144.86	6.60	142.58	16.57	0.003005	
1.23686	72718.01					
177.00	4560.61	8.61	7.92	7569.49	0.48	
955.54	144.86	6.60	142.58	16.57	0.003008	
1.23799	72717.68					
178.00	4560.61	8.61	7.92	7568.45	0.48	
955.47	144.86	6.60	142.58	16.57	0.003002	
1.23569	72716.52					
179.00	4560.62	8.62	7.93	7590.36	0.48	
956.98	144.91	6.60	142.63	16.55	0.003007	
1.23918	72741.60					
180.00	4560.74	8.74	8.04	7836.21	0.48	
974.16	145.49	6.70	143.18	16.39	0.003004	
1.25516	73023.27					
181.00	4560.78	8.78	8.08	7927.47	0.48	
980.61	145.70	6.73	143.39	16.33	0.003007	
1.26273	73127.89					
182.00	4560.84	8.84	8.14	8050.94	0.48	
989.14	145.98	6.78	143.66	16.25	0.003007	
1.27128	73265.55					
183.00	4560.86	8.86	8.16	8090.96	0.48	
991.92	146.07	6.79	143.75	16.23	0.003002	
1.27218	73309.97					
184.00	4560.86	8.86	8.16	8090.79	0.48	
991.94	146.07	6.79	143.75	16.23	0.003003	
1.27250	73310.34					
185.00	4560.86	8.86	8.16	8091.20	0.48	
991.98	146.07	6.79	143.75	16.23	0.003002	
1.27195	73310.91					
186.00	4560.86	8.86	8.16	8091.02	0.48	
991.97	146.07	6.79	143.75	16.23	0.003004	
1.27286	73310.73					
187.00	4560.86	8.86	8.16	8091.32	0.48	
991.92	146.07	6.79	143.75	16.23	0.003003	
1.27260	73310.08					
188.00	4560.86	8.86	8.16	8090.84	0.48	
991.93	146.07	6.79	143.75	16.23	0.003001	
1.27147	73310.12					
189.00	4560.86	8.86	8.16	8090.92	0.48	
991.92	146.07	6.79	143.74	16.23	0.003002	
1.27218	73309.92					
190.00	4560.85	8.85	8.15	8080.18	0.48	
991.19	146.05	6.79	143.72	16.24	0.003002	
1.27135	73298.12					
191.00	4560.79	8.79	8.10	7957.28	0.48	
982.78	145.77	6.74	143.46	16.31	0.003001	
1.26271	73162.25					
192.00	4560.77	8.77	8.08	7916.82	0.48	
979.91	145.68	6.73	143.37	16.34	0.003001	
1.25967	73116.31					
193.00	4560.77	8.77	8.08	7917.10	0.48	
979.89	145.68	6.73	143.36	16.34	0.003004	
1.26069	73116.08					
194.00	4560.77	8.77	8.08	7917.26	0.48	
979.93	145.68	6.73	143.37	16.34	0.003005	
1.26115	73116.62					
195.00	4560.77	8.77	8.08	7916.85	0.48	
979.90	145.68	6.73	143.37	16.34	0.003001	
1.25974	73116.20					
196.00	4560.77	8.77	8.08	7917.11	0.48	
979.89	145.68	6.73	143.36	16.34	0.003002	
1.26012	73116.09					
197.00	4560.77	8.77	8.08	7917.26	0.48	

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			HYCHAN.OUT			
979.92		145.68	6.73	143.37	16.34	0.003001
	1.25965	73116.48				
198.00		4560.77	8.77	8.08	7916.52	0.48
979.86		145.67	6.73	143.36	16.34	0.003002
	1.26012	73115.53				
199.00		4560.77	8.77	8.08	7916.76	0.48
979.89		145.68	6.73	143.36	16.34	0.003004
	1.26101	73116.02				

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 646

MAXIMUM DISCHARGE (CFS) = 19460.62 AT TIME = 80.12  
 MAXIMUM STAGE = 4563.03 AT TIME = 80.12

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4549.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4549.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
721.27	2.00	4552.71	3.01	2.78	2007.80	0.28		
	1.23814	106.71	6.76	105.80	35.14		0.002935	
773.28	3.00	4557.41	7.71	7.14	5523.02	0.45		
	1.00764	140.32	5.51	138.21	17.92		0.002930	
765.25	4.00	4557.35	7.65	7.08	5419.92	0.45		
	0.99919	139.99	5.47	137.91	18.02		0.002929	
761.38	5.00	4557.32	7.62	7.05	5371.03	0.45		
	0.99588	139.84	5.44	137.76	18.07		0.002931	
752.73	6.00	4557.26	7.56	6.99	5262.47	0.45		
	0.98540	139.49	5.40	137.42	18.18		0.002926	
740.39	7.00	4557.17	7.47	6.90	5111.28	0.45		
	0.97216	138.99	5.33	136.94	18.34		0.002925	
728.00	8.00	4557.07	7.37	6.82	4962.02	0.44		
	0.95926	138.48	5.26	136.45	18.51		0.002924	
715.76	9.00	4556.98	7.28	6.73	4817.19	0.44		
	0.94602	137.97	5.19	135.95	18.68		0.002922	
711.47	10.00	4556.95	7.25	6.70	4766.59	0.44		
	0.94163	137.79	5.16	135.78	18.74		0.002922	
702.55	11.00	4556.88	7.18	6.64	4661.93	0.44		
	0.93115	137.40	5.11	135.41	18.87		0.002919	
689.95	12.00	4556.78	7.08	6.55	4516.33	0.43		
	0.91803	136.86	5.04	134.90	19.05		0.002918	
685.74	13.00	4556.75	7.05	6.52	4468.71	0.43		
		136.68	5.02	134.72	19.11		0.002921	

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		HYCHAN.OUT					
	0.91435	68708.70					
685.78	14.00	4556.75	7.05	6.52	4469.07	0.43	
		136.69	5.02	134.73	19.11		0.002918
	0.91366	68709.95					
685.77	15.00	4556.75	7.05	6.52	4468.94	0.43	
		136.69	5.02	134.72	19.11		0.002918
	0.91344	68709.32					
685.77	16.00	4556.75	7.05	6.52	4468.97	0.43	
		136.69	5.02	134.72	19.11		0.002918
	0.91364	68709.13					
686.13	17.00	4556.75	7.05	6.52	4473.13	0.43	
		136.70	5.02	134.74	19.11		0.002921
	0.91488	68717.76					
695.31	18.00	4556.82	7.12	6.59	4579.33	0.44	
		137.11	5.07	135.13	18.97		0.002923
	0.92491	68915.23					
708.41	19.00	4556.92	7.22	6.68	4731.93	0.44	
		137.67	5.15	135.67	18.78		0.002926
	0.93948	69189.84					
720.93	20.00	4557.02	7.32	6.77	4879.70	0.44	
		138.19	5.22	136.17	18.60		0.002926
	0.95266	69447.45					
724.77	21.00	4557.05	7.35	6.79	4924.13	0.44	
		138.34	5.24	136.32	18.55		0.002927
	0.95698	69522.64					
725.15	22.00	4557.05	7.35	6.80	4929.10	0.44	
		138.36	5.24	136.34	18.55		0.002928
	0.95755	69531.46					
734.54	23.00	4557.12	7.42	6.87	5043.76	0.44	
		138.76	5.29	136.72	18.42		0.002932
	0.96862	69726.28					
756.29	24.00	4557.29	7.59	7.02	5309.30	0.45	
		139.64	5.42	137.57	18.13		0.002936
	0.99221	70160.23					
780.77	25.00	4557.47	7.77	7.19	5616.97	0.45	
		140.62	5.55	138.51	17.82		0.002940
	1.01846	70637.91					
803.37	26.00	4557.64	7.94	7.35	5907.91	0.46	
		141.50	5.68	139.35	17.55		0.002939
	1.04114	71068.72					
809.39	27.00	4557.68	7.98	7.39	5985.22	0.46	
		141.72	5.71	139.57	17.48		0.002938
	1.04695	71179.55					
809.93	28.00	4557.69	7.99	7.40	5993.28	0.46	
		141.75	5.71	139.59	17.48		0.002941
	1.04865	71190.88					
818.71	29.00	4557.75	8.05	7.46	6110.34	0.46	
		142.09	5.76	139.92	17.37		0.002940
	1.05714	71357.37					
822.01	30.00	4557.78	8.08	7.48	6152.16	0.46	
		142.20	5.78	140.03	17.34		0.002942
	1.06116	71414.98					
822.64	31.00	4557.78	8.08	7.49	6161.13	0.46	
		142.23	5.78	140.06	17.33		0.002945
	1.06290	71428.30					
831.67	32.00	4557.85	8.15	7.56	6283.32	0.47	
		142.57	5.83	140.39	17.23		0.002941
	1.07067	71596.56					
834.99	33.00	4557.87	8.17	7.58	6325.94	0.47	
		142.69	5.85	140.50	17.19		0.002941
	1.07401	71654.19					
834.32	34.00	4557.87	8.17	7.57	6316.56	0.47	
		142.67	5.85	140.47	17.20		0.002940

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		HYCHAN.OUT							
	1.07303	71641.49							
825.32	35.00	4557.80	8.10	7.51	6195.32	17.30	0.46		
		142.33	5.80		140.15			0.002940	
	1.06396	71474.98							
821.34	36.00	4557.77	8.07	7.48	6142.93	17.35	0.46		
		142.18	5.78		140.00			0.002939	
	1.05928	71402.30							
812.63	37.00	4557.71	8.01	7.42	6027.06	17.45	0.46		
		141.84	5.73		139.68			0.002937	
	1.04996	71238.98							
809.37	38.00	4557.68	7.98	7.39	5984.98	17.48	0.46		
		141.72	5.71		139.57			0.002939	
	1.04723	71179.00							
809.37	39.00	4557.68	7.98	7.39	5985.01	17.48	0.46		
		141.72	5.71		139.57			0.002937	
	1.04677	71179.47							
809.36	40.00	4557.68	7.98	7.39	5984.97	17.48	0.46		
		141.72	5.71		139.57			0.002938	
	1.04699	71179.17							
809.37	41.00	4557.68	7.98	7.39	5985.08	17.48	0.46		
		141.72	5.71		139.57			0.002939	
	1.04735	71179.30							
809.96	42.00	4557.69	7.99	7.40	5993.50	17.48	0.46		
		141.75	5.71		139.59			0.002943	
	1.04942	71191.23							
818.72	43.00	4557.75	8.05	7.46	6110.54	17.37	0.46		
		142.09	5.76		139.92			0.002942	
	1.05784	71357.40							
822.64	44.00	4557.78	8.08	7.49	6161.17	17.33	0.46		
		142.23	5.78		140.06			0.002944	
	1.06243	71428.27							
832.31	45.00	4557.85	8.15	7.56	6292.77	17.22	0.47		
		142.60	5.84		140.41			0.002946	
	1.07290	71609.47							
845.28	46.00	4557.95	8.25	7.65	6467.84	17.08	0.47		
		143.08	5.91		140.88			0.002948	
	1.08685	71846.43							
858.01	47.00	4558.04	8.34	7.74	6642.56	16.94	0.47		
		143.55	5.98		141.32			0.002949	
	1.09974	72075.62							
870.65	48.00	4558.13	8.43	7.83	6815.61	16.81	0.48		
		144.01	6.05		141.76			0.002947	
	1.11164	72300.05							
884.39	49.00	4558.23	8.53	7.90	6985.62	16.67	0.48		
		144.50	6.12		142.24			0.002949	
	1.12618	72539.99							
897.41	50.00	4558.33	8.63	7.99	7171.63	16.54	0.48		
		144.96	6.19		142.68			0.002954	
	1.14128	72767.38							
917.09	51.00	4558.47	8.77	8.13	7456.46	16.34	0.48		
		145.65	6.30		143.34			0.002956	
	1.16156	73105.38							
923.71	52.00	4558.52	8.82	8.18	7552.76	16.28	0.49		
		145.88	6.33		143.56			0.002955	
	1.16738	73215.72							
934.07	53.00	4558.59	8.89	8.25	7707.17	16.18	0.49		
		146.24	6.39		143.91			0.002962	
	1.18037	73392.79							
966.02	54.00	4558.82	9.12	8.48	8189.91	15.89	0.49		
		147.32	6.56		144.95			0.002969	
	1.21490	73922.76							
1015.77	55.00	4559.17	9.47	8.83	8968.74	15.47	0.51		
		148.95	6.82		146.51			0.002978	

## HYCHAN.OUT

1081.51	1.26724	74717.77	9.93	7.16	9.30	10054.98	0.52	0.002986
	56.00	4559.63				148.48	14.96	
	1.33466	75724.09						
1162.07	57.00	4560.18	10.48	7.57	9.85	11441.72	0.54	0.003000
		153.41				150.79	14.39	
	1.41796	76904.02						
1239.08	58.00	4560.72	11.02	8.00	10.15	12576.69	0.54	0.003015
		154.80				152.96	13.88	
	1.50597	78010.86						
1292.39	59.00	4561.08	11.38	8.31	10.49	13551.84	0.55	0.003037
		155.52				154.37	13.56	
	1.57501	78727.30						
1344.52	60.00	4561.41	11.71	8.61	10.96	14730.28	0.56	0.003039
		156.19				155.63	13.29	
	1.63255	79369.09						
1390.04	61.00	4561.71	12.01	8.87	11.14	15486.30	0.57	0.003043
		156.77				156.72	13.05	
	1.68383	79925.49						
1427.39	62.00	4561.95	12.25	9.08	11.30	16133.39	0.57	0.003046
		157.26				157.61	12.87	
	1.72509	80382.13						
1450.03	63.00	4562.10	12.40	9.20	11.39	16522.29	0.57	0.003059
		157.55				158.15	12.76	
	1.75660	80654.12						
1473.21	64.00	4562.26	12.56	9.33	11.53	16990.49	0.57	0.003075
		157.87				158.73	12.64	
	1.79052	80953.26						
1493.73	65.00	4562.40	12.70	9.44	11.66	17411.12	0.58	0.003078
		158.16				159.24	12.54	
	1.81377	81214.84						
1497.82	66.00	4562.43	12.73	9.47	11.68	17488.35	0.58	0.003081
		158.22				159.34	12.52	
	1.81993	81264.70						
1498.08	67.00	4562.43	12.73	9.47	11.68	17494.42	0.58	0.003082
		158.22				159.35	12.52	
	1.82106	81268.39						
1498.06	68.00	4562.43	12.73	9.47	11.68	17496.96	0.58	0.003079
		158.22				159.35	12.52	
	1.81922	81269.01						
1498.32	69.00	4562.43	12.73	9.47	11.68	17501.50	0.58	0.003079
		158.22				159.36	12.51	
	1.81924	81271.85						
1498.67	70.00	4562.44	12.74	9.47	11.68	17507.11	0.58	0.003082
		158.23				159.37	12.51	
	1.82139	81276.25						
1498.71	71.00	4562.44	12.74	9.47	11.68	17507.27	0.58	0.003080
		158.23				159.37	12.51	
	1.82040	81276.69						
1499.08	72.00	4562.44	12.74	9.47	11.69	17517.55	0.58	0.003082
		158.23				159.38	12.51	
	1.82224	81281.71						
1506.54	73.00	4562.49	12.79	9.51	11.73	17673.53	0.58	0.003089
		158.34				159.56	12.47	
	1.83409	81377.51						
1511.04	74.00	4562.52	12.82	9.54	11.76	17763.96	0.58	0.003090
		158.40				159.67	12.45	
	1.83914	81433.87						
1511.70	75.00	4562.53	12.83	9.54	11.76	17778.47	0.58	0.003092
		158.41				159.69	12.45	
	1.84149	81441.91						
1519.88	76.00	4562.59	12.89	9.59	11.81	17954.71	0.58	0.003107
		158.53				159.90	12.41	

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## HYCHAN.OUT

1538.81	1.85877	81547.61	13.02	9.69	11.93	18354.79	0.58	0.003118
	77.00	4562.72				160.36	12.32	
	1.88563	81785.95						
1555.29	78.00	4562.83	13.13	9.78	12.02	18696.22	0.58	0.003131
		159.02				160.76	12.24	
	1.91077	81989.23						
1569.22	79.00	4562.93	13.23	9.86	12.09	18975.04	0.59	0.003142
		159.21				161.09	12.18	
	1.93236	82155.48						
1587.38	80.00	4563.05	13.35	9.96	12.17	19324.91	0.59	0.003152
		159.45				161.50	12.10	
	1.95807	82367.47						
1589.68	81.00	4563.06	13.36	9.97	12.18	19356.18	0.59	0.003141
		159.48				161.55	12.09	
	1.95385	82390.26						
1578.85	82.00	4562.99	13.29	9.91	12.12	19137.89	0.59	0.003135
		159.33				161.30	12.14	
	1.93819	82260.91						
1573.31	83.00	4562.95	13.25	9.88	12.10	19042.66	0.59	0.003133
		159.26				161.18	12.16	
	1.93123	82199.77						
1572.85	84.00	4562.95	13.25	9.88	12.10	19033.23	0.59	0.003133
		159.26				161.17	12.16	
	1.93098	82194.90						
1572.38	85.00	4562.95	13.25	9.87	12.10	19020.96	0.59	0.003127
		159.25				161.15	12.17	
	1.92664	82188.44						
1563.25	86.00	4562.88	13.18	9.82	12.05	18830.86	0.58	0.003110
		159.12				160.94	12.21	
	1.90630	82077.41						
1536.19	87.00	4562.69	12.99	9.68	11.89	18270.87	0.58	0.003083
		158.75				160.28	12.33	
	1.86170	81741.93						
1495.04	88.00	4562.41	12.71	9.45	11.65	17414.69	0.58	0.003035
		158.17				159.26	12.53	
	1.79000	81221.77						
1428.02	89.00	4561.94	12.24	9.08	11.27	16093.70	0.57	0.003020
		157.24				157.59	12.87	
	1.71169	80368.71						
1377.25	90.00	4561.61	11.91	8.80	11.06	15231.11	0.56	0.003013
		156.59				156.38	13.12	
	1.65364	79752.98						
1337.79	91.00	4561.36	11.66	8.57	10.87	14546.74	0.56	0.003011
		156.07				155.41	13.33	
	1.61053	79257.17						
1296.83	92.00	4561.10	11.40	8.34	10.54	13672.29	0.55	0.002986
		155.55				154.42	13.55	
	1.55364	78754.83						
1265.38	93.00	4560.90	11.20	8.16	10.21	12914.07	0.54	0.002979
		155.15				153.64	13.72	
	1.51599	78357.73						
1214.95	94.00	4560.54	10.84	7.87	10.07	12229.55	0.54	0.002984
		154.45				152.25	14.04	
	1.46483	77649.01						
1176.70	95.00	4560.28	10.58	7.65	9.94	11692.66	0.54	0.002984
		153.83				151.19	14.29	
	1.42433	77108.20						
1144.12	96.00	4560.06	10.36	7.48	9.74	11144.81	0.53	0.002983
		152.88				150.28	14.51	
	1.39298	76644.50						
1121.22	97.00	4559.90	10.20	7.37	9.58	10746.04	0.53	0.002980
		152.21				149.64	14.67	

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				HYCHAN.OUT			
	1.36981	76314.64					
1098.50	98.00	4559.74	10.05	7.25	9.42	10348.37	0.52
		151.52				148.98	14.83
	1.34763	75978.80					0.002979
1082.35	99.00	4559.63	9.93	7.17	9.30	10064.54	0.52
		151.03				148.50	14.95
	1.32897	75736.34					0.002972
1061.18	100.00	4559.49	9.79	7.06	9.15	9709.96	0.52
		150.37				147.87	15.11
	1.30858	75416.23					0.002972
1042.48	101.00	4559.35	9.66	6.96	9.02	9399.01	0.51
		149.79				147.31	15.26
	1.28924	75129.66					0.002969
1025.70	102.00	4559.24	9.54	6.87	8.89	9123.31	0.51
		149.26				146.80	15.39
	1.27162	74870.30					0.002965
1011.82	103.00	4559.14	9.44	6.80	8.80	8901.61	0.50
		148.81				146.38	15.50
	1.25762	74652.86					0.002964
998.54	104.00	4559.05	9.35	6.73	8.70	8689.46	0.50
		148.38				145.96	15.61
	1.24350	74441.95					0.002961
977.04	105.00	4558.90	9.20	6.62	8.55	8353.40	0.50
		147.68				145.29	15.80
	1.22280	74096.38					0.002962
961.97	106.00	4558.79	9.09	6.54	8.44	8123.37	0.49
		147.18				144.81	15.93
	1.20638	73851.75					0.002958
950.47	107.00	4558.71	9.01	6.47	8.36	7948.93	0.49
		146.79				144.44	16.03
	1.19296	73662.42					0.002953
939.51	108.00	4558.63	8.93	6.42	8.29	7785.11	0.49
		146.42				144.08	16.14
	1.18241	73480.14					0.002953
937.29	109.00	4558.61	8.91	6.40	8.27	7752.89	0.49
		146.35				144.01	16.16
	1.18221	73444.57					0.002958
946.77	110.00	4558.68	8.98	6.46	8.34	7896.58	0.49
		146.67				144.32	16.07
	1.19203	73603.85					0.002959
965.29	111.00	4558.81	9.11	6.55	8.47	8176.32	0.49
		147.29				144.92	15.90
	1.20966	73908.31					0.002958
961.94	112.00	4558.79	9.09	6.54	8.44	8122.61	0.49
		147.18				144.81	15.93
	1.20691	73851.68					0.002959
952.47	113.00	4558.72	9.02	6.49	8.38	7979.71	0.49
		146.86				144.50	16.02
	1.19839	73697.36					0.002961
967.47	114.00	4558.83	9.13	6.56	8.49	8211.52	0.50
		147.37				144.99	15.88
	1.21471	73945.61					0.002965
990.45	115.00	4558.99	9.29	6.69	8.65	8565.49	0.50
		148.13				145.72	15.68
	1.23645	74316.83					0.002963
987.42	116.00	4558.97	9.27	6.67	8.62	8515.91	0.50
		148.02				145.62	15.71
	1.23282	74265.68					0.002962
984.39	117.00	4558.95	9.25	6.65	8.60	8469.99	0.50
		147.92				145.52	15.73
	1.22983	74217.43					0.002962
985.19	118.00	4558.95	9.25	6.66	8.61	8482.50	0.50
		147.95				145.55	15.73
							0.002964

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1.23147	74231.26	9.32	8.68	8624.75	0.50	
119.00	4559.02	6.71	145.84	15.65	0.002964	
994.20	148.25					
1.24035	74375.91	9.34	8.70	8670.01	0.50	
120.00	4559.04	6.72	145.92	15.63	0.002963	
997.11	148.34					
1.24274	74421.30	9.33	8.69	8657.09	0.50	
121.00	4559.03	6.72	145.90	15.63	0.002962	
996.33	148.32					
1.24172	74409.08	9.27	8.62	8515.91	0.50	
122.00	4558.97	6.67	145.62	15.71	0.002963	
987.41	148.02					
1.23348	74265.19	9.24	8.60	8457.63	0.50	
123.00	4558.94	6.65	145.50	15.74	0.002961	
983.60	147.90					
1.22861	74204.34	9.18	8.53	8316.72	0.50	
124.00	4558.88	6.60	145.21	15.82	0.002960	
974.53	147.60					
1.21942	74056.52	9.16	8.51	8270.07	0.50	
125.00	4558.86	6.59	145.11	15.85	0.002961	
971.47	147.50					
1.21674	74008.42	9.15	8.51	8258.82	0.50	
126.00	4558.85	6.58	145.09	15.85	0.002958	
970.82	147.48					
1.21514	73997.42	9.09	8.45	8133.76	0.49	
127.00	4558.79	6.54	144.83	15.93	0.002958	
962.64	147.20					
1.20701	73863.34	9.07	8.43	8090.94	0.49	
128.00	4558.77	6.52	144.74	15.95	0.002960	
959.78	147.11					
1.20525	73817.37	9.07	8.43	8080.33	0.49	
129.00	4558.77	6.52	144.72	15.96	0.002954	
959.09	147.08					
1.20194	73805.44	9.01	8.37	7958.63	0.49	
130.00	4558.71	6.48	144.46	16.03	0.002958	
951.09	146.81					
1.19562	73672.57	9.00	8.36	7938.01	0.49	
131.00	4558.70	6.47	144.41	16.04	0.002960	
949.64	146.77					
1.19507	73650.51	9.12	8.48	8187.16	0.49	
132.00	4558.82	6.56	144.94	15.89	0.002962	
965.93	147.32					
1.21179	73919.55	9.16	8.51	8270.08	0.50	
133.00	4558.86	6.59	145.12	15.85	0.002961	
971.47	147.50					
1.21679	74008.76	9.16	8.51	8270.22	0.50	
134.00	4558.86	6.59	145.11	15.85	0.002960	
971.46	147.50					
1.21661	74008.07	9.16	8.51	8269.98	0.50	
135.00	4558.86	6.59	145.11	15.85	0.002958	
971.44	147.50					
1.21581	74007.54	9.16	8.51	8269.89	0.50	
136.00	4558.86	6.59	145.11	15.85	0.002959	
971.44	147.50					
1.21620	74008.29	9.16	8.51	8270.01	0.50	
137.00	4558.86	6.59	145.12	15.85	0.002964	
971.47	147.50					
1.21806	74008.80	9.16	8.51	8269.94	0.50	
138.00	4558.86	6.59	145.11	15.85	0.002958	
971.44	147.50					
1.21573	74007.72	9.15	8.51	8259.08	0.50	
139.00	4558.85	6.58	145.09	15.85	0.002960	
970.75	147.47					



		HYCHAN.OUT					
1.21579	73996.44	9.09	8.45	8133.43	0.49		
140.00	4558.79	6.54		144.83	15.92	0.002960	
962.66	147.20						
1.20786	73863.76	9.07	8.43	8091.00	0.49		
141.00	4558.77	6.52		144.74	15.95	0.002964	
959.77	147.11						
1.20682	73817.16	9.07	8.43	8091.23	0.49		
142.00	4558.77	6.52		144.74	15.95	0.002959	
959.79	147.11						
1.20478	73817.37	9.07	8.43	8090.62	0.49		
143.00	4558.77	6.52		144.74	15.95	0.002959	
959.77	147.11						
1.20453	73816.24	9.07	8.43	8081.00	0.49		
144.00	4558.77	6.52		144.72	15.96	0.002957	
959.14	147.08						
1.20325	73805.82	9.01	8.37	7958.42	0.49		
145.00	4558.71	6.48		144.45	16.03	0.002957	
951.05	146.81						
1.19545	73671.77	8.99	8.35	7916.96	0.49		
146.00	4558.69	6.46		144.37	16.05	0.002959	
948.30	146.72						
1.19345	73626.97	8.99	8.35	7917.04	0.49		
147.00	4558.69	6.46		144.37	16.05	0.002956	
948.29	146.72						
1.19213	73627.77	8.99	8.35	7916.99	0.49		
148.00	4558.69	6.46		144.37	16.05	0.002961	
948.30	146.72						
1.19401	73627.37	8.99	8.35	7917.23	0.49		
149.00	4558.69	6.46		144.37	16.05	0.002960	
948.34	146.72						
1.19377	73627.93	8.99	8.35	7910.45	0.49		
150.00	4558.69	6.46		144.35	16.06	0.002956	
947.86	146.71						
1.19184	73620.28	8.95	8.31	7825.44	0.49		
151.00	4558.65	6.43		144.17	16.11	0.002955	
942.17	146.51						
1.18580	73524.66	8.92	8.27	7756.80	0.49		
152.00	4558.62	6.41		144.02	16.15	0.002956	
937.62	146.36						
1.18156	73449.46	8.91	8.27	7742.94	0.49		
153.00	4558.61	6.40		143.99	16.16	0.002954	
936.64	146.32						
1.18011	73433.01	8.90	8.26	7732.69	0.49		
154.00	4558.60	6.40		143.96	16.17	0.002956	
935.99	146.30						
1.18004	73421.86	8.86	8.21	7631.56	0.49		
155.00	4558.55	6.36		143.74	16.23	0.002956	
929.07	146.06						
1.17343	73305.95	8.95	8.31	7833.73	0.49		
156.00	4558.65	6.43		144.19	16.11	0.002958	
942.58	146.53						
1.18747	73534.44	8.99	8.35	7917.02	0.49		
157.00	4558.69	6.46		144.36	16.06	0.002954	
948.22	146.72						
1.19136	73625.89	8.99	8.35	7916.84	0.49		
158.00	4558.69	6.46		144.37	16.05	0.002960	
948.27	146.72						
1.19372	73626.70	8.99	8.35	7916.85	0.49		
159.00	4558.69	6.46		144.37	16.05	0.002961	
948.26	146.72						
1.19434	73627.09	8.99	8.35	7917.40	0.49		
160.00	4558.69	6.46		144.37	16.05	0.002957	
948.26	146.72						

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	1.19247	73626.47					
948.23	161.00	4558.69	8.99	8.35	7917.01	0.49	
		146.72	6.46		144.36	16.05	0.002955
	1.19191	73626.02					
948.27	162.00	4558.69	8.99	8.35	7917.04	0.49	
		146.72	6.46		144.37	16.05	0.002957
	1.19264	73627.09					
948.27	163.00	4558.69	8.99	8.35	7916.64	0.49	
		146.72	6.46		144.37	16.05	0.002959
	1.19347	73627.35					
947.60	164.00	4558.69	8.99	8.34	7906.83	0.49	
		146.70	6.46		144.34	16.06	0.002956
	1.19153	73615.86					
939.48	165.00	4558.63	8.93	8.29	7784.96	0.49	
		146.42	6.42		144.08	16.14	0.002957
	1.18401	73480.30					
936.60	166.00	4558.61	8.91	8.27	7742.94	0.49	
		146.32	6.40		143.99	16.16	0.002954
	1.17973	73432.84					
936.66	167.00	4558.61	8.91	8.27	7743.14	0.49	
		146.32	6.40		143.99	16.16	0.002958
	1.18143	73432.92					
936.65	168.00	4558.61	8.91	8.27	7742.85	0.49	
		146.32	6.40		143.99	16.16	0.002953
	1.17947	73433.32					
936.63	169.00	4558.61	8.91	8.27	7743.03	0.49	
		146.32	6.40		143.99	16.16	0.002953
	1.17964	73433.12					
936.62	170.00	4558.61	8.91	8.27	7743.14	0.49	
		146.32	6.40		143.99	16.16	0.002956
	1.18064	73432.97					
936.60	171.00	4558.61	8.91	8.27	7742.52	0.49	
		146.32	6.40		143.99	16.16	0.002955
	1.18019	73432.52					
935.99	172.00	4558.60	8.90	8.26	7733.13	0.49	
		146.30	6.40		143.97	16.17	0.002957
	1.18049	73422.20					
927.83	173.00	4558.55	8.85	8.20	7611.46	0.49	
		146.02	6.35		143.70	16.24	0.002954
	1.17136	73284.72					
924.91	174.00	4558.53	8.83	8.18	7568.86	0.49	
		145.92	6.34		143.60	16.27	0.002954
	1.16839	73236.38					
924.87	175.00	4558.52	8.83	8.18	7568.96	0.49	
		145.92	6.34		143.60	16.27	0.002955
	1.16857	73235.68					
924.89	176.00	4558.52	8.83	8.18	7568.89	0.49	
		145.92	6.34		143.60	16.27	0.002956
	1.16907	73236.28					
924.90	177.00	4558.52	8.83	8.18	7569.51	0.49	
		145.92	6.34		143.60	16.27	0.002954
	1.16841	73235.31					
924.85	178.00	4558.52	8.82	8.18	7568.37	0.49	
		145.92	6.34		143.60	16.27	0.002954
	1.16830	73234.14					
926.21	179.00	4558.53	8.84	8.19	7589.32	0.49	
		145.97	6.35		143.64	16.26	0.002957
	1.17081	73258.85					
942.59	180.00	4558.65	8.95	8.31	7833.87	0.49	
		146.53	6.43		144.18	16.11	0.002959
	1.18773	73533.95					
948.90	181.00	4558.70	9.00	8.35	7926.90	0.49	
		146.74	6.47		144.39	16.05	0.002961

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1.19472	73637.73	9.06	8.41	8049.83	0.49		
182.00	4558.75	6.51	144.65	15.97	0.002958		
957.02	147.02						
1.20164	73773.01	9.07	8.43	8090.90	0.49		
183.00	4558.77	6.52	144.74	15.95	0.002962		
959.77	147.11						
1.20573	73817.09	9.07	8.43	8090.79	0.49		
184.00	4558.77	6.52	144.74	15.95	0.002958		
959.78	147.11						
1.20421	73817.84	9.07	8.43	8091.19	0.49		
185.00	4558.77	6.52	144.74	15.95	0.002959		
959.81	147.11						
1.20462	73818.24	9.07	8.43	8091.07	0.49		
186.00	4558.77	6.52	144.74	15.95	0.002960		
959.80	147.11						
1.20514	73818.12	9.07	8.43	8091.29	0.49		
187.00	4558.77	6.52	144.74	15.95	0.002959		
959.83	147.11						
1.20478	73817.41	9.07	8.43	8090.85	0.49		
188.00	4558.77	6.52	144.74	15.95	0.002959		
959.79	147.11						
1.20450	73817.80	9.07	8.43	8090.90	0.49		
189.00	4558.77	6.52	144.74	15.95	0.002958		
959.78	147.11						
1.20415	73817.04	9.07	8.43	8080.80	0.49		
190.00	4558.77	6.52	144.72	15.96	0.002956		
959.12	147.08						
1.20279	73805.70	9.01	8.37	7958.38	0.49		
191.00	4558.71	6.48	144.46	16.03	0.002957		
951.11	146.81						
1.19544	73673.20	8.99	8.35	7916.80	0.49		
192.00	4558.69	6.46	144.37	16.05	0.002957		
948.25	146.72						
1.19270	73626.88	8.99	8.35	7917.14	0.49		
193.00	4558.69	6.46	144.37	16.05	0.002959		
948.22	146.72						
1.19342	73626.20	8.99	8.35	7917.34	0.49		
194.00	4558.69	6.46	144.37	16.05	0.002954		
948.28	146.72						
1.19128	73627.09	8.99	8.35	7916.79	0.49		
195.00	4558.69	6.46	144.37	16.05	0.002958		
948.25	146.72						
1.19294	73626.96	8.99	8.35	7917.12	0.49		
196.00	4558.69	6.46	144.37	16.05	0.002958		
948.23	146.72						
1.19276	73626.42	8.99	8.35	7917.22	0.49		
197.00	4558.69	6.46	144.37	16.05	0.002955		
948.30	146.72						
1.19191	73627.01	8.99	8.35	7916.56	0.49		
198.00	4558.69	6.46	144.36	16.05	0.002957		
948.20	146.72						
1.19248	73626.05	8.99	8.35	7916.79	0.49		
199.00	4558.69	6.46	144.37	16.05	0.002959		
948.29	146.72						
1.19323	73627.34						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 663

MAXIMUM DISCHARGE (CFS) = 19710.15 AT TIME = 80.13  
 MAXIMUM STAGE = 4560.84 AT TIME = 80.13

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
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HYCHAN.OUT									
AREA	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED	SHEAR	STRESS	SURFACE	AREA					
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)		
	(LB/FT^2)	(FT^2)		(FT)					
0.00	0.00	4548.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4548.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
702.62	2.00	4550.87	2.67	6.82	2.75	1935.32	0.30		0.003190
	1.35676	103.08			102.29	38.27			
758.44	3.00	4555.33	7.13	5.53	7.28	5523.27	0.48		0.003183
	1.09861	137.12			135.15	18.96			
750.25	4.00	4555.27	7.07	5.48	7.23	5420.79	0.48		0.003183
	1.08935	136.80			134.83	19.07			
746.29	5.00	4555.24	7.04	5.46	7.20	5371.36	0.48		0.003182
	1.08440	136.64			134.68	19.13			
737.51	6.00	4555.18	6.98	5.41	7.14	5263.66	0.48		0.003181
	1.07401	136.29			134.34	19.25			
724.91	7.00	4555.09	6.89	5.34	7.05	5112.50	0.47		0.003177
	1.05826	135.78			133.85	19.43			
712.27	8.00	4555.00	6.80	5.27	6.97	4963.30	0.47		0.003173
	1.04249	135.26			133.35	19.61			
699.79	9.00	4554.91	6.71	5.19	6.89	4818.12	0.47		0.003169
	1.02697	134.74			132.85	19.80			
695.43	10.00	4554.88	6.68	5.17	6.85	4766.90	0.47		0.003167
	1.02134	134.56			132.68	19.86			
686.36	11.00	4554.81	6.61	5.12	6.79	4663.19	0.47		0.003166
	1.01071	134.17			132.30	20.00			
673.52	12.00	4554.72	6.52	5.04	6.71	4517.36	0.46		0.003162
	0.99441	133.62			131.77	20.21			
669.21	13.00	4554.69	6.49	5.02	6.68	4468.73	0.46		0.003163
	0.99000	133.44			131.60	20.28			
669.23	14.00	4554.69	6.49	5.02	6.68	4469.08	0.46		0.003162
	0.98967	133.44			131.60	20.28			
669.23	15.00	4554.69	6.49	5.02	6.68	4468.92	0.46		0.003162
	0.98960	133.44			131.60	20.28			
669.25	16.00	4554.69	6.49	5.02	6.68	4468.97	0.46		0.003161
	0.98928	133.44			131.60	20.28			
669.58	17.00	4554.69	6.49	5.02	6.68	4472.87	0.46		0.003164
	0.99067	133.45			131.61	20.27			
678.80	18.00	4554.76	6.56	5.07	6.74	4577.99	0.46		0.003171
	1.00350	133.85			132.00	20.12			
		49564.43							

		HYCHAN.OUT			
692.12	19.00 4554.86	6.66	6.84 4730.67	0.47	
	134.42	5.15	132.54	19.91	0.003172
	1.01906 49769.75				
704.92	20.00 4554.95	6.75	6.92 4878.70	0.47	
	134.96	5.22	133.06	19.72	0.003173
	1.03426 49964.01				
708.98	21.00 4554.98	6.78	6.95 4924.15	0.47	
	135.12	5.25	133.22	19.66	0.003174
	1.03905 50024.78				
709.34	22.00 4554.98	6.78	6.95 4928.83	0.47	
	135.14	5.25	133.24	19.65	0.003177
	1.04066 50030.23				
718.70	23.00 4555.05	6.85	7.02 5042.17	0.47	
	135.53	5.30	133.61	19.52	0.003184
	1.05375 50170.26				
740.92	24.00 4555.20	7.00	7.16 5306.83	0.48	
	136.43	5.43	134.48	19.20	0.003191
	1.08129 50496.11				
765.92	25.00 4555.38	7.18	7.33 5614.57	0.48	
	137.42	5.57	135.43	18.86	0.003196
	1.11151 50853.83				
789.02	26.00 4555.54	7.34	7.49 5906.25	0.49	
	138.31	5.70	136.29	18.56	0.003197
	1.13816 51176.18				
795.29	27.00 4555.58	7.39	7.53 5985.20	0.49	
	138.55	5.74	136.52	18.48	0.003197
	1.14497 51262.10				
795.80	28.00 4555.59	7.39	7.53 5992.95	0.49	
	138.57	5.74	136.54	18.48	0.003202
	1.14733 51269.21				
804.63	29.00 4555.65	7.45	7.59 6109.43	0.49	
	138.90	5.79	136.86	18.37	0.003204
	1.15803 51389.75				
808.19	30.00 4555.67	7.48	7.61 6152.20	0.49	
	139.04	5.81	136.98	18.33	0.003202
	1.16154 51437.84				
808.76	31.00 4555.68	7.48	7.62 6160.75	0.49	
	139.06	5.82	137.01	18.32	0.003205
	1.16327 51445.60				
817.90	32.00 4555.74	7.54	7.68 6282.36	0.49	
	139.40	5.87	137.33	18.21	0.003206
	1.17395 51568.88				
821.46	33.00 4555.77	7.57	7.70 6325.92	0.49	
	139.53	5.89	137.46	18.17	0.003207
	1.17809 51616.29				
820.79	34.00 4555.76	7.56	7.70 6316.97	0.49	
	139.51	5.88	137.44	18.17	0.003203
	1.17579 51607.19				
811.63	35.00 4555.70	7.50	7.63 6196.24	0.49	
	139.16	5.83	137.11	18.28	0.003202
	1.16537 51483.73				
807.52	36.00 4555.67	7.47	7.61 6143.31	0.49	
	139.01	5.81	136.96	18.33	0.003199
	1.15947 51428.59				
798.64	37.00 4555.61	7.41	7.55 6027.89	0.49	
	138.68	5.76	136.64	18.44	0.003197
	1.14898 51307.50				
795.28	38.00 4555.58	7.39	7.53 5985.04	0.49	
	138.55	5.74	136.52	18.48	0.003199
	1.14576 51261.96				
795.27	39.00 4555.58	7.39	7.53 5984.96	0.49	
	138.55	5.74	136.52	18.48	0.003198
	1.14536 51261.80				

		HYCHAN.OUT					
795.26	40.00	4555.58	7.39	7.53	5984.99	0.49	
	1.14486	138.55	5.74	136.52	18.48		0.003196
		51261.65					
795.26	41.00	4555.58	7.39	7.53	5985.08	0.49	
	1.14643	138.55	5.74	136.52	18.48		0.003201
		51261.73					
795.84	42.00	4555.59	7.39	7.53	5993.20	0.49	
	1.14720	138.57	5.74	136.54	18.48		0.003201
		51269.80					
804.65	43.00	4555.65	7.45	7.59	6109.61	0.49	
	1.15735	138.90	5.79	136.86	18.37		0.003202
		51390.08					
808.77	44.00	4555.68	7.48	7.62	6160.80	0.49	
	1.16357	139.06	5.82	137.01	18.32		0.003206
		51445.79					
818.50	45.00	4555.75	7.55	7.69	6291.48	0.49	
	1.17606	139.42	5.87	137.36	18.20		0.003210
		51576.99					
831.74	46.00	4555.84	7.64	7.77	6466.57	0.50	
	1.19234	139.91	5.94	137.83	18.05		0.003214
		51753.34					
844.78	47.00	4555.93	7.73	7.86	6641.28	0.50	
	1.20831	140.39	6.02	138.28	17.90		0.003218
		51924.88					
857.79	48.00	4556.02	7.82	7.94	6814.31	0.50	
	1.22438	140.85	6.09	138.73	17.75		0.003222
		52093.89					
871.99	49.00	4556.11	7.91	8.01	6984.31	0.50	
	1.24207	141.36	6.17	139.22	17.59		0.003227
		52276.00					
885.30	50.00	4556.20	8.00	8.10	7170.07	0.50	
	1.25954	141.83	6.24	139.67	17.45		0.003234
		52444.82					
905.47	51.00	4556.34	8.14	8.23	7454.78	0.51	
	1.28418	142.52	6.35	140.34	17.24		0.003239
		52696.57					
912.38	52.00	4556.39	8.19	8.28	7552.44	0.51	
	1.29115	142.76	6.39	140.56	17.17		0.003238
		52781.68					
922.88	53.00	4556.46	8.26	8.35	7705.19	0.51	
	1.30767	143.12	6.45	140.91	17.07		0.003250
		52910.58					
955.57	54.00	4556.67	8.47	8.57	8185.77	0.52	
	1.35081	144.21	6.63	141.95	16.75		0.003267
		53303.16					
1006.82	55.00	4557.01	8.81	8.90	8962.88	0.53	
	1.41670	145.85	6.90	143.54	16.29		0.003289
		53897.91					
1074.59	56.00	4557.45	9.25	9.35	10047.62	0.54	
	1.50488	147.94	7.26	145.54	15.73		0.003320
		54648.94					
1157.25	57.00	4557.98	9.78	9.88	11433.96	0.56	
	1.61722	150.35	7.70	147.85	15.12		0.003367
		55517.14					
1234.30	58.00	4558.46	10.26	10.18	12570.78	0.56	
	1.74074	152.48	8.10	149.89	14.60		0.003446
		56284.85					
1290.31	59.00	4558.81	10.61	10.53	13581.44	0.57	
	1.76174	153.93	8.38	151.29	14.27		0.003368
		56809.97					
1350.01	60.00	4559.16	10.96	10.96	14790.23	0.58	
	1.81807	154.69	8.73	152.73	13.93		0.003338
		57350.41					

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				HYCHAN.OUT			
1401.93	61.00	4559.47	11.27	9.03	11.14	15612.05	0.58
	1.86669	155.30				153.93	13.66
		57799.82					0.003314
1444.27	62.00	4559.72	11.52	9.27	11.28	16286.65	0.59
	1.90036	155.80				154.90	13.44
		58163.33					0.003285
1470.19	63.00	4559.87	11.68	9.42	11.36	16696.01	0.59
	1.92948	156.11				155.48	13.32
		58381.89					0.003283
1494.85	64.00	4560.02	11.82	9.56	11.49	17180.42	0.59
	1.96163	156.40				156.03	13.20
		58587.51					0.003289
1516.78	65.00	4560.15	11.95	9.68	11.62	17623.62	0.59
	1.98834	156.65				156.51	13.10
		58767.68					0.003291
1521.29	66.00	4560.17	11.98	9.71	11.64	17707.44	0.59
	1.99393	156.71				156.60	13.08
		58804.05					0.003292
1521.54	67.00	4560.18	11.98	9.71	11.64	17714.11	0.59
	1.99499	156.71				156.61	13.08
		58805.97					0.003293
1521.42	68.00	4560.18	11.98	9.71	11.65	17717.05	0.59
	1.99360	156.71				156.60	13.08
		58804.98					0.003291
1521.77	69.00	4560.18	11.98	9.71	11.65	17721.84	0.59
	1.99233	156.71				156.61	13.08
		58807.64					0.003288
1522.14	70.00	4560.18	11.98	9.71	11.65	17727.58	0.59
	1.99511	156.72				156.62	13.07
		58810.75					0.003292
1522.19	71.00	4560.18	11.98	9.71	11.65	17727.81	0.59
	1.99336	156.72				156.62	13.07
		58811.17					0.003289
1522.56	72.00	4560.18	11.98	9.72	11.65	17737.01	0.59
	1.99626	156.72				156.63	13.07
		58814.54					0.003293
1530.49	73.00	4560.23	12.03	9.76	11.69	17896.62	0.59
	2.00603	156.82				156.80	13.04
		58879.82					0.003294
1535.34	74.00	4560.26	12.06	9.79	11.72	17993.92	0.60
	2.01179	156.87				156.91	13.01
		58918.69					0.003294
1536.09	75.00	4560.26	12.06	9.79	11.72	18008.13	0.60
	2.01465	156.88				156.92	13.01
		58924.96					0.003297
1544.71	76.00	4560.31	12.11	9.84	11.77	18185.95	0.60
	2.02708	156.98				157.11	12.97
		58996.02					0.003301
1565.08	77.00	4560.43	12.23	9.95	11.88	18595.72	0.60
	2.04744	157.22				157.55	12.88
		59161.52					0.003296
1583.05	78.00	4560.54	12.34	10.06	11.97	18949.35	0.60
	2.06678	157.43				157.94	12.80
		59305.85					0.003294
1598.73	79.00	4560.63	12.43	10.14	12.03	19231.45	0.60
	2.07497	157.62				158.27	12.73
		59432.18					0.003278
1619.65	80.00	4560.76	12.56	10.26	12.09	19576.44	0.60
	2.08708	157.87				158.73	12.64
		59601.26					0.003260
1622.59	81.00	4560.77	12.57	10.28	12.09	19610.21	0.60
	2.08937	157.90				158.79	12.63
		59624.23					0.003258

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HYCHAN.OUT							
1610.28	82.00	4560.70	12.50	12.05	19403.16	0.60	0.003276
	2.08672	157.75	10.21	158.52	12.68		
		59523.40					
1603.67	83.00	4560.66	12.46	12.04	19305.26	0.60	0.003282
	2.08320	157.68	10.17	158.38	12.71		
		59470.84					
1603.09	84.00	4560.66	12.46	12.04	19295.47	0.60	0.003282
	2.08216	157.67	10.17	158.37	12.71		
		59466.26					
1602.61	85.00	4560.65	12.45	12.03	19284.74	0.60	0.003283
	2.08227	157.66	10.16	158.35	12.72		
		59462.10					
1592.35	86.00	4560.59	12.39	12.00	19102.35	0.60	0.003283
	2.07078	157.54	10.11	158.13	12.76		
		59377.62					
1562.74	87.00	4560.41	12.21	11.86	18539.28	0.60	0.003283
	2.03674	157.19	9.94	157.49	12.89		
		59136.35					
1518.50	88.00	4560.15	11.95	11.63	17658.45	0.59	0.003255
	1.96897	156.66	9.69	156.52	13.09		
		58774.46					
1446.14	89.00	4559.73	11.53	11.27	16292.98	0.59	0.003293
	1.90703	155.81	9.28	154.91	13.44		
		58168.10					
1388.22	90.00	4559.38	11.18	11.08	15385.73	0.58	0.003322
	1.85488	155.12	8.95	153.59	13.73		
		57671.49					
1344.20	91.00	4559.12	10.92	10.91	14659.76	0.58	0.003333
	1.80846	154.60	8.69	152.56	13.97		
		57285.88					
1297.22	92.00	4558.84	10.64	10.59	13741.31	0.57	0.003425
	1.80005	154.04	8.42	151.44	14.23		
		56865.39					
1262.04	93.00	4558.63	10.43	10.27	12955.62	0.56	0.003389
	1.74212	153.19	8.24	150.58	14.44		
		56540.98					
1211.19	94.00	4558.32	10.12	10.11	12243.46	0.56	0.003352
	1.66867	151.84	7.98	149.28	14.76		
		56055.01					
1172.53	95.00	4558.08	9.88	9.98	11696.28	0.56	0.003326
	1.61377	150.78	7.78	148.26	15.01		
		55672.36					
1139.02	96.00	4557.86	9.66	9.79	11147.69	0.56	0.003315
	1.57279	149.83	7.60	147.35	15.25		
		55330.36					
1115.34	97.00	4557.71	9.51	9.64	10748.14	0.55	0.003305
	1.54245	149.14	7.48	146.70	15.42		
		55084.09					
1092.09	98.00	4557.56	9.36	9.48	10350.41	0.55	0.003295
	1.51253	148.46	7.36	146.04	15.59		
		54837.85					
1075.62	99.00	4557.46	9.26	9.36	10066.18	0.54	0.003285
	1.49011	147.97	7.27	145.57	15.72		
		54661.20					
1053.83	100.00	4557.32	9.12	9.22	9712.13	0.54	0.003279
	1.46369	147.31	7.15	144.94	15.90		
		54423.51					
1034.61	101.00	4557.19	8.99	9.09	9400.65	0.53	0.003270
	1.43882	146.72	7.05	144.37	16.05		
		54211.17					
1017.28	102.00	4557.08	8.88	8.97	9124.84	0.53	0.003270
	1.41980	146.18	6.96	143.85	16.20		
		54016.80					

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		HYCHAN.OUT				
1002.99	103.00 4556.99 145.73 53854.69	8.79	6.88	8.88	8902.90 16.32	0.53 0.003263
989.35	104.00 4556.90 145.30 53697.78	8.70	6.81	8.78	8691.16 16.44	0.53 0.003255
967.20	105.00 4556.75 144.58 53439.45	8.55	6.69	8.64	8355.49 16.64	0.52 0.003247
951.70	106.00 4556.65 144.08 53256.88	8.45	6.61	8.54	8124.48 16.79	0.52 0.003247
939.88	107.00 4556.57 143.69 53115.52	8.37	6.54	8.46	7950.00 16.90	0.52 0.003245
928.65	108.00 4556.49 143.31 52979.98	8.29	6.48	8.38	7785.95 17.01	0.51 0.003242
926.31	109.00 4556.48 143.23 52952.09	8.28	6.47	8.37	7752.54 17.03	0.51 0.003245
935.96	110.00 4556.54 143.56 53069.15	8.34	6.52	8.44	7895.03 16.94	0.51 0.003248
955.04	111.00 4556.67 144.19 53297.20	8.47	6.62	8.56	8175.13 16.76	0.52 0.003252
951.66	112.00 4556.65 144.08 53256.30	8.45	6.61	8.54	8123.79 16.79	0.52 0.003246
941.84	113.00 4556.58 143.75 53139.48	8.38	6.55	8.47	7979.78 16.88	0.52 0.003254
957.18	114.00 4556.68 144.26 53322.61	8.48	6.64	8.58	8209.10 16.74	0.52 0.003259
980.82	115.00 4556.84 145.03 53599.96	8.64	6.76	8.73	8564.20 16.52	0.52 0.003261
977.82	116.00 4556.82 144.93 53564.57	8.62	6.75	8.71	8516.75 16.55	0.52 0.003259
974.72	117.00 4556.80 144.83 53528.75	8.60	6.73	8.69	8470.01 16.57	0.52 0.003256
975.48	118.00 4556.81 144.86 53537.68	8.61	6.73	8.70	8482.08 16.57	0.52 0.003261
984.75	119.00 4556.87 145.15 53645.63	8.67	6.78	8.76	8623.82 16.48	0.52 0.003264
987.80	120.00 4556.89 145.25 53680.68	8.69	6.80	8.78	8670.04 16.46	0.53 0.003260
986.97	121.00 4556.88 145.23 53670.96	8.68	6.80	8.77	8657.55 16.46	0.52 0.003256
977.85	122.00 4556.82 144.93 53564.86	8.62	6.75	8.71	8516.75 16.55	0.52 0.003257
973.90	123.00 4556.79 144.80 53519.05	8.60	6.73	8.68	8458.03 16.58	0.52 0.003257

		HYCHAN.OUT					
124.00	4556.73	8.53	8.62	8317.58	0.52		
964.64	144.50	6.68	142.24	16.67	0.003255		
1.35587	53410.13						
125.00	4556.71	8.51	8.60	8270.08	0.52		
961.41	144.40	6.66	142.14	16.70	0.003251		
1.35054	53372.49						
126.00	4556.71	8.51	8.60	8259.18	0.52		
960.77	144.38	6.65	142.12	16.70	0.003253		
1.35078	53364.71						
127.00	4556.65	8.45	8.54	8134.56	0.52		
952.37	144.10	6.61	141.85	16.78	0.003251		
1.34062	53265.00						
128.00	4556.63	8.43	8.52	8090.97	0.52		
949.40	144.00	6.59	141.76	16.81	0.003250		
1.33699	53230.00						
129.00	4556.63	8.43	8.52	8080.54	0.52		
948.71	143.98	6.59	141.74	16.82	0.003244		
1.33371	53221.63						
130.00	4556.57	8.37	8.46	7959.48	0.52		
940.54	143.71	6.54	141.47	16.89	0.003248		
1.32632	53123.55						
131.00	4556.56	8.36	8.45	7937.33	0.52		
938.97	143.66	6.54	141.43	16.91	0.003252		
1.32635	53105.19						
132.00	4556.67	8.47	8.57	8185.63	0.52		
955.64	144.21	6.63	141.96	16.75	0.003251		
1.34439	53304.35						
133.00	4556.71	8.51	8.60	8270.07	0.52		
961.40	144.40	6.66	142.14	16.70	0.003250		
1.35015	53372.30						
134.00	4556.71	8.51	8.60	8270.18	0.52		
961.42	144.40	6.66	142.14	16.70	0.003250		
1.35020	53372.62						
135.00	4556.71	8.51	8.60	8269.92	0.52		
961.41	144.40	6.66	142.14	16.70	0.003252		
1.35119	53372.45						
136.00	4556.71	8.51	8.60	8269.97	0.52		
961.36	144.40	6.66	142.14	16.70	0.003253		
1.35134	53371.82						
137.00	4556.71	8.51	8.60	8270.02	0.52		
961.39	144.40	6.66	142.14	16.70	0.003255		
1.35248	53372.23						
138.00	4556.71	8.51	8.60	8269.86	0.52		
961.40	144.40	6.66	142.14	16.70	0.003252		
1.35114	53372.38						
139.00	4556.71	8.51	8.60	8259.52	0.52		
960.69	144.37	6.65	142.11	16.70	0.003250		
1.34946	53363.76						
140.00	4556.65	8.45	8.54	8134.20	0.52		
952.38	144.10	6.61	141.85	16.78	0.003250		
1.34018	53265.11						
141.00	4556.63	8.43	8.52	8091.03	0.52		
949.38	144.00	6.59	141.76	16.81	0.003252		
1.33788	53229.75						
142.00	4556.63	8.43	8.52	8091.16	0.52		
949.41	144.00	6.59	141.76	16.81	0.003250		
1.33723	53230.08						
143.00	4556.63	8.43	8.52	8090.61	0.52		
949.45	144.00	6.59	141.76	16.81	0.003250		
1.33722	53230.55						
144.00	4556.63	8.43	8.52	8081.37	0.52		
948.80	143.98	6.59	141.74	16.82	0.003247		
1.33535	53222.60						

		HYCHAN.OUT					
940.50	145.00	4556.57	8.37	8.46	7959.20	0.52	
	1.32526	143.71	6.54	141.47	16.90		0.003245
	146.00	53123.05					
937.67	1.32298	4556.55	8.35	8.44	7917.03	0.51	
	143.61	53089.41	6.53	141.38	16.92		0.003247
	147.00	4556.55	8.35	8.44	7916.97	0.52	
937.60	1.32255	143.61	6.53	141.38	16.92		0.003246
	148.00	53088.57					
937.63	1.32196	4556.55	8.35	8.44	7917.06	0.52	
	143.61	53088.89	6.53	141.38	16.92		0.003245
	149.00	4556.55	8.35	8.44	7917.20	0.51	
937.68	1.32296	143.61	6.53	141.38	16.92		0.003247
	150.00	53089.57					
937.16	1.31948	4556.55	8.35	8.44	7910.69	0.51	
	143.60	53083.14	6.53	141.37	16.93		0.003240
	151.00	4556.51	8.31	8.40	7826.12	0.51	
931.37	1.31263	143.40	6.49	141.18	16.98		0.003239
	152.00	53013.10					
926.65	1.30674	4556.48	8.28	8.37	7757.03	0.51	
	143.24	52956.04	6.47	141.03	17.03		0.003237
	153.00	4556.47	8.27	8.36	7742.92	0.51	
925.66	1.30739	143.21	6.46	141.00	17.04		0.003241
	154.00	52944.04					
925.00	1.30469	4556.47	8.27	8.36	7733.10	0.51	
	143.19	52935.91	6.46	140.97	17.05		0.003237
	155.00	4556.42	8.22	8.31	7631.58	0.51	
917.88	1.29925	142.95	6.42	140.74	17.12		0.003243
	156.00	52849.01					
931.65	1.31508	4556.51	8.31	8.41	7832.20	0.51	
	143.41	53016.97	6.50	141.19	16.98		0.003244
	157.00	4556.55	8.35	8.44	7916.93	0.52	
937.57	1.32242	143.61	6.53	141.38	16.92		0.003246
	158.00	53088.25					
937.62	1.32206	4556.55	8.35	8.44	7916.95	0.52	
	143.61	53088.74	6.53	141.38	16.92		0.003245
	159.00	4556.55	8.35	8.44	7916.84	0.52	
937.58	1.32247	143.61	6.53	141.38	16.92		0.003246
	160.00	53088.30					
937.62	1.32070	4556.55	8.35	8.44	7917.36	0.52	
	143.61	53088.78	6.53	141.38	16.92		0.003242
	161.00	4556.55	8.35	8.44	7916.99	0.52	
937.57	1.32154	143.61	6.53	141.38	16.92		0.003244
	162.00	53088.20					
937.60	1.32142	4556.55	8.35	8.44	7917.10	0.52	
	143.61	53088.50	6.53	141.38	16.92		0.003244
	163.00	4556.55	8.35	8.44	7916.63	0.52	
937.57	1.32132	143.61	6.53	141.38	16.92		0.003243
	164.00	53088.17					
936.90	1.32020	4556.55	8.35	8.44	7907.17	0.51	
	143.59	53080.06	6.52	141.36	16.93		0.003242
	165.00	4556.49	8.29	8.38	7785.75	0.51	
928.57	1.31243	143.31	6.48	141.09	17.01		0.003246
	166.00	52979.02					

		HYCHAN.OUT					
166.00	4556.47	8.27	8.37	7742.92	0.51		
925.60	143.21	6.46	140.99	17.04		0.003239	
1.30615	52943.29						
167.00	4556.47	8.28	8.36	7743.18	0.51		
925.72	143.21	6.46	141.00	17.04		0.003242	
1.30751	52944.79						
168.00	4556.47	8.27	8.36	7742.77	0.51		
925.67	143.21	6.46	141.00	17.04		0.003239	
1.30638	52944.17						
169.00	4556.47	8.27	8.37	7743.05	0.51		
925.65	143.21	6.46	141.00	17.04		0.003241	
1.30727	52943.91						
170.00	4556.47	8.27	8.37	7743.17	0.51		
925.64	143.21	6.46	141.00	17.04		0.003244	
1.30839	52943.78						
171.00	4556.47	8.27	8.36	7742.54	0.51		
925.61	143.21	6.46	140.99	17.04		0.003238	
1.30613	52943.39						
172.00	4556.47	8.27	8.36	7733.49	0.51		
924.99	143.19	6.46	140.97	17.05		0.003241	
1.30664	52935.75						
173.00	4556.41	8.21	8.30	7612.28	0.51		
916.60	142.90	6.41	140.70	17.13		0.003239	
1.29646	52833.00						
174.00	4556.39	8.19	8.28	7568.83	0.51		
913.58	142.80	6.40	140.60	17.16		0.003238	
1.29275	52796.32						
175.00	4556.39	8.19	8.29	7569.01	0.51		
913.53	142.80	6.40	140.60	17.16		0.003236	
1.29162	52795.70						
176.00	4556.39	8.19	8.29	7568.89	0.51		
913.54	142.80	6.40	140.60	17.16		0.003240	
1.29327	52795.83						
177.00	4556.39	8.19	8.29	7569.48	0.51		
913.62	142.80	6.40	140.60	17.16		0.003234	
1.29121	52796.82						
178.00	4556.39	8.19	8.28	7568.33	0.51		
913.58	142.80	6.40	140.60	17.16		0.003240	
1.29337	52796.43						
179.00	4556.40	8.20	8.29	7588.64	0.51		
914.90	142.85	6.40	140.65	17.15		0.003246	
1.29720	52812.78						
180.00	4556.51	8.32	8.41	7832.33	0.51		
931.69	143.41	6.50	141.19	16.98		0.003242	
1.31425	53017.41						
181.00	4556.56	8.36	8.45	7926.51	0.52		
938.24	143.63	6.53	141.40	16.92		0.003247	
1.32334	53096.44						
182.00	4556.61	8.41	8.50	8048.99	0.52		
946.51	143.91	6.58	141.67	16.84		0.003245	
1.33175	53195.62						
183.00	4556.63	8.43	8.52	8090.97	0.52		
949.39	144.00	6.59	141.76	16.81		0.003250	
1.33692	53229.86						
184.00	4556.63	8.43	8.52	8090.70	0.52		
949.37	144.00	6.59	141.76	16.81		0.003247	
1.33587	53229.66						
185.00	4556.63	8.43	8.52	8091.28	0.52		
949.41	144.00	6.59	141.76	16.81		0.003250	
1.33690	53230.07						
186.00	4556.63	8.43	8.52	8091.07	0.52		
949.38	144.00	6.59	141.76	16.81		0.003246	
1.33536	53229.71						

HYCHAN.OUT							
187.00	4556.63	8.43	8.52	8091.27	0.52		
949.50	144.01	6.59	141.76	16.81	0.003247		
1.33572	53231.19						
188.00	4556.63	8.43	8.52	8090.82	0.52		
949.38	144.00	6.59	141.76	16.81	0.003248		
1.33617	53229.73						
189.00	4556.63	8.43	8.52	8090.92	0.52		
949.41	144.00	6.59	141.76	16.81	0.003247		
1.33593	53230.07						
190.00	4556.63	8.43	8.52	8081.10	0.52		
948.77	143.98	6.59	141.74	16.82	0.003245		
1.33431	53222.32						
191.00	4556.57	8.37	8.46	7959.20	0.52		
940.55	143.71	6.54	141.47	16.89	0.003246		
1.32570	53123.64						
192.00	4556.55	8.35	8.44	7916.79	0.52		
937.56	143.61	6.53	141.38	16.92	0.003248		
1.32317	53088.12						
193.00	4556.55	8.35	8.44	7917.18	0.52		
937.54	143.61	6.53	141.38	16.92	0.003244		
1.32160	53087.88						
194.00	4556.55	8.35	8.44	7917.27	0.52		
937.62	143.61	6.53	141.38	16.92	0.003244		
1.32161	53088.79						
195.00	4556.55	8.35	8.44	7916.88	0.52		
937.57	143.61	6.53	141.38	16.92	0.003247		
1.32259	53088.14						
196.00	4556.55	8.35	8.44	7917.05	0.52		
937.56	143.61	6.53	141.38	16.92	0.003247		
1.32272	53088.09						
197.00	4556.55	8.35	8.44	7917.25	0.52		
937.65	143.61	6.53	141.38	16.92	0.003243		
1.32123	53089.14						
198.00	4556.55	8.35	8.44	7916.61	0.52		
937.51	143.61	6.53	141.38	16.92	0.003244		
1.32133	53087.39						
199.00	4556.55	8.35	8.44	7916.75	0.51		
937.62	143.61	6.53	141.38	16.92	0.003245		
1.32219	53088.83						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 664

MAXIMUM DISCHARGE (CFS) = 20759.59 AT TIME = 80.13  
 MAXIMUM STAGE = 4558.68 AT TIME = 80.13

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4545.50	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4545.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4548.13	2.63	2.33	1810.92	0.25		
776.17	111.97	6.93	110.15	41.88	0.003031		
1.31126	60580.34						
3.00	4552.98	7.48	6.50	5523.65	0.42		

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		HYCHAN.OUT					
849.75	1.09055	147.22	5.77	141.53	18.93	0.003028	
	4.00	77842.27					
840.45	1.08186	4552.92	7.42	6.45	5422.37	0.42	
	5.00	146.91	5.72	141.26	19.05	0.003031	
	1.08186	77690.70					
835.91	1.07638	4552.89	7.39	6.43	5371.94	0.42	
	6.00	146.75	5.70	141.12	19.11	0.003028	
	1.07638	77616.99					
826.00	1.06733	4552.82	7.32	6.38	5265.77	0.42	
	7.00	146.42	5.64	140.82	19.23	0.003032	
	1.06733	77452.90					
811.87	1.05405	4552.73	7.23	6.30	5114.69	0.41	
	8.00	145.93	5.56	140.40	19.42	0.003036	
	1.05405	77217.44					
797.74	1.03926	4552.64	7.14	6.22	4965.46	0.41	
	9.00	145.44	5.49	139.96	19.61	0.003036	
	1.03926	76978.53					
783.77	1.02585	4552.54	7.04	6.15	4819.81	0.41	
	10.00	144.94	5.41	139.53	19.81	0.003040	
	1.02585	76739.05					
778.85	1.01955	4552.51	7.01	6.12	4767.39	0.41	
	11.00	144.77	5.38	139.37	19.88	0.003037	
	1.01955	76654.58					
768.74	1.01080	4552.44	6.94	6.07	4665.46	0.41	
	12.00	144.40	5.32	139.05	20.02	0.003043	
	1.01080	76476.96					
754.29	0.99659	4552.35	6.85	5.99	4519.18	0.40	
	13.00	143.88	5.24	138.58	20.24	0.003046	
	0.99659	76221.53					
749.45	0.99000	4552.32	6.82	5.96	4468.72	0.40	
	14.00	143.70	5.22	138.43	20.31	0.003042	
	0.99000	76135.95					
749.50	0.99040	4552.32	6.82	5.96	4469.07	0.40	
	15.00	143.70	5.22	138.43	20.31	0.003043	
	0.99040	76136.90					
749.49	0.99078	4552.32	6.82	5.96	4468.90	0.40	
	16.00	143.70	5.22	138.43	20.31	0.003044	
	0.99078	76136.62					
749.49	0.99083	4552.32	6.82	5.96	4468.96	0.40	
	17.00	143.70	5.22	138.43	20.31	0.003044	
	0.99083	76136.73					
749.81	0.99194	4552.32	6.82	5.96	4472.46	0.40	
	18.00	143.71	5.22	138.44	20.30	0.003047	
	0.99194	76142.51					
759.91	1.00231	4552.39	6.89	6.02	4575.69	0.40	
	19.00	144.09	5.27	138.77	20.15	0.003046	
	1.00231	76322.97					
774.89	1.01684	4552.49	6.99	6.10	4728.37	0.41	
	20.00	144.63	5.36	139.25	19.93	0.003041	
	1.01684	76586.25					
789.28	1.03010	4552.58	7.08	6.18	4876.89	0.41	
	21.00	145.14	5.44	139.70	19.73	0.003036	
	1.03010	76835.36					
794.02	1.03458	4552.61	7.11	6.20	4924.21	0.41	
	22.00	145.31	5.46	139.85	19.66	0.003034	
	1.03458	76916.16					
794.37	1.03628	4552.61	7.11	6.20	4928.37	0.41	
	23.00	145.32	5.47	139.86	19.66	0.003038	
	1.03628	76922.28					
804.72	1.04696	4552.68	7.18	6.26	5039.44	0.41	
	24.00	145.68	5.52	140.18	19.52	0.003037	
	1.04696	77098.55					
	24.00	4552.84	7.34	6.39	5302.48	0.42	

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		HYCHAN.OUT				
829.27	146.53	5.66	140.92	19.19	0.003033	
1.07114	77508.30					
25.00	4553.03	7.53	6.54	5610.32	0.42	
857.35	147.47	5.81	141.75	18.84	0.003030	
1.09922	77965.20					
26.00	4553.19	7.69	6.68	5903.22	0.42	
883.47	148.33	5.96	142.51	18.52	0.003023	
1.12369	78379.09					
27.00	4553.24	7.74	6.72	5985.19	0.43	
890.89	148.57	6.00	142.72	18.44	0.003023	
1.13117	78494.49					
28.00	4553.24	7.74	6.72	5992.38	0.43	
891.43	148.58	6.00	142.73	18.43	0.003024	
1.13218	78503.06					
29.00	4553.31	7.81	6.78	6107.84	0.43	
901.35	148.90	6.05	143.01	18.32	0.003023	
1.14188	78656.80					
30.00	4553.33	7.83	6.80	6152.17	0.43	
905.38	149.03	6.08	143.12	18.27	0.003021	
1.14508	78718.43					
31.00	4553.34	7.84	6.80	6160.12	0.43	
905.98	149.05	6.08	143.14	18.27	0.003022	
1.14630	78727.80					
32.00	4553.40	7.90	6.85	6280.72	0.43	
916.25	149.37	6.13	143.43	18.15	0.003022	
1.15673	78884.63					
33.00	4553.43	7.93	6.87	6325.89	0.43	
920.27	149.50	6.16	143.54	18.11	0.003021	
1.16049	78945.23					
34.00	4553.42	7.92	6.87	6317.61	0.43	
919.59	149.48	6.15	143.52	18.11	0.003020	
1.15919	78934.78					
35.00	4553.36	7.86	6.82	6197.87	0.43	
909.29	149.15	6.10	143.23	18.23	0.003020	
1.14892	78777.58					
36.00	4553.33	7.83	6.79	6143.93	0.43	
904.67	149.01	6.07	143.10	18.28	0.003020	
1.14401	78707.23					
37.00	4553.26	7.76	6.74	6029.50	0.43	
894.69	148.69	6.02	142.82	18.39	0.003024	
1.13551	78552.88					
38.00	4553.24	7.74	6.72	5985.04	0.43	
890.89	148.57	6.00	142.72	18.44	0.003023	
1.13105	78494.53					
39.00	4553.24	7.74	6.72	5984.94	0.43	
890.87	148.57	6.00	142.72	18.44	0.003024	
1.13167	78494.30					
40.00	4553.24	7.74	6.72	5984.98	0.43	
890.87	148.57	6.00	142.72	18.44	0.003023	
1.13102	78494.33					
41.00	4553.24	7.74	6.72	5985.17	0.43	
890.86	148.57	6.00	142.72	18.44	0.003023	
1.13101	78493.99					
42.00	4553.24	7.74	6.72	5992.57	0.43	
891.47	148.59	6.00	142.73	18.43	0.003024	
1.13210	78503.73					
43.00	4553.31	7.81	6.78	6107.95	0.43	
901.37	148.90	6.05	143.01	18.32	0.003020	
1.14073	78657.07					
44.00	4553.34	7.84	6.80	6160.19	0.43	
906.01	149.05	6.08	143.14	18.27	0.003022	
1.14629	78728.14					
45.00	4553.41	7.91	6.86	6289.20	0.43	

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916.92		149.39		6.14	143.45	18.14	0.003020
	1.15678	78894.97					
	46.00	4553.50	8.00	6.94	6464.33	0.43	
931.79		149.86		6.22	143.85	17.98	0.003019
	1.17118	79119.21					
	47.00	4553.59	8.09	7.01	6639.05	0.43	
946.42		150.31		6.30	144.25	17.83	0.003017
	1.18554	79337.02					
	48.00	4553.68	8.18	7.09	6812.05	0.44	
960.87		150.75		6.37	144.64	17.67	0.003017
	1.19990	79549.41					
	49.00	4553.78	8.28	7.15	6982.01	0.44	
975.89		151.20		6.45	145.03	17.52	0.003018
	1.21535	79767.51					
	50.00	4553.87	8.37	7.23	7167.40	0.44	
990.79		151.64		6.53	145.42	17.37	0.003018
	1.23065	79981.05					
	51.00	4554.01	8.51	7.35	7451.78	0.44	
1013.43		152.30		6.65	146.00	17.16	0.003011
	1.25019	80300.50					
	52.00	4554.06	8.56	7.39	7551.79	0.45	
1021.38		152.53		6.70	146.20	17.08	0.003012
	1.25855	80411.18					
	53.00	4554.13	8.63	7.46	7701.81	0.45	
1032.98		152.86		6.76	146.49	16.97	0.003013
	1.27050	80571.84					
	54.00	4554.35	8.85	7.65	8178.44	0.45	
1069.33		153.88		6.95	147.39	16.65	0.003009
	1.30467	81064.37					
	55.00	4554.70	9.20	7.95	8952.52	0.46	
1126.40		155.43		7.25	148.75	16.17	0.003007
	1.35964	81810.66					
	56.00	4555.15	9.65	8.35	10034.73	0.47	
1202.19		157.39		7.64	150.46	15.60	0.003009
	1.43410	82755.16					
	57.00	4555.68	10.18	8.83	11420.70	0.49	
1293.79		159.63		8.10	152.43	14.97	0.003010
	1.52235	83834.48					
	58.00	4556.11	10.61	9.18	12561.77	0.50	
1367.74		161.36		8.48	153.93	14.51	0.003047
	1.61169	84662.53					
	59.00	4556.49	10.99	9.48	13608.45	0.50	
1435.41		162.85		8.81	155.24	14.13	0.002950
	1.62261	85380.35					
	60.00	4556.95	11.45	9.79	14865.05	0.51	
1518.31		164.61		9.22	156.77	13.69	0.002893
	1.66498	86223.33					
	61.00	4557.28	11.78	9.98	15765.84	0.51	
1580.02		165.85		9.53	157.86	13.40	0.002858
	1.69892	86821.70					
	62.00	4557.56	12.06	10.14	16536.94	0.51	
1631.45		166.85		9.78	158.73	13.17	0.002824
	1.72311	87300.46					
	63.00	4557.72	12.22	10.24	17026.66	0.52	
1663.14		167.45		9.93	159.25	13.03	0.002821
	1.74840	87587.04					
	64.00	4557.85	12.35	10.43	17603.64	0.52	
1688.57		167.91		10.06	159.65	12.93	0.002836
	1.77947	87809.29					
	65.00	4557.96	12.46	10.60	18140.27	0.53	
1710.72		168.31		10.16	160.00	12.84	0.002848
	1.80634	88000.38					
	66.00	4557.99	12.49	10.64	18246.68	0.53	

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1715.39		168.40		10.19	160.07	12.82	0.002846
	1.80921	88039.84					
67.00		4557.99	12.49	10.64	18254.88	0.53	
1715.64		168.40		10.19	160.08	12.82	0.002843
	1.80708	88041.98					
68.00		4557.99	12.49	10.64	18257.75	0.53	
1715.62		168.40		10.19	160.08	12.82	0.002845
	1.80860	88041.81					
69.00		4557.99	12.49	10.64	18263.91	0.53	
1715.97		168.40		10.19	160.08	12.82	0.002840
	1.80590	88044.51					
70.00		4557.99	12.49	10.65	18271.47	0.53	
1716.33		168.41		10.19	160.09	12.82	0.002845
	1.80939	88047.67					
71.00		4557.99	12.49	10.65	18271.74	0.53	
1716.38		168.41		10.19	160.09	12.82	0.002846
	1.80997	88048.11					
72.00		4557.99	12.49	10.65	18281.10	0.53	
1716.71		168.42		10.19	160.09	12.81	0.002850
	1.81264	88051.25					
73.00		4558.03	12.53	10.71	18472.83	0.53	
1725.00		168.57		10.23	160.22	12.78	0.002853
	1.82169	88122.05					
74.00		4558.06	12.56	10.75	18594.83	0.53	
1730.05		168.66		10.26	160.30	12.76	0.002854
	1.82687	88164.53					
75.00		4558.06	12.56	10.75	18611.06	0.53	
1730.67		168.67		10.26	160.31	12.76	0.002854
	1.82745	88169.92					
76.00		4558.11	12.61	10.82	18823.56	0.54	
1739.62		168.83		10.30	160.45	12.73	0.002861
	1.83946	88246.04					
77.00		4558.21	12.71	10.98	19337.75	0.54	
1760.98		169.20		10.41	160.77	12.64	0.002866
	1.86156	88423.80					
78.00		4558.31	12.81	11.12	19792.07	0.55	
1780.44		169.53		10.50	161.06	12.57	0.002858
	1.87325	88584.02					
79.00		4558.40	12.90	11.20	20151.88	0.55	
1798.96		169.85		10.59	161.34	12.50	0.002848
	1.88254	88737.55					
80.00		4558.53	13.03	11.30	20592.57	0.55	
1822.53		170.21		10.71	161.72	12.41	0.002838
	1.89642	88943.40					
81.00		4558.55	13.05	11.31	20649.25	0.55	
1826.30		170.26		10.73	161.78	12.40	0.002839
	1.90033	88978.08					
82.00		4558.47	12.97	11.25	20393.17	0.55	
1812.64		170.09		10.66	161.55	12.45	0.002848
	1.89364	88850.52					
83.00		4558.43	12.93	11.22	20255.71	0.55	
1804.94		169.95		10.62	161.43	12.48	0.002853
	1.89065	88786.26					
84.00		4558.43	12.93	11.22	20242.77	0.55	
1804.30		169.94		10.62	161.42	12.48	0.002852
	1.88933	88781.05					
85.00		4558.43	12.93	11.22	20231.46	0.55	
1803.86		169.94		10.61	161.41	12.49	0.002851
	1.88836	88777.18					
86.00		4558.37	12.87	11.17	20009.45	0.55	
1792.09		169.73		10.56	161.23	12.53	0.002858
	1.88329	88678.52					
87.00		4558.21	12.71	10.97	19304.07	0.54	

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1759.68		169.16		10.40	160.74	12.65	0.002846
	1.84723	88408.08					
88.00		4557.98	12.48	10.63	18214.62	0.53	
1713.89		168.36		10.18	160.04	12.83	0.002806
	1.78268	88021.97					
89.00		4557.58	12.08	10.14	16602.76	0.51	
1636.80		166.93		9.81	158.80	13.15	0.002848
	1.74250	87339.89					
90.00		4557.21	11.71	9.93	15549.47	0.51	
1566.65		165.58		9.46	157.62	13.46	0.002895
	1.70953	86689.26					
91.00		4556.92	11.42	9.75	14764.43	0.51	
1514.47		164.52		9.21	156.69	13.72	0.002920
	1.67760	86181.14					
92.00		4556.57	11.07	9.52	13801.75	0.50	
1450.36		163.17		8.89	155.51	14.05	0.003026
	1.67852	85531.88					
93.00		4556.27	10.77	9.30	12993.81	0.50	
1397.39		162.01		8.63	154.50	14.34	0.003026
	1.62847	84976.57					
94.00		4556.00	10.50	9.09	12255.52	0.49	
1348.58		160.91		8.38	153.54	14.63	0.003005
	1.57144	84449.53					
95.00		4555.79	10.29	8.92	11701.81	0.49	
1312.29		160.07		8.20	152.81	14.85	0.002992
	1.53062	84045.44					
96.00		4555.58	10.08	8.74	11152.68	0.49	
1276.65		159.23		8.02	152.07	15.08	0.002990
	1.49603	83638.02					
97.00		4555.43	9.93	8.60	10751.97	0.48	
1250.30		158.59		7.88	151.51	15.26	0.002989
	1.47037	83331.30					
98.00		4555.28	9.78	8.46	10353.99	0.48	
1224.17		157.94		7.75	150.95	15.44	0.002991
	1.44671	83021.21					
99.00		4555.17	9.67	8.35	10069.09	0.47	
1205.38		157.47		7.65	150.54	15.57	0.002990
	1.42831	82795.24					
100.00		4555.02	9.52	8.23	9716.06	0.47	
1181.02		156.86		7.53	149.99	15.75	0.002994
	1.40655	82497.03					
101.00		4554.89	9.39	8.11	9403.49	0.47	
1159.22		156.29		7.42	149.50	15.92	0.002995
	1.38617	82226.59					
102.00		4554.78	9.28	8.01	9127.80	0.46	
1139.69		155.78		7.32	149.06	16.07	0.003001
	1.37020	81980.48					
103.00		4554.68	9.18	7.93	8905.11	0.46	
1123.53		155.36		7.23	148.68	16.20	0.002998
	1.35271	81774.34					
104.00		4554.59	9.09	7.85	8694.07	0.46	
1108.21		154.95		7.15	148.32	16.32	0.003000
	1.33892	81576.24					
105.00		4554.44	8.94	7.72	8359.21	0.45	
1083.42		154.27		7.02	147.73	16.53	0.003000
	1.31472	81250.73					
106.00		4554.33	8.83	7.62	8126.53	0.45	
1065.83		153.79		6.93	147.30	16.68	0.003005
	1.29974	81017.09					
107.00		4554.25	8.75	7.56	7952.13	0.45	
1052.56		153.42		6.86	146.98	16.80	0.003011
	1.28912	80838.22					
108.00		4554.17	8.67	7.49	7787.36	0.45	

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1039.86		153.06		6.79	146.66	16.91	0.003011
	1.27653	80665.40					
109.00		4554.15	8.65	7.48	7751.85	0.45	
1037.00		152.98		6.78	146.59	16.94	0.003012
	1.27406	80626.81					
110.00		4554.22	8.72	7.53	7892.34	0.45	
1047.72		153.28		6.84	146.86	16.84	0.003014
	1.28537	80773.56					
111.00		4554.35	8.85	7.64	8172.94	0.45	
1069.12		153.88		6.95	147.39	16.65	0.003007
	1.30368	81062.05					
112.00		4554.33	8.83	7.62	8125.79	0.45	
1065.79		153.79		6.93	147.30	16.68	0.003006
	1.30007	81016.61					
113.00		4554.26	8.76	7.57	7980.02	0.45	
1054.61		153.47		6.87	147.03	16.78	0.003010
	1.29057	80866.48					
114.00		4554.37	8.87	7.66	8204.84	0.45	
1071.43		153.94		6.96	147.44	16.63	0.003007
	1.30574	81093.05					
115.00		4554.53	9.03	7.80	8561.78	0.46	
1098.16		154.68		7.10	148.08	16.40	0.003001
	1.32964	81446.33					
116.00		4554.51	9.01	7.78	8518.29	0.46	
1095.15		154.59		7.08	148.01	16.43	0.003006
	1.32886	81406.24					
117.00		4554.49	8.99	7.76	8470.00	0.46	
1091.46		154.49		7.06	147.92	16.46	0.003005
	1.32483	81358.23					
118.00		4554.49	8.99	7.76	8481.35	0.46	
1092.26		154.52		7.07	147.94	16.45	0.003005
	1.32565	81368.94					
119.00		4554.55	9.05	7.82	8622.32	0.46	
1102.63		154.80		7.12	148.19	16.37	0.003007
	1.33651	81504.73					
120.00		4554.58	9.08	7.84	8669.96	0.46	
1106.19		154.89		7.14	148.27	16.34	0.003006
	1.33957	81550.88					
121.00		4554.57	9.07	7.83	8658.25	0.46	
1105.40		154.87		7.14	148.26	16.34	0.003002
	1.33699	81540.40					
122.00		4554.51	9.01	7.78	8518.35	0.46	
1095.13		154.59		7.08	148.01	16.43	0.003005
	1.32827	81405.92					
123.00		4554.48	8.98	7.76	8458.76	0.46	
1090.67		154.47		7.06	147.90	16.47	0.003003
	1.32295	81347.58					
124.00		4554.42	8.92	7.70	8319.17	0.45	
1080.29		154.19		7.01	147.65	16.56	0.003008
	1.31526	81210.10					
125.00		4554.40	8.90	7.68	8269.99	0.45	
1076.51		154.08		6.99	147.56	16.59	0.003005
	1.31026	81160.40					
126.00		4554.39	8.89	7.68	8259.83	0.45	
1075.79		154.06		6.98	147.55	16.59	0.003007
	1.31040	81150.65					
127.00		4554.34	8.84	7.63	8135.99	0.45	
1066.53		153.81		6.93	147.32	16.67	0.003008
	1.30145	81026.77					
128.00		4554.31	8.81	7.61	8091.02	0.45	
1063.03		153.71		6.92	147.24	16.70	0.003005
	1.29691	80980.16					
129.00		4554.31	8.81	7.61	8081.08	0.45	

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1062.32	153.69	6.91	147.22	16.71	0.003011	
1.29864	80970.44					
130.00	4554.25	8.75	7.56	7960.97	0.45	
1053.21	153.43	6.86	146.99	16.79	0.003009	
1.28867	80847.13					
131.00	4554.24	8.74	7.55	7936.07	0.45	
1051.17	153.38	6.85	146.95	16.81	0.003013	
1.28838	80820.23					
132.00	4554.36	8.86	7.65	8182.74	0.45	
1069.81	153.90	6.95	147.40	16.65	0.003006	
1.30374	81071.45					
133.00	4554.40	8.90	7.68	8270.06	0.45	
1076.50	154.08	6.99	147.56	16.59	0.003006	
1.31029	81160.37					
134.00	4554.40	8.90	7.68	8270.16	0.45	
1076.52	154.08	6.99	147.56	16.59	0.003006	
1.31066	81160.52					
135.00	4554.40	8.90	7.68	8269.96	0.45	
1076.50	154.08	6.99	147.56	16.59	0.003010	
1.31243	81160.28					
136.00	4554.40	8.90	7.68	8269.97	0.45	
1076.50	154.08	6.99	147.56	16.59	0.003006	
1.31027	81160.33					
137.00	4554.40	8.90	7.68	8270.04	0.45	
1076.55	154.08	6.99	147.57	16.59	0.003005	
1.30992	81160.92					
138.00	4554.40	8.90	7.68	8269.80	0.45	
1076.51	154.08	6.99	147.56	16.59	0.003009	
1.31160	81160.51					
139.00	4554.39	8.89	7.68	8260.15	0.45	
1075.78	154.06	6.98	147.55	16.59	0.003004	
1.30869	81150.51					
140.00	4554.33	8.84	7.63	8135.64	0.45	
1066.53	153.81	6.93	147.32	16.67	0.003007	
1.30114	81026.67					
141.00	4554.31	8.81	7.61	8091.11	0.45	
1063.05	153.71	6.92	147.24	16.70	0.003006	
1.29711	80980.36					
142.00	4554.31	8.81	7.61	8091.10	0.45	
1063.02	153.71	6.92	147.24	16.70	0.003007	
1.29765	80980.07					
143.00	4554.31	8.81	7.61	8090.60	0.45	
1063.01	153.71	6.92	147.24	16.70	0.003009	
1.29846	80979.87					
144.00	4554.31	8.81	7.61	8081.97	0.45	
1062.37	153.69	6.91	147.22	16.71	0.003005	
1.29628	80971.15					
145.00	4554.25	8.75	7.56	7960.58	0.45	
1053.18	153.43	6.86	146.99	16.79	0.003009	
1.28881	80846.81					
146.00	4554.23	8.73	7.54	7917.09	0.45	
1049.81	153.34	6.85	146.91	16.82	0.003007	
1.28441	80801.48					
147.00	4554.23	8.73	7.54	7916.94	0.45	
1049.77	153.34	6.85	146.91	16.82	0.003012	
1.28656	80801.02					
148.00	4554.23	8.73	7.54	7917.05	0.45	
1049.78	153.34	6.85	146.91	16.82	0.003005	
1.28362	80801.11					
149.00	4554.23	8.73	7.54	7917.22	0.45	
1049.82	153.34	6.85	146.91	16.82	0.003008	
1.28523	80801.59					
150.00	4554.23	8.73	7.54	7911.00	0.45	

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				HYCHAN.OUT			
1049.34	153.33	6.84	146.90	16.83	0.003007		
1.28434	80795.00						
151.00	4554.19	8.69	7.51	7827.34	0.45		
1042.88	153.14	6.81	146.74	16.88	0.003008		
1.27815	80706.84						
152.00	4554.16	8.66	7.48	7757.48	0.45		
1037.51	152.99	6.78	146.61	16.93	0.003010		
1.27354	80633.55						
153.00	4554.15	8.65	7.47	7742.95	0.45		
1036.32	152.96	6.78	146.58	16.94	0.003009		
1.27208	80617.32						
154.00	4554.15	8.65	7.47	7733.68	0.45		
1035.68	152.94	6.77	146.56	16.95	0.003006		
1.27030	80608.37						
155.00	4554.10	8.60	7.43	7631.87	0.45		
1027.68	152.71	6.73	146.36	17.02	0.003016		
1.26643	80498.18						
156.00	4554.19	8.69	7.51	7829.28	0.45		
1042.85	153.14	6.81	146.74	16.88	0.003007		
1.27785	80706.98						
157.00	4554.23	8.73	7.54	7916.96	0.45		
1049.76	153.34	6.85	146.91	16.82	0.003011		
1.28612	80800.77						
158.00	4554.23	8.73	7.54	7916.91	0.45		
1049.77	153.34	6.85	146.91	16.82	0.003007		
1.28470	80801.04						
159.00	4554.23	8.73	7.54	7916.83	0.45		
1049.75	153.34	6.85	146.91	16.82	0.003004		
1.28314	80800.70						
160.00	4554.23	8.73	7.54	7917.33	0.45		
1049.79	153.34	6.85	146.91	16.82	0.003008		
1.28507	80801.22						
161.00	4554.23	8.73	7.54	7917.00	0.45		
1049.72	153.34	6.85	146.91	16.82	0.003010		
1.28589	80800.34						
162.00	4554.23	8.73	7.54	7917.10	0.45		
1049.75	153.34	6.85	146.91	16.82	0.003007		
1.28454	80800.71						
163.00	4554.23	8.73	7.54	7916.62	0.45		
1049.76	153.34	6.85	146.91	16.82	0.003005		
1.28385	80800.77						
164.00	4554.23	8.73	7.54	7907.75	0.45		
1049.07	153.32	6.84	146.89	16.83	0.003007		
1.28379	80791.34						
165.00	4554.17	8.67	7.49	7787.27	0.45		
1039.84	153.06	6.79	146.66	16.91	0.003012		
1.27671	80665.14						
166.00	4554.15	8.65	7.47	7742.89	0.45		
1036.30	152.96	6.78	146.58	16.94	0.003011		
1.27290	80617.07						
167.00	4554.15	8.65	7.47	7743.15	0.45		
1036.36	152.96	6.78	146.58	16.94	0.003008		
1.27180	80617.88						
168.00	4554.15	8.65	7.47	7742.78	0.45		
1036.34	152.96	6.78	146.58	16.94	0.003012		
1.27360	80617.59						
169.00	4554.15	8.65	7.47	7743.01	0.45		
1036.36	152.96	6.78	146.58	16.94	0.003011		
1.27284	80617.84						
170.00	4554.15	8.65	7.47	7743.18	0.45		
1036.36	152.96	6.78	146.58	16.94	0.003011		
1.27308	80617.83						
171.00	4554.15	8.65	7.47	7742.55	0.45		

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		HYCHAN.OUT				
1036.29	152.96	6.78	146.58	16.94	0.003010	
1.27269	80616.95					
172.00	4554.15	8.65	7.47	7734.10	0.45	
1035.67	152.94	6.77	146.56	16.95	0.003007	
1.27068	80608.23					
173.00	4554.09	8.59	7.42	7613.82	0.45	
1026.36	152.67	6.72	146.33	17.04	0.003012	
1.26367	80479.52					
174.00	4554.07	8.57	7.40	7568.78	0.45	
1022.76	152.57	6.70	146.24	17.07	0.003014	
1.26077	80430.14					
175.00	4554.07	8.57	7.40	7568.98	0.45	
1022.73	152.57	6.70	146.24	17.07	0.003011	
1.25933	80429.73					
176.00	4554.07	8.57	7.40	7568.97	0.45	
1022.81	152.57	6.70	146.24	17.07	0.003011	
1.25949	80430.81					
177.00	4554.07	8.57	7.40	7569.36	0.45	
1022.78	152.57	6.70	146.24	17.07	0.003013	
1.26027	80430.41					
178.00	4554.07	8.57	7.40	7568.37	0.45	
1022.76	152.57	6.70	146.24	17.07	0.003013	
1.26024	80430.13					
179.00	4554.08	8.58	7.41	7587.48	0.45	
1024.18	152.61	6.71	146.27	17.06	0.003015	
1.26278	80450.14					
180.00	4554.19	8.69	7.51	7829.33	0.45	
1042.85	153.14	6.81	146.74	16.88	0.003005	
1.27671	80707.08					
181.00	4554.24	8.74	7.55	7925.94	0.45	
1050.42	153.36	6.85	146.93	16.82	0.003010	
1.28642	80810.00					
182.00	4554.29	8.79	7.59	8047.52	0.45	
1059.69	153.62	6.90	147.16	16.73	0.003009	
1.29513	80935.41					
183.00	4554.31	8.81	7.61	8091.03	0.45	
1063.06	153.71	6.92	147.24	16.70	0.003007	
1.29761	80980.50					
184.00	4554.31	8.81	7.61	8090.63	0.45	
1063.00	153.71	6.92	147.24	16.70	0.003010	
1.29890	80979.72					
185.00	4554.31	8.81	7.61	8091.33	0.45	
1063.07	153.71	6.92	147.24	16.70	0.003007	
1.29790	80980.63					
186.00	4554.31	8.81	7.61	8091.00	0.45	
1063.05	153.71	6.92	147.24	16.70	0.003007	
1.29759	80980.40					
187.00	4554.31	8.81	7.61	8091.27	0.45	
1063.07	153.71	6.92	147.24	16.70	0.003007	
1.29763	80980.76					
188.00	4554.31	8.81	7.61	8090.82	0.45	
1063.04	153.71	6.92	147.24	16.70	0.003008	
1.29797	80980.34					
189.00	4554.31	8.81	7.61	8090.91	0.45	
1063.03	153.71	6.92	147.24	16.70	0.003007	
1.29773	80980.19					
190.00	4554.31	8.81	7.61	8081.76	0.45	
1062.38	153.69	6.91	147.22	16.71	0.003008	
1.29736	80971.23					
191.00	4554.25	8.75	7.56	7960.64	0.45	
1053.20	153.43	6.86	146.99	16.79	0.003010	
1.28907	80847.11					
192.00	4554.23	8.73	7.54	7916.74	0.45	

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HYCHAN.OUT						
1049.73	153.34	6.85	146.91	16.82	0.003010	
1.28587	80800.41					
193.00	4554.23	8.73	7.54	7917.19	0.45	
1049.75	153.34	6.85	146.91	16.82	0.003009	
1.28523	80800.68					
194.00	4554.23	8.73	7.54	7917.30	0.45	
1049.76	153.34	6.85	146.91	16.82	0.003012	
1.28664	80800.79					
195.00	4554.23	8.73	7.54	7916.92	0.45	
1049.72	153.34	6.85	146.91	16.82	0.003008	
1.28482	80800.29					
196.00	4554.23	8.73	7.54	7917.02	0.45	
1049.75	153.34	6.85	146.91	16.82	0.003008	
1.28503	80800.67					
197.00	4554.23	8.73	7.54	7917.14	0.45	
1049.77	153.34	6.85	146.91	16.82	0.003009	
1.28561	80800.95					
198.00	4554.23	8.73	7.54	7916.66	0.45	
1049.71	153.34	6.85	146.91	16.82	0.003008	
1.28487	80800.21					
199.00	4554.23	8.73	7.54	7916.82	0.45	
1049.79	153.34	6.85	146.91	16.82	0.003010	
1.28593	80801.23					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 681

MAXIMUM DISCHARGE (CFS) = 20682.40 AT TIME = 80.15  
 MAXIMUM STAGE = 4557.04 AT TIME = 80.14

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4543.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4543.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
784.07	2.00	4545.87	2.57	2.15	1685.33	0.24		
		111.32	7.04	109.57	42.59			0.002346
	1.03100	57521.62						
862.86	3.00	4551.12	7.82	6.40	5524.03	0.40		
		148.98	5.79	143.08	18.29			0.002340
	0.84569	75118.11						
853.25	4.00	4551.06	7.76	6.36	5423.95	0.40		
		148.66	5.74	142.80	18.40			0.002346
	0.84034	74969.34						
848.73	5.00	4551.03	7.73	6.33	5372.50	0.40		
		148.51	5.72	142.67	18.46			0.002343
	0.83557	74899.48						
838.46	6.00	4550.96	7.66	6.28	5267.95	0.40		
		148.16	5.66	142.36	18.59			0.002349
	0.82961	74737.95						
824.06	7.00	4550.86	7.56	6.21	5116.94	0.40		
		147.66	5.58	141.92	18.77			0.002354
	0.81979	74509.77						
809.68	8.00	4550.77	7.47	6.14	4967.66	0.40		
		147.16	5.50	141.48	18.95			0.002360

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		HYCHAN.OUT					
	0.81026	74278.55					
795.46	9.00	4550.67	7.37	6.06	4821.53	0.39	
		146.66	5.42	141.04	19.14		0.002368
	0.80155	74046.96					
790.67	10.00	4550.64	7.34	6.03	4767.86	0.39	
		146.49	5.40	140.89	19.20		0.002368
	0.79739	73968.63					
780.15	11.00	4550.56	7.26	5.98	4667.81	0.39	
		146.11	5.34	140.56	19.35		0.002373
	0.79054	73793.05					
765.44	12.00	4550.46	7.16	5.91	4521.03	0.39	
		145.58	5.26	140.09	19.56		0.002381
	0.78105	73545.76					
760.77	13.00	4550.43	7.13	5.87	4468.63	0.39	
		145.41	5.23	139.94	19.62		0.002380
	0.77705	73467.39					
760.85	14.00	4550.43	7.13	5.87	4469.07	0.39	
		145.41	5.23	139.94	19.62		0.002380
	0.77694	73468.78					
760.83	15.00	4550.43	7.13	5.87	4468.90	0.39	
		145.41	5.23	139.94	19.62		0.002381
	0.77728	73468.48					
760.84	16.00	4550.43	7.13	5.87	4468.97	0.39	
		145.41	5.23	139.94	19.62		0.002382
	0.77773	73468.55					
761.10	17.00	4550.43	7.13	5.88	4472.08	0.39	
		145.42	5.23	139.95	19.62		0.002381
	0.77771	73473.19					
771.16	18.00	4550.50	7.20	5.93	4573.37	0.39	
		145.79	5.29	140.27	19.47		0.002374
	0.78367	73643.92					
786.39	19.00	4550.61	7.31	6.01	4726.02	0.39	
		146.34	5.37	140.76	19.26		0.002368
	0.79415	73898.54					
801.09	20.00	4550.71	7.41	6.09	4874.98	0.39	
		146.87	5.45	141.22	19.06		0.002363
	0.80443	74140.34					
806.18	21.00	4550.74	7.44	6.11	4924.22	0.39	
		147.04	5.48	141.38	19.00		0.002362
	0.80791	74222.83					
806.46	22.00	4550.74	7.44	6.11	4927.97	0.39	
		147.05	5.48	141.39	18.99		0.002362
	0.80845	74227.62					
816.72	23.00	4550.81	7.51	6.17	5036.68	0.40	
		147.41	5.54	141.70	18.86		0.002357
	0.81470	74393.80					
841.57	24.00	4550.98	7.68	6.30	5298.03	0.40	
		148.27	5.68	142.45	18.55		0.002346
	0.83093	74788.02					
870.16	25.00	4551.17	7.87	6.44	5606.03	0.40	
		149.22	5.83	143.30	18.20		0.002334
	0.84940	75230.38					
896.87	26.00	4551.35	8.05	6.58	5900.08	0.41	
		150.10	5.98	144.06	17.90		0.002324
	0.86660	75632.79					
904.76	27.00	4551.40	8.10	6.62	5985.16	0.41	
		150.35	6.02	144.28	17.81		0.002325
	0.87306	75749.41					
905.21	28.00	4551.40	8.10	6.62	5991.86	0.41	
		150.36	6.02	144.30	17.81		0.002322
	0.87234	75756.22					
915.23	29.00	4551.47	8.17	6.67	6106.20	0.41	
		150.68	6.07	144.58	17.70		0.002317

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		HYCHAN.OUT					
	0.87832	75903.62					
919.54	30.00	4551.50	8.20	6.10	6.69	6152.15	0.41
		150.82			144.70	17.65	0.002316
	0.88115	75966.28					
920.06	31.00	4551.50	8.20	6.10	6.69	6159.46	0.41
		150.84			144.71	17.64	0.002318
	0.88222	75974.01					
930.44	32.00	4551.57	8.27	6.16	6.75	6279.08	0.41
		151.16			145.00	17.53	0.002312
	0.88790	76124.76					
934.70	33.00	4551.60	8.30	6.18	6.77	6325.82	0.41
		151.29			145.12	17.49	0.002313
	0.89155	76185.82					
934.04	34.00	4551.59	8.29	6.17	6.76	6318.27	0.41
		151.27			145.10	17.50	0.002313
	0.89099	76176.20					
923.47	35.00	4551.52	8.22	6.12	6.71	6199.49	0.41
		150.94			144.81	17.61	0.002319
	0.88514	76022.94					
918.80	36.00	4551.49	8.19	6.09	6.69	6144.60	0.41
		150.79			144.68	17.66	0.002319
	0.88163	75955.34					
908.56	37.00	4551.43	8.13	6.04	6.64	6031.12	0.41
		150.47			144.39	17.77	0.002323
	0.87517	75804.82					
904.78	38.00	4551.40	8.10	6.02	6.61	5985.04	0.41
		150.35			144.29	17.81	0.002324
	0.87261	75749.66					
904.76	39.00	4551.40	8.10	6.02	6.61	5984.94	0.41
		150.35			144.28	17.81	0.002324
	0.87267	75749.42					
904.76	40.00	4551.40	8.10	6.02	6.61	5984.94	0.41
		150.35			144.28	17.81	0.002325
	0.87323	75749.45					
904.70	41.00	4551.40	8.10	6.02	6.62	5985.22	0.41
		150.35			144.28	17.81	0.002322
	0.87202	75748.45					
905.28	42.00	4551.40	8.10	6.02	6.62	5992.02	0.41
		150.37			144.30	17.81	0.002323
	0.87277	75757.21					
915.25	43.00	4551.47	8.17	6.07	6.67	6106.21	0.41
		150.68			144.58	17.70	0.002318
	0.87861	75903.99					
920.10	44.00	4551.50	8.20	6.10	6.69	6159.63	0.41
		150.84			144.71	17.64	0.002316
	0.88165	75974.59					
931.08	45.00	4551.57	8.27	6.16	6.75	6286.83	0.41
		151.18			145.02	17.53	0.002312
	0.88848	76134.11					
946.25	46.00	4551.67	8.37	6.24	6.83	6462.04	0.42
		151.65			145.43	17.37	0.002306
	0.89783	76351.52					
961.16	47.00	4551.77	8.47	6.32	6.90	6636.75	0.42
		152.11			145.83	17.22	0.002300
	0.90706	76562.50					
975.83	48.00	4551.86	8.56	6.40	6.98	6809.86	0.42
		152.56			146.22	17.07	0.002293
	0.91523	76767.40					
990.80	49.00	4551.96	8.66	6.48	7.04	6979.70	0.42
		153.00			146.62	16.93	0.002289
	0.92513	76973.85					
1005.96	50.00	4552.06	8.76	6.56	7.12	7164.66	0.42
		153.45			147.01	16.79	0.002283

HYCHAN.OUT									
	0.93386	77180.48							
1029.05	51.00	4552.21	8.91	6.68	7.24	7448.65	0.43		
		154.12				147.60	16.57	0.002269	
	0.94541	77490.05							
1037.35	52.00	4552.26	8.96	6.72	7.28	7551.16	0.43		
		154.36				147.81	16.50	0.002273	
	0.95301	77599.88							
1048.99	53.00	4552.33	9.03	6.78	7.34	7698.34	0.43		
		154.70				148.10	16.40	0.002266	
	0.95862	77753.05							
1085.92	54.00	4552.56	9.26	6.97	7.52	8170.97	0.44		
		155.73				149.01	16.08	0.002248	
	0.97806	78228.62							
1144.20	55.00	4552.93	9.63	7.27	7.81	8941.90	0.44		
		157.30				150.39	15.62	0.002219	
	1.00715	78952.85							
1222.00	56.00	4553.40	10.10	7.67	8.20	10021.61	0.45		
		159.31				152.14	15.06	0.002186	
	1.04638	79873.67							
1315.44	57.00	4553.97	10.67	8.14	8.67	11407.25	0.47		
		161.58				154.13	14.45	0.002145	
	1.08969	80918.90							
1389.04	58.00	4554.40	11.10	8.51	9.04	12552.13	0.48		
		163.29				155.62	14.02	0.002125	
	1.12790	81701.77							
1462.65	59.00	4554.83	11.53	8.87	9.29	13594.72	0.48		
		164.92				157.05	13.62	0.002019	
	1.11729	82449.89							
1560.31	60.00	4555.39	12.09	9.34	9.52	14856.44	0.48		
		166.99				158.85	13.14	0.001908	
	1.11248	83395.20							
1630.09	61.00	4555.79	12.49	9.68	9.67	15768.90	0.48		
		168.40				160.08	12.82	0.001871	
	1.13004	84041.42							
1686.72	62.00	4556.10	12.81	9.95	9.81	16546.26	0.48		
		169.51				161.04	12.58	0.001837	
	1.14033	84548.56							
1720.30	63.00	4556.29	12.99	10.11	9.91	17041.33	0.48		
		170.14				161.61	12.44	0.001850	
	1.16735	84846.93							
1737.63	64.00	4556.40	13.10	10.20	10.13	17608.16	0.49		
		170.36				161.93	12.36	0.001889	
	1.20207	85013.88							
1751.43	65.00	4556.49	13.19	10.27	10.36	18140.02	0.50		
		170.53				162.19	12.30	0.001911	
	1.22464	85147.74							
1754.46	66.00	4556.51	13.21	10.29	10.40	18246.71	0.50		
		170.57				162.24	12.28	0.001908	
	1.22461	85176.87							
1754.57	67.00	4556.51	13.21	10.29	10.40	18255.22	0.50		
		170.57				162.24	12.28	0.001910	
	1.22625	85177.87							
1754.53	68.00	4556.51	13.21	10.29	10.41	18257.85	0.50		
		170.57				162.24	12.28	0.001906	
	1.22352	85177.53							
1754.81	69.00	4556.51	13.21	10.29	10.41	18264.23	0.50		
		170.57				162.25	12.28	0.001905	
	1.22276	85180.16							
1755.04	70.00	4556.51	13.21	10.29	10.41	18271.96	0.51		
		170.58				162.25	12.28	0.001913	
	1.22803	85182.39							
1755.11	71.00	4556.51	13.21	10.29	10.41	18272.05	0.50		
		170.58				162.25	12.28	0.001915	

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1755.28	1.22922	85183.03	13.21	10.41	18280.98	0.51	0.001919
	72.00	4556.51		10.29	162.26	12.28	
1760.85	1.23196	85184.70	13.25	10.49	18471.75	0.51	0.001930
	73.00	4556.55		10.32	162.36	12.26	
1764.03	1.24271	85238.12	13.27	10.54	18594.75	0.51	0.001935
	74.00	4556.57		10.33	162.42	12.24	
1764.37	1.24766	85268.39	13.27	10.55	18610.10	0.51	0.001937
	75.00	4556.57		10.34	162.42	12.24	
1770.23	1.24911	85271.81	13.30	10.63	18820.18	0.51	0.001959
	76.00	4556.60		10.37	162.53	12.22	
1783.63	1.26733	85327.91	13.39	10.83	19323.46	0.52	0.001981
	77.00	4556.69		10.43	162.77	12.16	
1796.53	1.29020	85456.77	13.47	11.00	19764.08	0.53	0.001987
	78.00	4556.77		10.50	163.01	12.10	
1811.96	1.30186	85580.98	13.57	11.10	20104.45	0.53	0.001996
	79.00	4556.87		10.58	163.29	12.04	
1832.67	1.31726	85729.06	13.70	11.20	20519.09	0.53	0.002004
	80.00	4557.00		10.68	163.67	11.95	
1836.39	1.33619	85926.52	13.72	11.21	20585.07	0.53	0.002005
	81.00	4557.02		10.70	163.73	11.93	
1824.11	1.33864	85959.83	13.64	11.15	20337.87	0.53	0.001990
	82.00	4556.94		10.64	163.51	11.99	
1817.28	1.32139	85844.05	13.60	11.12	20205.59	0.53	0.001990
	83.00	4556.90		10.61	163.39	12.01	
1816.71	1.31678	85779.41	13.60	11.12	20193.29	0.53	0.001990
	84.00	4556.90		10.60	163.38	12.02	
1816.34	1.31675	85774.03	13.59	11.11	20183.52	0.53	0.001986
	85.00	4556.89		10.60	163.37	12.02	
1806.19	1.31401	85770.35	13.53	11.06	19978.09	0.53	0.001982
	86.00	4556.83		10.55	163.19	12.06	
1782.67	1.30472	85672.59	13.38	10.83	19297.58	0.52	0.001935
	87.00	4556.68		10.43	162.75	12.16	
1753.43	1.25919	85446.03	13.20	10.39	18222.41	0.50	0.001851
	88.00	4556.50		10.28	162.22	12.29	
1692.62	1.18738	85164.62	12.84	9.83	16636.94	0.48	0.001872
	89.00	4556.14		9.98	161.14	12.55	
1616.25	1.16571	84596.98	12.41	9.63	15570.99	0.48	0.001923
	90.00	4555.71		9.61	159.83	12.88	
1557.48	1.15363	83911.86	12.08	9.49	14781.52	0.48	0.001986
	91.00	4555.38		9.33	158.79	13.15	
1482.64	1.15640	83365.82	11.65	9.32	13818.85	0.48	0.002085
	92.00	4554.94		8.97	157.42	13.52	
		165.35					

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1420.19	1.16663	82643.41	11.28	8.66	9.16	13006.18	0.48	0.002127
	93.00	4554.58				156.23	13.85	
		163.98						
1371.13	1.14956	82019.62	11.00	8.42	8.94	12262.12	0.48	0.002139
	94.00	4554.30				155.26	14.12	
		162.88						
1335.31	1.12373	81513.34	10.78	8.24	8.77	11706.99	0.47	0.002152
	95.00	4554.08				154.54	14.33	
		162.05						
1299.27	1.10658	81133.99	10.57	8.06	8.59	11157.76	0.47	0.002167
	96.00	4553.87				153.80	14.55	
		161.20						
1272.46	1.08966	80743.12	10.41	7.93	8.45	10755.79	0.46	0.002178
	97.00	4553.71				153.23	14.72	
		160.56						
1245.77	1.07724	80447.02	10.25	7.79	8.31	10357.77	0.46	0.002193
	98.00	4553.55				152.66	14.90	
		159.90						
1226.27	1.06620	80146.69	10.13	7.69	8.21	10072.08	0.45	0.002200
	99.00	4553.43				152.24	15.03	
		159.42						
1201.40	1.05587	79924.17	9.98	7.57	8.09	9720.05	0.45	0.002208
	100.00	4553.28				151.69	15.20	
		158.79						
1178.91	1.04244	79635.31	9.84	7.45	7.98	9406.43	0.45	0.002219
	101.00	4553.14				151.18	15.36	
		158.21						
1158.80	1.03158	79370.45	9.72	7.35	7.88	9130.87	0.45	0.002224
	102.00	4553.02				150.72	15.51	
		157.69						
1142.13	1.01963	79129.84	9.61	7.26	7.80	8907.32	0.44	0.002231
	103.00	4552.91				150.34	15.64	
		157.25						
1126.48	1.01116	78928.11	9.52	7.18	7.72	8697.13	0.44	0.002238
	104.00	4552.82				149.97	15.76	
		156.83						
1101.07	1.00296	78735.87	9.36	7.05	7.60	8362.98	0.44	0.002249
	105.00	4552.66				149.37	15.96	
		156.14						
1082.96	0.98982	78418.95	9.25	6.96	7.51	8128.64	0.44	0.002255
	106.00	4552.54				148.93	16.11	
		155.65						
1069.38	0.97914	78190.52	9.16	6.89	7.44	7954.26	0.43	0.002260
	107.00	4552.46				148.60	16.22	
		155.27						
1056.40	0.97116	78016.59	9.08	6.82	7.37	7788.86	0.43	0.002264
	108.00	4552.38				148.28	16.33	
		154.90						
1053.32	0.96340	77848.86	9.06	6.80	7.36	7751.21	0.43	0.002267
	109.00	4552.36				148.21	16.36	
		154.82						
1064.12	0.96265	77809.35	9.13	6.86	7.41	7889.62	0.43	0.002260
	110.00	4552.43				148.48	16.27	
		155.12						
1086.02	0.96759	77949.81	9.26	6.97	7.52	8170.68	0.44	0.002249
	111.00	4552.56				149.01	16.08	
		155.73						
1082.93	0.97847	78230.39	9.25	6.96	7.51	8127.83	0.44	0.002256
	112.00	4552.54				148.93	16.11	
		155.64						
1071.35	0.97932	78190.19	9.17	6.90	7.45	7980.26	0.43	0.002260
	113.00	4552.47				148.65	16.21	
		155.32						

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			HYCHAN.OUT				
	0.97286	78042.46					
1088.28	114.00	4552.58	9.28	6.99	7.54	8200.43	0.44
		155.79				149.06	16.06
	0.97924	78259.12					0.002247
1115.75	115.00	4552.75	9.45	7.13	7.67	8559.31	0.44
		156.54				149.72	15.84
	0.99545	78604.09					0.002238
1112.96	116.00	4552.73	9.43	7.11	7.66	8519.93	0.44
		156.47				149.65	15.86
	0.99551	78568.71					0.002243
1109.04	117.00	4552.71	9.41	7.09	7.64	8469.96	0.44
		156.36				149.56	15.90
	0.99400	78520.21					0.002246
1109.82	118.00	4552.71	9.41	7.10	7.64	8480.66	0.44
		156.38				149.58	15.89
	0.99423	78530.14					0.002245
1120.44	119.00	4552.78	9.48	7.15	7.69	8620.71	0.44
		156.67				149.83	15.81
	0.99929	78662.36					0.002239
1124.17	120.00	4552.80	9.50	7.17	7.71	8669.96	0.44
		156.77				149.92	15.78
	1.00276	78708.27					0.002241
1123.40	121.00	4552.80	9.50	7.17	7.71	8658.95	0.44
		156.75				149.90	15.78
	1.00151	78698.61					0.002239
1112.92	122.00	4552.73	9.43	7.11	7.66	8519.97	0.44
		156.47				149.65	15.87
	0.99581	78568.23					0.002244
1108.32	123.00	4552.70	9.40	7.09	7.63	8459.42	0.44
		156.34				149.54	15.90
	0.99246	78511.06					0.002244
1097.72	124.00	4552.64	9.34	7.03	7.58	8320.88	0.44
		156.05				149.29	15.99
	0.98704	78377.69					0.002249
1093.72	125.00	4552.61	9.31	7.01	7.56	8269.88	0.44
		155.94				149.20	16.02
	0.98557	78327.74					0.002252
1093.04	126.00	4552.61	9.31	7.01	7.56	8260.56	0.44
		155.92				149.18	16.03
	0.98505	78318.91					0.002252
1083.62	127.00	4552.55	9.25	6.96	7.51	8137.43	0.44
		155.66				148.95	16.10
	0.97922	78199.19					0.002254
1079.95	128.00	4552.53	9.23	6.94	7.49	8091.00	0.43
		155.56				148.86	16.13
	0.97645	78152.84					0.002254
1079.26	129.00	4552.52	9.22	6.94	7.49	8081.69	0.43
		155.54				148.85	16.14
	0.97671	78143.83					0.002256
1069.98	130.00	4552.46	9.16	6.89	7.44	7962.41	0.43
		155.28				148.62	16.22
	0.97125	78024.60					0.002259
1067.77	131.00	4552.45	9.15	6.88	7.43	7934.90	0.43
		155.22				148.57	16.24
	0.96970	77996.70					0.002259
1086.72	132.00	4552.57	9.27	6.98	7.53	8179.75	0.44
		155.75				149.03	16.08
	0.98035	78239.34					0.002252
1093.71	133.00	4552.61	9.31	7.01	7.56	8270.08	0.44
		155.94				149.20	16.02
	0.98465	78327.67					0.002250
1093.74	134.00	4552.61	9.31	7.01	7.56	8270.11	0.44
		155.94				149.20	16.02
							0.002250

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	0.98464	78327.95					
1093.74	135.00	4552.61	9.31	7.01	7.56	8270.00	0.44
		155.94				149.20	16.02
	0.98494	78327.98					0.002251
1093.72	136.00	4552.61	9.31	7.01	7.56	8269.92	0.44
		155.94				149.20	16.02
	0.98494	78327.82					0.002251
1093.78	137.00	4552.61	9.31	7.01	7.56	8270.04	0.44
		155.95				149.20	16.02
	0.98406	78328.52					0.002248
1093.77	138.00	4552.61	9.31	7.01	7.56	8269.84	0.44
		155.95				149.20	16.02
	0.98446	78328.37					0.002249
1093.02	139.00	4552.61	9.31	7.01	7.56	8260.71	0.44
		155.92				149.18	16.03
	0.98566	78318.71					0.002253
1083.62	140.00	4552.55	9.25	6.96	7.51	8137.18	0.44
		155.66				148.95	16.10
	0.97933	78199.14					0.002255
1079.98	141.00	4552.53	9.23	6.94	7.49	8091.15	0.43
		155.56				148.86	16.13
	0.97560	78153.14					0.002252
1079.93	142.00	4552.53	9.23	6.94	7.49	8091.06	0.43
		155.56				148.86	16.13
	0.97606	78152.52					0.002253
1079.91	143.00	4552.53	9.23	6.94	7.49	8090.62	0.43
		155.56				148.86	16.13
	0.97606	78152.29					0.002253
1079.33	144.00	4552.52	9.22	6.94	7.49	8082.50	0.43
		155.55				148.85	16.14
	0.97587	78144.72					0.002254
1070.01	145.00	4552.46	9.16	6.89	7.44	7962.10	0.43
		155.29				148.62	16.22
	0.97123	78024.93					0.002259
1066.44	146.00	4552.44	9.14	6.87	7.42	7917.10	0.43
		155.19				148.53	16.25
	0.96932	77979.38					0.002260
1066.38	147.00	4552.44	9.14	6.87	7.42	7916.97	0.43
		155.18				148.53	16.25
	0.96891	77978.61					0.002260
1066.41	148.00	4552.44	9.14	6.87	7.42	7916.98	0.43
		155.19				148.53	16.25
	0.96816	77978.96					0.002258
1066.43	149.00	4552.44	9.14	6.87	7.42	7917.26	0.43
		155.19				148.53	16.25
	0.96825	77979.30					0.002258
1065.97	150.00	4552.44	9.14	6.87	7.42	7911.34	0.43
		155.17				148.52	16.25
	0.96982	77973.20					0.002262
1059.43	151.00	4552.40	9.10	6.84	7.39	7828.58	0.43
		154.99				148.36	16.31
	0.96598	77888.34					0.002265
1053.92	152.00	4552.36	9.06	6.81	7.36	7757.96	0.43
		154.83				148.22	16.36
	0.96277	77816.92					0.002267
1052.67	153.00	4552.35	9.05	6.80	7.36	7742.93	0.43
		154.80				148.19	16.37
	0.96103	77800.77					0.002265
1052.04	154.00	4552.35	9.05	6.80	7.35	7734.26	0.43
		154.78				148.18	16.37
	0.96151	77792.43					0.002267
1043.83	155.00	4552.30	9.00	6.75	7.31	7632.24	0.43
		154.55				147.97	16.44
							0.002272

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			HYCHAN.OUT				
	0.95736	77684.84					
1059.15	156.00	4552.40	9.10	6.83	7.39	7826.29	0.43
		154.98				148.35	16.31
	0.96406	77885.29					0.002261
1066.41	157.00	4552.44	9.14	6.87	7.42	7916.96	0.43
		155.19				148.53	16.25
	0.96905	77978.96					0.002260
1066.42	158.00	4552.44	9.14	6.87	7.42	7916.93	0.43
		155.19				148.53	16.25
	0.96876	77979.09					0.002259
1066.39	159.00	4552.44	9.14	6.87	7.42	7916.75	0.43
		155.19				148.53	16.25
	0.96879	77978.74					0.002259
1066.43	160.00	4552.44	9.14	6.87	7.42	7917.37	0.43
		155.19				148.53	16.25
	0.96948	77979.21					0.002261
1066.36	161.00	4552.44	9.14	6.87	7.42	7917.03	0.43
		155.18				148.53	16.25
	0.96884	77978.35					0.002259
1066.34	162.00	4552.44	9.14	6.87	7.42	7917.02	0.43
		155.18				148.53	16.25
	0.96990	77978.07					0.002262
1066.39	163.00	4552.44	9.14	6.87	7.42	7916.62	0.43
		155.19				148.53	16.25
	0.97003	77978.69					0.002262
1065.75	164.00	4552.44	9.14	6.87	7.42	7908.33	0.43
		155.17				148.51	16.25
	0.96893	77970.31					0.002261
1056.35	165.00	4552.38	9.08	6.82	7.37	7788.91	0.43
		154.90				148.28	16.33
	0.96340	77848.25					0.002264
1052.65	166.00	4552.35	9.05	6.80	7.36	7742.80	0.43
		154.80				148.19	16.37
	0.96118	77800.46					0.002265
1052.71	167.00	4552.35	9.06	6.80	7.36	7743.10	0.43
		154.80				148.19	16.37
	0.96073	77801.22					0.002264
1052.69	168.00	4552.35	9.05	6.80	7.36	7742.81	0.43
		154.80				148.19	16.37
	0.96151	77801.05					0.002266
1052.69	169.00	4552.35	9.05	6.80	7.36	7742.95	0.43
		154.80				148.19	16.37
	0.96154	77801.03					0.002266
1052.72	170.00	4552.35	9.06	6.80	7.36	7743.22	0.43
		154.80				148.19	16.37
	0.96170	77801.44					0.002266
1052.62	171.00	4552.35	9.05	6.80	7.36	7742.57	0.43
		154.80				148.19	16.37
	0.96236	77800.09					0.002268
1052.03	172.00	4552.35	9.05	6.80	7.35	7734.70	0.43
		154.78				148.18	16.37
	0.96116	77792.29					0.002266
1042.52	173.00	4552.29	8.99	6.75	7.30	7615.44	0.43
		154.51				147.94	16.46
	0.95527	77667.31					0.002269
1038.73	174.00	4552.27	8.97	6.73	7.29	7568.79	0.43
		154.40				147.84	16.49
	0.95262	77617.87					0.002269
1038.71	175.00	4552.27	8.97	6.73	7.29	7568.91	0.43
		154.40				147.84	16.49
	0.95330	77617.63					0.002271
1038.81	176.00	4552.27	8.97	6.73	7.29	7568.97	0.43
		154.40				147.85	16.49

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			HYCHAN.OUT				
	0.95261	77618.98					
1038.78	177.00	4552.27	8.97	7.29	7569.38	0.43	
		154.40	6.73		147.84	16.49	0.002272
	0.95376	77618.57					
1038.75	178.00	4552.27	8.97	7.29	7568.31	0.43	
		154.40	6.73		147.84	16.49	0.002270
	0.95290	77618.22					
1040.15	179.00	4552.28	8.98	7.29	7586.34	0.43	
		154.44	6.73		147.88	16.48	0.002270
	0.95386	77636.90					
1059.13	180.00	4552.40	9.10	7.39	7826.23	0.43	
		154.98	6.83		148.35	16.31	0.002260
	0.96385	77885.05					
1067.05	181.00	4552.45	9.15	7.43	7925.40	0.43	
		155.20	6.88		148.55	16.24	0.002262
	0.97026	77987.31					
1076.47	182.00	4552.50	9.21	7.47	8046.00	0.43	
		155.47	6.92		148.78	16.16	0.002257
	0.97522	78108.53					
1080.00	183.00	4552.53	9.23	7.49	8091.12	0.43	
		155.56	6.94		148.86	16.13	0.002252
	0.97574	78153.45					
1079.89	184.00	4552.53	9.23	7.49	8090.55	0.43	
		155.56	6.94		148.86	16.13	0.002257
	0.97750	78152.02					
1079.98	185.00	4552.53	9.23	7.49	8091.39	0.43	
		155.56	6.94		148.86	16.13	0.002256
	0.97749	78153.12					
1079.94	186.00	4552.53	9.23	7.49	8090.97	0.43	
		155.56	6.94		148.86	16.13	0.002256
	0.97706	78152.65					
1079.98	187.00	4552.53	9.23	7.49	8091.23	0.43	
		155.56	6.94		148.86	16.13	0.002258
	0.97826	78153.20					
1079.94	188.00	4552.53	9.23	7.49	8090.80	0.43	
		155.56	6.94		148.86	16.13	0.002255
	0.97695	78152.68					
1079.96	189.00	4552.53	9.23	7.49	8090.94	0.43	
		155.56	6.94		148.86	16.13	0.002256
	0.97711	78152.94					
1079.33	190.00	4552.52	9.22	7.49	8082.39	0.43	
		155.55	6.94		148.85	16.14	0.002258
	0.97760	78144.69					
1070.00	191.00	4552.46	9.16	7.44	7962.11	0.43	
		155.29	6.89		148.62	16.22	0.002262
	0.97249	78024.84					
1066.34	192.00	4552.44	9.14	7.42	7916.72	0.43	
		155.18	6.87		148.53	16.25	0.002260
	0.96917	77978.12					
1066.39	193.00	4552.44	9.14	7.42	7917.21	0.43	
		155.19	6.87		148.53	16.25	0.002261
	0.96960	77978.73					
1066.37	194.00	4552.44	9.14	7.42	7917.30	0.43	
		155.18	6.87		148.53	16.25	0.002261
	0.96957	77978.49					
1066.32	195.00	4552.44	9.14	7.42	7916.96	0.43	
		155.18	6.87		148.53	16.25	0.002257
	0.96770	77977.83					
1066.42	196.00	4552.44	9.14	7.42	7916.91	0.43	
		155.19	6.87		148.53	16.25	0.002258
	0.96822	77979.13					
1066.39	197.00	4552.44	9.14	7.42	7917.17	0.43	
		155.19	6.87		148.53	16.25	0.002262

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0.96977	77978.73							
198.00	4552.44	9.14	7.42	7916.70	0.43			
1066.37	155.18	6.87	148.53	16.25	0.002261			
0.96936	77978.48							
199.00	4552.44	9.14	7.42	7916.86	0.43			
1066.45	155.19	6.87	148.53	16.25	0.002260			
0.96920	77979.47							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 682

MAXIMUM DISCHARGE (CFS) = 20538.82 AT TIME = 80.16  
 MAXIMUM STAGE = 4555.15 AT TIME = 80.12

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4540.90	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	1.00	4540.90	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
745.84	2.00	4543.46	2.56	2.10	1565.80	0.23			
	1.27317	111.18	6.71	109.43	42.75	0.003041			
808.85	3.00	4549.20	8.30	6.83	5524.18	0.42			
	1.01189	151.30	5.35	145.12	17.49	0.003033			
800.75	4.00	4549.14	8.24	6.78	5425.50	0.42			
	1.00452	151.00	5.30	144.86	17.59	0.003036			
796.21	5.00	4549.10	8.20	6.75	5372.93	0.42			
	0.99867	150.84	5.28	144.72	17.64	0.003032			
787.65	6.00	4549.04	8.14	6.69	5269.97	0.41			
	0.98960	150.52	5.23	144.44	17.75	0.003031			
774.70	7.00	4548.94	8.04	6.61	5118.96	0.41			
	0.97548	150.04	5.16	144.02	17.92	0.003028			
761.74	8.00	4548.84	7.94	6.52	4969.70	0.41			
	0.96160	149.56	5.09	143.59	18.09	0.003026			
748.80	9.00	4548.74	7.84	6.44	4823.20	0.41			
	0.94947	149.06	5.02	143.15	18.26	0.003029			
743.84	10.00	4548.70	7.80	6.41	4768.26	0.40			
	0.94352	148.88	5.00	142.99	18.33	0.003026			
735.09	11.00	4548.63	7.73	6.35	4669.93	0.40			
	0.93343	148.53	4.95	142.69	18.45	0.003023			
721.73	12.00	4548.53	7.63	6.27	4522.85	0.40			
	0.91946	148.01	4.88	142.23	18.64	0.003022			
716.69	13.00	4548.49	7.59	6.24	4468.60	0.40			
	0.91499	147.82	4.85	142.06	18.71	0.003024			
		72449.02							

		HYCHAN.OUT					
716.72	14.00	4548.49	7.59	6.24	4469.05	18.71	0.40
	0.91587	147.82	4.85	142.06			0.003027
716.73	15.00	72449.83	7.59	6.24	4468.93	18.71	0.40
	0.91590	147.82	4.85	142.06			0.003027
716.72	16.00	72449.59	7.59	6.24	4468.98	18.71	0.40
	0.91531	147.82	4.85	142.06			0.003025
716.96	17.00	72449.64	7.59	6.24	4471.73	18.71	0.40
	0.91642	147.83	4.85	142.07			0.003028
725.93	18.00	72454.27	7.67	6.30	4571.16	18.58	0.40
	0.92567	148.19	4.90	142.38			0.003028
739.74	19.00	72615.53	7.77	6.39	4723.88	18.38	0.40
	0.94039	148.73	4.97	142.86			0.003030
753.03	20.00	72857.05	7.87	6.47	4873.28	18.20	0.41
	0.95474	149.24	5.05	143.31			0.003032
757.62	21.00	73085.80	7.91	6.50	4924.20	18.14	0.41
	0.95919	149.41	5.07	143.46			0.003031
757.88	22.00	73162.73	7.91	6.50	4927.59	18.13	0.41
	0.95989	149.42	5.07	143.47			0.003033
767.07	23.00	73167.75	7.98	6.56	5034.16	18.01	0.41
	0.97029	149.77	5.12	143.78			0.003036
789.26	24.00	73325.66	8.15	6.71	5293.95	17.73	0.41
	0.99433	150.60	5.24	144.50			0.003041
815.03	25.00	73697.01	8.35	6.87	5602.04	17.41	0.42
	1.02119	151.54	5.38	145.33			0.003043
839.13	26.00	74117.11	8.53	7.03	5897.19	17.13	0.42
	1.04622	152.39	5.51	146.08			0.003045
846.34	27.00	74499.66	8.58	7.07	5985.15	17.05	0.43
	1.05369	152.64	5.54	146.30			0.003045
846.80	28.00	74610.54	8.59	7.08	5991.30	17.04	0.43
	1.05465	152.65	5.55	146.31			0.003047
855.75	29.00	74618.05	8.65	7.13	6104.69	16.94	0.43
	1.06272	152.97	5.59	146.58			0.003044
859.60	30.00	74758.12	8.68	7.16	6152.07	16.90	0.43
	1.06613	153.10	5.61	146.70			0.003043
860.11	31.00	74816.77	8.68	7.16	6158.99	16.89	0.43
	1.06835	153.12	5.62	146.72			0.003048
869.38	32.00	74824.89	8.75	7.22	6277.47	16.79	0.43
	1.07702	153.44	5.67	147.00			0.003046
873.23	33.00	74968.20	8.78	7.24	6325.83	16.75	0.43
	1.08208	153.57	5.69	147.11			0.003050
872.72	34.00	75026.02	8.78	7.24	6318.81	16.76	0.43
	1.08062	153.55	5.68	147.09			0.003047
		75017.70					

		HYCHAN.OUT					
863.58	35.00	4549.61	8.71	7.18	6201.09	0.43	
	1.07135	153.23	5.64	146.82	16.86	0.003046	
	36.00	74876.07					
859.09	1.06623	4549.58	8.68	7.15	6145.12	0.43	
	37.00	153.08	5.61	146.68	16.91	0.003045	
	1.05722	74808.19					
850.24	38.00	4549.51	8.61	7.10	6032.66	0.43	
	1.05722	152.77	5.57	146.41	17.01	0.003044	
	39.00	74669.02					
846.36	1.05311	4549.48	8.58	7.07	5985.07	0.43	
	40.00	152.64	5.54	146.30	17.05	0.003044	
	1.05290	74610.50					
846.36	41.00	4549.48	8.58	7.07	5984.94	0.43	
	1.05366	152.64	5.54	146.29	17.05	0.003043	
	42.00	74610.35					
846.33	1.05328	4549.48	8.58	7.07	5984.94	0.43	
	43.00	152.64	5.54	146.29	17.05	0.003045	
	1.05422	74610.34					
846.37	44.00	4549.48	8.58	7.07	5985.21	0.43	
	1.05328	152.64	5.54	146.30	17.05	0.003044	
	45.00	74610.54					
846.83	1.05422	4549.49	8.59	7.08	5991.50	0.43	
	46.00	152.65	5.55	146.31	17.04	0.003046	
	1.06396	74618.46					
855.77	47.00	4549.55	8.65	7.13	6104.65	0.43	
	1.06396	152.97	5.59	146.58	16.94	0.003048	
	48.00	74758.18					
860.12	1.06794	4549.58	8.68	7.16	6159.06	0.43	
	49.00	153.12	5.62	146.72	16.89	0.003047	
	1.06794	74825.06					
869.88	1.07911	4549.66	8.76	7.22	6284.71	0.43	
	50.00	153.45	5.67	147.01	16.79	0.003051	
	1.07911	74976.35					
883.41	1.09320	4549.76	8.86	7.31	6459.94	0.43	
	51.00	153.92	5.74	147.42	16.64	0.003052	
	1.09320	75182.59					
896.82	1.10784	4549.86	8.96	7.40	6634.68	0.44	
	52.00	154.36	5.81	147.81	16.50	0.003056	
	1.10784	75382.62					
910.25	1.12092	4549.96	9.06	7.48	6807.69	0.44	
	53.00	154.80	5.88	148.19	16.37	0.003055	
	1.12092	75578.75					
924.10	1.13418	4550.06	9.16	7.55	6977.60	0.44	
	54.00	155.25	5.95	148.59	16.23	0.003054	
	1.13418	75780.74					
937.93	1.14769	4550.16	9.26	7.64	7162.20	0.44	
	55.00	155.69	6.02	148.97	16.10	0.003053	
	1.14769	75976.30					
958.99	1.16736	4550.31	9.41	7.76	7445.65	0.45	
	56.00	156.35	6.13	149.55	15.90	0.003050	
	1.16736	76269.88					
966.81	1.17655	4550.36	9.46	7.81	7550.67	0.45	
	57.00	156.58	6.17	149.76	15.83	0.003054	
	1.17655	76375.12					
977.31	1.18676	4550.43	9.53	7.87	7695.21	0.45	
	58.00	156.91	6.23	150.04	15.74	0.003053	
	1.18676	76520.33					
1010.86	1.22023	4550.67	9.77	8.08	8164.13	0.46	
	59.00	157.92	6.40	150.92	15.45	0.003055	
	1.22023	76970.91					
1064.29	1.27146	4551.04	10.14	8.39	8932.05	0.46	
		159.46	6.67	152.28	15.02	0.003053	
		77661.52					

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1135.67	56.00	4551.53	10.63	7.03	8.81	10009.56	0.48
	1.34289	161.44				154.01	14.49
		78543.14					0.003059
1215.50	57.00	4552.10	11.20	7.43	9.37	11394.99	0.49
	1.42439	163.67				155.95	13.92
		79535.12					0.003074
1279.13	58.00	4552.54	11.64	7.74	9.81	12543.29	0.51
	1.48110	165.34				157.41	13.52
		80277.73					0.003068
1352.61	59.00	4553.03	12.13	8.09	10.04	13579.40	0.51
	1.51109	167.14				158.98	13.10
		81079.70					0.002992
1459.73	60.00	4553.73	12.83	8.61	10.17	14846.36	0.50
	1.55532	169.60				161.12	12.56
		82171.47					0.002896
1535.32	61.00	4554.21	13.31	8.99	10.26	15748.41	0.50
	1.61045	170.78				162.55	12.21
		82902.00					0.002871
1592.95	62.00	4554.59	13.69	9.29	10.32	16441.23	0.49
	1.65330	171.54				163.65	11.95
		83463.86					0.002853
1625.29	63.00	4554.81	13.91	9.45	10.39	16891.31	0.49
	1.69829	171.97				164.27	11.81
		83778.36					0.002880
1630.84	64.00	4554.85	13.95	9.48	10.71	17460.33	0.51
	1.72034	172.05				164.39	11.78
		83837.11					0.002909
1631.96	65.00	4554.86	13.96	9.48	11.03	18007.31	0.52
	1.74016	172.08				164.42	11.78
		83853.15					0.002940
1632.34	66.00	4554.86	13.96	9.49	11.10	18116.21	0.52
	1.73567	172.08				164.43	11.78
		83857.69					0.002932
1632.17	67.00	4554.86	13.96	9.48	11.11	18126.52	0.52
	1.74184	172.08				164.42	11.78
		83855.85					0.002943
1632.14	68.00	4554.86	13.96	9.48	11.11	18128.67	0.52
	1.73451	172.08				164.42	11.78
		83855.51					0.002931
1632.27	69.00	4554.86	13.96	9.49	11.11	18136.13	0.52
	1.73032	172.08				164.42	11.78
		83856.70					0.002923
1632.35	70.00	4554.86	13.96	9.49	11.12	18143.89	0.52
	1.74323	172.08				164.43	11.78
		83857.44					0.002945
1632.42	71.00	4554.86	13.96	9.49	11.11	18143.16	0.52
	1.74494	172.08				164.43	11.78
		83858.27					0.002948
1632.35	72.00	4554.86	13.96	9.49	11.12	18151.72	0.52
	1.74869	172.08				164.43	11.78
		83857.99					0.002954
1633.28	73.00	4554.87	13.97	9.49	11.23	18343.22	0.53
	1.75543	172.10				164.45	11.77
		83869.80					0.002964
1633.30	74.00	4554.87	13.97	9.49	11.31	18472.47	0.53
	1.76184	172.10				164.45	11.77
		83871.09					0.002975
1633.27	75.00	4554.87	13.97	9.49	11.32	18485.77	0.53
	1.76164	172.10				164.45	11.77
		83871.43					0.002975
1634.09	76.00	4554.88	13.98	9.49	11.44	18698.99	0.54
	1.78035	172.12				164.48	11.76
		83882.55					0.003005

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				HYCHAN.OUT			
1635.42	77.00	4554.90	14.00	9.50	11.75	19214.93	0.55
		172.15				164.52	11.75
	1.79903	83904.21					0.003035
1638.55	78.00	4554.92	14.02	9.52	12.00	19665.43	0.57
		172.20				164.59	11.74
	1.81117	83942.84					0.003050
1649.57	79.00	4555.00	14.10	9.57	12.12	19996.62	0.57
		172.36				164.81	11.69
	1.82904	84055.59					0.003063
1666.93	80.00	4555.12	14.22	9.66	12.23	20381.98	0.57
		172.60				165.15	11.61
	1.85310	84227.10					0.003075
1670.63	81.00	4555.14	14.24	9.68	12.24	20445.90	0.57
		172.64				165.21	11.60
	1.85304	84257.70					0.003069
1660.16	82.00	4555.07	14.17	9.62	12.18	20220.82	0.57
		172.50				165.01	11.64
	1.83577	84156.82					0.003057
1654.24	83.00	4555.03	14.13	9.59	12.15	20094.46	0.57
		172.42				164.90	11.67
	1.83038	84100.05					0.003057
1653.75	84.00	4555.03	14.13	9.59	12.14	20082.62	0.57
		172.41				164.89	11.67
	1.83043	84095.31					0.003058
1653.50	85.00	4555.03	14.13	9.59	12.14	20074.69	0.57
		172.41				164.89	11.67
	1.82553	84092.45					0.003050
1645.35	86.00	4554.97	14.07	9.55	12.09	19888.50	0.57
		172.29				164.72	11.71
	1.80669	84008.88					0.003032
1635.21	87.00	4554.89	13.99	9.50	11.74	19203.19	0.55
		172.14				164.51	11.76
	1.75545	83897.84					0.002961
1631.82	88.00	4554.86	13.96	9.48	11.09	18102.99	0.52
		172.07				164.41	11.78
	1.69749	83849.10					0.002869
1598.65	89.00	4554.62	13.72	9.32	10.36	16563.13	0.49
		171.60				163.74	11.93
	1.66577	83509.21					0.002865
1521.70	90.00	4554.12	13.22	8.92	10.24	15581.21	0.50
		170.59				162.28	12.28
	1.62206	82761.69					0.002914
1457.53	91.00	4553.71	12.81	8.60	10.16	14808.19	0.50
		169.53				161.06	12.57
	1.58807	82140.84					0.002960
1376.20	92.00	4553.18	12.28	8.21	10.06	13839.77	0.51
		167.67				159.44	12.98
	1.55437	81316.05					0.003035
1308.63	93.00	4552.74	11.84	7.88	9.95	13019.15	0.51
		166.07				158.05	13.35
	1.50596	80603.02					0.003063
1263.87	94.00	4552.44	11.54	7.66	9.71	12269.53	0.50
		164.95				157.07	13.61
	1.46623	80103.62					0.003067
1232.92	95.00	4552.22	11.32	7.51	9.50	11711.74	0.50
		164.14				156.36	13.81
	1.43822	79744.24					0.003068
1202.02	96.00	4552.01	11.11	7.36	9.29	11162.35	0.49
		163.30				155.63	14.01
	1.40680	79372.86					0.003063
1180.12	97.00	4551.84	10.94	7.25	9.12	10759.32	0.49
		162.67				155.08	14.17
	1.38041	79092.85					0.003049

HYCHAN.OUT							
1158.38	98.00	4551.68	10.78	7.15	8.94	10361.20	0.48
	1.35727	162.04				154.53	14.33
		78809.89					0.003043
1141.18	99.00	4551.56	10.66	7.06	8.83	10074.77	0.48
	1.34075	161.57				154.12	14.46
		78599.47					0.003042
1118.52	100.00	4551.41	10.51	6.95	8.69	9723.72	0.47
	1.31854	160.95				153.58	14.62
		78323.51					0.003041
1097.61	101.00	4551.27	10.37	6.84	8.57	9409.22	0.47
	1.29940	160.38				153.08	14.77
		78069.86					0.003043
1078.99	102.00	4551.14	10.24	6.75	8.46	9133.64	0.47
	1.28101	159.86				152.63	14.91
		77838.88					0.003042
1063.54	103.00	4551.03	10.13	6.67	8.38	8909.43	0.46
	1.26793	159.43				152.25	15.03
		77644.96					0.003046
1049.14	104.00	4550.93	10.03	6.60	8.29	8699.83	0.46
	1.25326	159.01				151.88	15.14
		77461.24					0.003044
1025.84	105.00	4550.77	9.87	6.48	8.16	8366.53	0.46
	1.23232	158.34				151.29	15.33
		77158.32					0.003048
1009.02	106.00	4550.65	9.75	6.39	8.06	8130.65	0.45
	1.21616	157.85				150.86	15.47
		76939.88					0.003049
996.53	107.00	4550.57	9.67	6.33	7.98	7956.18	0.45
	1.20338	157.48				150.54	15.57
		76774.31					0.003048
984.49	108.00	4550.48	9.58	6.27	7.91	7790.22	0.45
	1.19152	157.12				150.22	15.68
		76613.95					0.003047
981.49	109.00	4550.46	9.56	6.25	7.90	7750.70	0.45
	1.19084	157.03				150.15	15.70
		76575.30					0.003053
991.26	110.00	4550.53	9.63	6.30	7.96	7887.12	0.45
	1.20079	157.33				150.41	15.61
		76708.22					0.003054
1011.42	111.00	4550.67	9.77	6.40	8.08	8168.47	0.46
	1.21634	157.93				150.93	15.44
		76975.53					0.003044
1008.97	112.00	4550.65	9.75	6.39	8.06	8129.75	0.45
	1.21576	157.84				150.86	15.47
		76939.16					0.003048
998.19	113.00	4550.58	9.68	6.34	8.00	7980.57	0.45
	1.20691	157.53				150.58	15.56
		76798.23					0.003052
1013.31	114.00	4550.69	9.79	6.41	8.09	8196.39	0.46
	1.22047	157.99				150.98	15.43
		77001.70					0.003049
1038.76	115.00	4550.86	9.96	6.54	8.24	8556.93	0.46
	1.24406	158.72				151.63	15.22
		77331.82					0.003046
1036.61	116.00	4550.85	9.95	6.53	8.22	8521.45	0.46
	1.24157	158.65				151.57	15.24
		77300.74					0.003045
1032.82	117.00	4550.82	9.92	6.51	8.20	8469.99	0.46
	1.23936	158.55				151.48	15.27
		77252.95					0.003049
1033.51	118.00	4550.83	9.93	6.52	8.21	8480.02	0.46
	1.24074	158.57				151.49	15.26
		77262.10					0.003051

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HYCHAN.OUT							
1043.14	119.00	4550.89	9.99	8.26	8619.27	0.46	
	1.24790	158.85	6.57	151.74	15.18	0.003045	
		77388.18					
1046.76	120.00	4550.92	10.02	8.28	8669.90	0.46	
	1.25310	158.95	6.59	151.83	15.16	0.003049	
		77433.22					
1046.09	121.00	4550.91	10.01	8.28	8659.51	0.46	
	1.25060	158.93	6.58	151.81	15.16	0.003045	
		77424.23					
1036.57	122.00	4550.85	9.95	8.22	8521.51	0.46	
	1.24183	158.65	6.53	151.57	15.24	0.003046	
		77300.27					
1032.17	123.00	4550.82	9.92	8.20	8460.09	0.46	
	1.23750	158.53	6.51	151.46	15.27	0.003046	
		77244.16					
1022.56	124.00	4550.75	9.85	8.14	8322.42	0.46	
	1.22782	158.25	6.46	151.21	15.35	0.003045	
		77117.84					
1018.75	125.00	4550.72	9.82	8.12	8269.84	0.46	
	1.22559	158.14	6.44	151.12	15.38	0.003049	
		77069.51					
1018.15	126.00	4550.72	9.82	8.11	8261.15	0.46	
	1.22364	158.12	6.44	151.10	15.39	0.003045	
		77061.37					
1009.57	127.00	4550.66	9.76	8.06	8138.74	0.45	
	1.21713	157.86	6.40	150.88	15.46	0.003050	
		76947.70					
1006.05	128.00	4550.63	9.73	8.04	8091.04	0.45	
	1.21310	157.76	6.38	150.79	15.49	0.003049	
		76902.98					
1005.47	129.00	4550.63	9.73	8.04	8082.20	0.45	
	1.21242	157.74	6.37	150.77	15.50	0.003048	
		76894.43					
997.05	130.00	4550.57	9.67	7.99	7963.81	0.45	
	1.20540	157.49	6.33	150.55	15.57	0.003051	
		76781.88					
994.71	131.00	4550.56	9.66	7.98	7933.83	0.45	
	1.20292	157.43	6.32	150.50	15.59	0.003051	
		76753.10					
1012.00	132.00	4550.68	9.78	8.08	8177.00	0.46	
	1.21913	157.94	6.41	150.95	15.44	0.003049	
		76983.64					
1018.74	133.00	4550.72	9.82	8.12	8270.03	0.46	
	1.22557	158.14	6.44	151.12	15.38	0.003049	
		77069.65					
1018.76	134.00	4550.72	9.82	8.12	8270.11	0.46	
	1.22477	158.14	6.44	151.12	15.38	0.003047	
		77069.65					
1018.74	135.00	4550.72	9.82	8.12	8270.09	0.46	
	1.22491	158.14	6.44	151.12	15.38	0.003047	
		77069.62					
1018.74	136.00	4550.72	9.82	8.12	8269.89	0.46	
	1.22471	158.14	6.44	151.12	15.38	0.003047	
		77069.59					
1018.77	137.00	4550.72	9.82	8.12	8270.04	0.46	
	1.22498	158.14	6.44	151.12	15.38	0.003047	
		77069.79					
1018.74	138.00	4550.72	9.82	8.12	8269.81	0.46	
	1.22387	158.14	6.44	151.12	15.38	0.003045	
		77069.55					
1018.15	139.00	4550.72	9.82	8.11	8261.30	0.46	
	1.22479	158.12	6.44	151.10	15.39	0.003048	
		77061.37					

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		HYCHAN.OUT					
1009.58	140.00	4550.66	9.76	8.06	8138.50	0.45	
	1.21604	157.86	6.40	150.88	15.46	0.003047	
1006.07	141.00	4550.63	9.73	8.04	8091.18	0.45	
	1.21226	157.76	6.38	150.79	15.49	0.003046	
1006.06	142.00	4550.63	9.73	8.04	8091.01	0.45	
	1.21319	157.76	6.38	150.79	15.49	0.003049	
1006.03	143.00	4550.63	9.73	8.04	8090.64	0.45	
	1.21209	157.76	6.38	150.79	15.49	0.003046	
1005.51	144.00	4550.63	9.73	8.04	8083.04	0.45	
	1.21244	157.75	6.37	150.78	15.49	0.003048	
997.01	145.00	4550.57	9.67	7.99	7963.42	0.45	
	1.20511	157.49	6.33	150.55	15.57	0.003051	
993.60	146.00	4550.55	9.65	7.97	7917.19	0.45	
	1.20123	157.39	6.31	150.47	15.60	0.003049	
993.59	147.00	4550.55	9.65	7.97	7916.92	0.45	
	1.20058	157.39	6.31	150.46	15.60	0.003048	
993.58	148.00	4550.55	9.65	7.97	7916.96	0.45	
	1.20151	157.39	6.31	150.46	15.60	0.003050	
993.60	149.00	4550.55	9.65	7.97	7917.30	0.45	
	1.20047	157.39	6.31	150.47	15.60	0.003047	
993.24	150.00	4550.54	9.65	7.97	7911.70	0.45	
	1.20107	157.38	6.31	150.46	15.60	0.003050	
987.30	151.00	4550.50	9.60	7.93	7829.69	0.45	
	1.19522	157.20	6.28	150.30	15.65	0.003050	
982.13	152.00	4550.47	9.57	7.90	7758.44	0.45	
	1.19017	157.05	6.25	150.16	15.70	0.003050	
980.96	153.00	4550.46	9.56	7.89	7742.93	0.45	
	1.18928	157.01	6.25	150.13	15.71	0.003051	
980.44	154.00	4550.46	9.56	7.89	7734.87	0.45	
	1.18820	157.00	6.24	150.12	15.71	0.003049	
972.92	155.00	4550.40	9.50	7.85	7632.58	0.45	
	1.18216	156.77	6.21	149.92	15.78	0.003053	
986.62	156.00	4550.50	9.60	7.93	7823.46	0.45	
	1.19482	157.19	6.28	150.29	15.65	0.003051	
993.58	157.00	4550.55	9.65	7.97	7916.96	0.45	
	1.20069	157.39	6.31	150.46	15.60	0.003048	
993.59	158.00	4550.55	9.65	7.97	7916.88	0.45	
	1.20211	157.39	6.31	150.47	15.60	0.003052	
993.56	159.00	4550.55	9.65	7.97	7916.76	0.45	
	1.20179	157.39	6.31	150.46	15.60	0.003051	
993.61	160.00	4550.55	9.65	7.97	7917.34	0.45	
	1.20173	157.39	6.31	150.47	15.60	0.003051	
		76737.48					

		HYCHAN.OUT			
993.59	161.00 4550.55 157.39 76737.35	9.65	6.31	7.97 150.47	7917.07 15.60 0.45 0.003048
993.55	162.00 4550.55 157.39 76736.63	9.65	6.31	7.97 150.46	7917.06 15.60 0.45 0.003049
993.55	163.00 4550.55 157.39 76736.88	9.65	6.31	7.97 150.46	7916.61 15.60 0.45 0.003052
993.02	164.00 4550.54 157.38 76729.31	9.64	6.31	7.96 150.45	7908.85 15.60 0.45 0.003050
984.53	165.00 4550.48 157.12 76614.06	9.58	6.27	7.91 150.22	7790.29 15.68 0.45 0.003048
980.91	166.00 4550.46 157.01 76567.08	9.56	6.25	7.89 150.13	7742.80 15.71 0.45 0.003051
980.95	167.00 4550.46 157.01 76567.53	9.56	6.25	7.89 150.13	7743.08 15.71 0.45 0.003052
980.95	168.00 4550.46 157.01 76567.52	9.56	6.25	7.89 150.13	7742.86 15.71 0.45 0.003049
980.98	169.00 4550.46 157.01 76567.85	9.56	6.25	7.89 150.13	7742.92 15.71 0.45 0.003049
980.98	170.00 4550.46 157.01 76568.05	9.56	6.25	7.89 150.13	7743.24 15.71 0.45 0.003052
980.92	171.00 4550.46 157.01 76566.82	9.56	6.25	7.89 150.13	7742.62 15.71 0.45 0.003052
980.41	172.00 4550.46 156.99 76559.56	9.56	6.24	7.89 150.12	7735.20 15.71 0.45 0.003050
971.85	173.00 4550.39 156.73 76441.77	9.49	6.20	7.84 149.89	7616.84 15.79 0.45 0.003048
968.22	174.00 4550.37 156.62 76393.23	9.47	6.18	7.82 149.79	7568.77 15.82 0.45 0.003048
968.21	175.00 4550.37 156.62 76393.09	9.47	6.18	7.82 149.79	7568.96 15.82 0.45 0.003051
968.27	176.00 4550.37 156.63 76394.40	9.47	6.18	7.82 149.79	7569.01 15.82 0.45 0.003049
968.24	177.00 4550.37 156.62 76393.95	9.47	6.18	7.82 149.79	7569.31 15.82 0.45 0.003051
968.18	178.00 4550.37 156.62 76393.74	9.47	6.18	7.82 149.79	7568.31 15.82 0.45 0.003053
969.37	179.00 4550.38 156.66 76410.67	9.48	6.19	7.82 149.82	7585.28 15.81 0.45 0.003051
986.62	180.00 4550.50 157.19 76646.06	9.60	6.28	7.93 150.29	7823.40 15.65 0.45 0.003053
994.11	181.00 4550.55 157.41 76744.35	9.65	6.32	7.97 150.48	7924.89 15.59 0.45 0.003051

HYCHAN.OUT									
1002.67	182.00	4550.61	9.71	8.02	8044.61	0.45	0.003050		
	1.21019	157.67	6.36	150.70	15.52				
1006.04	183.00	4550.63	9.73	8.04	8091.08	0.45	0.003047		
	1.21264	157.76	6.38	150.79	15.49				
1006.03	184.00	4550.63	9.73	8.04	8090.58	0.45	0.003050		
	1.21374	157.76	6.38	150.79	15.49				
1006.10	185.00	4550.64	9.74	8.04	8091.43	0.45	0.003047		
	1.21262	157.76	6.38	150.79	15.49				
1006.09	186.00	4550.63	9.73	8.04	8090.92	0.45	0.003050		
	1.21380	157.76	6.38	150.79	15.49				
1006.08	187.00	4550.63	9.74	8.04	8091.28	0.45	0.003052		
	1.21430	157.76	6.38	150.79	15.49				
1006.06	188.00	4550.63	9.73	8.04	8090.76	0.45	0.003049		
	1.21334	157.76	6.38	150.79	15.49				
1006.05	189.00	4550.63	9.73	8.04	8090.91	0.45	0.003050		
	1.21363	157.76	6.38	150.79	15.49				
1005.53	190.00	4550.63	9.73	8.04	8083.03	0.45	0.003049		
	1.21271	157.75	6.37	150.78	15.49				
997.03	191.00	4550.57	9.67	7.99	7963.49	0.45	0.003050		
	1.20489	157.49	6.33	150.55	15.57				
993.56	192.00	4550.55	9.65	7.97	7916.62	0.45	0.003051		
	1.20168	157.39	6.31	150.46	15.60				
993.57	193.00	4550.55	9.65	7.97	7917.28	0.45	0.003049		
	1.20092	157.39	6.31	150.47	15.60				
993.59	194.00	4550.55	9.65	7.97	7917.30	0.45	0.003050		
	1.20132	157.39	6.31	150.47	15.60				
993.58	195.00	4550.55	9.65	7.97	7916.89	0.45	0.003049		
	1.20102	157.39	6.31	150.46	15.60				
993.55	196.00	4550.55	9.65	7.97	7916.92	0.45	0.003049		
	1.20087	157.39	6.31	150.46	15.60				
993.59	197.00	4550.55	9.65	7.97	7917.17	0.45	0.003049		
	1.20123	157.39	6.31	150.46	15.60				
993.55	198.00	4550.55	9.65	7.97	7916.73	0.45	0.003052		
	1.20223	157.39	6.31	150.46	15.60				
993.56	199.00	4550.55	9.65	7.97	7916.93	0.45	0.003049		
	1.20114	157.39	6.31	150.46	15.60				
		76736.84							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 683

MAXIMUM DISCHARGE (CFS) = 20651.50 AT TIME = 80.18  
 MAXIMUM STAGE = 4551.99 AT TIME = 80.18

AREA	TIME WETTED PERIMETER	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
			HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE



HYCHAN.OUT									
BED SHEAR STRESS	SURFACE AREA								
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)	
(LB/FT^2)	(FT^2)								
0.00	0.00	4538.80	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4538.80	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
755.83	2.00	4541.06	2.26	1.96	1479.49	0.23			
		107.62	7.02	106.22	46.98				0.003568
	1.56363	47797.25							
828.94	3.00	4546.56	7.76	6.66	5524.22	0.42			
		148.66	5.58	142.80	18.40				0.003561
	1.23916	64260.22							
820.76	4.00	4546.50	7.70	6.61	5426.64	0.42			
		148.38	5.53	142.55	18.51				0.003555
	1.22716	64147.26							
815.89	5.00	4546.47	7.67	6.59	5373.23	0.42			
		148.21	5.51	142.40	18.57				0.003553
	1.22036	64080.41							
807.29	6.00	4546.41	7.61	6.53	5271.42	0.42			
		147.90	5.46	142.13	18.68				0.003543
	1.20656	63960.06							
794.03	7.00	4546.32	7.52	6.45	5120.43	0.41			
		147.43	5.39	141.72	18.85				0.003532
	1.18695	63773.25							
780.74	8.00	4546.22	7.42	6.37	4971.17	0.41			
		146.95	5.31	141.30	19.03				0.003522
	1.16756	63583.67							
767.47	9.00	4546.13	7.33	6.29	4824.49	0.41			
		146.47	5.24	140.87	19.21				0.003513
	1.14874	63391.73							
762.30	10.00	4546.10	7.30	6.26	4768.49	0.41			
		146.28	5.21	140.70	19.29				0.003512
	1.14193	63316.82							
753.45	11.00	4546.03	7.23	6.20	4671.46	0.41			
		145.95	5.16	140.41	19.41				0.003500
	1.12750	63185.62							
739.74	12.00	4545.94	7.14	6.12	4524.11	0.40			
		145.43	5.09	139.96	19.61				0.003494
	1.10890	62981.20							
734.44	13.00	4545.90	7.10	6.08	4468.63	0.40			
		145.23	5.06	139.78	19.69				0.003494
	1.10268	62902.23							
734.45	14.00	4545.90	7.10	6.08	4469.10	0.40			
		145.24	5.06	139.78	19.69				0.003495
	1.10294	62902.34							
734.49	15.00	4545.90	7.10	6.08	4468.93	0.40			
		145.24	5.06	139.78	19.69				0.003495
	1.10281	62902.93							
734.46	16.00	4545.90	7.10	6.08	4468.93	0.40			
		145.24	5.06	139.78	19.69				0.003493
	1.10232	62902.47							
734.70	17.00	4545.90	7.10	6.09	4471.55	0.40			
		145.24	5.06	139.79	19.69				0.003497
	1.10379	62906.23							
743.79	18.00	4545.96	7.17	6.14	4569.57	0.40			
		145.59	5.11	140.10	19.55				0.003508
	1.11830	63043.20							
	19.00	4546.06	7.27	6.23	4722.30	0.41			

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757.94	1.13921	146.12	5.19	140.56	19.35	0.003520
	20.00	63253.21				
771.59	1.15793	4546.16	7.36	6.31	4872.03	0.41
	21.00	146.62	5.26	141.01	19.16	0.003526
776.37	1.16366	63452.68				
	22.00	4546.19	7.39	6.34	4924.19	0.41
776.61	1.16536	146.80	5.29	141.16	19.09	0.003526
	23.00	63521.51				
785.91	1.18122	4546.20	7.40	6.34	4927.35	0.41
	24.00	146.81	5.29	141.17	19.09	0.003530
808.54	1.21577	63525.08				
	25.00	4546.26	7.46	6.40	5032.35	0.41
834.88	1.25519	147.14	5.34	141.46	18.96	0.003544
	26.00	63658.99				
859.53	1.28878	4546.42	7.62	6.54	5291.00	0.42
	27.00	147.95	5.46	142.17	18.66	0.003565
867.00	1.29755	63978.52				
	28.00	4546.60	7.80	6.71	5599.16	0.42
867.47	1.30078	148.87	5.61	142.98	18.33	0.003587
	29.00	64341.50				
876.53	1.31388	4546.77	7.97	6.86	5895.14	0.43
	30.00	149.70	5.74	143.72	18.03	0.003597
880.51	1.31916	64672.71				
	31.00	4546.82	8.02	6.90	5985.15	0.43
881.01	1.32055	149.95	5.78	143.94	17.95	0.003596
	32.00	64771.36				
884.65	1.32386	4546.82	8.02	6.91	5990.95	0.43
	33.00	149.97	5.78	143.95	17.94	0.003604
887.07	1.32764	64777.70				
	34.00	4546.88	8.08	6.96	6103.52	0.43
889.07	1.33024	150.27	5.83	144.21	17.84	0.003610
	35.00	64896.72				
891.07	1.33301	4546.91	8.11	6.99	6152.01	0.43
	36.00	150.40	5.85	144.33	17.79	0.003611
893.07	1.33714	64948.29				
	37.00	4546.91	8.11	6.99	6158.66	0.43
895.07	1.34024	150.42	5.86	144.34	17.79	0.003613
	38.00	64954.88				
897.07	1.34301	4546.98	8.18	7.05	6276.35	0.43
	39.00	150.72	5.91	144.62	17.68	0.003619
899.07	1.34601	65076.88				
	40.00	4547.00	8.20	7.07	6325.86	0.44
901.07	1.34924	150.85	5.93	144.73	17.64	0.003620
	41.00	65127.51				
903.07	1.35244	4547.00	8.20	7.07	6319.19	0.44
	42.00	150.84	5.93	144.71	17.64	0.003616
905.07	1.35564	65121.26				
	43.00	4546.94	8.14	7.01	6202.17	0.43
907.07	1.35884	150.53	5.88	144.45	17.75	0.003610
	44.00	65001.60				
909.07	1.36204	4546.91	8.11	6.98	6145.54	0.43
	45.00	150.38	5.85	144.31	17.80	0.003604
911.07	1.36524	64941.68				
	46.00	4546.85	8.05	6.93	6033.78	0.43
913.07	1.36844	150.09	5.80	144.06	17.90	0.003597
	47.00	64824.77				
915.07	1.37164	4546.82	8.02	6.90	5985.07	0.43
	48.00	149.95	5.78	143.94	17.95	0.003597
917.07	1.37484	64771.93				
	49.00	4546.82	8.02	6.90	5984.89	0.43
919.07	1.37804	149.95	5.78	143.94	17.95	0.003598
	50.00	64772.27				
921.07	1.38124	4546.82	8.02	6.90	5985.01	0.43

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867.00		149.95		5.78	143.94	17.95	0.003595
	1.29720	64771.36					
	41.00	4546.82	8.02	5.78	6.90	5985.20	0.43
867.07		149.95			143.94	17.95	0.003597
	1.29791	64772.20					
	42.00	4546.82	8.02	5.78	6.91	5991.13	0.43
867.50		149.97			143.95	17.94	0.003602
	1.30008	64778.07					
	43.00	4546.88	8.08	5.83	6.96	6103.54	0.43
876.57		150.27			144.22	17.84	0.003610
	1.31412	64897.15					
	44.00	4546.91	8.11	5.86	6.99	6158.61	0.43
881.02		150.42			144.34	17.79	0.003617
	1.32201	64955.05					
	45.00	4546.98	8.18	5.91	7.05	6283.22	0.43
890.89		150.74			144.63	17.68	0.003627
	1.33748	65083.11					
	46.00	4547.07	8.27	5.98	7.14	6458.46	0.44
904.61		151.18			145.02	17.53	0.003637
	1.35777	65258.82					
	47.00	4547.17	8.37	6.06	7.22	6633.18	0.44
918.35		151.62			145.41	17.38	0.003647
	1.37830	65432.65					
	48.00	4547.26	8.46	6.13	7.30	6806.11	0.44
932.25		152.06			145.79	17.23	0.003655
	1.39841	65606.40					
	49.00	4547.35	8.55	6.21	7.37	6976.01	0.44
946.39		152.51			146.18	17.09	0.003659
	1.41692	65780.93					
	50.00	4547.45	8.65	6.28	7.45	7160.34	0.45
960.83		152.95			146.57	16.95	0.003668
	1.43800	65956.96					
	51.00	4547.59	8.79	6.40	7.57	7443.37	0.45
982.76		153.62			147.16	16.73	0.003674
	1.46675	66220.02					
	52.00	4547.65	8.85	6.44	7.62	7550.35	0.45
991.10		153.87			147.37	16.66	0.003676
	1.47750	66318.67					
	53.00	4547.72	8.92	6.50	7.68	7692.85	0.45
1001.91		154.19			147.66	16.55	0.003686
	1.49439	66446.05					
	54.00	4547.95	9.15	6.68	7.87	8159.00	0.46
1036.80		155.21			148.55	16.24	0.003706
	1.54495	66848.15					
	55.00	4548.31	9.51	6.97	8.17	8924.73	0.47
1092.56		156.78			149.93	15.77	0.003737
	1.62500	67468.18					
	56.00	4548.78	9.98	7.35	8.57	10000.83	0.48
1166.91		158.78			151.68	15.20	0.003799
	1.74232	68255.70					
	57.00	4549.26	10.46	7.72	9.18	11387.18	0.50
1240.58		160.76			153.42	14.67	0.004000
	1.92595	69037.04					
	58.00	4549.65	10.85	7.95	9.72	12537.19	0.52
1290.01		162.31			154.76	14.27	0.004106
	2.03635	69643.00					
	59.00	4550.10	11.30	8.22	10.07	13568.27	0.53
1347.79		164.05			156.29	13.83	0.004301
	2.20496	70328.63					
	60.00	4550.76	11.96	8.58	10.39	14836.34	0.53
1428.63		166.49			158.41	13.25	0.004506
	2.41291	71285.80					
	61.00	4551.21	12.41		10.60	15757.73	0.53

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1486.25		168.13		8.84	159.84	12.88	0.004597
	2.53580	71929.02					
	62.00	4551.55	12.75	10.76	16468.86	0.53	
1530.64		169.32		9.04	160.88	12.62	0.004684
	2.64232	72395.40					
	63.00	4551.74	12.94	10.88	16934.31	0.53	
1557.06		169.97		9.16	161.44	12.48	0.004691
	2.68136	72648.66					
	64.00	4551.76	12.96	11.16	17512.42	0.55	
1569.52		170.06		9.23	161.52	12.46	0.004668
	2.68823	72684.72					
	65.00	4551.76	12.96	11.44	18072.20	0.56	
1579.06		170.06		9.29	161.52	12.46	0.004639
	2.68761	72684.21					
	66.00	4551.76	12.96	11.50	18184.01	0.56	
1581.27		170.06		9.30	161.52	12.46	0.004670
	2.70931	72685.66					
	67.00	4551.76	12.96	11.51	18195.54	0.56	
1581.36		170.06		9.30	161.52	12.46	0.004663
	2.70581	72684.03					
	68.00	4551.76	12.96	11.51	18196.99	0.56	
1581.38		170.06		9.30	161.52	12.46	0.004669
	2.70900	72684.05					
	69.00	4551.76	12.96	11.51	18205.92	0.56	
1581.58		170.06		9.30	161.52	12.46	0.004635
	2.68999	72684.75					
	70.00	4551.76	12.96	11.51	18213.96	0.56	
1581.80		170.06		9.30	161.52	12.46	0.004628
	2.68592	72685.34					
	71.00	4551.76	12.96	11.51	18212.64	0.56	
1581.82		170.06		9.30	161.52	12.46	0.004638
	2.69175	72685.83					
	72.00	4551.76	12.96	11.52	18220.70	0.56	
1581.87		170.06		9.30	161.52	12.46	0.004647
	2.69714	72685.20					
	73.00	4551.77	12.97	11.62	18414.62	0.57	
1585.33		170.07		9.32	161.53	12.46	0.004658
	2.70919	72689.07					
	74.00	4551.77	12.97	11.68	18549.05	0.57	
1587.45		170.07		9.33	161.53	12.46	0.004631
	2.69768	72686.74					
	75.00	4551.77	12.97	11.69	18560.91	0.57	
1587.65		170.06		9.34	161.53	12.46	0.004654
	2.71113	72686.38					
	76.00	4551.77	12.97	11.80	18778.50	0.58	
1591.19		170.07		9.36	161.53	12.46	0.004630
	2.70300	72688.41					
	77.00	4551.77	12.97	12.07	19300.54	0.59	
1599.47		170.07		9.40	161.53	12.46	0.004593
	2.69547	72687.57					
	78.00	4551.78	12.98	12.29	19757.85	0.60	
1608.11		170.10		9.45	161.56	12.45	0.004617
	2.72347	72701.02					
	79.00	4551.83	13.03	12.40	20090.00	0.61	
1619.54		170.22		9.51	161.73	12.41	0.004634
	2.75133	72779.95					
	80.00	4551.93	13.13	12.51	20469.70	0.61	
1636.36		170.42		9.60	162.02	12.34	0.004652
	2.78708	72911.10					
	81.00	4551.96	13.16	12.53	20556.27	0.61	
1641.03		170.47		9.63	162.09	12.32	0.004635
	2.78429	72940.43					
	82.00	4551.90	13.10	12.46	20322.20	0.61	

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1630.83		170.35		9.57	161.91	12.36	0.004625
	2.76322	72860.56					
83.00		4551.86	13.06	12.43	20192.10	0.61	
1624.62		170.28		9.54	161.81	12.39	0.004625
	2.75371	72815.54					
84.00		4551.86	13.06	12.43	20179.58	0.61	
1624.06		170.27		9.54	161.80	12.39	0.004627
	2.75386	72811.98					
85.00		4551.86	13.06	12.42	20173.13	0.61	
1623.87		170.27		9.54	161.80	12.39	0.004613
	2.74553	72810.09					
86.00		4551.81	13.01	12.37	19997.39	0.60	
1616.77		170.18		9.50	161.66	12.42	0.004597
	2.72537	72748.84					
87.00		4551.77	12.97	12.06	19297.92	0.59	
1600.76		170.06		9.41	161.53	12.46	0.004633
	2.72136	72686.43					
88.00		4551.76	12.96	11.49	18180.50	0.56	
1581.78		170.05		9.30	161.51	12.46	0.004669
	2.70988	72681.62					
89.00		4551.58	12.78	10.80	16617.18	0.53	
1538.36		169.43		9.08	160.97	12.59	0.004554
	2.57998	72437.70					
90.00		4551.13	12.33	10.56	15614.92	0.53	
1478.20		167.84		8.81	159.59	12.94	0.004450
	2.44546	71815.50					
91.00		4550.74	11.94	10.38	14825.42	0.53	
1428.82		166.44		8.58	158.37	13.26	0.004322
	2.31546	71266.15					
92.00		4550.25	11.45	10.14	13856.04	0.53	
1367.13		164.60		8.31	156.77	13.70	0.004162
	2.15713	70544.27					
93.00		4549.83	11.03	9.91	13029.90	0.53	
1314.78		163.00		8.07	155.37	14.09	0.004060
	2.04358	69917.39					
94.00		4549.55	10.75	9.61	12275.81	0.52	
1277.61		161.93		7.89	154.44	14.36	0.003986
	1.96259	69496.47					
95.00		4549.37	10.57	9.34	11714.85	0.51	
1254.16		161.19		7.78	153.79	14.55	0.003905
	1.89578	69203.82					
96.00		4549.18	10.38	9.07	11165.35	0.50	
1230.57		160.44		7.67	153.13	14.75	0.003841
	1.83854	68908.40					
97.00		4549.05	10.25	8.88	10761.40	0.49	
1211.23		159.93		7.57	152.68	14.89	0.003784
	1.78829	68707.23					
98.00		4548.93	10.13	8.70	10363.43	0.48	
1191.10		159.41		7.47	152.23	15.03	0.003743
	1.74530	68504.20					
99.00		4548.82	10.02	8.59	10076.74	0.48	
1173.68		158.96		7.38	151.84	15.15	0.003731
	1.71921	68326.61					
100.00		4548.67	9.87	8.46	9726.50	0.47	
1150.18		158.34		7.26	151.29	15.33	0.003719
	1.68551	68082.74					
101.00		4548.53	9.73	8.34	9411.28	0.47	
1128.11		157.75		7.15	150.78	15.49	0.003715
	1.65766	67850.63					
102.00		4548.41	9.61	8.24	9135.73	0.47	
1108.61		157.22		7.05	150.32	15.64	0.003709
	1.63195	67642.21					
103.00		4548.30	9.50	8.16	8911.07	0.47	

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1092.41	156.78	6.97	149.93	15.77	0.003705	
	67466.88					
104.00	4548.21	9.41	8.08	8701.87	0.46	
1077.37	156.36	6.89	149.56	15.90	0.003696	
	67301.91					
105.00	4548.05	9.25	7.95	8369.23	0.46	
1053.12	155.67	6.76	148.96	16.10	0.003690	
	67031.52					
106.00	4547.94	9.14	7.85	8132.15	0.46	
1035.39	155.17	6.67	148.51	16.25	0.003685	
	66831.72					
107.00	4547.85	9.05	7.78	7957.63	0.46	
1022.29	154.79	6.60	148.18	16.37	0.003677	
	66681.73					
108.00	4547.77	8.97	7.72	7791.26	0.45	
1009.63	154.42	6.54	147.86	16.48	0.003677	
	66535.39					
109.00	4547.75	8.95	7.70	7750.38	0.45	
1006.39	154.32	6.52	147.77	16.51	0.003679	
	66498.13					
110.00	4547.81	9.02	7.76	7885.27	0.46	
1016.52	154.62	6.57	148.04	16.42	0.003690	
	66615.95					
111.00	4547.95	9.15	7.87	8166.65	0.46	
1037.64	155.23	6.68	148.57	16.23	0.003688	
	66858.13					
112.00	4547.94	9.14	7.85	8131.23	0.46	
1035.34	155.17	6.67	148.51	16.25	0.003685	
	66831.05					
113.00	4547.86	9.06	7.79	7980.87	0.46	
1023.94	154.84	6.61	148.22	16.35	0.003688	
	66701.08					
114.00	4547.96	9.16	7.88	8193.32	0.46	
1039.51	155.29	6.69	148.62	16.22	0.003698	
	66879.41					
115.00	4548.14	9.34	8.02	8555.12	0.46	
1066.26	156.05	6.83	149.29	15.99	0.003696	
	67179.77					
116.00	4548.12	9.32	8.01	8522.56	0.46	
1064.23	155.99	6.82	149.24	16.01	0.003699	
	67156.68					
117.00	4548.10	9.30	7.99	8470.04	0.46	
1060.20	155.88	6.80	149.14	16.04	0.003694	
	67112.12					
118.00	4548.10	9.30	7.99	8479.56	0.46	
1060.91	155.90	6.81	149.16	16.03	0.003699	
	67120.15					
119.00	4548.17	9.37	8.05	8618.11	0.46	
1070.86	156.18	6.86	149.40	15.95	0.003698	
	67230.92					
120.00	4548.19	9.39	8.07	8669.98	0.46	
1074.75	156.29	6.88	149.50	15.92	0.003700	
	67273.71					
121.00	4548.19	9.39	8.06	8659.85	0.46	
1074.07	156.27	6.87	149.48	15.92	0.003699	
	67266.11					
122.00	4548.12	9.32	8.01	8522.67	0.46	
1064.18	155.99	6.82	149.24	16.01	0.003696	
	67156.13					
123.00	4548.09	9.29	7.99	8460.54	0.46	
1059.55	155.86	6.80	149.12	16.05	0.003693	
	67104.69					
124.00	4548.03	9.23	7.93	8323.59	0.46	

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				HYCHAN.OUT			
1049.57		155.57		6.75	148.87	16.13	0.003690
	1.55319	66992.41					
125.00		4548.00	9.20	7.91	8269.88	0.46	
1045.48		155.46		6.73	148.77	16.17	0.003688
	1.54781	66946.72					
126.00		4548.00	9.20	7.91	8261.53	0.46	
1044.87		155.44		6.72	148.75	16.17	0.003686
	1.54600	66939.66					
127.00		4547.94	9.14	7.86	8139.84	0.46	
1035.93		155.18		6.68	148.53	16.25	0.003687
	1.53598	66837.97					
128.00		4547.92	9.12	7.84	8091.00	0.46	
1032.13		155.07		6.66	148.43	16.28	0.003686
	1.53102	66795.08					
129.00		4547.91	9.11	7.84	8082.58	0.46	
1031.59		155.06		6.65	148.42	16.29	0.003685
	1.52965	66788.73					
130.00		4547.86	9.06	7.79	7964.87	0.46	
1022.81		154.80		6.61	148.20	16.36	0.003683
	1.51831	66687.80					
131.00		4547.84	9.04	7.78	7933.04	0.46	
1020.22		154.73		6.59	148.13	16.39	0.003689
	1.51800	66658.59					
132.00		4547.96	9.16	7.87	8174.92	0.46	
1038.22		155.25		6.69	148.59	16.23	0.003691
	1.54004	66864.69					
133.00		4548.00	9.20	7.91	8270.00	0.46	
1045.45		155.46		6.73	148.77	16.17	0.003693
	1.54979	66946.45					
134.00		4548.00	9.20	7.91	8270.08	0.46	
1045.49		155.46		6.73	148.77	16.17	0.003693
	1.54978	66946.88					
135.00		4548.00	9.20	7.91	8270.14	0.46	
1045.45		155.46		6.72	148.77	16.17	0.003689
	1.54807	66946.32					
136.00		4548.00	9.20	7.91	8269.84	0.46	
1045.45		155.46		6.72	148.77	16.17	0.003690
	1.54842	66946.40					
137.00		4548.00	9.20	7.91	8270.04	0.46	
1045.51		155.46		6.73	148.77	16.17	0.003690
	1.54838	66947.09					
138.00		4548.00	9.20	7.91	8269.78	0.46	
1045.46		155.46		6.73	148.77	16.17	0.003691
	1.54890	66946.52					
139.00		4548.00	9.20	7.91	8261.79	0.46	
1044.88		155.44		6.72	148.75	16.17	0.003684
	1.54544	66939.74					
140.00		4547.94	9.14	7.86	8139.51	0.46	
1035.97		155.18		6.68	148.53	16.25	0.003688
	1.53641	66838.49					
141.00		4547.92	9.12	7.84	8091.17	0.46	
1032.19		155.08		6.66	148.43	16.28	0.003686
	1.53112	66795.74					
142.00		4547.92	9.12	7.84	8091.03	0.46	
1032.17		155.08		6.66	148.43	16.28	0.003688
	1.53187	66795.46					
143.00		4547.92	9.12	7.84	8090.60	0.46	
1032.12		155.07		6.66	148.43	16.28	0.003686
	1.53097	66794.92					
144.00		4547.91	9.11	7.84	8083.47	0.46	
1031.61		155.06		6.65	148.42	16.29	0.003685
	1.52976	66789.05					
145.00		4547.85	9.06	7.79	7964.50	0.46	

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		HYCHAN.OUT				
1022.73	154.80	6.61	148.19	16.37	0.003685	
	66686.94					
146.00	4547.83	9.03	7.77	7917.20	0.46	
1019.11	154.70	6.59	148.10	16.40	0.003680	
	66645.55					
147.00	4547.83	9.03	7.77	7916.94	0.46	
1019.10	154.70	6.59	148.10	16.40	0.003682	
	66645.52					
148.00	4547.83	9.03	7.77	7916.94	0.46	
1019.09	154.69	6.59	148.10	16.40	0.003683	
	66645.38					
149.00	4547.83	9.03	7.77	7917.26	0.46	
1019.11	154.70	6.59	148.10	16.40	0.003683	
	66645.54					
150.00	4547.83	9.03	7.77	7912.00	0.46	
1018.76	154.68	6.59	148.09	16.40	0.003679	
	66641.41					
151.00	4547.79	8.99	7.73	7830.54	0.45	
1012.56	154.50	6.55	147.93	16.46	0.003677	
	66569.52					
152.00	4547.75	8.95	7.70	7758.77	0.45	
1007.13	154.34	6.53	147.79	16.51	0.003677	
	66506.51					
153.00	4547.75	8.95	7.70	7742.93	0.45	
1005.87	154.31	6.52	147.76	16.52	0.003679	
	66491.98					
154.00	4547.74	8.94	7.69	7735.26	0.45	
1005.36	154.29	6.52	147.75	16.52	0.003674	
	66485.88					
155.00	4547.69	8.89	7.65	7632.91	0.45	
997.55	154.06	6.48	147.54	16.60	0.003676	
	66394.38					
156.00	4547.78	8.98	7.73	7821.32	0.45	
1011.63	154.48	6.55	147.91	16.47	0.003683	
	66559.24					
157.00	4547.83	9.03	7.77	7916.95	0.46	
1019.09	154.69	6.59	148.10	16.40	0.003681	
	66645.37					
158.00	4547.83	9.03	7.77	7916.94	0.46	
1019.09	154.69	6.59	148.10	16.40	0.003685	
	66645.37					
159.00	4547.83	9.03	7.77	7916.70	0.46	
1019.04	154.69	6.59	148.10	16.40	0.003684	
	66644.84					
160.00	4547.83	9.03	7.77	7917.34	0.46	
1019.12	154.70	6.59	148.10	16.40	0.003682	
	66645.68					
161.00	4547.83	9.03	7.77	7917.04	0.46	
1019.09	154.69	6.59	148.10	16.40	0.003683	
	66645.32					
162.00	4547.83	9.03	7.77	7917.08	0.46	
1019.07	154.69	6.59	148.10	16.40	0.003681	
	66645.12					
163.00	4547.83	9.03	7.77	7916.67	0.46	
1019.03	154.69	6.59	148.10	16.40	0.003682	
	66644.69					
164.00	4547.83	9.03	7.77	7909.23	0.46	
1018.51	154.68	6.58	148.09	16.40	0.003679	
	66638.56					
165.00	4547.77	8.97	7.72	7791.33	0.45	
1009.70	154.42	6.54	147.86	16.48	0.003677	
	66536.15					
166.00	4547.74	8.95	7.70	7742.80	0.45	

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				HYCHAN.OUT			
1005.82		154.30		6.52	147.76	16.52	0.003679
	1.49627	66491.37					
	167.00	4547.75	8.95	7.70	7743.08	0.45	
1005.85		154.31		6.52	147.76	16.52	0.003680
	1.49671	66491.72					
	168.00	4547.75	8.95	7.70	7742.83	0.45	
1005.86		154.31		6.52	147.76	16.52	0.003676
	1.49533	66491.89					
	169.00	4547.75	8.95	7.70	7742.90	0.45	
1005.90		154.31		6.52	147.76	16.52	0.003677
	1.49582	66492.30					
	170.00	4547.75	8.95	7.70	7743.32	0.45	
1005.87		154.31		6.52	147.76	16.52	0.003676
	1.49536	66491.98					
	171.00	4547.75	8.95	7.70	7742.61	0.45	
1005.85		154.31		6.52	147.76	16.52	0.003675
	1.49489	66491.72					
	172.00	4547.74	8.94	7.69	7735.58	0.45	
1005.33		154.29		6.52	147.75	16.52	0.003673
	1.49347	66485.52					
	173.00	4547.68	8.88	7.64	7617.89	0.45	
996.47		154.03		6.47	147.51	16.61	0.003671
	1.48217	66381.54					
	174.00	4547.66	8.86	7.62	7568.78	0.45	
992.65		153.91		6.45	147.42	16.64	0.003672
	1.47768	66336.96					
	175.00	4547.66	8.86	7.63	7568.95	0.45	
992.64		153.91		6.45	147.42	16.64	0.003674
	1.47856	66336.80					
	176.00	4547.66	8.86	7.62	7568.99	0.45	
992.66		153.91		6.45	147.42	16.64	0.003672
	1.47798	66336.98					
	177.00	4547.66	8.86	7.63	7569.35	0.45	
992.63		153.91		6.45	147.41	16.64	0.003672
	1.47787	66336.66					
	178.00	4547.66	8.86	7.63	7568.35	0.45	
992.52		153.91		6.45	147.41	16.64	0.003674
	1.47826	66335.36					
	179.00	4547.67	8.87	7.63	7584.46	0.45	
993.73		153.95		6.46	147.44	16.63	0.003676
	1.48051	66349.91					
	180.00	4547.78	8.98	7.73	7821.26	0.45	
1011.65		154.48		6.55	147.91	16.47	0.003684
	1.50526	66559.48					
	181.00	4547.83	9.04	7.77	7924.52	0.46	
1019.63		154.71		6.59	148.11	16.39	0.003683
	1.51484	66651.73					
	182.00	4547.89	9.09	7.82	8043.55	0.46	
1028.54		154.97		6.64	148.34	16.31	0.003685
	1.52610	66754.21					
	183.00	4547.92	9.12	7.84	8091.04	0.46	
1032.12		155.07		6.66	148.43	16.28	0.003689
	1.53193	66794.93					
	184.00	4547.92	9.12	7.84	8090.62	0.46	
1032.13		155.07		6.66	148.43	16.28	0.003686
	1.53069	66795.07					
	185.00	4547.92	9.12	7.84	8091.42	0.46	
1032.20		155.08		6.66	148.44	16.28	0.003684
	1.53017	66795.81					
	186.00	4547.92	9.12	7.84	8090.93	0.46	
1032.22		155.08		6.66	148.44	16.28	0.003688
	1.53189	66796.05					
	187.00	4547.92	9.12	7.84	8091.31	0.46	

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		HYCHAN.OUT					
1032.18	155.08	6.66	148.43	16.28	0.003685		
1.53052	66795.59						
188.00	4547.92	9.12	7.84	8090.68	0.46		
1032.17	155.08	6.66	148.43	16.28	0.003688		
1.53160	66795.51						
189.00	4547.92	9.12	7.84	8090.93	0.46		
1032.14	155.07	6.66	148.43	16.28	0.003688		
1.53154	66795.16						
190.00	4547.91	9.11	7.84	8083.43	0.46		
1031.62	155.06	6.65	148.42	16.29	0.003681		
1.52803	66789.16						
191.00	4547.86	9.06	7.79	7964.58	0.46		
1022.78	154.80	6.61	148.19	16.37	0.003680		
1.51701	66687.47						
192.00	4547.83	9.03	7.77	7916.61	0.46		
1019.07	154.69	6.59	148.10	16.40	0.003682		
1.51351	66645.15						
193.00	4547.83	9.03	7.77	7917.23	0.46		
1019.04	154.69	6.59	148.10	16.40	0.003682		
1.51352	66644.77						
194.00	4547.83	9.03	7.77	7917.35	0.46		
1019.11	154.70	6.59	148.10	16.40	0.003681		
1.51305	66645.62						
195.00	4547.83	9.03	7.77	7916.86	0.46		
1019.09	154.69	6.59	148.10	16.40	0.003685		
1.51466	66645.38						
196.00	4547.83	9.03	7.77	7916.89	0.46		
1019.05	154.69	6.59	148.10	16.40	0.003683		
1.51393	66644.95						
197.00	4547.83	9.03	7.77	7917.20	0.46		
1019.11	154.70	6.59	148.10	16.40	0.003681		
1.51307	66645.61						
198.00	4547.83	9.03	7.77	7916.78	0.46		
1019.05	154.69	6.59	148.10	16.40	0.003685		
1.51485	66644.83						
199.00	4547.83	9.03	7.77	7916.95	0.46		
1019.06	154.69	6.59	148.10	16.40	0.003680		
1.51279	66645.02						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 700

MAXIMUM DISCHARGE (CFS) = 20746.20 AT TIME = 80.19  
 MAXIMUM STAGE = 4548.69 AT TIME = 80.18

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4536.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	1.00	4536.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	2.00	4538.28	2.08	1.64	1347.99	0.20			
820.92	1.58409	105.33	7.79	104.15	50.00	0.003257			
916.74	3.00	4544.01	7.81	6.03	5524.26	0.38			
		148.92	6.16	143.03	18.31	0.003253			

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HYCHAN.OUT									
907.12	1.24962	77234.35	7.76	5.98	5428.31	0.38			
	4.00	4543.96	6.10		142.79	18.41	0.003248		
	1.23664	77105.78							
901.45	5.00	4543.93	7.72	5.96	5373.65	0.38			
		148.49	6.07		142.65	18.47	0.003246		
	1.22958	77030.38							
891.27	6.00	4543.87	7.67	5.92	5273.52	0.38			
		148.20	6.01		142.39	18.57	0.003236		
	1.21444	76892.31							
875.73	7.00	4543.78	7.58	5.85	5122.57	0.37			
		147.75	5.93		142.00	18.73	0.003229		
	1.19416	76679.90							
860.13	8.00	4543.69	7.49	5.78	4973.33	0.37			
		147.30	5.84		141.60	18.90	0.003221		
	1.17364	76463.56							
844.53	9.00	4543.60	7.40	5.71	4826.29	0.37			
		146.83	5.75		141.19	19.08	0.003214		
	1.15337	76243.86							
838.34	10.00	4543.57	7.37	5.69	4768.91	0.37			
		146.65	5.72		141.03	19.15	0.003213		
	1.14610	76156.48							
828.12	11.00	4543.51	7.31	5.64	4673.67	0.37			
		146.34	5.66		140.76	19.26	0.003204		
	1.13144	76008.73							
811.97	12.00	4543.41	7.21	5.57	4526.09	0.37			
		145.85	5.57		140.32	19.45	0.003202		
	1.11220	75773.74							
805.52	13.00	4543.38	7.18	5.55	4468.63	0.37			
		145.65	5.53		140.15	19.53	0.003203		
	1.10541	75679.66							
805.57	14.00	4543.38	7.18	5.55	4469.12	0.37			
		145.65	5.53		140.15	19.53	0.003199		
	1.10404	75680.45							
805.57	15.00	4543.38	7.18	5.55	4468.94	0.37			
		145.65	5.53		140.15	19.53	0.003199		
	1.10402	75680.41							
805.57	16.00	4543.38	7.18	5.55	4468.92	0.37			
		145.65	5.53		140.15	19.53	0.003202		
	1.10508	75680.36							
805.80	17.00	4543.38	7.18	5.55	4471.21	0.37			
		145.66	5.53		140.16	19.53	0.003200		
	1.10467	75683.85							
816.31	18.00	4543.44	7.24	5.59	4567.23	0.37			
		145.98	5.59		140.44	19.40	0.003210		
	1.12006	75838.73							
832.94	19.00	4543.54	7.34	5.67	4720.02	0.37			
		146.49	5.69		140.89	19.21	0.003218		
	1.14182	76079.72							
849.05	20.00	4543.63	7.43	5.74	4870.20	0.37			
		146.97	5.78		141.31	19.02	0.003225		
	1.16239	76309.17							
854.84	21.00	4543.66	7.46	5.76	4924.16	0.37			
		147.14	5.81		141.46	18.96	0.003225		
	1.16921	76390.37							
855.12	22.00	4543.66	7.46	5.76	4927.00	0.37			
		147.15	5.81		141.47	18.96	0.003227		
	1.17008	76394.40							
865.83	23.00	4543.72	7.52	5.81	5029.74	0.37			
		147.47	5.87		141.75	18.84	0.003238		
	1.18649	76544.46							
892.20	24.00	4543.87	7.67	5.93	5286.70	0.38			
		148.23	6.02		142.42	18.56	0.003255		

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		HYCHAN.OUT					
	1.22243	76906.07					
923.38	25.00	4544.05	7.85	6.06	5594.99	0.38	
		149.10	6.19	143.19	18.25		0.003271
	1.26385	77322.24					
952.67	26.00	4544.21	8.01	6.18	5891.97	0.39	
		149.90	6.36	143.89	17.96		0.003276
	1.29922	77702.45					
961.98	27.00	4544.26	8.06	6.22	5985.13	0.39	
		150.15	6.41	144.11	17.88		0.003275
	1.30926	77820.92					
962.47	28.00	4544.26	8.06	6.22	5990.47	0.39	
		150.17	6.41	144.12	17.87		0.003279
	1.31142	77827.30					
973.07	29.00	4544.32	8.12	6.27	6101.85	0.39	
		150.45	6.47	144.37	17.78		0.003287
	1.32645	77961.43					
977.94	30.00	4544.35	8.15	6.29	6151.97	0.39	
		150.58	6.49	144.49	17.73		0.003287
	1.33207	78022.16					
978.49	31.00	4544.35	8.15	6.29	6158.18	0.39	
		150.59	6.50	144.50	17.73		0.003288
	1.33330	78029.25					
989.45	32.00	4544.41	8.21	6.34	6274.62	0.39	
		150.88	6.56	144.75	17.63		0.003293
	1.34764	78165.91					
994.33	33.00	4544.44	8.24	6.36	6325.90	0.39	
		151.01	6.58	144.86	17.59		0.003293
	1.35311	78226.05					
993.81	34.00	4544.43	8.23	6.36	6319.70	0.39	
		150.99	6.58	144.85	17.59		0.003288
	1.35031	78219.47					
982.96	35.00	4544.38	8.17	6.31	6203.89	0.39	
		150.71	6.52	144.60	17.69		0.003287
	1.33774	78084.29					
977.39	36.00	4544.35	8.14	6.29	6146.00	0.39	
		150.56	6.49	144.47	17.74		0.003281
	1.32892	78015.16					
966.90	37.00	4544.29	8.09	6.24	6035.43	0.39	
		150.28	6.43	144.23	17.83		0.003277
	1.31554	77882.64					
961.93	38.00	4544.26	8.06	6.22	5985.08	0.39	
		150.15	6.41	144.11	17.88		0.003277
	1.31010	77820.32					
961.97	39.00	4544.26	8.06	6.22	5984.89	0.39	
		150.15	6.41	144.11	17.88		0.003278
	1.31061	77820.80					
961.97	40.00	4544.26	8.06	6.22	5985.00	0.39	
		150.15	6.41	144.11	17.88		0.003275
	1.30935	77820.76					
961.97	41.00	4544.26	8.06	6.22	5985.22	0.39	
		150.15	6.41	144.11	17.88		0.003277
	1.31007	77820.81					
962.49	42.00	4544.26	8.06	6.22	5990.61	0.39	
		150.17	6.41	144.13	17.87		0.003278
	1.31118	77827.55					
973.09	43.00	4544.32	8.12	6.27	6101.91	0.39	
		150.45	6.47	144.37	17.78		0.003285
	1.32598	77961.62					
978.50	44.00	4544.35	8.15	6.29	6158.12	0.39	
		150.59	6.50	144.50	17.73		0.003292
	1.33483	78029.32					
990.00	45.00	4544.41	8.21	6.34	6281.05	0.39	
		150.89	6.56	144.76	17.62		0.003298

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HYCHAN.OUT									
1.35036	78172.82								
46.00	4544.50	8.30	6.42	6456.20	0.39				
1006.18	151.31		6.65	145.13	17.48			0.003306	
1.37196	78371.93								
47.00	4544.59	8.39	6.48	6630.95	0.39				
1022.78	151.74		6.74	145.51	17.34			0.003308	
1.39133	78573.49								
48.00	4544.69	8.49	6.54	6803.67	0.40				
1040.47	152.19		6.84	145.90	17.19			0.003309	
1.41171	78785.21								
49.00	4544.78	8.58	6.58	6973.44	0.40				
1059.20	152.65		6.94	146.31	17.04			0.003305	
1.43084	79005.93								
50.00	4544.88	8.68	6.64	7157.52	0.40				
1077.80	153.11		7.04	146.71	16.90			0.003302	
1.45055	79221.88								
51.00	4545.03	8.83	6.73	7439.76	0.40				
1106.21	153.79		7.19	147.31	16.68			0.003292	
1.47775	79545.54								
52.00	4545.09	8.89	6.76	7549.81	0.40				
1117.48	154.06		7.25	147.54	16.60			0.003293	
1.49033	79671.73								
53.00	4545.16	8.96	6.80	7689.21	0.40				
1131.32	154.38		7.33	147.83	16.49			0.003293	
1.50598	79826.05								
54.00	4545.40	9.20	6.93	8150.87	0.40				
1176.91	155.43		7.57	148.74	16.17			0.003283	
1.55143	80321.07								
55.00	4545.77	9.57	7.12	8913.08	0.41				
1251.25	157.06		7.97	150.17	15.69			0.003273	
1.62710	81094.23								
56.00	4546.26	10.06	7.39	9987.75	0.41				
1350.79	159.12		8.49	151.98	15.11			0.003320	
1.75843	82069.43								
57.00	4546.62	10.42	7.96	11381.01	0.43				
1429.24	160.60		8.90	153.27	14.71			0.003600	
1.99919	82767.06								
58.00	4546.83	10.63	8.48	12531.24	0.46				
1477.96	161.45		9.15	154.02	14.49			0.003740	
2.13656	83168.33								
59.00	4547.08	10.88	8.83	13560.15	0.47				
1536.11	162.44		9.46	154.88	14.23			0.003981	
2.34897	83636.20								
60.00	4547.40	11.20	9.21	14828.13	0.49				
1609.43	163.67		9.83	155.95	13.92			0.004242	
2.60290	84212.66								
61.00	4547.63	11.43	9.48	15759.79	0.49				
1662.06	164.52		10.10	156.70	13.71			0.004350	
2.74219	84617.37								
62.00	4547.80	11.60	9.68	16489.72	0.50				
1704.20	165.20		10.32	157.28	13.55			0.004441	
2.85854	84933.55								
63.00	4547.92	11.72	9.80	16973.92	0.50				
1732.26	165.64		10.46	157.67	13.45			0.004426	
2.88810	85140.95								
64.00	4548.04	11.84	9.97	17551.67	0.51				
1759.69	166.07		10.60	158.04	13.35			0.004426	
2.92655	85344.05								
65.00	4548.15	11.95	10.15	18116.58	0.52				
1785.46	166.47		10.73	158.40	13.25			0.004369	
2.92406	85533.32								
66.00	4548.17	11.97	10.18	18232.63	0.52				
1791.17	166.56		10.75	158.47	13.23			0.004410	

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	2.95910	85574.55							
1791.67	67.00	4548.18	11.98	10.76	10.18	18243.62	13.23	0.52	0.004390
	2.94654	85578.27							
1791.73	68.00	4548.18	11.98	10.76	10.18	18245.02	13.23	0.52	0.004410
	2.96021	85578.66							
1792.12	69.00	4548.18	11.98	10.76	10.19	18253.35	13.23	0.52	0.004397
	2.95191	85581.59							
1792.61	70.00	4548.18	11.98	10.76	10.19	18262.90	13.23	0.52	0.004357
	2.92607	85584.98							
1792.59	71.00	4548.18	11.98	10.76	10.19	18261.55	13.23	0.52	0.004357
	2.92540	85584.88							
1792.86	72.00	4548.18	11.98	10.76	10.19	18268.97	13.23	0.52	0.004361
	2.92878	85586.91							
1801.52	73.00	4548.22	12.02	10.81	10.25	18463.87	13.20	0.52	0.004378
	2.95191	85649.89							
1807.59	74.00	4548.24	12.04	10.84	10.29	18600.31	13.18	0.52	0.004338
	2.93303	85693.84							
1808.22	75.00	4548.25	12.05	10.84	10.29	18613.01	13.17	0.52	0.004370
	2.95594	85698.27							
1817.38	76.00	4548.29	12.09	10.89	10.36	18829.65	13.14	0.53	0.004334
	2.94406	85764.84							
1839.93	77.00	4548.38	12.18	11.00	10.52	19355.62	13.06	0.53	0.004301
	2.95123	85926.98							
1860.95	78.00	4548.47	12.27	11.10	10.65	19821.70	12.99	0.54	0.004315
	2.98910	86076.77							
1878.19	79.00	4548.54	12.34	11.19	10.73	20156.65	12.93	0.54	0.004320
	3.01579	86199.41							
1900.91	80.00	4548.64	12.44	11.30	10.82	20559.43	12.86	0.54	0.004315
	3.04235	86357.38							
1907.80	81.00	4548.67	12.47	11.33	10.83	20661.13	12.84	0.54	0.004310
	3.04852	86404.09							
1894.46	82.00	4548.61	12.41	11.27	10.78	20413.20	12.88	0.54	0.004308
	3.02887	86311.65							
1885.64	83.00	4548.57	12.37	11.22	10.75	20269.85	12.91	0.54	0.004311
	3.01922	86250.95							
1884.76	84.00	4548.57	12.37	11.22	10.75	20256.01	12.91	0.54	0.004310
	3.01777	86244.89							
1884.55	85.00	4548.57	12.37	11.22	10.75	20250.27	12.91	0.54	0.004304
	3.01288	86243.27							
1875.73	86.00	4548.53	12.33	11.18	10.70	20070.70	12.94	0.54	0.004299
	2.99773	86181.04							
1843.31	87.00	4548.39	12.19	11.01	10.51	19370.38	13.05	0.53	0.004375
		167.35							

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1792.87	3.00687	85948.34	11.98	10.17	18239.86	0.52	0.004429
	88.00	4548.18		10.76	158.49	13.23	
	2.97455	85584.16					
1716.96	89.00	4547.86	11.66	9.71	16664.31	0.50	0.004298
		165.39		10.38	157.45	13.51	
	2.78414	85023.84					
1658.07	90.00	4547.61	11.41	9.43	15633.20	0.49	0.004150
		164.45		10.08	156.64	13.73	
	2.61105	84584.02					
1612.57	91.00	4547.41	11.21	9.20	14838.87	0.48	0.004009
		163.71		9.85	155.99	13.91	
	2.46415	84234.72					
1555.90	92.00	4547.17	10.97	8.91	13865.90	0.47	0.003807
		162.77		9.56	155.17	14.15	
	2.27075	83790.77					
1506.08	93.00	4546.95	10.75	8.66	13035.28	0.47	0.003687
		161.93		9.30	154.43	14.36	
	2.13980	83394.64					
1464.54	94.00	4546.77	10.57	8.38	12279.38	0.45	0.003583
		161.22		9.08	153.81	14.55	
	2.03106	83058.14					
1441.41	95.00	4546.67	10.47	8.13	11717.15	0.44	0.003467
		160.82		8.96	153.46	14.65	
	1.93898	82868.77					
1419.00	96.00	4546.58	10.38	7.87	11168.30	0.43	0.003389
		160.42		8.85	153.12	14.76	
	1.87066	82683.01					
1401.71	97.00	4546.50	10.30	7.68	10763.18	0.42	0.003314
		160.12		8.75	152.85	14.84	
	1.81031	82539.18					
1383.74	98.00	4546.42	10.22	7.49	10366.09	0.41	0.003259
		159.78		8.66	152.56	14.93	
	1.76120	82380.53					
1362.83	99.00	4546.32	10.12	7.40	10079.74	0.41	0.003245
		159.37		8.55	152.19	15.04	
	1.73166	82184.93					
1331.63	100.00	4546.17	9.97	7.31	9730.86	0.41	0.003248
		158.74		8.39	151.64	15.22	
	1.70002	81887.34					
1301.27	101.00	4546.02	9.82	7.24	9414.76	0.41	0.003256
		158.12		8.23	151.10	15.39	
	1.67206	81592.87					
1274.81	102.00	4545.89	9.69	7.17	9139.09	0.41	0.003264
		157.56		8.09	150.61	15.55	
	1.64806	81331.07					
1252.77	103.00	4545.78	9.58	7.12	8913.64	0.41	0.003267
		157.09		7.97	150.20	15.68	
	1.62565	81109.63					
1232.47	104.00	4545.68	9.48	7.06	8705.12	0.40	0.003269
		156.66		7.87	149.82	15.81	
	1.60467	80902.35					
1200.09	105.00	4545.51	9.31	6.98	8373.59	0.40	0.003278
		155.94		7.70	149.19	16.02	
	1.57411	80565.28					
1176.27	106.00	4545.39	9.19	6.92	8134.54	0.40	0.003281
		155.41		7.57	148.73	16.18	
	1.54970	80313.55					
1158.91	107.00	4545.30	9.10	6.87	7959.88	0.40	0.003281
		155.02		7.48	148.38	16.30	
	1.53070	80126.76					
1142.03	108.00	4545.22	9.02	6.82	7792.99	0.40	0.003289
		154.63		7.39	148.04	16.42	

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			HYCHAN.OUT				
	1.51598	79942.97					
109.00	4545.19	8.99	6.81	7749.84	0.40		
1137.51	154.52	7.36	147.95	16.45	0.003285		
	1.50910	79893.84					
110.00	4545.26	9.06	6.85	7882.42	0.40		
1150.59	154.83	7.43	148.22	16.36	0.003288		
	1.52458	80037.40					
111.00	4545.41	9.21	6.93	8163.69	0.40		
1178.68	155.47	7.58	148.78	16.16	0.003280		
	1.55150	80340.29					
112.00	4545.39	9.19	6.92	8133.62	0.40		
1176.20	155.41	7.57	148.73	16.18	0.003280		
	1.54900	80312.76					
113.00	4545.31	9.11	6.88	7981.41	0.40		
1160.85	155.06	7.49	148.42	16.29	0.003288		
	1.53610	80148.21					
114.00	4545.42	9.22	6.93	8188.43	0.40		
1180.93	155.52	7.59	148.82	16.15	0.003286		
	1.55708	80364.41					
115.00	4545.60	9.40	7.03	8552.03	0.40		
1216.81	156.32	7.78	149.52	15.91	0.003267		
	1.58691	80741.77					
116.00	4545.59	9.39	7.02	8524.55	0.40		
1214.68	156.27	7.77	149.48	15.92	0.003280		
	1.59096	80718.78					
117.00	4545.56	9.36	7.01	8470.00	0.40		
1209.09	156.15	7.74	149.37	15.96	0.003272		
	1.58113	80661.09					
118.00	4545.56	9.36	7.01	8478.91	0.40		
1209.91	156.16	7.75	149.39	15.95	0.003277		
	1.58440	80669.77					
119.00	4545.63	9.43	7.04	8616.20	0.40		
1223.11	156.45	7.82	149.64	15.87	0.003273		
	1.59681	80807.09					
120.00	4545.66	9.46	7.06	8669.98	0.40		
1228.57	156.57	7.85	149.75	15.83	0.003268		
	1.60016	80863.08					
121.00	4545.65	9.45	7.05	8660.54	0.40		
1227.78	156.55	7.84	149.73	15.84	0.003273		
	1.60189	80854.80					
122.00	4545.59	9.39	7.02	8524.54	0.40		
1214.66	156.27	7.77	149.48	15.92	0.003277		
	1.58966	80718.63					
123.00	4545.56	9.35	7.00	8461.23	0.40		
1208.27	156.13	7.74	149.36	15.97	0.003274		
	1.58108	80652.35					
124.00	4545.49	9.29	6.97	8325.46	0.40		
1195.12	155.83	7.67	149.10	16.05	0.003281		
	1.57031	80513.83					
125.00	4545.46	9.26	6.95	8269.86	0.40		
1189.39	155.71	7.64	148.99	16.09	0.003279		
	1.56282	80453.89					
126.00	4545.46	9.26	6.95	8262.17	0.40		
1188.71	155.69	7.64	148.97	16.10	0.003280		
	1.56257	80446.45					
127.00	4545.40	9.20	6.92	8141.59	0.40		
1176.99	155.43	7.57	148.74	16.17	0.003282		
	1.55080	80321.45					
128.00	4545.37	9.17	6.91	8091.02	0.40		
1171.69	155.31	7.54	148.64	16.21	0.003284		
	1.54606	80265.17					
129.00	4545.37	9.17	6.90	8083.20	0.40		
1170.98	155.29	7.54	148.62	16.22	0.003280		

		HYCHAN.OUT				
	1.54341	80257.38				
1159.49	130.00	4545.31	9.11	7.48	6.87	7966.57
		155.03				0.40
	1.53255	80133.15				148.39
						16.30
						0.003284
1155.69	131.00	4545.29	9.09	7.46	6.86	7931.88
		154.94				0.40
	1.53101	80092.73				148.32
						16.32
						0.003289
1179.39	132.00	4545.41	9.21	7.59	6.93	8171.45
		155.48				0.40
	1.55243	80347.87				148.79
						16.16
						0.003280
1189.38	133.00	4545.46	9.26	7.64	6.95	8270.03
		155.71				0.40
	1.56341	80453.75				148.99
						16.09
						0.003280
1189.49	134.00	4545.46	9.26	7.64	6.95	8270.05
		155.71				0.40
	1.56486	80454.87				148.99
						16.09
						0.003283
1189.34	135.00	4545.46	9.26	7.64	6.95	8270.10
		155.71				0.40
	1.56252	80453.33				148.99
						16.09
						0.003278
1189.41	136.00	4545.46	9.26	7.64	6.95	8269.85
		155.71				0.40
	1.56394	80454.08				148.99
						16.09
						0.003281
1189.49	137.00	4545.46	9.26	7.64	6.95	8270.01
		155.71				0.40
	1.56261	80454.88				148.99
						16.09
						0.003278
1189.40	138.00	4545.46	9.26	7.64	6.95	8269.77
		155.71				0.40
	1.56410	80453.98				148.99
						16.09
						0.003281
1188.67	139.00	4545.46	9.26	7.63	6.95	8262.42
		155.69				0.40
	1.56149	80446.06				148.97
						16.10
						0.003278
1176.97	140.00	4545.40	9.20	7.57	6.92	8141.28
		155.43				0.40
	1.55173	80321.19				148.74
						16.17
						0.003284
1171.76	141.00	4545.37	9.17	7.54	6.91	8091.14
		155.31				0.40
	1.54544	80265.94				148.64
						16.21
						0.003283
1171.67	142.00	4545.37	9.17	7.54	6.91	8091.08
		155.31				0.40
	1.54583	80264.87				148.64
						16.21
						0.003284
1171.67	143.00	4545.37	9.17	7.54	6.91	8090.53
		155.31				0.40
	1.54618	80264.91				148.64
						16.21
						0.003284
1171.04	144.00	4545.37	9.17	7.54	6.90	8084.09
		155.29				0.40
	1.54335	80257.98				148.63
						16.22
						0.003280
1159.44	145.00	4545.31	9.11	7.48	6.87	7966.27
		155.03				0.40
	1.53317	80132.61				148.39
						16.30
						0.003285
1154.38	146.00	4545.28	9.08	7.45	6.86	7917.15
		154.91				0.40
	1.52708	80078.28				148.29
						16.33
						0.003284
1154.35	147.00	4545.28	9.08	7.45	6.86	7916.94
		154.91				0.40
	1.52795	80077.92				148.29
						16.33
						0.003286
1154.34	148.00	4545.28	9.08	7.45	6.86	7916.91
		154.91				0.40
	1.52745	80077.78				148.29
						16.33
						0.003285
1154.39	149.00	4545.28	9.08	7.45	6.86	7917.30
		154.91				0.40
	1.52895	80078.30				148.29
						16.33
						0.003288
1153.96	150.00	4545.28	9.08	7.45	6.86	7912.35
		154.90				0.40
						148.28
						16.33
						0.003282

			HYCHAN.OUT				
	1.52548	80073.55					
1145.87	151.00	4545.24	9.04	7.41	6.83	7831.92	0.40
		154.72				148.12	16.39
	1.51824	79985.08					0.003285
1138.58	152.00	4545.20	9.00	7.37	6.81	7759.34	0.40
		154.55				147.97	16.44
	1.51124	79905.41					0.003287
1136.82	153.00	4545.19	8.99	7.36	6.81	7742.97	0.40
		154.51				147.94	16.46
	1.51049	79886.14					0.003290
1136.26	154.00	4545.19	8.99	7.35	6.81	7735.82	0.40
		154.50				147.93	16.46
	1.50941	79879.91					0.003289
1126.02	155.00	4545.13	8.93	7.30	6.78	7633.47	0.40
		154.26				147.72	16.53
	1.49935	79766.56					0.003292
1144.16	156.00	4545.23	9.03	7.40	6.83	7817.90	0.40
		154.68				148.09	16.40
	1.51533	79967.06					0.003283
1154.33	157.00	4545.28	9.08	7.45	6.86	7916.90	0.40
		154.91				148.29	16.33
	1.52881	80077.70					0.003288
1154.33	158.00	4545.28	9.08	7.45	6.86	7917.02	0.40
		154.91				148.29	16.33
	1.52737	80077.72					0.003285
1154.29	159.00	4545.28	9.08	7.45	6.86	7916.64	0.40
		154.91				148.29	16.33
	1.52882	80077.26					0.003288
1154.38	160.00	4545.28	9.08	7.45	6.86	7917.34	0.40
		154.91				148.29	16.33
	1.52790	80078.27					0.003286
1154.34	161.00	4545.28	9.08	7.45	6.86	7917.02	0.40
		154.91				148.29	16.33
	1.52808	80077.79					0.003286
1154.34	162.00	4545.28	9.08	7.45	6.86	7917.06	0.40
		154.91				148.29	16.33
	1.52734	80077.78					0.003285
1154.32	163.00	4545.28	9.08	7.45	6.86	7916.74	0.40
		154.91				148.29	16.33
	1.52762	80077.55					0.003285
1153.64	164.00	4545.28	9.08	7.45	6.86	7909.75	0.40
		154.90				148.28	16.34
	1.52638	80070.08					0.003284
1142.09	165.00	4545.22	9.02	7.39	6.82	7793.04	0.40
		154.63				148.04	16.42
	1.51516	79943.63					0.003287
1136.85	166.00	4545.19	8.99	7.36	6.81	7742.87	0.40
		154.51				147.94	16.46
	1.50945	79886.53					0.003288
1136.87	167.00	4545.19	8.99	7.36	6.81	7743.06	0.40
		154.51				147.94	16.46
	1.50952	79886.70					0.003288
1136.87	168.00	4545.19	8.99	7.36	6.81	7742.82	0.40
		154.51				147.94	16.46
	1.51059	79886.67					0.003290
1136.91	169.00	4545.19	8.99	7.36	6.81	7742.87	0.40
		154.51				147.94	16.45
	1.51031	79887.19					0.003289
1136.91	170.00	4545.19	8.99	7.36	6.81	7743.32	0.40
		154.51				147.94	16.45
	1.50868	79887.11					0.003286
1136.87	171.00	4545.19	8.99	7.36	6.81	7742.64	0.40
		154.51				147.94	16.46

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		HYCHAN.OUT					
	1.50854	79886.68					
1136.27	172.00	4545.19	8.99	7.35	6.81	7736.13	0.40
		154.50				147.93	16.46
	1.50764	79879.91					0.003285
1124.71	173.00	4545.13	8.93	7.29	6.77	7619.63	0.40
		154.22				147.69	16.54
	1.49831	79751.71					0.003293
1119.50	174.00	4545.10	8.90	7.26	6.76	7568.76	0.40
		154.10				147.58	16.58
	1.49188	79694.27					0.003291
1119.51	175.00	4545.10	8.90	7.26	6.76	7569.04	0.40
		154.10				147.58	16.58
	1.49197	79694.24					0.003291
1119.48	176.00	4545.10	8.90	7.26	6.76	7568.97	0.40
		154.10				147.58	16.58
	1.49183	79693.97					0.003291
1119.46	177.00	4545.10	8.90	7.26	6.76	7569.31	0.40
		154.10				147.58	16.58
	1.49124	79693.76					0.003290
1119.39	178.00	4545.10	8.90	7.26	6.76	7568.37	0.40
		154.10				147.58	16.58
	1.49026	79692.96					0.003288
1120.85	179.00	4545.11	8.91	7.27	6.77	7583.22	0.40
		154.14				147.61	16.57
	1.49293	79709.55					0.003290
1144.10	180.00	4545.23	9.03	7.40	6.83	7817.87	0.40
		154.68				148.09	16.40
	1.51510	79966.48					0.003283
1155.04	181.00	4545.28	9.08	7.46	6.86	7923.93	0.40
		154.93				148.31	16.33
	1.52802	80085.50					0.003285
1166.66	182.00	4545.34	9.14	7.52	6.89	8041.81	0.40
		155.20				148.54	16.25
	1.53909	80211.36					0.003281
1171.69	183.00	4545.37	9.17	7.54	6.91	8091.07	0.40
		155.31				148.64	16.21
	1.54509	80265.12					0.003282
1171.69	184.00	4545.37	9.17	7.54	6.91	8090.61	0.40
		155.31				148.64	16.21
	1.54397	80265.16					0.003280
1171.75	185.00	4545.37	9.17	7.54	6.91	8091.42	0.40
		155.31				148.64	16.21
	1.54565	80265.79					0.003283
1171.79	186.00	4545.37	9.17	7.54	6.90	8090.97	0.40
		155.31				148.64	16.21
	1.54498	80266.16					0.003282
1171.74	187.00	4545.37	9.17	7.54	6.91	8091.29	0.40
		155.31				148.64	16.21
	1.54421	80265.68					0.003280
1171.71	188.00	4545.37	9.17	7.54	6.91	8090.67	0.40
		155.31				148.64	16.21
	1.54620	80265.32					0.003284
1171.70	189.00	4545.37	9.17	7.54	6.91	8090.92	0.40
		155.31				148.64	16.21
	1.54543	80265.25					0.003283
1171.03	190.00	4545.37	9.17	7.54	6.90	8084.02	0.40
		155.29				148.63	16.22
	1.54336	80257.96					0.003280
1159.45	191.00	4545.31	9.11	7.48	6.87	7966.31	0.40
		155.03				148.39	16.30
	1.53270	80132.73					0.003284
1154.35	192.00	4545.28	9.08	7.45	6.86	7916.56	0.40
		154.91				148.29	16.33

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## HYCHAN.OUT

1154.31	1.52638	80077.91	9.08	7.45	6.86	7917.28	16.33	0.003283
1154.35	1.52629	80077.48	9.08	7.45	6.86	7917.38	16.33	0.003287
1154.37	1.52828	80077.95	9.08	7.45	6.86	7916.84	16.33	0.003284
1154.23	1.52678	80078.09	9.08	7.45	6.86	7916.88	16.33	0.003288
1154.37	1.52857	80076.65	9.08	7.45	6.86	7917.13	16.33	0.003285
1154.31	1.52736	80078.11	9.08	7.45	6.86	7916.94	16.33	0.003283
1154.32	1.52628	80077.41	9.08	7.45	6.86	7916.88	16.33	0.003283
	1.52646	80077.65						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 716

MAXIMUM DISCHARGE (CFS) = 20699.80 AT TIME = 80.20  
 MAXIMUM STAGE = 4546.34 AT TIME = 80.19

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4533.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4533.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
782.42	2.00	4535.63	1.98	1.56	1216.77	0.19		
	2.11325	73.82	10.60	72.49	36.67	0.003195		
882.29	3.00	4541.66	8.01	6.26	5524.23	0.39		
	0.74208	236.41	3.73	228.30	28.51	0.003187		
872.71	4.00	4541.61	7.96	6.22	5430.31	0.39		
	0.73785	235.17	3.71	227.12	28.54	0.003186		
866.79	5.00	4541.58	7.93	6.20	5374.11	0.39		
	0.73478	234.43	3.70	226.42	28.56	0.003185		
856.57	6.00	4541.52	7.87	6.16	5275.94	0.39		
	0.73010	233.10	3.67	225.15	28.59	0.003184		
840.45	7.00	4541.44	7.79	6.10	5125.12	0.39		
	0.72250	231.01	3.64	223.16	28.65	0.003183		
824.30	8.00	4541.35	7.70	6.04	4975.82	0.38		
	0.71493	228.90	3.60	221.15	28.70	0.003182		
		119422.62						

HYCHAN.OUT							
808.09	9.00	4541.27	7.62	5.98	4828.36	0.38	
		226.77	3.56	219.12	28.76		0.003186
	0.70838	118324.91					
801.49	10.00	4541.23	7.58	5.95	4769.41	0.38	
		225.91	3.55	218.31	28.79		0.003182
	0.70444	117886.55					
791.25	11.00	4541.18	7.53	5.91	4676.20	0.38	
		224.52	3.52	216.98	28.83		0.003181
	0.69952	117167.05					
774.65	12.00	4541.09	7.44	5.85	4528.39	0.38	
		222.28	3.49	214.85	28.89		0.003181
	0.69182	116016.43					
767.74	13.00	4541.05	7.40	5.82	4468.69	0.38	
		221.37	3.47	213.98	28.91		0.003181
	0.68848	115550.16					
767.79	14.00	4541.05	7.40	5.82	4469.03	0.38	
		221.38	3.47	213.99	28.91		0.003182
	0.68861	115554.50					
767.77	15.00	4541.05	7.40	5.82	4468.96	0.38	
		221.38	3.47	213.99	28.91		0.003182
	0.68856	115554.13					
767.78	16.00	4541.05	7.40	5.82	4468.96	0.38	
		221.38	3.47	213.99	28.91		0.003183
	0.68885	115553.78					
767.96	17.00	4541.05	7.40	5.82	4470.75	0.38	
		221.41	3.47	214.01	28.91		0.003186
	0.68953	115567.98					
778.44	18.00	4541.11	7.46	5.86	4564.64	0.38	
		222.86	3.49	215.40	28.87		0.003185
	0.69429	116314.20					
795.54	19.00	4541.20	7.55	5.93	4717.33	0.38	
		225.16	3.53	217.59	28.81		0.003187
	0.70263	117496.70					
812.20	20.00	4541.29	7.64	5.99	4868.12	0.38	
		227.36	3.57	219.69	28.75		0.003183
	0.70962	118631.70					
818.45	21.00	4541.33	7.67	6.02	4924.17	0.38	
		228.17	3.59	220.45	28.72		0.003184
	0.71260	119045.58					
818.70	22.00	4541.33	7.68	6.02	4926.54	0.38	
		228.21	3.59	220.49	28.72		0.003186
	0.71319	119064.30					
829.46	23.00	4541.38	7.73	6.06	5026.75	0.38	
		229.65	3.61	221.86	28.68		0.003190
	0.71890	119805.23					
856.46	24.00	4541.53	7.88	6.17	5281.71	0.39	
		233.13	3.67	225.18	28.59		0.003189
	0.73104	121597.05					
888.89	25.00	4541.69	8.04	6.29	5590.03	0.39	
		237.26	3.75	229.11	28.48		0.003191
	0.74594	123721.38					
919.68	26.00	4541.85	8.20	6.40	5888.13	0.39	
		241.12	3.81	232.78	28.38		0.003188
	0.75871	125700.80					
929.94	27.00	4541.90	8.25	6.44	5985.07	0.39	
		242.37	3.84	233.97	28.35		0.003188
	0.76330	126344.59					
930.39	28.00	4541.91	8.25	6.44	5989.92	0.40	
		242.43	3.84	234.03	28.35		0.003191
	0.76419	126375.79					
941.40	29.00	4541.96	8.31	6.48	6099.89	0.40	
		243.79	3.86	235.33	28.32		0.003187
	0.76804	127076.03					



		HYCHAN.OUT					
946.75	30.00	4541.99	8.34	6.50	6151.89	0.40	
	0.77086	244.43	3.87	235.93	28.30		0.003189
	31.00	127402.50					
947.26	0.77095	4541.99	8.34	6.50	6157.62	0.40	
		244.49	3.87	235.99	28.30		0.003189
	32.00	127436.28					
958.64	0.77556	4542.05	8.40	6.54	6272.55	0.40	
		245.89	3.90	237.32	28.26		0.003188
	33.00	128154.80					
964.02	0.77797	4542.07	8.42	6.56	6325.98	0.40	
		246.52	3.91	237.92	28.25		0.003188
	34.00	128479.02					
963.51	0.77726	4542.07	8.42	6.56	6320.22	0.40	
		246.46	3.91	237.87	28.25		0.003186
	35.00	128447.36					
952.25	0.77297	4542.01	8.36	6.52	6205.99	0.40	
		245.08	3.89	236.55	28.28		0.003188
	36.00	127735.24					
946.22	0.76998	4541.98	8.33	6.50	6146.53	0.40	
		244.36	3.87	235.86	28.30		0.003187
	37.00	127366.43					
935.34	0.76558	4541.93	8.28	6.45	6037.48	0.40	
		243.01	3.85	234.58	28.34		0.003188
	38.00	126671.25					
929.88	0.76348	4541.90	8.25	6.44	5985.09	0.40	
		242.35	3.84	233.96	28.35		0.003189
	39.00	126336.92					
929.91	0.76350	4541.90	8.25	6.44	5984.88	0.39	
		242.36	3.84	233.97	28.35		0.003189
	40.00	126341.96					
929.93	0.76383	4541.90	8.25	6.44	5984.94	0.39	
		242.37	3.84	233.97	28.35		0.003190
	41.00	126343.40					
929.93	0.76321	4541.90	8.25	6.44	5985.32	0.40	
		242.36	3.84	233.97	28.35		0.003188
	42.00	126341.98					
930.41	0.76372	4541.91	8.26	6.44	5989.94	0.40	
		242.43	3.84	234.03	28.35		0.003189
	43.00	126377.69					
941.43	0.76828	4541.96	8.31	6.48	6099.97	0.40	
		243.80	3.86	235.33	28.32		0.003188
	44.00	127078.87					
947.29	0.77050	4541.99	8.34	6.50	6157.62	0.40	
		244.50	3.87	236.00	28.30		0.003187
	45.00	127439.03					
959.20	0.77568	4542.05	8.40	6.55	6278.35	0.40	
		245.97	3.90	237.39	28.26		0.003188
	46.00	128191.82					
976.41	0.78348	4542.14	8.49	6.61	6453.53	0.40	
		248.04	3.94	239.37	28.21		0.003190
	47.00	129257.55					
994.51	0.79111	4542.22	8.57	6.66	6627.88	0.40	
		250.21	3.97	241.43	28.16		0.003190
	48.00	130369.75					
1015.21	0.79961	4542.33	8.68	6.70	6800.43	0.40	
		252.74	4.02	243.83	28.10		0.003190
	49.00	131668.89					
1036.79	0.80688	4542.44	8.79	6.72	6969.72	0.40	
		255.38	4.06	246.35	28.03		0.003185
	50.00	133028.05					
1059.77	0.81569	4542.55	8.90	6.75	7153.26	0.40	
		258.14	4.11	248.97	27.97		0.003184
		134441.23					

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		HYCHAN.OUT				
1094.90	51.00 4542.72 262.28	9.07	4.17	6.79	7434.38	0.40
	0.82604 136570.75				252.91	27.87
1109.47	52.00 4542.79 263.95	9.14	4.20	6.80	7548.95	0.40
	0.83261 137427.52				254.50	27.83
1126.13	53.00 4542.88 265.92	9.23	4.23	6.82	7683.98	0.40
	0.83721 138434.16				256.36	27.79
1185.85	54.00 4543.15 272.39	9.50	4.35	6.86	8138.44	0.39
	0.84816 141753.03				262.51	27.64
1287.15	55.00 4543.59 282.85	9.94	4.55	6.91	8894.86	0.39
	0.86741 147118.09				272.44	27.42
1427.69	56.00 4544.16 291.00	10.50	4.91	6.97	9947.94	0.38
	0.91397 153991.73				285.17	27.15
1492.97	57.00 4544.37 291.43	10.72	5.12	7.61	11359.01	0.41
	0.99235 156566.36				289.94	27.05
1508.52	58.00 4544.42 291.53	10.77	5.17	8.28	12489.51	0.44
	1.00241 157182.95				291.08	27.02
1576.05	59.00 4544.64 291.96	10.99	5.40	8.54	13465.93	0.45
	1.03979 159784.22				295.90	26.93
1666.06	60.00 4544.93 292.55	11.28	5.70	8.81	14674.85	0.46
	1.08751 163247.02				302.31	26.80
1733.37	61.00 4545.14 292.97	11.49	5.92	9.00	15592.47	0.47
	1.12031 165782.77				307.01	26.71
1789.83	62.00 4545.32 293.33	11.67	6.10	9.14	16358.46	0.47
	1.14234 167873.05				310.88	26.64
1830.36	63.00 4545.45 293.58	11.80	6.23	9.23	16892.67	0.47
	1.15473 169338.98				313.59	26.59
1870.85	64.00 4545.57 293.83	11.92	6.37	9.34	17471.17	0.48
	1.17504 170850.67				316.39	26.53
1909.95	65.00 4545.70 294.08	12.05	6.49	9.44	18036.30	0.48
	1.19261 172305.86				319.08	26.49
1919.51	66.00 4545.73 294.14	12.08	6.53	9.46	18164.04	0.48
	1.19112 172643.17				319.71	26.47
1920.27	67.00 4545.73 294.14	12.08	6.53	9.46	18174.20	0.48
	1.18618 172671.70				319.76	26.47
1920.43	68.00 4545.73 294.15	12.08	6.53	9.46	18176.35	0.48
	1.19209 172675.38				319.77	26.47
1920.93	69.00 4545.73 294.15	12.08	6.53	9.47	18183.64	0.48
	1.20483 172695.48				319.81	26.47
1921.68	70.00 4545.73 294.15	12.08	6.53	9.47	18194.00	0.48
	1.19866 172723.89				319.86	26.47
1921.69	71.00 4545.73 294.15	12.08	6.53	9.47	18193.35	0.48
	1.19136 172723.75				319.86	26.47

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		HYCHAN.OUT					
1922.00	72.00	4545.73	12.08	9.47	18199.30	0.48	
		294.16		6.53	319.88	26.47	0.002914
	1.18810	172737.14					
1934.30	73.00	4545.78	12.13	9.51	18385.92	0.48	
		294.24		6.57	320.76	26.45	0.002903
	1.19065	173212.66					
1943.74	74.00	4545.81	12.15	9.53	18523.64	0.48	
		294.30		6.60	321.41	26.44	0.002896
	1.19355	173560.62					
1944.93	75.00	4545.81	12.16	9.53	18539.16	0.48	
		294.30		6.61	321.48	26.44	0.002899
	1.19527	173600.08					
1957.73	76.00	4545.85	12.20	9.57	18741.66	0.48	
		294.39		6.65	322.41	26.43	0.002889
	1.19876	174100.64					
1995.35	77.00	4545.96	12.31	9.65	19250.97	0.48	
		294.61		6.77	324.80	26.38	0.002883
	1.21822	175389.89					
2032.59	78.00	4546.07	12.42	9.70	19717.59	0.49	
		294.83		6.89	327.18	26.34	0.002854
	1.22765	176675.45					
2058.83	79.00	4546.16	12.51	9.74	20058.31	0.49	
		295.01		6.98	329.17	26.30	0.002836
	1.23513	177752.97					
2092.97	80.00	4546.28	12.63	9.79	20483.55	0.49	
		295.26		7.09	331.78	26.26	0.002803
	1.23969	179158.58					
2104.54	81.00	4546.33	12.67	9.79	20609.13	0.48	
		295.34		7.13	332.64	26.24	0.002804
	1.24672	179624.89					
2085.62	82.00	4546.26	12.61	9.76	20361.24	0.48	
		295.20		7.07	331.18	26.27	0.002824
	1.24486	178838.53					
2071.56	83.00	4546.21	12.56	9.75	20197.55	0.49	
		295.10		7.02	330.12	26.29	0.002830
	1.23983	178266.72					
2069.95	84.00	4546.20	12.55	9.75	20180.28	0.49	
		295.09		7.01	330.00	26.29	0.002828
	1.23797	178201.72					
2069.78	85.00	4546.20	12.55	9.75	20176.54	0.49	
		295.09		7.01	329.99	26.29	0.002833
	1.23991	178193.36					
2058.21	86.00	4546.16	12.51	9.72	20011.21	0.48	
		295.01		6.98	329.08	26.31	0.002840
	1.23649	177702.78					
2007.86	87.00	4545.99	12.34	9.63	19333.87	0.48	
		294.67		6.81	325.41	26.37	0.002895
	1.23096	175719.70					
1926.48	88.00	4545.74	12.09	9.46	18215.97	0.48	
		294.17		6.55	319.99	26.47	0.002946
	1.20370	172797.00					
1818.90	89.00	4545.39	11.74	9.16	16658.03	0.47	
		293.47		6.20	312.43	26.61	0.002992
	1.15729	168714.83					
1738.68	90.00	4545.15	11.49	8.97	15587.80	0.47	
		292.98		5.93	307.03	26.71	0.003020
	1.11852	165795.11					
1679.16	91.00	4544.96	11.31	8.81	14786.36	0.46	
		292.60		5.74	302.90	26.79	0.003045
	1.09025	163566.45					
1608.06	92.00	4544.73	11.08	8.60	13835.89	0.46	
		292.14		5.50	297.88	26.89	0.003072
	1.05522	160853.03					

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				HYCHAN.OUT			
1544.65	93.00	4544.53	10.88	5.29	8.43	13013.93	0.45
	1.02063	291.74				293.43	26.98
		158450.55					0.003089
1497.03	94.00	4544.38	10.73	5.14	8.19	12266.38	0.44
	0.99132	291.44				290.14	27.04
		156673.58					0.003093
1491.85	95.00	4544.36	10.71	5.12	7.84	11699.70	0.42
	0.96411	291.41				289.78	27.05
		156482.22					0.003018
1490.03	96.00	4544.36	10.71	5.11	7.48	11148.93	0.40
	0.95843	291.40				289.66	27.05
		156415.16					0.003004
1487.79	97.00	4544.35	10.70	5.11	7.22	10739.45	0.39
	0.95053	291.39				289.54	27.06
		156351.70					0.002983
1483.53	98.00	4544.34	10.69	5.09	6.98	10348.04	0.38
	0.94057	291.36				289.22	27.06
		156177.30					0.002960
1451.57	99.00	4544.24	10.59	4.99	6.94	10078.82	0.38
	0.93036	291.17				287.07	27.11
		155019.98					0.002991
1404.15	100.00	4544.07	10.42	4.83	6.94	9739.57	0.38
	0.90898	290.82				283.25	27.19
		152955.62					0.003017
1360.51	101.00	4543.89	10.24	4.69	6.93	9421.85	0.38
	0.89109	290.03				279.25	27.27
		150797.30					0.003044
1323.29	102.00	4543.73	10.08	4.62	6.91	9144.84	0.38
	0.88407	286.35				275.77	27.35
		148913.88					0.003066
1292.28	103.00	4543.60	9.95	4.56	6.90	8917.54	0.39
	0.87675	283.26				272.83	27.41
		147329.59					0.003080
1264.25	104.00	4543.48	9.83	4.51	6.89	8710.10	0.39
	0.87174	280.41				270.12	27.47
		145866.20					0.003099
1220.07	105.00	4543.29	9.64	4.42	6.87	8380.43	0.39
	0.86335	275.84				265.79	27.57
		143524.22					0.003128
1187.21	106.00	4543.15	9.50	4.36	6.85	8138.19	0.39
	0.85500	272.44				262.56	27.64
		141779.94					0.003144
1163.57	107.00	4543.04	9.39	4.31	6.84	7963.22	0.39
	0.84892	269.95				260.19	27.70
		140504.11					0.003156
1140.73	108.00	4542.94	9.29	4.26	6.83	7795.73	0.40
	0.84378	267.51				257.87	27.75
		139250.91					0.003171
1134.36	109.00	4542.91	9.26	4.25	6.83	7749.02	0.40
	0.84012	266.83				257.23	27.77
		138904.80					0.003167
1151.14	110.00	4542.99	9.34	4.28	6.84	7878.19	0.39
	0.84347	268.68				258.99	27.73
		139854.38					0.003155
1189.46	111.00	4543.16	9.51	4.36	6.86	8159.12	0.39
	0.85143	272.72				262.83	27.64
		141925.69					0.003128
1187.09	112.00	4543.15	9.50	4.36	6.85	8137.13	0.39
	0.85472	272.43				262.54	27.64
		141774.05					0.003143
1165.79	113.00	4543.05	9.40	4.31	6.85	7982.44	0.39
	0.84907	270.20				260.43	27.69
		140634.09					0.003154

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		HYCHAN.OUT				
1192.10	114.00 4543.17 273.01	9.52	4.37	6.86	8181.06	0.39 0.003125
	0.85154 142075.02				263.10	27.63
1241.37	115.00 4543.39 278.12	9.74	4.46	6.89	8546.91	0.39 0.003097
	0.86270 144691.78				267.95	27.52
1239.56	116.00 4543.38 277.88	9.73	4.46	6.88	8527.77	0.39 0.003112
	0.86613 144571.97				267.73	27.53
1231.57	117.00 4543.34 277.07	9.69	4.44	6.88	8469.80	0.39 0.003112
	0.86309 144155.59				266.95	27.54
1232.60	118.00 4543.35 277.18	9.70	4.45	6.88	8478.03	0.39 0.003114
	0.86409 144212.30				267.06	27.54
1250.25	119.00 4543.42 279.02	9.77	4.48	6.89	8613.13	0.39 0.003096
	0.86579 145156.55				268.81	27.50
1258.13	120.00 4543.46 279.82	9.81	4.50	6.89	8669.94	0.39 0.003094
	0.86797 145563.55				269.56	27.48
1257.26	121.00 4543.45 279.71	9.80	4.49	6.89	8661.74	0.39 0.003097
	0.86866 145510.61				269.46	27.49
1239.53	122.00 4543.38 277.88	9.73	4.46	6.88	8527.40	0.39 0.003111
	0.86591 144573.02				267.73	27.53
1230.61	123.00 4543.34 276.96	9.69	4.44	6.88	8462.17	0.39 0.003111
	0.86244 144100.86				266.85	27.55
1212.89	124.00 4543.26 275.12	9.61	4.41	6.87	8328.54	0.39 0.003129
	0.86073 143154.78				265.10	27.59
1204.66	125.00 4543.23 274.28	9.58	4.39	6.86	8269.78	0.39 0.003127
	0.85703 142723.55				264.30	27.60
1203.87	126.00 4543.22 274.19	9.57	4.39	6.86	8263.08	0.39 0.003131
	0.85771 142679.94				264.22	27.61
1188.05	127.00 4543.15 272.54	9.50	4.36	6.86	8144.24	0.39 0.003142
	0.85455 141831.64				262.65	27.64
1180.54	128.00 4543.12 271.75	9.47	4.34	6.85	8091.12	0.39 0.003139
	0.85100 141428.92				261.91	27.66
1179.61	129.00 4543.12 271.66	9.47	4.34	6.85	8083.93	0.39 0.003143
	0.85152 141378.58				261.81	27.66
1164.25	130.00 4543.05 270.02	9.40	4.31	6.84	7969.22	0.39 0.003157
	0.84942 140540.19				260.26	27.70
1158.46	131.00 4543.02 269.44	9.37	4.30	6.85	7930.28	0.39 0.003155
	0.84654 140244.14				259.71	27.71
1190.29	132.00 4543.16 272.82	9.51	4.36	6.86	8166.16	0.39 0.003126
	0.85106 141974.59				262.92	27.64
1204.65	133.00 4543.23 274.27	9.57	4.39	6.86	8269.90	0.39 0.003128
	0.85723 142721.34				264.30	27.60
1204.85	134.00 4543.23 274.30	9.58	4.39	6.86	8270.04	0.39 0.003128
	0.85744 142736.30				264.33	27.60

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		HYCHAN.OUT				
1204.57	135.00 4543.23 274.26	9.57	4.39	6.87	8270.12	0.39
	0.85756 142716.66				264.29	27.60 0.003129
1204.66	136.00 4543.23 274.29	9.58	4.39	6.86	8269.82	0.39
	0.85835 142727.19				264.31	27.60 0.003132
1204.79	137.00 4543.23 274.30	9.58	4.39	6.86	8269.97	0.39
	0.85731 142733.30				264.32	27.60 0.003128
1204.72	138.00 4543.23 274.29	9.58	4.39	6.86	8269.74	0.39
	0.85775 142728.20				264.31	27.60 0.003130
1203.82	139.00 4543.22 274.18	9.57	4.39	6.86	8263.36	0.39
	0.85742 142672.45				264.21	27.61 0.003130
1188.01	140.00 4543.15 272.54	9.50	4.36	6.86	8143.97	0.39
	0.85509 141829.64				262.65	27.64 0.003144
1180.61	141.00 4543.12 271.77	9.47	4.34	6.85	8091.05	0.39
	0.85235 141437.03				261.92	27.66 0.003144
1180.46	142.00 4543.12 271.74	9.47	4.34	6.85	8091.23	0.39
	0.85150 141423.52				261.90	27.66 0.003141
1180.46	143.00 4543.12 271.75	9.47	4.34	6.85	8090.51	0.39
	0.85235 141427.17				261.90	27.66 0.003145
1179.70	144.00 4543.12 271.67	9.47	4.34	6.85	8084.89	0.39
	0.85114 141383.92				261.82	27.66 0.003141
1164.21	145.00 4543.05 270.02	9.40	4.31	6.84	7969.01	0.39
	0.84893 140539.16				260.26	27.70 0.003155
1156.95	146.00 4543.02 269.27	9.37	4.30	6.84	7917.09	0.39
	0.84616 140155.45				259.55	27.71 0.003156
1156.81	147.00 4543.02 269.26	9.36	4.30	6.84	7916.92	0.39
	0.84643 140149.97				259.54	27.71 0.003157
1156.88	148.00 4543.02 269.26	9.37	4.30	6.84	7916.95	0.39
	0.84609 140152.03				259.54	27.71 0.003156
1156.87	149.00 4543.02 269.27	9.37	4.30	6.84	7917.23	0.39
	0.84694 140154.52				259.55	27.71 0.003159
1156.38	150.00 4543.01 269.21	9.36	4.30	6.84	7912.89	0.39
	0.84614 140125.59				259.49	27.71 0.003157
1145.67	151.00 4542.96 268.05	9.31	4.27	6.84	7833.91	0.39
	0.84476 139530.94				258.39	27.74 0.003167
1135.90	152.00 4542.92 267.00	9.27	4.25	6.83	7760.27	0.40
	0.84098 138989.23				257.39	27.76 0.003168
1133.61	153.00 4542.91 266.74	9.26	4.25	6.83	7743.01	0.40
	0.84048 138856.22				257.14	27.77 0.003169
1132.98	154.00 4542.91 266.67	9.26	4.25	6.83	7736.61	0.40
	0.83982 138819.25				257.07	27.77 0.003168
1120.31	155.00 4542.85 265.20	9.20	4.22	6.81	7634.45	0.40
	0.83634 138065.34				255.68	27.81 0.003173

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1142.67	156.00 4542.95 267.77	9.30	4.27	6.84	7812.62	0.40 0.003153
1156.89	0.83960 139384.92 157.00 4543.02 269.26	9.37	4.30	6.84	7916.98	0.39 0.003156
1156.88	0.84624 140151.89 158.00 4543.02 269.26	9.36	4.30	6.84	7917.14	0.39 0.003153
1156.84	0.84541 140149.61 159.00 4543.02 269.26	9.36	4.30	6.84	7916.53	0.39 0.003157
1156.94	0.84631 140148.08 160.00 4543.02 269.27	9.37	4.30	6.84	7917.30	0.39 0.003157
1156.95	0.84653 140155.98 161.00 4543.02 269.27	9.37	4.30	6.84	7916.91	0.39 0.003160
1156.87	0.84716 140155.80 162.00 4543.02 269.26	9.36	4.30	6.84	7917.12	0.39 0.003156
1156.84	0.84606 140150.72 163.00 4543.02 269.26	9.36	4.30	6.84	7916.99	0.39 0.003155
1156.06	0.84593 140148.92 164.00 4543.01 269.17	9.36	4.29	6.84	7910.40	0.39 0.003158
1140.76	0.84623 140103.44 165.00 4542.94 267.52	9.29	4.26	6.83	7795.61	0.40 0.003170
1133.65	0.84362 139255.64 166.00 4542.91 266.75	9.26	4.25	6.83	7742.91	0.40 0.003167
1133.65	0.83989 138860.95 167.00 4542.91 266.75	9.26	4.25	6.83	7743.04	0.40 0.003170
1133.63	0.84061 138860.38 168.00 4542.91 266.75	9.26	4.25	6.83	7742.89	0.40 0.003170
1133.70	0.84071 138860.03 169.00 4542.91 266.76	9.26	4.25	6.83	7742.75	0.40 0.003170
1133.69	0.84080 138864.81 170.00 4542.91 266.75	9.26	4.25	6.83	7743.34	0.40 0.003169
1133.68	0.84043 138863.36 171.00 4542.91 266.75	9.26	4.25	6.83	7742.63	0.40 0.003172
1133.00	0.84112 138863.06 172.00 4542.91 266.67	9.26	4.25	6.83	7736.94	0.40 0.003168
1118.80	0.83989 138821.20 173.00 4542.84 265.01	9.19	4.22	6.81	7622.40	0.40 0.003169
1112.04	0.83483 137969.36 174.00 4542.81 264.25	9.16	4.21	6.81	7568.71	0.40 0.003170
1112.07	0.83252 137578.59 175.00 4542.81 264.25	9.16	4.21	6.81	7569.01	0.40 0.003173
1111.93	0.83310 137581.52 176.00 4542.81 264.23	9.16	4.21	6.81	7568.97	0.40 0.003172
	0.83296 137569.97					

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1111.98	177.00 4542.81 264.24	9.16	4.21	6.81	7569.25	0.40
	0.83252 137574.02				254.77	27.83
1111.83	178.00 4542.81 264.22	9.15	4.21	6.81	7568.31	0.40
	0.83305 137563.91				254.75	27.83
1113.53	179.00 4542.81 264.44	9.16	4.21	6.81	7581.58	0.40
	0.83394 137674.19				254.95	27.82
1142.55	180.00 4542.95 267.75	9.30	4.27	6.84	7812.69	0.40
	0.84021 139373.83				258.10	27.75
1157.76	181.00 4543.02 269.37	9.37	4.30	6.84	7923.07	0.39
	0.84654 140206.11				259.64	27.71
1173.21	182.00 4543.09 271.01	9.44	4.33	6.85	8039.12	0.39
	0.84990 141047.92				261.20	27.67
1180.54	183.00 4543.12 271.75	9.47	4.34	6.85	8091.12	0.39
	0.85205 141429.36				261.91	27.66
1180.49	184.00 4543.12 271.76	9.47	4.34	6.85	8090.61	0.39
	0.85175 141429.59				261.91	27.66
1180.60	185.00 4543.12 271.76	9.47	4.34	6.85	8091.52	0.39
	0.85190 141432.30				261.91	27.66
1180.59	186.00 4543.12 271.77	9.47	4.34	6.85	8090.97	0.39
	0.85193 141437.45				261.92	27.66
1180.55	187.00 4543.12 271.76	9.47	4.34	6.85	8091.26	0.39
	0.85143 141432.62				261.91	27.66
1180.47	188.00 4543.12 271.75	9.47	4.34	6.85	8090.60	0.39
	0.85136 141427.53				261.90	27.66
1180.52	189.00 4543.12 271.76	9.47	4.34	6.85	8090.91	0.39
	0.85219 141431.44				261.91	27.66
1179.71	190.00 4543.12 271.66	9.47	4.34	6.85	8084.81	0.39
	0.85226 141380.97				261.82	27.66
1164.12	191.00 4543.05 270.01	9.40	4.31	6.85	7968.99	0.39
	0.84975 140536.55				260.25	27.70
1156.93	192.00 4543.02 269.27	9.37	4.30	6.84	7916.46	0.39
	0.84702 140157.08				259.55	27.71
1156.83	193.00 4543.02 269.26	9.36	4.30	6.84	7917.37	0.39
	0.84563 140148.02				259.53	27.71
1156.87	194.00 4543.02 269.26	9.37	4.30	6.84	7917.49	0.39
	0.84682 140151.75				259.54	27.71
1156.91	195.00 4543.02 269.28	9.37	4.30	6.84	7916.72	0.39
	0.84578 140157.48				259.55	27.71
1156.79	196.00 4543.01 269.25	9.36	4.30	6.84	7916.95	0.39
	0.84661 140142.38				259.52	27.71
1156.90	197.00 4543.02 269.27	9.37	4.30	6.84	7917.12	0.39
	0.84665 140156.25				259.55	27.71

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198.00	4543.02	9.37	6.84	7917.02	0.39		
1156.86	269.26	4.30	259.54	27.71	0.003154		
0.84554	140151.39						
199.00	4543.02	9.36	6.84	7916.78	0.39		
1156.82	269.26	4.30	259.54	27.71	0.003158		
0.84663	140150.91						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 732

MAXIMUM DISCHARGE (CFS) = 20975.18 AT TIME = 80.19  
 MAXIMUM STAGE = 4544.11 AT TIME = 80.20

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4531.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4531.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
709.23	2.00	4532.98	1.68	1.56	1106.05	0.21		
		64.54	10.99	63.51	37.75	0.003944		
	2.70449	33022.75						
804.82	3.00	4538.74	7.44	6.86	5523.88	0.44		
		222.40	3.62	214.96	28.88	0.003933		
	0.88815	111780.90						
796.56	4.00	4538.69	7.39	6.82	5432.08	0.44		
		221.19	3.60	213.80	28.92	0.003931		
	0.88328	111177.72						
791.28	5.00	4538.66	7.36	6.79	5374.53	0.44		
		220.41	3.59	213.07	28.94	0.003928		
	0.87997	110796.00						
782.43	6.00	4538.61	7.31	6.75	5278.17	0.44		
		219.10	3.57	211.82	28.98	0.003926		
	0.87487	110145.14						
768.36	7.00	4538.53	7.23	6.67	5127.36	0.44		
		217.01	3.54	209.82	29.04	0.003920		
	0.86619	109107.98						
754.23	8.00	4538.44	7.14	6.60	4978.10	0.44		
		214.89	3.51	207.80	29.10	0.003919		
	0.85827	108057.54						
740.01	9.00	4538.36	7.06	6.53	4830.43	0.43		
		212.74	3.48	205.75	29.16	0.003919		
	0.85064	106991.51						
734.09	10.00	4538.32	7.02	6.50	4769.71	0.43		
		211.84	3.47	204.90	29.19	0.003916		
	0.84677	106548.41						
725.26	11.00	4538.27	6.97	6.45	4678.52	0.43		
		210.48	3.45	203.60	29.23	0.003912		
	0.84104	105874.02						
710.67	12.00	4538.18	6.88	6.37	4530.48	0.43		
		208.23	3.41	201.46	29.30	0.003909		
	0.83249	104759.06						
704.45	13.00	4538.14	6.84	6.34	4468.71	0.43		
		207.28	3.40	200.55	29.33	0.003910		
	0.82922	104284.69						
	14.00	4538.14	6.84	6.34	4469.06	0.43		

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		HYCHAN.OUT					
704.48	0.82932	207.28	3.40	200.55	29.33	0.003910	
	15.00	104286.75					
704.46	0.82928	4538.14	6.84	6.34	4468.94	0.43	
	16.00	207.28	3.40	200.55	29.33	0.003910	
		104285.04					
704.48	0.82906	4538.14	6.84	6.34	4469.00	0.43	
	17.00	207.28	3.40	200.55	29.33	0.003909	
		104286.44					
704.62	0.83039	4538.14	6.84	6.34	4470.48	0.43	
	18.00	207.30	3.40	200.57	29.33	0.003915	
		104297.72					
713.67	0.83560	4538.20	6.90	6.39	4562.21	0.43	
	19.00	208.71	3.42	201.92	29.28	0.003916	
		104995.88					
728.68	0.84488	4538.29	6.99	6.47	4714.96	0.43	
	20.00	211.02	3.45	204.12	29.21	0.003921	
		106141.05					
743.33	0.85269	4538.38	7.08	6.55	4866.07	0.43	
	21.00	213.25	3.49	206.25	29.15	0.003920	
		107248.04					
748.93	0.85572	4538.41	7.11	6.57	4924.14	0.43	
	22.00	214.10	3.50	207.05	29.12	0.003920	
		107666.59					
749.13	0.85626	4538.41	7.11	6.58	4926.27	0.43	
	23.00	214.13	3.50	207.08	29.12	0.003922	
		107681.67					
758.38	0.86276	4538.47	7.17	6.62	5024.05	0.44	
	24.00	215.53	3.52	208.41	29.08	0.003929	
		108374.73					
782.13	0.87647	4538.61	7.31	6.75	5277.11	0.44	
	25.00	219.07	3.57	211.79	28.98	0.003934	
		110128.70					
810.46	0.89279	4538.78	7.48	6.89	5585.52	0.44	
	26.00	223.23	3.63	215.75	28.86	0.003941	
		112189.34					
837.33	0.90725	4538.93	7.63	7.03	5884.58	0.45	
	27.00	227.11	3.69	219.44	28.75	0.003943	
		114110.94					
846.35	0.91224	4538.98	7.68	7.07	5985.05	0.45	
	28.00	228.39	3.71	220.67	28.72	0.003945	
		114747.94					
846.71	0.91304	4538.99	7.69	7.07	5989.53	0.45	
	29.00	228.45	3.71	220.72	28.72	0.003948	
		114774.06					
856.25	0.91716	4539.04	7.74	7.12	6097.94	0.45	
	30.00	229.80	3.73	222.01	28.68	0.003945	
		115446.59					
861.02	0.92035	4539.07	7.77	7.14	6151.91	0.45	
	31.00	230.48	3.74	222.65	28.66	0.003948	
		115778.94					
861.45	0.92075	4539.07	7.77	7.15	6157.05	0.45	
	32.00	230.54	3.74	222.71	28.66	0.003949	
		115810.05					
871.27	0.92592	4539.13	7.83	7.20	6270.62	0.45	
	33.00	231.93	3.76	224.03	28.62	0.003950	
		116496.66					
876.08	0.92831	4539.15	7.85	7.22	6326.02	0.45	
	34.00	232.60	3.77	224.67	28.61	0.003950	
		116828.99					
875.63	0.92790	4539.15	7.85	7.22	6320.70	0.45	
	35.00	232.53	3.77	224.61	28.61	0.003949	
		116797.06					
		4539.10	7.80	7.17	6207.97	0.45	

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865.92	231.16	3.75	223.30	28.64	0.003946		
0.92228	116118.40						
36.00	4539.07	7.77	7.14	6147.01	0.45		
860.59	230.41	3.73	222.59	28.66	0.003945		
0.91951	115748.46						
37.00	4539.01	7.71	7.10	6039.32	0.45		
851.21	229.08	3.72	221.32	28.70	0.003944		
0.91439	115087.08						
38.00	4538.98	7.68	7.07	5985.13	0.45		
846.35	228.39	3.71	220.67	28.72	0.003945		
0.91220	114747.82						
39.00	4538.98	7.68	7.07	5984.88	0.45		
846.33	228.39	3.71	220.67	28.72	0.003945		
0.91213	114746.90						
40.00	4538.98	7.68	7.07	5984.94	0.45		
846.34	228.39	3.71	220.67	28.72	0.003946		
0.91233	114747.41						
41.00	4538.98	7.68	7.07	5985.27	0.45		
846.37	228.40	3.71	220.67	28.72	0.003943		
0.91182	114749.30						
42.00	4538.99	7.69	7.07	5989.47	0.45		
846.72	228.45	3.71	220.72	28.72	0.003947		
0.91297	114774.48						
43.00	4539.04	7.74	7.12	6098.12	0.45		
856.26	229.81	3.73	222.01	28.68	0.003946		
0.91739	115446.91						
44.00	4539.07	7.77	7.15	6157.05	0.45		
861.45	230.54	3.74	222.71	28.66	0.003947		
0.92024	115810.23						
45.00	4539.13	7.83	7.20	6275.91	0.45		
871.72	231.99	3.76	224.09	28.62	0.003950		
0.92616	116528.33						
46.00	4539.21	7.91	7.28	6451.14	0.46		
886.72	234.09	3.79	226.09	28.57	0.003954		
0.93466	117567.42						
47.00	4539.30	8.00	7.34	6625.23	0.46		
902.45	236.27	3.82	228.17	28.51	0.003962		
0.94439	118648.70						
48.00	4539.40	8.10	7.39	6797.66	0.46		
919.85	238.67	3.85	230.45	28.45	0.003974		
0.95563	119834.25						
49.00	4539.50	8.20	7.43	6966.57	0.46		
937.68	241.10	3.89	232.76	28.38	0.003991		
0.96846	121037.53						
50.00	4539.61	8.31	7.47	7149.70	0.46		
956.92	243.70	3.93	235.24	28.32	0.004011		
0.98277	122323.57						
51.00	4539.77	8.47	7.53	7429.56	0.46		
986.25	247.61	3.98	238.96	28.22	0.004029		
1.00138	124259.52						
52.00	4539.83	8.53	7.56	7548.45	0.46		
998.60	249.24	4.01	240.51	28.18	0.004038		
1.00943	125064.23						
53.00	4539.91	8.61	7.59	7679.28	0.46		
1012.19	251.04	4.03	242.22	28.14	0.004062		
1.02202	125955.64						
54.00	4540.19	8.89	7.69	8126.44	0.45		
1056.26	257.81	4.10	248.65	27.98	0.004115		
1.05202	129299.44						
55.00	4540.66	9.35	7.87	8876.95	0.45		
1127.80	269.02	4.19	259.31	27.72	0.004192		
1.09666	134841.17						
56.00	4541.28	9.98	8.10	9927.60	0.45		

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1225.23		283.78		4.32	273.33	27.40	0.004241
	1.14246	142130.02					
	57.00	4541.55	10.25	8.78	11375.98	0.48	
1295.52		290.31		4.46	279.52	27.27	0.004069
	1.13309	145350.86					
	58.00	4541.61	10.31	9.40	12506.39	0.52	
1331.10		290.61		4.58	280.86	27.24	0.003979
	1.13730	146045.47					
	59.00	4541.88	10.58	9.70	13490.70	0.53	
1390.40		291.14		4.78	286.81	27.11	0.003943
	1.17500	149141.25					
	60.00	4542.23	10.93	10.03	14716.67	0.53	
1467.25		291.85		5.03	294.68	26.95	0.003903
	1.22431	153233.55					
	61.00	4542.50	11.20	10.28	15670.47	0.54	
1525.05		292.39		5.22	300.57	26.84	0.003876
	1.26144	156293.81					
	62.00	4542.72	11.42	10.47	16475.55	0.55	
1573.24		292.83		5.37	305.45	26.74	0.003851
	1.29101	158832.31					
	63.00	4542.88	11.58	10.61	17060.62	0.55	
1607.70		293.15		5.48	308.95	26.67	0.003844
	1.31535	160651.89					
	64.00	4543.04	11.74	10.75	17658.34	0.55	
1642.48		293.47		5.60	312.43	26.61	0.003809
	1.33014	162463.58					
	65.00	4543.20	11.90	10.88	18245.83	0.56	
1676.25		293.78		5.71	315.80	26.55	0.003818
	1.35929	164217.42					
	66.00	4543.24	11.93	10.91	18389.00	0.56	
1684.77		293.86		5.73	316.63	26.53	0.003786
	1.35451	164649.12					
	67.00	4543.24	11.94	10.92	18399.68	0.56	
1685.43		293.86		5.74	316.70	26.53	0.003782
	1.35360	164682.56					
	68.00	4543.24	11.94	10.92	18403.35	0.56	
1685.60		293.86		5.74	316.71	26.53	0.003787
	1.35531	164691.16					
	69.00	4543.24	11.94	10.92	18410.59	0.56	
1686.02		293.87		5.74	316.75	26.53	0.003813
	1.36519	164712.38					
	70.00	4543.24	11.94	10.92	18420.97	0.56	
1686.64		293.87		5.74	316.82	26.53	0.003818
	1.36724	164745.53					
	71.00	4543.24	11.94	10.92	18420.42	0.56	
1686.65		293.87		5.74	316.82	26.53	0.003806
	1.36324	164746.06					
	72.00	4543.25	11.94	10.92	18425.22	0.56	
1686.89		293.88		5.74	316.85	26.53	0.003799
	1.36086	164759.53					
	73.00	4543.29	11.99	10.96	18608.23	0.56	
1697.28		293.97		5.77	317.89	26.51	0.003769
	1.35802	165302.45					
	74.00	4543.33	12.03	11.00	18753.08	0.56	
1705.43		294.05		5.80	318.70	26.49	0.003786
	1.37013	165724.59					
	75.00	4543.33	12.03	11.00	18771.41	0.56	
1706.56		294.06		5.80	318.81	26.49	0.003768
	1.36450	165778.84					
	76.00	4543.39	12.08	11.04	18964.50	0.56	
1717.21		294.16		5.84	319.89	26.47	0.003772
	1.37390	166343.80					
	77.00	4543.55	12.25	11.10	19458.97	0.56	

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1752.59		294.48		5.95	323.37	26.41	0.003752
	1.39329	168153.88					
	78.00	4543.72	12.42	11.13	19924.80	0.56	
1790.86		294.82		6.07	327.05	26.34	0.003712
	1.40689	170068.41					
	79.00	4543.84	12.54	11.14	20271.82	0.55	
1819.51		295.07		6.17	329.78	26.29	0.003696
	1.42216	171487.88					
	80.00	4544.01	12.71	11.16	20717.34	0.55	
1856.61		295.40		6.29	333.33	26.23	0.003670
	1.43950	173332.28					
	81.00	4544.06	12.76	11.16	20875.67	0.55	
1870.16		295.52		6.33	334.56	26.21	0.003663
	1.44670	173971.45					
	82.00	4543.97	12.67	11.15	20629.67	0.55	
1850.02		295.34		6.26	332.64	26.24	0.003686
	1.44090	172970.72					
	83.00	4543.91	12.61	11.14	20440.49	0.55	
1834.27		295.20		6.21	331.17	26.27	0.003692
	1.43152	172206.25					
	84.00	4543.90	12.60	11.14	20419.23	0.55	
1832.24		295.18		6.21	330.98	26.27	0.003693
	1.43051	172108.75					
	85.00	4543.90	12.60	11.14	20417.94	0.55	
1832.10		295.18		6.21	330.97	26.27	0.003695
	1.43108	172102.17					
	86.00	4543.84	12.54	11.14	20270.51	0.55	
1820.40		295.07		6.17	329.80	26.29	0.003701
	1.42475	171495.39					
	87.00	4543.61	12.31	11.10	19625.50	0.56	
1767.95		294.60		6.00	324.70	26.38	0.003754
	1.40592	168845.73					
	88.00	4543.26	11.96	10.93	18503.12	0.56	
1692.41		293.92		5.76	317.27	26.52	0.003804
	1.36689	164981.44					
	89.00	4542.84	11.54	10.57	16915.68	0.55	
1600.92		293.07		5.46	308.06	26.69	0.003857
	1.31465	160193.05					
	90.00	4542.52	11.22	10.29	15755.88	0.54	
1531.27		292.44		5.24	301.09	26.82	0.003888
	1.27047	156567.48					
	91.00	4542.29	10.99	10.07	14913.93	0.54	
1480.96		291.97		5.07	295.92	26.93	0.003908
	1.23697	153880.28					
	92.00	4542.01	10.71	9.81	13939.79	0.53	
1420.32		291.41		4.87	289.72	27.05	0.003949
	1.20099	150653.00					
	93.00	4541.76	10.46	9.59	13092.89	0.52	
1365.69		290.91		4.69	284.15	27.17	0.003971
	1.16336	147759.94					
	94.00	4541.57	10.27	9.31	12309.78	0.51	
1321.77		290.53		4.55	279.91	27.26	0.004076
	1.15717	145553.86					
	95.00	4541.55	10.25	8.99	11727.19	0.49	
1304.77		290.27		4.50	279.48	27.27	0.004067
	1.14089	145329.77					
	96.00	4541.54	10.24	8.67	11176.26	0.48	
1289.40		290.09		4.44	279.31	27.27	0.004104
	1.13829	145242.42					
	97.00	4541.53	10.23	8.43	10762.73	0.46	
1276.89		289.85		4.41	279.09	27.28	0.004215
	1.15875	145125.73					
	98.00	4541.52	10.22	8.21	10373.07	0.45	

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				HYCHAN.OUT			
1264.22		289.46		4.37	278.71	27.28	0.004224
	1.15132	144930.52					
99.00		4541.38	10.08	8.13	10094.64	0.45	
1242.12		286.33		4.34	275.75	27.35	0.004225
	1.14355	143389.12					
100.00		4541.18	9.88	8.06	9751.71	0.45	
1210.36		281.56		4.30	271.21	27.45	0.004194
	1.12496	141031.30					
101.00		4540.99	9.69	7.99	9428.08	0.45	
1180.02		276.96		4.26	266.85	27.55	0.004175
	1.10987	138762.98					
102.00		4540.82	9.52	7.93	9150.12	0.45	
1154.02		273.00		4.23	263.09	27.63	0.004149
	1.09429	136806.28					
103.00		4540.68	9.38	7.88	8921.46	0.45	
1132.42		269.65		4.20	259.91	27.71	0.004135
	1.08349	135152.31					
104.00		4540.55	9.25	7.83	8715.07	0.45	
1112.76		266.60		4.17	257.01	27.77	0.004113
	1.07128	133645.95					
105.00		4540.35	9.05	7.75	8387.02	0.45	
1081.62		261.72		4.13	252.38	27.88	0.004085
	1.05341	131235.72					
106.00		4540.20	8.90	7.70	8141.79	0.45	
1057.97		258.01		4.10	248.85	27.97	0.004070
	1.04140	129401.89					
107.00		4540.08	8.78	7.65	7966.48	0.46	
1040.97		255.31		4.08	246.28	28.03	0.004060
	1.03298	128065.70					
108.00		4539.98	8.68	7.61	7798.46	0.46	
1024.41		252.69		4.05	243.79	28.10	0.004047
	1.02368	126769.15					
109.00		4539.95	8.65	7.60	7748.34	0.46	
1019.31		251.96		4.05	243.09	28.11	0.004055
	1.02357	126407.37					
110.00		4540.02	8.72	7.63	7874.10	0.46	
1031.71		253.86		4.06	244.90	28.07	0.004072
	1.03270	127346.09					
111.00		4540.21	8.91	7.70	8154.39	0.45	
1059.15		258.25		4.10	249.08	27.97	0.004086
	1.04570	129519.45					
112.00		4540.20	8.90	7.70	8140.73	0.45	
1057.85		258.00		4.10	248.84	27.97	0.004070
	1.04140	129394.92					
113.00		4540.10	8.80	7.66	7983.47	0.46	
1042.49		255.56		4.08	246.52	28.03	0.004069
	1.03562	128188.13					
114.00		4540.22	8.92	7.70	8173.71	0.45	
1060.95		258.54		4.10	249.35	27.96	0.004097
	1.04914	129662.71					
115.00		4540.45	9.15	7.79	8542.02	0.45	
1096.14		264.06		4.15	254.60	27.83	0.004119
	1.06690	132391.95					
116.00		4540.44	9.14	7.79	8530.74	0.45	
1095.18		263.88		4.15	254.43	27.83	0.004103
	1.06248	132303.14					
117.00		4540.40	9.10	7.77	8469.70	0.45	
1089.40		263.00		4.14	253.59	27.86	0.004111
	1.06255	131866.72					
118.00		4540.41	9.11	7.78	8477.30	0.45	
1090.10		263.11		4.14	253.70	27.85	0.004113
	1.06328	131922.38					
119.00		4540.49	9.19	7.81	8610.01	0.45	

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				HYCHAN.OUT			
1102.52		265.05		4.16	255.53	27.81	0.004124
	1.07033	132878.12					
120.00		4540.53	9.23	7.82	8669.88	0.45	
1108.22		265.92		4.17	256.36	27.79	0.004124
	1.07239	133308.36					
121.00		4540.52	9.22	7.82	8662.75	0.45	
1107.64		265.83		4.17	256.28	27.79	0.004113
	1.06936	133266.09					
122.00		4540.44	9.14	7.79	8530.31	0.45	
1095.15		263.88		4.15	254.42	27.84	0.004106
	1.06342	132300.16					
123.00		4540.40	9.10	7.77	8463.03	0.45	
1088.82		262.90		4.14	253.49	27.86	0.004102
	1.06011	131816.00					
124.00		4540.32	9.02	7.74	8331.51	0.45	
1076.33		260.92		4.13	251.61	27.90	0.004090
	1.05283	130837.18					
125.00		4540.28	8.98	7.73	8269.76	0.45	
1070.29		259.99		4.12	250.73	27.92	0.004090
	1.05073	130378.61					
126.00		4540.28	8.97	7.73	8264.10	0.45	
1069.77		259.90		4.12	250.64	27.93	0.004084
	1.04900	130333.57					
127.00		4540.20	8.90	7.70	8146.82	0.45	
1058.45		258.10		4.10	248.93	27.97	0.004074
	1.04253	129445.34					
128.00		4540.17	8.87	7.68	8091.08	0.45	
1053.03		257.26		4.09	248.13	27.99	0.004071
	1.03995	129026.87					
129.00		4540.16	8.86	7.68	8084.79	0.45	
1052.40		257.15		4.09	248.03	27.99	0.004074
	1.04046	128973.20					
130.00		4540.09	8.79	7.65	7971.92	0.46	
1041.45		255.39		4.08	246.36	28.03	0.004060
	1.03319	128106.17					
131.00		4540.06	8.76	7.64	7928.75	0.46	
1037.12		254.71		4.07	245.71	28.05	0.004071
	1.03440	127767.90					
132.00		4540.21	8.91	7.70	8160.63	0.45	
1059.69		258.34		4.10	249.16	27.96	0.004087
	1.04614	129563.23					
133.00		4540.28	8.98	7.73	8269.93	0.45	
1070.31		259.99		4.12	250.73	27.92	0.004091
	1.05083	130379.69					
134.00		4540.28	8.98	7.73	8270.04	0.45	
1070.34		260.01		4.12	250.74	27.92	0.004088
	1.05016	130386.22					
135.00		4540.28	8.98	7.73	8270.16	0.45	
1070.29		259.98		4.12	250.72	27.92	0.004089
	1.05038	130375.66					
136.00		4540.28	8.98	7.73	8269.84	0.45	
1070.31		259.98		4.12	250.72	27.92	0.004090
	1.05067	130375.63					
137.00		4540.28	8.98	7.73	8269.93	0.45	
1070.34		260.00		4.12	250.74	27.92	0.004090
	1.05064	130383.57					
138.00		4540.28	8.98	7.73	8269.73	0.45	
1070.30		260.00		4.12	250.73	27.92	0.004090
	1.05074	130381.20					
139.00		4540.28	8.98	7.73	8264.15	0.45	
1069.76		259.90		4.12	250.65	27.93	0.004085
	1.04920	130336.27					
140.00		4540.20	8.90	7.70	8146.76	0.45	

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				HYCHAN.OUT			
1058.45		258.10		4.10	248.93	27.97	0.004077
	1.04323	129442.19					
	141.00	4540.17	8.87		7.68	8091.04	0.45
1053.02		257.26		4.09	248.13	27.99	0.004077
	1.04128	129026.65					
	142.00	4540.17	8.87		7.68	8091.27	0.45
1053.00		257.25		4.09	248.12	27.99	0.004075
	1.04082	129023.31					
	143.00	4540.17	8.86		7.68	8090.39	0.45
1052.94		257.24		4.09	248.12	27.99	0.004075
	1.04077	129019.94					
	144.00	4540.16	8.86		7.68	8085.66	0.45
1052.47		257.16		4.09	248.03	27.99	0.004071
	1.03973	128977.59					
	145.00	4540.09	8.79		7.65	7971.82	0.46
1041.42		255.39		4.08	246.35	28.03	0.004061
	1.03332	128103.20					
	146.00	4540.05	8.75		7.64	7917.01	0.46
1036.04		254.54		4.07	245.55	28.05	0.004060
	1.03108	127686.23					
	147.00	4540.05	8.75		7.64	7916.90	0.46
1035.98		254.52		4.07	245.53	28.05	0.004060
	1.03114	127675.83					
	148.00	4540.05	8.75		7.64	7917.03	0.46
1036.01		254.53		4.07	245.54	28.05	0.004061
	1.03154	127680.91					
	149.00	4540.05	8.75		7.64	7917.22	0.46
1036.01		254.53		4.07	245.54	28.05	0.004062
	1.03175	127678.57					
	150.00	4540.05	8.75		7.64	7913.41	0.46
1035.67		254.47		4.07	245.48	28.05	0.004058
	1.03063	127650.45					
	151.00	4540.00	8.70		7.62	7835.87	0.46
1028.08		253.25		4.06	244.32	28.08	0.004050
	1.02602	127045.02					
	152.00	4539.95	8.65		7.60	7761.05	0.46
1020.64		252.13		4.05	243.26	28.11	0.004050
	1.02309	126492.77					
	153.00	4539.94	8.64		7.60	7743.11	0.46
1018.75		251.88		4.04	243.02	28.12	0.004045
	1.02092	126369.47					
	154.00	4539.94	8.64		7.60	7737.21	0.46
1018.21		251.81		4.04	242.95	28.12	0.004042
	1.01977	126334.32					
	155.00	4539.88	8.58		7.58	7635.40	0.46
1007.70		250.43		4.02	241.64	28.15	0.004042
	1.01498	125653.69					
	156.00	4539.98	8.68		7.62	7807.65	0.46
1025.12		252.89		4.05	243.97	28.09	0.004062
	1.02749	126866.68					
	157.00	4540.05	8.75		7.64	7916.94	0.46
1036.03		254.54		4.07	245.54	28.05	0.004059
	1.03081	127682.21					
	158.00	4540.05	8.75		7.64	7917.17	0.46
1036.03		254.54		4.07	245.55	28.05	0.004057
	1.03044	127683.45					
	159.00	4540.05	8.75		7.64	7916.54	0.46
1036.01		254.53		4.07	245.54	28.05	0.004061
	1.03151	127680.83					
	160.00	4540.05	8.75		7.64	7917.34	0.46
1036.05		254.54		4.07	245.55	28.05	0.004061
	1.03135	127684.12					
	161.00	4540.05	8.75		7.64	7916.94	0.46

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		HYCHAN.OUT					
1036.05	254.54	4.07	245.55	28.05	0.004062		
1.03162	127685.24						
162.00	4540.05	8.75	7.64	7917.02	0.46		
1036.02	254.53	4.07	245.54	28.05	0.004063		
1.03199	127681.20						
163.00	4540.05	8.75	7.64	7917.11	0.46		
1036.02	254.53	4.07	245.54	28.05	0.004057		
1.03041	127679.39						
164.00	4540.05	8.75	7.64	7910.97	0.46		
1035.47	254.44	4.07	245.46	28.06	0.004056		
1.03002	127637.02						
165.00	4539.98	8.68	7.61	7798.36	0.46		
1024.39	252.69	4.05	243.78	28.10	0.004049		
1.02418	126767.86						
166.00	4539.94	8.64	7.60	7742.86	0.46		
1018.74	251.88	4.04	243.02	28.12	0.004048		
1.02167	126369.01						
167.00	4539.94	8.64	7.60	7743.02	0.46		
1018.76	251.88	4.04	243.02	28.12	0.004047		
1.02139	126370.48						
168.00	4539.94	8.64	7.60	7742.83	0.46		
1018.72	251.88	4.04	243.02	28.12	0.004045		
1.02087	126367.95						
169.00	4539.94	8.64	7.60	7742.76	0.46		
1018.78	251.89	4.04	243.02	28.12	0.004050		
1.02224	126371.65						
170.00	4539.94	8.64	7.60	7743.35	0.46		
1018.79	251.89	4.04	243.02	28.12	0.004047		
1.02141	126372.09						
171.00	4539.94	8.64	7.60	7742.72	0.46		
1018.77	251.88	4.04	243.02	28.12	0.004051		
1.02232	126370.90						
172.00	4539.94	8.64	7.60	7737.53	0.46		
1018.22	251.81	4.04	242.95	28.12	0.004044		
1.02029	126334.89						
173.00	4539.88	8.58	7.58	7624.65	0.46		
1006.52	250.27	4.02	241.49	28.16	0.004030		
1.01137	125575.48						
174.00	4539.85	8.55	7.56	7568.74	0.46		
1000.76	249.52	4.01	240.78	28.17	0.004032		
1.00909	125204.00						
175.00	4539.85	8.55	7.56	7568.97	0.46		
1000.76	249.52	4.01	240.78	28.17	0.004033		
1.00936	125204.31						
176.00	4539.85	8.55	7.56	7568.95	0.46		
1000.70	249.52	4.01	240.77	28.17	0.004034		
1.00960	125200.26						
177.00	4539.85	8.55	7.56	7569.21	0.46		
1000.72	249.52	4.01	240.77	28.17	0.004036		
1.01011	125201.45						
178.00	4539.85	8.55	7.56	7568.48	0.46		
1000.61	249.50	4.01	240.76	28.17	0.004035		
1.00978	125194.09						
179.00	4539.85	8.55	7.57	7580.19	0.46		
1001.92	249.68	4.01	240.93	28.17	0.004045		
1.01290	125281.20						
180.00	4539.98	8.68	7.62	7807.70	0.46		
1025.11	252.88	4.05	243.97	28.09	0.004062		
1.02741	126864.11						
181.00	4540.06	8.76	7.64	7922.30	0.46		
1036.55	254.63	4.07	245.63	28.05	0.004068		
1.03331	127726.75						
182.00	4540.13	8.83	7.67	8036.60	0.46		

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				HYCHAN.OUT			
1047.62		256.40		4.09	247.32	28.01	0.004077
	1.03958	128603.96					
183.00		4540.17	8.87	7.68	8091.00	0.45	
1053.03		257.26		4.09	248.13	27.99	0.004077
	1.04133	129027.52					
184.00		4540.17	8.86	7.68	8090.60	0.45	
1052.97		257.24		4.09	248.12	27.99	0.004078
	1.04161	129021.11					
185.00		4540.17	8.87	7.68	8091.58	0.45	
1053.09		257.26		4.09	248.14	27.99	0.004076
	1.04103	129030.53					
186.00		4540.17	8.87	7.68	8090.88	0.45	
1053.00		257.25		4.09	248.12	27.99	0.004074
	1.04069	129024.45					
187.00		4540.17	8.87	7.68	8091.28	0.45	
1053.03		257.25		4.09	248.13	27.99	0.004073
	1.04042	129025.09					
188.00		4540.17	8.86	7.68	8090.55	0.45	
1052.98		257.24		4.09	248.12	27.99	0.004073
	1.04036	129021.58					
189.00		4540.17	8.86	7.68	8090.95	0.45	
1053.01		257.25		4.09	248.12	27.99	0.004077
	1.04140	129022.73					
190.00		4540.16	8.86	7.68	8085.62	0.45	
1052.49		257.16		4.09	248.04	27.99	0.004074
	1.04052	128981.70					
191.00		4540.09	8.79	7.65	7971.67	0.46	
1041.38		255.37		4.08	246.34	28.03	0.004062
	1.03370	128095.28					
192.00		4540.05	8.75	7.64	7916.51	0.46	
1036.01		254.54		4.07	245.54	28.05	0.004064
	1.03216	127682.59					
193.00		4540.05	8.75	7.64	7917.25	0.46	
1036.03		254.53		4.07	245.54	28.05	0.004065
	1.03245	127679.93					
194.00		4540.05	8.75	7.64	7917.59	0.46	
1036.04		254.53		4.07	245.54	28.05	0.004058
	1.03074	127680.55					
195.00		4540.05	8.75	7.64	7916.59	0.46	
1035.98		254.53		4.07	245.54	28.05	0.004063
	1.03182	127679.69					
196.00		4540.05	8.75	7.64	7916.97	0.46	
1036.01		254.53		4.07	245.54	28.05	0.004060
	1.03111	127680.36					
197.00		4540.05	8.75	7.64	7917.13	0.46	
1036.03		254.53		4.07	245.54	28.05	0.004064
	1.03218	127678.91					
198.00		4540.05	8.75	7.64	7917.08	0.46	
1036.01		254.53		4.07	245.54	28.05	0.004062
	1.03181	127679.32					
199.00		4540.05	8.75	7.64	7916.70	0.46	
1036.01		254.52		4.07	245.53	28.05	0.004063
	1.03206	127676.51					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 748

MAXIMUM DISCHARGE (CFS) = 21410.37 AT TIME = 80.20  
 MAXIMUM STAGE = 4540.00 AT TIME = 80.21

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					

(FT^2)	(HRS) (LB/FT^2)	(FT) (FT) (FT^2)	(FT)	HYCHAN.OUT (FT)	(FPS)	(FT)	(CFS)	
0.00	0.00	4527.60	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4527.60	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
803.19	2.00	4529.13	1.53	1.23	987.14	0.17		
	2.57964	79.14	10.15	75.48	49.19			0.004073
892.11	3.00	43026.14	7.66	6.19	5523.47	0.39		
	1.49112	151.78	5.88	122.28	15.96			0.004066
883.56	4.00	69700.13	7.62	6.15	5433.57	0.39		
	1.47655	151.42	5.84	122.07	16.03			0.004055
877.93	5.00	69577.39	7.59	6.12	5374.82	0.39		
	1.46913	151.18	5.81	121.92	16.07			0.004054
868.73	6.00	69497.09	7.54	6.08	5280.02	0.39		
	1.45222	150.79	5.76	121.69	16.14			0.004040
854.12	7.00	69364.29	7.46	6.01	5129.18	0.39		
	1.42903	150.17	5.69	121.32	16.26			0.004026
839.59	8.00	69150.99	7.38	5.93	4979.99	0.38		
	1.40620	149.54	5.61	120.94	16.38			0.004014
824.91	9.00	68936.35	7.31	5.86	4832.10	0.38		
	1.38281	148.89	5.54	120.55	16.50			0.004000
819.13	10.00	68714.43	7.27	5.82	4770.00	0.38		
	1.37459	148.61	5.51	120.39	16.55			0.003997
809.64	11.00	68620.03	7.22	5.78	4680.40	0.38		
	1.35791	148.20	5.46	120.14	16.63			0.003983
794.49	12.00	68480.83	7.14	5.70	4532.28	0.38		
	1.33423	147.52	5.39	119.73	16.77			0.003970
788.40	13.00	68245.33	7.10	5.67	4468.75	0.37		
	1.32586	147.21	5.36	119.55	16.83			0.003968
788.49	14.00	68141.80	7.10	5.67	4469.04	0.37		
	1.32593	147.22	5.36	119.55	16.83			0.003967
788.47	15.00	68142.06	7.10	5.67	4468.95	0.37		
	1.32570	147.21	5.36	119.55	16.83			0.003967
788.47	16.00	68141.66	7.10	5.67	4469.00	0.37		
	1.32550	147.21	5.36	119.55	16.83			0.003966
788.64	17.00	68141.89	7.11	5.67	4470.31	0.37		
	1.32592	147.22	5.36	119.55	16.83			0.003967
797.79	18.00	68144.16	7.16	5.72	4560.13	0.38		
	1.34491	147.65	5.40	119.81	16.74			0.003989
813.31	19.00	68290.27	7.24	5.79	4713.01	0.38		
		148.35	5.48	120.23	16.60			0.004002

		HYCHAN.OUT					
	1.36916	68532.28					
828.39	20.00	4534.92	7.32	5.87	4864.34	0.38	
		149.03	5.56		120.64	16.47	0.004014
	1.39240	68764.41					
834.48	21.00	4534.96	7.35	5.90	4924.14	0.38	
		149.29	5.59		120.80	16.42	0.004011
	1.39908	68853.49					
834.76	22.00	4534.96	7.36	5.90	4926.01	0.38	
		149.30	5.59		120.80	16.42	0.004014
	1.40026	68856.48					
843.91	23.00	4535.01	7.41	5.95	5021.89	0.39	
		149.72	5.64		121.05	16.34	0.004032
	1.41832	68998.05					
868.12	24.00	4535.14	7.54	6.07	5273.33	0.39	
		150.77	5.76		121.68	16.15	0.004064
	1.46028	69356.44					
897.25	25.00	4535.29	7.69	6.22	5581.89	0.40	
		152.00	5.90		122.42	15.92	0.004091
	1.50682	69777.41					
924.74	26.00	4535.43	7.83	6.36	5881.71	0.40	
		153.14	6.04		123.09	15.72	0.004114
	1.55026	70161.91					
934.15	27.00	4535.48	7.88	6.41	5985.06	0.40	
		153.52	6.08		123.32	15.65	0.004115
	1.56236	70291.25					
934.51	28.00	4535.48	7.88	6.41	5989.23	0.40	
		153.53	6.09		123.33	15.65	0.004114
	1.56245	70296.29					
944.13	29.00	4535.53	7.93	6.46	6096.32	0.40	
		153.92	6.13		123.56	15.58	0.004127
	1.57944	70428.35					
949.13	30.00	4535.56	7.96	6.48	6151.98	0.41	
		154.12	6.16		123.68	15.54	0.004127
	1.58604	70495.66					
949.57	31.00	4535.56	7.96	6.48	6156.61	0.41	
		154.14	6.16		123.69	15.54	0.004133
	1.58863	70501.43					
959.46	32.00	4535.61	8.01	6.53	6269.05	0.41	
		154.54	6.21		123.92	15.47	0.004144
	1.60563	70636.48					
964.51	33.00	4535.63	8.03	6.56	6326.07	0.41	
		154.73	6.23		124.04	15.44	0.004144
	1.61187	70703.49					
964.06	34.00	4535.63	8.03	6.56	6321.08	0.41	
		154.72	6.23		124.03	15.44	0.004139
	1.60944	70697.48					
954.28	35.00	4535.58	7.98	6.51	6209.52	0.41	
		154.32	6.18		123.80	15.51	0.004127
	1.59238	70564.35					
948.73	36.00	4535.55	7.95	6.48	6147.40	0.41	
		154.10	6.16		123.67	15.55	0.004123
	1.58386	70489.89					
939.28	37.00	4535.51	7.91	6.43	6040.81	0.40	
		153.72	6.11		123.44	15.61	0.004112
	1.56768	70359.73					
934.14	38.00	4535.48	7.88	6.41	5985.16	0.40	
		153.52	6.08		123.32	15.65	0.004114
	1.56194	70291.42					
934.13	39.00	4535.48	7.88	6.41	5984.90	0.40	
		153.52	6.08		123.32	15.65	0.004111
	1.56091	70291.14					
934.17	40.00	4535.48	7.88	6.41	5984.95	0.40	
		153.52	6.09		123.32	15.65	0.004113

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		HYCHAN.OUT					
	1.56189	70291.12					
934.18	41.00	4535.48	7.88	6.41	5985.23	0.40	
		153.52	6.09	123.32	15.65		0.004114
	1.56212	70291.65					
934.50	42.00	4535.48	7.88	6.41	5989.11	0.40	
		153.53	6.09	123.33	15.65		0.004119
	1.56436	70295.97					
944.15	43.00	4535.53	7.93	6.46	6096.58	0.40	
		153.92	6.13	123.56	15.58		0.004127
	1.57975	70428.52					
949.57	44.00	4535.56	7.96	6.48	6156.62	0.41	
		154.14	6.16	123.69	15.54		0.004133
	1.58895	70501.43					
959.90	45.00	4535.61	8.01	6.54	6274.00	0.41	
		154.55	6.21	123.93	15.47		0.004148
	1.60747	70642.41					
975.25	46.00	4535.69	8.09	6.61	6449.24	0.41	
		155.16	6.29	124.29	15.37		0.004164
	1.63316	70847.37					
990.87	47.00	4535.77	8.17	6.68	6623.26	0.41	
		155.78	6.36	124.66	15.26		0.004181
	1.65962	71057.06					
1006.25	48.00	4535.85	8.25	6.75	6795.81	0.41	
		156.39	6.43	125.02	15.16		0.004204
	1.68802	71261.62					
1020.84	49.00	4535.92	8.32	6.82	6964.58	0.42	
		156.95	6.50	125.36	15.06		0.004232
	1.71763	71452.45					
1036.47	50.00	4536.00	8.40	6.90	7147.49	0.42	
		157.55	6.58	125.71	14.96		0.004258
	1.74809	71654.13					
1060.11	51.00	4536.12	8.52	7.01	7426.49	0.42	
		158.45	6.69	126.24	14.82		0.004301
	1.79585	71956.02					
1070.34	52.00	4536.17	8.57	7.05	7548.22	0.42	
		158.82	6.74	126.46	14.76		0.004305
	1.81028	72083.12					
1080.98	53.00	4536.22	8.62	7.10	7676.58	0.43	
		159.22	6.79	126.70	14.69		0.004351
	1.84309	72216.90					
1117.00	54.00	4536.40	8.80	7.27	8120.25	0.43	
		160.54	6.96	127.47	14.49		0.004476
	1.94355	72658.44					
1175.75	55.00	4536.68	9.08	7.54	8868.26	0.44	
		162.61	7.23	128.69	14.17		0.004663
	2.10409	73351.46					
1254.81	56.00	4537.05	9.45	7.90	9917.59	0.45	
		165.27	7.59	130.25	13.78		0.004855
	2.30007	74240.42					
1351.03	57.00	4537.47	9.87	8.41	11366.51	0.47	
		168.21	8.03	131.96	13.36		0.004703
	2.35715	75215.80					
1419.46	58.00	4537.76	10.16	8.81	12498.38	0.49	
		170.17	8.34	133.10	13.10		0.004704
	2.44821	75864.23					
1480.58	59.00	4538.02	10.42	9.11	13490.40	0.50	
		171.93	8.61	134.11	12.87		0.004776
	2.56623	76442.91					
1555.43	60.00	4538.34	10.74	9.48	14739.04	0.51	
		174.01	8.94	135.31	12.60		0.004853
	2.70670	77128.18					
1612.20	61.00	4538.57	10.97	9.75	15724.04	0.52	
		175.54	9.18	136.19	12.41		0.004901

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1659.65	2.80855	77627.61	11.16	9.39	9.98	16558.91	0.53	0.004946	
	62.00	4538.76				136.90	12.26		
	2.89779	78031.94							
1693.46	63.00	4538.90	11.30	9.53	10.13	17159.65	0.53	0.004995	
		177.63				137.39	12.16		
	2.97133	78313.70							
1727.95	64.00	4539.03	11.43	9.68	10.29	17785.68	0.54	0.005016	
		178.50				137.89	12.06		
	3.02982	78598.34							
1761.75	65.00	4539.17	11.57	9.82	10.45	18410.68	0.54	0.005053	
		179.34				138.37	11.96		
	3.09740	78871.18							
1770.43	66.00	4539.20	11.60	9.86	10.49	18566.90	0.54	0.005030	
		179.55				138.49	11.94		
	3.09499	78939.48							
1771.10	67.00	4539.20	11.60	9.86	10.49	18578.30	0.54	0.005036	
		179.57				138.50	11.94		
	3.09956	78944.82							
1771.29	68.00	4539.20	11.60	9.86	10.49	18582.99	0.54	0.005031	
		179.57				138.50	11.94		
	3.09692	78946.02							
1771.71	69.00	4539.21	11.61	9.87	10.49	18590.60	0.54	0.005045	
		179.58				138.51	11.93		
	3.10554	78949.28							
1772.33	70.00	4539.21	11.61	9.87	10.50	18601.36	0.54	0.005058	
		179.60				138.52	11.93		
	3.11490	78954.26							
1772.34	71.00	4539.21	11.61	9.87	10.50	18600.78	0.54	0.005058	
		179.60				138.52	11.93		
	3.11456	78954.38							
1772.56	72.00	4539.21	11.61	9.87	10.50	18605.44	0.54	0.005060	
		179.60				138.52	11.93		
	3.11628	78956.36							
1782.95	73.00	4539.25	11.65	9.91	10.54	18797.38	0.54	0.005048	
		179.86				138.67	11.90		
	3.12280	79039.77							
1791.18	74.00	4539.28	11.68	9.95	10.58	18953.92	0.55	0.005078	
		180.06				138.78	11.88		
	3.15216	79103.72							
1792.35	75.00	4539.29	11.69	9.95	10.59	18974.14	0.55	0.005053	
		180.08				138.79	11.88		
	3.13819	79113.12							
1802.88	76.00	4539.33	11.73	10.00	10.64	19175.38	0.55	0.005099	
		180.34				138.94	11.85		
	3.18066	79197.20							
1836.09	77.00	4539.47	11.87	10.13	10.73	19706.39	0.55	0.005154	
		181.22				139.44	11.75		
	3.25878	79482.24							
1871.45	78.00	4539.62	12.02	10.27	10.81	20223.22	0.55	0.005170	
		182.17				139.98	11.64		
	3.31441	79790.27							
1898.01	79.00	4539.74	12.14	10.38	10.86	20611.28	0.55	0.005196	
		182.87				140.38	11.57		
	3.36540	80018.61							
1932.23	80.00	4539.88	12.28	10.51	10.93	21119.03	0.55	0.005231	
		183.76				140.89	11.47		
	3.43234	80306.53							
1945.28	81.00	4539.94	12.34	10.57	10.96	21312.41	0.55	0.005227	
		184.09				141.07	11.43		
	3.44630	80411.94							
1926.69	82.00	4539.86	12.26	10.49	10.92	21036.32	0.55	0.005197	
		183.60				140.80	11.49		

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1911.75	3.40333	80254.81	12.20	10.89	20813.07	0.55	0.005196
1909.89	3.38329	80132.69	12.19	10.88	20787.44	0.55	0.005194
1909.76	3.37955	80116.79	12.19	10.88	20786.76	0.55	0.005187
1899.41	3.37436	80115.12	12.14	10.86	20629.19	0.55	0.005159
1851.48	3.34320	80023.92	11.93	10.76	19925.72	0.55	0.005066
1778.82	3.22280	79604.26	11.63	10.52	18710.20	0.54	0.004995
1687.64	3.08463	78998.55	11.27	10.09	17036.33	0.53	0.004908
1618.96	2.91274	78255.77	10.99	9.78	15825.96	0.52	0.004849
1569.77	2.78830	77675.95	10.79	9.53	14964.35	0.51	0.004794
1510.78	2.69260	77250.08	10.55	9.25	13970.97	0.50	0.004730
1457.44	2.58126	76715.23	10.32	8.99	13108.25	0.49	0.004681
1408.84	2.48609	76219.12	10.11	8.74	12317.82	0.48	0.004717
1373.63	2.44148	75756.38	9.97	8.54	11729.35	0.48	0.004762
1339.46	2.41708	75428.51	9.82	8.35	11180.76	0.47	0.004749
1313.04	2.36465	75100.60	9.71	8.20	10768.36	0.46	0.004825
1287.59	2.36623	74840.27	9.60	8.06	10375.85	0.46	0.004829
1268.25	2.33264	74588.09	9.52	7.96	10097.58	0.46	0.004772
1243.15	2.27918	74384.73	9.40	7.85	9754.79	0.45	0.004703
1218.95	2.21248	74108.96	9.29	7.74	9430.83	0.45	0.004642
1197.89	2.15222	73839.25	9.19	7.64	9152.57	0.44	0.004589
1180.46	2.10004	73601.06	9.10	7.56	8923.46	0.44	0.004548

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		HYCHAN.OUT						
	2.05821	73402.80						
1164.44	104.00	4536.63	9.03	7.18	7.49	8717.48	0.44	0.004496
	2.01385	73216.41						
1138.83	105.00	4536.50	8.90	7.06	7.37	8390.38	0.44	0.004428
	1.95074	72914.59						
1119.10	106.00	4536.41	8.81	6.97	7.28	8143.66	0.43	0.004386
	1.90725	72680.00						
1104.96	107.00	4536.34	8.74	6.90	7.21	7968.17	0.43	0.004358
	1.87694	72508.88						
1091.22	108.00	4536.27	8.67	6.84	7.15	7799.90	0.43	0.004325
	1.84533	72341.27						
1086.88	109.00	4536.25	8.65	6.82	7.13	7747.95	0.43	0.004337
	1.84496	72288.61						
1096.99	110.00	4536.30	8.70	6.86	7.18	7871.99	0.43	0.004378
	1.87515	72414.77						
1119.65	111.00	4536.41	8.81	6.97	7.28	8151.95	0.43	0.004431
	1.92715	72689.23						
1118.98	112.00	4536.41	8.81	6.97	7.28	8142.47	0.43	0.004389
	1.90804	72678.33						
1106.17	113.00	4536.35	8.75	6.91	7.22	7984.11	0.43	0.004377
	1.88674	72524.58						
1121.06	114.00	4536.42	8.82	6.98	7.29	8169.98	0.43	0.004456
	1.93986	72706.89						
1150.32	115.00	4536.56	8.96	7.11	7.42	8539.49	0.44	0.004507
	2.00025	73053.88						
1149.84	116.00	4536.56	8.96	7.11	7.42	8532.22	0.44	0.004475
	1.98560	73045.68						
1144.90	117.00	4536.53	8.93	7.09	7.40	8469.83	0.44	0.004477
	1.98029	72988.48						
1145.45	118.00	4536.54	8.94	7.09	7.40	8476.83	0.44	0.004481
	1.98276	72995.15						
1155.73	119.00	4536.59	8.99	7.14	7.45	8608.41	0.44	0.004519
	2.01282	73116.78						
1160.56	120.00	4536.61	9.01	7.16	7.47	8669.87	0.44	0.004519
	2.01933	73172.68						
1160.07	121.00	4536.61	9.01	7.16	7.47	8663.15	0.44	0.004505
	2.01236	73166.23						
1149.84	122.00	4536.56	8.96	7.11	7.42	8531.86	0.44	0.004478
	1.98720	73045.52						
1144.48	123.00	4536.53	8.93	7.09	7.40	8463.52	0.44	0.004471
	1.97675	72983.59						
1134.26	124.00	4536.48	8.88	7.04	7.35	8333.09	0.43	0.004435
		161.15						

		HYCHAN.OUT					
	1.94787	72862.08					
1129.12	125.00	4536.46	8.86	7.01	7.32	8269.68	0.43
		160.97				127.72	14.42
	1.94269	72801.52					0.004438
1128.74	126.00	4536.46	8.86	7.01	7.32	8264.54	0.43
		160.95				127.71	14.42
	1.93632	72796.83					0.004425
1119.44	127.00	4536.41	8.81	6.97	7.28	8148.16	0.43
		160.61				127.52	14.47
	1.91277	72684.19					0.004398
1114.79	128.00	4536.39	8.79	6.95	7.26	8091.08	0.43
		160.45				127.42	14.50
	1.90698	72629.57					0.004399
1114.37	129.00	4536.39	8.79	6.95	7.26	8085.33	0.43
		160.43				127.41	14.50
	1.90313	72623.72					0.004391
1105.30	130.00	4536.34	8.74	6.90	7.21	7973.12	0.43
		160.11				127.22	14.55
	1.87861	72513.60					0.004361
1101.62	131.00	4536.32	8.72	6.89	7.20	7928.07	0.43
		159.98				127.14	14.57
	1.88140	72470.45					0.004378
1120.07	132.00	4536.41	8.81	6.97	7.28	8157.80	0.43
		160.65				127.53	14.47
	1.93062	72694.41					0.004437
1129.16	133.00	4536.46	8.86	7.01	7.32	8270.02	0.43
		160.97				127.72	14.42
	1.94119	72801.77					0.004435
1129.11	134.00	4536.46	8.86	7.01	7.32	8269.93	0.43
		160.96				127.72	14.42
	1.94051	72801.08					0.004433
1129.16	135.00	4536.46	8.86	7.01	7.32	8270.13	0.43
		160.97				127.72	14.42
	1.94124	72801.92					0.004435
1129.19	136.00	4536.46	8.86	7.01	7.32	8269.89	0.43
		160.97				127.72	14.42
	1.93996	72802.66					0.004432
1129.13	137.00	4536.46	8.86	7.01	7.32	8269.89	0.43
		160.97				127.72	14.42
	1.94326	72801.66					0.004440
1129.10	138.00	4536.46	8.86	7.01	7.32	8269.79	0.43
		160.96				127.72	14.42
	1.94165	72801.18					0.004436
1128.69	139.00	4536.46	8.85	7.01	7.32	8264.54	0.43
		160.95				127.71	14.42
	1.93654	72796.02					0.004425
1119.47	140.00	4536.41	8.81	6.97	7.28	8148.19	0.43
		160.62				127.52	14.47
	1.91264	72684.74					0.004398
1114.78	141.00	4536.39	8.79	6.95	7.26	8090.99	0.43
		160.45				127.42	14.50
	1.90705	72629.41					0.004399
1114.80	142.00	4536.39	8.79	6.95	7.26	8091.33	0.43
		160.45				127.42	14.50
	1.90656	72629.45					0.004398
1114.74	143.00	4536.39	8.79	6.95	7.26	8090.33	0.43
		160.45				127.42	14.50
	1.90652	72628.80					0.004398
1114.43	144.00	4536.39	8.79	6.95	7.26	8086.00	0.43
		160.44				127.41	14.50
	1.90439	72624.82					0.004394
1105.30	145.00	4536.34	8.74	6.90	7.21	7973.24	0.43
		160.10				127.22	14.55

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	1.87901	72513.19					
1100.68	146.00	4536.32	8.72	6.88	7.19	7916.98	0.43
		159.94				127.12	14.58
	1.87282	72458.20					0.004361
1100.74	147.00	4536.32	8.72	6.88	7.19	7916.91	0.43
		159.94				127.12	14.58
	1.87328	72458.82					0.004362
1100.70	148.00	4536.32	8.72	6.88	7.19	7917.02	0.43
		159.94				127.12	14.58
	1.87484	72458.42					0.004366
1100.75	149.00	4536.32	8.72	6.88	7.19	7917.29	0.43
		159.94				127.12	14.58
	1.87221	72458.89					0.004360
1100.47	150.00	4536.32	8.72	6.88	7.19	7913.58	0.43
		159.93				127.11	14.58
	1.87123	72455.48					0.004358
1094.23	151.00	4536.29	8.69	6.85	7.16	7836.97	0.43
		159.70				126.98	14.62
	1.85234	72378.43					0.004333
1088.02	152.00	4536.26	8.66	6.82	7.13	7761.53	0.43
		159.48				126.85	14.65
	1.84335	72302.15					0.004330
1086.51	153.00	4536.25	8.65	6.82	7.13	7743.11	0.43
		159.42				126.81	14.66
	1.83914	72284.16					0.004325
1086.06	154.00	4536.25	8.65	6.81	7.12	7737.58	0.43
		159.40				126.80	14.66
	1.83694	72278.19					0.004321
1077.65	155.00	4536.21	8.61	6.77	7.09	7636.02	0.43
		159.09				126.62	14.71
	1.82587	72173.37					0.004320
1091.51	156.00	4536.27	8.67	6.84	7.15	7804.78	0.43
		159.61				126.93	14.63
	1.86344	72347.32					0.004367
1100.72	157.00	4536.32	8.72	6.88	7.19	7916.98	0.43
		159.94				127.12	14.58
	1.87429	72458.66					0.004365
1100.71	158.00	4536.32	8.72	6.88	7.19	7917.13	0.43
		159.94				127.12	14.58
	1.87354	72458.56					0.004363
1100.71	159.00	4536.32	8.72	6.88	7.19	7916.65	0.43
		159.94				127.12	14.58
	1.87302	72458.54					0.004362
1100.76	160.00	4536.32	8.72	6.88	7.19	7917.28	0.43
		159.94				127.12	14.58
	1.87276	72458.87					0.004361
1100.71	161.00	4536.32	8.72	6.88	7.19	7917.00	0.43
		159.94				127.12	14.58
	1.87196	72458.77					0.004359
1100.73	162.00	4536.32	8.72	6.88	7.19	7916.96	0.43
		159.94				127.12	14.58
	1.87379	72458.76					0.004363
1100.75	163.00	4536.32	8.72	6.88	7.19	7917.02	0.43
		159.94				127.12	14.58
	1.87343	72459.19					0.004362
1100.27	164.00	4536.32	8.72	6.88	7.19	7911.46	0.43
		159.93				127.11	14.58
	1.86937	72453.02					0.004354
1091.21	165.00	4536.27	8.67	6.84	7.15	7799.81	0.43
		159.59				126.91	14.64
	1.84553	72341.26					0.004326
1086.47	166.00	4536.25	8.65	6.82	7.13	7742.86	0.43
		159.42				126.81	14.66

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		HYCHAN.OUT						
	1.84084	72283.52						
1086.48	167.00	4536.25	8.65	6.82	7.13	7742.98	0.43	0.004327
	1.84029	72283.74						
1086.47	168.00	4536.25	8.65	6.82	7.13	7742.82	0.43	0.004326
	1.83988	72283.77						
1086.50	169.00	4536.25	8.65	6.82	7.13	7742.80	0.43	0.004329
	1.84096	72283.86						
1086.49	170.00	4536.25	8.65	6.82	7.13	7743.27	0.43	0.004327
	1.84012	72283.88						
1086.48	171.00	4536.25	8.65	6.82	7.13	7742.85	0.43	0.004325
	1.83917	72283.56						
1086.06	172.00	4536.25	8.65	6.81	7.12	7737.86	0.43	0.004320
	1.83678	72278.67						
1076.84	173.00	4536.20	8.60	6.77	7.08	7625.93	0.43	0.004307
	1.81939	72163.07						
1072.09	174.00	4536.18	8.58	6.75	7.06	7568.79	0.42	0.004308
	1.81382	72105.10						
1072.10	175.00	4536.18	8.58	6.75	7.06	7569.01	0.42	0.004304
	1.81217	72105.03						
1072.07	176.00	4536.18	8.58	6.75	7.06	7568.99	0.42	0.004303
	1.81163	72104.53						
1072.12	177.00	4536.18	8.58	6.75	7.06	7569.23	0.42	0.004307
	1.81356	72104.70						
1072.04	178.00	4536.18	8.58	6.75	7.06	7568.42	0.42	0.004304
	1.81228	72104.52						
1072.94	179.00	4536.18	8.58	6.75	7.06	7579.42	0.43	0.004318
	1.81920	72115.73						
1091.52	180.00	4536.27	8.67	6.84	7.15	7804.82	0.43	0.004363
	1.86196	72347.41						
1101.12	181.00	4536.32	8.72	6.88	7.19	7922.00	0.43	0.004370
	1.87712	72463.69						
1110.26	182.00	4536.37	8.77	6.93	7.24	8035.25	0.43	0.004396
	1.89999	72575.33						
1114.79	183.00	4536.39	8.79	6.95	7.26	8090.98	0.43	0.004399
	1.90710	72629.49						
1114.76	184.00	4536.39	8.79	6.95	7.26	8090.58	0.43	0.004401
	1.90816	72629.28						
1114.85	185.00	4536.39	8.79	6.95	7.26	8091.57	0.43	0.004400
	1.90750	72630.37						
1114.80	186.00	4536.39	8.79	6.95	7.26	8090.83	0.43	0.004398
	1.90658	72629.22						
1114.83	187.00	4536.39	8.79	6.95	7.26	8091.27	0.43	0.004398
		160.45						

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## HYCHAN.OUT

1.90684	72629.95						
188.00	4536.39	8.79	7.26	8090.53	0.43		
1114.78	160.45	6.95	127.42	14.50	0.004399		
1.90725	72629.34						
189.00	4536.39	8.79	7.26	8091.08	0.43		
1114.83	160.45	6.95	127.42	14.50	0.004397		
1.90638	72629.84						
190.00	4536.39	8.79	7.26	8086.00	0.43		
1114.38	160.44	6.95	127.41	14.50	0.004391		
1.90326	72624.30						
191.00	4536.34	8.74	7.21	7972.99	0.43		
1105.33	160.11	6.90	127.22	14.55	0.004362		
1.87912	72514.00						
192.00	4536.32	8.72	7.19	7916.55	0.43		
1100.70	159.94	6.88	127.12	14.58	0.004359		
1.87198	72458.09						
193.00	4536.32	8.72	7.19	7917.25	0.43		
1100.75	159.94	6.88	127.12	14.58	0.004364		
1.87420	72459.29						
194.00	4536.32	8.72	7.19	7917.50	0.43		
1100.78	159.94	6.88	127.12	14.58	0.004358		
1.87137	72459.34						
195.00	4536.32	8.72	7.19	7916.61	0.43		
1100.67	159.94	6.88	127.12	14.58	0.004365		
1.87454	72457.95						
196.00	4536.32	8.72	7.19	7916.97	0.43		
1100.72	159.94	6.88	127.12	14.58	0.004360		
1.87239	72458.66						
197.00	4536.32	8.72	7.19	7917.22	0.43		
1100.75	159.94	6.88	127.12	14.58	0.004364		
1.87408	72459.31						
198.00	4536.32	8.72	7.19	7917.04	0.43		
1100.73	159.94	6.88	127.12	14.58	0.004366		
1.87477	72458.95						
199.00	4536.32	8.72	7.19	7916.72	0.43		
1100.76	159.94	6.88	127.12	14.58	0.004362		
1.87330	72459.34						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 763

MAXIMUM DISCHARGE (CFS) = 21489.59 AT TIME = 80.21  
 MAXIMUM STAGE = 4536.76 AT TIME = 80.21

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)					
0.00	4525.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4525.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4527.12	1.32	1.10	896.09	0.17	0.003148
815.23	61.87	13.18	61.75	46.69	0.40	0.003149
2.58813	23463.92	7.12	6.06	5522.93	0.40	0.003149
911.41	4532.92	4.82	186.66	26.21	0.40	0.003149
0.94804	188.92					
	70929.60					



		HYCHAN.OUT					
902.03	4.00	4532.88	7.08	6.03	5434.97	0.40	
		188.23	4.79		185.98	26.26	0.003144
	0.94010	70673.06					
895.64	5.00	4532.86	7.06	6.00	5375.21	0.40	
		187.78	4.77		185.54	26.29	0.003141
	0.93481	70505.88					
885.55	6.00	4532.81	7.01	5.96	5281.76	0.40	
		187.03	4.73		184.80	26.34	0.003133
	0.92560	70223.90					
869.23	7.00	4532.75	6.95	5.90	5130.93	0.39	
		185.83	4.68		183.63	26.43	0.003126
	0.91237	69778.53					
852.93	8.00	4532.68	6.88	5.84	4981.79	0.39	
		184.62	4.62		182.45	26.52	0.003116
	0.89820	69329.93					
836.59	9.00	4532.61	6.81	5.78	4833.62	0.39	
		183.40	4.56		181.25	26.61	0.003110
	0.88516	68875.73					
829.99	10.00	4532.59	6.79	5.75	4770.22	0.39	
		182.97	4.54		180.82	26.64	0.003108
	0.87969	68713.33					
819.61	11.00	4532.54	6.74	5.71	4682.24	0.39	
		182.11	4.50		179.99	26.71	0.003101
	0.87091	68395.10					
802.81	12.00	4532.47	6.67	5.65	4533.89	0.39	
		180.82	4.44		178.72	26.81	0.003094
	0.85725	67914.00					
795.88	13.00	4532.44	6.64	5.61	4468.65	0.38	
		180.36	4.41		178.27	26.84	0.003094
	0.85188	67741.02					
795.99	14.00	4532.44	6.64	5.61	4469.05	0.38	
		180.37	4.41		178.28	26.84	0.003095
	0.85232	67746.56					
795.99	15.00	4532.44	6.64	5.61	4468.93	0.38	
		180.37	4.41		178.28	26.84	0.003094
	0.85199	67746.52					
795.98	16.00	4532.44	6.64	5.61	4469.02	0.38	
		180.37	4.41		178.28	26.84	0.003093
	0.85164	67746.10					
796.14	17.00	4532.44	6.64	5.61	4470.04	0.38	
		180.39	4.41		178.30	26.84	0.003096
	0.85257	67752.60					
806.07	18.00	4532.49	6.69	5.66	4558.48	0.39	
		181.16	4.45		179.06	26.78	0.003105
	0.86213	68041.06					
823.26	19.00	4532.56	6.76	5.72	4711.17	0.39	
		182.47	4.51		180.34	26.68	0.003113
	0.87643	68529.77					
840.01	20.00	4532.63	6.83	5.79	4862.68	0.39	
		183.73	4.57		181.57	26.59	0.003119
	0.88992	68996.70					
847.03	21.00	4532.66	6.86	5.81	4924.02	0.39	
		184.25	4.60		182.08	26.55	0.003121
	0.89516	69190.91					
847.33	22.00	4532.66	6.86	5.81	4925.80	0.39	
		184.28	4.60		182.11	26.55	0.003122
	0.89569	69202.59					
857.28	23.00	4532.70	6.90	5.86	5019.92	0.39	
		185.02	4.63		182.83	26.49	0.003133
	0.90587	69475.64					
884.42	24.00	4532.81	7.01	5.96	5269.87	0.40	
		186.98	4.73		184.76	26.35	0.003148
	0.92915	70208.09					

		HYCHAN.OUT					
916.98	25.00	4532.94	7.14	6.08	5578.42	0.40	
	0.95643	189.31	4.84	187.03	26.18		0.003164
	26.00	71072.36					
948.01		4533.07	7.27	6.20	5878.99	0.41	
	0.98120	191.47	4.95	189.15	26.03		0.003176
	27.00	71876.42					
958.81		4533.11	7.31	6.24	5985.12	0.41	
	0.98809	192.20	4.99	189.86	25.97		0.003174
	28.00	72147.30					
959.17		4533.11	7.31	6.24	5988.76	0.41	
	0.98946	192.23	4.99	189.89	25.97		0.003178
	29.00	72158.02					
969.73		4533.15	7.35	6.29	6094.84	0.41	
	0.99873	192.96	5.03	190.61	25.92		0.003185
	30.00	72432.90					
975.68		4533.18	7.38	6.31	6152.06	0.41	
	1.00204	193.35	5.05	190.99	25.89		0.003182
	31.00	72574.92					
976.13		4533.18	7.38	6.31	6156.21	0.41	
	1.00434	193.38	5.05	191.02	25.89		0.003189
	32.00	72588.42					
987.14		4533.22	7.42	6.35	6267.52	0.41	
	1.01364	194.13	5.09	191.75	25.84		0.003195
	33.00	72865.27					
993.04		4533.24	7.44	6.37	6326.14	0.41	
	1.01742	194.51	5.11	192.13	25.81		0.003194
	34.00	73007.70					
992.56		4533.24	7.44	6.37	6321.37	0.41	
	1.01587	194.47	5.10	192.09	25.82		0.003190
	35.00	72994.49					
981.62		4533.20	7.40	6.33	6211.08	0.41	
	1.00650	193.74	5.07	191.37	25.87		0.003183
	36.00	72720.11					
975.24		4533.17	7.37	6.30	6147.72	0.41	
	1.00108	193.32	5.04	190.96	25.90		0.003180
	37.00	72563.62					
964.67		4533.13	7.33	6.26	6042.20	0.41	
	0.99248	192.60	5.01	190.25	25.95		0.003175
	38.00	72295.48					
958.77		4533.11	7.31	6.24	5985.29	0.41	
	0.98756	192.19	4.99	189.86	25.97		0.003173
	39.00	72146.19					
958.76		4533.11	7.31	6.24	5984.80	0.41	
	0.98820	192.20	4.99	189.86	25.97		0.003175
	40.00	72146.70					
958.82		4533.11	7.31	6.24	5985.09	0.41	
	0.98757	192.20	4.99	189.87	25.97		0.003173
	41.00	72149.04					
958.83		4533.11	7.31	6.24	5985.15	0.41	
	0.98860	192.20	4.99	189.86	25.97		0.003176
	42.00	72148.34					
959.14		4533.11	7.31	6.24	5988.82	0.41	
	0.98936	192.23	4.99	189.89	25.97		0.003178
	43.00	72158.13					
969.80		4533.15	7.35	6.28	6095.09	0.41	
	0.99858	192.97	5.03	190.61	25.92		0.003184
	44.00	72433.47					
976.11		4533.18	7.38	6.31	6156.23	0.41	
	1.00378	193.38	5.05	191.02	25.89		0.003187
	45.00	72588.37					
987.59		4533.22	7.42	6.35	6272.13	0.41	
	1.01425	194.16	5.09	191.78	25.84		0.003196
		72877.88					

HYCHAN.OUT									
1004.95	46.00	4533.29	7.49	5.15	6.42	6447.41	0.41	25.76	0.003204
	1.02873	195.32				192.91			
		73307.42							
1022.94	47.00	4533.35	7.56	5.21	6.47	6621.43	0.42	25.68	0.003211
	1.04317	196.46				194.03			
		73731.26							
1040.08	48.00	4533.42	7.62	5.26	6.53	6794.13	0.42	25.61	0.003222
	1.05857	197.56				195.11			
		74141.98							
1056.31	49.00	4533.48	7.68	5.32	6.59	6962.76	0.42	25.54	0.003232
	1.07265	198.60				196.13			
		74529.59							
1073.68	50.00	4533.54	7.74	5.38	6.66	7145.38	0.42	25.46	0.003243
	1.08803	199.71				197.22			
		74942.48							
1099.80	51.00	4533.64	7.84	5.46	6.75	7423.69	0.42	25.36	0.003259
	1.11084	201.36				198.82			
		75553.26							
1111.48	52.00	4533.68	7.88	5.50	6.79	7547.97	0.43	25.31	0.003256
	1.11769	202.07				199.52			
		75818.69							
1123.03	53.00	4533.73	7.93	5.54	6.83	7674.11	0.43	25.26	0.003275
	1.13166	202.80				200.23			
		76089.29							
1162.76	54.00	4533.87	8.07	5.67	6.98	8114.42	0.43	25.11	0.003311
	1.17066	205.22				202.61			
		76991.29							
1228.08	55.00	4534.10	8.30	5.87	7.21	8860.12	0.44	24.87	0.003358
	1.23083	209.09				206.39			
		78428.48							
1317.02	56.00	4534.40	8.60	6.15	7.52	9907.47	0.45	24.56	0.003384
	1.29897	214.09				211.28			
		80287.84							
1433.19	57.00	4534.78	8.98	6.51	7.92	11355.63	0.47	24.21	0.003394
	1.37799	220.24				217.30			
		82572.87							
1519.42	58.00	4535.04	9.24	6.77	8.22	12490.16	0.48	23.96	0.003459
	1.46043	224.57				221.53			
		84180.20							
1592.28	59.00	4535.26	9.47	6.98	8.47	13481.95	0.49	23.77	0.003499
	1.52388	228.12				225.00			
		85498.15							
1681.30	60.00	4535.53	9.73	7.24	8.76	14732.04	0.50	23.55	0.003539
	1.59840	232.30				229.08			
		87052.29							
1749.44	61.00	4535.72	9.92	7.43	8.99	15726.14	0.50	23.39	0.003566
	1.65351	235.40				232.12			
		88203.81							
1806.33	62.00	4535.89	10.09	7.59	9.17	16571.33	0.51	23.26	0.003589
	1.70021	237.93				234.58			
		89142.15							
1846.75	63.00	4536.00	10.20	7.70	9.31	17188.70	0.51	23.17	0.003612
	1.73645	239.71				236.32			
		89803.22							
1887.40	64.00	4536.11	10.31	7.82	9.44	17817.88	0.52	23.08	0.003630
	1.77065	241.47				238.05			
		90457.98							
1927.05	65.00	4536.22	10.42	7.92	9.57	18450.80	0.52	23.00	0.003647
	1.80314	243.19				239.72			
		91095.49							
1937.96	66.00	4536.25	10.45	7.95	9.60	18611.18	0.52	22.98	0.003623
	1.79828	243.63				240.15			
		91258.27							

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				HYCHAN.OUT				
1938.90	67.00	4536.25	10.45	7.96	9.60	18622.94	0.52	0.003644
	1.80956	243.66				240.19	22.97	
		91270.49						
1939.09	68.00	4536.26	10.46	7.96	9.61	18628.53	0.52	0.003625
	1.79982	243.67				240.20	22.97	
		91274.73						
1939.61	69.00	4536.26	10.46	7.96	9.61	18636.42	0.52	0.003632
	1.80407	243.70				240.22	22.97	
		91282.45						
1940.29	70.00	4536.26	10.46	7.96	9.61	18647.05	0.52	0.003646
	1.81141	243.73				240.25	22.97	
		91293.95						
1940.21	71.00	4536.26	10.46	7.96	9.61	18646.16	0.52	0.003653
	1.81451	243.73				240.25	22.97	
		91294.13						
1940.55	72.00	4536.26	10.46	7.96	9.61	18650.53	0.52	0.003657
	1.81701	243.74				240.26	22.97	
		91298.17						
1952.51	73.00	4536.29	10.49	7.99	9.65	18842.36	0.53	0.003652
	1.82183	244.25				240.76	22.95	
		91489.92						
1962.77	74.00	4536.32	10.52	8.02	9.68	19002.91	0.53	0.003672
	1.83800	244.67				241.17	22.93	
		91643.98						
1964.04	75.00	4536.32	10.52	8.03	9.69	19023.15	0.53	0.003648
	1.82671	244.73				241.22	22.92	
		91665.00						
1976.49	76.00	4536.36	10.56	8.06	9.73	19223.93	0.53	0.003683
	1.85198	245.24				241.73	22.90	
		91857.67						
2010.41	77.00	4536.45	10.65	8.15	9.83	19758.44	0.53	0.003722
	1.89288	246.68				243.13	22.83	
		92391.02						
2044.04	78.00	4536.54	10.74	8.24	9.92	20284.65	0.53	0.003746
	1.92577	248.11				244.53	22.76	
		92920.63						
2069.19	79.00	4536.61	10.81	8.30	9.99	20678.72	0.54	0.003779
	1.95809	249.16				245.56	22.71	
		93312.30						
2101.89	80.00	4536.70	10.90	8.39	10.08	21194.25	0.54	0.003814
	1.99707	250.51				246.88	22.65	
		93813.30						
2114.96	81.00	4536.73	10.94	8.43	10.12	21396.88	0.54	0.003815
	2.00586	251.03				247.38	22.62	
		94005.91						
2097.72	82.00	4536.69	10.89	8.38	10.07	21119.97	0.54	0.003782
	1.97800	250.31				246.68	22.66	
		93738.05						
2082.78	83.00	4536.65	10.85	8.34	10.03	20888.91	0.54	0.003778
	1.96610	249.71				246.09	22.68	
		93515.29						
2080.99	84.00	4536.64	10.84	8.34	10.03	20862.13	0.54	0.003772
	1.96198	249.64				246.02	22.69	
		93489.40						
2081.06	85.00	4536.64	10.84	8.34	10.02	20862.07	0.54	0.003768
	1.96023	249.64				246.02	22.69	
		93488.43						
2072.05	86.00	4536.62	10.82	8.31	9.99	20709.50	0.54	0.003740
	1.93999	249.24				245.63	22.71	
		93339.68						
2027.56	87.00	4536.49	10.69	8.20	9.87	20003.59	0.53	0.003642
	1.86323	247.33				243.77	22.80	
		92631.78						

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		HYCHAN.OUT					
1949.16	88.00	4536.28	10.48	9.63	18772.88	0.52	
	1.79646	244.04		7.99	240.56	22.96	0.003605
1840.56	89.00	4535.98	10.18	9.28	17083.82	0.51	
	1.70631	239.38		7.69	236.01	23.19	0.003556
1759.41	90.00	4535.75	9.95	9.01	15857.33	0.50	
	1.64468	235.78		7.46	232.49	23.37	0.003532
1699.94	91.00	4535.58	9.78	8.81	14979.58	0.50	
	1.59353	233.10		7.29	229.86	23.51	0.003502
1630.15	92.00	4535.37	9.57	8.58	13984.42	0.49	
	1.53425	229.83		7.09	226.67	23.68	0.003466
1566.75	93.00	4535.18	9.38	8.37	13115.76	0.48	
	1.48394	226.81		6.91	223.72	23.84	0.003443
1508.33	94.00	4535.00	9.21	8.17	12324.55	0.47	
	1.42828	223.94		6.74	220.92	24.00	0.003398
1463.54	95.00	4534.87	9.07	8.02	11731.78	0.47	
	1.42447	221.73		6.60	218.75	24.12	0.003458
1420.60	96.00	4534.73	8.93	7.87	11183.97	0.46	
	1.38210	219.54		6.47	216.62	24.25	0.003423
1387.95	97.00	4534.63	8.83	7.76	10773.12	0.46	
	1.34173	217.85		6.37	214.96	24.34	0.003375
1356.25	98.00	4534.53	8.73	7.65	10378.55	0.46	
	1.32811	216.18		6.27	213.33	24.44	0.003393
1333.44	99.00	4534.45	8.65	7.57	10100.04	0.45	
	1.30653	214.96		6.20	212.14	24.51	0.003375
1305.17	100.00	4534.36	8.56	7.48	9757.86	0.45	
	1.28327	213.41		6.12	210.61	24.61	0.003363
1277.88	101.00	4534.27	8.47	7.38	9433.32	0.45	
	1.26083	211.89		6.03	209.13	24.70	0.003350
1254.13	102.00	4534.19	8.39	7.30	9154.99	0.44	
	1.24050	210.55		5.96	207.82	24.78	0.003338
1234.29	103.00	4534.12	8.32	7.23	8925.25	0.44	
	1.22276	209.42		5.89	206.72	24.85	0.003325
1216.42	104.00	4534.06	8.26	7.17	8719.80	0.44	
	1.20574	208.39		5.84	205.70	24.91	0.003310
1188.24	105.00	4533.96	8.16	7.06	8393.62	0.44	
	1.18159	206.70		5.75	204.05	25.02	0.003294
1166.18	106.00	4533.88	8.08	6.98	8145.28	0.43	
	1.16362	205.38		5.68	202.77	25.10	0.003284
1150.36	107.00	4533.82	8.02	6.93	7969.92	0.43	
	1.14935	204.43		5.63	201.84	25.16	0.003273
1134.96	108.00	4533.77	7.97	6.87	7801.10	0.43	
	1.13795	203.50		5.58	200.92	25.22	0.003270
		76350.27					

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HYCHAN.OUT									
109.00	4533.75	7.95	5.56	6.86	7747.76	0.43			
1129.92	203.20				200.63	25.24	0.003271		
	1.13499								
	76240.95								
110.00	4533.79	7.99	5.60	6.90	7869.90	0.43			
1140.90	203.88				201.30	25.19	0.003281		
	1.14566								
	76493.52								
111.00	4533.88	8.08	5.68	6.99	8149.73	0.43			
1166.20	205.41				202.80	25.10	0.003293		
	1.16675								
	77062.16								
112.00	4533.88	8.08	5.68	6.98	8144.05	0.43			
1166.04	205.38				202.76	25.10	0.003288		
	1.16485								
	77049.12								
113.00	4533.83	8.03	5.63	6.93	7984.66	0.43			
1151.56	204.51				201.91	25.15	0.003285		
	1.15407								
	76727.14								
114.00	4533.89	8.09	5.68	6.99	8166.57	0.43			
1167.62	205.50				202.88	25.09	0.003308		
	1.17286								
	77095.95								
115.00	4534.00	8.20	5.79	7.11	8537.05	0.44			
1200.18	207.45				204.79	24.97	0.003316		
	1.19719								
	77820.41								
116.00	4534.00	8.20	5.79	7.11	8533.60	0.44			
1200.13	207.43				204.77	24.97	0.003308		
	1.19418								
	77812.06								
117.00	4533.98	8.18	5.77	7.09	8469.95	0.44			
1194.79	207.10				204.45	24.99	0.003304		
	1.18947								
	77690.48								
118.00	4533.98	8.18	5.77	7.09	8476.34	0.44			
1195.27	207.14				204.48	24.99	0.003309		
	1.19141								
	77703.98								
119.00	4534.02	8.22	5.80	7.14	8607.04	0.44			
1206.19	207.81				205.14	24.95	0.003318		
	1.20166								
	77954.20								
120.00	4534.04	8.24	5.82	7.15	8669.86	0.44			
1211.82	208.13				205.45	24.93	0.003318		
	1.20537								
	78072.73								
121.00	4534.04	8.24	5.82	7.15	8663.43	0.44			
1211.30	208.10				205.43	24.93	0.003318		
	1.20528								
	78061.79								
122.00	4534.00	8.20	5.79	7.11	8533.42	0.44			
1200.15	207.43				204.77	24.97	0.003306		
	1.19346								
	77812.23								
123.00	4533.98	8.18	5.77	7.09	8463.92	0.44			
1194.31	207.07				204.42	24.99	0.003304		
	1.18898								
	77679.20								
124.00	4533.94	8.14	5.73	7.05	8334.50	0.44			
1183.03	206.39				203.75	25.03	0.003295		
	1.17850								
	77426.72								
125.00	4533.92	8.12	5.71	7.03	8269.70	0.43			
1177.14	206.05				203.42	25.06	0.003296		
	1.17481								
	77299.96								
126.00	4533.92	8.12	5.71	7.02	8264.85	0.43			
1176.73	206.03				203.40	25.06	0.003293		
	1.17346								
	77290.45								
127.00	4533.88	8.08	5.68	6.99	8149.51	0.43			
1166.52	205.41				202.79	25.10	0.003287		
	1.16465								
	77060.54								
128.00	4533.86	8.06	5.66	6.97	8091.03	0.43			
1161.09	205.09				202.48	25.12	0.003288		
	1.16164								
	76943.20								
129.00	4533.86	8.06	5.66	6.97	8085.84	0.43			
1160.68	205.07				202.46	25.12	0.003282		
	1.15906								
	76933.71								

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		HYCHAN.OUT					
1150.68	130.00 4533.82 204.45	8.02	5.63	6.93	7974.34	0.43	0.003280
	1.15180 76705.65				201.86	25.16	
1146.28	131.00 4533.81 204.20	8.01	5.61	6.92	7927.42	0.43	0.003282
	1.14968 76611.55				201.61	25.17	
1166.67	132.00 4533.88 205.44	8.08	5.68	6.99	8155.12	0.43	0.003298
	1.16880 77072.98				202.82	25.09	
1177.16	133.00 4533.92 206.06	8.12	5.71	7.03	8270.02	0.43	0.003293
	1.17402 77301.32				203.42	25.06	
1177.16	134.00 4533.92 206.05	8.12	5.71	7.03	8269.89	0.43	0.003297
	1.17526 77300.44				203.42	25.06	
1177.20	135.00 4533.92 206.06	8.12	5.71	7.03	8270.14	0.43	0.003298
	1.17585 77301.16				203.42	25.06	
1177.16	136.00 4533.92 206.06	8.12	5.71	7.03	8269.89	0.43	0.003297
	1.17537 77301.00				203.42	25.06	
1177.13	137.00 4533.92 206.05	8.12	5.71	7.03	8269.97	0.43	0.003300
	1.17626 77300.35				203.42	25.06	
1177.14	138.00 4533.92 206.05	8.12	5.71	7.03	8269.75	0.43	0.003297
	1.17514 77300.08				203.42	25.06	
1176.71	139.00 4533.92 206.03	8.12	5.71	7.02	8264.84	0.43	0.003293
	1.17369 77289.99				203.39	25.06	
1166.50	140.00 4533.88 205.41	8.08	5.68	6.99	8149.57	0.43	0.003286
	1.16428 77060.57				202.79	25.10	
1161.10	141.00 4533.86 205.09	8.06	5.66	6.97	8091.03	0.43	0.003286
	1.16080 76943.08				202.48	25.12	
1161.12	142.00 4533.86 205.09	8.06	5.66	6.97	8091.29	0.43	0.003284
	1.16026 76943.61				202.48	25.12	
1161.07	143.00 4533.86 205.09	8.06	5.66	6.97	8090.30	0.43	0.003289
	1.16182 76942.37				202.48	25.12	
1160.75	144.00 4533.86 205.07	8.06	5.66	6.97	8086.44	0.43	0.003285
	1.16014 76934.31				202.46	25.12	
1150.73	145.00 4533.82 204.46	8.02	5.63	6.93	7974.54	0.43	0.003276
	1.15062 76706.44				201.86	25.16	
1145.34	146.00 4533.81 204.14	8.01	5.61	6.91	7916.89	0.43	0.003279
	1.14812 76589.24				201.55	25.18	
1145.39	147.00 4533.81 204.15	8.01	5.61	6.91	7917.01	0.43	0.003278
	1.14773 76590.87				201.55	25.18	
1145.35	148.00 4533.81 204.14	8.01	5.61	6.91	7917.05	0.43	0.003279
	1.14796 76589.51				201.55	25.18	
1145.37	149.00 4533.81 204.15	8.01	5.61	6.91	7917.21	0.43	0.003275
	1.14670 76591.06				201.56	25.18	
1145.10	150.00 4533.80 204.13	8.00	5.61	6.91	7913.83	0.43	0.003279
	1.14781 76583.84				201.54	25.18	



		HYCHAN.OUT					
1138.27	151.00 4533.78 203.70 76426.70	7.98	5.59	6.89	7837.88	0.43	0.003272
1131.31	152.00 4533.75 203.28 76270.27	7.95	5.57	6.86	7762.10	0.43	0.003266
1129.51	153.00 4533.75 203.18 76231.06	7.95	5.56	6.86	7742.99	0.43	0.003268
1129.08	154.00 4533.75 203.15 76220.12	7.95	5.56	6.85	7738.00	0.43	0.003265
1119.83	155.00 4533.71 202.57 76006.81	7.91	5.53	6.82	7636.70	0.43	0.003268
1134.72	156.00 4533.77 203.51 76354.63	7.97	5.58	6.88	7802.17	0.43	0.003279
1145.37	157.00 4533.81 204.14 76590.41	8.01	5.61	6.91	7916.91	0.43	0.003279
1145.39	158.00 4533.81 204.14 76590.17	8.01	5.61	6.91	7917.07	0.43	0.003280
1145.35	159.00 4533.81 204.14 76590.02	8.01	5.61	6.91	7916.70	0.43	0.003276
1145.43	160.00 4533.81 204.15 76592.20	8.01	5.61	6.91	7917.25	0.43	0.003278
1145.39	161.00 4533.81 204.14 76589.06	8.01	5.61	6.91	7917.00	0.43	0.003277
1145.36	162.00 4533.81 204.15 76590.63	8.01	5.61	6.91	7916.96	0.43	0.003278
1145.39	163.00 4533.81 204.15 76590.80	8.01	5.61	6.91	7917.06	0.43	0.003282
1144.93	164.00 4533.80 204.11 76578.66	8.00	5.61	6.91	7911.76	0.43	0.003275
1134.93	165.00 4533.77 203.50 76349.70	7.97	5.58	6.87	7801.16	0.43	0.003267
1129.50	166.00 4533.75 203.18 76230.41	7.95	5.56	6.86	7742.90	0.43	0.003266
1129.47	167.00 4533.75 203.18 76230.18	7.95	5.56	6.86	7742.95	0.43	0.003269
1129.46	168.00 4533.75 203.17 76229.38	7.95	5.56	6.86	7742.79	0.43	0.003271
1129.51	169.00 4533.75 203.18 76230.93	7.95	5.56	6.86	7742.87	0.43	0.003268
1129.49	170.00 4533.75 203.18 76230.30	7.95	5.56	6.86	7743.18	0.43	0.003269
1129.51	171.00 4533.75 203.18 76230.72	7.95	5.56	6.86	7742.86	0.43	0.003266

HYCHAN.OUT							
1129.07	172.00	4533.75	7.95	5.56	6.85	7738.23	0.43
	1.13195	203.15				200.58	25.24
		76218.82					0.003264
1118.98	173.00	4533.71	7.91	5.53	6.82	7627.25	0.43
	1.12383	202.52				199.96	25.28
		75985.72					0.003260
1113.50	174.00	4533.69	7.89	5.51	6.80	7568.87	0.43
	1.12009	202.19				199.64	25.30
		75863.17					0.003259
1113.50	175.00	4533.69	7.89	5.51	6.80	7568.96	0.43
	1.12019	202.19				199.64	25.30
		75864.16					0.003260
1113.50	176.00	4533.69	7.89	5.51	6.80	7568.97	0.43
	1.11955	202.19				199.64	25.30
		75863.69					0.003258
1113.56	177.00	4533.69	7.89	5.51	6.80	7569.29	0.43
	1.11968	202.20				199.65	25.30
		75866.04					0.003258
1113.43	178.00	4533.69	7.89	5.51	6.80	7568.43	0.43
	1.11957	202.18				199.64	25.30
		75861.83					0.003258
1114.35	179.00	4533.69	7.89	5.51	6.80	7578.70	0.43
	1.12332	202.25				199.70	25.30
		75885.91					0.003267
1134.68	180.00	4533.77	7.97	5.58	6.88	7802.11	0.43
	1.14141	203.51				200.94	25.22
		76355.32					0.003281
1145.77	181.00	4533.81	8.01	5.61	6.91	7921.66	0.43
	1.14871	204.17				201.58	25.17
		76600.44					0.003280
1155.84	182.00	4533.84	8.04	5.64	6.95	8033.96	0.43
	1.15776	204.79				202.18	25.14
		76829.10					0.003287
1161.10	183.00	4533.86	8.06	5.66	6.97	8090.96	0.43
	1.16109	205.09				202.48	25.12
		76943.23					0.003287
1161.08	184.00	4533.86	8.06	5.66	6.97	8090.61	0.43
	1.16201	205.09				202.48	25.12
		76942.27					0.003289
1161.16	185.00	4533.86	8.06	5.66	6.97	8091.52	0.43
	1.16128	205.10				202.49	25.12
		76944.48					0.003287
1161.10	186.00	4533.86	8.06	5.66	6.97	8090.79	0.43
	1.16173	205.10				202.48	25.12
		76944.25					0.003289
1161.14	187.00	4533.86	8.06	5.66	6.97	8091.26	0.43
	1.16211	205.10				202.48	25.12
		76944.23					0.003290
1161.11	188.00	4533.86	8.06	5.66	6.97	8090.52	0.43
	1.16221	205.09				202.48	25.12
		76942.85					0.003290
1161.16	189.00	4533.86	8.06	5.66	6.97	8091.12	0.43
	1.16124	205.10				202.49	25.12
		76944.33					0.003287
1160.70	190.00	4533.86	8.06	5.66	6.97	8086.47	0.43
	1.15869	205.07				202.46	25.12
		76933.18					0.003281
1150.70	191.00	4533.82	8.02	5.63	6.93	7974.27	0.43
	1.15054	204.46				201.86	25.16
		76705.86					0.003276
1145.37	192.00	4533.81	8.01	5.61	6.91	7916.50	0.43
	1.14762	204.15				201.55	25.18
		76590.66					0.003278

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HYCHAN.OUT									
1145.43	193.00	4533.81	8.01	5.61	6.91	201.55	7917.24	25.18	0.003277
	1.14735	204.14							
		76590.30							
1145.43	194.00	4533.81	8.01	5.61	6.91	201.56	7917.42	25.18	0.003278
	1.14768	204.15							
		76591.87							
1145.34	195.00	4533.81	8.01	5.61	6.91	201.55	7916.75	25.18	0.003277
	1.14715	204.14							
		76589.34							
1145.38	196.00	4533.81	8.01	5.61	6.91	201.55	7916.84	25.18	0.003279
	1.14815	204.14							
		76590.02							
1145.41	197.00	4533.81	8.01	5.61	6.91	201.55	7917.34	25.18	0.003276
	1.14702	204.14							
		76589.86							
1145.36	198.00	4533.81	8.01	5.61	6.91	201.55	7917.13	25.18	0.003276
	1.14701	204.14							
		76589.91							
1145.36	199.00	4533.81	8.01	5.61	6.91	201.55	7916.64	25.18	0.003275
	1.14653	204.15							
		76590.58							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 764

MAXIMUM DISCHARGE (CFS) = 21567.98 AT TIME = 80.22  
 MAXIMUM STAGE = 4534.58 AT TIME = 80.23

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4523.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4523.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4524.84	1.14	1.01	777.23	0.17			
766.62	2.96548	56.19	13.64	56.12	49.08				0.003483
	3.00	4530.58	6.88	6.26	5522.66	0.42			
881.89	1.03915	184.67	4.78	182.49	26.52				0.003487
	4.00	4530.54	6.84	6.23	5436.89	0.42			
872.87	1.03265	184.00	4.74	181.84	26.57				0.003489
	5.00	4530.52	6.82	6.20	5375.55	0.42			
866.51	1.02680	183.54	4.72	181.38	26.60				0.003485
	6.00	4530.48	6.78	6.17	5284.09	0.42			
856.90	1.01908	182.82	4.69	180.68	26.66				0.003484
	7.00	4530.41	6.71	6.10	5133.26	0.42			
840.93	1.00649	181.62	4.63	179.51	26.75				0.003484
	8.00	4530.34	6.64	6.04	4984.13	0.41			
824.92	0.99358	180.41	4.57	178.32	26.84				0.003482
	9.00	4530.28	6.58	5.98	4835.80	0.41			

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		HYCHAN.OUT				
808.86	179.18	4.51	177.11	26.93	0.003485	
0.98168	93868.40					
10.00	4530.25	6.54	5.95	4770.57	0.41	
801.62	178.62	4.49	176.57	26.98	0.003483	
0.97550	93579.52					
11.00	4530.20	6.50	5.91	4684.62	0.41	
792.22	177.88	4.45	175.84	27.04	0.003482	
0.96762	93195.89					
12.00	4530.13	6.43	5.85	4536.16	0.41	
775.75	176.58	4.39	174.57	27.14	0.003484	
0.95499	92521.40					
13.00	4530.10	6.40	5.82	4468.74	0.41	
768.09	175.98	4.36	173.98	27.19	0.003488	
0.95001	92207.55					
14.00	4530.10	6.40	5.82	4469.06	0.41	
768.12	175.98	4.36	173.98	27.19	0.003488	
0.94998	92208.62					
15.00	4530.10	6.40	5.82	4468.82	0.41	
768.12	175.98	4.36	173.98	27.19	0.003490	
0.95043	92208.65					
16.00	4530.10	6.40	5.82	4468.99	0.41	
768.11	175.98	4.36	173.98	27.19	0.003488	
0.95007	92208.10					
17.00	4530.10	6.40	5.82	4469.96	0.41	
768.22	175.99	4.37	173.99	27.19	0.003492	
0.95114	92212.81					
18.00	4530.14	6.44	5.86	4555.91	0.41	
777.90	176.76	4.40	174.74	27.12	0.003486	
0.95743	92614.45					
19.00	4530.22	6.52	5.92	4708.68	0.41	
794.83	178.09	4.46	176.05	27.02	0.003486	
0.97084	93306.42					
20.00	4530.29	6.59	5.99	4860.45	0.41	
811.42	179.38	4.52	177.31	26.92	0.003487	
0.98421	93974.95					
21.00	4530.32	6.62	6.02	4924.14	0.41	
818.34	179.91	4.55	177.83	26.88	0.003489	
0.99037	94250.34					
22.00	4530.32	6.62	6.02	4925.42	0.41	
818.52	179.92	4.55	177.84	26.88	0.003491	
0.99090	94257.59					
23.00	4530.36	6.66	6.06	5017.29	0.41	
828.41	180.68	4.58	178.59	26.82	0.003492	
0.99910	94650.85					
24.00	4530.47	6.77	6.16	5264.96	0.42	
855.34	182.71	4.68	180.57	26.66	0.003489	
1.01914	95703.47					
25.00	4530.61	6.91	6.28	5573.74	0.42	
887.55	185.08	4.80	182.90	26.49	0.003489	
1.04405	96934.70					
26.00	4530.73	7.03	6.40	5875.23	0.43	
918.29	187.29	4.90	185.06	26.32	0.003486	
1.06637	98082.55					
27.00	4530.77	7.07	6.44	5985.06	0.43	
929.16	188.06	4.94	185.81	26.27	0.003485	
1.07427	98481.76					
28.00	4530.78	7.07	6.44	5988.48	0.43	
929.48	188.09	4.94	185.84	26.27	0.003488	
1.07568	98493.51					
29.00	4530.82	7.12	6.48	6092.71	0.43	
939.68	188.81	4.98	186.54	26.21	0.003487	
1.08286	98866.91					
30.00	4530.84	7.14	6.50	6152.03	0.43	

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		HYCHAN.OUT					
945.86	189.24	5.00	186.96	26.18	0.003484		
1.08669	99090.10						
31.00	4530.84	7.14	6.51	6155.88	0.43		
946.23	189.26	5.00	186.99	26.18	0.003487		
1.08800	99103.73						
32.00	4530.89	7.19	6.55	6265.42	0.43		
957.12	190.02	5.04	187.73	26.13	0.003486		
1.09572	99497.34						
33.00	4530.91	7.21	6.57	6326.11	0.43		
963.12	190.43	5.06	188.14	26.10	0.003485		
1.09976	99711.65						
34.00	4530.91	7.21	6.57	6321.79	0.43		
962.69	190.40	5.06	188.11	26.10	0.003485		
1.09960	99695.96						
35.00	4530.86	7.16	6.53	6213.14	0.43		
951.85	189.65	5.02	187.37	26.15	0.003485		
1.09135	99304.52						
36.00	4530.84	7.14	6.50	6148.17	0.43		
945.43	189.21	5.00	186.93	26.19	0.003486		
1.08687	99074.12						
37.00	4530.80	7.10	6.46	6044.23	0.43		
934.94	188.47	4.96	186.21	26.24	0.003488		
1.07972	98691.14						
38.00	4530.77	7.07	6.44	5985.24	0.43		
929.13	188.06	4.94	185.81	26.27	0.003484		
1.07398	98480.54						
39.00	4530.77	7.07	6.44	5984.88	0.43		
929.09	188.06	4.94	185.81	26.27	0.003487		
1.07488	98479.04						
40.00	4530.77	7.07	6.44	5984.97	0.43		
929.12	188.06	4.94	185.81	26.27	0.003484		
1.07396	98480.20						
41.00	4530.77	7.07	6.44	5985.31	0.43		
929.16	188.06	4.94	185.81	26.27	0.003484		
1.07414	98481.62						
42.00	4530.77	7.07	6.44	5988.33	0.43		
929.41	188.08	4.94	185.83	26.27	0.003485		
1.07450	98491.28						
43.00	4530.82	7.12	6.48	6093.05	0.43		
939.80	188.81	4.98	186.55	26.21	0.003484		
1.08224	98870.96						
44.00	4530.84	7.14	6.51	6155.79	0.43		
946.19	189.26	5.00	186.99	26.18	0.003487		
1.08774	99102.29						
45.00	4530.89	7.19	6.55	6269.55	0.43		
957.53	190.05	5.04	187.76	26.13	0.003486		
1.09590	99512.20						
46.00	4530.95	7.25	6.61	6444.92	0.43		
974.77	191.24	5.10	188.92	26.04	0.003485		
1.10835	100128.28						
47.00	4531.03	7.33	6.66	6618.66	0.43		
993.33	192.50	5.16	190.16	25.95	0.003484		
1.12185	100783.43						
48.00	4531.09	7.39	6.72	6791.85	0.44		
1010.54	193.66	5.22	191.29	25.87	0.003482		
1.13375	101383.51						
49.00	4531.16	7.46	6.78	6960.16	0.44		
1026.74	194.73	5.27	192.34	25.80	0.003483		
1.14596	101942.66						
50.00	4531.22	7.52	6.84	7142.47	0.44		
1043.98	195.87	5.33	193.46	25.72	0.003485		
1.15897	102531.70						
51.00	4531.32	7.62	6.93	7419.78	0.44		

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				HYCHAN.OUT			
1069.99		197.56		5.42	195.11	25.61	0.003481
	1.17629	103407.29					
	52.00	4531.36	7.66	6.98	7547.51	0.44	
1081.80		198.31		5.45	195.85	25.56	0.003479
	1.18424	103800.20					
	53.00	4531.41	7.71	7.02	7670.75	0.45	
1093.13		199.04		5.49	196.56	25.51	0.003484
	1.19390	104175.66					
	54.00	4531.55	7.85	7.16	8106.51	0.45	
1132.53		201.51		5.62	198.98	25.35	0.003484
	1.22168	105457.17					
	55.00	4531.78	8.08	7.39	8848.71	0.46	
1197.49		205.47		5.83	202.85	25.09	0.003482
	1.26627	107508.38					
	56.00	4532.10	8.40	7.69	9892.36	0.47	
1286.92		210.69		6.11	207.95	24.77	0.003448
	1.31426	110216.05					
	57.00	4532.49	8.79	8.07	11339.06	0.48	
1405.18		217.25		6.47	214.37	24.38	0.003414
	1.37785	113615.14					
	58.00	4532.78	9.08	8.35	12479.30	0.49	
1494.13		221.96		6.73	218.98	24.11	0.003446
	1.44734	116059.70					
	59.00	4533.02	9.32	8.59	13469.50	0.50	
1568.77		225.77		6.95	222.70	23.90	0.003436
	1.48996	118031.92					
	60.00	4533.30	9.60	8.87	14719.91	0.50	
1660.32		230.28		7.21	227.11	23.66	0.003425
	1.54096	120369.28					
	61.00	4533.51	9.81	9.09	15726.03	0.51	
1730.64		233.64		7.41	230.39	23.48	0.003417
	1.57955	122109.07					
	62.00	4533.69	9.99	9.26	16573.78	0.52	
1789.22		236.37		7.57	233.06	23.34	0.003415
	1.61289	123521.91					
	63.00	4533.81	10.11	9.40	17207.30	0.52	
1830.38		238.24		7.68	234.89	23.24	0.003413
	1.63600	124492.72					
	64.00	4533.93	10.23	9.53	17845.46	0.53	
1871.99		240.11		7.80	236.72	23.15	0.003421
	1.66428	125459.89					
	65.00	4534.04	10.34	9.67	18490.20	0.53	
1912.18		241.89		7.91	238.46	23.06	0.003409
	1.68153	126382.63					
	66.00	4534.07	10.37	9.70	18654.82	0.53	
1923.87		242.41		7.94	238.96	23.04	0.003402
	1.68474	126648.45					
	67.00	4534.08	10.38	9.70	18668.47	0.53	
1924.99		242.46		7.94	239.01	23.03	0.003424
	1.69649	126673.15					
	68.00	4534.08	10.38	9.70	18673.71	0.53	
1925.10		242.46		7.94	239.01	23.03	0.003404
	1.68642	126675.66					
	69.00	4534.08	10.38	9.70	18683.10	0.53	
1925.64		242.48		7.94	239.03	23.03	0.003401
	1.68544	126687.55					
	70.00	4534.08	10.38	9.70	18693.38	0.53	
1926.30		242.51		7.94	239.06	23.03	0.003406
	1.68802	126702.79					
	71.00	4534.08	10.38	9.70	18692.05	0.53	
1926.15		242.51		7.94	239.06	23.03	0.003415
	1.69272	126699.31					
	72.00	4534.08	10.38	9.70	18695.82	0.53	

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				HYCHAN.OUT			
1926.58		242.53		7.94	239.07	23.03	0.003418
	1.69427	126709.29					
	73.00	4534.12	10.42	9.74	18886.38	0.53	
1938.59		243.05		7.98	239.59	23.00	0.003421
	1.70244	126982.31					
	74.00	4534.15	10.45	9.77	19052.68	0.53	
1949.45		243.52		8.01	240.05	22.98	0.003423
	1.70968	127226.10					
	75.00	4534.15	10.45	9.78	19071.28	0.53	
1950.68		243.58		8.01	240.10	22.98	0.003417
	1.70736	127254.59					
	76.00	4534.19	10.49	9.82	19272.26	0.53	
1963.53		244.14		8.04	240.65	22.95	0.003416
	1.71438	127543.45					
	77.00	4534.28	10.58	9.92	19808.43	0.54	
1997.69		245.61		8.13	242.09	22.88	0.003403
	1.72733	128305.40					
	78.00	4534.37	10.67	10.02	20344.37	0.54	
2031.09		247.03		8.22	243.47	22.81	0.003405
	1.74711	129041.06					
	79.00	4534.44	10.74	10.09	20744.71	0.54	
2056.12		248.08		8.29	244.50	22.76	0.003408
	1.76237	129587.16					
	80.00	4534.53	10.83	10.18	21267.30	0.55	
2088.87		249.45		8.37	245.84	22.70	0.003404
	1.77887	130294.95					
	81.00	4534.57	10.87	10.22	21480.41	0.55	
2102.27		250.00		8.41	246.38	22.67	0.003404
	1.78607	130580.82					
	82.00	4534.52	10.82	10.17	21203.99	0.54	
2085.25		249.29		8.36	245.69	22.70	0.003405
	1.77720	130213.38					
	83.00	4534.48	10.78	10.13	20964.16	0.54	
2070.01		248.66		8.32	245.07	22.73	0.003405
	1.76874	129886.70					
	84.00	4534.48	10.77	10.12	20936.08	0.54	
2068.15		248.59		8.32	244.99	22.74	0.003402
	1.76616	129846.61					
	85.00	4534.48	10.78	10.12	20936.99	0.54	
2068.34		248.59		8.32	245.00	22.74	0.003403
	1.76666	129850.50					
	86.00	4534.45	10.75	10.09	20790.43	0.54	
2059.81		248.23		8.30	244.65	22.75	0.003398
	1.75961	129662.74					
	87.00	4534.33	10.63	9.96	20084.42	0.54	
2016.04		246.37		8.18	242.83	22.84	0.003391
	1.73175	128698.64					
	88.00	4534.11	10.41	9.73	18841.09	0.53	
1936.14		242.92		7.97	239.46	23.01	0.003400
	1.69079	126912.93					
	89.00	4533.79	10.09	9.39	17135.40	0.52	
1824.43		237.93		7.67	234.59	23.26	0.003403
	1.62834	124330.27					
	90.00	4533.54	9.84	9.12	15882.66	0.51	
1741.60		234.13		7.44	230.88	23.45	0.003414
	1.58453	122363.96					
	91.00	4533.36	9.66	8.92	14995.41	0.51	
1680.49		231.24		7.27	228.05	23.60	0.003421
	1.55123	120866.41					
	92.00	4533.14	9.44	8.70	14000.87	0.50	
1609.03		227.75		7.06	224.64	23.79	0.003429
	1.51179	119059.89					
	93.00	4532.94	9.24	8.50	13125.69	0.49	

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1543.88		224.50		6.88	221.46	23.97	0.003436
	1.47453	117375.99					
94.00		4532.75	9.05	8.31	12333.73	0.49	
1483.93		221.42		6.70	218.45	24.14	0.003415
	1.42801	115778.73					
95.00		4532.60	8.90	8.16	11737.22	0.48	
1437.61		218.99		6.56	216.07	24.28	0.003484
	1.42712	114518.69					
96.00		4532.45	8.75	8.03	11188.37	0.48	
1393.40		216.62		6.43	213.75	24.42	0.003490
	1.40092	113288.96					
97.00		4532.34	8.64	7.93	10778.87	0.48	
1359.96		214.79		6.33	211.97	24.52	0.003437
	1.35789	112341.95					
98.00		4532.23	8.53	7.82	10383.16	0.47	
1327.45		212.99		6.23	210.20	24.63	0.003464
	1.34726	111406.99					
99.00		4532.16	8.46	7.75	10103.42	0.47	
1304.17		211.68		6.16	208.92	24.71	0.003461
	1.33051	110728.84					
100.00		4532.06	8.36	7.65	9762.25	0.47	
1275.68		210.05		6.07	207.33	24.81	0.003467
	1.31372	109885.13					
101.00		4531.96	8.26	7.56	9437.00	0.46	
1248.15		208.46		5.99	205.77	24.91	0.003471
	1.29680	109059.95					
102.00		4531.88	8.18	7.48	9158.37	0.46	
1224.22		207.05		5.91	204.40	24.99	0.003472
	1.28079	108332.41					
103.00		4531.81	8.11	7.41	8927.81	0.46	
1204.19		205.87		5.85	203.24	25.07	0.003474
	1.26814	107717.29					
104.00		4531.74	8.04	7.35	8722.88	0.46	
1186.33		204.80		5.79	202.19	25.14	0.003474
	1.25560	107161.38					
105.00		4531.64	7.94	7.25	8397.96	0.45	
1158.63		203.11		5.70	200.54	25.24	0.003475
	1.23699	106287.66					
106.00		4531.57	7.87	7.17	8147.66	0.45	
1136.63		201.76		5.63	199.22	25.33	0.003478
	1.22272	105587.82					
107.00		4531.51	7.81	7.11	7972.22	0.45	
1120.82		200.78		5.58	198.26	25.39	0.003476
	1.21091	105077.56					
108.00		4531.45	7.75	7.06	7802.98	0.45	
1105.40		199.81		5.53	197.31	25.46	0.003480
	1.20130	104575.88					
109.00		4531.43	7.73	7.04	7747.34	0.45	
1100.20		199.49		5.52	197.00	25.48	0.003481
	1.19781	104407.45					
110.00		4531.47	7.77	7.08	7867.10	0.45	
1111.05		200.17		5.55	197.67	25.43	0.003482
	1.20597	104763.02					
111.00		4531.56	7.86	7.17	8146.44	0.45	
1136.27		201.74		5.63	199.21	25.33	0.003475
	1.22142	105578.71					
112.00		4531.56	7.86	7.17	8146.50	0.45	
1136.45		201.75		5.63	199.21	25.33	0.003478
	1.22261	105582.10					
113.00		4531.51	7.81	7.12	7985.48	0.45	
1121.93		200.85		5.59	198.33	25.39	0.003483
	1.21395	105114.73					
114.00		4531.57	7.87	7.17	8161.84	0.45	

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				HYCHAN.OUT			
1137.59		201.83		5.64	199.29	25.33	0.003484
	1.22547	105621.39					
115.00		4531.69	7.99	7.29	8533.64	0.46	
1169.85		203.81		5.74	201.22	25.20	0.003475
	1.24478	106647.42					
116.00		4531.69	7.99	7.29	8535.46	0.46	
1170.07		203.81		5.74	201.23	25.20	0.003477
	1.24551	106652.43					
117.00		4531.67	7.97	7.27	8469.98	0.45	
1164.97		203.51		5.72	200.93	25.22	0.003476
	1.24148	106492.87					
118.00		4531.67	7.97	7.27	8475.89	0.45	
1165.35		203.53		5.73	200.95	25.22	0.003480
	1.24319	106504.88					
119.00		4531.71	8.01	7.32	8605.01	0.46	
1175.75		204.16		5.76	201.57	25.18	0.003476
	1.24897	106833.17					
120.00		4531.73	8.03	7.34	8669.87	0.46	
1181.53		204.51		5.78	201.91	25.15	0.003474
	1.25245	107013.81					
121.00		4531.73	8.03	7.34	8663.95	0.46	
1180.99		204.48		5.78	201.88	25.16	0.003476
	1.25287	106996.65					
122.00		4531.69	7.99	7.29	8535.30	0.46	
1170.09		203.82		5.74	201.23	25.20	0.003476
	1.24515	106652.90					
123.00		4531.67	7.97	7.27	8464.50	0.45	
1164.52		203.48		5.72	200.90	25.22	0.003475
	1.24091	106478.30					
124.00		4531.63	7.93	7.23	8336.52	0.45	
1153.41		202.80		5.69	200.23	25.26	0.003478
	1.23434	106124.52					
125.00		4531.60	7.90	7.21	8269.64	0.45	
1147.41		202.43		5.67	199.88	25.29	0.003477
	1.22974	105935.15					
126.00		4531.60	7.90	7.21	8265.38	0.45	
1147.01		202.41		5.67	199.85	25.29	0.003478
	1.22972	105921.73					
127.00		4531.57	7.87	7.17	8151.30	0.45	
1136.90		201.78		5.63	199.24	25.33	0.003478
	1.22291	105596.89					
128.00		4531.55	7.85	7.15	8091.06	0.45	
1131.37		201.44		5.62	198.91	25.35	0.003481
	1.21992	105420.41					
129.00		4531.54	7.84	7.15	8086.43	0.45	
1130.95		201.41		5.62	198.88	25.35	0.003477
	1.21812	105406.55					
130.00		4531.51	7.81	7.11	7976.09	0.45	
1121.09		200.80		5.58	198.28	25.39	0.003480
	1.21251	105086.82					
131.00		4531.49	7.79	7.10	7926.53	0.45	
1116.54		200.51		5.57	198.00	25.41	0.003481
	1.20955	104941.08					
132.00		4531.57	7.87	7.17	8151.42	0.45	
1136.73		201.77		5.63	199.23	25.33	0.003479
	1.22293	105593.74					
133.00		4531.60	7.90	7.21	8269.96	0.45	
1147.38		202.43		5.67	199.88	25.29	0.003476
	1.22950	105934.01					
134.00		4531.60	7.90	7.21	8269.87	0.45	
1147.43		202.43		5.67	199.88	25.29	0.003480
	1.23086	105935.48					
135.00		4531.60	7.90	7.21	8270.21	0.45	

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				HYCHAN.OUT			
1147.47		202.43		5.67	199.88	25.29	0.003477
	1.22980	105936.78					
136.00		4531.60	7.90	7.21	8269.88	0.45	
1147.39		202.43		5.67	199.88	25.29	0.003479
	1.23034	105934.39					
137.00		4531.60	7.90	7.21	8270.03	0.45	
1147.37		202.43		5.67	199.87	25.29	0.003475
	1.22902	105933.70					
138.00		4531.60	7.90	7.21	8269.66	0.45	
1147.41		202.43		5.67	199.88	25.29	0.003477
	1.22993	105935.16					
139.00		4531.60	7.90	7.21	8265.29	0.45	
1146.99		202.40		5.67	199.85	25.29	0.003479
	1.23003	105921.20					
140.00		4531.57	7.87	7.17	8151.47	0.45	
1136.86		201.78		5.63	199.24	25.33	0.003477
	1.22239	105595.55					
141.00		4531.55	7.85	7.15	8091.03	0.45	
1131.38		201.44		5.62	198.91	25.35	0.003477
	1.21871	105420.89					
142.00		4531.55	7.85	7.15	8091.24	0.45	
1131.40		201.44		5.62	198.91	25.35	0.003478
	1.21896	105421.41					
143.00		4531.55	7.85	7.15	8090.39	0.45	
1131.36		201.44		5.62	198.91	25.35	0.003479
	1.21939	105420.07					
144.00		4531.54	7.84	7.15	8086.84	0.45	
1131.06		201.42		5.62	198.89	25.35	0.003475
	1.21749	105410.20					
145.00		4531.51	7.81	7.11	7976.34	0.45	
1121.16		200.80		5.58	198.28	25.39	0.003479
	1.21224	105089.08					
146.00		4531.49	7.79	7.10	7916.95	0.45	
1115.65		200.46		5.57	197.95	25.42	0.003479
	1.20824	104911.54					
147.00		4531.49	7.79	7.10	7916.98	0.45	
1115.66		200.46		5.57	197.95	25.42	0.003478
	1.20803	104912.08					
148.00		4531.49	7.79	7.10	7917.17	0.45	
1115.65		200.46		5.57	197.95	25.42	0.003477
	1.20751	104911.63					
149.00		4531.49	7.79	7.10	7917.17	0.45	
1115.63		200.46		5.57	197.95	25.42	0.003479
	1.20803	104910.96					
150.00		4531.49	7.79	7.10	7914.13	0.45	
1115.39		200.44		5.56	197.93	25.42	0.003478
	1.20760	104903.03					
151.00		4531.46	7.76	7.07	7839.29	0.45	
1108.67		200.02		5.54	197.52	25.44	0.003480
	1.20348	104683.12					
152.00		4531.44	7.74	7.05	7762.70	0.45	
1101.66		199.58		5.52	197.08	25.47	0.003478
	1.19806	104454.50					
153.00		4531.43	7.73	7.04	7742.98	0.45	
1099.81		199.46		5.51	196.97	25.48	0.003482
	1.19795	104394.33					
154.00		4531.43	7.73	7.04	7738.47	0.45	
1099.41		199.43		5.51	196.94	25.48	0.003480
	1.19706	104380.78					
155.00		4531.40	7.69	7.01	7637.80	0.45	
1090.26		198.85		5.48	196.38	25.52	0.003480
	1.19075	104079.04					
156.00		4531.45	7.75	7.06	7798.32	0.45	

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				HYCHAN.OUT			
1104.81		199.78		5.53	197.28	25.46	0.003478
	1.20010	104558.95					
157.00		4531.49	7.79	7.10	7916.87	0.45	
1115.65		200.46		5.57	197.95	25.42	0.003477
	1.20765	104911.59					
158.00		4531.49	7.79	7.10	7917.08	0.45	
1115.70		200.46		5.57	197.95	25.41	0.003480
	1.20865	104913.36					
159.00		4531.49	7.79	7.10	7916.70	0.45	
1115.63		200.46		5.57	197.95	25.42	0.003480
	1.20850	104911.08					
160.00		4531.49	7.79	7.10	7917.22	0.45	
1115.69		200.46		5.57	197.95	25.41	0.003479
	1.20824	104912.98					
161.00		4531.49	7.79	7.10	7917.02	0.45	
1115.75		200.46		5.57	197.95	25.41	0.003480
	1.20852	104914.84					
162.00		4531.49	7.79	7.10	7916.98	0.45	
1115.63		200.46		5.57	197.95	25.42	0.003479
	1.20825	104910.94					
163.00		4531.49	7.79	7.10	7917.09	0.45	
1115.67		200.46		5.57	197.95	25.42	0.003478
	1.20788	104912.27					
164.00		4531.49	7.79	7.09	7912.17	0.45	
1115.28		200.43		5.56	197.92	25.42	0.003477
	1.20742	104899.31					
165.00		4531.45	7.75	7.06	7803.01	0.45	
1105.38		199.81		5.53	197.31	25.46	0.003480
	1.20124	104575.23					
166.00		4531.43	7.73	7.04	7742.95	0.45	
1099.82		199.46		5.51	196.97	25.48	0.003477
	1.19638	104394.38					
167.00		4531.43	7.73	7.04	7742.93	0.45	
1099.76		199.46		5.51	196.97	25.48	0.003479
	1.19688	104392.61					
168.00		4531.43	7.73	7.04	7742.86	0.45	
1099.78		199.46		5.51	196.97	25.48	0.003480
	1.19746	104393.19					
169.00		4531.43	7.73	7.04	7742.86	0.45	
1099.82		199.46		5.51	196.97	25.48	0.003479
	1.19716	104394.59					
170.00		4531.43	7.73	7.04	7743.17	0.45	
1099.80		199.46		5.51	196.97	25.48	0.003480
	1.19750	104394.02					
171.00		4531.43	7.73	7.04	7742.83	0.45	
1099.83		199.46		5.51	196.97	25.48	0.003480
	1.19746	104394.82					
172.00		4531.43	7.73	7.04	7738.62	0.45	
1099.45		199.44		5.51	196.95	25.48	0.003479
	1.19679	104382.16					
173.00		4531.39	7.69	7.00	7629.15	0.45	
1089.47		198.80		5.48	196.33	25.52	0.003478
	1.18941	104052.28					
174.00		4531.37	7.67	6.98	7568.90	0.44	
1083.90		198.45		5.46	195.98	25.55	0.003478
	1.18536	103869.63					
175.00		4531.37	7.67	6.98	7569.07	0.44	
1083.86		198.45		5.46	195.98	25.55	0.003481
	1.18628	103868.04					
176.00		4531.37	7.67	6.98	7568.93	0.44	
1083.87		198.45		5.46	195.98	25.55	0.003480
	1.18604	103868.64					
177.00		4531.37	7.67	6.98	7569.32	0.44	

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				HYCHAN.OUT			
1083.90		198.45		5.46	195.98	25.55	0.003478
	1.18535	103869.42					
178.00		4531.37	7.67		6.98	7568.40	0.44
1083.82		198.44		5.46	195.98	25.55	0.003479
	1.18566	103866.95					
179.00		4531.37	7.67		6.99	7577.91	0.44
1084.63		198.50		5.46	196.03	25.54	0.003482
	1.18735	103894.16					
180.00		4531.45	7.75		7.06	7798.32	0.45
1104.71		199.77		5.53	197.27	25.46	0.003479
	1.20063	104555.60					
181.00		4531.49	7.79		7.10	7921.12	0.45
1116.01		200.48		5.57	197.97	25.41	0.003480
	1.20897	104923.83					
182.00		4531.53	7.83		7.13	8032.17	0.45
1125.99		201.11		5.60	198.58	25.37	0.003477
	1.21477	105247.48					
183.00		4531.55	7.85		7.15	8090.87	0.45
1131.38		201.44		5.62	198.91	25.35	0.003478
	1.21893	105420.94					
184.00		4531.55	7.85		7.15	8090.74	0.45
1131.38		201.44		5.62	198.91	25.35	0.003477
	1.21848	105420.84					
185.00		4531.55	7.85		7.15	8091.42	0.45
1131.43		201.44		5.62	198.91	25.35	0.003477
	1.21875	105422.59					
186.00		4531.55	7.85		7.15	8090.77	0.45
1131.33		201.44		5.62	198.90	25.35	0.003478
	1.21887	105419.17					
187.00		4531.55	7.85		7.15	8091.29	0.45
1131.41		201.44		5.62	198.91	25.35	0.003478
	1.21897	105421.78					
188.00		4531.55	7.85		7.15	8090.47	0.45
1131.40		201.44		5.62	198.91	25.35	0.003481
	1.21984	105421.53					
189.00		4531.55	7.85		7.15	8091.20	0.45
1131.45		201.44		5.62	198.91	25.35	0.003477
	1.21878	105423.01					
190.00		4531.54	7.84		7.15	8086.81	0.45
1131.01		201.42		5.62	198.88	25.35	0.003475
	1.21755	105408.84					
191.00		4531.51	7.81		7.11	7976.12	0.45
1121.12		200.80		5.58	198.28	25.39	0.003477
	1.21141	105087.95					
192.00		4531.49	7.79		7.10	7916.57	0.45
1115.63		200.46		5.57	197.95	25.42	0.003479
	1.20837	104910.95					
193.00		4531.49	7.79		7.10	7917.23	0.45
1115.78		200.47		5.57	197.95	25.41	0.003479
	1.20839	104915.77					
194.00		4531.49	7.79		7.10	7917.32	0.45
1115.70		200.46		5.57	197.95	25.41	0.003481
	1.20897	104913.27					
195.00		4531.49	7.79		7.10	7916.84	0.45
1115.63		200.46		5.57	197.95	25.42	0.003476
	1.20727	104911.05					
196.00		4531.49	7.79		7.10	7916.84	0.45
1115.68		200.46		5.57	197.95	25.41	0.003481
	1.20908	104912.79					
197.00		4531.49	7.79		7.10	7917.32	0.45
1115.74		200.46		5.57	197.95	25.41	0.003477
	1.20776	104914.66					
198.00		4531.49	7.79		7.10	7917.18	0.45

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1115.65		200.46							
	1.20656	104911.68							
199.00		4531.49	7.79		7.10	7916.60	0.45		
1115.62		200.46		5.57		197.94	25.42		0.003476
	1.20700	104910.69							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 789

MAXIMUM DISCHARGE (CFS) = 21573.63 AT TIME = 80.20  
 MAXIMUM STAGE = 4531.31 AT TIME = 80.28

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4520.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4520.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
756.60	2.00	4521.26	0.96	0.81	616.01	0.15		
	3.11386	35023.52	15.12	50.03	52.11		0.003300	
913.62	3.00	4527.31	7.01	6.04	5522.03	0.40		
	1.00382	186.96	4.89	184.73	26.35		0.003292	
904.57	4.00	4527.27	6.97	6.01	5439.50	0.40		
	0.99766	186.31	4.86	184.09	26.40		0.003293	
897.80	5.00	4527.25	6.95	5.99	5375.97	0.40		
	0.99291	185.82	4.83	183.62	26.43		0.003293	
888.10	6.00	4527.21	6.91	5.95	5287.13	0.40		
	0.98484	185.12	4.80	182.93	26.48		0.003290	
872.01	7.00	4527.14	6.84	5.89	5136.38	0.40		
	0.97255	183.94	4.74	181.77	26.57		0.003288	
855.82	8.00	4527.07	6.77	5.83	4987.29	0.39		
	0.95997	182.74	4.68	180.60	26.66		0.003285	
839.66	9.00	4527.01	6.71	5.76	4838.74	0.39		
	0.94816	181.53	4.63	179.41	26.75		0.003285	
831.97	10.00	4526.97	6.67	5.73	4770.95	0.39		
	0.94245	180.95	4.60	178.85	26.80		0.003285	
822.80	11.00	4526.93	6.63	5.70	4687.76	0.39		
	0.93511	180.25	4.56	178.16	26.85		0.003283	
806.08	12.00	4526.86	6.56	5.63	4539.28	0.39		
	0.92234	178.96	4.50	176.90	26.95		0.003282	
797.94	13.00	4526.83	6.53	5.60	4468.83	0.39		
	0.91636	178.33	4.47	176.29	27.00		0.003282	
797.91	14.00	4526.83	6.53	5.60	4469.07	0.39		
		178.33	4.47	176.28	27.00		0.003282	

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			HYCHAN.OUT				
	0.91627	123397.75					
797.88	15.00	4526.83	6.53	5.60	4468.89	0.39	
		178.33	4.47		176.28	27.00	0.003284
	0.91687	123396.30					
797.88	16.00	4526.83	6.53	5.60	4468.93	0.39	
		178.33	4.47		176.28	27.00	0.003285
	0.91711	123396.30					
797.95	17.00	4526.83	6.53	5.60	4469.76	0.39	
		178.33	4.47		176.29	27.00	0.003283
	0.91658	123400.41					
807.79	18.00	4526.87	6.57	5.64	4552.46	0.39	
		179.10	4.51		177.04	26.94	0.003282
	0.92363	123925.71					
825.03	19.00	4526.94	6.64	5.70	4705.38	0.39	
		180.43	4.57		178.33	26.84	0.003284
	0.93708	124834.09					
841.98	20.00	4527.02	6.72	5.77	4857.50	0.39	
		181.71	4.63		179.59	26.74	0.003285
	0.94994	125715.00					
849.01	21.00	4527.05	6.75	5.80	4924.08	0.39	
		182.24	4.66		180.11	26.70	0.003286
	0.95525	126075.42					
849.12	22.00	4527.05	6.75	5.80	4925.19	0.39	
		182.24	4.66		180.12	26.70	0.003288
	0.95599	126081.30					
859.10	23.00	4527.09	6.79	5.84	5013.68	0.39	
		182.99	4.69		180.85	26.64	0.003287
	0.96293	126593.45					
885.91	24.00	4527.20	6.90	5.94	5258.44	0.40	
		184.96	4.79		182.78	26.50	0.003290
	0.98344	127944.95					
918.70	25.00	4527.33	7.03	6.06	5567.46	0.40	
		187.32	4.90		185.09	26.32	0.003293
	1.00789	129562.78					
950.10	26.00	4527.46	7.16	6.18	5870.06	0.41	
		189.53	5.01		187.25	26.16	0.003295
	1.03073	131077.39					
961.35	27.00	4527.50	7.20	6.23	5985.06	0.41	
		190.31	5.05		188.02	26.11	0.003299
	1.03976	131611.00					
961.60	28.00	4527.50	7.20	6.23	5987.98	0.41	
		190.33	5.05		188.03	26.11	0.003296
	1.03918	131623.16					
972.27	29.00	4527.54	7.24	6.26	6089.90	0.41	
		191.07	5.09		188.75	26.05	0.003298
	1.04736	132127.30					
978.26	30.00	4527.57	7.27	6.29	6151.97	0.41	
		191.47	5.11		189.15	26.03	0.003299
	1.05166	132406.81					
978.65	31.00	4527.57	7.27	6.29	6155.33	0.41	
		191.50	5.11		189.18	26.02	0.003299
	1.05200	132425.38					
989.78	32.00	4527.61	7.31	6.33	6262.58	0.41	
		192.26	5.15		189.92	25.97	0.003300
	1.06004	132945.09					
995.84	33.00	4527.64	7.34	6.35	6326.18	0.41	
		192.67	5.17		190.32	25.94	0.003299
	1.06404	133224.83					
995.38	34.00	4527.63	7.33	6.35	6322.41	0.41	
		192.64	5.17		190.29	25.94	0.003301
	1.06446	133203.25					
984.36	35.00	4527.59	7.29	6.31	6215.93	0.41	
		191.88	5.13		189.56	26.00	0.003300

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	1.05637	132688.80					
977.78	36.00	4527.57	7.27	5.11	6.29	6148.76	0.41
	1.05167	191.44			189.12	26.03	0.003300
	37.00	132383.78					
967.24	4527.52	190.71	7.22	5.07	6.25	6046.89	0.41
	1.04408	131886.66			188.41	26.08	0.003299
	38.00	4527.50	7.20		6.23	5985.23	0.41
961.25	190.30		5.05		188.01	26.11	0.003298
	1.03963	131606.28					
961.24	39.00	4527.50	7.20		6.23	5984.97	0.41
	1.03904	190.30		5.05	188.01	26.11	0.003297
	40.00	131605.47					
961.23	4527.50	190.30	7.20	5.05	6.23	5984.87	0.41
	1.04016	131605.53			188.01	26.11	0.003300
961.24	41.00	4527.50	7.20		6.23	5985.30	0.41
	1.03853	190.30		5.05	188.01	26.11	0.003295
	42.00	131605.88					
961.52	4527.50	190.32	7.20		6.23	5987.81	0.41
	1.03946	131619.50		5.05	188.03	26.11	0.003297
	43.00	4527.54	7.24		6.26	6090.25	0.41
972.32	191.07		5.09		188.76	26.05	0.003298
	1.04719	132129.61					
978.63	44.00	4527.57	7.27		6.29	6155.26	0.41
	1.05186	191.50		5.11	189.18	26.02	0.003299
	45.00	132424.34					
990.18	4527.61	192.29	7.31		6.33	6266.11	0.41
	1.06025	132963.95		5.15	189.95	25.97	0.003300
	46.00	4527.68	7.38		6.39	6441.52	0.41
1007.69	193.47		5.21		191.10	25.89	0.003301
	1.07301	133772.22					
1025.25	47.00	4527.75	7.45		6.45	6615.34	0.42
	1.08679	194.64		5.27	192.25	25.81	0.003306
	48.00	134573.86					
1042.27	4527.81	195.76	7.51		6.51	6788.66	0.42
	1.09799	135342.25		5.32	193.35	25.73	0.003305
	49.00	4527.88	7.58		6.57	6956.82	0.42
1058.59	196.82		5.38		194.39	25.66	0.003308
	1.11024	136070.97					
1075.97	50.00	4527.94	7.64		6.63	7138.73	0.42
	1.12335	197.94		5.44	195.49	25.58	0.003312
	51.00	136839.83					
1102.12	4528.04	199.61	7.74		6.73	7414.44	0.43
	1.14167	137980.00		5.52	197.11	25.47	0.003314
	52.00	4528.08	7.78		6.77	7546.84	0.43
1114.57	200.39		5.56		197.88	25.42	0.003313
	1.14971	138516.47					
	53.00	4528.12	7.83		6.81	7666.52	0.43
1125.60	201.08		5.60		198.56	25.37	0.003318
	1.15897	138990.47					
	54.00	4528.27	7.97		6.95	8095.88	0.43
1164.97	203.51		5.72		200.93	25.22	0.003324
	1.18741	140650.16					
	55.00	4528.50	8.20		7.18	8833.53	0.44
1230.95	207.45		5.93		204.79	24.97	0.003327
	1.23199	143351.59					
	56.00	4528.82	8.52		7.47	9870.98	0.45
1321.98	212.67		6.22		209.90	24.65	0.003311

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1.28423	146928.39								
57.00	4529.21	8.91	7.85	11315.90	0.46				
1442.34	219.23	6.58		216.31	24.26	0.003292			
1.35146	151418.83								
58.00	4529.52	9.22	8.12	12465.48	0.47				
1535.94	224.11	6.85		221.08	23.99	0.003306			
1.41390	154756.17								
59.00	4529.76	9.46	8.34	13452.69	0.48				
1613.30	227.99	7.08		224.87	23.78	0.003303			
1.45847	157407.55								
60.00	4530.04	9.74	8.61	14701.99	0.49				
1707.48	232.54	7.34		229.32	23.54	0.003295			
1.50992	160525.95								
61.00	4530.26	9.96	8.82	15714.47	0.49				
1781.70	236.03	7.55		232.73	23.36	0.003293			
1.55090	162910.33								
62.00	4530.44	10.14	8.99	16563.27	0.50				
1841.75	238.78	7.71		235.41	23.22	0.003295			
1.58604	164787.92								
63.00	4530.55	10.25	9.15	17200.74	0.50				
1880.78	240.53	7.82		237.13	23.13	0.003309			
1.61455	165988.00								
64.00	4530.66	10.36	9.30	17837.96	0.51				
1917.44	242.15	7.92		238.71	23.05	0.003336			
1.64841	167098.56								
65.00	4530.76	10.46	9.46	18485.45	0.52				
1953.96	243.76	8.02		240.28	22.97	0.003321			
1.66102	168193.70								
66.00	4530.80	10.50	9.49	18653.17	0.52				
1966.56	244.30	8.05		240.81	22.94	0.003329			
1.67210	168567.48								
67.00	4530.80	10.50	9.49	18669.36	0.52				
1967.80	244.36	8.05		240.86	22.94	0.003334			
1.67537	168603.36								
68.00	4530.80	10.50	9.49	18672.91	0.52				
1967.51	244.34	8.05		240.85	22.94	0.003334			
1.67506	168595.16								
69.00	4530.80	10.50	9.49	18683.70	0.52				
1968.32	244.38	8.05		240.88	22.94	0.003320			
1.66883	168618.95								
70.00	4530.80	10.50	9.50	18693.71	0.52				
1968.68	244.39	8.06		240.90	22.94	0.003323			
1.67031	168629.73								
71.00	4530.80	10.50	9.50	18692.15	0.52				
1968.29	244.38	8.05		240.88	22.94	0.003325			
1.67106	168618.11								
72.00	4530.80	10.50	9.49	18695.44	0.52				
1969.50	244.43	8.06		240.93	22.94	0.003324			
1.67149	168654.02								
73.00	4530.83	10.53	9.54	18882.96	0.52				
1980.34	244.90	8.09		241.39	22.91	0.003340			
1.68557	168975.09								
74.00	4530.87	10.57	9.57	19052.32	0.52				
1991.72	245.39	8.12		241.87	22.89	0.003330			
1.68680	169309.80								
75.00	4530.87	10.57	9.57	19070.34	0.52				
1993.13	245.45	8.12		241.93	22.89	0.003344			
1.69445	169351.34								
76.00	4530.91	10.61	9.60	19268.04	0.52				
2006.17	246.01	8.15		242.48	22.86	0.003331			
1.69511	169734.27								
77.00	4531.00	10.70	9.70	19800.06	0.52				
2041.32	247.51	8.25		243.94	22.79	0.003325			

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1.71102	170756.89						
78.00	4531.10	10.80	8.34	9.80	20339.41	0.53	
2076.15	248.97				245.37	22.72	0.003330
1.73277	171758.81						
79.00	4531.17	10.87	8.41	9.87	20739.47	0.53	
2102.03	250.05				246.42	22.67	0.003324
1.74386	172496.30						
80.00	4531.26	10.96	8.49	9.96	21261.27	0.53	
2135.55	251.43				247.77	22.60	0.003325
1.76242	173442.19						
81.00	4531.30	11.00	8.53	9.99	21481.65	0.53	
2149.84	252.02				248.34	22.58	0.003323
1.76905	173841.45						
82.00	4531.25	10.95	8.49	9.95	21209.28	0.53	
2132.42	251.30				247.64	22.61	0.003324
1.75996	173351.09						
83.00	4531.21	10.91	8.44	9.91	20965.12	0.53	
2116.55	250.65				247.01	22.64	0.003326
1.75264	172905.75						
84.00	4531.20	10.90	8.44	9.90	20936.14	0.53	
2114.68	250.57				246.93	22.64	0.003325
1.75096	172853.19						
85.00	4531.21	10.91	8.44	9.90	20938.29	0.53	
2114.91	250.58				246.94	22.64	0.003324
1.75073	172859.56						
86.00	4531.18	10.88	8.42	9.87	20801.96	0.53	
2107.27	250.26				246.63	22.66	0.003322
1.74550	172639.66						
87.00	4531.06	10.76	8.30	9.75	20105.75	0.52	
2062.91	248.40				244.81	22.75	0.003326
1.72344	171365.84						
88.00	4530.83	10.53	8.09	9.52	18863.29	0.52	
1980.84	244.90				241.39	22.91	0.003321
1.67602	168974.41						
89.00	4530.53	10.23	7.80	9.16	17154.00	0.50	
1873.71	240.18				236.79	23.15	0.003284
1.59855	165750.47						
90.00	4530.30	10.00	7.59	8.85	15896.86	0.49	
1795.83	236.66				233.35	23.32	0.003288
1.55681	163343.36						
91.00	4530.11	9.81	7.41	8.67	15007.49	0.49	
1731.31	233.66				230.42	23.48	0.003293
1.52256	161291.75						
92.00	4529.89	9.59	7.20	8.46	14016.56	0.48	
1657.68	230.14				226.97	23.66	0.003296
1.48153	158879.66						
93.00	4529.68	9.38	7.01	8.26	13137.25	0.48	
1590.22	226.83				223.74	23.84	0.003298
1.44261	156619.23						
94.00	4529.49	9.19	6.83	8.08	12345.46	0.47	
1527.13	223.65				220.63	24.02	0.003275
1.39558	154440.81						
95.00	4529.33	9.03	6.68	7.95	11746.74	0.47	
1478.23	221.13				218.16	24.16	0.003318
1.38402	152715.44						
96.00	4529.18	8.88	6.55	7.81	11194.96	0.46	
1432.97	218.74				215.83	24.29	0.003339
1.36483	151083.12						
97.00	4529.07	8.77	6.45	7.71	10784.26	0.46	
1398.45	216.89				214.02	24.40	0.003298
1.32671	149816.17						
98.00	4528.96	8.66	6.35	7.60	10389.89	0.46	
1366.25	215.14				212.31	24.50	0.003312

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1343.10	1.31241	148614.23	8.59	6.28	7.53	10107.85	0.45	0.003308
	99.00	4528.89				211.06	24.58	
	1.29648	147740.78						
1313.89	100.00	4528.79	8.49	6.19	7.43	9768.36	0.45	0.003313
		212.22				209.46	24.68	
	1.28005	146620.03						
1285.43	101.00	4528.69	8.39	6.10	7.35	9442.06	0.45	0.003314
		210.61				207.88	24.77	
	1.26219	145514.77						
1260.77	102.00	4528.61	8.31	6.03	7.27	9162.91	0.44	0.003316
		209.19				206.49	24.86	
	1.24716	144543.67						
1240.15	103.00	4528.53	8.23	5.96	7.20	8931.37	0.44	0.003319
		207.99				205.32	24.93	
	1.23484	143722.86						
1221.67	104.00	4528.47	8.17	5.90	7.14	8727.01	0.44	0.003318
		206.90				204.25	25.00	
	1.22260	142977.91						
1192.91	105.00	4528.37	8.07	5.81	7.04	8404.03	0.44	0.003317
		205.19				202.57	25.11	
	1.20330	141802.31						
1170.21	106.00	4528.29	7.99	5.74	6.97	8150.92	0.43	0.003315
		203.82				201.24	25.20	
	1.18754	140866.62						
1154.30	107.00	4528.23	7.93	5.69	6.91	7975.25	0.43	0.003314
		202.85				200.29	25.26	
	1.17682	140201.44						
1138.70	108.00	4528.17	7.87	5.64	6.85	7805.55	0.43	0.003313
		201.89				199.35	25.32	
	1.16605	139543.64						
1133.10	109.00	4528.15	7.85	5.62	6.84	7746.97	0.43	0.003315
		201.55				199.01	25.34	
	1.16308	139308.31						
1143.78	110.00	4528.19	7.89	5.66	6.87	7863.34	0.43	0.003320
		202.21				199.66	25.30	
	1.17168	139762.22						
1169.25	111.00	4528.28	7.98	5.74	6.96	8141.88	0.43	0.003319
		203.77				201.19	25.20	
	1.18833	140830.16						
1170.13	112.00	4528.29	7.99	5.74	6.96	8149.62	0.43	0.003315
		203.82				201.23	25.20	
	1.18756	140863.45						
1155.31	113.00	4528.23	7.93	5.69	6.91	7986.87	0.43	0.003320
		202.91				200.35	25.26	
	1.17936	140245.34						
1170.40	114.00	4528.29	7.99	5.74	6.97	8155.56	0.43	0.003321
		203.84				201.25	25.20	
	1.19003	140878.45						
1203.85	115.00	4528.41	8.11	5.85	7.08	8528.63	0.44	0.003320
		205.85				203.22	25.07	
	1.21164	142257.44						
1204.81	116.00	4528.41	8.11	5.85	7.09	8538.17	0.44	0.003321
		205.91				203.28	25.07	
	1.21261	142293.72						
1198.72	117.00	4528.39	8.09	5.83	7.07	8470.07	0.44	0.003321
		205.55				202.92	25.09	
	1.20860	142046.69						
1199.15	118.00	4528.39	8.09	5.83	7.07	8475.25	0.44	0.003323
		205.57				202.95	25.09	
	1.20940	142064.64						
1210.33	119.00	4528.43	8.13	5.87	7.11	8602.19	0.44	0.003321
		206.24				203.60	25.04	

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120.00	1.21628	142521.77	8.15	5.89	7.13	8669.74	0.44	0.003320
1216.42	4528.45	206.60				203.95	25.02	
121.00	1.21988	142768.42	8.15	5.89	7.13	8664.69	0.44	0.003318
1215.95	4528.45	206.57				203.93	25.02	
122.00	1.21873	142748.97	8.11	5.85	7.09	8538.11	0.44	0.003322
1204.78	4528.41	205.90				203.27	25.07	
123.00	1.21274	142292.45	8.09	5.83	7.06	8465.17	0.44	0.003319
1198.32	4528.39	205.52				202.90	25.09	
124.00	1.20765	142029.94	8.05	5.80	7.02	8339.22	0.44	0.003319
1187.17	4528.35	204.85				202.24	25.13	
125.00	1.20026	141569.98	8.02	5.78	7.00	8269.70	0.44	0.003321
1180.85	4528.32	204.47				201.87	25.16	
126.00	1.19678	141310.91	8.02	5.77	7.00	8266.09	0.44	0.003318
1180.51	4528.32	204.45				201.85	25.16	
127.00	1.19565	141296.56	7.99	5.74	6.97	8153.65	0.43	0.003318
1170.45	4528.29	203.84				201.25	25.20	
128.00	1.18897	140877.62	7.97	5.72	6.95	8091.23	0.43	0.003318
1164.68	4528.27	203.49				200.91	25.22	
129.00	1.18518	140638.52	7.97	5.72	6.95	8086.98	0.43	0.003317
1164.28	4528.27	203.46				200.89	25.22	
130.00	1.18448	140621.80	7.93	5.69	6.91	7978.59	0.43	0.003318
1154.47	4528.23	202.86				200.30	25.26	
131.00	1.17810	140209.08	7.91	5.67	6.89	7925.38	0.43	0.003318
1149.52	4528.21	202.56				200.01	25.28	
132.00	1.17479	140003.67	7.98	5.74	6.96	8146.40	0.43	0.003320
1169.64	4528.28	203.79				201.21	25.20	
133.00	1.18885	140846.42	8.02	5.78	7.00	8269.90	0.44	0.003321
1180.82	4528.32	204.47				201.87	25.16	
134.00	1.19673	141309.59	8.02	5.78	7.00	8269.81	0.44	0.003320
1180.83	4528.32	204.47				201.87	25.16	
135.00	1.19658	141310.22	8.03	5.78	7.00	8270.19	0.44	0.003319
1180.89	4528.32	204.47				201.88	25.16	
136.00	1.19616	141312.55	8.02	5.78	7.00	8270.00	0.44	0.003319
1180.83	4528.32	204.47				201.87	25.16	
137.00	1.19608	141310.14	8.02	5.78	7.00	8270.01	0.44	0.003320
1180.81	4528.32	204.47				201.87	25.16	
138.00	1.19635	141309.17	8.02	5.78	7.00	8269.67	0.44	0.003321
1180.82	4528.32	204.47				201.87	25.16	
139.00	1.19669	141309.75	8.02	5.77	7.00	8265.83	0.44	0.003320
1180.47	4528.32	204.45				201.85	25.16	
140.00	1.19603	141295.02	7.99	5.74	6.97	8153.92	0.43	0.003318
1170.41	4528.29	203.83				201.25	25.20	

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## HYCHAN.OUT

1164.71	1.18866	140875.52	7.97	5.72	6.95	8091.12	0.43	0.003317
1164.68	1.18477	140639.75	7.97	5.72	6.95	8091.15	0.43	0.003319
1164.60	1.18526	140638.69	7.97	5.72	6.95	8090.50	0.43	0.003317
1164.32	1.18455	140635.14	7.97	5.72	6.95	8087.31	0.43	0.003316
1154.51	1.18397	140623.19	7.93	5.69	6.91	7979.05	0.43	0.003318
1148.75	1.17847	140210.80	7.91	5.67	6.89	7916.86	0.43	0.003318
1148.77	1.17437	139970.80	7.91	5.67	6.89	7916.96	0.43	0.003318
1148.81	1.17454	139971.70	7.91	5.67	6.89	7917.20	0.43	0.003315
1148.76	1.17355	139973.19	7.91	5.67	6.89	7917.08	0.43	0.003316
1148.58	1.17388	139970.94	7.91	5.67	6.89	7914.62	0.43	0.003314
1141.87	1.17278	139962.95	7.88	5.65	6.87	7841.07	0.43	0.003314
1134.70	1.16836	139678.83	7.86	5.63	6.84	7763.57	0.43	0.003314
1132.72	1.16350	139375.47	7.85	5.62	6.84	7743.06	0.43	0.003314
1132.38	1.16235	139292.19	7.85	5.62	6.83	7739.04	0.43	0.003313
1123.21	1.16190	139277.09	7.82	5.59	6.80	7639.23	0.43	0.003312
1137.32	1.15528	138885.20	7.87	5.64	6.85	7793.25	0.43	0.003317
1148.76	1.16640	139488.45	7.91	5.67	6.89	7916.78	0.43	0.003316
1148.81	1.17360	139970.97	7.91	5.67	6.89	7917.08	0.43	0.003315
1148.76	1.17360	139973.22	7.91	5.67	6.89	7916.82	0.43	0.003316
1148.78	1.17374	139970.81	7.91	5.67	6.89	7917.18	0.43	0.003318
1148.80	1.17436	139971.81	7.91	5.67	6.89	7917.02	0.43	0.003317

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		HYCHAN.OUT						
	1.17410	139972.67						
1148.78	162.00	4528.21	7.91	5.67	6.89	7916.91	0.43	
		202.52				199.96	25.28	0.003317
	1.17395	139971.92						
1148.80	163.00	4528.21	7.91	5.67	6.89	7917.04	0.43	
		202.52				199.96	25.28	0.003314
	1.17309	139972.56						
1148.43	164.00	4528.21	7.91	5.67	6.89	7912.75	0.43	
		202.49				199.94	25.28	0.003313
	1.17237	139956.67						
1138.66	165.00	4528.17	7.87	5.64	6.86	7805.56	0.43	
		201.89				199.35	25.32	0.003313
	1.16615	139542.22						
1132.76	166.00	4528.15	7.85	5.62	6.84	7742.94	0.43	
		201.53				198.99	25.35	0.003315
	1.16256	139293.94						
1132.70	167.00	4528.15	7.85	5.62	6.84	7742.92	0.43	
		201.52				198.99	25.35	0.003314
	1.16239	139291.17						
1132.76	168.00	4528.15	7.85	5.62	6.84	7742.97	0.43	
		201.53				198.99	25.35	0.003315
	1.16258	139293.83						
1132.84	169.00	4528.15	7.85	5.62	6.83	7742.91	0.43	
		201.53				199.00	25.35	0.003315
	1.16284	139296.95						
1132.77	170.00	4528.15	7.85	5.62	6.84	7743.03	0.43	
		201.53				198.99	25.35	0.003315
	1.16268	139294.34						
1132.73	171.00	4528.15	7.85	5.62	6.84	7742.90	0.43	
		201.52				198.99	25.35	0.003314
	1.16229	139292.62						
1132.42	172.00	4528.15	7.85	5.62	6.83	7739.15	0.43	
		201.50				198.97	25.35	0.003313
	1.16175	139279.12						
1122.49	173.00	4528.11	7.81	5.59	6.80	7631.59	0.43	
		200.88				198.36	25.39	0.003313
	1.15508	138853.62						
1116.69	174.00	4528.09	7.79	5.57	6.78	7568.99	0.43	
		200.52				198.01	25.41	0.003312
	1.15078	138607.02						
1116.73	175.00	4528.09	7.79	5.57	6.78	7569.23	0.43	
		200.53				198.01	25.41	0.003315
	1.15186	138608.77						
1116.72	176.00	4528.09	7.79	5.57	6.78	7568.74	0.43	
		200.52				198.01	25.41	0.003311
	1.15068	138608.47						
1116.70	177.00	4528.09	7.79	5.57	6.78	7569.35	0.43	
		200.52				198.01	25.41	0.003310
	1.15014	138607.52						
1116.67	178.00	4528.09	7.79	5.57	6.78	7568.50	0.43	
		200.52				198.01	25.41	0.003313
	1.15137	138606.31						
1117.40	179.00	4528.09	7.80	5.57	6.78	7576.79	0.43	
		200.57				198.05	25.41	0.003314
	1.15197	138638.33						
1137.32	180.00	4528.17	7.87	5.64	6.85	7793.15	0.43	
		201.81				199.27	25.33	0.003315
	1.16584	139488.34						
1149.08	181.00	4528.21	7.91	5.67	6.89	7920.53	0.43	
		202.53				199.98	25.28	0.003317
	1.17419	139985.05						
1159.00	182.00	4528.25	7.95	5.71	6.93	8029.64	0.43	
		203.14				200.57	25.24	0.003316



## HYCHAN.OUT

1164.62	1.18056	140402.16	7.97	5.72	6.95	8090.90	0.43	0.003317
	183.00	4528.27				200.91	25.22	
	1.18476	140636.09						
	184.00	4528.27	7.97	5.72	6.95	8090.77	0.43	0.003316
	184.00	203.49				200.91	25.22	
	1.18427	140636.33						
	185.00	4528.27	7.97	5.72	6.95	8091.34	0.43	0.003318
	185.00	203.49				200.91	25.22	
	1.18485	140639.08						
	186.00	4528.27	7.97	5.72	6.95	8090.74	0.43	0.003316
	186.00	203.49				200.91	25.22	
	1.18434	140637.06						
	187.00	4528.27	7.97	5.72	6.95	8091.27	0.43	0.003316
	187.00	203.49				200.91	25.22	
	1.18437	140637.11						
	188.00	4528.27	7.97	5.72	6.95	8090.66	0.43	0.003317
	188.00	203.48				200.91	25.22	
	1.18473	140635.84						
	189.00	4528.27	7.97	5.72	6.95	8091.10	0.43	0.003315
	189.00	203.49				200.91	25.22	
	1.18386	140638.39						
	190.00	4528.27	7.97	5.72	6.95	8087.31	0.43	0.003315
	190.00	203.46				200.89	25.22	
	1.18380	140621.70						
	191.00	4528.23	7.93	5.69	6.91	7978.67	0.43	0.003316
	191.00	202.87				200.30	25.26	
	1.17760	140213.38						
	192.00	4528.21	7.91	5.67	6.89	7916.68	0.43	0.003315
	192.00	202.52				199.96	25.28	
	1.17333	139972.06						
	193.00	4528.21	7.91	5.67	6.89	7917.14	0.43	0.003316
	193.00	202.52				199.96	25.28	
	1.17372	139974.08						
	194.00	4528.21	7.91	5.67	6.89	7917.30	0.43	0.003314
	194.00	202.52				199.96	25.28	
	1.17312	139972.84						
	195.00	4528.21	7.91	5.67	6.89	7916.79	0.43	0.003316
	195.00	202.51				199.96	25.28	
	1.17358	139971.09						
	196.00	4528.21	7.91	5.67	6.89	7916.97	0.43	0.003316
	196.00	202.51				199.96	25.28	
	1.17386	139971.02						
	197.00	4528.21	7.91	5.67	6.89	7917.30	0.43	0.003315
	197.00	202.52				199.96	25.28	
	1.17339	139972.53						
	198.00	4528.21	7.91	5.67	6.89	7917.08	0.43	0.003315
	198.00	202.51				199.96	25.28	
	1.17325	139971.41						
	199.00	4528.21	7.91	5.67	6.89	7916.57	0.43	0.003315
	199.00	202.51				199.96	25.28	
	1.17329	139968.59						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 814

MAXIMUM DISCHARGE (CFS) = 21587.49 AT TIME = 80.19  
 MAXIMUM STAGE = 4528.64 AT TIME = 80.29

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(HRS)	(FT)	(FT)	(FPS)	(CFS)			

(FT^2)	(LB/FT^2)	(FT)	(FT^2)	HYCHAN.OUT (FT)	(FT)				
0.00	0.00	4517.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4517.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
741.27	2.00	4518.28	0.78	0.64	475.91	0.13			0.002938
	3.12705	43.46	17.06	43.51	56.05				
906.65	3.00	4524.59	7.09	6.09	5521.19	0.40			0.002996
	0.89994	188.35	4.81	186.09	26.25				
896.87	4.00	4524.55	7.05	6.07	5441.83	0.40			0.002999
	0.89457	187.62	4.78	185.38	26.30				
889.83	5.00	4524.53	7.03	6.04	5376.44	0.40			0.002998
	0.88916	187.22	4.75	184.99	26.33				
879.98	6.00	4524.49	6.99	6.01	5289.59	0.40			0.003002
	0.88377	186.53	4.72	184.31	26.38				
862.79	7.00	4524.42	6.92	5.96	5138.99	0.40			0.003012
	0.87483	185.36	4.65	183.17	26.47				
845.65	8.00	4524.36	6.86	5.90	4989.92	0.40			0.003016
	0.86413	184.20	4.59	182.03	26.55				
828.47	9.00	4524.29	6.79	5.84	4841.32	0.40			0.003021
	0.85339	183.01	4.53	180.87	26.64				
820.38	10.00	4524.26	6.76	5.82	4771.36	0.39			0.003023
	0.84816	182.44	4.50	180.31	26.68				
810.91	11.00	4524.22	6.72	5.78	4690.46	0.39			0.003026
	0.84233	181.76	4.46	179.65	26.74				
793.63	12.00	4524.15	6.65	5.72	4541.85	0.39			0.003029
	0.83116	180.50	4.40	178.41	26.83				
785.24	13.00	4524.12	6.62	5.69	4468.95	0.39			0.003031
	0.82555	179.89	4.37	177.81	26.88				
785.14	14.00	4524.11	6.61	5.69	4469.07	0.39			0.003030
	0.82529	179.88	4.36	177.80	26.88				
785.12	15.00	4524.11	6.61	5.69	4468.97	0.39			0.003030
	0.82516	179.87	4.36	177.79	26.88				
785.12	16.00	4524.11	6.61	5.69	4468.94	0.39			0.003030
	0.82540	179.87	4.36	177.79	26.88				
785.20	17.00	4524.11	6.61	5.69	4469.45	0.39			0.003031
	0.82560	179.88	4.37	177.80	26.88				
795.07	18.00	4524.16	6.66	5.72	4549.36	0.39			0.003029
	0.83163	180.72	4.40	178.62	26.82				
812.91	19.00	4524.23	6.73	5.78	4702.56	0.39			0.003024
	0.84290	182.01	4.47	179.89	26.72				
		107934.52							

		HYCHAN.OUT				
830.69	20.00	4524.30	6.80	5.84	4855.01	0.40
		183.27	4.53		181.12	26.62
	0.85447	108673.84				0.003021
837.94	21.00	4524.33	6.83	5.88	4924.24	0.40
		183.72	4.56		181.57	26.59
	0.85935	108939.08				0.003020
837.96	22.00	4524.33	6.83	5.88	4924.91	0.40
		183.72	4.56		181.56	26.59
	0.85975	108938.63				0.003021
848.53	23.00	4524.37	6.87	5.90	5010.40	0.40
		184.52	4.60		182.35	26.53
	0.86555	109409.73				0.003016
876.80	24.00	4524.48	6.98	5.99	5252.86	0.40
		186.49	4.70		184.27	26.38
	0.88191	110563.66				0.003006
911.74	25.00	4524.62	7.12	6.10	5562.08	0.40
		188.80	4.83		186.54	26.22
	0.90263	111923.23				0.002995
945.64	26.00	4524.74	7.24	6.20	5865.70	0.41
		190.97	4.95		188.66	26.06
	0.92167	113193.72				0.002983
957.95	27.00	4524.78	7.28	6.25	5985.30	0.41
		191.66	5.00		189.33	26.01
	0.93010	113599.35				0.002982
958.19	28.00	4524.78	7.28	6.25	5987.39	0.41
		191.67	5.00		189.34	26.01
	0.93062	113606.23				0.002983
969.74	29.00	4524.82	7.32	6.28	6087.58	0.41
		192.45	5.04		190.11	25.96
	0.93595	114065.98				0.002977
976.28	30.00	4524.84	7.34	6.30	6151.97	0.41
		192.80	5.06		190.45	25.93
	0.94081	114272.20				0.002978
976.38	31.00	4524.85	7.35	6.30	6154.89	0.41
		192.83	5.06		190.48	25.93
	0.94024	114288.01				0.002976
988.43	32.00	4524.89	7.39	6.33	6260.16	0.41
		193.63	5.10		191.26	25.88
	0.94609	114755.89				0.002970
995.04	33.00	4524.91	7.41	6.36	6326.19	0.41
		193.98	5.13		191.60	25.85
	0.95121	114962.52				0.002972
994.60	34.00	4524.91	7.41	6.36	6323.09	0.41
		193.94	5.13		191.56	25.85
	0.94931	114938.05				0.002966
982.86	35.00	4524.86	7.36	6.33	6218.22	0.41
		193.14	5.09		190.79	25.91
	0.94529	114471.59				0.002977
975.85	36.00	4524.84	7.34	6.30	6149.30	0.41
		192.76	5.06		190.41	25.94
	0.93894	114245.03				0.002972
964.41	37.00	4524.80	7.30	6.27	6049.27	0.41
		191.99	5.02		189.66	25.99
	0.93463	113794.70				0.002982
957.81	38.00	4524.78	7.28	6.25	5985.10	0.41
		191.64	5.00		189.31	26.01
	0.92949	113588.52				0.002980
957.85	39.00	4524.78	7.28	6.25	5984.92	0.41
		191.64	5.00		189.32	26.01
	0.92985	113590.82				0.002981
957.84	40.00	4524.78	7.28	6.25	5985.00	0.41
		191.64	5.00		189.32	26.01
	0.92934	113591.50				0.002980

				HYCHAN.OUT			
957.88	41.00	4524.78	7.28	5.00	6.25	5985.06	0.41
	0.92999	191.64			189.32	26.01	0.002982
		113591.73					
958.19	42.00	4524.78	7.28	5.00	6.25	5987.38	0.41
	0.92991	191.67			189.34	26.01	0.002981
		113606.48					
969.80	43.00	4524.82	7.32	5.04	6.28	6087.90	0.41
	0.93593	192.45			190.11	25.96	0.002976
		114067.21					
976.65	44.00	4524.85	7.35	5.06	6.30	6154.72	0.41
	0.94060	192.83			190.48	25.93	0.002976
		114288.79					
988.80	45.00	4524.89	7.39	5.11	6.33	6263.09	0.41
	0.94664	193.66			191.29	25.87	0.002971
		114773.23					
1007.76	46.00	4524.96	7.46	5.17	6.39	6438.68	0.41
	0.95749	194.83			192.44	25.79	0.002966
		115461.17					
1026.72	47.00	4525.03	7.53	5.24	6.44	6612.58	0.41
	0.96658	195.99			193.57	25.71	0.002957
		116142.05					
1045.25	48.00	4525.09	7.59	5.30	6.49	6785.76	0.42
	0.97786	197.08			194.64	25.64	0.002955
		116784.43					
1062.91	49.00	4525.15	7.65	5.36	6.54	6953.99	0.42
	0.98747	198.13			195.67	25.57	0.002950
		117403.37					
1081.80	50.00	4525.22	7.72	5.43	6.60	7135.58	0.42
	0.99807	199.23			196.75	25.50	0.002946
		118048.07					
1110.18	51.00	4525.31	7.81	5.53	6.67	7409.85	0.42
	1.01275	200.87			198.35	25.39	0.002937
		119010.62					
1124.48	52.00	4525.36	7.86	5.58	6.71	7546.27	0.42
	1.02099	201.66			199.12	25.34	0.002934
		119471.67					
1136.09	53.00	4525.40	7.90	5.62	6.74	7662.93	0.42
	1.02522	202.32			199.77	25.29	0.002926
		119863.67					
1178.73	54.00	4525.54	8.04	5.76	6.86	8086.78	0.43
	1.04705	204.71			202.11	25.14	0.002914
		121263.38					
1250.64	55.00	4525.77	8.27	5.99	7.05	8820.18	0.43
	1.08189	208.65			205.96	24.89	0.002893
		123574.84					
1346.85	56.00	4526.10	8.60	6.29	7.31	9851.43	0.44
	1.12377	214.06			211.26	24.57	0.002862
		126753.64					
1475.13	57.00	4526.52	9.02	6.68	7.66	11294.37	0.45
	1.17659	220.96			218.00	24.17	0.002824
		130801.04					
1576.02	58.00	4526.84	9.34	6.97	7.90	12453.06	0.46
	1.21942	226.14			223.06	23.88	0.002804
		133835.16					
1658.63	59.00	4527.10	9.60	7.21	8.10	13437.28	0.46
	1.25057	230.20			227.03	23.66	0.002782
		136219.80					
1759.88	60.00	4527.40	9.90	7.49	8.34	14685.33	0.47
	1.28740	235.01			231.73	23.41	0.002755
		139039.64					
1840.58	61.00	4527.64	10.14	7.71	8.53	15703.73	0.47
	1.31972	238.72			235.36	23.22	0.002743
		141216.56					

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HYCHAN.OUT							
1903.86	62.00	4527.82	10.32	8.70	16554.52	0.48	
	1.34794	241.56		7.88	238.13	23.08	0.002741
		142876.05					
1935.01	63.00	4527.91	10.41	8.89	17197.05	0.49	
	1.38022	242.93		7.97	239.47	23.01	0.002777
		143680.48					
1959.66	64.00	4527.98	10.48	9.10	17834.71	0.50	
	1.41041	244.00		8.03	240.52	22.96	0.002814
		144310.06					
1983.14	65.00	4528.05	10.55	9.32	18480.49	0.51	
	1.41816	245.09		8.09	241.58	22.90	0.002809
		144948.98					
1997.16	66.00	4528.09	10.59	9.34	18651.86	0.51	
	1.43091	245.76		8.13	242.23	22.87	0.002822
		145339.80					
1998.59	67.00	4528.09	10.59	9.34	18670.35	0.51	
	1.42923	245.83		8.13	242.30	22.87	0.002817
		145379.08					
1997.57	68.00	4528.09	10.59	9.35	18672.29	0.51	
	1.43277	245.77		8.13	242.25	22.87	0.002825
		145347.11					
1998.65	69.00	4528.09	10.59	9.35	18683.66	0.51	
	1.42900	245.82		8.13	242.29	22.87	0.002817
		145376.44					
1999.29	70.00	4528.09	10.59	9.35	18694.40	0.51	
	1.42668	245.81		8.13	242.29	22.87	0.002811
		145371.38					
1998.79	71.00	4528.09	10.59	9.35	18692.17	0.51	
	1.42635	245.77		8.13	242.24	22.87	0.002811
		145343.92					
2000.24	72.00	4528.10	10.60	9.35	18695.05	0.51	
	1.42667	245.90		8.13	242.37	22.87	0.002811
		145424.64					
2010.91	73.00	4528.12	10.62	9.39	18880.53	0.51	
	1.43553	246.26		8.17	242.73	22.85	0.002817
		145635.77					
2024.21	74.00	4528.16	10.66	9.41	19051.46	0.51	
	1.43453	246.79		8.20	243.24	22.82	0.002803
		145944.41					
2026.12	75.00	4528.16	10.66	9.41	19070.02	0.51	
	1.44648	246.87		8.21	243.32	22.82	0.002824
		145993.11					
2040.25	76.00	4528.20	10.70	9.44	19263.69	0.51	
	1.44418	247.46		8.24	243.90	22.79	0.002807
		146337.91					
2078.19	77.00	4528.31	10.81	9.52	19792.38	0.51	
	1.45338	249.06		8.34	245.45	22.72	0.002791
		147271.84					
2115.31	78.00	4528.41	10.91	9.61	20335.10	0.51	
	1.46795	250.60		8.44	246.96	22.64	0.002787
		148176.19					
2143.25	79.00	4528.48	10.98	9.67	20734.52	0.51	
	1.47485	251.75		8.51	248.08	22.59	0.002776
		148850.25					
2179.37	80.00	4528.58	11.08	9.75	21255.79	0.52	
	1.48992	253.22		8.61	249.52	22.52	0.002774
		149712.45					
2195.27	81.00	4528.62	11.12	9.79	21482.42	0.52	
	1.49802	253.86		8.65	250.15	22.49	0.002776
		150088.22					
2176.19	82.00	4528.57	11.07	9.75	21214.08	0.52	
	1.49183	253.09		8.60	249.39	22.53	0.002780
		149634.14					

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2158.76	83.00	4528.52	11.02	9.71	20966.26	0.52	0.002785
	1.48639	252.38	8.55	248.70	22.56		
		149220.20					
2156.81	84.00	4528.52	11.02	9.71	20936.32	0.52	0.002779
	1.48237	252.30	8.55	248.62	22.56		
		149174.00					
2157.12	85.00	4528.52	11.02	9.71	20938.76	0.52	0.002780
	1.48310	252.32	8.55	248.64	22.56		
		149181.48					
2150.70	86.00	4528.50	11.00	9.68	20814.34	0.51	0.002784
	1.48252	252.05	8.53	248.37	22.58		
		149023.73					
2103.82	87.00	4528.37	10.87	9.57	20128.29	0.51	0.002801
	1.47023	250.10	8.41	246.47	22.67		
		147884.59					
2014.44	88.00	4528.13	10.63	9.37	18884.54	0.51	0.002813
	1.43486	246.40	8.18	242.86	22.84		
		145717.05					
1919.83	89.00	4527.86	10.36	8.94	17164.47	0.49	0.002727
	1.34857	242.24	7.93	238.80	23.04		
		143278.23					
1857.72	90.00	4527.69	10.18	8.56	15910.37	0.47	0.002748
	1.32998	239.48	7.76	236.10	23.18		
		141658.44					
1787.60	91.00	4527.48	9.98	8.40	15018.77	0.47	0.002764
	1.30482	236.29	7.57	232.98	23.34		
		139788.03					
1708.57	92.00	4527.25	9.75	8.21	14031.32	0.46	0.002785
	1.27672	232.58	7.35	229.36	23.53		
		137613.72					
1635.79	93.00	4527.03	9.53	8.04	13147.87	0.46	0.002800
	1.24769	229.08	7.14	225.94	23.72		
		135563.02					
1568.24	94.00	4526.82	9.32	7.88	12355.35	0.46	0.002798
	1.21315	225.73	6.95	222.67	23.90		
		133599.75					
1516.19	95.00	4526.65	9.15	7.75	11756.64	0.45	0.002816
	1.19421	223.09	6.80	220.09	24.05		
		132051.31					
1467.55	96.00	4526.50	9.00	7.63	11201.91	0.45	0.002857
	1.18602	220.57	6.65	217.62	24.19		
		130571.74					
1430.39	97.00	4526.38	8.88	7.54	10788.19	0.45	0.002851
	1.16395	218.61	6.54	215.70	24.30		
		129421.38					
1396.15	98.00	4526.26	8.76	7.45	10396.33	0.44	0.002858
	1.14877	216.77	6.44	213.90	24.41		
		128340.70					
1371.42	99.00	4526.18	8.68	7.37	10111.68	0.44	0.002865
	1.13823	215.42	6.37	212.59	24.49		
		127552.15					
1340.58	100.00	4526.08	8.58	7.29	9773.99	0.44	0.002872
	1.12427	213.72	6.27	210.92	24.59		
		126551.15					
1310.47	101.00	4525.98	8.48	7.21	9446.60	0.44	0.002882
	1.11132	212.03	6.18	209.27	24.69		
		125561.73					
1284.27	102.00	4525.89	8.39	7.14	9167.00	0.43	0.002887
	1.09885	210.54	6.10	207.81	24.78		
		124688.20					
1262.51	103.00	4525.81	8.31	7.08	8934.70	0.43	0.002893
	1.08885	209.29	6.03	206.59	24.85		
		123954.58					

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1242.89	104.00	4525.74	8.24	7.02	8730.72	0.43	
		208.15	5.97		205.47	24.92	0.002895
	1.07864	123284.80					
1211.75	105.00	4525.64	8.14	6.94	8409.23	0.43	
		206.41	5.87		203.77	25.03	0.002909
	1.06571	122262.60					
1186.41	106.00	4525.56	8.06	6.87	8153.66	0.43	
		205.07	5.79		202.46	25.12	0.002913
	1.05173	121473.74					
1168.85	107.00	4525.50	8.00	6.83	7977.90	0.43	
		204.11	5.73		201.52	25.18	0.002919
	1.04296	120913.40					
1151.52	108.00	4525.45	7.95	6.78	7807.75	0.42	
		203.15	5.67		200.58	25.24	0.002926
	1.03477	120348.71					
1144.92	109.00	4525.43	7.93	6.77	7746.69	0.42	
		202.79	5.65		200.23	25.26	0.002929
	1.03176	120135.91					
1156.12	110.00	4525.46	7.96	6.80	7860.23	0.42	
		203.44	5.68		200.86	25.22	0.002919
	1.03524	120518.37					
1184.08	111.00	4525.56	8.06	6.87	8137.92	0.43	
		204.98	5.78		202.37	25.12	0.002911
	1.04929	121422.74					
1186.25	112.00	4525.56	8.06	6.87	8152.25	0.43	
		205.06	5.78		202.45	25.12	0.002912
	1.05135	121469.10					
1169.73	113.00	4525.51	8.01	6.83	7988.23	0.43	
		204.17	5.73		201.57	25.18	0.002921
	1.04439	120944.76					
1185.27	114.00	4525.56	8.06	6.88	8150.10	0.43	
		205.05	5.78		202.44	25.12	0.002913
	1.05065	121463.24					
1222.31	115.00	4525.68	8.18	6.97	8524.28	0.43	
		207.05	5.90		204.40	24.99	0.002897
	1.06722	122637.16					
1224.55	116.00	4525.68	8.18	6.97	8540.55	0.43	
		207.13	5.91		204.47	24.99	0.002906
	1.07195	122682.20					
1217.32	117.00	4525.66	8.16	6.96	8470.14	0.43	
		206.75	5.89		204.10	25.01	0.002902
	1.06610	122459.18					
1217.76	118.00	4525.66	8.16	6.96	8474.73	0.43	
		206.78	5.89		204.13	25.01	0.002906
	1.06782	122477.57					
1229.79	119.00	4525.70	8.20	6.99	8599.68	0.43	
		207.44	5.93		204.78	24.97	0.002897
	1.07178	122867.90					
1236.72	120.00	4525.72	8.22	7.01	8669.64	0.43	
		207.81	5.95		205.14	24.95	0.002898
	1.07614	123081.23					
1236.36	121.00	4525.72	8.22	7.01	8665.15	0.43	
		207.78	5.95		205.11	24.95	0.002897
	1.07558	123068.13					
1224.63	122.00	4525.68	8.18	6.97	8540.72	0.43	
		207.13	5.91		204.47	24.99	0.002904
	1.07128	122684.03					
1216.95	123.00	4525.66	8.16	6.96	8465.69	0.43	
		206.72	5.89		204.08	25.01	0.002905
	1.06712	122445.75					
1204.97	124.00	4525.62	8.12	6.92	8341.66	0.43	
		206.07	5.85		203.44	25.05	0.002910
	1.06188	122064.63					



		HYCHAN.OUT					
1197.54	125.00	4525.60	8.10	5.82	6.91	8269.71	0.43
	1.05694	205.68				203.06	25.08
1197.38	126.00	4525.60	8.10	5.82	6.90	8266.59	0.43
	1.05709	205.67				203.04	25.08
1186.49	127.00	4525.56	8.06	5.79	6.87	8155.82	0.43
	1.05328	205.07				202.46	25.12
1179.64	128.00	4525.54	8.04	5.76	6.86	8091.24	0.43
	1.04886	204.71				202.11	25.14
1179.28	129.00	4525.54	8.04	5.76	6.86	8087.56	0.43
	1.04749	204.69				202.09	25.14
1168.87	130.00	4525.50	8.00	5.73	6.83	7980.80	0.43
	1.04378	204.10				201.51	25.18
1162.79	131.00	4525.48	7.98	5.71	6.81	7924.24	0.43
	1.03984	203.79				201.21	25.20
1184.52	132.00	4525.56	8.06	5.78	6.87	8142.11	0.43
	1.04891	205.00				202.39	25.12
1197.66	133.00	4525.60	8.10	5.82	6.91	8269.94	0.43
	1.05796	205.68				203.06	25.08
1197.65	134.00	4525.60	8.10	5.82	6.91	8269.82	0.43
	1.05602	205.68				203.06	25.08
1197.73	135.00	4525.60	8.10	5.82	6.90	8270.01	0.43
	1.05776	205.69				203.06	25.08
1197.71	136.00	4525.60	8.10	5.82	6.90	8270.11	0.43
	1.05804	205.68				203.06	25.08
1197.68	137.00	4525.60	8.10	5.82	6.91	8270.09	0.43
	1.05800	205.68				203.05	25.08
1197.67	138.00	4525.60	8.10	5.82	6.90	8269.63	0.43
	1.05696	205.68				203.05	25.08
1197.37	139.00	4525.60	8.10	5.82	6.90	8266.40	0.43
	1.05643	205.66				203.03	25.08
1186.47	140.00	4525.56	8.06	5.79	6.87	8155.98	0.43
	1.05159	205.07				202.45	25.12
1179.65	141.00	4525.54	8.04	5.76	6.86	8091.07	0.43
	1.04955	204.72				202.11	25.14
1179.58	142.00	4525.54	8.04	5.76	6.86	8091.19	0.43
	1.04936	204.71				202.11	25.14
1179.52	143.00	4525.54	8.04	5.76	6.86	8090.45	0.43
	1.04950	204.71				202.10	25.14
1179.34	144.00	4525.54	8.04	5.76	6.86	8087.66	0.43
	1.04945	204.69				202.09	25.14
1168.89	145.00	4525.50	8.00	5.73	6.83	7981.50	0.43
	1.04440	204.11				201.52	25.18
		120909.32					

HYCHAN.OUT									
1162.12	146.00	4525.48	7.98	5.70	6.81	201.17	7916.86	25.20	0.002920
	1.03929	203.75							
		120699.59							
1162.09	147.00	4525.48	7.98	5.70	6.81	201.16	7916.94	25.20	0.002920
	1.03933	203.74							
		120697.22							
1162.15	148.00	4525.48	7.98	5.70	6.81	201.17	7917.07	25.20	0.002924
	1.04065	203.75							
		120701.98							
1162.11	149.00	4525.48	7.98	5.70	6.81	201.17	7917.09	25.20	0.002922
	1.03992	203.75							
		120699.01							
1162.00	150.00	4525.48	7.98	5.70	6.81	201.16	7914.83	25.20	0.002921
	1.03971	203.74							
		120695.96							
1154.92	151.00	4525.46	7.96	5.68	6.79	200.77	7842.69	25.23	0.002925
	1.03674	203.34							
		120461.02							
1146.89	152.00	4525.43	7.93	5.65	6.77	200.34	7764.27	25.26	0.002927
	1.03233	202.90							
		120201.03							
1144.57	153.00	4525.42	7.92	5.64	6.77	200.21	7743.13	25.26	0.002928
	1.03132	202.77							
		120125.65							
1144.32	154.00	4525.42	7.92	5.64	6.76	200.19	7739.61	25.27	0.002926
	1.03055	202.75							
		120114.04							
1134.35	155.00	4525.39	7.89	5.61	6.74	199.65	7640.40	25.30	0.002933
	1.02666	202.19							
		119787.41							
1148.89	156.00	4525.44	7.94	5.66	6.78	200.47	7789.00	25.25	0.002921
	1.03126	203.04							
		120284.91							
1162.11	157.00	4525.48	7.98	5.70	6.81	201.17	7916.71	25.20	0.002920
	1.03923	203.75							
		120699.46							
1162.20	158.00	4525.48	7.98	5.70	6.81	201.17	7916.99	25.20	0.002921
	1.03962	203.75							
		120702.60							
1162.15	159.00	4525.48	7.98	5.70	6.81	201.17	7916.92	25.20	0.002920
	1.03921	203.75							
		120699.03							
1162.10	160.00	4525.48	7.98	5.70	6.81	201.16	7917.30	25.20	0.002922
	1.04009	203.75							
		120697.70							
1162.12	161.00	4525.48	7.98	5.70	6.81	201.17	7916.98	25.20	0.002918
	1.03843	203.75							
		120702.15							
1162.07	162.00	4525.48	7.98	5.70	6.81	201.16	7916.83	25.20	0.002924
	1.04051	203.75							
		120698.69							
1162.08	163.00	4525.48	7.98	5.70	6.81	201.16	7916.92	25.20	0.002921
	1.03952	203.75							
		120698.83							
1161.81	164.00	4525.48	7.98	5.70	6.81	201.15	7913.13	25.20	0.002923
	1.04000	203.73							
		120689.92							
1151.55	165.00	4525.45	7.95	5.67	6.78	200.58	7807.83	25.24	0.002924
	1.03432	203.15							
		120350.49							
1144.67	166.00	4525.42	7.92	5.64	6.76	200.22	7743.09	25.26	0.002923
	1.02975	202.78							
		120129.41							

HYCHAN.OUT									
1144.53	167.00	4525.42	7.92	5.64	6.77	200.21	7742.85	25.26	0.002928
	1.03136	202.77							
		120123.82							
1144.61	168.00	4525.42	7.92	5.64	6.76	200.21	7743.08	25.26	0.002928
	1.03137	202.77							
		120125.73							
1144.75	169.00	4525.43	7.93	5.65	6.76	200.22	7743.00	25.26	0.002923
	1.02982	202.78							
		120133.16							
1144.60	170.00	4525.42	7.92	5.64	6.76	200.21	7742.87	25.26	0.002927
	1.03100	202.77							
		120126.92							
1144.62	171.00	4525.42	7.92	5.64	6.76	200.22	7742.85	25.26	0.002927
	1.03107	202.78							
		120129.64							
1144.31	172.00	4525.42	7.92	5.64	6.76	200.19	7739.58	25.27	0.002926
	1.03051	202.75							
		120114.48							
1133.67	173.00	4525.39	7.89	5.61	6.73	199.60	7633.77	25.30	0.002935
	1.02694	202.15							
		119761.27							
1127.11	174.00	4525.37	7.87	5.59	6.72	199.25	7568.97	25.33	0.002933
	1.02231	201.79							
		119552.86							
1127.13	175.00	4525.37	7.87	5.59	6.72	199.25	7569.64	25.33	0.002930
	1.02121	201.79							
		119551.66							
1127.11	176.00	4525.37	7.87	5.59	6.71	199.26	7568.32	25.33	0.002933
	1.02221	201.80							
		119555.21							
1127.06	177.00	4525.37	7.87	5.59	6.72	199.25	7569.37	25.33	0.002929
	1.02089	201.79							
		119547.81							
1127.11	178.00	4525.37	7.87	5.59	6.72	199.25	7568.69	25.33	0.002930
	1.02119	201.79							
		119552.70							
1127.66	179.00	4525.37	7.87	5.59	6.72	199.29	7575.89	25.33	0.002930
	1.02149	201.83							
		119572.59							
1148.88	180.00	4525.44	7.94	5.66	6.78	200.48	7788.66	25.25	0.002920
	1.03086	203.04							
		120286.46							
1162.43	181.00	4525.48	7.98	5.70	6.81	201.19	7920.07	25.20	0.002922
	1.04023	203.77							
		120714.02							
1173.10	182.00	4525.52	8.02	5.74	6.84	201.78	8027.36	25.16	0.002916
	1.04446	204.37							
		121065.02							
1179.61	183.00	4525.54	8.04	5.76	6.86	202.11	8090.94	25.14	0.002916
	1.04833	204.71							
		121264.97							
1179.62	184.00	4525.54	8.04	5.76	6.86	202.10	8090.89	25.14	0.002919
	1.04963	204.71							
		121262.32							
1179.77	185.00	4525.54	8.04	5.76	6.86	202.11	8091.25	25.14	0.002914
	1.04791	204.71							
		121264.03							
1179.84	186.00	4525.54	8.04	5.76	6.86	202.11	8090.73	25.14	0.002916
	1.04887	204.71							
		121265.46							
1179.71	187.00	4525.54	8.04	5.76	6.86	202.10	8091.14	25.14	0.002917
	1.04902	204.71							
		121261.98							

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HYCHAN.OUT									
1179.58	188.00	4525.54	8.04	5.76	6.86	8090.83	25.14	0.43	0.002913
	1.04757	204.71				202.11			
		121263.35							
1179.66	189.00	4525.54	8.04	5.76	6.86	8090.97	25.14	0.43	0.002916
	1.04844	204.71				202.11			
		121263.76							
1179.36	190.00	4525.54	8.04	5.76	6.86	8087.72	25.14	0.43	0.002915
	1.04807	204.69				202.08			
		121250.88							
1168.97	191.00	4525.50	8.00	5.73	6.83	7980.97	25.18	0.43	0.002924
	1.04478	204.12				201.53			
		120915.85							
1162.12	192.00	4525.48	7.98	5.70	6.81	7916.75	25.20	0.43	0.002919
	1.03891	203.75				201.17			
		120702.34							
1162.13	193.00	4525.48	7.98	5.70	6.81	7917.09	25.20	0.43	0.002924
	1.04059	203.75				201.17			
		120702.06							
1162.10	194.00	4525.48	7.98	5.70	6.81	7917.17	25.20	0.43	0.002919
	1.03873	203.75				201.17			
		120699.69							
1162.07	195.00	4525.48	7.98	5.70	6.81	7916.83	25.20	0.43	0.002925
	1.04098	203.75				201.17			
		120699.32							
1162.11	196.00	4525.48	7.98	5.70	6.81	7917.08	25.20	0.43	0.002920
	1.03914	203.75				201.17			
		120700.22							
1162.07	197.00	4525.48	7.98	5.70	6.81	7917.19	25.20	0.43	0.002924
	1.04050	203.75				201.17			
		120701.30							
1162.08	198.00	4525.48	7.98	5.70	6.81	7917.06	25.20	0.43	0.002922
	1.03984	203.75				201.17			
		120701.34							
1162.04	199.00	4525.48	7.98	5.70	6.81	7916.53	25.20	0.43	0.002922
	1.03988	203.75				201.16			
		120698.49							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 838

MAXIMUM DISCHARGE (CFS) = 21631.84 AT TIME = 80.17  
 MAXIMUM STAGE = 4525.96 AT TIME = 80.30

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4514.76	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4514.76	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
628.49	2.00	4515.35	0.59	0.57	357.40	0.13			
	5.17485	36.25	17.34	36.36	61.56				0.004784
783.04	3.00	4521.64	6.88	7.06	5524.50	0.47			
	1.29430	184.56	4.24	182.39	26.52				0.004889
	4.00	4521.60	6.84	7.03	5444.17	0.47			

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		HYCHAN.OUT				
774.67	183.87	4.21	181.71	26.58	0.004899	
	1.28805 95398.16					
	5.00 4521.56	6.80	7.01 5376.78	0.47		
767.21	183.26	4.19	181.11	26.62	0.004898	
	1.27947 95081.52					
	6.00 4521.52	6.76	6.98 5292.06	0.47		
758.35	182.51	4.16	180.38	26.68	0.004913	
	1.27377 94697.77					
	7.00 4521.44	6.68	6.93 5141.76	0.47		
742.18	181.14	4.10	179.04	26.78	0.004932	
	1.26105 93993.94					
	8.00 4521.37	6.61	6.88 4992.46	0.47		
725.91	179.75	4.04	177.67	26.89	0.004949	
	1.24721 93276.64					
	9.00 4521.29	6.53	6.83 4843.89	0.47		
709.65	178.33	3.98	176.28	27.00	0.004957	
	1.23094 92548.94					
	10.00 4521.25	6.49	6.80 4771.55	0.47		
702.14	177.68	3.95	175.64	27.05	0.004961	
	1.22334 92211.78					
	11.00 4521.21	6.45	6.77 4693.12	0.47		
693.30	176.89	3.92	174.87	27.11	0.004969	
	1.21530 91805.55					
	12.00 4521.13	6.37	6.71 4544.26	0.47		
677.42	175.46	3.86	173.47	27.23	0.004985	
	1.20085 91072.99					
	13.00 4521.09	6.33	6.67 4469.08	0.47		
669.67	174.76	3.83	172.79	27.28	0.004986	
	1.19215 90714.63					
	14.00 4521.09	6.33	6.67 4469.08	0.47		
669.66	174.76	3.83	172.79	27.28	0.004985	
	1.19206 90714.20					
	15.00 4521.09	6.33	6.67 4468.99	0.47		
669.65	174.76	3.83	172.79	27.28	0.004985	
	1.19195 90713.85					
	16.00 4521.09	6.33	6.67 4468.96	0.47		
669.65	174.76	3.83	172.79	27.28	0.004985	
	1.19196 90713.68					
	17.00 4521.09	6.33	6.67 4469.32	0.47		
669.69	174.77	3.83	172.79	27.28	0.004988	
	1.19262 90715.57					
	18.00 4521.13	6.37	6.71 4546.84	0.47		
677.62	175.49	3.86	173.50	27.23	0.004979	
	1.19971 91086.69					
	19.00 4521.21	6.45	6.77 4699.79	0.47		
694.02	176.96	3.92	174.94	27.11	0.004965	
	1.21508 91843.66					
	20.00 4521.29	6.53	6.83 4852.52	0.47		
710.59	178.42	3.98	176.37	26.99	0.004954	
	1.23123 92595.62					
	21.00 4521.33	6.57	6.86 4924.22	0.47		
717.99	179.07	4.01	177.00	26.94	0.004948	
	1.23797 92926.62					
	22.00 4521.33	6.57	6.86 4924.78	0.47		
718.05	179.07	4.01	177.01	26.94	0.004949	
	1.23840 92929.26					
	23.00 4521.37	6.61	6.89 5007.50	0.47		
727.17	179.86	4.04	177.79	26.88	0.004940	
	1.24621 93337.28					
	24.00 4521.50	6.74	6.97 5247.46	0.47		
753.28	182.09	4.14	179.97	26.71	0.004912	
	1.26789 94482.68					
	25.00 4521.65	6.89	7.07 5556.58	0.47		

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		HYCHAN.OUT				
786.33	184.84	4.25	182.66	26.50	0.004884	
1.29650	95896.02					
26.00	4521.80	7.04	7.16	5861.09	0.48	
818.82	187.47	4.37	185.23	26.31	0.004854	
1.32300	97247.80					
27.00	4521.86	7.10	7.20	5985.13	0.48	
831.67	188.49	4.41	186.23	26.24	0.004852	
1.33586	97771.77					
28.00	4521.86	7.10	7.20	5986.99	0.48	
831.96	188.51	4.41	186.25	26.24	0.004854	
1.33677	97783.40					
29.00	4521.91	7.15	7.22	6085.22	0.48	
842.26	189.33	4.45	187.05	26.18	0.004836	
1.34255	98201.52					
30.00	4521.94	7.18	7.24	6151.89	0.48	
849.22	189.87	4.47	187.58	26.14	0.004840	
1.35076	98480.02					
31.00	4521.94	7.18	7.25	6154.59	0.48	
849.05	189.85	4.47	187.57	26.14	0.004833	
1.34873	98473.35					
32.00	4521.98	7.22	7.28	6257.64	0.48	
859.95	190.70	4.51	188.40	26.08	0.004819	
1.35590	98909.58					
33.00	4522.02	7.25	7.30	6326.04	0.48	
866.96	191.24	4.53	188.93	26.04	0.004824	
1.36463	99186.91					
34.00	4522.01	7.25	7.30	6323.46	0.48	
866.72	191.22	4.53	188.91	26.04	0.004815	
1.36195	99176.95					
35.00	4521.97	7.21	7.26	6220.80	0.48	
856.35	190.42	4.50	188.12	26.10	0.004835	
1.35672	98762.83					
36.00	4521.94	7.18	7.24	6149.72	0.48	
849.06	189.85	4.47	187.57	26.14	0.004830	
1.34800	98473.41					
37.00	4521.89	7.13	7.22	6051.77	0.48	
838.73	189.04	4.44	186.77	26.20	0.004847	
1.34199	98055.30					
38.00	4521.86	7.10	7.20	5985.04	0.48	
831.66	188.49	4.41	186.23	26.24	0.004848	
1.33469	97771.18					
39.00	4521.86	7.10	7.20	5984.99	0.48	
831.69	188.49	4.41	186.23	26.24	0.004850	
1.33536	97772.19					
40.00	4521.86	7.10	7.20	5984.94	0.48	
831.65	188.49	4.41	186.23	26.24	0.004847	
1.33441	97770.77					
41.00	4521.86	7.10	7.20	5985.09	0.48	
831.73	188.49	4.41	186.24	26.24	0.004851	
1.33571	97773.86					
42.00	4521.86	7.10	7.20	5986.99	0.48	
831.94	188.51	4.41	186.25	26.24	0.004848	
1.33496	97782.95					
43.00	4521.91	7.15	7.22	6085.46	0.48	
842.34	189.33	4.45	187.06	26.18	0.004836	
1.34262	98204.71					
44.00	4521.94	7.18	7.24	6154.37	0.48	
849.51	189.89	4.47	187.60	26.14	0.004835	
1.34972	98492.09					
45.00	4521.99	7.23	7.28	6260.12	0.48	
860.22	190.73	4.51	188.42	26.08	0.004822	
1.35703	98920.81					
46.00	4522.06	7.30	7.33	6435.79	0.48	

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			HYCHAN.OUT			
878.25	192.11	4.57	189.78	25.98	0.004806	
1.37105	99632.53					
47.00	4522.14	7.38	7.37	6609.43	0.48	
896.27	193.48	4.63	191.11	25.89	0.004789	
1.38440	100335.05					
48.00	4522.22	7.46	7.42	6783.16	0.48	
914.24	194.82	4.69	192.43	25.79	0.004781	
1.39990	101025.73					
49.00	4522.29	7.53	7.47	6950.87	0.48	
931.06	196.07	4.75	193.65	25.71	0.004769	
1.41320	101665.00					
50.00	4522.37	7.61	7.51	7132.31	0.48	
949.33	197.40	4.81	194.95	25.62	0.004756	
1.42714	102350.53					
51.00	4522.48	7.72	7.58	7405.05	0.48	
976.60	199.36	4.90	196.87	25.49	0.004728	
1.44528	103357.45					
52.00	4522.54	7.78	7.62	7545.78	0.48	
990.79	200.36	4.94	197.85	25.42	0.004725	
1.45801	103873.26					
53.00	4522.59	7.83	7.65	7659.22	0.48	
1001.86	201.14	4.98	198.62	25.37	0.004709	
1.46358	104274.32					
54.00	4522.76	8.00	7.75	8077.24	0.48	
1042.84	203.98	5.11	201.39	25.19	0.004668	
1.48933	105729.05					
55.00	4523.03	8.27	7.91	8806.70	0.48	
1113.02	208.66	5.33	205.97	24.89	0.004616	
1.53628	108134.72					
56.00	4523.40	8.64	8.13	9832.16	0.49	
1209.37	214.79	5.63	211.97	24.52	0.004553	
1.59977	111282.16					
57.00	4523.89	9.13	8.41	11272.66	0.49	
1340.73	222.65	6.02	219.65	24.07	0.004482	
1.68398	115318.56					
58.00	4524.25	9.49	8.61	12440.28	0.49	
1444.42	228.53	6.32	225.40	23.75	0.004419	
1.74306	118333.47					
59.00	4524.54	9.78	8.78	13421.48	0.49	
1529.28	233.12	6.56	229.89	23.51	0.004371	
1.78902	120691.88					
60.00	4524.89	10.13	8.98	14668.39	0.50	
1634.05	238.58	6.85	235.22	23.23	0.004313	
1.84340	123489.12					
61.00	4525.16	10.40	9.13	15692.75	0.50	
1718.25	242.80	7.08	239.35	23.02	0.004279	
1.88970	125657.05					
62.00	4525.36	10.60	9.29	16548.16	0.50	
1780.45	245.83	7.24	242.31	22.87	0.004247	
1.91947	127210.39					
63.00	4525.37	10.61	9.63	17199.24	0.52	
1785.93	246.10	7.26	242.56	22.86	0.004257	
1.92772	127345.62					
64.00	4525.34	10.58	10.04	17837.42	0.54	
1776.93	245.67	7.23	242.14	22.88	0.004260	
1.92278	127125.47					
65.00	4525.30	10.54	10.48	18478.66	0.57	
1762.95	244.99	7.20	241.48	22.91	0.004247	
1.90711	126777.03					
66.00	4525.33	10.57	10.52	18651.54	0.57	
1773.24	245.49	7.22	241.97	22.89	0.004256	
1.91836	127032.27					
67.00	4525.34	10.58	10.52	18670.50	0.57	

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				HYCHAN.OUT			
1774.36		245.54		7.23	242.02	22.88	0.004242
	1.91294	127059.78					
68.00		4525.33	10.57	10.53	18672.20	0.57	
1773.70		245.51		7.22	241.99	22.88	0.004251
	1.91623	127043.56					
69.00		4525.34	10.58	10.53	18683.50	0.57	
1774.57		245.55		7.23	242.03	22.88	0.004253
	1.91784	127065.20					
70.00		4525.34	10.58	10.53	18694.12	0.57	
1775.87		245.61		7.23	242.09	22.88	0.004238
	1.91196	127097.54					
71.00		4525.34	10.58	10.53	18693.14	0.57	
1776.01		245.62		7.23	242.10	22.88	0.004242
	1.91421	127100.35					
72.00		4525.34	10.58	10.53	18693.88	0.57	
1775.70		245.61		7.23	242.08	22.88	0.004249
	1.91682	127093.35					
73.00		4525.38	10.62	10.56	18878.24	0.57	
1787.30		246.16		7.26	242.63	22.85	0.004224
	1.91365	127380.01					
74.00		4525.42	10.66	10.58	19050.41	0.57	
1800.71		246.81		7.30	243.26	22.82	0.004207
	1.91539	127709.56					
75.00		4525.42	10.66	10.58	19070.23	0.57	
1802.19		246.88		7.30	243.32	22.82	0.004228
	1.92611	127745.40					
76.00		4525.47	10.71	10.60	19258.95	0.57	
1816.24		247.55		7.34	243.98	22.79	0.004200
	1.92295	128090.34					
77.00		4525.58	10.82	10.67	19784.84	0.57	
1853.97		249.33		7.44	245.72	22.70	0.004161
	1.93082	129004.09					
78.00		4525.70	10.94	10.75	20330.68	0.57	
1891.62		251.09		7.53	247.44	22.62	0.004135
	1.94398	129903.90					
79.00		4525.78	11.02	10.80	20729.77	0.57	
1919.84		252.39		7.61	248.71	22.56	0.004113
	1.95231	130570.78					
80.00		4525.89	11.13	10.86	21250.19	0.57	
1956.31		254.05		7.70	250.33	22.48	0.004084
	1.96236	131423.20					
81.00		4525.94	11.18	10.89	21483.17	0.57	
1972.82		254.79		7.74	251.06	22.45	0.004094
	1.97782	131804.48					
82.00		4525.89	11.13	10.86	21218.90	0.57	
1953.90		253.94		7.69	250.22	22.49	0.004108
	1.97220	131364.23					
83.00		4525.83	11.07	10.83	20967.26	0.57	
1936.10		253.13		7.65	249.43	22.53	0.004119
	1.96582	130950.88					
84.00		4525.83	11.07	10.83	20936.62	0.57	
1933.96		253.03		7.64	249.34	22.53	0.004108
	1.95944	130901.07					
85.00		4525.83	11.07	10.82	20939.19	0.57	
1934.41		253.05		7.64	249.35	22.53	0.004116
	1.96326	130911.37					
86.00		4525.80	11.04	10.81	20824.48	0.57	
1926.28		252.67		7.62	248.99	22.55	0.004128
	1.96383	130717.66					
87.00		4525.66	10.90	10.72	20147.60	0.57	
1879.44		250.50		7.50	246.86	22.65	0.004182
	1.95802	129603.05					
88.00		4525.39	10.63	10.55	18903.21	0.57	

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				HYCHAN.OUT			
1790.94		246.32		7.27	242.78	22.85	0.004251
	1.92884	127457.84					
89.00	4525.27		10.51	9.79	17158.45	0.53	
1752.76		244.54		7.17	241.04	22.93	0.004252
	1.90169	126545.06					
90.00	4525.22		10.46	9.17	15924.24	0.50	
1737.46		243.73		7.13	240.25	22.97	0.004297
	1.91151	126129.75					
91.00	4524.98		10.22	9.03	15030.47	0.50	
1664.23		240.09		6.93	236.70	23.15	0.004333
	1.87422	124267.39					
92.00	4524.72		9.96	8.88	14046.23	0.50	
1582.42		235.90		6.71	232.60	23.36	0.004384
	1.83521	122115.08					
93.00	4524.46		9.70	8.73	13158.78	0.49	
1507.16		231.93		6.50	228.72	23.57	0.004420
	1.79228	120079.48					
94.00	4524.23		9.47	8.60	12364.91	0.49	
1437.92		228.15		6.30	225.03	23.77	0.004455
	1.75210	118142.03					
95.00	4524.04		9.28	8.49	11766.15	0.49	
1385.18		225.20		6.15	222.15	23.93	0.004462
	1.71255	116627.23					
96.00	4523.87		9.11	8.40	11210.17	0.49	
1335.25		222.34		6.01	219.34	24.09	0.004511
	1.69054	115156.01					
97.00	4523.73		8.97	8.32	10792.11	0.49	
1297.26		220.11		5.89	217.17	24.21	0.004543
	1.67085	114015.07					
98.00	4523.60		8.84	8.24	10402.34	0.49	
1262.11		218.01		5.79	215.12	24.34	0.004550
	1.64356	112936.33					
99.00	4523.50		8.74	8.18	10115.87	0.49	
1236.03		216.43		5.71	213.57	24.43	0.004566
	1.62706	112125.52					
100.00	4523.39		8.63	8.11	9779.35	0.49	
1205.21		214.53		5.62	211.71	24.54	0.004578
	1.60493	111149.27					
101.00	4523.27		8.51	8.05	9451.26	0.49	
1174.67		212.62		5.52	209.84	24.65	0.004599
	1.58536	110168.02					
102.00	4523.17		8.41	7.99	9171.03	0.49	
1148.35		210.95		5.44	208.21	24.75	0.004616
	1.56790	109308.20					
103.00	4523.09		8.33	7.93	8937.94	0.48	
1126.47		209.54		5.38	206.83	24.84	0.004625
	1.55160	108584.48					
104.00	4523.01		8.25	7.89	8734.31	0.48	
1106.66		208.24		5.31	205.56	24.92	0.004635
	1.53697	107920.09					
105.00	4522.89		8.13	7.82	8415.04	0.48	
1076.21		206.22		5.22	203.58	25.05	0.004665
	1.51924	106880.98					
106.00	4522.79		8.03	7.76	8156.42	0.48	
1051.16		204.54		5.14	201.94	25.15	0.004680
	1.50066	106017.27					
107.00	4522.72		7.96	7.72	7980.65	0.48	
1034.01		203.37		5.08	200.79	25.23	0.004692
	1.48868	105415.84					
108.00	4522.65		7.89	7.68	7810.24	0.48	
1017.25		202.21		5.03	199.66	25.30	0.004708
	1.47780	104822.12					
109.00	4522.63		7.87	7.66	7746.32	0.48	

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		HYCHAN.OUT					
1010.81	201.77	5.01	199.23	25.33	0.004710		
1.47254	104594.39						
110.00	4522.67	7.91	7.69	7856.99	0.48		
1021.28	202.50	5.04	199.94	25.28	0.004691		
1.47620	104968.96						
111.00	4522.78	8.02	7.76	8133.76	0.48		
1048.38	204.35	5.13	201.76	25.16	0.004666		
1.49381	105923.39						
112.00	4522.79	8.03	7.76	8154.82	0.48		
1051.00	204.53	5.14	201.93	25.15	0.004678		
1.50015	106011.77						
113.00	4522.72	7.96	7.72	7989.68	0.48		
1034.81	203.42	5.09	200.85	25.22	0.004693		
1.48984	105445.22						
114.00	4522.78	8.02	7.76	8144.55	0.48		
1049.47	204.43	5.13	201.83	25.16	0.004672		
1.49648	105961.84						
115.00	4522.93	8.17	7.85	8519.43	0.48		
1085.52	206.85	5.25	204.20	25.01	0.004635		
1.51777	107206.23						
116.00	4522.94	8.18	7.85	8543.08	0.48		
1088.29	207.03	5.26	204.38	24.99	0.004652		
1.52591	107297.82						
117.00	4522.91	8.15	7.83	8470.20	0.48		
1081.15	206.56	5.23	203.92	25.02	0.004647		
1.51788	107055.84						
118.00	4522.91	8.15	7.84	8474.23	0.48		
1081.46	206.58	5.24	203.94	25.02	0.004653		
1.51998	107066.62						
119.00	4522.96	8.20	7.87	8597.07	0.48		
1092.90	207.34	5.27	204.68	24.98	0.004636		
1.52480	107457.48						
120.00	4522.98	8.22	7.88	8669.64	0.48		
1099.84	207.80	5.29	205.13	24.95	0.004636		
1.53122	107692.05						
121.00	4522.98	8.22	7.88	8665.57	0.48		
1099.53	207.78	5.29	205.11	24.95	0.004638		
1.53155	107681.26						
122.00	4522.94	8.18	7.85	8543.41	0.48		
1088.35	207.03	5.26	204.38	24.99	0.004648		
1.52467	107299.62						
123.00	4522.91	8.15	7.83	8466.10	0.48		
1080.82	206.54	5.23	203.89	25.03	0.004655		
1.52016	107044.17						
124.00	4522.86	8.10	7.80	8344.45	0.48		
1069.20	205.76	5.20	203.13	25.07	0.004665		
1.51267	106643.16						
125.00	4522.83	8.07	7.79	8269.67	0.48		
1061.88	205.27	5.17	202.65	25.11	0.004664		
1.50562	106391.95						
126.00	4522.83	8.07	7.79	8266.96	0.48		
1061.84	205.26	5.17	202.65	25.11	0.004669		
1.50726	106390.29						
127.00	4522.79	8.03	7.76	8158.17	0.48		
1051.25	204.54	5.14	201.94	25.15	0.004683		
1.50181	106020.95						
128.00	4522.76	8.00	7.75	8091.44	0.48		
1044.44	204.08	5.12	201.49	25.18	0.004681		
1.49474	105784.30						
129.00	4522.76	8.00	7.75	8087.94	0.48		
1044.12	204.06	5.12	201.47	25.18	0.004679		
1.49390	105773.16						
130.00	4522.72	7.96	7.72	7983.02	0.48		

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		HYCHAN.OUT					
1034.18	203.38	5.08	200.80	25.23	0.004694		
1.48951	105422.35						
131.00	4522.70	7.94	7.71	7923.45	0.48		
1028.03	202.96	5.07	200.39	25.25	0.004692		
1.48307	105207.09						
132.00	4522.78	8.02	7.76	8137.52	0.48		
1048.80	204.38	5.13	201.79	25.16	0.004666		
1.49421	105938.01						
133.00	4522.83	8.07	7.79	8269.72	0.48		
1062.11	205.28	5.17	202.67	25.10	0.004668		
1.50697	106400.29						
134.00	4522.83	8.07	7.79	8269.80	0.48		
1062.05	205.28	5.17	202.66	25.10	0.004663		
1.50543	106397.83						
135.00	4522.83	8.07	7.79	8270.15	0.48		
1062.16	205.29	5.17	202.67	25.10	0.004667		
1.50687	106401.67						
136.00	4522.83	8.07	7.79	8269.93	0.48		
1062.22	205.29	5.17	202.67	25.10	0.004670		
1.50773	106404.05						
137.00	4522.83	8.07	7.79	8270.11	0.48		
1062.21	205.29	5.17	202.67	25.10	0.004668		
1.50703	106403.51						
138.00	4522.83	8.07	7.79	8269.68	0.48		
1062.17	205.29	5.17	202.67	25.10	0.004664		
1.50569	106402.21						
139.00	4522.83	8.07	7.78	8266.80	0.48		
1061.94	205.27	5.17	202.65	25.11	0.004664		
1.50555	106393.80						
140.00	4522.79	8.03	7.76	8158.40	0.48		
1051.31	204.55	5.14	201.95	25.15	0.004677		
1.50005	106022.73						
141.00	4522.76	8.00	7.75	8091.17	0.48		
1044.37	204.08	5.12	201.49	25.18	0.004687		
1.49677	105782.02						
142.00	4522.76	8.00	7.75	8091.15	0.48		
1044.31	204.08	5.12	201.49	25.18	0.004685		
1.49588	105780.05						
143.00	4522.76	8.00	7.75	8090.54	0.48		
1044.28	204.07	5.12	201.48	25.18	0.004686		
1.49630	105778.89						
144.00	4522.76	8.00	7.75	8088.09	0.48		
1044.23	204.07	5.12	201.48	25.18	0.004684		
1.49577	105776.95						
145.00	4522.72	7.96	7.72	7983.78	0.48		
1034.19	203.38	5.09	200.80	25.23	0.004696		
1.48991	105422.51						
146.00	4522.69	7.93	7.71	7916.92	0.48		
1027.42	202.92	5.06	200.35	25.26	0.004691		
1.48219	105185.16						
147.00	4522.69	7.93	7.71	7916.99	0.48		
1027.43	202.92	5.06	200.35	25.26	0.004692		
1.48229	105185.45						
148.00	4522.69	7.93	7.71	7917.08	0.48		
1027.42	202.92	5.06	200.35	25.26	0.004696		
1.48363	105185.36						
149.00	4522.69	7.93	7.71	7917.15	0.48		
1027.43	202.92	5.06	200.35	25.26	0.004692		
1.48245	105185.39						
150.00	4522.69	7.93	7.70	7914.87	0.48		
1027.29	202.91	5.06	200.34	25.26	0.004698		
1.48429	105180.61						
151.00	4522.67	7.90	7.69	7844.56	0.48		

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				HYCHAN.OUT			
1020.52		202.44		5.04	199.88	25.29	0.004704
	1.47959	104939.03					
	152.00	4522.63	7.87		7.67	7765.12	0.48
1012.69		201.90		5.02	199.35	25.32	0.004707
	1.47319	104660.80					
	153.00	4522.62	7.86		7.66	7743.02	0.48
1010.45		201.74		5.01	199.20	25.33	0.004713
	1.47288	104581.16					
	154.00	4522.62	7.86		7.66	7740.02	0.48
1010.28		201.73		5.01	199.19	25.33	0.004708
	1.47136	104574.91					
	155.00	4522.58	7.82		7.64	7642.17	0.48
1000.57		201.05		4.98	198.52	25.38	0.004721
	1.46613	104225.14					
	156.00	4522.64	7.88		7.68	7784.17	0.48
1014.22		202.01		5.02	199.46	25.31	0.004693
	1.47017	104717.20					
	157.00	4522.69	7.93		7.71	7916.68	0.48
1027.41		202.92		5.06	200.35	25.26	0.004694
	1.48310	105184.91					
	158.00	4522.69	7.93		7.71	7916.94	0.48
1027.48		202.92		5.06	200.36	25.26	0.004695
	1.48336	105187.52					
	159.00	4522.69	7.93		7.71	7916.90	0.48
1027.49		202.92		5.06	200.36	25.26	0.004694
	1.48307	105187.80					
	160.00	4522.69	7.93		7.71	7917.38	0.48
1027.43		202.92		5.06	200.35	25.26	0.004692
	1.48230	105185.39					
	161.00	4522.69	7.93		7.71	7916.85	0.48
1027.36		202.91		5.06	200.35	25.26	0.004690
	1.48187	105183.03					
	162.00	4522.69	7.93		7.71	7916.84	0.48
1027.35		202.91		5.06	200.35	25.26	0.004697
	1.48398	105182.79					
	163.00	4522.69	7.93		7.71	7916.98	0.48
1027.38		202.91		5.06	200.35	25.26	0.004693
	1.48278	105183.75					
	164.00	4522.69	7.93		7.70	7913.43	0.48
1027.11		202.90		5.06	200.33	25.26	0.004700
	1.48469	105174.09					
	165.00	4522.65	7.89		7.68	7810.24	0.48
1017.25		202.21		5.03	199.66	25.30	0.004707
	1.47757	104822.18					
	166.00	4522.62	7.86		7.66	7743.05	0.48
1010.52		201.75		5.01	199.21	25.33	0.004703
	1.46989	104583.79					
	167.00	4522.62	7.86		7.66	7743.04	0.48
1010.42		201.74		5.01	199.20	25.33	0.004708
	1.47153	104580.05					
	168.00	4522.62	7.86		7.66	7742.91	0.48
1010.51		201.75		5.01	199.21	25.33	0.004709
	1.47184	104583.60					
	169.00	4522.62	7.86		7.66	7742.99	0.48
1010.58		201.75		5.01	199.21	25.33	0.004704
	1.47033	104586.00					
	170.00	4522.62	7.86		7.66	7743.06	0.48
1010.47		201.74		5.01	199.20	25.33	0.004706
	1.47084	104581.95					
	171.00	4522.62	7.86		7.66	7742.78	0.48
1010.45		201.74		5.01	199.20	25.33	0.004709
	1.47159	104581.15					
	172.00	4522.62	7.86		7.66	7739.84	0.48

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		HYCHAN.OUT					
1010.26	201.73	5.01	199.19	25.33	0.004712		
1.47235	104574.27						
173.00	4522.58	7.82	7.64	7636.23	0.48		
1000.00	201.01	4.97	198.48	25.38	0.004723		
1.46612	104203.98						
174.00	4522.55	7.79	7.62	7569.00	0.48		
993.47	200.55	4.95	198.04	25.41	0.004723		
1.45978	103970.05						
175.00	4522.55	7.79	7.62	7569.70	0.48		
993.53	200.56	4.95	198.04	25.41	0.004716		
1.45773	103972.38						
176.00	4522.55	7.79	7.62	7568.33	0.48		
993.42	200.55	4.95	198.04	25.41	0.004723		
1.45982	103968.40						
177.00	4522.55	7.79	7.62	7569.32	0.48		
993.52	200.56	4.95	198.04	25.41	0.004720		
1.45904	103971.88						
178.00	4522.55	7.79	7.62	7568.76	0.48		
993.49	200.55	4.95	198.04	25.41	0.004719		
1.45870	103970.68						
179.00	4522.56	7.80	7.62	7575.00	0.48		
993.98	200.59	4.96	198.07	25.41	0.004719		
1.45910	103989.09						
180.00	4522.64	7.88	7.68	7784.02	0.48		
1014.16	202.00	5.02	199.46	25.31	0.004694		
1.47063	104715.09						
181.00	4522.69	7.93	7.71	7919.51	0.48		
1027.63	202.93	5.06	200.37	25.25	0.004697		
1.48405	105192.93						
182.00	4522.74	7.98	7.73	8025.10	0.48		
1037.84	203.63	5.10	201.06	25.21	0.004681		
1.48883	105553.88						
183.00	4522.76	8.00	7.75	8090.92	0.48		
1044.38	204.08	5.12	201.49	25.18	0.004679		
1.49404	105782.59						
184.00	4522.76	8.00	7.75	8090.86	0.48		
1044.46	204.09	5.12	201.50	25.18	0.004684		
1.49578	105785.35						
185.00	4522.76	8.00	7.74	8091.08	0.48		
1044.69	204.10	5.12	201.51	25.18	0.004679		
1.49437	105793.45						
186.00	4522.76	8.00	7.74	8090.92	0.48		
1044.77	204.11	5.12	201.52	25.18	0.004680		
1.49500	105796.12						
187.00	4522.76	8.00	7.75	8091.17	0.48		
1044.63	204.10	5.12	201.51	25.18	0.004683		
1.49553	105791.04						
188.00	4522.76	8.00	7.75	8090.80	0.48		
1044.36	204.08	5.12	201.49	25.18	0.004679		
1.49415	105781.76						
189.00	4522.76	8.00	7.75	8090.97	0.48		
1044.49	204.09	5.12	201.50	25.18	0.004680		
1.49469	105786.41						
190.00	4522.76	8.00	7.75	8088.13	0.48		
1044.27	204.07	5.12	201.48	25.18	0.004680		
1.49431	105778.52						
191.00	4522.72	7.96	7.72	7983.19	0.48		
1034.16	203.38	5.08	200.80	25.23	0.004697		
1.49022	105421.58						
192.00	4522.69	7.93	7.71	7916.76	0.48		
1027.34	202.91	5.06	200.35	25.26	0.004692		
1.48248	105182.52						
193.00	4522.69	7.93	7.71	7917.27	0.48		

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		HYCHAN.OUT					
1027.39	202.91	5.06	200.35	25.26	0.004697		
1.48389	105183.95						
194.00	4522.69	7.93	7.71	7916.96	0.48		
1027.39	202.92	5.06	200.35	25.26	0.004695		
1.48348	105184.34						
195.00	4522.69	7.93	7.71	7917.03	0.48		
1027.34	202.91	5.06	200.35	25.26	0.004697		
1.48394	105182.43						
196.00	4522.69	7.93	7.71	7917.00	0.48		
1027.38	202.91	5.06	200.35	25.26	0.004693		
1.48278	105183.91						
197.00	4522.69	7.93	7.71	7917.13	0.48		
1027.29	202.91	5.06	200.34	25.26	0.004701		
1.48504	105180.49						
198.00	4522.69	7.93	7.71	7917.18	0.48		
1027.32	202.91	5.06	200.35	25.26	0.004693		
1.48267	105181.52						
199.00	4522.69	7.93	7.71	7916.41	0.48		
1027.30	202.91	5.06	200.34	25.26	0.004696		
1.48353	105181.12						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 863

MAXIMUM DISCHARGE (CFS) = 21445.80 AT TIME = 80.17  
 MAXIMUM STAGE = 4521.17 AT TIME = 80.30

AREA	TIME WETTED BED SHEAR	ELEV. PERIMETER SURFACE	THALWEG DEPTH HYDRAULIC	VELOCITY RADIUS TOP WIDTH	DISCHARGE WIDTH/DEPTH	FROUDE NO. ENERGY	FLOW SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)			
0.00	0.00	4508.30	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4508.30	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
515.13	2.00	4508.77	0.47	0.45	233.48	0.12	0.006072
6.28816	31.04	18078.72	16.60	31.17	66.71	0.00	0.006072
728.10	3.00	4515.93	7.63	7.59	5528.28	0.48	0.006327
1.45305	197.82	113313.86	3.68	195.37	25.59	0.48	0.006327
720.19	4.00	4515.89	7.59	7.56	5446.69	0.48	0.006341
1.44609	197.05	112876.40	3.65	194.61	25.64	0.48	0.006341
713.03	5.00	4515.85	7.55	7.54	5377.06	0.48	0.006341
1.43677	196.35	112479.77	3.63	193.93	25.69	0.48	0.006341
705.00	6.00	4515.80	7.50	7.51	5294.80	0.48	0.006353
1.42913	195.56	112026.46	3.61	193.15	25.74	0.48	0.006353
690.03	7.00	4515.72	7.42	7.46	5144.73	0.48	0.006361
1.41130	194.06	111178.15	3.56	191.69	25.85	0.48	0.006361
674.96	8.00	4515.63	7.33	7.40	4995.24	0.48	0.006372
1.39389	192.54	110312.23	3.51	190.19	25.95	0.48	0.006372
659.85	9.00	4515.54	7.24	7.34	4846.55	0.48	0.006381
190.98			3.45	188.67	26.06	0.48	0.006381

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		HYCHAN.OUT					
	1.37572	109431.05					
652.54	10.00	4515.50	7.20	7.31	4771.81	0.48	
		190.23	3.43		187.94	26.11	0.006382
	1.36604	109003.76					
645.03	11.00	4515.45	7.15	7.28	4695.77	0.48	
		189.44	3.40		187.16	26.17	0.006392
	1.35816	108554.12					
630.01	12.00	4515.36	7.06	7.22	4546.98	0.48	
		187.85	3.35		185.61	26.28	0.006408
	1.34108	107652.10					
622.32	13.00	4515.32	7.02	7.18	4469.29	0.48	
		187.03	3.33		184.81	26.34	0.006409
	1.33063	107188.29					
622.29	14.00	4515.31	7.02	7.18	4469.05	0.48	
		187.03	3.33		184.80	26.34	0.006410
	1.33074	107186.79					
622.28	15.00	4515.31	7.02	7.18	4468.99	0.48	
		187.03	3.33		184.80	26.34	0.006410
	1.33076	107186.51					
622.28	16.00	4515.31	7.02	7.18	4468.98	0.48	
		187.03	3.33		184.80	26.34	0.006410
	1.33073	107186.23					
622.30	17.00	4515.32	7.02	7.18	4469.22	0.48	
		187.03	3.33		184.81	26.34	0.006410
	1.33094	107187.87					
629.71	18.00	4515.36	7.06	7.22	4544.05	0.48	
		187.83	3.35		185.59	26.29	0.006398
	1.33836	107639.44					
645.10	19.00	4515.45	7.15	7.28	4696.95	0.48	
		189.46	3.40		187.18	26.17	0.006385
	1.35658	108563.65					
660.16	20.00	4515.54	7.24	7.35	4849.82	0.48	
		191.03	3.46		188.72	26.06	0.006371
	1.37388	109455.00					
667.47	21.00	4515.58	7.29	7.38	4924.13	0.48	
		191.78	3.48		189.45	26.00	0.006369
	1.38321	109880.77					
667.52	22.00	4515.59	7.29	7.38	4924.66	0.48	
		191.78	3.48		189.45	26.00	0.006368
	1.38312	109883.71					
675.66	23.00	4515.63	7.33	7.41	5004.46	0.48	
		192.62	3.51		190.27	25.95	0.006360
	1.39204	110357.92					
699.55	24.00	4515.77	7.47	7.49	5241.65	0.48	
		195.02	3.59		192.63	25.78	0.006340
	1.41909	111724.59					
730.12	25.00	4515.95	7.65	7.60	5550.75	0.48	
		198.03	3.69		195.57	25.58	0.006318
	1.45352	113429.70					
760.19	26.00	4516.11	7.81	7.70	5856.06	0.49	
		200.90	3.78		198.38	25.39	0.006299
	1.48737	115062.14					
772.58	27.00	4516.18	7.88	7.75	5985.04	0.49	
		202.07	3.82		199.52	25.31	0.006299
	1.50290	115721.32					
772.80	28.00	4516.18	7.88	7.75	5986.58	0.49	
		202.09	3.82		199.54	25.31	0.006297
	1.50269	115733.27					
782.13	29.00	4516.24	7.94	7.78	6082.55	0.49	
		202.96	3.85		200.39	25.25	0.006288
	1.51218	116227.16					
788.93	30.00	4516.27	7.97	7.80	6151.93	0.49	
		203.58	3.88		201.00	25.21	0.006289

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		HYCHAN.OUT					
	1.52067	116582.24					
788.75	31.00	4516.27	7.97	7.80	6154.16	0.49	
		203.57	3.87	200.99	25.21		0.006288
	1.52029	116573.58					
798.54	32.00	4516.32	8.02	7.83	6254.91	0.49	
		204.47	3.91	201.87	25.16		0.006277
	1.52979	117084.66					
805.39	33.00	4516.36	8.06	7.85	6326.00	0.49	
		205.09	3.93	202.48	25.12		0.006275
	1.53773	117438.18					
805.21	34.00	4516.36	8.06	7.85	6323.77	0.49	
		205.07	3.93	202.46	25.12		0.006280
	1.53855	117428.20					
795.84	35.00	4516.31	8.01	7.82	6223.58	0.49	
		204.21	3.90	201.62	25.17		0.006285
	1.52841	116940.06					
788.83	36.00	4516.27	7.97	7.80	6150.10	0.49	
		203.57	3.87	200.99	25.21		0.006290
	1.52093	116576.80					
779.52	37.00	4516.22	7.92	7.77	6054.51	0.49	
		202.71	3.85	200.15	25.27		0.006296
	1.51090	116085.34					
772.58	38.00	4516.18	7.88	7.75	5985.07	0.49	
		202.07	3.82	199.52	25.31		0.006301
	1.50323	115721.08					
772.61	39.00	4516.18	7.88	7.75	5985.00	0.49	
		202.07	3.82	199.52	25.31		0.006297
	1.50250	115722.77					
772.57	40.00	4516.18	7.88	7.75	5984.94	0.49	
		202.06	3.82	199.52	25.31		0.006301
	1.50320	115720.38					
772.64	41.00	4516.18	7.88	7.75	5985.08	0.49	
		202.07	3.82	199.52	25.31		0.006298
	1.50263	115724.34					
772.80	42.00	4516.18	7.88	7.75	5986.54	0.49	
		202.09	3.82	199.54	25.31		0.006300
	1.50335	115733.27					
782.20	43.00	4516.24	7.94	7.78	6082.84	0.49	
		202.96	3.85	200.40	25.25		0.006288
	1.51210	116230.64					
789.15	44.00	4516.27	7.97	7.80	6153.99	0.49	
		203.60	3.88	201.02	25.21		0.006288
	1.52084	116594.03					
798.75	45.00	4516.33	8.03	7.83	6256.97	0.49	
		204.49	3.91	201.89	25.15		0.006278
	1.53014	117095.88					
815.41	46.00	4516.42	8.12	7.89	6432.65	0.49	
		206.00	3.96	203.37	25.06		0.006267
	1.54782	117955.09					
831.86	47.00	4516.50	8.20	7.94	6606.20	0.49	
		207.48	4.01	204.81	24.97		0.006258
	1.56577	118792.05					
848.38	48.00	4516.59	8.29	7.99	6780.30	0.49	
		208.94	4.06	206.24	24.88		0.006246
	1.58259	119621.73					
863.93	49.00	4516.67	8.37	8.04	6947.68	0.49	
		210.30	4.11	207.58	24.79		0.006236
	1.59867	120393.71					
880.79	50.00	4516.76	8.46	8.09	7128.90	0.49	
		211.76	4.16	209.00	24.70		0.006229
	1.61665	121220.81					
905.82	51.00	4516.89	8.59	8.17	7399.70	0.49	
		213.89	4.24	211.08	24.58		0.006205

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1.63988	122429.24								
52.00	4516.96	8.66	8.21	7545.35	0.49				
919.43	215.03	4.28	212.20	24.51	0.006205				
1.65564	123075.92								
53.00	4517.01	8.71	8.24	7655.31	0.49				
929.24	215.85	4.31	213.00	24.46	0.006203				
1.66623	123540.61								
54.00	4517.19	8.89	8.35	8067.06	0.49				
966.50	218.90	4.42	215.98	24.28	0.006166				
1.69891	125271.19								
55.00	4517.51	9.21	8.53	8792.36	0.50				
1030.99	224.00	4.60	220.98	24.00	0.006125				
1.75908	128165.95								
56.00	4517.93	9.63	8.77	9811.73	0.50				
1119.36	230.68	4.85	227.50	23.63	0.006080				
1.84083	131949.69								
57.00	4518.47	10.17	9.07	11249.40	0.50				
1240.30	239.28	5.18	235.91	23.19	0.006011				
1.94417	136825.95								
58.00	4518.89	10.59	9.30	12425.73	0.50				
1336.63	245.78	5.44	242.25	22.87	0.005947				
2.01832	140504.66								
59.00	4519.22	10.92	9.47	13404.48	0.51				
1415.02	250.83	5.64	247.18	22.63	0.005895				
2.07501	143366.70								
60.00	4519.62	11.32	9.69	14649.60	0.51				
1512.38	256.86	5.89	253.07	22.36	0.005829				
2.14173	146782.81								
61.00	4519.94	11.64	9.85	15680.77	0.51				
1591.53	261.59	6.08	257.69	22.15	0.005787				
2.19689	149461.19								
62.00	4520.17	11.87	10.02	16540.52	0.51				
1650.25	265.00	6.23	261.02	22.00	0.005728				
2.22589	151388.89								
63.00	4520.20	11.90	10.36	17200.22	0.53				
1660.23	265.57	6.25	261.57	21.97	0.005653				
2.20530	151713.25								
64.00	4520.21	11.91	10.74	17834.90	0.55				
1661.29	265.64	6.25	261.64	21.97	0.005526				
2.15655	151752.69								
65.00	4520.24	11.94	11.08	18477.05	0.57				
1668.21	265.71	6.28	262.06	21.95	0.005455				
2.13701	151993.39								
66.00	4520.28	11.98	11.11	18649.91	0.57				
1678.55	265.80	6.32	262.69	21.92	0.005438				
2.14300	152359.67								
67.00	4520.30	12.00	11.10	18669.11	0.57				
1681.85	265.83	6.33	262.89	21.92	0.005423				
2.14097	152477.00								
68.00	4520.30	12.00	11.09	18671.67	0.56				
1683.36	265.84	6.33	262.98	21.91	0.005427				
2.14446	152530.14								
69.00	4520.31	12.01	11.09	18683.27	0.56				
1684.28	265.85	6.34	263.04	21.91	0.005431				
2.14702	152562.55								
70.00	4520.31	12.01	11.09	18693.58	0.56				
1685.32	265.86	6.34	263.10	21.91	0.005431				
2.14817	152599.89								
71.00	4520.31	12.01	11.10	18694.42	0.56				
1684.65	265.85	6.34	263.06	21.91	0.005437				
2.14995	152575.28								
72.00	4520.29	11.99	11.12	18693.30	0.57				
1681.56	265.82	6.33	262.87	21.92	0.005441				

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1693.82	2.14776	152466.31	12.05	6.37	11.14	18872.93	0.57	0.005389
	73.00	4520.35				263.63	21.88	
	2.14201	152903.00						
1708.61	74.00	4520.41	12.11	6.42	11.14	19042.04	0.56	0.005376
		266.05				264.53	21.84	
	2.15448	153427.41						
1710.13	75.00	4520.42	12.12	6.43	11.15	19063.29	0.56	0.005375
		266.07				264.62	21.84	
	2.15583	153480.34						
1724.29	76.00	4520.48	12.18	6.48	11.16	19239.57	0.56	0.005336
		266.19				265.49	21.80	
	2.15677	153984.19						
1763.69	77.00	4520.64	12.34	6.62	11.19	19733.35	0.56	0.005263
		266.52				267.89	21.70	
	2.17330	155375.92						
1803.69	78.00	4520.81	12.51	6.76	11.22	20241.18	0.56	0.005205
		266.86				270.31	21.60	
	2.19508	156779.39						
1832.71	79.00	4520.94	12.64	6.86	11.24	20606.19	0.56	0.005165
		267.11				272.05	21.53	
	2.21153	157791.52						
1869.31	80.00	4521.09	12.79	6.99	11.28	21087.09	0.56	0.005106
		267.42				274.23	21.44	
	2.22709	159056.28						
1887.24	81.00	4521.17	12.87	7.05	11.29	21308.24	0.55	0.005109
		267.57				275.29	21.39	
	2.24879	159669.84						
1869.49	82.00	4521.09	12.79	6.99	11.27	21074.76	0.56	0.005141
		267.42				274.23	21.44	
	2.24266	159054.67						
1850.74	83.00	4521.01	12.71	6.92	11.26	20832.45	0.56	0.005154
		267.26				273.13	21.48	
	2.22723	158412.97						
1848.29	84.00	4521.00	12.70	6.92	11.26	20803.39	0.56	0.005156
		267.24				272.98	21.49	
	2.22502	158328.58						
1848.77	85.00	4521.00	12.71	6.92	11.25	20806.21	0.56	0.005158
		267.25				273.01	21.49	
	2.22639	158345.17						
1838.70	86.00	4520.96	12.66	6.88	11.26	20709.95	0.56	0.005171
		267.16				272.40	21.51	
	2.22065	157993.20						
1792.80	87.00	4520.77	12.47	6.72	11.21	20097.29	0.56	0.005277
		266.77				269.63	21.63	
	2.21305	156383.72						
1701.29	88.00	4520.38	12.08	6.40	11.12	18916.07	0.56	0.005437
		265.99				264.06	21.87	
	2.17014	153155.17						
1652.89	89.00	4520.18	11.88	6.23	10.38	17159.11	0.53	0.005758
		265.15				261.17	21.99	
	2.23968	151477.94						
1611.57	90.00	4520.01	11.71	6.13	9.89	15939.24	0.51	0.005808
		262.74				258.81	22.10	
	2.22286	150110.66						
1543.07	91.00	4519.74	11.44	5.96	9.75	15042.89	0.51	0.005848
		258.70				254.87	22.27	
	2.17660	147823.19						
1467.04	92.00	4519.43	11.13	5.77	9.59	14062.39	0.51	0.005904
		254.06				250.34	22.48	
	2.12743	145197.16						
1396.68	93.00	4519.14	10.84	5.59	9.43	13170.51	0.50	0.005943
		249.65				246.03	22.69	

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1332.65	2.07478	142698.75	10.57	5.43	9.29	12375.54	0.50	0.005988
	94.00	4518.87				241.98	22.89	
	2.02846	245.50						
1283.72	95.00	4518.66	10.36	5.30	9.17	11775.34	0.50	0.005991
		242.25				238.80	23.04	
	1.98117	138504.53						
1237.80	96.00	4518.46	10.16	5.18	9.06	11219.39	0.50	0.006022
		239.11				235.74	23.20	
	1.94527	136729.30						
1202.53	97.00	4518.30	10.00	5.08	8.98	10797.16	0.50	0.006063
		236.66				233.35	23.32	
	1.92243	135340.80						
1170.09	98.00	4518.16	9.86	4.99	8.90	10408.33	0.50	0.006066
		234.36				231.10	23.44	
	1.88987	134036.22						
1145.82	99.00	4518.05	9.75	4.93	8.83	10120.17	0.50	0.006072
		232.62				229.39	23.53	
	1.86643	133047.19						
1117.43	100.00	4517.92	9.62	4.85	8.76	9785.11	0.50	0.006094
		230.54				227.36	23.64	
	1.84309	131869.03						
1089.16	101.00	4517.78	9.49	4.77	8.68	9456.38	0.50	0.006111
		228.44				225.31	23.75	
	1.81801	130678.59						
1064.85	102.00	4517.67	9.37	4.70	8.62	9175.44	0.50	0.006127
		226.60				223.52	23.85	
	1.79657	129638.93						
1044.57	103.00	4517.57	9.27	4.64	8.56	8941.36	0.50	0.006137
		225.05				222.00	23.94	
	1.77734	128760.83						
1026.54	104.00	4517.49	9.19	4.59	8.51	8738.03	0.50	0.006148
		223.66				220.64	24.02	
	1.76094	127969.27						
998.56	105.00	4517.35	9.05	4.51	8.43	8421.31	0.49	0.006165
		221.45				218.48	24.14	
	1.73475	126719.91						
975.17	106.00	4517.24	8.94	4.44	8.37	8159.46	0.49	0.006178
		219.59				216.66	24.24	
	1.71202	125664.47						
959.34	107.00	4517.16	8.86	4.39	8.32	7983.65	0.49	0.006186
		218.31				215.41	24.32	
	1.69622	124938.55						
943.92	108.00	4517.08	8.78	4.35	8.28	7812.85	0.49	0.006196
		217.05				214.18	24.39	
	1.68139	124223.95						
937.71	109.00	4517.05	8.75	4.33	8.26	7746.02	0.49	0.006193
		216.55				213.68	24.42	
	1.67330	123936.68						
947.19	110.00	4517.10	8.80	4.36	8.29	7853.55	0.49	0.006187
		217.33				214.45	24.37	
	1.68272	124380.09						
972.04	111.00	4517.22	8.92	4.43	8.36	8129.08	0.49	0.006167
		219.35				216.42	24.26	
	1.70527	125525.80						
975.00	112.00	4517.24	8.94	4.44	8.37	8157.65	0.49	0.006178
		219.58				216.65	24.24	
	1.71181	125657.07						
960.06	113.00	4517.16	8.86	4.40	8.32	7991.47	0.49	0.006185
		218.37				215.47	24.31	
	1.69689	124972.62						
972.89	114.00	4517.23	8.93	4.43	8.37	8138.65	0.49	0.006166
		219.42				216.49	24.25	

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		HYCHAN.OUT					
	1.70593	125564.94					
1006.29	115.00	4517.39	9.09	4.53	8.46	8513.89	0.49
	1.73852	127074.16					
1009.52	116.00	4517.40	9.11	4.54	8.47	8545.92	0.49
	1.74334	127214.66					
1002.65	117.00	4517.37	9.07	4.52	8.45	8470.15	0.49
	1.73710	126909.91					
1002.94	118.00	4517.37	9.07	4.52	8.45	8473.87	0.49
	1.73659	126922.69					
1013.37	119.00	4517.42	9.12	4.55	8.48	8594.20	0.49
	1.74594	127389.52					
1020.00	120.00	4517.46	9.16	4.57	8.50	8669.58	0.50
	1.75376	127683.05					
1019.74	121.00	4517.45	9.15	4.57	8.50	8666.06	0.50
	1.75318	127671.18					
1009.55	122.00	4517.40	9.11	4.54	8.47	8546.25	0.49
	1.74380	127215.81					
1002.38	123.00	4517.37	9.07	4.52	8.45	8466.63	0.49
	1.73631	126897.49					
991.82	124.00	4517.32	9.02	4.49	8.42	8347.28	0.49
	1.72706	126420.24					
984.90	125.00	4517.28	8.98	4.47	8.40	8269.69	0.49
	1.72027	126109.73					
984.86	126.00	4517.28	8.98	4.47	8.39	8267.42	0.49
	1.71971	126107.67					
975.27	127.00	4517.24	8.94	4.44	8.37	8160.77	0.49
	1.71106	125669.45					
968.77	128.00	4517.21	8.91	4.42	8.35	8091.55	0.49
	1.70359	125374.74					
968.47	129.00	4517.20	8.90	4.42	8.35	8088.26	0.49
	1.70393	125360.71					
959.52	130.00	4517.16	8.86	4.39	8.32	7985.58	0.49
	1.69611	124947.14					
953.62	131.00	4517.13	8.83	4.38	8.31	7922.69	0.49
	1.68953	124677.38					
972.34	132.00	4517.22	8.92	4.43	8.36	8132.45	0.49
	1.70623	125539.47					
984.98	133.00	4517.29	8.99	4.47	8.40	8269.51	0.49
	1.71970	126113.41					
985.10	134.00	4517.29	8.99	4.47	8.39	8269.75	0.49
	1.72108	126118.70					
985.10	135.00	4517.29	8.99	4.47	8.40	8270.24	0.49
		220.39					

		HYCHAN.OUT				
1.72012	126118.91	8.99	8.39	8269.87	0.49	
136.00	4517.29	4.47	217.45	24.20	0.006166	
985.11	220.39					
1.71969	126119.25	8.99	8.40	8270.12	0.49	
137.00	4517.29	4.47	217.45	24.20	0.006165	
985.10	220.39					
1.71954	126119.02	8.99	8.39	8269.69	0.49	
138.00	4517.29	4.47	217.45	24.20	0.006167	
985.09	220.39					
1.72012	126118.44	8.98	8.39	8267.26	0.49	
139.00	4517.28	4.47	217.43	24.20	0.006168	
984.86	220.37					
1.72008	126107.66	8.94	8.37	8160.90	0.49	
140.00	4517.24	4.44	216.67	24.24	0.006180	
975.30	219.60					
1.71277	125670.92	8.91	8.35	8091.42	0.49	
141.00	4517.21	4.42	216.16	24.27	0.006175	
968.75	219.08					
1.70385	125373.48	8.90	8.35	8091.05	0.49	
142.00	4517.20	4.42	216.16	24.27	0.006175	
968.69	219.08					
1.70381	125371.12	8.90	8.35	8090.64	0.49	
143.00	4517.20	4.42	216.15	24.27	0.006174	
968.64	219.07					
1.70333	125368.50	8.90	8.35	8088.45	0.49	
144.00	4517.20	4.42	216.15	24.27	0.006174	
968.57	219.06					
1.70338	125364.98	8.86	8.32	7986.27	0.49	
145.00	4517.16	4.39	215.43	24.32	0.006182	
959.52	218.33					
1.69537	124947.53	8.83	8.31	7916.89	0.49	
146.00	4517.13	4.38	214.92	24.35	0.006186	
953.12	217.81					
1.68917	124653.58	8.83	8.31	7917.06	0.49	
147.00	4517.13	4.38	214.92	24.35	0.006188	
953.13	217.81					
1.68961	124654.09	8.83	8.31	7917.10	0.49	
148.00	4517.13	4.38	214.92	24.35	0.006181	
953.12	217.81					
1.68789	124653.87	8.83	8.31	7917.13	0.49	
149.00	4517.13	4.38	214.92	24.35	0.006185	
953.13	217.81					
1.68883	124654.27	8.83	8.31	7915.11	0.49	
150.00	4517.13	4.38	214.91	24.35	0.006186	
952.97	217.80					
1.68888	124646.52	8.80	8.29	7846.41	0.49	
151.00	4517.10	4.36	214.42	24.38	0.006190	
946.87	217.30					
1.68316	124362.20	8.76	8.27	7766.01	0.49	
152.00	4517.06	4.34	213.83	24.41	0.006195	
939.58	216.70					
1.67602	124023.36	8.75	8.26	7743.04	0.49	
153.00	4517.05	4.33	213.67	24.42	0.006194	
937.53	216.53					
1.67350	123928.20	8.75	8.26	7740.42	0.49	
154.00	4517.05	4.33	213.65	24.42	0.006194	
937.28	216.51					
1.67331	123915.83	8.70	8.23	7644.02	0.49	
155.00	4517.00	4.30	212.94	24.46	0.006205	
928.50	215.78					
1.66596	123502.48	8.76	8.27	7779.04	0.49	
156.00	4517.06	4.34	213.91	24.41	0.006187	
940.53	216.78					

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		HYCHAN.OUT					
	1.67497	124069.62					
952.96	157.00	4517.13	8.83	8.31	7916.59	0.49	
		217.80	4.38	214.91	24.35		0.006187
	1.68913	124646.37					
953.02	158.00	4517.13	8.83	8.31	7916.93	0.49	
		217.80	4.38	214.91	24.35		0.006185
	1.68876	124649.24					
953.05	159.00	4517.13	8.83	8.31	7916.94	0.49	
		217.80	4.38	214.91	24.35		0.006187
	1.68942	124650.50					
953.10	160.00	4517.13	8.83	8.31	7917.28	0.49	
		217.81	4.38	214.92	24.35		0.006182
	1.68814	124653.14					
953.09	161.00	4517.13	8.83	8.31	7916.81	0.49	
		217.81	4.38	214.92	24.35		0.006188
	1.68973	124652.61					
953.10	162.00	4517.13	8.83	8.31	7916.94	0.49	
		217.81	4.38	214.92	24.35		0.006183
	1.68834	124652.53					
953.06	163.00	4517.13	8.83	8.31	7916.99	0.49	
		217.81	4.38	214.92	24.35		0.006186
	1.68897	124650.87					
952.83	164.00	4517.13	8.83	8.31	7913.83	0.49	
		217.79	4.38	214.90	24.35		0.006187
	1.68895	124640.18					
943.87	165.00	4517.08	8.78	8.28	7812.75	0.49	
		217.05	4.35	214.18	24.39		0.006197
	1.68163	124221.88					
937.45	166.00	4517.05	8.75	8.26	7742.93	0.49	
		216.52	4.33	213.66	24.42		0.006199
	1.67467	123924.25					
937.55	167.00	4517.05	8.75	8.26	7743.26	0.49	
		216.53	4.33	213.67	24.42		0.006194
	1.67353	123928.70					
937.45	168.00	4517.05	8.75	8.26	7742.84	0.49	
		216.52	4.33	213.66	24.42		0.006193
	1.67315	123924.40					
937.39	169.00	4517.05	8.75	8.26	7742.99	0.49	
		216.52	4.33	213.66	24.42		0.006197
	1.67411	123921.72					
937.45	170.00	4517.05	8.75	8.26	7743.14	0.49	
		216.52	4.33	213.66	24.42		0.006195
	1.67357	123924.22					
937.46	171.00	4517.05	8.75	8.26	7742.78	0.49	
		216.53	4.33	213.66	24.42		0.006193
	1.67322	123924.87					
937.27	172.00	4517.05	8.75	8.26	7740.17	0.49	
		216.51	4.33	213.65	24.42		0.006197
	1.67387	123915.79					
928.03	173.00	4517.00	8.70	8.23	7638.79	0.49	
		215.74	4.30	212.90	24.47		0.006202
	1.66475	123479.61					
921.79	174.00	4516.97	8.67	8.21	7569.06	0.49	
		215.22	4.28	212.39	24.50		0.006204
	1.65797	123187.28					
921.85	175.00	4516.97	8.67	8.21	7569.57	0.49	
		215.23	4.28	212.40	24.50		0.006202
	1.65769	123190.16					
921.76	176.00	4516.97	8.67	8.21	7568.45	0.49	
		215.22	4.28	212.39	24.50		0.006204
	1.65808	123185.81					
921.79	177.00	4516.97	8.67	8.21	7569.25	0.49	
		215.23	4.28	212.39	24.50		0.006209

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		HYCHAN.OUT					
	1.65936	123187.60					
921.81	178.00	4516.97	8.67	8.21	7568.84	0.49	
		215.23	4.28	212.39	24.50		0.006208
	1.65903	123188.48					
922.18	179.00	4516.97	8.67	8.21	7574.23	0.49	
		215.26	4.28	212.42	24.50		0.006209
	1.65973	123206.42					
940.44	180.00	4517.06	8.76	8.27	7778.92	0.49	
		216.77	4.34	213.91	24.41		0.006191
	1.67606	124065.52					
953.23	181.00	4517.13	8.83	8.31	7918.99	0.49	
		217.82	4.38	214.93	24.35		0.006185
	1.68906	124659.21					
962.54	182.00	4517.17	8.87	8.33	8022.59	0.49	
		218.58	4.40	215.67	24.30		0.006179
	1.69797	125089.63					
968.72	183.00	4517.21	8.91	8.35	8090.82	0.49	
		219.08	4.42	216.16	24.27		0.006175
	1.70395	125372.62					
968.79	184.00	4517.21	8.91	8.35	8090.92	0.49	
		219.08	4.42	216.16	24.27		0.006172
	1.70316	125375.53					
968.98	185.00	4517.21	8.91	8.35	8090.97	0.49	
		219.10	4.42	216.18	24.27		0.006178
	1.70490	125384.05					
969.00	186.00	4517.21	8.91	8.35	8090.97	0.49	
		219.10	4.42	216.18	24.27		0.006176
	1.70447	125384.96					
968.94	187.00	4517.21	8.91	8.35	8091.23	0.49	
		219.10	4.42	216.18	24.27		0.006176
	1.70444	125382.41					
968.71	188.00	4517.21	8.91	8.35	8090.80	0.49	
		219.08	4.42	216.16	24.27		0.006178
	1.70473	125372.02					
968.83	189.00	4517.21	8.91	8.35	8091.02	0.49	
		219.09	4.42	216.17	24.27		0.006176
	1.70431	125377.09					
968.60	190.00	4517.20	8.90	8.35	8088.42	0.49	
		219.07	4.42	216.15	24.27		0.006176
	1.70407	125366.74					
959.51	191.00	4517.16	8.86	8.32	7985.75	0.49	
		218.33	4.39	215.43	24.32		0.006182
	1.69542	124946.87					
952.98	192.00	4517.13	8.83	8.31	7916.83	0.49	
		217.80	4.38	214.91	24.35		0.006188
	1.68955	124647.45					
953.07	193.00	4517.13	8.83	8.31	7917.35	0.49	
		217.81	4.38	214.92	24.35		0.006183
	1.68813	124651.52					
953.06	194.00	4517.13	8.83	8.31	7916.87	0.49	
		217.81	4.38	214.92	24.35		0.006190
	1.69023	124650.96					
953.00	195.00	4517.13	8.83	8.31	7917.08	0.49	
		217.80	4.38	214.91	24.35		0.006182
	1.68800	124648.22					
953.03	196.00	4517.13	8.83	8.31	7917.04	0.49	
		217.80	4.38	214.91	24.35		0.006187
	1.68935	124649.49					
953.08	197.00	4517.13	8.83	8.31	7917.12	0.49	
		217.81	4.38	214.92	24.35		0.006185
	1.68884	124651.72					
953.05	198.00	4517.13	8.83	8.31	7917.10	0.49	
		217.80	4.38	214.91	24.35		0.006185

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## HYCHAN.OUT

1.68877 124650.49  
 199.00 4517.13 8.83 8.31 7916.47 0.49  
 953.04 217.80 4.38 214.91 24.35 0.006188  
 1.68961 124650.06

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 887

MAXIMUM DISCHARGE (CFS) = 21258.66 AT TIME = 80.18

MAXIMUM STAGE = 4517.09 AT TIME = 80.33

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)								
0.00	0.00	4500.75	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	1.00	4500.75	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
315.38	2.00	4501.05	0.30	0.21	66.56	0.07			
	7.10145	16.48	19.14	16.61	54.95		0.005946		
822.02	3.00	4510.25	9.50	6.73	5536.05	0.39			
	1.57239	143.60	5.72	139.39	14.67		0.004402		
817.19	4.00	4510.20	9.45	6.67	5449.53	0.38			
	1.57171	143.12	5.71	138.94	14.70		0.004411		
809.70	5.00	4510.15	9.40	6.64	5377.31	0.38			
	1.56205	142.70	5.67	138.54	14.73		0.004412		
801.90	6.00	4510.11	9.36	6.61	5297.92	0.38			
	1.55436	142.24	5.64	138.09	14.76		0.004418		
786.76	7.00	4510.01	9.26	6.54	5147.90	0.38			
	1.53533	141.34	5.57	137.24	14.82		0.004420		
771.57	8.00	4509.92	9.17	6.48	4998.39	0.38			
	1.51746	140.43	5.49	136.37	14.88		0.004426		
755.72	9.00	4509.82	9.07	6.42	4849.49	0.38			
	1.50127	139.50	5.42	135.48	14.94		0.004441		
747.28	10.00	4509.77	9.02	6.39	4772.15	0.37			
	1.48876	139.02	5.38	135.02	14.97		0.004439		
739.43	11.00	4509.72	8.97	6.35	4698.84	0.37			
	1.48216	138.53	5.34	134.55	15.00		0.004450		
723.22	12.00	4509.62	8.87	6.29	4550.27	0.37			
	1.46340	137.54	5.26	133.61	15.07		0.004460		
714.19	13.00	4509.56	8.81	6.26	4469.51	0.37			
	1.45212	137.00	5.21	133.09	15.10		0.004464		
714.11	14.00	4509.56	8.81	6.26	4469.05	0.37			
	1.45204	136.99	5.21	133.09	15.10		0.004464		

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		HYCHAN.OUT			
714.11	15.00 4509.56	8.81	6.26 4469.02	15.10	0.37
	1.45150 136.99 94091.29	5.21	133.09		0.004462
714.11	16.00 4509.56	8.81	6.26 4468.98	15.10	0.37
	1.45150 136.99 94091.21	5.21	133.09		0.004462
714.12	17.00 4509.56	8.81	6.26 4469.13	15.10	0.37
	1.45175 136.99 94091.98	5.21	133.09		0.004463
721.72	18.00 4509.61	8.86	6.29 4540.79	15.07	0.37
	1.45960 137.48 94421.55	5.25	133.55		0.004456
738.37	19.00 4509.72	8.97	6.36 4693.53	15.00	0.37
	1.47871 138.50 95109.62	5.33	134.53		0.004445
754.97	20.00 4509.82	9.07	6.42 4846.75	14.94	0.38
	1.49576 139.49 95778.64	5.41	135.47		0.004429
763.49	21.00 4509.87	9.12	6.45 4923.95	14.90	0.38
	1.50744 139.97 96103.14	5.45	135.93		0.004429
763.55	22.00 4509.87	9.12	6.45 4924.51	14.90	0.38
	1.50732 139.98 96104.95	5.45	135.93		0.004428
771.38	23.00 4509.92	9.17	6.48 5001.18	14.87	0.38
	1.51620 140.46 96427.98	5.49	136.39		0.004424
795.03	24.00 4510.07	9.32	6.59 5235.28	14.78	0.38
	1.54361 141.87 97383.22	5.60	137.74		0.004414
826.09	25.00 4510.26	9.51	6.71 5544.41	14.67	0.38
	1.57797 143.67 98595.23	5.75	139.46		0.004398
856.58	26.00 4510.44	9.69	6.83 5850.48	14.56	0.39
	1.61158 145.38 99748.85	5.89	141.09		0.004383
870.26	27.00 4510.51	9.76	6.88 5985.01	14.52	0.39
	1.62714 146.11 100240.20	5.96	141.78		0.004378
870.38	28.00 4510.52	9.77	6.88 5986.14	14.52	0.39
	1.62786 146.12 100245.04	5.96	141.79		0.004379
879.47	29.00 4510.57	9.82	6.91 6079.61	14.49	0.39
	1.63680 146.62 100583.98	6.00	142.27		0.004373
886.85	30.00 4510.61	9.86	6.94 6151.98	14.47	0.39
	1.64455 147.00 100843.05	6.03	142.64		0.004369
886.97	31.00 4510.61	9.86	6.94 6153.67	14.47	0.39
	1.64694 147.01 100846.89	6.03	142.64		0.004375
896.44	32.00 4510.67	9.92	6.97 6251.88	14.43	0.39
	1.65546 147.53 101195.59	6.08	143.13		0.004366
903.87	33.00 4510.71	9.96	7.00 6325.98	14.41	0.39
	1.66212 147.91 101455.43	6.11	143.50		0.004359
903.72	34.00 4510.71	9.96	7.00 6324.15	14.41	0.39
	1.66345 147.90 101449.01	6.11	143.49		0.004363
894.45	35.00 4510.65	9.90	6.96 6226.51	14.44	0.39
	1.65456 147.40 101106.98	6.07	143.01		0.004369

		HYCHAN.OUT				
886.74	36.00	4510.61	9.86	6.94	6150.52	0.39
	1.64639	147.00	6.03	142.63	14.47	0.004374
	37.00	100838.34				
877.70	1.63743	4510.56	9.81	6.90	6057.40	0.39
	38.00	146.50	5.99	142.15	14.50	0.004380
	1.62847	100502.66				
870.30	39.00	4510.51	9.76	6.88	5985.21	0.39
	1.62847	146.11	5.96	141.78	14.52	0.004381
	40.00	100240.74				
870.27	1.62828	4510.51	9.76	6.88	5984.92	0.39
	41.00	146.11	5.96	141.78	14.52	0.004381
	1.62848	100240.02				
870.28	42.00	4510.51	9.76	6.88	5985.03	0.39
	1.62853	146.11	5.96	141.78	14.52	0.004381
	43.00	100240.12				
870.28	1.62853	4510.51	9.76	6.88	5984.99	0.39
	44.00	146.11	5.96	141.78	14.52	0.004382
	1.63017	100240.56				
870.39	45.00	4510.52	9.77	6.88	5986.24	0.39
	1.63685	146.12	5.96	141.79	14.52	0.004386
	46.00	100245.27				
879.50	1.63685	4510.57	9.82	6.91	6079.87	0.39
	47.00	146.62	6.00	142.27	14.49	0.004373
	1.64704	100585.09				
886.98	48.00	4510.61	9.86	6.94	6153.62	0.39
	1.64704	147.01	6.03	142.64	14.47	0.004375
	49.00	100848.99				
896.57	1.65577	4510.67	9.92	6.97	6253.56	0.39
	50.00	147.54	6.08	143.14	14.43	0.004366
	1.67342	101202.03				
913.80	51.00	4510.76	10.01	7.04	6429.23	0.39
	1.67342	148.44	6.16	144.01	14.38	0.004356
	52.00	101813.80				
930.81	1.69064	4510.86	10.11	7.09	6602.79	0.39
	53.00	149.33	6.23	144.85	14.33	0.004347
	1.69064	102408.18				
947.85	54.00	4510.95	10.20	7.15	6777.06	0.39
	1.70663	150.20	6.31	145.68	14.28	0.004334
	55.00	102994.38				
964.23	1.72098	4511.04	10.29	7.20	6944.40	0.40
	56.00	151.02	6.38	146.46	14.23	0.004320
	1.73894	103547.02				
981.95	57.00	4511.14	10.39	7.26	7125.33	0.40
	1.73894	151.89	6.46	147.29	14.18	0.004311
	58.00	104136.11				
1008.00	1.76129	4511.28	10.53	7.34	7393.80	0.40
	59.00	153.16	6.58	148.50	14.11	0.004289
	1.78012	104990.57				
1022.97	60.00	4511.35	10.60	7.38	7544.79	0.40
	1.78012	153.86	6.65	149.17	14.07	0.004291
	61.00	105464.47				
1032.46	1.79007	4511.41	10.66	7.41	7651.54	0.40
	62.00	154.34	6.69	149.63	14.04	0.004288
	1.79007	105787.74				
1068.79	63.00	4511.60	10.85	7.54	8056.27	0.40
	1.82082	156.13	6.85	151.33	13.94	0.004263
	64.00	106989.05				
1133.50	1.87812	4511.94	11.19	7.74	8777.31	0.41
	65.00	159.16	7.12	154.21	13.78	0.004226
	1.87812	109028.83				
1223.61	66.00	4512.39	11.64	8.00	9791.01	0.41
	1.96134	163.13	7.50	158.00	13.58	0.004191
	67.00	111704.89				

HYCHAN.OUT									
1344.84	57.00	4512.98	12.23	7.99	8.35	11225.21	0.42	13.32	0.004124
	2.05672	168.28				162.90			
		115167.10							
1443.40	58.00	4513.44	12.69	8.38	8.60	12409.86	0.43	13.13	0.004073
	2.12994	172.22				166.64			
		117817.18							
1520.96	59.00	4513.80	13.05	8.68	8.80	13386.68	0.43	12.99	0.004034
	2.18426	175.27				169.54			
		119864.38							
1616.13	60.00	4514.24	13.49	9.03	9.05	14629.53	0.43	12.83	0.003987
	2.24608	179.02				173.10			
		122383.59							
1693.95	61.00	4514.60	13.85	9.31	9.25	15668.21	0.44	12.70	0.003958
	2.29898	182.00				175.93			
		124381.70							
1755.21	62.00	4514.88	14.13	9.53	9.42	16528.40	0.44	12.60	0.003922
	2.33101	184.27				178.09			
		125909.04							
1794.85	63.00	4515.06	14.31	9.66	9.58	17192.91	0.45	12.54	0.003835
	2.31267	185.72				179.46			
		126879.84							
1841.61	64.00	4515.27	14.52	9.83	9.67	17815.44	0.45	12.47	0.003677
	2.25403	187.44				181.10			
		128035.39							
1916.78	65.00	4515.65	14.90	10.15	9.63	18454.97	0.44	12.35	0.003552
	2.24976	188.82				184.02			
		130102.88							
1936.40	66.00	4515.76	15.01	10.24	9.62	18626.19	0.44	12.32	0.003530
	2.25638	189.04				184.84			
		130684.36							
1940.97	67.00	4515.78	15.03	10.26	9.61	18644.84	0.44	12.31	0.003524
	2.25745	189.09				185.03			
		130819.34							
1942.27	68.00	4515.79	15.04	10.27	9.60	18647.82	0.44	12.31	0.003526
	2.25975	189.10				185.09			
		130857.80							
1943.37	69.00	4515.80	15.05	10.28	9.60	18658.68	0.44	12.30	0.003524
	2.25952	189.11				185.14			
		130890.46							
1943.65	70.00	4515.80	15.05	10.28	9.61	18669.41	0.44	12.30	0.003530
	2.26366	189.12				185.15			
		130898.59							
1942.18	71.00	4515.79	15.04	10.27	9.61	18672.01	0.44	12.31	0.003529
	2.26166	189.10				185.08			
		130854.54							
1940.69	72.00	4515.78	15.03	10.26	9.62	18670.17	0.44	12.31	0.003523
	2.25643	189.09				185.02			
		130810.93							
1953.83	73.00	4515.86	15.11	10.33	9.64	18834.41	0.44	12.29	0.003479
	2.24164	189.23				185.58			
		131203.84							
1972.80	74.00	4515.96	15.21	10.41	9.63	18998.91	0.44	12.25	0.003475
	2.25781	189.44				186.37			
		131763.77							
1975.75	75.00	4515.98	15.23	10.43	9.63	19023.14	0.44	12.25	0.003455
	2.24780	189.47				186.49			
		131849.38							
1990.92	76.00	4516.06	15.31	10.50	9.63	19181.69	0.43	12.22	0.003427
	2.24499	189.64				187.13			
		132300.58							
2036.07	77.00	4516.31	15.56	10.71	9.65	19651.32	0.43	12.15	0.003360
	2.24509	190.14				189.01			
		133628.02							

HYCHAN.OUT							
2083.27	78.00	4516.57	15.82	10.93	9.67	20146.86	0.43
	2.25619	190.66				190.95	12.07
		135002.86					0.003309
2115.63	79.00	4516.75	16.00	11.08	9.69	20498.86	0.43
	2.26715	191.02				192.28	12.02
		135941.66					0.003280
2153.96	80.00	4516.96	16.21	11.25	9.72	20943.14	0.43
	2.27064	191.45				193.85	11.96
		137055.36					0.003234
2174.52	81.00	4517.08	16.33	11.35	9.73	21162.55	0.42
	2.28621	191.67				194.69	11.93
		137645.36					0.003229
2157.52	82.00	4516.98	16.23	11.27	9.71	20954.08	0.43
	2.28704	191.48				193.99	11.95
		137150.17					0.003253
2137.15	83.00	4516.87	16.12	11.17	9.70	20725.08	0.43
	2.27367	191.26				193.16	11.98
		136561.11					0.003261
2134.06	84.00	4516.85	16.10	11.16	9.70	20693.98	0.43
	2.27818	191.22				193.03	11.99
		136473.09					0.003271
2134.59	85.00	4516.85	16.10	11.16	9.70	20697.39	0.43
	2.27404	191.23				193.05	11.99
		136488.33					0.003265
2126.80	86.00	4516.81	16.06	11.13	9.70	20619.65	0.43
	2.26816	191.14				192.73	12.00
		136258.11					0.003267
2080.58	87.00	4516.55	15.80	10.91	9.64	20059.32	0.43
	2.28216	190.62				190.81	12.08
		134904.59					0.003351
1975.48	88.00	4515.97	15.22	10.43	9.58	18927.97	0.43
	2.28707	189.46				186.45	12.25
		131822.05					0.003515
1830.67	89.00	4515.23	14.48	9.78	9.39	17198.19	0.44
	2.40203	187.12				180.79	12.49
		127818.18					0.003935
1716.69	90.00	4514.70	13.95	9.39	9.29	15955.61	0.44
	2.32408	182.83				176.72	12.66
		124942.71					0.003967
1650.18	91.00	4514.40	13.65	9.15	9.12	15056.36	0.44
	2.28165	180.32				174.34	12.77
		123258.92					0.003996
1576.07	92.00	4514.06	13.31	8.88	8.93	14079.77	0.43
	2.23612	177.44				171.60	12.90
		121322.60					0.004035
1506.78	93.00	4513.73	12.98	8.63	8.75	13182.87	0.43
	2.18564	174.68				168.98	13.02
		119467.46					0.004061
1443.80	94.00	4513.43	12.68	8.39	8.58	12387.27	0.42
	2.14864	172.17				166.59	13.14
		117782.45					0.004106
1393.42	95.00	4513.20	12.45	8.19	8.46	11784.04	0.42
	2.09827	170.20				164.71	13.23
		116453.49					0.004107
1347.31	96.00	4512.98	12.23	8.00	8.33	11228.83	0.42
	2.06142	168.32				162.93	13.32
		115192.50					0.004127
1311.63	97.00	4512.81	12.06	7.86	8.24	10803.35	0.42
	2.04046	166.84				161.53	13.39
		114198.89					0.004159
1279.11	98.00	4512.65	11.90	7.73	8.14	10414.25	0.42
	2.00825	165.46				160.21	13.46
		113270.07					0.004163

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				HYCHAN.OUT			
1254.74	99.00	4512.53	11.78	8.07	10124.26	0.41	
		164.41		7.63	159.21	13.51	0.004166
	1.98395	112563.52					
1225.95	100.00	4512.39	11.64	7.99	9791.51	0.41	
		163.17		7.51	158.03	13.57	0.004195
	1.96691	111725.64					
1196.22	101.00	4512.25	11.50	7.91	9461.79	0.41	
		161.89		7.39	156.81	13.64	0.004210
	1.94099	110867.73					
1170.99	102.00	4512.12	11.37	7.84	9180.17	0.41	
		160.79		7.28	155.77	13.70	0.004223
	1.91913	110126.12					
1149.91	103.00	4512.02	11.27	7.78	8944.95	0.41	
		159.86		7.19	154.88	13.75	0.004233
	1.89988	109498.88					
1131.68	104.00	4511.93	11.18	7.72	8741.96	0.41	
		159.03		7.12	154.09	13.79	0.004243
	1.88427	108942.35					
1103.58	105.00	4511.78	11.03	7.64	8427.84	0.41	
		157.72		7.00	152.85	13.86	0.004260
	1.86004	108062.20					
1079.37	106.00	4511.65	10.90	7.56	8162.85	0.40	
		156.59		6.89	151.77	13.92	0.004268
	1.83590	107303.59					
1063.40	107.00	4511.57	10.82	7.51	7986.72	0.40	
		155.83		6.82	151.05	13.96	0.004277
	1.82124	106789.54					
1047.86	108.00	4511.49	10.74	7.46	7815.67	0.40	
		155.08		6.76	150.33	14.00	0.004283
	1.80571	106283.05					
1041.28	109.00	4511.45	10.70	7.44	7745.74	0.40	
		154.77		6.73	150.03	14.02	0.004279
	1.79631	106073.45					
1050.51	110.00	4511.50	10.75	7.47	7850.01	0.40	
		155.23		6.77	150.47	13.99	0.004279
	1.80682	106383.07					
1075.21	111.00	4511.63	10.88	7.56	8123.92	0.40	
		156.42		6.87	151.61	13.93	0.004262
	1.82823	107187.50					
1079.15	112.00	4511.65	10.90	7.56	8160.77	0.40	
		156.59		6.89	151.76	13.92	0.004268
	1.83554	107297.53					
1063.94	113.00	4511.57	10.82	7.51	7993.46	0.40	
		155.86		6.83	151.07	13.96	0.004274
	1.82061	106809.84					
1075.92	114.00	4511.64	10.89	7.56	8132.32	0.40	
		156.46		6.88	151.64	13.93	0.004258
	1.82728	107212.00					
1109.84	115.00	4511.82	11.07	7.67	8508.01	0.41	
		158.05		7.02	153.16	13.84	0.004247
	1.86072	108285.19					
1114.19	116.00	4511.84	11.09	7.67	8548.81	0.41	
		158.23		7.04	153.33	13.83	0.004249
	1.86707	108403.85					
1106.87	117.00	4511.80	11.05	7.65	8470.22	0.41	
		157.90		7.01	153.01	13.85	0.004254
	1.86086	108181.49					
1107.12	118.00	4511.80	11.05	7.65	8473.51	0.41	
		157.91		7.01	153.03	13.85	0.004248
	1.85829	108190.34					
1117.52	119.00	4511.85	11.10	7.69	8591.12	0.41	
		158.40		7.06	153.49	13.82	0.004244
	1.86825	108519.09					

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HYCHAN.OUT							
1124.79	120.00	4511.89	11.14	7.09	7.71	8669.52	0.41
	1.87697	158.73				153.80	13.80
		108738.05					0.004245
1124.56	121.00	4511.89	11.14	7.09	7.71	8666.56	0.41
	1.87575	158.71				153.79	13.81
		108730.12					0.004242
1114.24	122.00	4511.84	11.09	7.04	7.67	8549.16	0.41
	1.86879	158.23				153.33	13.83
		108404.91					0.004253
1106.64	123.00	4511.80	11.05	7.01	7.65	8467.33	0.41
	1.85779	157.89				153.00	13.85
		108173.46					0.004248
1096.27	124.00	4511.74	10.99	6.97	7.62	8350.17	0.41
	1.85194	157.39				152.53	13.88
		107841.50					0.004261
1088.79	125.00	4511.70	10.95	6.93	7.60	8269.83	0.40
	1.84402	157.05				152.21	13.89
		107611.66					0.004263
1088.65	126.00	4511.70	10.95	6.93	7.59	8267.90	0.40
	1.84135	157.05				152.20	13.89
		107607.00					0.004257
1079.38	127.00	4511.65	10.90	6.89	7.56	8163.45	0.40
	1.83440	156.60				151.78	13.92
		107305.52					0.004265
1072.65	128.00	4511.62	10.87	6.86	7.54	8091.60	0.40
	1.82767	156.29				151.48	13.94
		107095.06					0.004267
1072.40	129.00	4511.62	10.87	6.86	7.54	8088.61	0.40
	1.82746	156.27				151.47	13.94
		107086.25					0.004268
1063.52	130.00	4511.57	10.82	6.82	7.51	7988.41	0.40
	1.81913	155.84				151.05	13.96
		106794.25					0.004272
1057.23	131.00	4511.54	10.79	6.80	7.49	7921.89	0.40
	1.81354	155.55				150.77	13.98
		106597.70					0.004276
1075.48	132.00	4511.64	10.89	6.87	7.56	8127.00	0.40
	1.82840	156.44				151.62	13.93
		107196.40					0.004262
1088.75	133.00	4511.70	10.95	6.93	7.60	8269.43	0.40
	1.84173	157.05				152.21	13.89
		107611.13					0.004258
1088.79	134.00	4511.71	10.95	6.93	7.60	8269.70	0.40
	1.84414	157.05				152.21	13.89
		107612.56					0.004263
1088.84	135.00	4511.71	10.96	6.93	7.60	8270.22	0.40
	1.84314	157.06				152.21	13.89
		107614.02					0.004261
1088.82	136.00	4511.71	10.96	6.93	7.60	8269.91	0.40
	1.84190	157.05				152.21	13.89
		107613.27					0.004258
1088.82	137.00	4511.71	10.96	6.93	7.60	8270.09	0.40
	1.84127	157.05				152.21	13.89
		107613.42					0.004256
1088.80	138.00	4511.71	10.95	6.93	7.60	8269.65	0.40
	1.84374	157.05				152.21	13.89
		107612.73					0.004262
1088.64	139.00	4511.70	10.95	6.93	7.59	8267.74	0.40
	1.84330	157.05				152.20	13.89
		107606.73					0.004261
1079.41	140.00	4511.65	10.90	6.89	7.56	8163.71	0.40
	1.83690	156.60				151.78	13.92
		107306.19					0.004271

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HYCHAN.OUT									
1072.64	141.00	4511.62	10.87	6.86	7.54	8091.53	13.94	0.40	0.004263
	1.82584	156.28				151.48			
		107094.70							
1072.59	142.00	4511.62	10.87	6.86	7.54	8090.98	13.94	0.40	0.004265
	1.82654	156.28				151.48			
		107093.16							
1072.55	143.00	4511.62	10.87	6.86	7.54	8090.68	13.94	0.40	0.004263
	1.82585	156.28				151.47			
		107091.95							
1072.42	144.00	4511.62	10.87	6.86	7.54	8088.79	13.94	0.40	0.004266
	1.82691	156.27				151.47			
		107087.36							
1063.56	145.00	4511.57	10.82	6.82	7.51	7988.94	13.96	0.40	0.004270
	1.81838	155.84				151.06			
		106796.02							
1056.84	146.00	4511.54	10.79	6.80	7.49	7916.89	13.98	0.40	0.004277
	1.81358	155.52				150.75			
		106582.89							
1056.85	147.00	4511.54	10.79	6.80	7.49	7917.22	13.98	0.40	0.004276
	1.81309	155.53				150.75			
		106583.75							
1056.83	148.00	4511.54	10.79	6.80	7.49	7916.96	13.98	0.40	0.004273
	1.81192	155.52				150.75			
		106583.27							
1056.84	149.00	4511.54	10.79	6.80	7.49	7917.15	13.98	0.40	0.004277
	1.81369	155.52				150.75			
		106583.33							
1056.71	150.00	4511.53	10.78	6.79	7.49	7915.47	13.98	0.40	0.004272
	1.81122	155.52				150.75			
		106578.45							
1050.74	151.00	4511.50	10.75	6.77	7.47	7848.22	13.99	0.40	0.004279
	1.80754	155.22				150.47			
		106379.78							
1043.30	152.00	4511.46	10.71	6.74	7.44	7767.04	14.01	0.40	0.004285
	1.80119	154.86				150.12			
		106137.35							
1041.06	153.00	4511.45	10.70	6.73	7.44	7743.10	14.02	0.40	0.004278
	1.79584	154.76				150.02			
		106065.96							
1040.87	154.00	4511.45	10.70	6.73	7.44	7740.78	14.02	0.40	0.004281
	1.79684	154.75				150.01			
		106058.64							
1032.38	155.00	4511.40	10.65	6.69	7.41	7646.04	14.04	0.40	0.004291
	1.79145	154.32				149.61			
		105772.66							
1043.46	156.00	4511.47	10.72	6.74	7.45	7773.57	14.01	0.40	0.004278
	1.79847	154.89				150.15			
		106154.75							
1056.75	157.00	4511.54	10.79	6.79	7.49	7916.42	13.98	0.40	0.004276
	1.81289	155.52				150.75			
		106580.36							
1056.81	158.00	4511.54	10.79	6.80	7.49	7916.89	13.98	0.40	0.004275
	1.81263	155.52				150.75			
		106582.16							
1056.83	159.00	4511.54	10.79	6.80	7.49	7917.10	13.98	0.40	0.004274
	1.81250	155.52				150.75			
		106582.66							
1056.83	160.00	4511.54	10.79	6.80	7.49	7917.07	13.98	0.40	0.004275
	1.81285	155.52				150.75			
		106582.83							
1056.83	161.00	4511.54	10.79	6.80	7.49	7916.94	13.98	0.40	0.004278
	1.81379	155.52				150.75			
		106582.70							

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HYCHAN.OUT									
1056.82	162.00	4511.54	10.79	6.80	7.49	7916.91	13.98	0.40	0.004272
	1.81146	155.52				150.75			
		106582.65							
1056.83	163.00	4511.54	10.79	6.80	7.49	7917.00	13.98	0.40	0.004277
	1.81371	155.52				150.75			
		106582.55							
1056.62	164.00	4511.53	10.78	6.79	7.49	7914.36	13.98	0.40	0.004273
	1.81146	155.51				150.74			
		106575.16							
1047.81	165.00	4511.49	10.74	6.76	7.46	7815.39	14.00	0.40	0.004282
	1.80540	155.08				150.33			
		106281.78							
1041.04	166.00	4511.45	10.70	6.73	7.44	7742.87	14.02	0.40	0.004287
	1.79975	154.75				150.02			
		106064.80							
1041.08	167.00	4511.45	10.70	6.73	7.44	7743.33	14.02	0.40	0.004283
	1.79779	154.76				150.02			
		106066.56							
1041.02	168.00	4511.45	10.70	6.73	7.44	7742.79	14.02	0.40	0.004279
	1.79632	154.75				150.02			
		106064.63							
1041.04	169.00	4511.45	10.70	6.73	7.44	7743.05	14.02	0.40	0.004283
	1.79774	154.75				150.02			
		106064.77							
1041.06	170.00	4511.45	10.70	6.73	7.44	7743.14	14.02	0.40	0.004284
	1.79839	154.76				150.02			
		106065.48							
1041.03	171.00	4511.45	10.70	6.73	7.44	7742.79	14.02	0.40	0.004283
	1.79766	154.75				150.02			
		106064.74							
1040.86	172.00	4511.45	10.70	6.73	7.44	7740.63	14.02	0.40	0.004280
	1.79643	154.75				150.01			
		106058.43							
1032.00	173.00	4511.40	10.65	6.69	7.40	7641.42	14.04	0.40	0.004288
	1.78945	154.30				149.59			
		105758.48							
1025.26	174.00	4511.37	10.62	6.66	7.38	7569.15	14.06	0.40	0.004290
	1.78254	153.98				149.28			
		105540.30							
1025.26	175.00	4511.37	10.62	6.66	7.38	7569.42	14.06	0.40	0.004290
	1.78266	153.98				149.28			
		105541.12							
1025.20	176.00	4511.36	10.61	6.66	7.38	7568.60	14.06	0.40	0.004291
	1.78267	153.97				149.28			
		105538.58							
1025.25	177.00	4511.37	10.62	6.66	7.38	7569.30	14.06	0.40	0.004293
	1.78361	153.98				149.28			
		105540.36							
1025.22	178.00	4511.36	10.61	6.66	7.38	7568.85	14.06	0.40	0.004291
	1.78294	153.97				149.28			
		105539.53							
1025.58	179.00	4511.37	10.62	6.66	7.38	7573.45	14.06	0.40	0.004293
	1.78391	153.99				149.30			
		105552.93							
1043.45	180.00	4511.47	10.72	6.74	7.45	7773.52	14.01	0.40	0.004280
	1.79915	154.89				150.15			
		106154.25							
1056.91	181.00	4511.54	10.79	6.80	7.49	7918.41	13.98	0.40	0.004273
	1.81208	155.53				150.76			
		106586.75							
1065.97	182.00	4511.58	10.84	6.83	7.52	8019.93	13.95	0.40	0.004270
	1.82079	155.97				151.18			
		106885.18							

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HYCHAN.OUT									
1072.55	183.00	4511.62	10.87	6.86	7.54	8090.60	13.94	0.40	0.004269
	1.82840	156.28				151.47			
		107092.30							
1072.59	184.00	4511.62	10.87	6.86	7.54	8090.95	13.94	0.40	0.004263
	1.82573	156.28				151.48			
		107093.65							
1072.61	185.00	4511.62	10.87	6.86	7.54	8090.99	13.94	0.40	0.004268
	1.82785	156.28				151.48			
		107094.86							
1072.62	186.00	4511.62	10.87	6.86	7.54	8090.94	13.94	0.40	0.004270
	1.82859	156.28				151.48			
		107094.94							
1072.63	187.00	4511.62	10.87	6.86	7.54	8091.23	13.94	0.40	0.004267
	1.82762	156.29				151.48			
		107095.31							
1072.58	188.00	4511.62	10.87	6.86	7.54	8090.85	13.94	0.40	0.004270
	1.82882	156.28				151.48			
		107092.87							
1072.60	189.00	4511.62	10.87	6.86	7.54	8090.98	13.94	0.40	0.004269
	1.82832	156.28				151.48			
		107094.09							
1072.43	190.00	4511.62	10.87	6.86	7.54	8088.79	13.94	0.40	0.004271
	1.82888	156.27				151.47			
		107087.59							
1063.51	191.00	4511.57	10.82	6.82	7.51	7988.43	13.96	0.40	0.004271
	1.81878	155.84				151.05			
		106794.39							
1056.83	192.00	4511.54	10.79	6.80	7.49	7916.95	13.98	0.40	0.004278
	1.81391	155.52				150.75			
		106582.08							
1056.85	193.00	4511.54	10.79	6.80	7.49	7917.36	13.98	0.40	0.004273
	1.81202	155.53				150.75			
		106583.41							
1056.82	194.00	4511.54	10.79	6.80	7.49	7916.90	13.98	0.40	0.004278
	1.81396	155.52				150.75			
		106582.26							
1056.82	195.00	4511.54	10.79	6.80	7.49	7917.04	13.98	0.40	0.004274
	1.81238	155.52				150.75			
		106582.14							
1056.82	196.00	4511.54	10.79	6.80	7.49	7917.05	13.98	0.40	0.004276
	1.81327	155.52				150.75			
		106582.38							
1056.84	197.00	4511.54	10.79	6.80	7.49	7917.19	13.98	0.40	0.004271
	1.81102	155.52				150.75			
		106583.17							
1056.82	198.00	4511.54	10.79	6.80	7.49	7916.95	13.98	0.40	0.004278
	1.81376	155.52				150.75			
		106582.27							
1056.80	199.00	4511.54	10.79	6.80	7.49	7916.63	13.98	0.40	0.004276
	1.81319	155.52				150.75			
		106581.59							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 910

MAXIMUM DISCHARGE (CFS) = 20803.07 AT TIME = 80.19  
 MAXIMUM STAGE = 4515.86 AT TIME = 80.34

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)	

		HYCHAN.OUT						
	(LB/FT^2)	(FT^2)						
0.00	0.00	4498.85	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4498.85	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
93.03	2.00	4498.95	0.10	0.07	6.60	0.04		
	4.94096	8.41	11.07	8.58	82.84			0.007156
859.70	3.00	4507.88	9.03	6.37	5476.28	0.37		
	0.88178	139.10	6.18	135.10	14.96			0.002286
871.77	4.00	4507.86	9.01	6.25	5451.72	0.37		
	0.89664	138.90	6.28	134.91	14.97			0.002290
863.73	5.00	4507.81	8.96	6.23	5377.52	0.37		
	0.89164	138.42	6.24	134.45	15.01			0.002290
855.70	6.00	4507.76	8.91	6.19	5300.27	0.37		
	0.88748	137.93	6.20	133.98	15.04			0.002293
839.85	7.00	4507.66	8.81	6.13	5150.21	0.36		
	0.87794	136.96	6.13	133.06	15.10			0.002294
823.97	8.00	4507.56	8.71	6.07	5000.84	0.36		
	0.86986	135.98	6.06	132.12	15.17			0.002300
806.91	9.00	4507.45	8.60	6.01	4852.02	0.36		
	0.86421	134.91	5.98	131.09	15.24			0.002315
797.56	10.00	4507.39	8.54	5.98	4772.40	0.36		
	0.85770	134.32	5.94	130.53	15.28			0.002315
789.43	11.00	4507.34	8.49	5.96	4701.26	0.36		
	0.85525	133.79	5.90	130.03	15.32			0.002323
772.16	12.00	4507.23	8.37	5.90	4552.81	0.36		
	0.84624	132.68	5.82	128.97	15.40			0.002330
762.34	13.00	4507.16	8.31	5.86	4469.74	0.36		
	0.84083	132.04	5.77	128.36	15.44			0.002334
762.23	14.00	4507.16	8.31	5.86	4469.05	0.36		
	0.84074	132.04	5.77	128.36	15.44			0.002334
762.23	15.00	4507.16	8.31	5.86	4469.02	0.36		
	0.84037	132.04	5.77	128.36	15.44			0.002333
762.23	16.00	4507.16	8.31	5.86	4468.98	0.36		
	0.84027	132.04	5.77	128.36	15.45			0.002333
762.24	17.00	4507.16	8.31	5.86	4469.10	0.36		
	0.84054	132.04	5.77	128.36	15.44			0.002333
770.08	18.00	4507.21	8.36	5.89	4538.32	0.36		
	0.84412	132.55	5.81	128.85	15.41			0.002328
787.84	19.00	4507.33	8.48	5.95	4690.85	0.36		
	0.85288	133.70	5.89	129.94	15.33			0.002320
	20.00	4507.44	8.59	6.01	4844.16	0.36		

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			HYCHAN.OUT			
805.66		134.83	5.98	131.03	15.25	0.002306
	0.85986	78615.06				
	21.00	4507.50	8.65	6.04	4923.80	0.36
815.16		135.43	6.02	131.59	15.21	0.002306
	0.86614	78956.64				
	22.00	4507.50	8.65	6.04	4924.38	0.36
815.23		135.43	6.02	131.60	15.21	0.002306
	0.86609	78958.98				
	23.00	4507.56	8.71	6.07	4998.74	0.36
823.36		135.94	6.06	132.09	15.17	0.002302
	0.86989	79251.22				
	24.00	4507.71	8.86	6.17	5230.45	0.37
847.95		137.46	6.17	133.54	15.07	0.002296
	0.88364	80121.24				
	25.00	4507.91	9.06	6.29	5539.47	0.37
880.62		139.44	6.32	135.42	14.94	0.002286
	0.90086	81252.93				
	26.00	4508.11	9.26	6.40	5846.00	0.37
912.81		141.34	6.46	137.24	14.82	0.002270
	0.91492	82342.34				
	27.00	4508.20	9.35	6.45	5984.85	0.37
927.70		142.21	6.52	138.06	14.76	0.002266
	0.92225	82836.97				
	28.00	4508.20	9.35	6.45	5985.91	0.37
927.80		142.21	6.52	138.07	14.76	0.002269
	0.92364	82840.49				
	29.00	4508.26	9.41	6.48	6077.21	0.37
937.33		142.76	6.57	138.59	14.73	0.002260
	0.92588	83155.77				
	30.00	4508.31	9.46	6.51	6151.92	0.37
945.37		143.22	6.60	139.03	14.70	0.002257
	0.92975	83418.79				
	31.00	4508.31	9.46	6.51	6153.42	0.37
945.52		143.23	6.60	139.04	14.70	0.002260
	0.93102	83423.74				
	32.00	4508.37	9.52	6.54	6249.44	0.37
955.43		143.80	6.64	139.58	14.66	0.002251
	0.93330	83747.70				
	33.00	4508.42	9.57	6.57	6325.89	0.37
963.48		144.25	6.68	140.01	14.63	0.002248
	0.93704	84007.78				
	34.00	4508.42	9.57	6.56	6324.38	0.37
963.35		144.25	6.68	140.01	14.63	0.002248
	0.93665	84003.44				
	35.00	4508.36	9.51	6.53	6228.98	0.37
953.70		143.69	6.64	139.48	14.67	0.002258
	0.93521	83688.23				
	36.00	4508.31	9.46	6.51	6150.82	0.37
945.29		143.22	6.60	139.03	14.70	0.002258
	0.92988	83415.67				
	37.00	4508.25	9.40	6.48	6059.77	0.37
935.80		142.67	6.56	138.50	14.73	0.002267
	0.92805	83102.37				
	38.00	4508.20	9.35	6.45	5985.30	0.37
927.75		142.21	6.52	138.06	14.76	0.002266
	0.92246	82838.45				
	39.00	4508.20	9.35	6.45	5984.90	0.37
927.71		142.21	6.52	138.06	14.76	0.002268
	0.92336	82837.28				
	40.00	4508.20	9.35	6.45	5985.06	0.37
927.73		142.21	6.52	138.06	14.76	0.002266
	0.92252	82837.98				
	41.00	4508.20	9.35	6.45	5984.97	0.37

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				HYCHAN.OUT			
927.72		142.21		6.52	138.06	14.76	0.002268
	0.92344	82837.62					
	42.00	4508.20	9.35	6.45	5986.08	0.37	
927.83		142.21		6.52	138.07	14.76	0.002270
	0.92417	82841.26					
	43.00	4508.26	9.41	6.48	6077.44	0.37	
937.36		142.77		6.57	138.59	14.73	0.002261
	0.92621	83156.83					
	44.00	4508.31	9.46	6.51	6153.33	0.37	
945.49		143.23		6.60	139.04	14.70	0.002260
	0.93081	83422.59					
	45.00	4508.37	9.52	6.54	6250.83	0.37	
955.54		143.81		6.64	139.59	14.66	0.002252
	0.93374	83751.43					
	46.00	4508.48	9.63	6.60	6426.41	0.37	
973.95		144.84		6.72	140.58	14.60	0.002241
	0.94020	84346.12					
	47.00	4508.59	9.74	6.65	6600.00	0.38	
992.19		145.86		6.80	141.55	14.53	0.002230
	0.94661	84928.58					
	48.00	4508.70	9.85	6.70	6774.35	0.38	
1010.51		146.87		6.88	142.51	14.47	0.002217
	0.95176	85506.28					
	49.00	4508.80	9.95	6.75	6941.49	0.38	
1028.23		147.84		6.96	143.43	14.42	0.002201
	0.95525	86059.16					
	50.00	4508.91	10.06	6.80	7122.38	0.38	
1047.45		148.88		7.04	144.42	14.35	0.002189
	0.96085	86652.16					
	51.00	4509.07	10.22	6.87	7388.71	0.38	
1075.67		150.38		7.15	145.85	14.27	0.002164
	0.96608	87510.22					
	52.00	4509.17	10.32	6.91	7544.39	0.38	
1092.16		151.24		7.22	146.67	14.22	0.002165
	0.97557	88004.11					
	53.00	4509.22	10.37	6.94	7648.57	0.38	
1101.94		151.75		7.26	147.16	14.19	0.002159
	0.97849	88296.14					
	54.00	4509.43	10.58	7.06	8047.73	0.38	
1139.70		153.69		7.42	149.01	14.08	0.002144
	0.99215	89404.41					
	55.00	4509.81	10.96	7.26	8764.85	0.39	
1207.91		157.09		7.69	152.25	13.89	0.002105
	1.01013	91348.65					
	56.00	4510.32	11.47	7.50	9774.12	0.39	
1304.02		161.69		8.06	156.62	13.65	0.002063
	1.03828	93973.88					
	57.00	4510.98	12.13	7.83	11205.05	0.40	
1431.07		167.45		8.55	162.10	13.36	0.002008
	1.07098	97261.34					
	58.00	4511.50	12.65	8.08	12396.30	0.40	
1534.95		171.94		8.93	166.37	13.15	0.001963
	1.09371	99823.41					
	59.00	4511.90	13.05	8.28	13372.35	0.40	
1615.91		175.30		9.22	169.56	12.99	0.001939
	1.11551	101738.92					
	60.00	4512.39	13.54	8.51	14613.27	0.41	
1717.36		179.36		9.57	173.43	12.81	0.001908
	1.13996	104056.20					
	61.00	4512.77	13.92	8.70	15658.10	0.41	
1800.47		182.59		9.86	176.49	12.67	0.002368
	1.45694	105893.90					
	62.00	4513.08	14.23	8.85	16518.50	0.41	

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				HYCHAN.OUT			
1865.87		185.05		10.08	178.83	12.57	0.002377
	1.49547	107299.55					
	63.00	4513.30	14.45	8.98	17185.01	0.42	
1913.84		186.87		10.24	180.55	12.50	0.002361
	1.50898	108331.62					
	64.00	4513.60	14.75	9.03	17783.78	0.41	
1968.52		188.53		10.44	182.90	12.40	0.002259
	1.47206	109739.41					
	65.00	4514.15	15.30	8.92	18380.63	0.40	
2061.37		189.62		10.87	187.06	12.23	0.002114
	1.43424	112237.23					
	66.00	4514.31	15.46	8.89	18553.90	0.40	
2087.89		189.94		10.99	188.23	12.18	0.002101
	1.44091	112940.46					
	67.00	4514.33	15.48	8.88	18572.79	0.40	
2091.57		189.98		11.01	188.40	12.17	0.002101
	1.44362	113037.98					
	68.00	4514.33	15.48	8.88	18576.41	0.40	
2092.07		189.98		11.01	188.42	12.17	0.002099
	1.44216	113050.82					
	69.00	4514.34	15.49	8.88	18585.86	0.40	
2093.32		190.00		11.02	188.47	12.17	0.002093
	1.43918	113084.80					
	70.00	4514.35	15.50	8.88	18596.21	0.40	
2094.43		190.01		11.02	188.52	12.17	0.002096
	1.44152	113114.29					
	71.00	4514.34	15.49	8.88	18598.97	0.40	
2094.15		190.01		11.02	188.51	12.17	0.002091
	1.43776	113106.61					
	72.00	4514.34	15.49	8.88	18595.95	0.40	
2093.63		190.00		11.02	188.49	12.17	0.002082
	1.43121	113093.09					
	73.00	4514.44	15.59	8.88	18734.73	0.40	
2110.45		190.21		11.10	189.25	12.14	0.002050
	1.41959	113547.26					
	74.00	4514.57	15.72	8.86	18886.33	0.39	
2132.42		190.47		11.20	190.22	12.10	0.002051
	1.43259	114131.26					
	75.00	4514.59	15.74	8.85	18911.33	0.39	
2136.17		190.51		11.21	190.38	12.09	0.002026
	1.41784	114229.76					
	76.00	4514.69	15.84	8.85	19043.36	0.39	
2152.21		190.70		11.29	191.10	12.06	0.002007
	1.41331	114660.56					
	77.00	4514.99	16.14	8.83	19442.30	0.39	
2201.44		191.29		11.51	193.29	11.98	0.001961
	1.40798	115972.80					
	78.00	4515.30	16.45	8.82	19873.61	0.38	
2253.53		191.91		11.74	195.58	11.89	0.001931
	1.41496	117347.11					
	79.00	4515.50	16.65	8.82	20172.98	0.38	
2287.69		192.32		11.90	197.08	11.84	0.001918
	1.42338	118246.26					
	80.00	4515.74	16.89	8.83	20544.60	0.38	
2327.16		192.80		12.07	198.81	11.77	0.001894
	1.42678	119283.30					
	81.00	4515.87	17.02	8.83	20738.19	0.38	
2349.21		193.06		12.17	199.76	11.74	0.001888
	1.43392	119856.26					
	82.00	4515.77	16.92	8.82	20571.08	0.38	
2332.85		192.86		12.10	199.04	11.76	0.001898
	1.43227	119424.98					
	83.00	4515.64	16.79	8.82	20375.97	0.38	

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2311.43	192.61	12.00	198.11	11.80	0.001903		
1.42482	118864.47						
84.00	4515.62	16.77	8.82	20347.28	0.38		
2308.02	192.57	11.99	197.96	11.80	0.001911		
1.42948	118776.10						
85.00	4515.62	16.78	8.82	20350.77	0.38		
2308.50	192.57	11.99	197.98	11.80	0.001905		
1.42485	118788.64						
86.00	4515.59	16.74	8.81	20293.65	0.38		
2302.90	192.50	11.96	197.73	11.81	0.001901		
1.41908	118638.46						
87.00	4515.31	16.46	8.79	19837.56	0.38		
2255.81	191.93	11.75	195.65	11.89	0.001950		
1.43000	117389.52						
88.00	4514.61	15.76	8.82	18869.15	0.39		
2139.39	190.54	11.23	190.50	12.09	0.002095		
1.46802	114298.41						
89.00	4513.48	14.63	8.87	17248.31	0.41		
1943.88	188.27	10.32	181.93	12.44	0.002361		
1.52098	109157.66						
90.00	4512.89	14.04	8.75	15973.86	0.41		
1826.28	183.55	9.95	177.40	12.63	0.001893		
1.17525	106441.42						
91.00	4512.57	13.72	8.58	15069.35	0.41		
1755.88	180.86	9.71	174.85	12.75	0.001912		
1.15823	104908.09						
92.00	4512.19	13.34	8.41	14094.39	0.41		
1676.63	177.73	9.43	171.88	12.88	0.001938		
1.14074	103127.58						
93.00	4511.83	12.98	8.23	13193.15	0.40		
1602.55	174.74	9.17	169.04	13.02	0.001953		
1.11768	101422.22						
94.00	4511.51	12.66	8.07	12397.89	0.40		
1536.72	172.00	8.93	166.43	13.14	0.001994		
1.11185	99859.31						
95.00	4511.25	12.40	7.95	11791.00	0.40		
1483.50	169.74	8.74	164.28	13.25	0.001997		
1.08890	98568.38						
96.00	4511.00	12.15	7.83	11236.73	0.40		
1435.17	167.63	8.56	162.28	13.35	0.002012		
1.07500	97366.55						
97.00	4510.81	11.96	7.73	10808.98	0.39		
1397.76	165.98	8.42	160.70	13.43	0.002036		
1.06983	96421.05						
98.00	4510.64	11.79	7.64	10419.04	0.39		
1363.83	164.45	8.29	159.25	13.51	0.002041		
1.05620	95548.18						
99.00	4510.51	11.66	7.57	10127.64	0.39		
1338.46	163.29	8.20	158.15	13.57	0.002047		
1.04718	94887.34						
100.00	4510.35	11.50	7.49	9797.30	0.39		
1308.04	161.88	8.08	156.80	13.64	0.002072		
1.04464	94081.29						
101.00	4510.18	11.33	7.42	9466.41	0.39		
1276.04	160.37	7.96	155.37	13.72	0.002087		
1.03620	93222.98						
102.00	4510.03	11.18	7.35	9184.27	0.39		
1248.95	159.08	7.85	154.14	13.79	0.002102		
1.02958	92485.27						
103.00	4509.91	11.06	7.30	8947.98	0.39		
1226.29	157.99	7.76	153.10	13.84	0.002112		
1.02284	91861.02						
104.00	4509.80	10.95	7.25	8745.24	0.39		

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1206.92		157.04		7.69	152.20	13.89	0.002120
	1.01672	91320.63					
105.00		4509.64	10.79	7.16	8433.29	0.38	
1177.29		155.57		7.57	150.80	13.97	0.002138
	1.00947	90481.13					
106.00		4509.50	10.65	7.09	8165.62	0.38	
1151.54		154.29		7.46	149.58	14.05	0.002145
	0.99886	89745.53					
107.00		4509.41	10.56	7.04	7989.28	0.38	
1134.72		153.43		7.40	148.76	14.09	0.002152
	0.99329	89257.68					
108.00		4509.31	10.46	6.99	7817.94	0.38	
1118.38		152.60		7.33	147.97	14.14	0.002157
	0.98651	88779.44					
109.00		4509.27	10.42	6.97	7745.49	0.38	
1111.32		152.24		7.30	147.62	14.16	0.002158
	0.98280	88573.11					
110.00		4509.33	10.48	7.00	7847.29	0.38	
1120.87		152.73		7.34	148.09	14.13	0.002155
	0.98690	88855.17					
111.00		4509.47	10.62	7.08	8119.64	0.38	
1146.73		154.05		7.44	149.35	14.06	0.002140
	0.99416	89609.16					
112.00		4509.50	10.65	7.09	8163.20	0.38	
1151.29		154.28		7.46	149.56	14.05	0.002144
	0.99859	89738.49					
113.00		4509.41	10.56	7.04	7995.18	0.38	
1135.23		153.46		7.40	148.79	14.09	0.002152
	0.99359	89273.12					
114.00		4509.48	10.63	7.08	8127.25	0.38	
1147.42		154.08		7.45	149.38	14.06	0.002141
	0.99490	89629.28					
115.00		4509.68	10.83	7.19	8503.15	0.39	
1183.27		155.88		7.59	151.09	13.96	0.002124
	1.00628	90656.61					
116.00		4509.70	10.85	7.20	8551.16	0.39	
1188.31		156.13		7.61	151.33	13.94	0.002132
	1.01270	90796.95					
117.00		4509.66	10.81	7.18	8470.31	0.38	
1180.42		155.74		7.58	150.96	13.97	0.002132
	1.00831	90574.80					
118.00		4509.66	10.81	7.18	8473.13	0.38	
1180.66		155.75		7.58	150.97	13.96	0.002130
	1.00766	90581.80					
119.00		4509.72	10.87	7.21	8588.63	0.39	
1191.56		156.29		7.62	151.49	13.94	0.002123
	1.01016	90891.33					
120.00		4509.76	10.91	7.23	8669.49	0.39	
1199.44		156.68		7.66	151.85	13.91	0.002122
	1.01367	91112.56					
121.00		4509.76	10.91	7.23	8666.87	0.39	
1199.21		156.67		7.65	151.84	13.92	0.002122
	1.01347	91106.12					
122.00		4509.70	10.85	7.20	8551.70	0.39	
1188.37		156.13		7.61	151.33	13.94	0.002132
	1.01282	90798.59					
123.00		4509.66	10.81	7.17	8467.74	0.38	
1180.20		155.73		7.58	150.95	13.97	0.002129
	1.00701	90568.24					
124.00		4509.60	10.75	7.14	8352.71	0.38	
1169.37		155.18		7.54	150.43	14.00	0.002140
	1.00622	90258.03					
125.00		4509.55	10.70	7.12	8269.92	0.38	

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1161.31		154.78		7.50	150.05	14.02	0.002140
	1.00168	90028.64					
126.00		4509.55	10.70	7.12	8268.14	0.38	
1161.15		154.77		7.50	150.04	14.02	0.002138
	1.00074	90023.91					
127.00		4509.50	10.65	7.09	8165.72	0.38	
1151.52		154.29		7.46	149.58	14.05	0.002146
	0.99938	89745.30					
128.00		4509.46	10.61	7.07	8091.67	0.38	
1144.31		153.92		7.43	149.23	14.07	0.002147
	0.99599	89538.12					
129.00		4509.46	10.61	7.07	8088.88	0.38	
1144.06		153.91		7.43	149.22	14.07	0.002146
	0.99543	89530.69					
130.00		4509.41	10.56	7.04	7990.62	0.38	
1134.82		153.44		7.40	148.77	14.09	0.002151
	0.99278	89260.92					
131.00		4509.37	10.52	7.02	7921.35	0.38	
1128.05		153.10		7.37	148.44	14.11	0.002153
	0.98982	89064.84					
132.00		4509.47	10.62	7.08	8122.55	0.38	
1147.00		154.06		7.45	149.36	14.06	0.002139
	0.99373	89617.00					
133.00		4509.55	10.70	7.12	8269.30	0.38	
1161.24		154.78		7.50	150.04	14.02	0.002138
	1.00106	90026.68					
134.00		4509.55	10.70	7.12	8269.73	0.38	
1161.28		154.78		7.50	150.05	14.02	0.002138
	1.00112	90027.96					
135.00		4509.55	10.70	7.12	8270.22	0.38	
1161.33		154.78		7.50	150.05	14.02	0.002139
	1.00165	90029.40					
136.00		4509.55	10.70	7.12	8269.91	0.38	
1161.30		154.78		7.50	150.05	14.02	0.002140
	1.00172	90028.60					
137.00		4509.55	10.70	7.12	8270.01	0.38	
1161.31		154.78		7.50	150.05	14.02	0.002138
	1.00112	90028.64					
138.00		4509.55	10.70	7.12	8269.72	0.38	
1161.29		154.78		7.50	150.05	14.02	0.002140
	1.00193	90028.14					
139.00		4509.55	10.70	7.12	8268.03	0.38	
1161.14		154.77		7.50	150.04	14.02	0.002140
	1.00161	90023.70					
140.00		4509.50	10.65	7.09	8166.03	0.38	
1151.55		154.29		7.46	149.58	14.05	0.002145
	0.99892	89746.02					
141.00		4509.46	10.61	7.07	8091.56	0.38	
1144.30		153.92		7.43	149.23	14.07	0.002145
	0.99508	89537.82					
142.00		4509.46	10.61	7.07	8090.98	0.38	
1144.24		153.92		7.43	149.23	14.07	0.002147
	0.99577	89536.22					
143.00		4509.46	10.61	7.07	8090.68	0.38	
1144.21		153.92		7.43	149.23	14.07	0.002145
	0.99514	89535.26					
144.00		4509.46	10.61	7.07	8089.09	0.38	
1144.08		153.91		7.43	149.22	14.07	0.002147
	0.99588	89531.30					
145.00		4509.41	10.56	7.04	7991.05	0.38	
1134.86		153.44		7.40	148.77	14.09	0.002151
	0.99251	89262.10					
146.00		4509.37	10.52	7.02	7917.03	0.38	

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				HYCHAN.OUT			
1127.68	0.99027	153.08	7.37	148.42	14.11	0.002154	
147.00	4509.37	89053.67	10.52	7.02	7917.21	0.38	
1127.69	0.98869	153.08	7.37	148.42	14.11	0.002151	
148.00	4509.37	89054.01	10.52	7.02	7916.92	0.38	
1127.66	0.98991	153.08	7.37	148.42	14.11	0.002153	
149.00	4509.37	89053.29	10.52	7.02	7917.19	0.38	
1127.68	0.98951	153.08	7.37	148.42	14.11	0.002153	
150.00	4509.37	89053.77	10.52	7.02	7915.64	0.38	
1127.55	0.98861	153.07	7.37	148.42	14.11	0.002151	
151.00	4509.33	89049.82	10.48	7.00	7849.77	0.38	
1121.36	0.98758	152.75	7.34	148.11	14.13	0.002156	
152.00	4509.29	88867.62	10.44	6.98	7767.87	0.38	
1113.52	0.98424	152.35	7.31	147.73	14.15	0.002158	
153.00	4509.27	88637.16	10.42	6.97	7743.07	0.38	
1111.10	0.98230	152.22	7.30	147.61	14.16	0.002157	
154.00	4509.27	88566.50	10.42	6.97	7741.08	0.38	
1110.93	0.98276	152.22	7.30	147.60	14.16	0.002158	
155.00	4509.22	88561.16	10.37	6.94	7647.75	0.38	
1102.14	0.98023	151.76	7.26	147.17	14.19	0.002163	
156.00	4509.29	88299.71	10.44	6.98	7769.19	0.38	
1113.36	0.98189	152.34	7.31	147.72	14.15	0.002153	
157.00	4509.37	88633.81	10.52	7.02	7916.26	0.38	
1127.58	0.98921	153.07	7.37	148.42	14.11	0.002152	
158.00	4509.37	89051.01	10.52	7.02	7916.87	0.38	
1127.65	0.98957	153.08	7.37	148.42	14.11	0.002153	
159.00	4509.37	89053.02	10.52	7.02	7917.12	0.38	
1127.68	0.98837	153.08	7.37	148.42	14.11	0.002150	
160.00	4509.37	89053.64	10.52	7.02	7917.05	0.38	
1127.67	0.98987	153.08	7.37	148.42	14.11	0.002153	
161.00	4509.37	89053.38	10.52	7.02	7916.99	0.38	
1127.67	0.98955	153.08	7.37	148.42	14.11	0.002153	
162.00	4509.37	89053.40	10.52	7.02	7916.88	0.38	
1127.65	0.98932	153.08	7.37	148.42	14.11	0.002152	
163.00	4509.37	89053.00	10.52	7.02	7917.04	0.38	
1127.67	0.98962	153.08	7.37	148.42	14.11	0.002153	
164.00	4509.37	89053.43	10.52	7.02	7914.66	0.38	
1127.46	0.98861	153.07	7.37	148.41	14.11	0.002151	
165.00	4509.31	89047.30	10.46	6.99	7817.52	0.38	
1118.33	0.98572	152.59	7.33	147.96	14.14	0.002155	
166.00	4509.27	88777.93	10.42	6.97	7742.98	0.38	
1111.10	0.98358	152.22	7.30	147.61	14.16	0.002160	
167.00	4509.27	88566.39	10.42	6.97	7743.34	0.38	

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		HYCHAN.OUT				
1111.13	152.23	7.30	147.61	14.16	0.002158	
0.98302	88567.20					
168.00	4509.27	10.42	6.97	7742.72	0.38	
1111.07	152.22	7.30	147.61	14.16	0.002158	
0.98275	88565.39					
169.00	4509.27	10.42	6.97	7743.06	0.38	
1111.10	152.22	7.30	147.61	14.16	0.002157	
0.98255	88566.38					
170.00	4509.27	10.42	6.97	7743.20	0.38	
1111.12	152.23	7.30	147.61	14.16	0.002158	
0.98300	88566.82					
171.00	4509.27	10.42	6.97	7742.79	0.38	
1111.08	152.22	7.30	147.61	14.16	0.002159	
0.98334	88565.73					
172.00	4509.27	10.42	6.97	7740.90	0.38	
1110.91	152.21	7.30	147.60	14.16	0.002157	
0.98218	88560.66					
173.00	4509.22	10.37	6.94	7643.57	0.38	
1101.77	151.74	7.26	147.15	14.19	0.002163	
0.97984	88288.38					
174.00	4509.18	10.33	6.92	7569.26	0.38	
1094.57	151.37	7.23	146.79	14.21	0.002164	
0.97644	88075.61					
175.00	4509.18	10.33	6.92	7569.34	0.38	
1094.56	151.37	7.23	146.79	14.21	0.002164	
0.97656	88075.50					
176.00	4509.18	10.33	6.92	7568.70	0.38	
1094.51	151.36	7.23	146.79	14.21	0.002163	
0.97598	88073.84					
177.00	4509.18	10.33	6.92	7569.31	0.38	
1094.56	151.37	7.23	146.79	14.21	0.002162	
0.97559	88075.46					
178.00	4509.18	10.33	6.92	7568.84	0.38	
1094.52	151.36	7.23	146.79	14.21	0.002161	
0.97524	88074.18					
179.00	4509.18	10.33	6.92	7572.92	0.38	
1094.87	151.38	7.23	146.81	14.21	0.002163	
0.97608	88085.11					
180.00	4509.29	10.44	6.98	7769.17	0.38	
1113.36	152.34	7.31	147.72	14.15	0.002152	
0.98125	88633.77					
181.00	4509.37	10.52	7.02	7917.91	0.38	
1127.73	153.08	7.37	148.43	14.11	0.002153	
0.98958	89055.41					
182.00	4509.42	10.57	7.05	8017.75	0.38	
1137.13	153.56	7.41	148.88	14.09	0.002146	
0.99147	89330.44					
183.00	4509.46	10.61	7.07	8090.50	0.38	
1144.19	153.92	7.43	149.22	14.07	0.002147	
0.99589	89534.66					
184.00	4509.46	10.61	7.07	8090.91	0.38	
1144.23	153.92	7.43	149.23	14.07	0.002146	
0.99537	89536.00					
185.00	4509.46	10.61	7.07	8090.98	0.38	
1144.24	153.92	7.43	149.23	14.07	0.002145	
0.99510	89536.20					
186.00	4509.46	10.61	7.07	8091.02	0.38	
1144.25	153.92	7.43	149.23	14.07	0.002147	
0.99599	89536.41					
187.00	4509.46	10.61	7.07	8091.19	0.38	
1144.26	153.92	7.43	149.23	14.07	0.002146	
0.99559	89536.76					
188.00	4509.46	10.61	7.07	8090.89	0.38	

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		HYCHAN.OUT					
1144.23	153.92	7.43	149.23	14.07	0.002146		
0.99564	89535.91						
189.00	4509.46	10.61	7.07	8090.96	0.38		
1144.24	153.92	7.43	149.23	14.07	0.002147		
0.99585	89536.19						
190.00	4509.46	10.61	7.07	8089.10	0.38		
1144.08	153.91	7.43	149.22	14.07	0.002147		
0.99603	89531.34						
191.00	4509.41	10.56	7.04	7990.53	0.38		
1134.81	153.44	7.40	148.77	14.09	0.002151		
0.99270	89260.55						
192.00	4509.37	10.52	7.02	7917.12	0.38		
1127.69	153.08	7.37	148.42	14.11	0.002153		
0.98952	89053.86						
193.00	4509.37	10.52	7.02	7917.33	0.38		
1127.69	153.08	7.37	148.42	14.11	0.002153		
0.98964	89054.21						
194.00	4509.37	10.52	7.02	7916.94	0.38		
1127.66	153.08	7.37	148.42	14.11	0.002152		
0.98923	89053.20						
195.00	4509.37	10.52	7.02	7917.00	0.38		
1127.66	153.08	7.37	148.42	14.11	0.002153		
0.98959	89053.26						
196.00	4509.37	10.52	7.02	7917.05	0.38		
1127.67	153.08	7.37	148.42	14.11	0.002152		
0.98906	89053.39						
197.00	4509.37	10.52	7.02	7917.18	0.38		
1127.68	153.08	7.37	148.42	14.11	0.002151		
0.98870	89053.88						
198.00	4509.37	10.52	7.02	7916.94	0.38		
1127.65	153.08	7.37	148.42	14.11	0.002153		
0.98976	89053.04						
199.00	4509.37	10.52	7.02	7916.68	0.38		
1127.64	153.08	7.37	148.42	14.11	0.002152		
0.98899	89052.58						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 934

MAXIMUM DISCHARGE (CFS) = 19363.46 AT TIME = 80.36  
 MAXIMUM STAGE = 4515.15 AT TIME = 80.36

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	(HRS)	(FT)	AREA	(FT)	(FPS)	(CFS)		
(FT^2)	(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)		
0.00	0.00	4497.20	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4497.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4497.21	0.01	0.07	6.60	0.00	0.00	0.00	0.005207
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.005207
3.00	4506.19	8.99	6.37	5476.28	0.37			
859.70	127.71	6.73	123.85	13.78	0.003057			
1.28432	61927.42							
4.00	4506.32	9.12	6.25	5451.72	0.36			
871.77	128.75	6.77	124.84	13.68	0.003052			

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			HYCHAN.OUT				
	1.28947	62419.49					
863.73	5.00	4506.27	9.07	6.23	5377.52	0.36	
		128.36	6.73	124.47	13.72		0.003051
	1.28106	62233.77					
855.70	6.00	4506.22	9.02	6.19	5300.27	0.36	
		127.97	6.69	124.10	13.76		0.003043
	1.26991	62048.68					
839.85	7.00	4506.12	8.92	6.13	5150.21	0.36	
		127.18	6.60	123.36	13.84		0.003037
	1.25145	61679.11					
823.97	8.00	4506.01	8.81	6.07	5000.84	0.36	
		126.38	6.52	122.60	13.92		0.003031
	1.23323	61301.75					
806.91	9.00	4505.89	8.69	6.01	4852.02	0.36	
		125.47	6.43	121.74	14.01		0.003029
	1.21556	60871.89					
797.56	10.00	4505.82	8.62	5.98	4772.40	0.36	
		124.96	6.38	121.26	14.06		0.003029
	1.20632	60629.04					
789.43	11.00	4505.77	8.57	5.96	4701.26	0.36	
		124.52	6.34	120.85	14.11		0.003022
	1.19556	60423.11					
772.16	12.00	4505.65	8.45	5.90	4552.81	0.36	
		123.58	6.25	119.96	14.20		0.003018
	1.17658	59978.86					
762.34	13.00	4505.58	8.38	5.86	4469.74	0.36	
		123.04	6.20	119.44	14.26		0.003018
	1.16681	59722.47					
762.23	14.00	4505.57	8.37	5.86	4469.05	0.36	
		123.03	6.20	119.44	14.26		0.003018
	1.16674	59719.58					
762.23	15.00	4505.57	8.37	5.86	4469.02	0.36	
		123.03	6.20	119.44	14.26		0.003019
	1.16701	59719.43					
762.23	16.00	4505.57	8.37	5.86	4468.98	0.36	
		123.03	6.20	119.44	14.26		0.003018
	1.16673	59719.36					
762.24	17.00	4505.57	8.37	5.86	4469.10	0.36	
		123.03	6.20	119.44	14.26		0.003019
	1.16721	59719.62					
770.08	18.00	4505.63	8.43	5.89	4538.32	0.36	
		123.46	6.24	119.84	14.22		0.003026
	1.17790	59921.45					
787.84	19.00	4505.75	8.55	5.95	4690.85	0.36	
		124.43	6.33	120.76	14.12		0.003033
	1.19817	60377.92					
805.66	20.00	4505.88	8.68	6.01	4844.16	0.36	
		125.39	6.43	121.67	14.02		0.003037
	1.21763	60834.23					
815.16	21.00	4505.95	8.75	6.04	4923.80	0.36	
		125.91	6.47	122.15	13.96		0.003036
	1.22666	61076.77					
815.23	22.00	4505.95	8.75	6.04	4924.38	0.36	
		125.91	6.47	122.16	13.96		0.003037
	1.22715	61078.60					
823.36	23.00	4506.00	8.80	6.07	4998.74	0.36	
		126.34	6.52	122.57	13.92		0.003043
	1.23758	61283.51					
847.95	24.00	4506.17	8.97	6.17	5230.45	0.36	
		127.57	6.65	123.72	13.80		0.003057
	1.26776	61861.80					
880.62	25.00	4506.38	9.18	6.29	5539.47	0.37	
		129.17	6.82	125.24	13.64		0.003069

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		HYCHAN.OUT					
	1.30542	62618.27					
912.81	26.00	4506.59	9.39	6.40	5846.00	0.37	
	1.33860	130.75	6.98	126.72	13.49		0.003073
	27.00	63361.43					
927.70	4506.69		9.49	6.45	5984.85	0.37	
	131.47		7.06	127.41	13.42		0.003073
	1.35284	63704.30					
927.80	28.00	4506.69	9.49	6.45	5985.91	0.37	
	131.48		7.06	127.41	13.42		0.003073
	1.35335	63706.93					
937.33	29.00	4506.75	9.55	6.48	6077.21	0.37	
	131.93		7.10	127.84	13.38		0.003077
	1.36411	63920.55					
945.37	30.00	4506.81	9.61	6.51	6151.92	0.37	
	132.32		7.14	128.21	13.35		0.003077
	1.37166	64103.79					
945.52	31.00	4506.81	9.61	6.51	6153.42	0.37	
	132.33		7.15	128.21	13.34		0.003079
	1.37281	64107.06					
955.43	32.00	4506.87	9.67	6.54	6249.44	0.37	
	132.80		7.19	128.66	13.30		0.003081
	1.38304	64330.52					
963.48	33.00	4506.93	9.73	6.57	6325.89	0.37	
	133.20		7.23	129.03	13.26		0.003081
	1.39064	64516.98					
963.35	34.00	4506.93	9.73	6.56	6324.38	0.37	
	133.19		7.23	129.03	13.27		0.003080
	1.39009	64514.14					
953.70	35.00	4506.86	9.66	6.53	6228.98	0.37	
	132.72		7.19	128.59	13.31		0.003077
	1.37958	64292.70					
945.29	36.00	4506.81	9.61	6.51	6150.82	0.37	
	132.32		7.14	128.20	13.35		0.003074
	1.37048	64102.01					
935.80	37.00	4506.75	9.54	6.48	6059.77	0.37	
	131.87		7.10	127.78	13.39		0.003071
	1.35979	63889.28					
927.75	38.00	4506.69	9.49	6.45	5985.30	0.37	
	131.48		7.06	127.41	13.42		0.003073
	1.35312	63705.90					
927.71	39.00	4506.69	9.49	6.45	5984.90	0.37	
	131.47		7.06	127.41	13.42		0.003071
	1.35233	63705.00					
927.73	40.00	4506.69	9.49	6.45	5985.06	0.37	
	131.48		7.06	127.41	13.42		0.003073
	1.35301	63705.19					
927.72	41.00	4506.69	9.49	6.45	5984.97	0.37	
	131.48		7.06	127.41	13.42		0.003071
	1.35238	63705.16					
927.83	42.00	4506.69	9.49	6.45	5986.08	0.37	
	131.48		7.06	127.41	13.42		0.003074
	1.35351	63707.32					
937.36	43.00	4506.75	9.55	6.48	6077.44	0.37	
	131.93		7.10	127.84	13.38		0.003078
	1.36463	63921.03					
945.49	44.00	4506.81	9.61	6.51	6153.33	0.37	
	132.33		7.15	128.21	13.34		0.003079
	1.37268	64106.66					
955.54	45.00	4506.87	9.67	6.54	6250.83	0.37	
	132.81		7.19	128.67	13.30		0.003083
	1.38415	64333.34					
973.95	46.00	4507.00	9.80	6.60	6426.41	0.37	
	133.69		7.29	129.50	13.22		0.003086

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HYCHAN.OUT									
1.40298	64748.70								
47.00	4507.12	9.92	6.65	6600.00	0.37				
992.19	134.55	7.37	130.31	13.14	0.003091				
1.42230	65157.20								
48.00	4507.24	10.04	6.70	6774.35	0.37				
1010.51	135.42	7.46	131.13	13.07	0.003092				
1.43967	65565.23								
49.00	4507.35	10.15	6.75	6941.49	0.37				
1028.23	136.24	7.55	131.91	12.99	0.003094				
1.45721	65953.63								
50.00	4507.48	10.28	6.80	7122.38	0.37				
1047.45	137.13	7.64	132.74	12.92	0.003098				
1.47651	66371.91								
51.00	4507.66	10.46	6.87	7388.71	0.37				
1075.67	138.42	7.77	133.96	12.81	0.003100				
1.50329	66977.77								
52.00	4507.77	10.57	6.91	7544.39	0.37				
1092.16	139.16	7.85	134.65	12.75	0.003100				
1.51810	67326.15								
53.00	4507.82	10.62	6.94	7648.57	0.38				
1101.94	139.56	7.90	135.03	12.71	0.003106				
1.53023	67516.36								
54.00	4508.05	10.85	7.06	8047.73	0.38				
1139.70	141.11	8.08	136.49	12.58	0.003117				
1.57065	68247.26								
55.00	4508.45	11.25	7.26	8764.85	0.38				
1207.91	143.88	8.40	139.10	12.36	0.003125				
1.63684	69551.08								
56.00	4509.02	11.82	7.50	9774.12	0.38				
1304.02	147.68	8.83	142.68	12.07	0.003136				
1.72790	71337.88								
57.00	4509.73	12.53	7.83	11205.05	0.39				
1431.07	152.29	9.40	147.01	11.74	0.003134				
1.83742	73506.91								
58.00	4510.29	13.09	8.08	12396.30	0.39				
1534.95	155.90	9.85	150.40	11.49	0.003130				
1.92291	75202.34								
59.00	4510.71	13.51	8.28	13372.35	0.40				
1615.91	158.56	10.19	152.90	11.31	0.003135				
1.99339	76447.91								
60.00	4511.24	14.04	8.51	14613.27	0.40				
1717.36	161.79	10.61	155.93	11.11	0.003533				
2.34009	77964.63								
61.00	4511.66	14.46	8.70	15658.10	0.40				
1800.47	164.26	10.96	158.32	10.95	0.003555				
2.43180	79160.35								
62.00	4511.98	14.78	8.85	16518.50	0.41				
1865.87	164.91	11.31	160.14	10.83	0.003576				
2.52475	80071.38								
63.00	4512.23	15.03	8.98	17185.01	0.41				
1913.84	165.40	11.57	161.51	10.75	0.003608				
2.60537	80756.97								
64.00	4512.58	15.38	9.03	17783.78	0.41				
1968.52	166.10	11.85	163.45	10.63	0.003743				
2.76818	81727.25								
65.00	4513.24	16.04	8.92	18380.63	0.39				
2061.37	167.41	12.31	167.01	10.41	0.003883				
2.98333	83506.56								
66.00	4513.43	16.23	8.89	18553.90	0.39				
2087.89	167.80	12.44	168.06	10.35	0.003899				
3.02754	84027.94								
67.00	4513.46	16.26	8.88	18572.79	0.39				
2091.57	167.85	12.46	168.18	10.35	0.003908				

HYCHAN.OUT									
	3.03840	84089.18							
2092.07	68.00	4513.46	16.26	12.46	8.88	18576.41	0.39		
		167.86				168.20	10.34	0.003903	
	3.03515	84100.30							
2093.32	69.00	4513.47	16.27	12.47	8.88	18585.86	0.39		
		167.88				168.25	10.34	0.003903	
	3.03680	84124.73							
2094.43	70.00	4513.48	16.28	12.47	8.88	18596.21	0.39		
		167.90				168.31	10.34	0.003906	
	3.04063	84153.33							
2094.15	71.00	4513.48	16.28	12.47	8.88	18598.97	0.39		
		167.90				168.32	10.34	0.003904	
	3.03869	84159.56							
2093.63	72.00	4513.48	16.28	12.47	8.88	18595.95	0.39		
		167.89				168.30	10.34	0.003908	
	3.04079	84148.28							
2110.45	73.00	4513.60	16.40	12.55	8.88	18734.73	0.39		
		168.14				168.96	10.30	0.003972	
	3.11091	84482.39							
2132.42	74.00	4513.76	16.56	12.66	8.86	18886.33	0.38		
		168.45				169.78	10.25	0.003991	
	3.15286	84890.02							
2136.17	75.00	4513.78	16.58	12.68	8.85	18911.33	0.38		
		168.50				169.92	10.25	0.003994	
	3.15942	84957.76							
2152.21	76.00	4513.90	16.69	12.76	8.85	19043.36	0.38		
		168.73				170.51	10.21	0.004062	
	3.23327	85254.65							
2201.44	77.00	4514.24	17.04	12.99	8.83	19442.30	0.38		
		169.42				172.33	10.11	0.004180	
	3.38934	86163.02							
2253.53	78.00	4514.61	17.41	13.24	8.82	19873.61	0.37		
		170.15				174.22	10.01	0.004252	
	3.51429	87111.95							
2287.69	79.00	4514.84	17.64	13.41	8.82	20172.98	0.37		
		170.63				175.45	9.94	0.004316	
	3.61110	87723.18							
2327.16	80.00	4515.12	17.92	13.60	8.83	20544.60	0.37		
		171.18				176.85	9.87	0.004384	
	3.71926	88423.79							
2349.21	81.00	4515.27	18.07	13.70	8.83	20738.19	0.37		
		171.48				177.62	9.83	0.004369	
	3.73511	88812.49							
2332.85	82.00	4515.16	17.96	13.62	8.82	20571.08	0.37		
		171.26				177.05	9.86	0.004324	
	3.67505	88526.77							
2311.43	83.00	4515.01	17.81	13.52	8.82	20375.97	0.37		
		170.96				176.29	9.90	0.004313	
	3.63835	88146.68							
2308.02	84.00	4514.99	17.79	13.50	8.82	20347.28	0.37		
		170.91				176.17	9.91	0.004315	
	3.63584	88086.45							
2308.50	85.00	4514.99	17.79	13.51	8.82	20350.77	0.37		
		170.92				176.19	9.90	0.004309	
	3.63128	88094.23							
2302.90	86.00	4514.96	17.75	13.48	8.81	20293.65	0.37		
		170.85				176.01	9.91	0.004279	
	3.59876	88006.27							
2255.81	87.00	4514.62	17.42	13.26	8.79	19837.56	0.37		
		170.19				174.31	10.00	0.004112	
	3.40090	87154.05							
2139.39	88.00	4513.80	16.60	12.69	8.82	18869.15	0.38		
		168.53				170.00	10.24	0.003844	

HYCHAN.OUT

1943.88	3.04474	84998.64	15.18	8.87	17248.31	0.40	0.003550
	89.00	4512.38	11.73		162.35	10.69	
	2.59879	165.70					
1826.28	90.00	81177.43	14.59	8.75	15973.86	0.40	0.003527
	4511.79	164.51	11.10		159.04	10.90	
	2.44343	79519.31					
1755.88	91.00	4511.44	14.24	8.58	15069.35	0.40	0.003119
	4511.03	163.00	10.77		157.06	11.03	
	2.09668	78531.84					
1676.63	92.00	4511.03	13.83	8.41	14094.39	0.40	0.003119
	4510.65	160.51	10.45		154.73	11.19	
	2.03267	77366.02					
1602.55	93.00	4510.65	13.45	8.23	13193.15	0.40	0.003117
	4510.30	158.14	10.13		152.50	11.34	
	1.97106	76251.04					
1536.72	94.00	4510.30	13.10	8.07	12397.89	0.39	0.003124
	4510.02	155.97	9.85		150.47	11.48	
	1.92061	75235.90					
1483.50	95.00	4510.02	12.82	7.95	11791.00	0.39	0.003122
	4509.75	154.15	9.62		148.76	11.61	
	1.87487	74379.59					
1435.17	96.00	4509.75	12.55	7.83	11236.73	0.39	0.003114
	4509.55	152.46	9.41		147.17	11.73	
	1.82916	73586.87					
1397.76	97.00	4509.55	12.35	7.73	10808.98	0.39	0.003112
	4509.36	151.14	9.25		145.93	11.82	
	1.79608	72965.83					
1363.83	98.00	4509.36	12.16	7.64	10419.04	0.39	0.003114
	4509.22	149.93	9.10		144.79	11.91	
	1.76770	72396.42					
1338.46	99.00	4509.22	12.02	7.57	10127.64	0.38	0.003115
	4509.05	149.02	8.98		143.94	11.97	
	1.74611	71967.53					
1308.04	100.00	4509.05	11.85	7.49	9797.30	0.38	0.003114
	4508.86	147.87	8.85		142.85	12.06	
	1.71872	71427.34					
1276.04	101.00	4508.86	11.66	7.42	9466.41	0.38	0.003112
	4508.70	146.62	8.70		141.68	12.15	
	1.69019	70838.47					
1248.95	102.00	4508.70	11.50	7.35	9184.27	0.38	0.003113
	4508.56	145.55	8.58		140.67	12.23	
	1.66667	70333.59					
1226.29	103.00	4508.56	11.36	7.30	8947.98	0.38	0.003112
	4508.45	144.64	8.48		139.81	12.30	
	1.64623	69906.95					
1206.92	104.00	4508.45	11.25	7.25	8745.24	0.38	0.003108
	4508.27	143.86	8.39		139.08	12.36	
	1.62713	69540.89					
1177.29	105.00	4508.27	11.07	7.16	8433.29	0.38	0.003106
	4508.12	142.66	8.25		137.95	12.46	
	1.59940	68977.02					
1151.54	106.00	4508.12	10.92	7.09	8165.62	0.38	0.003105
	4508.02	141.61	8.13		136.96	12.54	
	1.57576	68482.24					
1134.72	107.00	4508.02	10.82	7.04	7989.28	0.38	0.003103
	4507.92	140.92	8.05		136.31	12.60	
	1.55905	68157.05					
1118.38	108.00	4507.92	10.72	6.99	7817.94	0.38	0.003101
	4507.88	140.25	7.97		135.68	12.65	
	1.54304	67839.53					
1111.32	109.00	4507.88	10.68	6.97	7745.49	0.38	0.003104
	4507.88	139.95	7.94		135.40	12.68	

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1120.87	1.53822	67701.05	10.74	7.99	7.00	7847.29	0.38	0.003110
	110.00	4507.94				135.77	12.65	
	1.54976	67885.99	10.89	8.11	7.08	8119.64	0.38	0.003107
	111.00	4508.09				136.77	12.56	
	1.57242	68386.34	10.92	8.13	7.09	8163.20	0.38	0.003105
	112.00	4508.12				136.95	12.54	
	1.57542	68477.27	10.82	8.05	7.04	7995.18	0.38	0.003107
	113.00	4508.02				136.33	12.60	
	1.56150	68166.67	10.89	8.11	7.08	8127.25	0.38	0.003113
	114.00	4508.09				136.80	12.56	
	1.57609	68399.18	11.11	8.28	7.19	8503.15	0.38	0.003113
	115.00	4508.31				138.18	12.44	
	1.60841	69087.81	11.14	8.30	7.20	8551.16	0.38	0.003111
	116.00	4508.34				138.37	12.42	
	1.61196	69186.95	11.09	8.27	7.18	8470.31	0.38	0.003111
	117.00	4508.29				138.07	12.45	
	1.60499	69035.88	11.09	8.27	7.18	8473.13	0.38	0.003113
	118.00	4508.29				138.08	12.45	
	1.60613	69040.35	11.16	8.32	7.21	8588.63	0.38	0.003113
	119.00	4508.36				138.49	12.41	
	1.61613	69247.30	11.20	8.36	7.23	8669.49	0.38	0.003112
	120.00	4508.40				138.80	12.39	
	1.62247	69398.17	11.20	8.35	7.23	8666.87	0.38	0.003112
	121.00	4508.40				138.79	12.39	
	1.62210	69394.02	11.14	8.30	7.20	8551.70	0.38	0.003111
	122.00	4508.34				138.38	12.42	
	1.61184	69188.21	11.09	8.27	7.17	8467.74	0.38	0.003109
	123.00	4508.29				138.06	12.45	
	1.60351	69031.73	11.03	8.22	7.14	8352.71	0.38	0.003108
	124.00	4508.23				137.65	12.48	
	1.59330	68825.00	10.98	8.18	7.12	8269.92	0.38	0.003109
	125.00	4508.18				137.34	12.51	
	1.58673	68669.47	10.98	8.18	7.12	8268.14	0.38	0.003108
	126.00	4508.18				137.33	12.51	
	1.58574	68666.43	10.92	8.13	7.09	8165.72	0.38	0.003106
	127.00	4508.12				136.96	12.54	
	1.57627	68481.72	10.88	8.10	7.07	8091.67	0.38	0.003107
	128.00	4508.08				136.68	12.57	
	1.57008	68341.88	10.87	8.10	7.07	8088.88	0.38	0.003106
	129.00	4508.07				136.67	12.57	
	1.56897	68337.04	10.82	8.05	7.04	7990.62	0.38	0.003105
	130.00	4508.02				136.32	12.60	
	1.53822	67701.05	10.74	7.99	7.00	7847.29	0.38	0.003110
	110.00	4507.94				135.77	12.65	



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1128.05	1.56028	68159.02	10.78	8.02	7.02	7921.35	0.38	0.003109
1147.00	1.55592	68026.55	10.89	8.11	7.08	8122.55	0.38	0.003109
1161.24	1.57364	68391.46	10.98	8.18	7.12	8269.30	0.38	0.003110
1161.28	1.58668	68667.98	10.98	8.18	7.12	8269.73	0.38	0.003108
1161.33	1.58619	68668.98	10.98	8.18	7.12	8270.22	0.38	0.003108
1161.30	1.58603	68669.88	10.98	8.18	7.12	8269.91	0.38	0.003109
1161.31	1.58646	68669.34	10.98	8.18	7.12	8270.01	0.38	0.003110
1161.29	1.58710	68669.31	10.98	8.18	7.12	8269.72	0.38	0.003110
1161.14	1.58682	68669.05	10.98	8.18	7.12	8268.03	0.38	0.003108
1151.55	1.58568	68666.33	10.92	8.13	7.09	8166.03	0.38	0.003105
1144.30	1.57567	68482.26	10.88	8.10	7.07	8091.56	0.38	0.003107
1144.24	1.56980	68341.67	10.88	8.10	7.07	8090.98	0.38	0.003107
1144.21	1.56986	68340.52	10.88	8.10	7.07	8090.68	0.38	0.003106
1144.08	1.56942	68339.93	10.87	8.10	7.07	8089.09	0.38	0.003105
1134.86	1.56891	68337.48	10.82	8.05	7.04	7991.05	0.38	0.003105
1127.68	1.56003	68159.57	10.78	8.02	7.02	7917.03	0.38	0.003105
1127.69	1.55379	68019.67	10.78	8.02	7.02	7917.21	0.38	0.003104
1127.66	1.55342	68019.70	10.78	8.02	7.02	7916.92	0.38	0.003105
1127.68	1.55384	68019.22	10.78	8.02	7.02	7917.19	0.38	0.003104
1127.55	1.55337	68019.71	10.78	8.02	7.02	7915.64	0.38	0.003104
1121.36	1.55294	68017.14	10.74	7.99	7.00	7849.77	0.38	0.003102

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	1.54618	67897.38						
1113.52	152.00	4507.89	10.69	7.95	6.98	7767.87	0.38	0.003101
	1.53865	67744.28				135.49	12.67	
1111.10	153.00	4507.88	10.68	7.94	6.97	7743.07	0.38	0.003102
	1.53674	67696.90				135.39	12.68	
1110.93	154.00	4507.88	10.68	7.94	6.97	7741.08	0.38	0.003101
	1.53614	67693.65				135.39	12.68	
1102.14	155.00	4507.82	10.62	7.90	6.94	7647.75	0.38	0.003100
	1.52767	67522.27				135.04	12.71	
1113.36	156.00	4507.89	10.69	7.95	6.98	7769.19	0.38	0.003105
	1.54037	67738.43				135.48	12.67	
1127.58	157.00	4507.98	10.78	8.02	7.02	7916.26	0.38	0.003104
	1.55301	68017.77				136.04	12.62	
1127.65	158.00	4507.98	10.78	8.02	7.02	7916.87	0.38	0.003105
	1.55350	68019.13				136.04	12.62	
1127.68	159.00	4507.98	10.78	8.02	7.02	7917.12	0.38	0.003105
	1.55354	68019.57				136.04	12.62	
1127.67	160.00	4507.98	10.78	8.02	7.02	7917.05	0.38	0.003105
	1.55374	68019.48				136.04	12.62	
1127.67	161.00	4507.98	10.78	8.02	7.02	7916.99	0.38	0.003105
	1.55387	68019.41				136.04	12.62	
1127.65	162.00	4507.98	10.78	8.02	7.02	7916.88	0.38	0.003105
	1.55360	68019.10				136.04	12.62	
1127.67	163.00	4507.98	10.78	8.02	7.02	7917.04	0.38	0.003104
	1.55305	68019.46				136.04	12.62	
1127.46	164.00	4507.98	10.78	8.02	7.02	7914.66	0.38	0.003103
	1.55226	68015.55				136.03	12.62	
1118.33	165.00	4507.92	10.72	7.97	6.99	7817.52	0.38	0.003102
	1.54330	67838.46				135.68	12.65	
1111.10	166.00	4507.88	10.68	7.94	6.97	7742.98	0.38	0.003103
	1.53714	67696.98				135.39	12.68	
1111.13	167.00	4507.88	10.68	7.94	6.97	7743.34	0.38	0.003101
	1.53632	67697.42				135.39	12.68	
1111.07	168.00	4507.88	10.68	7.94	6.97	7742.72	0.38	0.003102
	1.53697	67696.16				135.39	12.68	
1111.10	169.00	4507.88	10.68	7.94	6.97	7743.06	0.38	0.003104
	1.53763	67696.87				135.39	12.68	
1111.12	170.00	4507.88	10.68	7.94	6.97	7743.20	0.38	0.003101
	1.53636	67697.24				135.39	12.68	
1111.08	171.00	4507.88	10.68	7.94	6.97	7742.79	0.38	0.003102
	1.53686	67696.44				135.39	12.68	
1110.91	172.00	4507.88	10.68	7.94	6.97	7740.90	0.38	0.003101
	139.94					135.39	12.68	

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1101.77	1.53598	67693.27	10.62	7.89	6.94	7643.57	0.38	0.003098
	173.00	4507.82				135.03	12.71	
		139.56						
1094.57	1.52618	67515.21	10.58	7.86	6.92	7569.26	0.37	0.003099
	174.00	4507.78				134.75	12.74	
		139.26						
1094.56	1.52009	67373.42	10.58	7.86	6.92	7569.34	0.37	0.003100
	175.00	4507.78				134.75	12.74	
		139.26						
1094.51	1.52048	67373.21	10.58	7.86	6.92	7568.70	0.37	0.003098
	176.00	4507.78				134.74	12.74	
		139.25						
1094.56	1.51947	67372.29	10.58	7.86	6.92	7569.31	0.37	0.003098
	177.00	4507.78				134.75	12.74	
		139.26						
1094.52	1.51968	67373.30	10.58	7.86	6.92	7568.84	0.37	0.003098
	178.00	4507.78				134.74	12.74	
		139.25						
1094.87	1.51937	67372.41	10.58	7.86	6.92	7572.92	0.37	0.003101
	179.00	4507.78				134.76	12.74	
		139.27						
1113.36	1.52132	67379.24	10.69	7.95	6.98	7769.17	0.38	0.003103
	180.00	4507.89				135.48	12.67	
		140.03						
1127.73	1.53954	67738.39	10.78	8.02	7.02	7917.91	0.38	0.003106
	181.00	4507.98				136.04	12.62	
		140.63						
1137.13	1.55443	68020.38	10.83	8.06	7.05	8017.75	0.38	0.003107
	182.00	4508.03				136.40	12.59	
		141.02						
1144.19	1.56323	68201.93	10.88	8.10	7.07	8090.50	0.38	0.003107
	183.00	4508.08				136.68	12.57	
		141.31						
1144.23	1.56964	68339.45	10.88	8.10	7.07	8090.91	0.38	0.003108
	184.00	4508.08				136.68	12.57	
		141.31						
1144.24	1.57042	68340.34	10.88	8.10	7.07	8090.98	0.38	0.003107
	185.00	4508.08				136.68	12.57	
		141.31						
1144.25	1.57001	68340.50	10.88	8.10	7.07	8091.02	0.38	0.003106
	186.00	4508.08				136.68	12.57	
		141.31						
1144.26	1.56940	68340.70	10.88	8.10	7.07	8091.19	0.38	0.003106
	187.00	4508.08				136.68	12.57	
		141.31						
1144.23	1.56963	68340.84	10.88	8.10	7.07	8090.89	0.38	0.003106
	188.00	4508.08				136.68	12.57	
		141.31						
1144.24	1.56926	68340.38	10.88	8.10	7.07	8090.96	0.38	0.003107
	189.00	4508.08				136.68	12.57	
		141.31						
1144.08	1.56967	68340.43	10.87	8.10	7.07	8089.10	0.38	0.003105
	190.00	4508.07				136.67	12.57	
		141.30						
1134.81	1.56885	68337.49	10.82	8.05	7.04	7990.53	0.38	0.003104
	191.00	4508.02				136.32	12.60	
		140.92						
1127.69	1.55974	68158.64	10.78	8.02	7.02	7917.12	0.38	0.003104
	192.00	4507.98				136.04	12.62	
		140.63						
1127.69	1.55336	68019.84	10.78	8.02	7.02	7917.33	0.38	0.003104
	193.00	4507.98				136.04	12.62	
		140.63						

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1.55323	68019.96							
194.00	4507.98	10.78	7.02	7916.94	0.38			
1127.66	140.63	8.02	136.04	12.62	0.003104			
1.55313	68019.31							
195.00	4507.98	10.78	7.02	7917.00	0.38			
1127.66	140.63	8.02	136.04	12.62	0.003104			
1.55303	68019.32							
196.00	4507.98	10.78	7.02	7917.05	0.38			
1127.67	140.63	8.02	136.04	12.62	0.003104			
1.55308	68019.42							
197.00	4507.98	10.78	7.02	7917.18	0.38			
1127.68	140.63	8.02	136.04	12.62	0.003104			
1.55315	68019.72							
198.00	4507.98	10.78	7.02	7916.94	0.38			
1127.65	140.63	8.02	136.04	12.62	0.003104			
1.55327	68019.22							
199.00	4507.98	10.78	7.02	7916.68	0.38			
1127.64	140.63	8.02	136.04	12.62	0.003104			
1.55336	68018.86							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 958

MAXIMUM DISCHARGE (CFS) = 20107.03 AT TIME = 80.43  
 MAXIMUM STAGE = 4510.01 AT TIME = 80.42

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4495.90	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	1.00	4495.90	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	2.00	4495.90	0.00	0.05	0.45	0.00	0.00	0.002555	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.002555	
1025.15	3.00	4502.74	6.83	5.20	5328.39	0.35	0.00	0.002694	
1032.99	0.90501	190.41	5.38	182.16	26.65	0.00	0.00	0.002683	
1023.62	4.00	4503.00	7.10	5.28	5454.02	0.35	0.00	0.002684	
1014.47	0.89347	193.55	5.34	184.98	26.07	0.00	0.00	0.002668	
996.22	5.00	4502.95	7.04	5.25	5377.76	0.35	0.00	0.002658	
977.82	0.88846	192.94	5.31	184.43	26.18	0.00	0.00	0.002644	
957.14	6.00	4502.90	7.00	5.23	5302.74	0.35	0.00	0.002627	
	0.87800	192.38	5.27	183.93	26.28	0.00	0.00		
	7.00	4502.80	6.90	5.17	5152.74	0.35	0.00		
	0.86429	191.21	5.21	182.87	26.50	0.00	0.00		
	8.00	4502.70	6.80	5.12	5003.53	0.35	0.00		
	0.84914	190.02	5.15	181.80	26.73	0.00	0.00		
	9.00	4502.59	6.69	5.07	4854.89	0.35	0.00		
	0.83155	188.69	5.07	180.60	26.98	0.00	0.00		
		92107.12							

		HYCHAN.OUT			
945.50	10.00 4502.53	6.63	5.05	4772.66	0.35
	0.82521 187.90	5.03		179.90	27.13
	11.00 4502.48	6.58	5.03	4703.95	0.35
935.85	0.81410 187.29	5.00		179.34	27.26
	12.00 4502.37	6.47	4.98	4555.63	0.35
915.11	0.79764 185.90	4.92		178.09	27.53
	13.00 4502.30	6.40	4.95	4470.06	0.34
903.19	0.79104 185.07	4.88		177.35	27.70
	14.00 4502.30	6.40	4.95	4469.05	0.34
903.05	0.79101 185.06	4.88		177.33	27.70
	15.00 4502.30	6.40	4.95	4469.00	0.34
903.04	0.79118 185.06	4.88		177.33	27.70
	16.00 4502.30	6.40	4.95	4468.98	0.34
903.04	0.79112 185.06	4.88		177.33	27.70
	17.00 4502.30	6.40	4.95	4469.06	0.34
903.05	0.79136 185.06	4.88		177.33	27.70
	18.00 4502.35	6.45	4.97	4535.60	0.35
912.32	0.80176 185.66	4.91		177.88	27.58
	19.00 4502.46	6.56	5.02	4687.87	0.35
933.60	0.81926 187.08	4.99		179.16	27.30
	20.00 4502.58	6.68	5.07	4841.23	0.35
955.21	0.83753 188.51	5.07		180.44	27.02
	21.00 4502.64	6.74	5.09	4923.62	0.35
966.87	0.84380 189.29	5.11		181.15	26.87
	22.00 4502.64	6.74	5.09	4924.24	0.35
966.96	0.84453 189.30	5.11		181.15	26.86
	23.00 4502.69	6.79	5.11	4996.04	0.35
976.81	0.85543 189.91	5.14		181.70	26.75
	24.00 4502.84	6.94	5.20	5225.36	0.35
1005.11	0.87990 191.72	5.24		183.33	26.41
	25.00 4503.04	7.14	5.31	5534.18	0.35
1042.91	0.90994 194.11	5.37		185.48	25.97
	26.00 4503.24	7.34	5.40	5841.10	0.35
1080.98	0.93933 196.45	5.50		187.58	25.55
	27.00 4503.34	7.44	5.45	5984.61	0.35
1098.89	0.94886 197.56	5.56		188.58	25.35
	28.00 4503.34	7.44	5.45	5985.72	0.35
1099.03	0.95012 197.57	5.56		188.59	25.35
	29.00 4503.40	7.49	5.47	6074.58	0.35
1110.23	0.96148 198.22	5.60		189.17	25.24
	30.00 4503.45	7.55	5.49	6151.83	0.35
1119.97	0.96657 198.82	5.63		189.71	25.14

		HYCHAN.OUT					
1120.14	31.00 4503.45 198.82 96754.00	7.55	5.49	6153.16	0.35	0.002754	
	0.96802	5.63		189.71	25.14		
1132.01	32.00 4503.51 199.50 97062.45	7.61	5.52	6246.70	0.35	0.002768	
	0.98007	5.67		190.32	25.02		
1142.05	33.00 4503.56 200.11 97339.68	7.66	5.54	6325.78	0.35	0.002769	
	0.98602	5.71		190.86	24.92		
1141.90	34.00 4503.56 200.10 97336.99	7.66	5.54	6324.63	0.35	0.002765	
	0.98446	5.71		190.86	24.92		
1130.11	35.00 4503.50 199.43 97031.63	7.60	5.51	6231.70	0.35	0.002750	
	0.97245	5.67		190.26	25.03		
1119.88	36.00 4503.45 198.81 96749.02	7.55	5.49	6151.16	0.35	0.002749	
	0.96611	5.63		189.70	25.14		
1108.69	37.00 4503.39 198.17 96454.40	7.49	5.47	6062.39	0.35	0.002734	
	0.95436	5.59		189.13	25.25		
1098.98	38.00 4503.34 197.57 96181.07	7.44	5.45	5985.33	0.35	0.002735	
	0.94931	5.56		188.59	25.35		
1098.93	39.00 4503.34 197.57 96179.38	7.44	5.45	5984.96	0.35	0.002735	
	0.94912	5.56		188.59	25.35		
1098.94	40.00 4503.34 197.57 96179.69	7.44	5.45	5985.03	0.35	0.002735	
	0.94915	5.56		188.59	25.35		
1098.94	41.00 4503.34 197.57 96179.62	7.44	5.45	5985.03	0.35	0.002735	
	0.94923	5.56		188.59	25.35		
1099.05	42.00 4503.34 197.58 96182.02	7.44	5.45	5985.89	0.35	0.002737	
	0.94999	5.56		188.59	25.35		
1110.26	43.00 4503.40 198.22 96477.55	7.49	5.47	6074.78	0.35	0.002752	
	0.96179	5.60		189.17	25.24		
1120.11	44.00 4503.45 198.82 96752.97	7.55	5.49	6152.99	0.35	0.002754	
	0.96830	5.63		189.71	25.14		
1132.16	45.00 4503.51 199.51 97065.59	7.61	5.52	6247.85	0.35	0.002771	
	0.98129	5.67		190.32	25.02		
1154.51	46.00 4503.62 200.80 97657.12	7.72	5.56	6423.28	0.35	0.002788	
	1.00043	5.75		191.48	24.80		
1176.79	47.00 4503.73 202.07 98238.16	7.83	5.61	6596.87	0.35	0.002808	
	1.02036	5.82		192.62	24.59		
1199.33	48.00 4503.85 203.34 98816.81	7.95	5.65	6771.29	0.35	0.002825	
	1.03966	5.90		193.76	24.39		
1221.05	49.00 4503.95 204.54 99365.50	8.05	5.68	6938.23	0.35	0.002844	
	1.05944	5.97		194.83	24.19		
1244.73	50.00 4504.07 205.83 99955.70	8.17	5.72	7119.07	0.35	0.002866	
	1.08163	6.05		195.99	23.99		
1279.58	51.00 4504.24 207.67 100798.34	8.34	5.77	7383.03	0.35	0.002901	
	1.11520	6.16		197.64	23.70		

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HYCHAN.OUT							
1299.96	52.00	4504.34	8.44	5.80	7543.96	0.35	0.002900
	1.12673	208.80	6.23		198.66	23.53	
1311.11	53.00	4504.40	8.50	5.83	7645.45	0.35	0.002918
	1.13990	209.40	6.26		199.19	23.44	
1354.76	54.00	4504.62	8.72	5.93	8038.81	0.35	0.002962
	1.18286	211.71	6.40		201.25	23.09	
1435.03	55.00	4505.01	9.11	6.10	8751.50	0.36	0.003034
	1.25868	215.85	6.65		204.95	22.49	
1550.11	56.00	4505.57	9.67	6.29	9756.31	0.36	0.003127
	1.36554	221.50	7.00		209.99	21.72	
1697.99	57.00	4506.28	10.38	6.59	11184.25	0.36	0.003114
	1.44427	228.47	7.43		216.20	20.83	
1819.49	58.00	4506.86	10.96	6.81	12382.20	0.36	0.003025
	1.46809	233.95	7.78		221.08	20.17	
1912.67	59.00	4507.29	11.39	6.98	13357.84	0.36	0.003021
	1.51535	237.93	8.04		224.60	19.72	
2030.33	60.00	4507.83	11.93	7.19	14596.67	0.37	0.002634
	1.37473	242.72	8.37		228.86	19.19	
4819.59	61.00	4508.25	12.35	3.25	15647.34	0.16	0.002062
	2.53484	244.68	19.70		232.13	18.80	
0.00	62.00	4508.56	12.66	0.00	0.00	0.00	0.001965
	0.00000	245.30	0.00		234.50	18.53	
0.00	63.00	4508.80	12.90	0.00	0.00	0.00	0.001924
	0.00000	245.78	0.00		236.32	18.32	
0.00	64.00	4509.00	13.09	0.00	0.00	0.00	0.002018
	0.00000	246.18	0.00		237.80	18.16	
0.00	65.00	4509.19	13.29	0.00	0.00	0.00	0.002200
	0.00000	246.56	0.00		239.22	18.01	
0.00	66.00	4509.25	13.35	0.00	0.00	0.00	0.002206
	0.00000	246.70	0.00		239.71	17.95	
0.00	67.00	4509.26	13.36	0.00	0.00	0.00	0.002216
	0.00000	246.71	0.00		239.77	17.95	
0.00	68.00	4509.26	13.36	0.00	0.00	0.00	0.002213
	0.00000	246.72	0.00		239.78	17.94	
0.00	69.00	4509.27	13.37	0.00	0.00	0.00	0.002216
	0.00000	246.72	0.00		239.81	17.94	
0.00	70.00	4509.27	13.37	0.00	0.00	0.00	0.002219
	0.00000	246.73	0.00		239.83	17.94	
0.00	71.00	4509.27	13.37	0.00	0.00	0.00	0.002218
	0.00000	246.73	0.00		239.84	17.94	
0.00	72.00	4509.27	13.37	0.00	0.00	0.00	0.002228
	0.00000	246.73	0.00		239.83	17.94	
	0.00000	122311.43					



HYCHAN.OUT							
0.00	73.00	4509.31	13.41	0.00	0.00	0.00	0.00
0.00	0.00000	246.81	0.00	240.11	17.91	0.00	0.002296
		122456.60					
0.00	74.00	4509.36	13.46	0.00	0.00	0.00	0.00
0.00	0.00000	246.91	0.00	240.51	17.87	0.00	0.002302
		122657.63					
0.00	75.00	4509.37	13.47	0.00	0.00	0.00	0.00
0.00	0.00000	246.93	0.00	240.57	17.86	0.00	0.002322
		122692.70					
0.00	76.00	4509.41	13.51	0.00	0.00	0.00	0.00
0.00	0.00000	247.00	0.00	240.83	17.83	0.00	0.002394
		122824.19					
0.00	77.00	4509.53	13.63	0.00	0.00	0.00	0.00
0.00	0.00000	247.24	0.00	241.71	17.74	0.00	0.002509
		123270.08					
0.00	78.00	4509.66	13.76	0.00	0.00	0.00	0.00
0.00	0.00000	247.52	0.00	242.71	17.63	0.00	0.002568
		123782.98					
0.00	79.00	4509.76	13.86	0.00	0.00	0.00	0.00
0.00	0.00000	247.71	0.00	243.40	17.56	0.00	0.002619
		124132.04					
0.00	80.00	4509.87	13.97	0.00	0.00	0.00	0.00
0.00	0.00000	247.93	0.00	244.21	17.48	0.00	0.002673
		124544.76					
0.00	81.00	4509.95	14.05	0.00	0.00	0.00	0.00
0.00	0.00000	248.09	0.00	244.75	17.42	0.00	0.002650
		124823.21					
0.00	82.00	4509.90	14.00	0.00	0.00	0.00	0.00
0.00	0.00000	247.99	0.00	244.41	17.46	0.00	0.002612
		124647.53					
0.00	83.00	4509.83	13.93	0.00	0.00	0.00	0.00
0.00	0.00000	247.86	0.00	243.93	17.51	0.00	0.002611
		124404.55					
0.00	84.00	4509.82	13.92	0.00	0.00	0.00	0.00
0.00	0.00000	247.84	0.00	243.85	17.52	0.00	0.002611
		124362.91					
0.00	85.00	4509.82	13.92	0.00	0.00	0.00	0.00
0.00	0.00000	247.84	0.00	243.86	17.51	0.00	0.002606
		124367.95					
0.00	86.00	4509.81	13.91	0.00	0.00	0.00	0.00
0.00	0.00000	247.82	0.00	243.78	17.52	0.00	0.002577
		124330.16					
0.00	87.00	4509.69	13.79	0.00	0.00	0.00	0.00
0.00	0.00000	247.58	0.00	242.91	17.61	0.00	0.002416
		123885.02					
0.00	88.00	4509.40	13.50	0.00	0.00	0.00	0.00
0.00	0.00000	246.98	0.00	240.77	17.84	0.00	0.002111
		122791.08					
0.00	89.00	4508.87	12.97	0.00	0.00	0.00	0.00
0.00	0.00000	245.93	0.00	236.86	18.26	0.00	0.001884
		120796.33					
19888.09	90.00	4508.38	12.48	0.80	15984.67	0.04	
0.002536		244.96		81.19	233.19	18.68	
		12.84618	118927.45				
2075.83	91.00	4508.04	12.14	7.27	15082.58	0.37	
		244.28		8.50	230.56	18.99	0.002983
		1.58194					
		117584.49					
1983.79	92.00	4507.63	11.73	7.11	14109.33	0.37	
		241.01		8.23	227.34	19.37	0.002974
		1.52737					
		115943.76					
1897.98	93.00	4507.24	11.34	6.96	13203.59	0.36	
		237.45		7.99	224.18	19.77	0.002971
		1.48175					
		114331.90					

HYCHAN.OUT							
1822.28	94.00	4506.89	10.99	7.78	6.81	12409.00	0.36
	1.45234	234.22				221.32	20.14
		112871.03					0.002992
1759.83	95.00	4506.60	10.69	7.60	6.70	11797.94	0.36
	1.43767	231.46				218.86	20.46
		111618.65					0.003030
1703.50	96.00	4506.33	10.43	7.44	6.60	11244.90	0.36
	1.41762	228.92				216.60	20.77
		110466.61					0.003053
1660.10	97.00	4506.12	10.22	7.32	6.51	10814.95	0.36
	1.39739	226.90				214.81	21.02
		109551.59					0.003061
1621.04	98.00	4505.93	10.03	7.20	6.43	10423.89	0.36
	1.38397	225.06				213.16	21.26
		108712.80					0.003079
1591.97	99.00	4505.79	9.89	7.12	6.36	10131.12	0.36
	1.37021	223.66				211.91	21.44
		108076.22					0.003085
1556.03	100.00	4505.61	9.71	7.01	6.30	9803.53	0.36
	1.33660	221.96				210.40	21.66
		107304.08					0.003055
1517.34	101.00	4505.43	9.53	6.89	6.24	9471.37	0.36
	1.30289	220.08				208.73	21.91
		106452.80					0.003029
1484.70	102.00	4505.27	9.37	6.80	6.19	9188.70	0.36
	1.27482	218.48				207.30	22.13
		105722.51					0.003006
1457.47	103.00	4505.14	9.23	6.71	6.14	8951.21	0.36
	1.25217	217.11				206.08	22.32
		105100.57					0.002989
1434.41	104.00	4505.02	9.12	6.64	6.10	8748.72	0.36
	1.23164	215.95				205.04	22.48
		104570.12					0.002971
1399.45	105.00	4504.85	8.95	6.53	6.03	8439.11	0.36
	1.20057	214.17				203.45	22.73
		103758.15					0.002944
1369.06	106.00	4504.70	8.80	6.44	5.97	8168.52	0.35
	1.17845	212.56				202.01	22.97
		103024.88					0.002932
1349.40	107.00	4504.60	8.70	6.38	5.92	7991.97	0.35
	1.16246	211.51				201.07	23.12
		102547.73					0.002920
1330.38	108.00	4504.50	8.60	6.32	5.88	7820.33	0.35
	1.14800	210.48				200.16	23.27
		102080.60					0.002911
1322.08	109.00	4504.46	8.56	6.30	5.86	7745.26	0.35
	1.14506	210.02				199.74	23.34
		101867.59					0.002915
1333.05	110.00	4504.51	8.61	6.33	5.88	7844.46	0.35
	1.15725	210.59				200.25	23.26
		102129.77					0.002930
1363.14	111.00	4504.66	8.76	6.42	5.95	8115.07	0.35
	1.18111	212.19				201.68	23.02
		102856.54					0.002946
1368.75	112.00	4504.69	8.79	6.44	5.97	8165.77	0.35
	1.17818	212.54				201.99	22.97
		103016.27					0.002932
1349.96	113.00	4504.60	8.70	6.38	5.92	7997.05	0.35
	1.16553	211.53				201.10	23.12
		102559.10					0.002927
1363.91	114.00	4504.67	8.76	6.43	5.95	8121.91	0.35
	1.18546	212.22				201.71	23.01
		102873.35					0.002956

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			HYCHAN.OUT				
1406.07	115.00	4504.88	8.98	6.04	8497.93	0.36	
	1.21822	214.43	6.56	203.68	22.69	0.002977	
1412.32	116.00	4504.91	9.01	6.06	8553.70	0.36	
	1.21506	214.81	6.57	204.02	22.64	0.002962	
1402.90	117.00	4504.86	8.96	6.04	8470.38	0.36	
	1.21068	214.31	6.55	203.57	22.71	0.002964	
1403.17	118.00	4504.86	8.96	6.04	8472.75	0.36	
	1.21217	214.32	6.55	203.58	22.71	0.002967	
1415.96	119.00	4504.93	9.03	6.06	8585.96	0.36	
	1.22436	214.96	6.59	204.16	22.62	0.002979	
1425.39	120.00	4504.98	9.07	6.08	8669.43	0.36	
	1.22941	215.46	6.62	204.61	22.55	0.002978	
1425.14	121.00	4504.97	9.07	6.08	8667.21	0.36	
	1.22807	215.45	6.61	204.60	22.55	0.002975	
1412.40	122.00	4504.91	9.01	6.06	8554.41	0.36	
	1.21507	214.82	6.57	204.03	22.64	0.002962	
1402.65	123.00	4504.86	8.96	6.04	8468.15	0.36	
	1.20846	214.30	6.55	203.56	22.71	0.002959	
1389.99	124.00	4504.80	8.90	6.01	8355.40	0.36	
	1.19649	213.65	6.51	202.99	22.81	0.002947	
1380.40	125.00	4504.75	8.85	5.99	8270.02	0.36	
	1.19167	213.13	6.48	202.53	22.88	0.002949	
1380.22	126.00	4504.75	8.85	5.99	8268.40	0.36	
	1.19031	213.13	6.48	202.52	22.88	0.002946	
1369.02	127.00	4504.70	8.80	5.97	8168.15	0.35	
	1.17936	212.55	6.44	202.00	22.97	0.002934	
1360.48	128.00	4504.65	8.75	5.95	8091.74	0.35	
	1.17500	212.08	6.41	201.59	23.03	0.002935	
1360.19	129.00	4504.65	8.75	5.95	8089.15	0.35	
	1.17389	212.07	6.41	201.57	23.04	0.002933	
1349.51	130.00	4504.60	8.70	5.92	7992.98	0.35	
	1.16344	211.51	6.38	201.08	23.12	0.002922	
1341.49	131.00	4504.56	8.66	5.90	7920.78	0.35	
	1.16191	211.06	6.36	200.68	23.19	0.002930	
1363.45	132.00	4504.66	8.76	5.95	8117.83	0.35	
	1.18282	212.20	6.43	201.69	23.02	0.002950	
1380.30	133.00	4504.75	8.85	5.99	8269.17	0.36	
	1.19147	213.13	6.48	202.52	22.88	0.002948	
1380.37	134.00	4504.75	8.85	5.99	8269.74	0.36	
	1.19149	213.13	6.48	202.52	22.88	0.002948	
1380.42	135.00	4504.75	8.85	5.99	8270.23	0.36	
	1.19135	213.13	6.48	202.53	22.88	0.002948	
		103879.10					
		104051.97					
		103823.18					
		103828.00					
		104120.95					
		104350.00					
		104345.41					
		104054.62					
		103818.11					
		103525.09					
		103288.48					
		103284.29					
		103022.32					
		102809.09					
		102802.49					
		102549.52					
		102344.68					
		102863.76					
		103285.28					
		103287.23					
		103288.55					

		HYCHAN.OUT				
1380.39	136.00 4504.75 213.13	8.85	5.99	8269.94	0.36	
	1.19126 103287.91	6.48	202.53	22.88	0.002948	
1380.39	137.00 4504.75 213.13	8.85	5.99	8269.91	0.36	
	1.19184 103287.55	6.48	202.52	22.88	0.002949	
1380.37	138.00 4504.75 213.13	8.85	5.99	8269.79	0.36	
	1.19176 103287.59	6.48	202.52	22.88	0.002949	
1380.21	139.00 4504.75 213.13	8.85	5.99	8268.35	0.36	
	1.18971 103284.26	6.48	202.52	22.88	0.002944	
1369.05	140.00 4504.70 212.55	8.80	5.97	8168.45	0.35	
	1.17927 103023.16	6.44	202.01	22.97	0.002934	
1360.47	141.00 4504.65 212.08	8.75	5.95	8091.62	0.35	
	1.17484 102808.73	6.41	201.59	23.03	0.002935	
1360.40	142.00 4504.65 212.08	8.75	5.95	8091.00	0.35	
	1.17471 102806.77	6.41	201.58	23.04	0.002935	
1360.36	143.00 4504.65 212.08	8.75	5.95	8090.67	0.35	
	1.17468 102805.75	6.41	201.58	23.04	0.002935	
1360.22	144.00 4504.65 212.07	8.75	5.95	8089.40	0.35	
	1.17326 102803.35	6.41	201.58	23.04	0.002931	
1349.54	145.00 4504.60 211.51	8.70	5.92	7993.27	0.35	
	1.16392 102549.86	6.38	201.08	23.12	0.002923	
1341.09	146.00 4504.55 211.05	8.65	5.90	7917.19	0.35	
	1.15916 102336.97	6.35	200.66	23.19	0.002923	
1341.08	147.00 4504.55 211.05	8.65	5.90	7917.17	0.35	
	1.15892 102336.11	6.35	200.66	23.19	0.002923	
1341.06	148.00 4504.55 211.04	8.65	5.90	7916.92	0.35	
	1.15930 102335.69	6.35	200.66	23.19	0.002924	
1341.09	149.00 4504.55 211.05	8.65	5.90	7917.19	0.35	
	1.15918 102336.34	6.35	200.66	23.19	0.002923	
1340.94	150.00 4504.55 211.04	8.65	5.90	7915.83	0.35	
	1.15811 102333.18	6.35	200.65	23.19	0.002921	
1333.81	151.00 4504.52 210.67	8.62	5.89	7851.40	0.35	
	1.15136 102162.75	6.33	200.32	23.24	0.002914	
1324.67	152.00 4504.47 210.17	8.57	5.86	7768.73	0.35	
	1.14485 101934.91	6.30	199.87	23.32	0.002911	
1321.84	153.00 4504.46 210.01	8.56	5.86	7743.06	0.35	
	1.14353 101862.02	6.29	199.73	23.34	0.002911	
1321.65	154.00 4504.46 210.00	8.56	5.86	7741.37	0.35	
	1.14200 101858.23	6.29	199.72	23.34	0.002908	
1311.55	155.00 4504.41 209.46	8.50	5.83	7649.53	0.35	
	1.13460 101611.80	6.26	199.24	23.43	0.002904	
1324.27	156.00 4504.47 210.10	8.57	5.86	7764.58	0.35	
	1.15022 101906.09	6.30	199.82	23.33	0.002924	

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HYCHAN.OUT									
1340.97	157.00	4504.55	8.65	5.90	7916.11	0.35	0.002923		
	1.15905	211.04	6.35	200.65	23.19				
		102332.81							
1341.05	158.00	4504.55	8.65	5.90	7916.87	0.35	0.002924		
	1.15927	211.04	6.35	200.66	23.19				
		102335.55							
1341.08	159.00	4504.55	8.65	5.90	7917.11	0.35	0.002923		
	1.15922	211.05	6.35	200.66	23.19				
		102336.15							
1341.07	160.00	4504.55	8.65	5.90	7917.05	0.35	0.002924		
	1.15943	211.05	6.35	200.66	23.19				
		102336.00							
1341.07	161.00	4504.55	8.65	5.90	7917.05	0.35	0.002923		
	1.15892	211.05	6.35	200.66	23.19				
		102336.15							
1341.05	162.00	4504.55	8.65	5.90	7916.86	0.35	0.002924		
	1.15931	211.04	6.35	200.66	23.19				
		102335.38							
1341.07	163.00	4504.55	8.65	5.90	7917.06	0.35	0.002922		
	1.15877	211.05	6.35	200.66	23.19				
		102335.98							
1340.84	164.00	4504.55	8.65	5.90	7914.99	0.35	0.002919		
	1.15747	211.03	6.35	200.65	23.19				
		102331.34							
1330.32	165.00	4504.50	8.60	5.88	7819.73	0.35	0.002911		
	1.14805	210.48	6.32	200.15	23.27				
		102078.46							
1321.85	166.00	4504.46	8.56	5.86	7743.13	0.35	0.002911		
	1.14351	210.01	6.29	199.73	23.34				
		101862.74							
1321.87	167.00	4504.46	8.56	5.86	7743.34	0.35	0.002910		
	1.14313	210.01	6.29	199.73	23.34				
		101862.61							
1321.79	168.00	4504.46	8.56	5.86	7742.66	0.35	0.002912		
	1.14381	210.00	6.29	199.73	23.34				
		101860.85							
1321.84	169.00	4504.46	8.56	5.86	7743.05	0.35	0.002913		
	1.14393	210.01	6.29	199.73	23.34				
		101862.04							
1321.86	170.00	4504.46	8.56	5.86	7743.26	0.35	0.002910		
	1.14307	210.01	6.29	199.73	23.34				
		101862.48							
1321.81	171.00	4504.46	8.56	5.86	7742.82	0.35	0.002911		
	1.14315	210.00	6.29	199.73	23.34				
		101861.49							
1321.63	172.00	4504.46	8.56	5.86	7741.17	0.35	0.002908		
	1.14208	210.00	6.29	199.72	23.34				
		101857.60							
1311.15	173.00	4504.40	8.50	5.83	7645.82	0.35	0.002899		
	1.13241	209.44	6.26	199.22	23.43				
		101602.94							
1302.74	174.00	4504.36	8.46	5.81	7569.38	0.35	0.002900		
	1.12811	208.96	6.23	198.80	23.50				
		101386.16							
1302.73	175.00	4504.36	8.46	5.81	7569.25	0.35	0.002902		
	1.12886	208.96	6.23	198.79	23.50				
		101385.14							
1302.67	176.00	4504.36	8.46	5.81	7568.78	0.35	0.002900		
	1.12808	208.96	6.23	198.79	23.50				
		101384.08							
1302.73	177.00	4504.36	8.46	5.81	7569.30	0.35	0.002900		
	1.12829	208.96	6.23	198.80	23.50				
		101385.50							

		HYCHAN.OUT					
1302.68	178.00 4504.36	8.46	5.81	7568.82	0.35		
	208.96	6.23		198.79	23.50	0.002900	
	1.12795 101383.96						
1303.07	179.00 4504.36	8.46	5.81	7572.38	0.35		
	208.98	6.24		198.81	23.50	0.002905	
	1.13030 101392.45						
1324.27	180.00 4504.47	8.57	5.86	7764.57	0.35		
	210.10	6.30		199.82	23.33	0.002923	
	1.14977 101905.84						
1341.12	181.00 4504.55	8.65	5.90	7917.46	0.35		
	211.04	6.35		200.66	23.19	0.002925	
	1.15976 102335.77						
1352.00	182.00 4504.61	8.71	5.93	8015.41	0.35		
	211.61	6.39		201.17	23.10	0.002935	
	1.17016 102595.05						
1360.33	183.00 4504.65	8.75	5.95	8090.39	0.35		
	212.07	6.41		201.58	23.04	0.002935	
	1.17483 102804.73						
1360.39	184.00 4504.65	8.75	5.95	8090.90	0.35		
	212.08	6.41		201.58	23.04	0.002936	
	1.17527 102806.58						
1360.40	185.00 4504.65	8.75	5.95	8090.96	0.35		
	212.08	6.41		201.58	23.04	0.002935	
	1.17495 102806.48						
1360.41	186.00 4504.65	8.75	5.95	8091.10	0.35		
	212.08	6.41		201.58	23.04	0.002934	
	1.17456 102807.22						
1360.42	187.00 4504.65	8.75	5.95	8091.15	0.35		
	212.08	6.41		201.58	23.04	0.002935	
	1.17501 102807.06						
1360.39	188.00 4504.65	8.75	5.95	8090.92	0.35		
	212.08	6.41		201.58	23.04	0.002934	
	1.17438 102806.56						
1360.40	189.00 4504.65	8.75	5.95	8090.94	0.35		
	212.08	6.41		201.58	23.04	0.002934	
	1.17458 102806.62						
1360.22	190.00 4504.65	8.75	5.95	8089.41	0.35		
	212.07	6.41		201.58	23.04	0.002932	
	1.17341 102803.37						
1349.49	191.00 4504.60	8.70	5.92	7992.76	0.35		
	211.51	6.38		201.08	23.12	0.002923	
	1.16382 102548.48						
1341.10	192.00 4504.55	8.65	5.90	7917.28	0.35		
	211.05	6.35		200.66	23.19	0.002923	
	1.15883 102337.19						
1341.10	193.00 4504.55	8.65	5.90	7917.32	0.35		
	211.05	6.35		200.66	23.19	0.002922	
	1.15859 102336.62						
1341.06	194.00 4504.55	8.65	5.90	7916.97	0.35		
	211.04	6.35		200.66	23.19	0.002922	
	1.15877 102335.92						
1341.06	195.00 4504.55	8.65	5.90	7916.98	0.35		
	211.04	6.35		200.66	23.19	0.002922	
	1.15855 102335.64						
1341.07	196.00 4504.55	8.65	5.90	7917.03	0.35		
	211.04	6.35		200.66	23.19	0.002922	
	1.15863 102335.90						
1341.09	197.00 4504.55	8.65	5.90	7917.19	0.35		
	211.05	6.35		200.66	23.19	0.002922	
	1.15883 102336.42						
1341.06	198.00 4504.55	8.65	5.90	7916.91	0.35		
	211.04	6.35		200.66	23.19	0.002923	
	1.15892 102335.57						

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HYCHAN.OUT  
 199.00 4504.55 8.65 5.90 7916.73 0.35  
 1341.04 211.04 6.35 200.66 23.19 0.002922  
 1.15871 102335.30

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 982

MAXIMUM DISCHARGE (CFS) = 20326.65 AT TIME = 80.41  
 MAXIMUM STAGE = 4509.93 AT TIME = 80.50

AREA BED SHEAR (FT^2)	TIME WETTED PERIMETER (HRS) (LB/FT^2)	ELEV. SURFACE AREA (FT) (FT^2)	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FOUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4494.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4494.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4494.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
825.48	3.00	4501.33	6.93	-6.08	-5021.03	0.41	0.002481
	0.66737	191.52	4.31	183.15	26.44		
854.85	4.00	4501.80	7.40	-6.39	-5458.91	0.41	0.002470
	0.66861	197.08	4.34	188.15	25.44		
846.40	5.00	4501.75	7.35	-6.35	-5378.32	0.41	0.002470
	0.66378	196.56	4.31	187.68	25.53		
839.40	6.00	4501.71	7.31	-6.32	-5307.84	0.41	0.002458
	0.65633	196.13	4.28	187.29	25.61		
823.88	7.00	4501.63	7.23	-6.26	-5158.20	0.41	0.002448
	0.64492	195.16	4.22	186.42	25.78		
808.27	8.00	4501.55	7.15	-6.20	-5009.10	0.41	0.002436
	0.63270	194.17	4.16	185.53	25.96		
792.30	9.00	4501.46	7.06	-6.14	-4860.83	0.41	0.002422
	0.62004	193.14	4.10	184.61	26.14		
782.61	10.00	4501.41	7.01	-6.10	-4773.36	0.41	0.002423
	0.61467	192.51	4.07	184.04	26.26		
775.60	11.00	4501.37	6.97	-6.07	-4709.37	0.41	0.002410
	0.60744	192.05	4.04	183.63	26.35		
758.90	12.00	4501.28	6.88	-6.01	-4561.55	0.40	0.002399
	0.59511	190.94	3.97	182.63	26.55		
748.34	13.00	4501.22	6.82	-5.97	-4470.85	0.40	0.002400
	0.58915	190.23	3.93	181.99	26.69		
748.00	14.00	4501.22	6.82	-5.97	-4469.06	0.40	0.002400
	0.58895	190.21	3.93	181.97	26.69		
	15.00	4501.22	6.82	-5.97	-4468.99	0.40	

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		HYCHAN.OUT					
747.99	190.20	3.93	181.97	26.69	0.002400		
0.58900	109181.35						
16.00	4501.22	6.82	-5.97	-4468.96	0.40		
747.99	190.20	3.93	181.97	26.69	0.002400		
0.58902	109181.14						
17.00	4501.22	6.82	-5.97	-4469.01	0.40		
747.99	190.21	3.93	181.97	26.69	0.002401		
0.58911	109181.47						
18.00	4501.26	6.86	-6.00	-4530.05	0.40		
755.27	190.70	3.96	182.41	26.60	0.002414		
0.59666	109447.84						
19.00	4501.35	6.95	-6.06	-4681.70	0.41		
772.19	191.83	4.03	183.43	26.39	0.002426		
0.60938	110057.23						
20.00	4501.44	7.04	-6.13	-4835.24	0.41		
789.11	192.94	4.09	184.43	26.18	0.002440		
0.62264	110655.88						
21.00	4501.50	7.10	-6.16	-4923.13	0.41		
798.79	193.56	4.13	184.99	26.07	0.002437		
0.62759	110993.33						
22.00	4501.50	7.10	-6.16	-4924.02	0.41		
798.91	193.57	4.13	185.00	26.06	0.002439		
0.62825	110997.35						
23.00	4501.54	7.14	-6.19	-4990.54	0.41		
805.95	194.02	4.15	185.40	25.98	0.002453		
0.63571	111241.98						
24.00	4501.66	7.26	-6.29	-5214.47	0.41		
829.27	195.50	4.24	186.73	25.72	0.002476		
0.65542	112037.79						
25.00	4501.83	7.43	-6.41	-5522.92	0.41		
861.00	197.46	4.36	188.49	25.37	0.002499		
0.68001	113093.70						
26.00	4501.99	7.59	-6.53	-5830.40	0.42		
892.33	199.34	4.48	190.18	25.05	0.002521		
0.70405	114106.48						
27.00	4502.07	7.67	-6.59	-5983.98	0.42		
908.28	200.28	4.54	191.02	24.89	0.002518		
0.71266	114610.81						
28.00	4502.08	7.68	-6.59	-5985.40	0.42		
908.53	200.29	4.54	191.03	24.89	0.002521		
0.71362	114618.55						
29.00	4502.12	7.72	-6.62	-6069.01	0.42		
916.72	200.77	4.57	191.46	24.81	0.002534		
0.72196	114876.14						
30.00	4502.16	7.76	-6.65	-6151.59	0.42		
925.03	201.25	4.60	191.89	24.73	0.002532		
0.72635	115133.68						
31.00	4502.16	7.76	-6.65	-6152.82	0.42		
925.16	201.26	4.60	191.90	24.73	0.002535		
0.72709	115137.67						
32.00	4502.20	7.80	-6.68	-6240.91	0.42		
933.70	201.75	4.63	192.34	24.65	0.002548		
0.73590	115402.14						
33.00	4502.25	7.85	-6.71	-6325.48	0.42		
942.16	202.23	4.66	192.77	24.57	0.002548		
0.74071	115660.73						
34.00	4502.25	7.85	-6.71	-6325.08	0.42		
942.14	202.23	4.66	192.77	24.57	0.002545		
0.73976	115659.91						
35.00	4502.20	7.80	-6.68	-6237.38	0.42		
933.67	201.74	4.63	192.33	24.65	0.002532		
0.73116	115398.38						
36.00	4502.16	7.76	-6.65	-6151.83	0.42		

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		HYCHAN.OUT					
925.06	201.25	4.60	191.89	24.73	0.002531		
0.72601	115134.52						
37.00	4502.12	7.72	-6.62	-6067.85	0.42		
916.89	200.78	4.57	191.46	24.81	0.002518		
0.71752	114878.55						
38.00	4502.08	7.68	-6.59	-5985.61	0.42		
908.59	200.30	4.54	191.03	24.89	0.002519		
0.71297	114620.26						
39.00	4502.08	7.68	-6.59	-5984.95	0.42		
908.48	200.29	4.54	191.03	24.89	0.002519		
0.71301	114617.02						
40.00	4502.08	7.68	-6.59	-5985.07	0.42		
908.43	200.29	4.54	191.03	24.89	0.002518		
0.71275	114615.25						
41.00	4502.08	7.68	-6.59	-5985.03	0.42		
908.45	200.29	4.54	191.03	24.89	0.002519		
0.71298	114615.95						
42.00	4502.08	7.67	-6.59	-5985.65	0.42		
908.34	200.28	4.54	191.02	24.89	0.002520		
0.71310	114612.69						
43.00	4502.12	7.72	-6.62	-6069.16	0.42		
916.70	200.77	4.57	191.46	24.81	0.002533		
0.72182	114875.41						
44.00	4502.16	7.76	-6.65	-6152.37	0.42		
925.09	201.25	4.60	191.89	24.73	0.002535		
0.72718	115135.65						
45.00	4502.21	7.80	-6.68	-6241.63	0.42		
933.77	201.75	4.63	192.34	24.64	0.002551		
0.73661	115404.43						
46.00	4502.29	7.89	-6.75	-6416.70	0.42		
951.14	202.74	4.69	193.23	24.48	0.002567		
0.75133	115935.10						
47.00	4502.38	7.98	-6.81	-6590.44	0.42		
968.36	203.71	4.75	194.09	24.33	0.002581		
0.76572	116453.65						
48.00	4502.47	8.07	-6.86	-6764.83	0.43		
985.77	204.67	4.82	194.95	24.17	0.002597		
0.78058	116970.70						
49.00	4502.55	8.15	-6.91	-6931.48	0.43		
1002.43	205.58	4.88	195.76	24.03	0.002614		
0.79539	117458.67						
50.00	4502.64	8.23	-6.97	-7112.37	0.43		
1020.15	206.53	4.94	196.62	23.88	0.002631		
0.81095	117971.00						
51.00	4502.76	8.36	-7.05	-7371.16	0.43		
1045.05	207.85	5.03	197.80	23.67	0.002661		
0.83485	118679.03						
52.00	4502.84	8.44	-7.10	-7542.90	0.43		
1061.90	208.72	5.09	198.58	23.54	0.002661		
0.84472	119150.16						
53.00	4502.88	8.48	-7.13	-7638.81	0.43		
1070.64	209.18	5.12	198.99	23.47	0.002680		
0.85581	119393.15						
54.00	4503.04	8.64	-7.26	-8019.22	0.44		
1104.99	210.92	5.24	200.55	23.21	0.002731		
0.89275	120330.09						
55.00	4503.34	8.94	-7.46	-8722.54	0.44		
1168.58	214.05	5.46	203.34	22.75	0.002805		
0.95566	122005.37						
56.00	4503.74	9.34	-7.73	-9717.10	0.45		
1256.95	218.18	5.76	207.03	22.17	0.002893		
1.04008	124219.08						
57.00	4504.37	9.97	-7.94	-11127.96	0.44		

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				HYCHAN.OUT			
1401.11		224.48		6.24	212.65	21.33	0.002694
	1.04943	127588.55					
58.00		4505.09	10.69	-7.87	-12338.56	0.42	
1568.45		231.45		6.78	218.85	20.47	0.002418
	1.02268	131311.67					
59.00		4505.64	11.24	-7.91	-13319.68	0.42	
1684.87		236.53		7.12	223.37	19.87	0.002386
	1.06067	134020.53					
60.00		4506.30	11.90	-7.95	-14497.91	0.41	
1823.21		242.52		7.52	228.68	19.21	0.002001
	0.93862	137207.61					
61.00		4507.42	13.02	-7.51	-15587.72	0.37	
2075.02		246.04		8.43	237.28	18.22	0.001951
	1.02670	142365.28					
62.00		4507.84	13.44	-7.57	-16421.89	0.36	
2168.49		246.87		8.78	240.35	17.88	0.001828
	1.00204	144213.00					
63.00		4508.22	13.82	-7.58	-17083.51	0.36	
2253.89		247.63		9.10	243.12	17.59	0.001759
	0.99886	145870.08					
64.00		4508.51	14.11	-7.59	-17605.88	0.36	
2318.35		248.21		9.34	245.18	17.38	0.001667
	0.97188	147106.28					
65.00		4508.82	14.42	-7.59	-18137.54	0.35	
2388.28		248.82		9.60	247.36	17.16	0.001612
	0.96575	148418.27					
66.00		4508.94	14.54	-7.58	-18329.48	0.35	
2416.79		249.08		9.70	248.25	17.07	0.001588
	0.96164	148948.30					
67.00		4508.96	14.56	-7.58	-18356.51	0.35	
2421.83		249.12		9.72	248.40	17.06	0.001589
	0.96400	149041.84					
68.00		4508.96	14.56	-7.58	-18360.78	0.35	
2421.87		249.12		9.72	248.40	17.06	0.001588
	0.96330	149042.19					
69.00		4508.97	14.57	-7.58	-18369.25	0.35	
2422.83		249.13		9.73	248.43	17.05	0.001588
	0.96338	149060.14					
70.00		4508.97	14.57	-7.58	-18380.52	0.35	
2423.60		249.14		9.73	248.46	17.05	0.001588
	0.96370	149074.11					
71.00		4508.97	14.57	-7.59	-18383.04	0.35	
2423.06		249.13		9.73	248.44	17.05	0.001587
	0.96320	149063.72					
72.00		4508.97	14.57	-7.58	-18377.42	0.35	
2422.96		249.13		9.73	248.44	17.05	0.001590
	0.96501	149062.20					
73.00		4509.01	14.61	-7.60	-18479.51	0.35	
2432.37		249.21		9.76	248.73	17.02	0.001577
	0.96071	149237.30					
74.00		4509.09	14.69	-7.60	-18631.59	0.35	
2451.08		249.38		9.83	249.31	16.97	0.001561
	0.95742	149583.17					
75.00		4509.11	14.71	-7.60	-18659.65	0.35	
2455.05		249.41		9.84	249.43	16.95	0.001566
	0.96189	149656.19					
76.00		4509.15	14.75	-7.61	-18752.12	0.35	
2463.90		249.49		9.88	249.70	16.93	0.001560
	0.96124	149820.17					
77.00		4509.30	14.90	-7.64	-19085.76	0.35	
2497.91		249.79		10.00	250.74	16.83	0.001535
	0.95800	150444.67					
78.00		4509.49	15.09	-7.67	-19486.66	0.35	

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2541.29	0.95359	250.18	10.16	252.06	16.70	0.001504
79.00	4509.63	151234.27	15.23	-7.68	-19759.94	0.35
2572.79	0.95074	250.46	10.27	253.01	16.61	0.001483
80.00	4509.79	151804.91	15.39	-7.70	-20081.42	0.35
2607.99	0.94630	250.77	10.40	254.07	16.51	0.001458
81.00	4509.90	152439.41	15.50	-7.70	-20294.91	0.34
2634.36	0.94309	251.00	10.50	254.85	16.44	0.001440
82.00	4509.85	152911.28	15.45	-7.69	-20172.79	0.35
2622.37	0.94695	250.89	10.45	254.49	16.47	0.001452
83.00	4509.75	152696.23	15.35	-7.69	-19982.05	0.35
2600.02	0.95017	250.70	10.37	253.82	16.53	0.001468
84.00	4509.73	152294.88	15.33	-7.69	-19947.89	0.35
2595.25	0.94935	250.65	10.35	253.68	16.55	0.001469
85.00	4509.73	152209.12	15.33	-7.69	-19951.84	0.35
2595.71	0.94844	250.66	10.36	253.70	16.55	0.001468
86.00	4509.72	152217.38	15.32	-7.68	-19926.42	0.35
2593.82	0.94600	250.64	10.35	253.64	16.55	0.001465
87.00	4509.58	152182.83	15.18	-7.65	-19590.95	0.35
2561.61	0.95297	250.35	10.23	252.67	16.64	0.001493
88.00	4509.20	151599.17	14.80	-7.58	-18764.06	0.35
2475.05	0.95223	249.59	9.92	250.03	16.90	0.001539
89.00	4508.59	150018.67	14.19	-7.43	-17374.76	0.35
2337.28	1.00228	248.36	9.41	245.74	17.32	0.001707
90.00	4507.78	147442.88	13.38	-7.46	-16071.74	0.36
2155.49	1.02419	246.74	8.74	239.88	17.93	0.001879
91.00	4507.03	143930.75	12.63	-7.66	-15202.75	0.38
1985.76	1.17587	245.26	8.10	234.34	18.55	0.002327
92.00	4506.02	140603.05	11.62	-8.01	-14147.51	0.41
1766.66	1.06467	240.01	7.36	226.46	19.48	0.002318
93.00	4505.66	135875.14	11.26	-7.84	-13229.88	0.41
1688.47	1.03291	236.68	7.13	223.50	19.86	0.002320
94.00	4505.31	134097.34	10.91	-7.70	-12439.01	0.41
1616.16	1.03222	233.51	6.92	220.68	20.22	0.002390
95.00	4504.95	132408.09	10.55	-7.68	-11818.61	0.42
1538.14	1.04025	230.06	6.69	217.62	20.63	0.002493
96.00	4504.61	130569.95	10.21	-7.72	-11267.63	0.43
1459.26	1.06007	226.87	6.43	214.77	21.03	0.002641
97.00	4504.33	128864.75	9.93	-7.78	-10830.96	0.43
1392.83	1.05783	224.13	6.21	212.33	21.38	0.002728
98.00	4504.11	127399.83	9.71	-7.78	-10437.87	0.44
1340.85	1.05751	221.91	6.04	210.36	21.67	0.002805
99.00	4503.94	126213.38	9.54	-7.78	-10140.45	0.44

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		HYCHAN.OUT					
1303.06	220.25	5.92	208.88	21.89	0.002839		
1.04825	125329.32						
100.00	4503.79	9.39	-7.74	-9817.29	0.44		
1269.09	218.73	5.80	207.52	22.09	0.002824		
1.02234	124514.73						
101.00	4503.66	9.26	-7.66	-9482.03	0.44		
1238.53	217.34	5.70	206.28	22.28	0.002798		
0.99512	123769.26						
102.00	4503.54	9.14	-7.58	-9198.39	0.44		
1213.14	216.16	5.61	205.23	22.45	0.002775		
0.97197	123138.45						
103.00	4503.44	9.04	-7.52	-8958.26	0.44		
1191.53	215.15	5.54	204.32	22.59	0.002759		
0.95343	122593.72						
104.00	4503.36	8.96	-7.46	-8756.20	0.44		
1173.37	214.28	5.48	203.55	22.72	0.002740		
0.93609	122129.20						
105.00	4503.23	8.83	-7.37	-8451.97	0.44		
1146.12	212.95	5.38	202.37	22.91	0.002710		
0.91019	121419.42						
106.00	4503.12	8.72	-7.30	-8175.05	0.44		
1120.55	211.70	5.29	201.24	23.09	0.002696		
0.89061	120745.63						
107.00	4503.04	8.64	-7.24	-7997.96	0.43		
1104.25	210.88	5.24	200.51	23.21	0.002683		
0.87666	120308.46						
108.00	4502.96	8.56	-7.19	-7825.75	0.43		
1088.36	210.08	5.18	199.80	23.33	0.002673		
0.86402	119877.52						
109.00	4502.93	8.53	-7.17	-7745.04	0.43		
1080.71	209.69	5.15	199.45	23.39	0.002676		
0.86063	119669.58						
110.00	4502.97	8.57	-7.20	-7838.36	0.43		
1089.05	210.12	5.18	199.83	23.33	0.002693		
0.87092	119898.66						
111.00	4503.08	8.68	-7.28	-8104.47	0.44		
1113.12	211.33	5.27	200.92	23.15	0.002715		
0.89237	120549.51						
112.00	4503.11	8.71	-7.30	-8171.29	0.44		
1120.08	211.68	5.29	201.22	23.09	0.002696		
0.89035	120733.54						
113.00	4503.04	8.64	-7.24	-8001.48	0.43		
1104.55	210.90	5.24	200.53	23.21	0.002690		
0.87925	120316.85						
114.00	4503.08	8.68	-7.28	-8110.39	0.44		
1113.72	211.36	5.27	200.94	23.14	0.002723		
0.89536	120565.39						
115.00	4503.24	8.84	-7.39	-8486.03	0.44		
1147.84	213.05	5.39	202.45	22.89	0.002747		
0.92337	121469.20						
116.00	4503.28	8.88	-7.41	-8559.07	0.44		
1155.48	213.42	5.41	202.78	22.84	0.002728		
0.92173	121666.49						
117.00	4503.24	8.84	-7.38	-8470.71	0.44		
1147.19	213.01	5.39	202.42	22.90	0.002731		
0.91793	121451.24						
118.00	4503.24	8.84	-7.39	-8472.01	0.44		
1147.17	213.01	5.39	202.42	22.90	0.002735		
0.91907	121451.09						
119.00	4503.28	8.88	-7.42	-8579.97	0.44		
1156.68	213.48	5.42	202.83	22.83	0.002748		
0.92922	121699.86						
120.00	4503.32	8.92	-7.44	-8669.18	0.44		

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		HYCHAN.OUT					
1165.05	213.88	5.45	203.19	22.77	0.002747		
0.93364	121916.38						
121.00	4503.32	8.92	-7.44	-8667.90	0.44		
1164.98	213.88	5.45	203.19	22.77	0.002744		
0.93272	121914.27						
122.00	4503.28	8.88	-7.41	-8560.38	0.44		
1155.64	213.42	5.41	202.78	22.84	0.002728		
0.92180	121670.55						
123.00	4503.24	8.84	-7.38	-8468.99	0.44		
1147.04	213.01	5.38	202.41	22.90	0.002727		
0.91632	121447.23						
124.00	4503.20	8.79	-7.35	-8361.45	0.44		
1137.57	212.54	5.35	202.00	22.97	0.002713		
0.90613	121197.17						
125.00	4503.16	8.76	-7.33	-8270.40	0.44		
1129.04	212.12	5.32	201.62	23.03	0.002713		
0.90116	120973.15						
126.00	4503.15	8.75	-7.32	-8268.81	0.44		
1128.89	212.11	5.32	201.62	23.03	0.002712		
0.90051	120969.00						
127.00	4503.11	8.71	-7.30	-8173.54	0.44		
1120.36	211.69	5.29	201.23	23.09	0.002699		
0.89140	120740.83						
128.00	4503.08	8.68	-7.27	-8092.03	0.44		
1112.69	211.31	5.27	200.90	23.15	0.002700		
0.88715	120537.20						
129.00	4503.08	8.68	-7.27	-8089.61	0.44		
1112.47	211.30	5.26	200.89	23.15	0.002698		
0.88635	120531.06						
130.00	4503.04	8.64	-7.24	-7998.29	0.43		
1104.25	210.88	5.24	200.51	23.21	0.002685		
0.87738	120308.84						
131.00	4503.00	8.60	-7.22	-7919.92	0.43		
1096.84	210.51	5.21	200.18	23.27	0.002692		
0.87525	120109.87						
132.00	4503.08	8.68	-7.28	-8107.16	0.44		
1113.40	211.35	5.27	200.93	23.14	0.002718		
0.89358	120556.81						
133.00	4503.15	8.75	-7.33	-8268.74	0.44		
1128.69	212.11	5.32	201.61	23.03	0.002714		
0.90119	120964.09						
134.00	4503.16	8.75	-7.33	-8269.71	0.44		
1128.96	212.12	5.32	201.62	23.03	0.002714		
0.90129	120971.09						
135.00	4503.16	8.76	-7.33	-8270.21	0.44		
1129.00	212.12	5.32	201.62	23.03	0.002714		
0.90141	120972.05						
136.00	4503.16	8.75	-7.33	-8270.01	0.44		
1128.99	212.12	5.32	201.62	23.03	0.002713		
0.90118	120971.87						
137.00	4503.16	8.75	-7.33	-8269.82	0.44		
1128.97	212.12	5.32	201.62	23.03	0.002714		
0.90148	120971.23						
138.00	4503.16	8.75	-7.33	-8269.93	0.44		
1128.97	212.12	5.32	201.62	23.03	0.002714		
0.90123	120971.33						
139.00	4503.15	8.75	-7.32	-8268.81	0.44		
1128.87	212.11	5.32	201.61	23.03	0.002711		
0.90020	120968.66						
140.00	4503.11	8.71	-7.30	-8173.89	0.44		
1120.39	211.69	5.29	201.24	23.09	0.002699		
0.89129	120741.78						
141.00	4503.08	8.68	-7.27	-8091.86	0.44		

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		HYCHAN.OUT				
1112.68	211.31	5.27	200.89	23.15	0.002700	
0.88708	120536.77					
142.00	4503.08	8.68	-7.27	-8091.01	0.44	
1112.59	211.30	5.27	200.89	23.15	0.002699	
0.88691	120534.52					
143.00	4503.08	8.68	-7.27	-8090.64	0.44	
1112.54	211.30	5.27	200.89	23.15	0.002700	
0.88715	120533.23					
144.00	4503.08	8.68	-7.27	-8089.97	0.44	
1112.50	211.30	5.27	200.89	23.15	0.002697	
0.88597	120531.91					
145.00	4503.04	8.64	-7.24	-7998.33	0.43	
1104.26	210.88	5.24	200.52	23.21	0.002687	
0.87794	120309.12					
146.00	4503.00	8.60	-7.22	-7917.61	0.43	
1096.66	210.50	5.21	200.17	23.27	0.002686	
0.87317	120104.60					
147.00	4503.00	8.60	-7.22	-7917.05	0.43	
1096.59	210.50	5.21	200.17	23.27	0.002687	
0.87334	120102.78					
148.00	4503.00	8.60	-7.22	-7916.96	0.43	
1096.58	210.50	5.21	200.17	23.27	0.002687	
0.87342	120102.52					
149.00	4503.00	8.60	-7.22	-7917.16	0.43	
1096.60	210.50	5.21	200.17	23.27	0.002687	
0.87334	120103.04					
150.00	4503.00	8.60	-7.22	-7916.14	0.43	
1096.51	210.50	5.21	200.17	23.27	0.002685	
0.87272	120100.59					
151.00	4502.98	8.58	-7.20	-7855.04	0.43	
1091.00	210.21	5.19	199.92	23.31	0.002677	
0.86690	119949.88					
152.00	4502.94	8.54	-7.17	-7770.70	0.43	
1083.14	209.82	5.16	199.56	23.37	0.002673	
0.86111	119735.82					
153.00	4502.93	8.53	-7.17	-7743.08	0.43	
1080.53	209.68	5.15	199.44	23.39	0.002674	
0.85988	119664.69					
154.00	4502.93	8.53	-7.17	-7741.92	0.43	
1080.42	209.68	5.15	199.44	23.39	0.002670	
0.85862	119661.40					
155.00	4502.89	8.49	-7.14	-7653.75	0.43	
1072.40	209.26	5.12	199.07	23.46	0.002664	
0.85199	119439.79					
156.00	4502.93	8.53	-7.17	-7754.34	0.43	
1081.01	209.71	5.15	199.46	23.39	0.002689	
0.86501	119678.62					
157.00	4503.00	8.60	-7.22	-7915.57	0.43	
1096.38	210.49	5.21	200.16	23.27	0.002687	
0.87331	120097.18					
158.00	4503.00	8.60	-7.22	-7916.91	0.43	
1096.58	210.50	5.21	200.17	23.27	0.002687	
0.87354	120102.59					
159.00	4503.00	8.60	-7.22	-7917.12	0.43	
1096.59	210.50	5.21	200.17	23.27	0.002687	
0.87348	120102.82					
160.00	4503.00	8.60	-7.22	-7917.04	0.43	
1096.58	210.50	5.21	200.17	23.27	0.002687	
0.87344	120102.70					
161.00	4503.00	8.60	-7.22	-7917.14	0.43	
1096.59	210.50	5.21	200.17	23.27	0.002686	
0.87304	120102.82					
162.00	4503.00	8.60	-7.22	-7916.80	0.43	

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				HYCHAN.OUT			
1096.56		210.50		5.21	200.17	23.27	0.002687
	0.87340	120102.12					
163.00	4503.00		8.60		-7.22	-7917.04	0.43
1096.58		210.50		5.21	200.17	23.27	0.002687
	0.87332	120102.59					
164.00	4503.00		8.60		-7.22	-7915.59	0.43
1096.45		210.49		5.21	200.16	23.27	0.002683
	0.87222	120098.86					
165.00	4502.96		8.56		-7.19	-7824.80	0.43
1088.25		210.07		5.18	199.79	23.33	0.002673
	0.86392	119874.67					
166.00	4502.93		8.53		-7.17	-7743.54	0.43
1080.58		209.69		5.15	199.44	23.39	0.002673
	0.85949	119666.02					
167.00	4502.93		8.53		-7.17	-7743.23	0.43
1080.54		209.68		5.15	199.44	23.39	0.002673
	0.85962	119664.83					
168.00	4502.93		8.53		-7.17	-7742.64	0.43
1080.48		209.68		5.15	199.44	23.39	0.002674
	0.85985	119663.37					
169.00	4502.93		8.53		-7.17	-7743.11	0.43
1080.52		209.68		5.15	199.44	23.39	0.002673
	0.85960	119664.28					
170.00	4502.93		8.53		-7.17	-7743.20	0.43
1080.52		209.68		5.15	199.44	23.39	0.002673
	0.85957	119664.52					
171.00	4502.93		8.53		-7.17	-7742.92	0.43
1080.50		209.68		5.15	199.44	23.39	0.002673
	0.85941	119663.79					
172.00	4502.93		8.53		-7.17	-7741.66	0.43
1080.41		209.68		5.15	199.44	23.39	0.002670
	0.85862	119661.17					
173.00	4502.89		8.49		-7.14	-7650.89	0.43
1072.15		209.25		5.12	199.05	23.46	0.002660
	0.85043	119432.62					
174.00	4502.85		8.45		-7.11	-7569.78	0.43
1064.47		208.86		5.10	198.70	23.52	0.002660
	0.84601	119221.08					
175.00	4502.85		8.45		-7.11	-7569.14	0.43
1064.39		208.85		5.10	198.70	23.52	0.002661
	0.84624	119219.05					
176.00	4502.85		8.45		-7.11	-7568.83	0.43
1064.36		208.85		5.10	198.70	23.52	0.002661
	0.84613	119218.20					
177.00	4502.85		8.45		-7.11	-7569.33	0.43
1064.40		208.85		5.10	198.70	23.52	0.002660
	0.84592	119219.31					
178.00	4502.85		8.45		-7.11	-7568.72	0.43
1064.34		208.85		5.10	198.70	23.52	0.002660
	0.84603	119217.76					
179.00	4502.85		8.45		-7.11	-7571.43	0.43
1064.59		208.86		5.10	198.71	23.52	0.002665
	0.84766	119224.70					
180.00	4502.93		8.53		-7.17	-7754.15	0.43
1080.98		209.71		5.15	199.46	23.39	0.002689
	0.86505	119677.80					
181.00	4503.00		8.60		-7.22	-7916.46	0.43
1096.42		210.49		5.21	200.16	23.27	0.002688
	0.87377	120098.30					
182.00	4503.04		8.64		-7.25	-8010.19	0.43
1104.80		210.92		5.24	200.54	23.21	0.002701
	0.88288	120325.67					
183.00	4503.08		8.68		-7.27	-8090.10	0.44

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				HYCHAN.OUT			
1112.44	0.88706	211.30	5.26	200.88	23.15	0.002700	
184.00	4503.08	120530.58	8.68	-7.27	-8090.93	0.44	
1112.57	0.88704	211.30	5.27	200.89	23.15	0.002700	
185.00	4503.08	120533.91	8.68	-7.27	-8090.86	0.44	
1112.56	0.88717	211.30	5.27	200.89	23.15	0.002700	
186.00	4503.08	120533.65	8.68	-7.27	-8091.21	0.44	
1112.60	0.88691	211.31	5.27	200.89	23.15	0.002699	
187.00	4503.08	120534.84	8.68	-7.27	-8091.11	0.44	
1112.59	0.88712	211.30	5.27	200.89	23.15	0.002700	
188.00	4503.08	120534.53	8.68	-7.27	-8090.93	0.44	
1112.58	0.88694	211.30	5.27	200.89	23.15	0.002700	
189.00	4503.08	120534.21	8.68	-7.27	-8090.95	0.44	
1112.58	0.88702	211.30	5.27	200.89	23.15	0.002700	
190.00	4503.08	120534.27	8.68	-7.27	-8090.00	0.44	
1112.51	0.88595	211.30	5.27	200.89	23.15	0.002697	
191.00	4503.04	120532.14	8.64	-7.24	-7997.81	0.43	
1104.21	0.87787	210.88	5.24	200.51	23.21	0.002687	
192.00	4503.00	120307.77	8.60	-7.22	-7917.69	0.43	
1096.65	0.87314	210.50	5.21	200.17	23.27	0.002686	
193.00	4503.00	120104.34	8.60	-7.22	-7917.25	0.43	
1096.60	0.87328	210.50	5.21	200.17	23.27	0.002686	
194.00	4503.00	120103.06	8.60	-7.22	-7917.07	0.43	
1096.58	0.87302	210.50	5.21	200.17	23.27	0.002686	
195.00	4503.00	120102.47	8.60	-7.22	-7916.87	0.43	
1096.57	0.87323	210.50	5.21	200.17	23.27	0.002686	
196.00	4503.00	120102.42	8.60	-7.22	-7917.03	0.43	
1096.57	0.87326	210.50	5.21	200.17	23.27	0.002686	
197.00	4503.00	120102.36	8.60	-7.22	-7917.18	0.43	
1096.58	0.87331	210.50	5.21	200.17	23.27	0.002687	
198.00	4503.00	120102.61	8.60	-7.22	-7916.90	0.43	
1096.58	0.87336	210.50	5.21	200.17	23.27	0.002687	
199.00	4503.00	120102.44	8.60	-7.22	-7916.85	0.43	
1096.57	0.87310	210.50	5.21	200.17	23.27	0.002686	
		120102.16					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 1007

MAXIMUM DISCHARGE (CFS) = 20314.98 AT TIME = 80.47  
 MAXIMUM STAGE = 4507.05 AT TIME = 80.56

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)		
(LB/FT^2)	(FT^2)					

## HYCHAN.OUT

0.00	0.00	4490.80	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4490.80	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4490.80	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1318.60	3.00	4498.04	7.24	3.66	4831.88	0.24			
		166.40	7.92		161.26	22.26			0.002004
	0.99084	113685.05							
1455.61	4.00	4498.84	8.04	3.75	5461.82	0.23			
		181.35	8.03		175.43	21.82			0.002000
	1.00181	123680.64							
1440.50	5.00	4498.80	8.00	3.73	5378.73	0.23			
		180.55	7.98		174.67	21.85			0.002000
	0.99571	123141.17							
1428.70	6.00	4498.76	7.96	3.72	5310.81	0.23			
		179.90	7.94		174.06	21.86			0.001997
	0.98950	122712.04							
1402.02	7.00	4498.68	7.88	3.68	5161.61	0.23			
		178.45	7.86		172.68	21.91			0.001993
	0.97683	121741.53							
1375.21	8.00	4498.60	7.80	3.64	5012.41	0.23			
		176.98	7.77		171.29	21.95			0.001989
	0.96438	120756.07							
1347.52	9.00	4498.52	7.72	3.61	4864.38	0.23			
		175.43	7.68		169.82	21.99			0.001987
	0.95257	119725.63							
1329.81	10.00	4498.47	7.67	3.59	4773.89	0.23			
		174.45	7.62		168.89	22.02			0.001989
	0.94623	119065.06							
1317.93	11.00	4498.43	7.63	3.58	4712.56	0.23			
		173.77	7.58		168.24	22.04			0.001985
	0.93952	118612.13							
1289.01	12.00	4498.35	7.55	3.54	4565.20	0.23			
		172.12	7.49		166.68	22.09			0.001983
	0.92670	117508.58							
1270.29	13.00	4498.29	7.49	3.52	4471.42	0.23			
		171.05	7.43		165.66	22.12			0.001983
	0.91906	116791.55							
1269.79	14.00	4498.29	7.49	3.52	4469.06	0.23			
		171.02	7.42		165.64	22.12			0.001983
	0.91883	116772.78							
1269.78	15.00	4498.29	7.49	3.52	4468.99	0.23			
		171.02	7.42		165.63	22.12			0.001983
	0.91881	116772.34							
1269.78	16.00	4498.29	7.49	3.52	4468.97	0.23			
		171.02	7.42		165.63	22.12			0.001984
	0.91900	116772.05							
1269.78	17.00	4498.29	7.49	3.52	4469.00	0.23			
		171.02	7.42		165.63	22.12			0.001984
	0.91906	116772.33							
1280.75	18.00	4498.32	7.52	3.53	4526.86	0.23			
		171.65	7.46		166.24	22.10			0.001989
	0.92609	117197.92							
1310.23	19.00	4498.41	7.61	3.57	4677.95	0.23			
		173.34	7.56		167.84	22.05			0.001993
	0.93983	118326.62							
1340.05	20.00	4498.50	7.70	3.61	4831.65	0.23			
		175.03	7.66		169.44	22.00			0.001993

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HYCHAN.OUT									
0.95227	119452.93								
21.00	4498.55	7.75	3.63	4922.61	0.23				
1357.92	176.02	7.71		170.38	21.97	0.001991			
0.95855	120119.20								
22.00	4498.55	7.75	3.63	4924.01	0.23				
1358.27	176.04	7.72		170.40	21.97	0.001992			
0.95905	120131.95								
23.00	4498.59	7.79	3.64	4987.29	0.23				
1369.73	176.68	7.75		171.01	21.96	0.001997			
0.96586	120559.23								
24.00	4498.70	7.90	3.70	5207.97	0.23				
1409.29	178.86	7.88		173.07	21.89	0.002004			
0.98556	122012.43								
25.00	4498.86	8.06	3.77	5516.10	0.23				
1463.93	181.81	8.05		175.86	21.81	0.002011			
1.01054	123982.60								
26.00	4499.02	8.22	3.84	5823.91	0.24				
1518.16	184.67	8.22		178.58	21.73	0.002015			
1.03364	125895.84								
27.00	4499.10	8.30	3.87	5983.41	0.24				
1547.08	186.17	8.31		180.00	21.69	0.002014			
1.04424	126898.84								
28.00	4499.10	8.30	3.87	5985.32	0.24				
1547.51	186.19	8.31		180.02	21.69	0.002014			
1.04461	126913.25								
29.00	4499.14	8.34	3.89	6065.71	0.24				
1561.08	186.90	8.35		180.68	21.67	0.002017			
1.05136	127382.20								
30.00	4499.18	8.38	3.90	6151.32	0.24				
1576.49	187.69	8.40		181.43	21.65	0.002016			
1.05685	127908.73								
31.00	4499.18	8.38	3.90	6152.69	0.24				
1576.75	187.70	8.40		181.44	21.65	0.002017			
1.05749	127917.53								
32.00	4499.22	8.42	3.92	6237.50	0.24				
1590.95	188.43	8.44		182.13	21.63	0.002020			
1.06423	128402.70								
33.00	4499.26	8.46	3.94	6325.24	0.24				
1606.77	189.23	8.49		182.89	21.61	0.002018			
1.06924	128937.37								
34.00	4499.26	8.46	3.94	6325.20	0.24				
1606.84	189.23	8.49		182.89	21.61	0.002018			
1.06919	128939.40								
35.00	4499.22	8.42	3.92	6240.77	0.24				
1592.70	188.51	8.45		182.21	21.63	0.002015			
1.06252	128456.75								
36.00	4499.18	8.38	3.90	6152.27	0.24				
1576.74	187.70	8.40		181.44	21.65	0.002014			
1.05590	127916.67								
37.00	4499.14	8.34	3.88	6071.07	0.24				
1563.04	186.99	8.36		180.77	21.67	0.002012			
1.04955	127444.28								
38.00	4499.10	8.30	3.87	5985.88	0.24				
1547.66	186.20	8.31		180.03	21.69	0.002014			
1.04473	126918.28								
39.00	4499.10	8.30	3.87	5984.96	0.24				
1547.45	186.19	8.31		180.02	21.69	0.002014			
1.04427	126911.30								
40.00	4499.10	8.30	3.87	5985.06	0.24				
1547.44	186.19	8.31		180.02	21.69	0.002014			
1.04464	126911.15								
41.00	4499.10	8.30	3.87	5985.07	0.24				
1547.47	186.19	8.31		180.02	21.69	0.002013			

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		HYCHAN.OUT						
	1.04403	126911.89						
1547.49	42.00	4499.10	8.30	8.31	3.87	5985.47	0.24	0.002014
	1.04447	126912.76						
1561.10	43.00	4499.14	8.34	8.35	3.89	6065.91	0.24	0.002017
	1.05119	127382.87						
1576.57	44.00	4499.18	8.38	8.40	3.90	6152.02	0.24	0.002016
	1.05692	127911.67						
1591.03	45.00	4499.22	8.42	8.44	3.92	6238.02	0.24	0.002021
	1.06489	128405.80						
1621.40	46.00	4499.30	8.50	8.54	3.96	6412.88	0.24	0.002024
	1.07797	129432.12						
1651.58	47.00	4499.39	8.59	8.63	3.99	6586.66	0.24	0.002026
	1.09027	130440.70						
1681.85	48.00	4499.47	8.67	8.72	4.02	6761.09	0.24	0.002028
	1.10285	131441.94						
1710.73	49.00	4499.54	8.75	8.80	4.05	6927.59	0.24	0.002031
	1.11534	132387.45						
1742.04	50.00	4499.63	8.83	8.89	4.08	7108.51	0.24	0.002032
	1.12760	133402.28						
1785.52	51.00	4499.74	8.94	9.02	4.12	7364.30	0.24	0.002034
	1.14467	134793.84						
1817.49	52.00	4499.83	9.03	9.11	4.15	7542.10	0.24	0.002033
	1.15557	135803.52						
1832.03	53.00	4499.86	9.06	9.15	4.17	7635.16	0.24	0.002040
	1.16473	136260.95						
1889.11	54.00	4500.01	9.21	9.31	4.24	8008.16	0.25	0.002054
	1.19362	138030.25						
1999.80	55.00	4500.29	9.49	9.62	4.35	8706.09	0.25	0.002066
	1.24014	141375.25						
2156.51	56.00	4500.67	9.87	10.04	4.50	9693.68	0.25	0.002067
	1.29536	145933.27						
2488.32	57.00	4501.45	10.65	10.96	4.44	11048.99	0.24	0.001792
	1.22608	155281.31						
3001.70	58.00	4502.60	11.80	13.09	4.08	12241.55	0.21	0.001503
	1.22818	168634.86						
3470.71	59.00	4503.35	12.55	15.04	3.82	13270.07	0.19	0.001489
	1.39759	177261.94						
3584.21	60.00	4503.87	13.07	15.46	4.03	14446.31	0.20	0.001859
	1.79384	183193.72						
3620.55	61.00	4504.38	13.58	15.55	4.29	15527.56	0.21	0.001871
	1.81506	188946.34						
3735.24	62.00	4504.82	14.02	15.98	4.37	16316.14	0.21	0.001835
		233.73						

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## HYCHAN.OUT

1.83038	193859.89						
63.00	4505.25	14.45	4.41	16964.25	0.20		
3848.98	234.59	16.41		281.82	19.50	0.001819	
1.86246	198685.50						
64.00	4505.56	14.76	4.44	17462.80	0.20		
3930.17	235.21	16.71		286.69	19.42	0.001851	
1.93038	202119.78						
65.00	4505.90	15.10	4.48	18004.62	0.20		
4018.44	235.88	17.04		291.93	19.34	0.001798	
1.91132	205813.75						
66.00	4506.05	15.25	4.49	18222.98	0.20		
4059.19	236.19	17.19		294.33	19.30	0.001793	
1.92262	207502.72						
67.00	4506.08	15.28	4.49	18255.86	0.20		
4066.50	236.25	17.21		294.76	19.29	0.001790	
1.92237	207804.41						
68.00	4506.08	15.28	4.49	18260.84	0.20		
4066.73	236.25	17.21		294.77	19.29	0.001791	
1.92351	207813.34						
69.00	4506.08	15.28	4.49	18269.81	0.20		
4067.91	236.26	17.22		294.84	19.29	0.001790	
1.92352	207862.94						
70.00	4506.09	15.29	4.49	18282.52	0.20		
4069.08	236.26	17.22		294.91	19.29	0.001788	
1.92107	207910.59						
71.00	4506.09	15.29	4.49	18285.97	0.20		
4068.60	236.26	17.22		294.88	19.29	0.001788	
1.92121	207889.95						
72.00	4506.09	15.29	4.49	18279.22	0.20		
4068.30	236.26	17.22		294.86	19.29	0.001788	
1.92117	207878.03						
73.00	4506.13	15.33	4.51	18376.45	0.20		
4078.70	236.34	17.26		295.48	19.28	0.001788	
1.92580	208314.53						
74.00	4506.21	15.41	4.52	18536.50	0.20		
4102.09	236.52	17.34		296.86	19.26	0.001788	
1.93460	209285.61						
75.00	4506.23	15.43	4.52	18570.05	0.20		
4107.26	236.55	17.36		297.16	19.25	0.001786	
1.93485	209497.77						
76.00	4506.27	15.47	4.53	18658.14	0.20		
4116.43	236.62	17.40		297.70	19.25	0.001794	
1.94764	209881.47						
77.00	4506.41	15.61	4.57	18996.11	0.20		
4154.62	236.91	17.54		299.95	19.21	0.001800	
1.96970	211465.94						
78.00	4506.61	15.81	4.62	19420.68	0.20		
4205.94	237.30	17.72		302.96	19.17	0.001797	
1.98779	213583.97						
79.00	4506.75	15.95	4.64	19710.02	0.20		
4244.24	237.59	17.86		305.19	19.13	0.001797	
2.00310	215162.08						
80.00	4506.91	16.11	4.68	20044.57	0.21		
4285.69	237.90	18.01		307.61	19.10	0.001796	
2.01924	216868.03						
81.00	4507.03	16.23	4.70	20278.97	0.21		
4319.09	238.16	18.14		309.56	19.07	0.001790	
2.02569	218237.16						
82.00	4506.99	16.19	4.68	20160.82	0.21		
4306.52	238.06	18.09		308.82	19.08	0.001786	
2.01645	217715.73						
83.00	4506.88	16.08	4.66	19957.30	0.20		
4279.54	237.86	17.99		307.25	19.10	0.001790	

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2.00980	216608.25						
84.00	4506.86	16.06	4.66	19917.44	0.21		
4273.13	237.81	17.97	306.87	19.11	0.001790		
2.00719	216346.84						
85.00	4506.86	16.06	4.66	19921.37	0.21		
4273.62	237.81	17.97	306.90	19.11	0.001790		
2.00728	216367.34						
86.00	4506.86	16.06	4.66	19898.64	0.20		
4272.40	237.80	17.97	306.83	19.11	0.001785		
2.00095	216315.20						
87.00	4506.72	15.92	4.62	19565.94	0.20		
4237.20	237.53	17.84	304.76	19.14	0.001774		
1.97468	214852.73						
88.00	4506.34	15.54	4.53	18719.30	0.20		
4136.83	236.77	17.47	298.85	19.23	0.001772		
1.93220	210692.75						
89.00	4505.73	14.93	4.36	17352.08	0.20		
3976.39	235.55	16.88	289.32	19.38	0.001778		
1.87255	203967.91						
90.00	4504.84	14.04	4.30	16079.17	0.20		
3742.06	233.77	16.01	275.28	19.61	0.001826		
1.82369	194074.28						
91.00	4504.28	13.48	4.19	15219.26	0.20		
3630.08	232.65	15.60	266.41	19.76	0.001462		
1.42374	187815.75						
92.00	4503.81	13.01	3.95	14179.81	0.19		
3592.72	231.70	15.51	258.79	19.90	0.001450		
1.40306	182444.94						
93.00	4503.42	12.62	3.80	13262.20	0.19		
3491.50	230.94	15.12	252.64	20.01	0.001448		
1.36577	178112.05						
94.00	4503.05	12.25	3.69	12483.05	0.19		
3379.90	230.18	14.68	246.49	20.13	0.001507		
1.38071	173778.00						
95.00	4502.53	11.73	3.89	11861.73	0.20		
3046.31	229.15	13.29	238.10	20.30	0.001644		
1.36411	167863.39						
96.00	4502.02	11.22	4.14	11318.60	0.22		
2732.50	228.12	11.98	229.61	20.47	0.001790		
1.33824	161872.36						
97.00	4501.55	10.75	4.29	10865.76	0.23		
2535.27	227.19	11.16	221.85	20.64	0.001885		
1.31275	156407.53						
98.00	4501.20	10.40	4.38	10458.21	0.24		
2385.30	224.24	10.64	215.98	20.77	0.001981		
1.31523	152262.70						
99.00	4500.94	10.14	4.46	10151.06	0.25		
2273.53	219.67	10.35	211.66	20.87	0.002032		
1.31221	149218.97						
100.00	4500.75	9.95	4.48	9826.82	0.25		
2191.57	216.22	10.14	208.41	20.95	0.002049		
1.29579	146927.80						
101.00	4500.61	9.81	4.45	9488.26	0.25		
2133.78	213.76	9.98	206.08	21.00	0.002048		
1.27583	145286.62						
102.00	4500.50	9.70	4.41	9203.98	0.25		
2087.72	211.76	9.86	204.20	21.05	0.002047		
1.25948	143958.41						
103.00	4500.40	9.61	4.38	8962.41	0.25		
2048.35	210.04	9.75	202.57	21.09	0.002047		
1.24546	142810.86						
104.00	4500.33	9.53	4.35	8760.34	0.25		
2016.06	208.61	9.66	201.22	21.12	0.002041		

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	1.23107	141858.69						
1968.88	105.00	4500.21	9.41	9.54	4.30	8459.57	0.25	0.002038
	1.21280	140446.56				199.21	21.17	
1922.29	106.00	4500.09	9.29	9.41	4.25	8178.99	0.25	0.002037
	1.19561	139042.80				197.22	21.22	
1893.27	107.00	4500.02	9.22	9.32	4.23	8001.52	0.25	0.002035
	1.18383	138155.22				195.96	21.26	
1865.13	108.00	4499.95	9.15	9.24	4.20	7829.09	0.24	0.002033
	1.17308	137287.12				194.73	21.29	
1850.80	109.00	4499.91	9.11	9.20	4.18	7745.10	0.24	0.002036
	1.16923	136845.23				194.11	21.30	
1864.25	110.00	4499.95	9.15	9.24	4.20	7834.98	0.25	0.002041
	1.17721	137264.55				194.70	21.29	
1905.02	111.00	4500.05	9.25	9.36	4.25	8098.09	0.25	0.002045
	1.19389	138520.42				196.48	21.24	
1921.00	112.00	4500.09	9.29	9.40	4.26	8174.09	0.25	0.002037
	1.19513	139004.30				197.17	21.23	
1893.64	113.00	4500.02	9.22	9.33	4.23	8004.39	0.25	0.002039
	1.18627	138167.23				195.98	21.26	
1906.23	114.00	4500.05	9.25	9.36	4.25	8104.07	0.25	0.002049
	1.19690	138557.03				196.53	21.24	
1966.15	115.00	4500.20	9.40	9.53	4.31	8478.73	0.25	0.002049
	1.21812	140374.33				199.11	21.18	
1984.01	116.00	4500.25	9.45	9.58	4.32	8561.77	0.25	0.002042
	1.22009	140905.80				199.87	21.16	
1968.17	117.00	4500.21	9.41	9.53	4.30	8471.23	0.25	0.002046
	1.21682	140433.20				199.20	21.17	
1967.59	118.00	4500.21	9.41	9.53	4.31	8471.70	0.25	0.002047
	1.21758	140416.34				199.17	21.17	
1983.28	119.00	4500.25	9.45	9.57	4.32	8576.45	0.25	0.002049
	1.22433	140887.92				199.84	21.16	
1999.40	120.00	4500.28	9.49	9.62	4.34	8668.86	0.25	0.002047
	1.22870	141367.58				200.52	21.14	
1999.44	121.00	4500.29	9.49	9.62	4.34	8668.22	0.25	0.002046
	1.22785	141368.33				200.52	21.14	
1984.46	122.00	4500.25	9.45	9.58	4.32	8563.71	0.25	0.002042
	1.22030	140918.86				199.88	21.16	
1967.97	123.00	4500.21	9.41	9.53	4.30	8469.52	0.25	0.002042
	1.21478	140427.42				199.19	21.17	
1952.46	124.00	4500.17	9.37	9.49	4.28	8365.00	0.25	0.002040
	1.20785	139957.58				198.52	21.19	
1936.40	125.00	4500.13	9.33	9.44	4.27	8270.71	0.25	0.002041
		205.03				197.84	21.21	

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			HYCHAN.OUT				
	1.20267	139474.64					
1936.09	126.00	4500.13	9.33	9.44	4.27	8269.00	0.25
	1.20244	139465.33					
1921.73	127.00	4500.09	9.29	9.40	4.25	8176.72	0.25
	1.19589	139026.22					
1907.38	128.00	4500.05	9.26	9.36	4.24	8092.30	0.25
	1.19148	138590.69					
1906.94	129.00	4500.05	9.25	9.36	4.24	8089.82	0.25
	1.19072	138577.45					
1893.16	130.00	4500.02	9.22	9.32	4.23	8001.37	0.25
	1.18442	138152.27					
1879.22	131.00	4499.98	9.18	9.28	4.21	7919.76	0.25
	1.18189	137726.05					
1905.62	132.00	4500.05	9.25	9.36	4.25	8101.03	0.25
	1.19511	138538.62					
1934.98	133.00	4500.12	9.32	9.44	4.27	8268.05	0.25
	1.20255	139432.39					
1936.16	134.00	4500.13	9.33	9.44	4.27	8269.70	0.25
	1.20284	139467.61					
1936.24	135.00	4500.13	9.33	9.44	4.27	8270.21	0.25
	1.20299	139470.06					
1936.22	136.00	4500.13	9.33	9.44	4.27	8270.02	0.25
	1.20264	139469.39					
1936.18	137.00	4500.13	9.33	9.44	4.27	8269.82	0.25
	1.20328	139468.23					
1936.20	138.00	4500.13	9.33	9.44	4.27	8269.97	0.25
	1.20270	139468.64					
1936.06	139.00	4500.13	9.33	9.44	4.27	8268.97	0.25
	1.20214	139464.39					
1921.81	140.00	4500.09	9.29	9.40	4.25	8177.11	0.25
	1.19570	139028.80					
1907.34	141.00	4500.05	9.25	9.36	4.24	8092.12	0.25
	1.19124	138589.48					
1907.11	142.00	4500.05	9.25	9.36	4.24	8091.00	0.25
	1.19107	138582.83					
1907.05	143.00	4500.05	9.25	9.36	4.24	8090.67	0.25
	1.19123	138580.92					
1907.00	144.00	4500.05	9.25	9.36	4.24	8090.16	0.25
	1.19037	138579.28					
1893.18	145.00	4500.02	9.22	9.32	4.23	8001.45	0.25
	1.18499	138153.05					
1878.99	146.00	4499.98	9.18	9.28	4.21	7917.87	0.25
		202.39					

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1878.78	1.17974	137718.67	9.18	4.21	7917.01	0.25	0.002037
1878.78	1.18020	137712.50	9.18	4.21	7916.99	0.25	0.002037
1878.79	1.18013	137712.44	9.18	4.21	7917.14	0.25	0.002037
1878.80	1.18019	137712.86	9.18	4.21	7916.24	0.25	0.002036
1869.48	1.17952	137709.45	9.16	4.20	7857.22	0.24	0.002035
1855.38	1.17524	137423.09	9.12	4.19	7771.93	0.24	0.002035
1850.49	1.17017	136986.67	9.11	4.18	7743.15	0.24	0.002035
1850.29	1.16866	136835.44	9.11	4.18	7742.08	0.24	0.002033
1836.84	1.16759	136829.25	9.07	4.17	7656.49	0.24	0.002034
1848.86	1.16292	136407.22	9.11	4.19	7748.42	0.24	0.002041
1878.13	1.17122	136786.02	9.18	4.21	7914.98	0.25	0.002037
1878.79	1.17966	137692.56	9.18	4.21	7916.97	0.25	0.002037
1878.81	1.18019	137712.75	9.18	4.21	7917.12	0.25	0.002038
1878.78	1.18040	137713.08	9.18	4.21	7917.01	0.25	0.002037
1878.80	1.17986	137712.50	9.18	4.21	7917.15	0.25	0.002037
1878.76	1.17980	137712.92	9.18	4.21	7916.83	0.25	0.002037
1878.77	1.18004	137711.86	9.18	4.21	7917.01	0.25	0.002037
1878.63	1.18018	137712.05	9.18	4.21	7915.82	0.25	0.002036
1864.86	1.17916	137707.36	9.15	4.20	7827.85	0.24	0.002034
1850.65	1.17319	137279.17	9.11	4.18	7743.85	0.24	0.002034
1850.47	1.16829	136840.25	9.11	4.18	7743.18	0.24	0.002034

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1.16831	136834.88						
168.00	4499.91	9.11	4.18	7742.68	0.24		
1850.40	201.07		9.20	194.09	21.31	0.002035	
1.16858	136832.81						
169.00	4499.91	9.11	4.18	7743.11	0.24		
1850.45	201.07		9.20	194.09	21.31	0.002035	
1.16856	136834.16						
170.00	4499.91	9.11	4.18	7743.17	0.24		
1850.45	201.07		9.20	194.09	21.31	0.002035	
1.16856	136834.20						
171.00	4499.91	9.11	4.18	7742.94	0.24		
1850.43	201.07		9.20	194.09	21.31	0.002034	
1.16829	136833.56						
172.00	4499.91	9.11	4.18	7741.88	0.24		
1850.30	201.06		9.20	194.08	21.31	0.002033	
1.16773	136829.44						
173.00	4499.87	9.07	4.17	7653.95	0.24		
1836.47	200.41		9.16	193.47	21.32	0.002031	
1.16156	136395.41						
174.00	4499.84	9.04	4.15	7570.08	0.24		
1822.28	199.75		9.12	192.84	21.34	0.002032	
1.15661	135953.11						
175.00	4499.84	9.04	4.15	7569.11	0.24		
1822.05	199.74		9.12	192.83	21.34	0.002032	
1.15658	135946.34						
176.00	4499.84	9.04	4.15	7568.85	0.24		
1822.02	199.73		9.12	192.83	21.34	0.002032	
1.15653	135945.34						
177.00	4499.84	9.04	4.15	7569.32	0.24		
1822.08	199.74		9.12	192.83	21.34	0.002032	
1.15649	135947.06						
178.00	4499.84	9.04	4.15	7568.67	0.24		
1821.96	199.73		9.12	192.83	21.34	0.002032	
1.15662	135943.48						
179.00	4499.84	9.04	4.15	7571.04	0.24		
1822.33	199.75		9.12	192.84	21.34	0.002034	
1.15809	135955.33						
180.00	4499.91	9.11	4.19	7748.08	0.24		
1848.73	200.99		9.20	194.02	21.31	0.002042	
1.17191	136782.20						
181.00	4499.98	9.18	4.21	7915.59	0.25		
1878.04	202.35		9.28	195.31	21.27	0.002038	
1.18033	137690.08						
182.00	4500.02	9.22	4.23	8007.19	0.25		
1891.78	202.99		9.32	195.91	21.26	0.002042	
1.18732	138113.89						
183.00	4500.05	9.25	4.24	8089.79	0.25		
1906.63	203.67		9.36	196.55	21.24	0.002039	
1.19099	138568.45						
184.00	4500.05	9.25	4.24	8090.92	0.25		
1907.08	203.69		9.36	196.57	21.24	0.002039	
1.19119	138581.84						
185.00	4500.05	9.25	4.24	8090.83	0.25		
1907.07	203.69		9.36	196.57	21.24	0.002040	
1.19177	138581.42						
186.00	4500.05	9.25	4.24	8091.23	0.25		
1907.14	203.69		9.36	196.57	21.24	0.002039	
1.19110	138583.64						
187.00	4500.05	9.25	4.24	8091.11	0.25		
1907.11	203.69		9.36	196.57	21.24	0.002039	
1.19118	138582.92						
188.00	4500.05	9.25	4.24	8090.90	0.25		
1907.09	203.69		9.36	196.57	21.24	0.002039	

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189.00	1.19135	4500.05	138582.17	9.25	4.24	8090.98	0.25	
1907.11		203.69		9.36		196.57	21.24	0.002039
190.00	1.19138	4500.05	138582.83	9.25	4.24	8090.22	0.25	
1907.01		203.69		9.36		196.57	21.24	0.002038
191.00	1.19037	4500.02	138579.53	9.22	4.23	8000.91	0.25	
1893.09		203.04		9.32		195.96	21.26	0.002037
192.00	1.18484	4499.98	138150.23	9.18	4.21	7917.93	0.25	
1878.97		202.39		9.28		195.34	21.27	0.002036
193.00	1.17964	4499.98	137718.05	9.18	4.21	7917.23	0.25	
1878.81		202.39		9.28		195.34	21.27	0.002037
194.00	1.17999	4499.98	137713.41	9.18	4.21	7917.09	0.25	
1878.79		202.39		9.28		195.34	21.27	0.002036
195.00	1.17956	4499.98	137712.61	9.18	4.21	7916.84	0.25	
1878.76		202.38		9.28		195.34	21.27	0.002037
196.00	1.17989	4499.98	137711.80	9.18	4.21	7917.05	0.25	
1878.77		202.38		9.28		195.34	21.27	0.002037
197.00	1.18015	4499.98	137712.02	9.18	4.21	7917.18	0.25	
1878.79		202.39		9.28		195.34	21.27	0.002037
198.00	1.17996	4499.98	137712.59	9.18	4.21	7916.90	0.25	
1878.78		202.39		9.28		195.34	21.27	0.002037
199.00	1.18011	4499.98	137712.38	9.18	4.21	7916.88	0.25	
1878.76		202.38		9.28		195.34	21.27	0.002037
	1.17994		137711.70					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1033

MAXIMUM DISCHARGE (CFS) = 18876.98 AT TIME = 80.47  
 MAXIMUM STAGE = 4507.00 AT TIME = 80.57

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE AREA					
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)			
0.00	0.00	4489.95	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4489.95	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4489.95	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
1349.85	3.00	4496.93	6.98	3.26	4399.57	0.22	0.000674
	0.13171	431.31	3.13	217.59	31.18		
1483.87	4.00	4498.21	8.26	3.69	5468.62	0.23	0.000679
	0.12527	501.62	2.96	240.00	29.07		
		168001.91					

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HYCHAN.OUT							
1467.19	5.00	4498.16	8.21	3.67	5379.73	0.23	0.000681
	0.12495	499.02	2.94		239.20	29.14	
	6.00	167436.59					
1455.40		4498.12	8.17	3.65	5317.82	0.23	0.000685
		497.01	2.93		238.57	29.19	
	0.12511	166997.25					
1427.53	7.00	4498.04	8.09	3.62	5169.48	0.22	0.000690
		492.41	2.90		237.13	29.32	
	0.12474	165993.97					
1399.50	8.00	4497.95	8.00	3.59	5020.25	0.22	0.000697
		487.77	2.87		235.68	29.45	
	0.12479	164975.61					
1369.30	9.00	4497.86	7.91	3.56	4872.79	0.22	0.000706
		482.86	2.84		234.14	29.59	
	0.12485	163894.88					
1348.84	10.00	4497.80	7.85	3.54	4775.34	0.22	0.000710
		479.62	2.81		233.12	29.68	
	0.12457	163182.14					
1337.05	11.00	4497.77	7.82	3.53	4719.86	0.22	0.000713
		477.56	2.80		232.46	29.74	
	0.12452	162725.44					
1306.36	12.00	4497.67	7.72	3.50	4573.79	0.22	0.000720
		472.37	2.77		230.82	29.89	
	0.12428	161574.72					
1285.41	13.00	4497.61	7.66	3.48	4472.75	0.22	0.000724
		468.93	2.74		229.73	29.99	
	0.12392	160811.42					
1284.69	14.00	4497.61	7.66	3.48	4469.05	0.22	0.000724
		468.85	2.74		229.70	30.00	
	0.12386	160792.27					
1284.68	15.00	4497.61	7.66	3.48	4468.98	0.22	0.000725
		468.85	2.74		229.70	30.00	
	0.12389	160791.75					
1284.68	16.00	4497.61	7.66	3.48	4469.00	0.22	0.000725
		468.84	2.74		229.70	30.00	
	0.12389	160791.53					
1284.67	17.00	4497.61	7.66	3.48	4468.97	0.22	0.000725
		468.85	2.74		229.70	30.00	
	0.12392	160791.75					
1295.34	18.00	4497.64	7.69	3.49	4519.49	0.22	0.000722
		470.79	2.75		230.32	29.94	
	0.12393	161223.75					
1326.61	19.00	4497.74	7.79	3.52	4669.30	0.22	0.000714
		476.08	2.79		232.00	29.78	
	0.12417	162399.12					
1358.85	20.00	4497.84	7.89	3.55	4822.94	0.22	0.000704
		481.42	2.82		233.68	29.63	
	0.12405	163578.78					
1379.52	21.00	4497.90	7.95	3.57	4921.40	0.22	0.000701
		484.68	2.85		234.71	29.54	
	0.12448	164296.59					
1380.07	22.00	4497.90	7.95	3.57	4923.90	0.22	0.000701
		484.75	2.85		234.73	29.53	
	0.12448	164311.47					
1391.71	23.00	4497.93	7.98	3.58	4979.78	0.22	0.000697
		486.75	2.86		235.36	29.48	
	0.12444	164751.17					
1432.49	24.00	4498.06	8.11	3.62	5192.75	0.22	0.000688
		493.59	2.90		237.50	29.29	
	0.12452	166250.36					
1490.14	25.00	4498.23	8.28	3.69	5499.99	0.23	0.000674
		502.93	2.96		240.41	29.03	
	0.12460	168287.34					

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		HYCHAN.OUT					
26.00	4498.40	8.45	3.75	5808.41	0.23		
1548.49	512.10	3.02		243.25	28.79	0.000658	
0.12407	170272.41						
27.00	4498.49	8.54	3.78	5982.00	0.23		
1581.48	517.01	3.06		244.76	28.66	0.000653	
0.12473	171331.64						
28.00	4498.49	8.54	3.78	5985.12	0.23		
1582.08	517.08	3.06		244.78	28.66	0.000654	
0.12486	171346.84						
29.00	4498.53	8.58	3.80	6057.89	0.23		
1596.08	519.31	3.07		245.47	28.60	0.000648	
0.12421	171825.77						
30.00	4498.58	8.63	3.81	6150.62	0.23		
1613.84	521.91	3.09		246.26	28.54	0.000645	
0.12444	172383.42						
31.00	4498.58	8.63	3.81	6152.44	0.23		
1614.19	521.95	3.09		246.28	28.54	0.000646	
0.12461	172392.78						
32.00	4498.62	8.67	3.82	6229.31	0.23		
1629.01	524.27	3.11		246.98	28.48	0.000639	
0.12386	172889.22						
33.00	4498.67	8.72	3.84	6324.58	0.23		
1647.39	526.92	3.13		247.79	28.41	0.000636	
0.12406	173456.38						
34.00	4498.67	8.72	3.84	6325.54	0.23		
1647.59	526.94	3.13		247.80	28.41	0.000636	
0.12405	173459.89						
35.00	4498.63	8.68	3.83	6248.85	0.23		
1632.78	524.63	3.11		247.09	28.47	0.000643	
0.12478	172965.67						
36.00	4498.58	8.63	3.81	6153.26	0.23		
1614.35	521.96	3.09		246.28	28.54	0.000644	
0.12435	172394.09						
37.00	4498.54	8.59	3.80	6078.82	0.23		
1600.02	519.70	3.08		245.58	28.59	0.000651	
0.12503	171909.48						
38.00	4498.49	8.54	3.78	5986.57	0.23		
1582.36	517.11	3.06		244.79	28.66	0.000654	
0.12487	171352.86						
39.00	4498.49	8.54	3.78	5984.97	0.23		
1582.05	517.08	3.06		244.78	28.66	0.000654	
0.12480	171345.55						
40.00	4498.49	8.54	3.78	5985.06	0.23		
1582.07	517.08	3.06		244.78	28.66	0.000654	
0.12483	171345.98						
41.00	4498.49	8.54	3.78	5985.10	0.23		
1582.08	517.08	3.06		244.78	28.66	0.000653	
0.12467	171346.44						
42.00	4498.49	8.54	3.78	5985.19	0.23		
1582.10	517.09	3.06		244.78	28.66	0.000654	
0.12493	171347.62						
43.00	4498.53	8.58	3.80	6058.10	0.23		
1596.12	519.32	3.07		245.47	28.60	0.000647	
0.12417	171826.94						
44.00	4498.58	8.63	3.81	6151.01	0.23		
1613.91	521.92	3.09		246.27	28.54	0.000645	
0.12452	172386.16						
45.00	4498.62	8.67	3.82	6229.59	0.23		
1629.07	524.28	3.11		246.99	28.48	0.000639	
0.12395	172891.81						
46.00	4498.72	8.76	3.85	6403.71	0.23		
1662.71	529.28	3.14		248.51	28.35	0.000630	
0.12349	173960.25						

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HYCHAN.OUT							
1696.49	47.00	4498.81	8.86	3.18	3.88	6577.56	0.23
	0.12291	534.22				250.02	28.23
		175012.23					0.000620
1730.58	48.00	4498.90	8.95	3.21	3.90	6752.01	0.23
	0.12218	539.14				251.51	28.11
		176055.92					0.000610
1763.27	49.00	4498.98	9.03	3.24	3.92	6918.26	0.23
	0.12156	543.79				252.92	28.00
		177041.08					0.000601
1799.04	50.00	4499.08	9.13	3.28	3.95	7099.13	0.23
	0.12077	548.82				254.43	27.88
		178101.92					0.000590
1848.40	51.00	4499.20	9.25	3.33	3.98	7347.50	0.23
	0.11854	555.70				256.50	27.72
		179548.19					0.000571
1886.65	52.00	4499.30	9.35	3.36	4.00	7540.07	0.23
	0.11930	560.83				258.03	27.60
		180622.81					0.000568
1902.17	53.00	4499.34	9.39	3.38	4.01	7626.64	0.23
	0.11854	563.03				258.69	27.55
		181082.94					0.000562
1965.02	54.00	4499.50	9.55	3.44	4.06	7981.84	0.23
	0.11522	571.54				261.22	27.36
		182854.47					0.000537
2090.22	55.00	4499.81	9.86	3.55	4.15	8665.94	0.23
	0.10988	588.10				266.11	27.00
		186278.67					0.000495
2273.32	56.00	4500.24	10.29	3.72	4.24	9635.00	0.23
	0.09867	611.12				272.83	26.52
		190980.14					0.000425
2727.06	57.00	4501.20	11.25	4.12	3.99	10874.78	0.21
	0.04674	662.13				287.40	25.55
		201182.53					0.000182
3349.56	58.00	4502.55	12.60	4.57	3.61	12093.80	0.18
	0.08042	733.17				307.06	24.37
		214945.02					0.000282
3638.33	59.00	4503.43	13.48	4.93	3.60	13110.40	0.17
	0.08974	738.49				319.34	23.70
		223536.61					0.000292
3777.31	60.00	4503.93	13.98	5.11	3.76	14198.26	0.18
	0.11702	739.49				326.24	23.34
		228369.64					0.000367
3889.22	61.00	4504.34	14.39	5.25	3.90	15158.60	0.18
	0.12257	740.31				331.76	23.06
		232229.84					0.000374
4012.47	62.00	4504.79	14.84	5.41	3.93	15780.12	0.18
	0.12002	741.21				337.77	22.77
		236437.05					0.000355
4135.51	63.00	4505.23	15.28	5.57	3.94	16285.12	0.18
	0.12197	742.10				343.67	22.49
		240569.94					0.000351
4221.09	64.00	4505.55	15.60	5.68	3.95	16658.26	0.18
	0.14350	742.73				347.75	22.30
		243424.14					0.000405
4311.11	65.00	4505.88	15.93	5.80	3.96	17062.26	0.17
	0.12714	743.39				352.00	22.10
		246400.28					0.000351
4356.05	66.00	4506.04	16.09	5.86	3.96	17243.31	0.17
	0.12900	743.71				354.10	22.01
		247866.84					0.000353
4363.64	67.00	4506.07	16.12	5.87	3.96	17271.41	0.17
	0.12765	743.77				354.45	21.99
		248113.36					0.000349

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HYCHAN.OUT							
68.00	4506.07	16.12	3.96	17275.89	0.17		
4364.42	743.77	5.87	354.48	21.99	0.000350		
0.12834	248138.14						
69.00	4506.07	16.12	3.96	17282.39	0.17		
4365.68	743.78	5.87	354.54	21.99	0.000350		
0.12804	248181.14						
70.00	4506.08	16.13	3.96	17292.62	0.17		
4367.52	743.79	5.87	354.63	21.99	0.000347		
0.12705	248241.38						
71.00	4506.08	16.13	3.96	17296.06	0.17		
4367.80	743.80	5.87	354.64	21.99	0.000347		
0.12731	248250.23						
72.00	4506.08	16.13	3.96	17290.32	0.17		
4366.91	743.79	5.87	354.60	21.99	0.000346		
0.12673	248220.06						
73.00	4506.12	16.17	3.96	17357.00	0.17		
4378.48	743.88	5.89	355.15	21.96	0.000346		
0.12699	248603.20						
74.00	4506.21	16.26	3.97	17480.00	0.17		
4403.00	744.05	5.92	356.29	21.91	0.000350		
0.12906	249404.52						
75.00	4506.23	16.28	3.97	17508.92	0.17		
4408.27	744.09	5.92	356.54	21.90	0.000345		
0.12746	249575.39						
76.00	4506.26	16.31	3.98	17569.48	0.17		
4417.47	744.16	5.94	356.97	21.88	0.000351		
0.12989	249878.58						
77.00	4506.41	16.46	4.00	17811.49	0.17		
4457.23	744.45	5.99	358.83	21.80	0.000353		
0.13190	251180.66						
78.00	4506.61	16.66	4.02	18148.67	0.17		
4511.50	744.85	6.06	361.34	21.69	0.000354		
0.13363	252938.95						
79.00	4506.75	16.80	4.04	18387.51	0.17		
4551.81	745.14	6.11	363.19	21.61	0.000355		
0.13525	254233.55						
80.00	4506.91	16.96	4.06	18652.72	0.17		
4595.16	745.46	6.16	365.18	21.53	0.000355		
0.13661	255624.36						
81.00	4507.04	17.09	4.07	18852.62	0.17		
4630.72	745.72	6.21	366.80	21.46	0.000355		
0.13771	256757.23						
82.00	4506.99	17.04	4.06	18769.10	0.17		
4618.18	745.62	6.19	366.22	21.49	0.000353		
0.13636	256352.83						
83.00	4506.89	16.94	4.05	18602.39	0.17		
4589.96	745.42	6.16	364.93	21.54	0.000352		
0.13540	255451.19						
84.00	4506.87	16.92	4.05	18565.84	0.17		
4583.10	745.37	6.15	364.62	21.55	0.000353		
0.13555	255233.56						
85.00	4506.87	16.92	4.05	18568.75	0.17		
4583.56	745.37	6.15	364.64	21.55	0.000352		
0.13519	255248.59						
86.00	4506.87	16.92	4.05	18559.69	0.17		
4583.03	745.37	6.15	364.61	21.55	0.000350		
0.13432	255229.67						
87.00	4506.73	16.78	4.03	18312.83	0.17		
4545.88	745.10	6.10	362.90	21.63	0.000345		
0.13130	254027.59						
88.00	4506.34	16.39	3.98	17657.88	0.17		
4439.08	744.31	5.96	357.95	21.84	0.000347		
0.12918	250562.22						

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HYCHAN.OUT							
89.00	4505.68	15.73	3.91	16663.18	0.17		
4259.54	743.00	5.73	349.48	22.22	0.000349		
0.12477	244638.64						
90.00	4504.81	14.86	3.90	15694.10	0.18		
4020.84	741.26	5.42	338.09	22.75	0.000368		
0.12454	236662.73						
91.00	4504.28	14.33	3.86	14964.08	0.18		
3874.76	740.20	5.23	331.00	23.10	0.000298		
0.09747	231697.78						
92.00	4503.89	13.94	3.72	14036.83	0.18		
3768.30	739.42	5.10	325.74	23.36	0.000287		
0.09118	228019.39						
93.00	4503.50	13.55	3.60	13192.75	0.17		
3660.59	738.64	4.96	320.41	23.64	0.000276		
0.08532	224283.59						
94.00	4503.11	13.16	3.51	12483.35	0.17		
3551.90	737.85	4.81	314.96	23.93	0.000299		
0.08993	220469.17						
95.00	4502.50	12.55	3.56	11930.68	0.18		
3352.32	730.80	4.59	306.42	24.41	0.000139		
0.03985	214492.59						
96.00	4501.89	11.94	3.73	11402.64	0.19		
3059.12	698.52	4.38	297.56	24.93	0.000215		
0.05867	208292.44						
97.00	4501.34	11.39	3.89	10920.31	0.20		
2805.86	669.81	4.19	289.56	25.42	0.000278		
0.07261	202695.47						
98.00	4500.91	10.96	4.03	10509.23	0.21		
2606.06	647.14	4.03	283.16	25.83	0.000364		
0.09138	198212.88						
99.00	4500.58	10.63	4.18	10180.85	0.23		
2438.51	629.59	3.87	278.15	26.16	0.000420		
0.10156	194706.23						
100.00	4500.34	10.39	4.25	9851.60	0.23		
2320.28	616.75	3.76	274.46	26.41	0.000455		
0.10685	192120.20						
101.00	4500.18	10.23	4.22	9503.73	0.23		
2250.66	608.30	3.70	272.01	26.58	0.000472		
0.10888	190407.41						
102.00	4500.06	10.11	4.20	9217.91	0.23		
2196.36	601.54	3.65	270.04	26.72	0.000487		
0.11085	189031.30						
103.00	4499.95	10.00	4.17	8972.57	0.23		
2149.98	595.70	3.61	268.34	26.84	0.000498		
0.11212	187836.39						
104.00	4499.86	9.91	4.15	8770.26	0.23		
2112.44	590.93	3.57	266.94	26.94	0.000511		
0.11399	186858.11						
105.00	4499.73	9.78	4.12	8478.11	0.23		
2058.83	583.94	3.53	264.89	27.09	0.000529		
0.11648	185421.42						
106.00	4499.60	9.65	4.08	8188.63	0.23		
2005.06	576.89	3.48	262.81	27.24	0.000540		
0.11701	183964.94						
107.00	4499.52	9.57	4.06	8010.12	0.23		
1972.25	572.48	3.45	261.50	27.34	0.000548		
0.11770	183050.69						
108.00	4499.44	9.49	4.04	7837.20	0.23		
1940.65	568.18	3.42	260.22	27.43	0.000556		
0.11853	182157.00						
109.00	4499.39	9.44	4.03	7745.35	0.23		
1923.88	565.96	3.40	259.56	27.48	0.000559		
0.11855	181694.91						

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		HYCHAN.OUT					
1938.25	110.00	4499.43	9.48	4.04	7826.96	0.23	
		567.95		3.41	260.16	27.44	0.000552
	0.11764	182109.61					
1983.84	111.00	4499.54	9.59	4.07	8082.56	0.23	
		574.05		3.46	261.97	27.30	0.000536
	0.11569	183377.02					
2003.39	112.00	4499.59	9.64	4.08	8180.64	0.23	
		576.68		3.47	262.74	27.25	0.000540
	0.11700	183920.58					
1972.52	113.00	4499.52	9.57	4.06	8011.61	0.23	
		572.53		3.45	261.52	27.34	0.000549
	0.11811	183061.09					
1985.15	114.00	4499.55	9.60	4.07	8089.24	0.23	
		574.24		3.46	262.02	27.30	0.000534
	0.11514	183416.41					
2053.14	115.00	4499.72	9.77	4.12	8460.60	0.23	
		583.26		3.52	264.69	27.10	0.000514
	0.11284	185280.09					
2075.07	116.00	4499.77	9.82	4.13	8568.02	0.23	
		586.16		3.54	265.54	27.04	0.000521
	0.11519	185878.91					
2056.70	117.00	4499.72	9.77	4.12	8472.75	0.23	
		583.73		3.52	264.82	27.09	0.000520
	0.11443	185377.38					
2056.04	118.00	4499.72	9.77	4.12	8470.93	0.23	
		583.61		3.52	264.79	27.10	0.000523
	0.11493	185352.83					
2073.45	119.00	4499.77	9.82	4.13	8567.87	0.23	
		585.90		3.54	265.46	27.05	0.000512
	0.11317	185824.62					
2092.53	120.00	4499.81	9.86	4.14	8668.15	0.23	
		588.36		3.56	266.19	26.99	0.000511
	0.11332	186331.95					
2092.71	121.00	4499.81	9.86	4.14	8668.74	0.23	
		588.37		3.56	266.19	26.99	0.000513
	0.11388	186334.09					
2075.75	122.00	4499.77	9.82	4.13	8571.77	0.23	
		586.23		3.54	265.56	27.04	0.000522
	0.11524	185893.06					
2056.48	123.00	4499.72	9.77	4.12	8470.89	0.23	
		583.71		3.52	264.82	27.09	0.000524
	0.11513	185373.61					
2039.18	124.00	4499.68	9.73	4.11	8373.64	0.23	
		581.44		3.51	264.15	27.14	0.000531
	0.11630	184906.05					
2020.20	125.00	4499.64	9.69	4.09	8271.51	0.23	
		579.00		3.49	263.43	27.20	0.000533
	0.11604	184400.53					
2019.80	126.00	4499.64	9.69	4.09	8269.47	0.23	
		578.95		3.49	263.42	27.20	0.000533
	0.11597	184390.62					
2004.25	127.00	4499.60	9.65	4.08	8184.41	0.23	
		576.80		3.47	262.78	27.24	0.000540
	0.11709	183946.03					
1987.36	128.00	4499.55	9.60	4.07	8092.99	0.23	
		574.60		3.46	262.13	27.29	0.000542
	0.11691	183490.48					
1986.85	129.00	4499.55	9.60	4.07	8090.33	0.23	
		574.54		3.46	262.11	27.29	0.000542
	0.11688	183476.84					
1972.00	130.00	4499.52	9.56	4.06	8008.81	0.23	
		572.46		3.44	261.49	27.34	0.000548
	0.11775	183046.25					

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		HYCHAN.OUT					
1955.62	131.00	4499.48	9.52	4.05	7919.56	0.23	
	0.11806	570.31	3.43		260.86	27.39	0.000552
1984.55	132.00	4499.55	9.60	4.07	8086.34	0.23	
	0.11533	574.15	3.46		262.00	27.30	0.000535
2018.62	133.00	4499.63	9.68	4.09	8266.10	0.23	
	0.11603	578.73	3.49		263.35	27.20	0.000533
2019.83	134.00	4499.64	9.69	4.09	8269.62	0.23	
	0.11612	578.96	3.49		263.42	27.20	0.000533
2019.94	135.00	4499.64	9.69	4.09	8270.22	0.23	
	0.11612	578.97	3.49		263.42	27.20	0.000533
2019.90	136.00	4499.64	9.69	4.09	8270.02	0.23	
	0.11605	578.97	3.49		263.42	27.20	0.000533
2019.87	137.00	4499.64	9.69	4.09	8269.86	0.23	
	0.11610	578.96	3.49		263.42	27.20	0.000533
2019.91	138.00	4499.64	9.69	4.09	8270.05	0.23	
	0.11610	578.96	3.49		263.42	27.20	0.000533
2019.77	139.00	4499.64	9.69	4.09	8269.30	0.23	
	0.11602	578.95	3.49		263.41	27.20	0.000533
2004.34	140.00	4499.60	9.65	4.08	8184.93	0.23	
	0.11710	576.81	3.47		262.78	27.24	0.000540
1987.32	141.00	4499.55	9.60	4.07	8092.78	0.23	
	0.11696	574.60	3.46		262.13	27.29	0.000542
1986.98	142.00	4499.55	9.60	4.07	8090.98	0.23	
	0.11688	574.56	3.46		262.12	27.29	0.000542
1986.93	143.00	4499.55	9.60	4.07	8090.70	0.23	
	0.11698	574.55	3.46		262.11	27.29	0.000542
1986.91	144.00	4499.55	9.60	4.07	8090.61	0.23	
	0.11676	574.54	3.46		262.11	27.29	0.000541
1972.05	145.00	4499.52	9.56	4.06	8009.07	0.23	
	0.11795	572.46	3.44		261.50	27.34	0.000549
1955.41	146.00	4499.47	9.52	4.05	7918.45	0.23	
	0.11762	570.28	3.43		260.85	27.39	0.000550
1955.13	147.00	4499.47	9.52	4.05	7916.95	0.23	
	0.11773	570.24	3.43		260.84	27.39	0.000550
1955.15	148.00	4499.47	9.52	4.05	7917.07	0.23	
	0.11771	570.25	3.43		260.84	27.39	0.000550
1955.15	149.00	4499.47	9.52	4.05	7917.09	0.23	
	0.11773	570.25	3.43		260.84	27.39	0.000550
1955.04	150.00	4499.47	9.52	4.05	7916.45	0.23	
	0.11763	570.23	3.43		260.83	27.39	0.000550
1945.22	151.00	4499.45	9.50	4.04	7862.46	0.23	
	0.11829	568.84	3.42		260.42	27.42	0.000554
		182293.89					

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		HYCHAN.OUT				
1929.26	152.00	4499.41	9.46	4.03	7774.91	0.23
		566.68		3.40	259.78	27.47
	0.11858	181843.33				0.000558
1923.51	153.00	4499.39	9.44	4.03	7743.36	0.23
		565.91		3.40	259.55	27.49
	0.11856	181684.67				0.000559
1923.32	154.00	4499.39	9.44	4.03	7742.35	0.23
		565.89		3.40	259.54	27.49
	0.11828	181679.17				0.000558
1908.99	155.00	4499.35	9.40	4.01	7663.21	0.23
		563.84		3.39	258.93	27.53
	0.11952	181251.14				0.000566
1920.77	156.00	4499.39	9.44	4.03	7734.38	0.23
		565.51		3.40	259.43	27.49
	0.11710	181600.84				0.000552
1954.31	157.00	4499.47	9.52	4.05	7913.27	0.23
		570.13		3.43	260.80	27.39
	0.11768	182562.33				0.000550
1955.16	158.00	4499.47	9.52	4.05	7917.12	0.23
		570.25		3.43	260.84	27.39
	0.11778	182586.56				0.000551
1955.16	159.00	4499.47	9.52	4.05	7917.14	0.23
		570.25		3.43	260.84	27.39
	0.11786	182587.08				0.000551
1955.12	160.00	4499.47	9.52	4.05	7916.89	0.23
		570.25		3.43	260.84	27.39
	0.11765	182586.28				0.000550
1955.16	161.00	4499.47	9.52	4.05	7917.14	0.23
		570.25		3.43	260.84	27.39
	0.11768	182587.09				0.000550
1955.13	162.00	4499.47	9.52	4.05	7916.98	0.23
		570.24		3.43	260.84	27.39
	0.11770	182585.92				0.000550
1955.12	163.00	4499.47	9.52	4.05	7916.90	0.23
		570.24		3.43	260.84	27.39
	0.11779	182585.91				0.000551
1955.02	164.00	4499.47	9.52	4.05	7916.34	0.23
		570.23		3.43	260.83	27.39
	0.11760	182582.34				0.000550
1940.28	165.00	4499.43	9.48	4.04	7835.21	0.23
		568.14		3.42	260.21	27.44
	0.11862	182148.12				0.000557
1923.75	166.00	4499.39	9.44	4.03	7744.64	0.23
		565.94		3.40	259.56	27.49
	0.11839	181690.30				0.000558
1923.45	167.00	4499.39	9.44	4.03	7743.05	0.23
		565.91		3.40	259.55	27.49
	0.11845	181683.78				0.000559
1923.42	168.00	4499.39	9.44	4.03	7742.85	0.23
		565.90		3.40	259.55	27.49
	0.11841	181682.33				0.000558
1923.45	169.00	4499.39	9.44	4.03	7743.05	0.23
		565.91		3.40	259.55	27.49
	0.11841	181683.62				0.000558
1923.45	170.00	4499.39	9.44	4.03	7743.06	0.23
		565.91		3.40	259.55	27.49
	0.11855	181683.61				0.000559
1923.44	171.00	4499.39	9.44	4.03	7743.00	0.23
		565.91		3.40	259.55	27.49
	0.11834	181683.41				0.000558
1923.33	172.00	4499.39	9.44	4.03	7742.40	0.23
		565.89		3.40	259.54	27.49
	0.11830	181678.95				0.000558

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		HYCHAN.OUT					
1908.65	173.00	4499.35	9.40	4.01	7661.30	0.23	
	0.11927	563.78	3.39		258.91	27.53	0.000565
1892.23	174.00	4499.31	9.36	4.00	7570.83	0.23	
	0.11899	561.58	3.37		258.26	27.58	0.000566
1891.91	175.00	4499.31	9.36	4.00	7569.08	0.23	
	0.11906	561.54	3.37		258.25	27.59	0.000566
1891.87	176.00	4499.31	9.36	4.00	7568.89	0.23	
	0.11900	561.54	3.37		258.24	27.59	0.000566
1891.94	177.00	4499.31	9.36	4.00	7569.29	0.23	
	0.11894	561.54	3.37		258.25	27.58	0.000566
1891.81	178.00	4499.31	9.36	4.00	7568.53	0.23	
	0.11911	561.53	3.37		258.24	27.59	0.000567
1892.12	179.00	4499.31	9.36	4.00	7570.22	0.23	
	0.11930	561.58	3.37		258.26	27.58	0.000567
1920.59	180.00	4499.39	9.44	4.03	7733.77	0.23	
	0.11667	565.49	3.40		259.42	27.50	0.000551
1954.21	181.00	4499.47	9.52	4.05	7913.10	0.23	
	0.11777	570.11	3.43		260.80	27.39	0.000551
1969.40	182.00	4499.51	9.56	4.06	8000.17	0.23	
	0.11647	572.13	3.44		261.40	27.35	0.000542
1986.43	183.00	4499.55	9.60	4.07	8088.61	0.23	
	0.11688	574.47	3.46		262.09	27.29	0.000542
1986.99	184.00	4499.55	9.60	4.07	8091.06	0.23	
	0.11682	574.56	3.46		262.12	27.29	0.000541
1986.94	185.00	4499.55	9.60	4.07	8090.78	0.23	
	0.11702	574.55	3.46		262.11	27.29	0.000542
1987.02	186.00	4499.55	9.60	4.07	8091.21	0.23	
	0.11691	574.56	3.46		262.12	27.29	0.000542
1987.00	187.00	4499.55	9.60	4.07	8091.14	0.23	
	0.11691	574.56	3.46		262.12	27.29	0.000542
1986.95	188.00	4499.55	9.60	4.07	8090.83	0.23	
	0.11695	574.55	3.46		262.12	27.29	0.000542
1986.99	189.00	4499.55	9.60	4.07	8091.03	0.23	
	0.11701	574.56	3.46		262.12	27.29	0.000542
1986.92	190.00	4499.55	9.60	4.07	8090.67	0.23	
	0.11676	574.54	3.46		262.11	27.29	0.000541
1971.94	191.00	4499.51	9.56	4.06	8008.50	0.23	
	0.11800	572.45	3.44		261.49	27.34	0.000549
1955.42	192.00	4499.47	9.52	4.05	7918.48	0.23	
	0.11771	570.28	3.43		260.85	27.39	0.000550
1955.17	193.00	4499.47	9.52	4.05	7917.20	0.23	
	0.11777	570.25	3.43		260.84	27.39	0.000550
		182587.41					

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HYCHAN.OUT									
194.00	4499.47	9.52	4.05	7917.12	0.23				
1955.16	570.25	3.43	260.84	27.39	0.000550				
0.11766	182586.98								
195.00	4499.47	9.52	4.05	7916.79	0.23				
1955.10	570.24	3.43	260.84	27.39	0.000550				
0.11777	182585.33								
196.00	4499.47	9.52	4.05	7917.11	0.23				
1955.15	570.25	3.43	260.84	27.39	0.000551				
0.11784	182586.45								
197.00	4499.47	9.52	4.05	7917.15	0.23				
1955.16	570.25	3.43	260.84	27.39	0.000550				
0.11771	182587.27								
198.00	4499.47	9.52	4.05	7916.92	0.23				
1955.12	570.24	3.43	260.84	27.39	0.000550				
0.11777	182586.00								
199.00	4499.47	9.52	4.05	7916.92	0.23				
1955.12	570.24	3.43	260.84	27.39	0.000550				
0.11773	182585.72								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1059

MAXIMUM DISCHARGE (CFS) = 17048.29 AT TIME = 80.57  
 MAXIMUM STAGE = 4506.68 AT TIME = 80.57

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)			
0.00	0.00	4489.25	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4489.25	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4489.25	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1349.85	3.00	4495.67	6.42	3.26	4399.57	0.23		
		233.27	5.79	117.08	18.24			0.002960
	1.06866	70246.19						
1483.87	4.00	4497.14	7.89	3.69	5468.62	0.23		
		295.36	5.02	147.18	18.65			0.002970
	0.93119	88305.33						
1467.19	5.00	4497.09	7.84	3.67	5379.73	0.23		
		293.21	5.00	146.14	18.64			0.002975
	0.92892	87682.17						
1455.40	6.00	4497.06	7.81	3.65	5317.82	0.23		
		291.78	4.99	145.44	18.63			0.002986
	0.92927	87266.90						
1427.53	7.00	4496.98	7.73	3.62	5169.48	0.23		
		288.27	4.95	143.75	18.61			0.003002
	0.92757	86249.26						
1399.50	8.00	4496.89	7.64	3.59	5020.25	0.23		
		284.70	4.92	142.02	18.59			0.003017
	0.92547	85214.14						
1369.30	9.00	4496.80	7.55	3.56	4872.79	0.23		
		280.71	4.88	140.09	18.56			0.003032
	0.92286	84056.09						
	10.00	4496.73	7.48	3.54	4775.34	0.23		

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				HYCHAN.OUT			
1348.84		277.92		4.85	138.74	18.54	0.003038
	0.91995	83246.42					
	11.00	4496.70	7.45	3.53	4719.86	0.23	
1337.05		276.42		4.84	138.01	18.53	0.003046
	0.91933	82808.43					
	12.00	4496.60	7.35	3.50	4573.79	0.23	
1306.36		272.35		4.80	136.04	18.51	0.003061
	0.91608	81626.48					
	13.00	4496.53	7.28	3.48	4472.75	0.23	
1285.41		269.47		4.77	134.65	18.49	0.003068
	0.91333	80790.16					
	14.00	4496.53	7.28	3.48	4469.05	0.23	
1284.69		269.35		4.77	134.59	18.49	0.003069
	0.91328	80755.50					
	15.00	4496.53	7.28	3.48	4468.98	0.23	
1284.68		269.35		4.77	134.59	18.49	0.003068
	0.91323	80754.98					
	16.00	4496.53	7.28	3.48	4469.00	0.23	
1284.68		269.35		4.77	134.59	18.49	0.003068
	0.91323	80755.38					
	17.00	4496.53	7.28	3.48	4468.97	0.23	
1284.67		269.35		4.77	134.59	18.49	0.003069
	0.91329	80755.05					
	18.00	4496.56	7.31	3.49	4519.49	0.23	
1295.34		270.70		4.79	135.25	18.50	0.003060
	0.91363	81147.06					
	19.00	4496.66	7.41	3.52	4669.30	0.23	
1326.61		274.86		4.83	137.26	18.52	0.003044
	0.91688	82358.09					
	20.00	4496.76	7.51	3.55	4822.94	0.23	
1358.85		279.16		4.87	139.34	18.55	0.003029
	0.92005	83606.21					
	21.00	4496.83	7.58	3.57	4921.40	0.23	
1379.52		281.99		4.89	140.71	18.57	0.003023
	0.92278	84425.77					
	22.00	4496.83	7.58	3.57	4923.90	0.23	
1380.07		282.07		4.89	140.75	18.57	0.003023
	0.92305	84450.23					
	23.00	4496.86	7.61	3.58	4979.78	0.23	
1391.71		283.54		4.91	141.46	18.58	0.003014
	0.92314	84875.93					
	24.00	4496.98	7.73	3.62	5192.75	0.23	
1432.49		288.67		4.96	143.94	18.61	0.002986
	0.92460	86363.66					
	25.00	4497.16	7.91	3.69	5499.99	0.23	
1490.14		295.95		5.04	147.46	18.65	0.002954
	0.92814	88474.43					
	26.00	4497.33	8.08	3.75	5808.41	0.23	
1548.49		303.29		5.11	151.00	18.70	0.002923
	0.93112	90601.52					
	27.00	4497.43	8.18	3.78	5982.00	0.23	
1581.48		307.53		5.14	153.05	18.72	0.002915
	0.93552	91830.12					
	28.00	4497.43	8.18	3.78	5985.12	0.23	
1582.08		307.62		5.14	153.09	18.72	0.002916
	0.93580	91855.44					
	29.00	4497.47	8.22	3.80	6057.89	0.23	
1596.08		309.30		5.16	153.90	18.73	0.002904
	0.93505	92342.41					
	30.00	4497.52	8.27	3.81	6150.62	0.23	
1613.84		311.57		5.18	155.00	18.74	0.002900
	0.93722	92998.44					
	31.00	4497.52	8.27	3.81	6152.44	0.23	

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				HYCHAN.OUT			
1614.19		311.62		5.18	155.02	18.74	0.002900
	0.93745	93012.78					
32.00		4497.56	8.31		3.82	6229.31	0.23
1629.01		313.40		5.20		155.88	18.75
	0.93677	93527.95					0.002888
33.00		4497.62	8.37		3.84	6324.58	0.23
1647.39		315.74		5.22		157.01	18.77
	0.93893	94203.28					0.002884
34.00		4497.62	8.37		3.84	6325.54	0.23
1647.59		315.77		5.22		157.02	18.77
	0.93884	94212.46					0.002884
35.00		4497.58	8.33		3.83	6248.85	0.23
1632.78		313.99		5.20		156.16	18.76
	0.93959	93697.86					0.002896
36.00		4497.52	8.27		3.81	6153.26	0.23
1614.35		311.65		5.18		155.04	18.74
	0.93718	93021.35					0.002899
37.00		4497.48	8.23		3.80	6078.82	0.23
1600.02		309.92		5.16		154.20	18.73
	0.93781	92519.85					0.002911
38.00		4497.43	8.18		3.78	5986.57	0.23
1582.36		307.66		5.14		153.11	18.72
	0.93569	91867.87					0.002916
39.00		4497.43	8.18		3.78	5984.97	0.23
1582.05		307.62		5.14		153.09	18.72
	0.93559	91854.62					0.002915
40.00		4497.43	8.18		3.78	5985.06	0.23
1582.07		307.62		5.14		153.09	18.72
	0.93561	91855.28					0.002915
41.00		4497.43	8.18		3.78	5985.10	0.23
1582.08		307.62		5.14		153.09	18.72
	0.93545	91855.48					0.002915
42.00		4497.43	8.18		3.78	5985.19	0.23
1582.10		307.62		5.14		153.09	18.72
	0.93563	91855.70					0.002915
43.00		4497.47	8.22		3.80	6058.10	0.23
1596.12		309.31		5.16		153.91	18.73
	0.93498	92343.90					0.002904
44.00		4497.52	8.27		3.81	6151.01	0.23
1613.91		311.58		5.18		155.00	18.74
	0.93750	93000.74					0.002901
45.00		4497.56	8.31		3.82	6229.59	0.23
1629.07		313.41		5.20		155.88	18.75
	0.93685	93529.43					0.002888
46.00		4497.66	8.41		3.85	6403.71	0.23
1662.71		317.57		5.24		157.89	18.78
	0.93877	94733.81					0.002873
47.00		4497.76	8.51		3.88	6577.56	0.23
1696.49		321.74		5.27		159.90	18.80
	0.94034	95939.85					0.002858
48.00		4497.85	8.60		3.90	6752.01	0.23
1730.58		325.94		5.31		161.92	18.82
	0.94205	97151.67					0.002843
49.00		4497.94	8.69		3.92	6918.26	0.23
1763.27		329.94		5.34		163.85	18.84
	0.94359	98307.30					0.002830
50.00		4498.05	8.80		3.95	7099.13	0.23
1799.04		334.30		5.38		165.94	18.87
	0.94561	99566.50					0.002816
51.00		4498.18	8.93		3.98	7347.50	0.23
1848.40		340.24		5.43		168.80	18.90
	0.94627	101280.77					0.002791
52.00		4498.29	9.04		4.00	7540.07	0.23

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1886.65		344.89		5.47	171.04	18.92	0.002786
	0.95096	102624.50					
53.00		4498.33	9.08	4.01	7626.64	0.23	
1902.17		346.68		5.49	171.90	18.93	0.002773
	0.94954	103139.26					
54.00		4498.50	9.25	4.06	7981.84	0.24	
1965.02		354.06		5.55	175.45	18.97	0.002730
	0.94530	105267.95					
55.00		4498.83	9.58	4.15	8665.94	0.24	
2090.22		368.47		5.67	182.37	19.04	0.002667
	0.94392	109419.09					
56.00		4499.30	10.05	4.24	9635.00	0.24	
2273.32		389.26		5.84	192.33	19.14	0.002612
	0.95194	115398.63					
57.00		4500.54	11.29	3.99	10874.78	0.21	
2727.06		444.71		6.13	218.83	19.38	0.002775
	1.06201	131297.53					
58.00		4502.14	12.89	3.61	12093.80	0.18	
3349.56		507.61		6.60	253.26	19.65	0.002720
	1.12006	151956.66					
59.00		4503.01	13.76	3.60	13110.40	0.17	
3638.33		509.36		7.14	272.39	19.79	0.002689
	1.19848	163434.47					
60.00		4503.51	14.26	3.76	14198.26	0.18	
3777.31		510.36		7.40	283.35	19.87	0.002648
	1.22313	170011.86					
61.00		4503.94	14.69	3.90	15158.60	0.18	
3889.22		511.21		7.61	292.71	19.93	0.002528
	1.20030	175628.73					
62.00		4504.40	15.15	3.93	15780.12	0.18	
4012.47		512.15		7.83	303.06	20.00	0.002533
	1.23842	181838.41					
63.00		4504.88	15.63	3.94	16285.12	0.18	
4135.51		513.09		8.06	313.50	20.06	0.002529
	1.27175	188099.91					
64.00		4505.20	15.95	3.95	16658.26	0.17	
4221.09		513.74		8.22	320.72	20.11	0.002533
	1.29864	192431.66					
65.00		4505.54	16.29	3.96	17062.26	0.17	
4311.11		514.41		8.38	328.23	20.15	0.002515
	1.31504	196937.45					
66.00		4505.71	16.46	3.96	17243.31	0.17	
4356.05		514.76		8.46	332.08	20.18	0.002504
	1.32197	199246.97					
67.00		4505.74	16.49	3.96	17271.41	0.17	
4363.64		514.82		8.48	332.71	20.18	0.002499
	1.32185	199626.30					
68.00		4505.74	16.49	3.96	17275.89	0.17	
4364.42		514.82		8.48	332.79	20.18	0.002498
	1.32168	199676.78					
69.00		4505.75	16.50	3.96	17282.39	0.17	
4365.68		514.83		8.48	332.91	20.18	0.002496
	1.32083	199744.78					
70.00		4505.75	16.50	3.96	17292.62	0.17	
4367.52		514.85		8.48	333.09	20.18	0.002494
	1.32006	199852.23					
71.00		4505.76	16.51	3.96	17296.06	0.17	
4367.80		514.85		8.48	333.14	20.18	0.002494
	1.32048	199883.73					
72.00		4505.75	16.50	3.96	17290.32	0.17	
4366.91		514.84		8.48	333.04	20.18	0.002496
	1.32126	199823.14					
73.00		4505.80	16.55	3.96	17357.00	0.17	

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4378.48		514.94		8.50	334.06	20.19	0.002480
	1.31572	200435.25					
74.00		4505.89	16.64	3.97	17480.00	0.17	
4403.00		515.12		8.55	336.14	20.20	0.002465
	1.31486	201685.34					
75.00		4505.91	16.66	3.97	17508.92	0.17	
4408.27		515.16		8.56	336.59	20.20	0.002464
	1.31547	201951.02					
76.00		4505.95	16.70	3.98	17569.48	0.17	
4417.47		515.23		8.57	337.37	20.21	0.002456
	1.31414	202419.22					
77.00		4506.10	16.85	4.00	17811.49	0.17	
4457.23		515.54		8.65	340.78	20.23	0.002434
	1.31322	204466.59					
78.00		4506.31	17.06	4.02	18148.67	0.17	
4511.50		515.95		8.74	345.45	20.25	0.002409
	1.31431	207271.91					
79.00		4506.46	17.21	4.04	18387.51	0.17	
4551.81		516.26		8.82	348.90	20.27	0.002400
	1.32017	209339.91					
80.00		4506.63	17.38	4.06	18652.72	0.17	
4595.16		516.59		8.90	352.61	20.29	0.002390
	1.32668	211566.69					
81.00		4506.76	17.51	4.07	18852.62	0.17	
4630.72		516.86		8.96	355.67	20.31	0.002376
	1.32829	213400.88					
82.00		4506.71	17.46	4.06	18769.10	0.17	
4618.18		516.77		8.94	354.60	20.30	0.002376
	1.32477	212761.47					
83.00		4506.61	17.36	4.05	18602.39	0.17	
4589.96		516.55		8.89	352.18	20.29	0.002386
	1.32311	211307.16					
84.00		4506.58	17.33	4.05	18565.84	0.17	
4583.10		516.50		8.87	351.59	20.29	0.002389
	1.32253	210955.25					
85.00		4506.58	17.33	4.05	18568.75	0.17	
4583.56		516.50		8.87	351.63	20.29	0.002387
	1.32172	210978.02					
86.00		4506.58	17.33	4.05	18559.69	0.17	
4583.03		516.50		8.87	351.62	20.29	0.002378
	1.31648	210970.80					
87.00		4506.44	17.19	4.03	18312.83	0.17	
4545.88		516.22		8.81	348.41	20.27	0.002378
	1.30671	209043.48					
88.00		4506.03	16.78	3.98	17657.88	0.17	
4439.08		515.39		8.61	339.18	20.22	0.002447
	1.31539	203505.19					
89.00		4505.32	16.07	3.91	16663.18	0.17	
4259.54		513.98		8.29	323.41	20.12	0.002466
	1.27504	194047.80					
90.00		4504.43	15.18	3.90	15694.10	0.18	
4020.84		512.20		7.85	303.65	20.00	0.002473
	1.21154	182188.77					
91.00		4503.87	14.62	3.86	14964.08	0.18	
3874.76		511.09		7.58	291.33	19.92	0.002620
	1.23962	174797.34					
92.00		4503.47	14.22	3.72	14036.83	0.17	
3768.30		510.28		7.38	282.44	19.86	0.002652
	1.22193	169464.28					
93.00		4503.09	13.84	3.60	13192.75	0.17	
3660.59		509.52		7.18	274.13	19.81	0.002666
	1.19503	164477.67					
94.00		4502.70	13.45	3.51	12483.35	0.17	

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3551.90		508.74		6.98	265.58	19.74	0.002585
	1.12627	159348.09					
95.00		4502.08	12.83	3.56	11930.68	0.18	
3352.32		507.49		6.61	251.97	19.64	0.002764
	1.13930	151179.38					
96.00		4501.39	12.14	3.73	11402.64	0.19	
3059.12		482.88		6.34	237.02	19.53	0.002693
	1.06442	142209.31					
97.00		4500.73	11.48	3.89	10920.31	0.20	
2805.86		453.26		6.19	222.91	19.41	0.002646
	1.02220	133746.06					
98.00		4500.19	10.94	4.03	10509.23	0.21	
2606.06		428.72		6.08	211.20	19.31	0.002608
	0.98913	126720.31					
99.00		4499.74	10.49	4.18	10180.85	0.23	
2438.51		408.74		5.97	201.65	19.23	0.002589
	0.96396	120989.61					
100.00		4499.42	10.17	4.25	9851.60	0.23	
2320.28		394.55		5.88	194.86	19.16	0.002611
	0.95795	116918.07					
101.00		4499.24	9.99	4.22	9503.73	0.24	
2250.66		386.73		5.82	191.12	19.13	0.002633
	0.95603	114669.93					
102.00		4499.10	9.85	4.20	9217.91	0.24	
2196.36		380.61		5.77	188.18	19.10	0.002653
	0.95544	112910.55					
103.00		4498.98	9.73	4.17	8972.57	0.24	
2149.98		375.35		5.73	185.66	19.07	0.002669
	0.95404	111397.78					
104.00		4498.89	9.64	4.15	8770.26	0.24	
2112.44		371.04		5.69	183.60	19.05	0.002689
	0.95532	110158.84					
105.00		4498.75	9.50	4.12	8478.11	0.24	
2058.83		364.89		5.64	180.64	19.02	0.002718
	0.95689	108385.78					
106.00		4498.60	9.35	4.08	8188.63	0.24	
2005.06		358.68		5.59	177.67	18.99	0.002735
	0.95394	106599.62					
107.00		4498.52	9.27	4.06	8010.12	0.24	
1972.25		354.89		5.56	175.85	18.97	0.002749
	0.95317	105507.93					
108.00		4498.43	9.18	4.04	7837.20	0.23	
1940.65		351.23		5.53	174.09	18.95	0.002764
	0.95298	104453.09					
109.00		4498.39	9.14	4.03	7745.35	0.23	
1923.88		349.24		5.51	173.13	18.94	0.002768
	0.95152	103879.05					
110.00		4498.43	9.18	4.04	7826.96	0.24	
1938.25		350.91		5.52	173.93	18.95	0.002757
	0.95009	104359.81					
111.00		4498.55	9.30	4.07	8082.56	0.24	
1983.84		356.27		5.57	176.51	18.98	0.002728
	0.94780	105903.58					
112.00		4498.60	9.35	4.08	8180.64	0.24	
2003.39		358.49		5.59	177.57	18.99	0.002735
	0.95380	106544.12					
113.00		4498.52	9.27	4.06	8011.61	0.24	
1972.52		354.92		5.56	175.86	18.97	0.002751
	0.95387	105515.08					
114.00		4498.55	9.30	4.07	8089.24	0.24	
1985.15		356.41		5.57	176.57	18.98	0.002725
	0.94716	105944.31					
115.00		4498.73	9.48	4.12	8460.60	0.24	

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2053.14	364.26	5.64	180.35	19.02	0.002692		
	0.94688 108207.10						
116.00	4498.79	9.54	4.13	8568.02	0.24		
2075.07	366.72	5.66	181.52	19.03	0.002705		
	0.95523 108913.24						
117.00	4498.74	9.49	4.12	8472.75	0.24		
2056.70	364.65	5.64	180.53	19.02	0.002703		
	0.95127 108318.35						
118.00	4498.74	9.49	4.12	8470.93	0.24		
2056.04	364.61	5.64	180.51	19.02	0.002705		
	0.95176 108305.47						
119.00	4498.79	9.54	4.13	8567.87	0.24		
2073.45	366.61	5.66	181.47	19.03	0.002690		
	0.94937 108881.14						
120.00	4498.84	9.59	4.14	8668.15	0.24		
2092.53	368.79	5.67	182.52	19.04	0.002690		
	0.95231 109510.58						
121.00	4498.84	9.59	4.14	8668.74	0.24		
2092.71	368.82	5.67	182.53	19.04	0.002690		
	0.95259 109518.34						
122.00	4498.79	9.54	4.13	8571.77	0.24		
2075.75	366.81	5.66	181.56	19.03	0.002705		
	0.95533 108938.59						
123.00	4498.74	9.49	4.12	8470.89	0.24		
2056.48	364.62	5.64	180.51	19.02	0.002709		
	0.95330 108308.33						
124.00	4498.69	9.44	4.11	8373.64	0.24		
2039.18	362.60	5.62	179.55	19.01	0.002721		
	0.95491 107727.60						
125.00	4498.64	9.39	4.09	8271.51	0.24		
2020.20	360.38	5.61	178.48	19.00	0.002724		
	0.95277 107088.89						
126.00	4498.64	9.39	4.09	8269.47	0.24		
2019.80	360.33	5.61	178.46	19.00	0.002723		
	0.95247 107075.31						
127.00	4498.60	9.35	4.08	8184.41	0.24		
2004.25	358.58	5.59	177.62	18.99	0.002735		
	0.95407 106569.90						
128.00	4498.56	9.31	4.07	8092.99	0.24		
1987.36	356.60	5.57	176.66	18.98	0.002738		
	0.95228 105998.82						
129.00	4498.56	9.31	4.07	8090.33	0.24		
1986.85	356.54	5.57	176.64	18.98	0.002738		
	0.95203 105981.66						
130.00	4498.52	9.27	4.06	8008.81	0.24		
1972.00	354.86	5.56	175.83	18.97	0.002749		
	0.95334 105497.58						
131.00	4498.47	9.22	4.05	7919.56	0.24		
1955.62	352.92	5.54	174.90	18.96	0.002754		
	0.95232 104940.05						
132.00	4498.55	9.30	4.07	8086.34	0.24		
1984.55	356.35	5.57	176.55	18.98	0.002725		
	0.94684 105927.03						
133.00	4498.64	9.39	4.09	8266.10	0.24		
2018.62	360.25	5.60	178.42	19.00	0.002724		
	0.95230 107051.05						
134.00	4498.64	9.39	4.09	8269.62	0.24		
2019.83	360.34	5.61	178.46	19.00	0.002724		
	0.95280 107075.53						
135.00	4498.64	9.39	4.09	8270.22	0.24		
2019.94	360.35	5.61	178.47	19.00	0.002724		
	0.95284 107079.25						
136.00	4498.64	9.39	4.09	8270.02	0.24		

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2019.90		360.34		5.61	178.46	19.00	0.002724
	0.95269	107077.91					
	137.00	4498.64	9.39	4.09	8269.86	0.24	
2019.87		360.34		5.61	178.46	19.00	0.002724
	0.95271	107077.16					
	138.00	4498.64	9.39	4.09	8270.05	0.24	
2019.91		360.34		5.61	178.46	19.00	0.002724
	0.95279	107078.21					
	139.00	4498.64	9.39	4.09	8269.30	0.24	
2019.77		360.33		5.61	178.46	19.00	0.002724
	0.95269	107074.13					
	140.00	4498.60	9.35	4.08	8184.93	0.24	
2004.34		358.59		5.59	177.62	18.99	0.002736
	0.95415	106573.28					
	141.00	4498.56	9.31	4.07	8092.78	0.24	
1987.32		356.59		5.57	176.66	18.98	0.002739
	0.95236	105997.45					
	142.00	4498.56	9.31	4.07	8090.98	0.24	
1986.98		356.55		5.57	176.64	18.98	0.002738
	0.95223	105984.89					
	143.00	4498.56	9.31	4.07	8090.70	0.24	
1986.93		356.54		5.57	176.64	18.98	0.002739
	0.95242	105983.42					
	144.00	4498.56	9.31	4.07	8090.61	0.24	
1986.91		356.54		5.57	176.64	18.98	0.002738
	0.95197	105983.00					
	145.00	4498.52	9.27	4.06	8009.07	0.24	
1972.05		354.87		5.56	175.83	18.97	0.002750
	0.95360	105499.79					
	146.00	4498.47	9.22	4.05	7918.45	0.24	
1955.41		352.90		5.54	174.89	18.96	0.002752
	0.95160	104933.79					
	147.00	4498.47	9.22	4.05	7916.95	0.24	
1955.13		352.87		5.54	174.87	18.96	0.002753
	0.95170	104923.57					
	148.00	4498.47	9.22	4.05	7917.07	0.24	
1955.15		352.87		5.54	174.87	18.96	0.002753
	0.95171	104924.31					
	149.00	4498.47	9.22	4.05	7917.09	0.24	
1955.15		352.87		5.54	174.87	18.96	0.002753
	0.95168	104924.24					
	150.00	4498.47	9.22	4.05	7916.45	0.24	
1955.04		352.86		5.54	174.87	18.96	0.002752
	0.95156	104920.69					
	151.00	4498.45	9.20	4.04	7862.46	0.23	
1945.22		351.75		5.53	174.34	18.96	0.002761
	0.95260	104601.23					
	152.00	4498.40	9.15	4.03	7774.91	0.23	
1929.26		349.88		5.51	173.44	18.95	0.002767
	0.95208	104063.85					
	153.00	4498.39	9.14	4.03	7743.36	0.23	
1923.51		349.20		5.51	173.11	18.94	0.002769
	0.95160	103866.30					
	154.00	4498.39	9.14	4.03	7742.35	0.23	
1923.32		349.18		5.51	173.10	18.94	0.002767
	0.95118	103859.84					
	155.00	4498.35	9.10	4.01	7663.21	0.23	
1908.99		347.55		5.49	172.32	18.94	0.002781
	0.95310	103390.77					
	156.00	4498.38	9.13	4.03	7734.38	0.23	
1920.77		348.91		5.50	172.97	18.94	0.002759
	0.94766	103784.08					
	157.00	4498.47	9.22	4.05	7913.27	0.24	

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		HYCHAN.OUT				
1954.31	352.78	5.54	174.83	18.96	0.002753	
0.95169	104898.18					
158.00	4498.47	9.22	4.05	7917.12	0.24	
1955.16	352.87	5.54	174.87	18.96	0.002753	
0.95187	104924.83					
159.00	4498.47	9.22	4.05	7917.14	0.24	
1955.16	352.87	5.54	174.87	18.96	0.002753	
0.95187	104924.73					
160.00	4498.47	9.22	4.05	7916.89	0.24	
1955.12	352.86	5.54	174.87	18.96	0.002753	
0.95173	104922.80					
161.00	4498.47	9.22	4.05	7917.14	0.24	
1955.16	352.87	5.54	174.87	18.96	0.002753	
0.95171	104924.53					
162.00	4498.47	9.22	4.05	7916.98	0.24	
1955.13	352.87	5.54	174.87	18.96	0.002752	
0.95161	104923.81					
163.00	4498.47	9.22	4.05	7916.90	0.24	
1955.12	352.87	5.54	174.87	18.96	0.002753	
0.95186	104923.16					
164.00	4498.47	9.22	4.05	7916.34	0.24	
1955.02	352.86	5.54	174.87	18.96	0.002752	
0.95156	104920.45					
165.00	4498.43	9.18	4.04	7835.21	0.23	
1940.28	351.19	5.52	174.07	18.95	0.002765	
0.95311	104439.19					
166.00	4498.39	9.14	4.03	7744.64	0.23	
1923.75	349.23	5.51	173.13	18.94	0.002767	
0.95122	103875.30					
167.00	4498.39	9.14	4.03	7743.05	0.23	
1923.45	349.19	5.51	173.11	18.94	0.002768	
0.95146	103863.91					
168.00	4498.39	9.14	4.03	7742.85	0.23	
1923.42	349.19	5.51	173.10	18.94	0.002767	
0.95120	103862.82					
169.00	4498.39	9.14	4.03	7743.05	0.23	
1923.45	349.19	5.51	173.11	18.94	0.002767	
0.95124	103863.88					
170.00	4498.39	9.14	4.03	7743.06	0.23	
1923.45	349.19	5.51	173.11	18.94	0.002769	
0.95162	103864.03					
171.00	4498.39	9.14	4.03	7743.00	0.23	
1923.44	349.19	5.51	173.11	18.94	0.002767	
0.95112	103863.41					
172.00	4498.39	9.14	4.03	7742.40	0.23	
1923.33	349.18	5.51	173.10	18.94	0.002767	
0.95099	103860.80					
173.00	4498.35	9.10	4.01	7661.30	0.23	
1908.65	347.51	5.49	172.30	18.94	0.002780	
0.95277	103379.99					
174.00	4498.30	9.05	4.00	7570.83	0.23	
1892.23	345.56	5.48	171.36	18.93	0.002782	
0.95065	102817.03					
175.00	4498.30	9.05	4.00	7569.08	0.23	
1891.91	345.52	5.48	171.34	18.93	0.002783	
0.95082	102805.05					
176.00	4498.30	9.05	4.00	7568.89	0.23	
1891.87	345.51	5.48	171.34	18.93	0.002783	
0.95072	102803.79					
177.00	4498.30	9.05	4.00	7569.29	0.23	
1891.94	345.52	5.48	171.34	18.93	0.002782	
0.95058	102806.08					
178.00	4498.30	9.05	4.00	7568.53	0.23	

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			HYCHAN.OUT				
1891.81		345.51		5.48	171.34	18.93	0.002784
	0.95106	102801.71					
179.00		4498.30	9.05	4.00	7570.22	0.23	
1892.12		345.54		5.48	171.35	18.93	0.002784
	0.95116	102810.56					
180.00		4498.38	9.13	4.03	7733.77	0.23	
1920.59		348.90		5.50	172.96	18.94	0.002755
	0.94621	103778.52					
181.00		4498.47	9.22	4.05	7913.10	0.24	
1954.21		352.77		5.54	174.83	18.96	0.002753
	0.95176	104896.96					
182.00		4498.51	9.26	4.06	8000.17	0.24	
1969.40		354.58		5.55	175.69	18.97	0.002741
	0.94999	105416.39					
183.00		4498.55	9.30	4.07	8088.61	0.24	
1986.43		356.50		5.57	176.62	18.98	0.002739
	0.95227	105969.21					
184.00		4498.56	9.31	4.07	8091.06	0.24	
1986.99		356.55		5.57	176.64	18.98	0.002738
	0.95210	105985.36					
185.00		4498.56	9.31	4.07	8090.78	0.24	
1986.94		356.55		5.57	176.64	18.98	0.002739
	0.95230	105983.71					
186.00		4498.56	9.31	4.07	8091.21	0.24	
1987.02		356.55		5.57	176.64	18.98	0.002738
	0.95229	105986.39					
187.00		4498.56	9.31	4.07	8091.14	0.24	
1987.00		356.55		5.57	176.64	18.98	0.002738
	0.95220	105985.94					
188.00		4498.56	9.31	4.07	8090.83	0.24	
1986.95		356.55		5.57	176.64	18.98	0.002738
	0.95229	105983.85					
189.00		4498.56	9.31	4.07	8091.03	0.24	
1986.99		356.55		5.57	176.64	18.98	0.002739
	0.95242	105985.41					
190.00		4498.56	9.31	4.07	8090.67	0.24	
1986.92		356.55		5.57	176.64	18.98	0.002738
	0.95195	105983.53					
191.00		4498.52	9.27	4.06	8008.50	0.24	
1971.94		354.85		5.56	175.83	18.97	0.002750
	0.95372	105496.30					
192.00		4498.47	9.22	4.05	7918.48	0.24	
1955.42		352.90		5.54	174.89	18.96	0.002753
	0.95190	104934.14					
193.00		4498.47	9.22	4.05	7917.20	0.24	
1955.17		352.87		5.54	174.88	18.96	0.002753
	0.95197	104925.12					
194.00		4498.47	9.22	4.05	7917.12	0.24	
1955.16		352.87		5.54	174.87	18.96	0.002753
	0.95174	104924.42					
195.00		4498.47	9.22	4.05	7916.79	0.24	
1955.10		352.86		5.54	174.87	18.96	0.002753
	0.95196	104922.45					
196.00		4498.47	9.22	4.05	7917.11	0.24	
1955.15		352.87		5.54	174.87	18.96	0.002754
	0.95207	104924.52					
197.00		4498.47	9.22	4.05	7917.15	0.24	
1955.16		352.87		5.54	174.87	18.96	0.002753
	0.95190	104924.57					
198.00		4498.47	9.22	4.05	7916.92	0.24	
1955.12		352.87		5.54	174.87	18.96	0.002753
	0.95192	104923.30					
199.00		4498.47	9.22	4.05	7916.92	0.24	

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1955.12                      352.87                      HYCHAN.OUT                      174.87                      18.96                      0.002753  
                                  0.95184                      104923.28                      5.54

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1084

MAXIMUM DISCHARGE (CFS) = 19399.70 AT TIME = 80.58  
 MAXIMUM STAGE = 4502.14 AT TIME = 80.68

AREA	TIME WETTED BED SHEAR STRESS (FT^2) (LB/FT^2)	ELEV. PERIMETER SURFACE AREA (FT) (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4483.84	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4483.84	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4483.84	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
835.50	3.00	4490.35	6.51	5.08	4240.41	0.35	0.006158
	3.71472	86.43	9.67	81.28	12.49		
909.88	4.00	4491.96	8.12	6.01	5470.97	0.37	0.006176
		107.76	8.44	100.76	12.41		
899.73	5.00	4491.90	8.06	5.98	5380.17	0.37	0.006182
	3.25428	51388.59	8.41	100.02	12.41		
893.08	6.00	4491.86	8.02	5.96	5320.17	0.37	0.006199
	3.24506	51012.20	8.39	99.55	12.42		
876.73	7.00	4491.76	7.92	5.90	5172.25	0.37	0.006222
	3.23845	50160.45	8.34	98.35	12.42		
860.21	8.00	4491.66	7.82	5.84	5023.09	0.37	0.006244
	3.22975	103.77	8.29	97.12	12.42		
841.86	9.00	4491.55	7.71	5.79	4875.95	0.37	0.006265
	3.21455	49533.57	8.22	95.86	12.43		
829.04	10.00	4491.48	7.64	5.76	4776.00	0.37	0.006271
	3.19920	102.38	8.18	94.97	12.43		
822.23	11.00	4491.44	7.60	5.74	4722.40	0.37	0.006286
	3.19630	48436.50	8.15	94.51	12.43		
803.83	12.00	4491.33	7.49	5.69	4576.93	0.37	0.006308
	3.18003	100.90	8.08	93.22	12.44		
790.82	13.00	4491.26	7.42	5.66	4473.42	0.37	0.006315
	3.16501	99.49	8.03	92.28	12.44		
790.27	14.00	4491.25	7.41	5.66	4469.05	0.37	0.006315
	3.16447	47061.32	8.03	92.23	12.44		
790.26	15.00	4491.25	7.41	5.66	4468.98	0.37	0.006315
		98.40	8.03	92.23	12.44		

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		HYCHAN.OUT					
	3.16438	47038.38					
790.26	16.00	4491.25	7.41	5.66	4469.01	0.37	
		98.40	8.03		92.23	12.44	0.006315
	3.16439	47038.53					
790.26	17.00	4491.25	7.41	5.66	4468.97	0.37	
		98.40	8.03		92.23	12.44	0.006315
	3.16435	47038.37					
796.28	18.00	4491.29	7.45	5.67	4516.94	0.37	
		98.86	8.05		92.65	12.44	0.006300
	3.16635	47250.64					
815.09	19.00	4491.40	7.56	5.72	4666.08	0.37	
		100.32	8.13		93.98	12.44	0.006278
	3.18307	47928.25					
834.65	20.00	4491.51	7.67	5.77	4819.67	0.37	
		101.80	8.20		95.33	12.43	0.006256
	3.20082	48618.67					
847.61	21.00	4491.58	7.74	5.81	4920.80	0.37	
		102.78	8.25		96.23	12.43	0.006250
	3.21590	49076.96					
848.01	22.00	4491.59	7.75	5.81	4923.89	0.37	
		102.82	8.25		96.26	12.43	0.006250
	3.21640	49092.71					
854.72	23.00	4491.62	7.78	5.82	4977.18	0.37	
		103.30	8.27		96.70	12.43	0.006233
	3.21813	49318.02					
878.47	24.00	4491.76	7.92	5.91	5187.49	0.37	
		105.19	8.35		98.42	12.42	0.006192
	3.22664	50196.58					
912.54	25.00	4491.97	8.13	6.02	5494.21	0.37	
		107.90	8.46		100.89	12.41	0.006145
	3.24280	51455.45					
947.36	26.00	4492.17	8.33	6.13	5802.68	0.37	
		110.57	8.57		103.32	12.40	0.006098
	3.26030	52693.43					
967.72	27.00	4492.29	8.45	6.18	5981.33	0.37	
		112.12	8.63		104.73	12.40	0.006089
	3.27943	53414.61					
968.15	28.00	4492.29	8.45	6.18	5985.09	0.37	
		112.16	8.63		104.77	12.40	0.006089
	3.27986	53431.78					
976.22	29.00	4492.33	8.49	6.20	6055.07	0.38	
		112.73	8.66		105.29	12.40	0.006069
	3.27928	53696.19					
987.20	30.00	4492.40	8.56	6.23	6150.26	0.38	
		113.54	8.69		106.03	12.39	0.006064
	3.28988	54073.77					
987.45	31.00	4492.40	8.56	6.23	6152.39	0.38	
		113.56	8.70		106.05	12.39	0.006064
	3.29015	54083.20					
996.05	32.00	4492.44	8.60	6.25	6226.35	0.38	
		114.16	8.73		106.59	12.39	0.006042
	3.28972	54359.68					
1007.44	33.00	4492.50	8.66	6.28	6324.23	0.38	
		114.99	8.76		107.34	12.39	0.006038
	3.30071	54744.02					
1007.60	34.00	4492.51	8.67	6.28	6325.62	0.38	
		115.00	8.76		107.35	12.39	0.006038
	3.30099	54750.81					
999.01	35.00	4492.46	8.62	6.26	6251.79	0.38	
		114.41	8.73		106.82	12.39	0.006059
	3.30136	54475.89					
987.60	36.00	4492.40	8.56	6.23	6153.70	0.38	
		113.58	8.70		106.06	12.39	0.006064

		HYCHAN.OUT					
	3.29018	54089.86					
979.28	37.00	4492.35	8.51	6.21	6081.60	0.38	
		112.99	8.67		105.52	12.39	0.006084
	3.29057	53816.88					
968.36	38.00	4492.29	8.45	6.18	5986.94	0.37	
		112.18	8.63		104.79	12.40	0.006089
	3.28009	53440.39					
968.13	39.00	4492.29	8.45	6.18	5984.96	0.37	
		112.16	8.63		104.77	12.40	0.006089
	3.27976	53431.26					
968.14	40.00	4492.29	8.45	6.18	5985.06	0.37	
		112.16	8.63		104.77	12.40	0.006089
	3.27980	53431.68					
968.15	41.00	4492.29	8.45	6.18	5985.10	0.37	
		112.16	8.63		104.77	12.40	0.006089
	3.27980	53431.71					
968.15	42.00	4492.29	8.45	6.18	5985.12	0.37	
		112.16	8.63		104.77	12.40	0.006089
	3.27980	53431.73					
976.25	43.00	4492.33	8.49	6.20	6055.29	0.38	
		112.73	8.66		105.29	12.40	0.006069
	3.27932	53697.08					
987.24	44.00	4492.40	8.56	6.23	6150.60	0.38	
		113.55	8.69		106.03	12.39	0.006064
	3.28995	54074.95					
996.07	45.00	4492.44	8.60	6.25	6226.55	0.38	
		114.16	8.73		106.59	12.39	0.006042
	3.28972	54360.26					
1016.36	46.00	4492.55	8.71	6.30	6400.30	0.38	
		115.60	8.79		107.89	12.39	0.006016
	3.30067	55025.23					
1036.83	47.00	4492.66	8.82	6.34	6574.13	0.38	
		117.02	8.86		109.19	12.38	0.005990
	3.31157	55684.89					
1057.55	48.00	4492.76	8.92	6.38	6748.57	0.38	
		118.43	8.93		110.47	12.38	0.005963
	3.32275	56340.43					
1077.45	49.00	4492.87	9.03	6.42	6914.73	0.38	
		119.77	9.00		111.68	12.37	0.005937
	3.33303	56958.85					
1099.28	50.00	4492.97	9.13	6.45	7095.56	0.38	
		121.21	9.07		112.99	12.37	0.005912
	3.34547	57626.10					
1129.26	51.00	4493.12	9.28	6.50	7341.02	0.38	
		123.13	9.17		114.73	12.37	0.005864
	3.35616	58513.21					
1153.01	52.00	4493.24	9.40	6.54	7539.30	0.38	
		124.71	9.25		116.17	12.36	0.005854
	3.37727	59244.62					
1162.11	53.00	4493.29	9.45	6.56	7623.54	0.38	
		125.33	9.27		116.73	12.36	0.005826
	3.37118	59533.79					
1200.16	54.00	4493.48	9.64	6.64	7971.97	0.38	
		127.91	9.38		119.07	12.35	0.005742
	3.36170	60725.36					
1275.67	55.00	4493.86	10.02	6.78	8650.75	0.38	
		132.88	9.60		123.58	12.34	0.005606
	3.35819	63025.54					
1387.26	56.00	4494.38	10.54	6.93	9611.10	0.38	
		139.78	9.92		129.82	12.32	0.005451
	3.37580	66208.59					
1695.23	57.00	4495.26	11.42	6.37	10796.67	0.33	
		151.54	11.19		140.44	12.29	0.005241

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	3.65865	71626.44					
6124.18	58.00	4496.79	12.95	1.96	11995.78	0.10	
		171.73	35.66		158.65	12.25	0.004760
	10.59137	80909.74					
0.00	59.00	4497.79	13.95	0.00	0.00	0.00	
		184.95	0.00	170.53	12.22		0.005287
	0.00000	86969.36					
0.00	60.00	4498.33	14.49	0.00	0.00	0.00	
		192.15	0.00	176.98	12.21		0.005272
	0.00000	90261.82					
0.00	61.00	4498.90	15.06	0.00	0.00	0.00	
		199.59	0.00	183.66	12.20		0.004954
	0.00000	93664.80					
0.00	62.00	4499.46	15.62	0.00	0.00	0.00	
		207.03	0.00	190.33	12.19		0.004839
	0.00000	97065.94					
0.00	63.00	4499.93	16.09	0.00	0.00	0.00	
		213.22	0.00	195.86	12.18		0.004745
	0.00000	99888.18					
0.00	64.00	4500.24	16.40	0.00	0.00	0.00	
		217.37	0.00	199.58	12.17		0.004659
	0.00000	101783.80					
0.00	65.00	4500.57	16.73	0.00	0.00	0.00	
		221.75	0.00	203.49	12.16		0.004594
	0.00000	103777.76					
0.00	66.00	4500.77	16.93	0.00	0.00	0.00	
		224.37	0.00	205.83	12.16		0.004563
	0.00000	104973.85					
0.00	67.00	4500.81	16.97	0.00	0.00	0.00	
		224.87	0.00	206.28	12.16		0.004558
	0.00000	105200.84					
0.00	68.00	4500.81	16.97	0.00	0.00	0.00	
		224.91	0.00	206.31	12.16		0.004556
	0.00000	105219.87					
0.00	69.00	4500.81	16.97	0.00	0.00	0.00	
		224.95	0.00	206.35	12.16		0.004554
	0.00000	105236.96					
0.00	70.00	4500.82	16.98	0.00	0.00	0.00	
		225.02	0.00	206.41	12.16		0.004551
	0.00000	105269.36					
0.00	71.00	4500.82	16.98	0.00	0.00	0.00	
		225.04	0.00	206.43	12.16		0.004552
	0.00000	105279.36					
0.00	72.00	4500.82	16.98	0.00	0.00	0.00	
		225.00	0.00	206.40	12.16		0.004555
	0.00000	105262.95					
0.00	73.00	4500.84	17.00	0.00	0.00	0.00	
		225.33	0.00	206.69	12.16		0.004532
	0.00000	105410.48					
0.00	74.00	4500.93	17.09	0.00	0.00	0.00	
		225.93	0.00	207.68	12.16		0.004503
	0.00000	105919.34					
0.00	75.00	4500.96	17.12	0.00	0.00	0.00	
		226.00	0.00	208.07	12.15		0.004503
	0.00000	106114.47					
0.00	76.00	4500.99	17.15	0.00	0.00	0.00	
		226.07	0.00	208.49	12.15		0.004482
	0.00000	106327.63					
0.00	77.00	4501.17	17.33	0.00	0.00	0.00	
		226.41	0.00	210.52	12.15		0.004421
	0.00000	107362.66					
0.00	78.00	4501.42	17.58	0.00	0.00	0.00	
		226.93	0.00	213.57	12.15		0.004355

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0.00000	108920.90						
79.00	4501.61	17.77	0.00	0.00	0.00		
0.00	227.29	0.00	215.72	12.14	0.00	0.004319	
0.00000	110018.35						
80.00	4501.78	17.94	0.00	0.00	0.00		
0.00	227.64	0.00	217.78	12.14	0.00	0.004278	
0.00000	111069.20						
81.00	4501.94	18.10	0.00	0.00	0.00		
0.00	227.97	0.00	219.69	12.14	0.00	0.004250	
0.00000	112040.02						
82.00	4501.91	18.07	0.00	0.00	0.00		
0.00	227.90	0.00	219.29	12.14	0.00	0.004263	
0.00000	111837.84						
83.00	4501.79	17.95	0.00	0.00	0.00		
0.00	227.66	0.00	217.87	12.14	0.00	0.004292	
0.00000	111113.24						
84.00	4501.75	17.91	0.00	0.00	0.00		
0.00	227.59	0.00	217.44	12.14	0.00	0.004295	
0.00000	110895.92						
85.00	4501.75	17.91	0.00	0.00	0.00		
0.00	227.59	0.00	217.45	12.14	0.00	0.004293	
0.00000	110901.59						
86.00	4501.76	17.92	0.00	0.00	0.00		
0.00	227.60	0.00	217.55	12.14	0.00	0.004283	
0.00000	110951.49						
87.00	4501.64	17.80	0.00	0.00	0.00		
0.00	227.35	0.00	216.07	12.14	0.00	0.004324	
0.00000	110194.00						
88.00	4501.18	17.34	0.00	0.00	0.00		
0.00	226.44	0.00	210.67	12.15	0.00	0.004487	
0.00000	107440.23						
89.00	4500.49	16.65	0.00	0.00	0.00		
0.00	220.63	0.00	202.49	12.16	0.00	0.004683	
0.00000	103268.10						
90.00	4499.60	15.76	0.00	0.00	0.00		
0.00	208.97	0.00	192.06	12.18	0.00	0.004870	
0.00000	97949.51						
91.00	4498.89	15.05	0.00	0.00	0.00		
0.00	199.55	0.00	183.62	12.20	0.00	0.005222	
0.00000	93647.87						
92.00	4498.34	14.50	0.00	0.00	0.00		
0.00	192.29	0.00	177.11	12.21	0.00	0.005237	
0.00000	90326.83						
93.00	4497.94	14.10	0.00	0.00	0.00		
0.00	186.96	0.00	172.33	12.22	0.00	0.005238	
0.00000	87887.33						
94.00	4497.61	13.77	0.00	0.00	0.00		
0.00	182.54	0.00	168.36	12.23	0.00	0.004629	
0.00000	85862.53						
95.00	4497.00	13.16	1.30	11956.20	0.06		
9212.62	174.44	52.81	161.08	12.24		0.005059	
16.67014	82152.92						
96.00	4495.95	12.11	5.93	11437.32	0.30		
1928.15	160.66	12.00	148.67	12.27		0.005186	
3.88417	75822.12						
97.00	4495.47	11.63	6.25	10944.16	0.32		
1750.55	154.28	11.35	142.92	12.29		0.005272	
3.73268	72888.15						
98.00	4495.09	11.25	6.55	10532.83	0.34		
1607.75	149.24	10.77	138.37	12.30		0.005351	
3.59735	70567.34						
99.00	4494.78	10.94	6.82	10195.28	0.36		
1494.75	145.11	10.30	134.64	12.31		0.005404	

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1416.34	100.00	3.47347	68667.52	10.69	9.99	6.96	9861.96	0.38	0.005485
		4494.53	141.82				131.67	12.32	
1373.58	101.00	3.41794	67150.00	10.50	9.86	6.92	9509.62	0.38	0.005539
		4494.34	139.24				129.33	12.32	
1340.50	102.00	3.40940	65959.47	10.34	9.77	6.88	9223.20	0.38	0.005588
		4494.18	137.18				127.47	12.33	
1312.26	103.00	3.40695	65010.90	10.21	9.69	6.84	8976.46	0.38	0.005622
		4494.04	135.39				125.85	12.33	
1289.34	104.00	3.40040	64184.87	10.09	9.63	6.81	8774.31	0.38	0.005657
		4493.93	133.93				124.52	12.34	
1256.87	105.00	3.39821	63507.66	9.94	9.53	6.75	8485.02	0.38	0.005720
		4493.78	131.83				122.63	12.34	
1224.28	106.00	3.40269	62539.30	9.77	9.44	6.69	8192.23	0.38	0.005755
		4493.61	129.65				120.65	12.35	
1204.57	107.00	3.39117	61530.10	9.67	9.39	6.65	8013.29	0.38	0.005784
		4493.51	128.31				119.44	12.35	
1185.64	108.00	3.38844	60912.43	9.57	9.33	6.61	7840.23	0.38	0.005814
		4493.41	127.01				118.26	12.35	
1175.32	109.00	3.38678	60311.98	9.52	9.31	6.59	7745.57	0.38	0.005819
		4493.36	126.28				117.59	12.36	
1183.87	110.00	3.37960	59972.87	9.56	9.33	6.61	7824.02	0.38	0.005793
		4493.40	126.85				118.11	12.35	
1211.58	111.00	3.37380	60235.86	9.70	9.41	6.67	8076.79	0.38	0.005737
		4493.54	128.72				119.81	12.35	
1223.25	112.00	3.36935	61101.21	9.77	9.44	6.69	8182.96	0.38	0.005755
		4493.60	129.57				120.57	12.35	
1204.69	113.00	3.39062	61493.23	9.67	9.39	6.65	8014.40	0.38	0.005784
		4493.51	128.32				119.44	12.35	
1212.32	114.00	3.38853	60914.48	9.71	9.41	6.67	8083.48	0.38	0.005738
		4493.54	128.77				119.85	12.35	
1253.39	115.00	3.37106	61125.04	9.91	9.53	6.74	8453.80	0.38	0.005669
		4493.75	131.50				122.33	12.34	
1266.40	116.00	3.37160	62387.02	9.98	9.56	6.77	8570.61	0.38	0.005690
		4493.82	132.43				123.17	12.34	
1255.47	117.00	3.39527	62814.61	9.93	9.53	6.75	8473.03	0.38	0.005693
		4493.77	131.70				122.50	12.34	
1255.22	118.00	3.38684	62476.84	9.92	9.53	6.75	8470.86	0.38	0.005691
		4493.76	131.68				122.49	12.34	
1265.72	119.00	3.38538	62468.06	9.97	9.56	6.77	8564.51	0.38	0.005663
		4493.81	132.34				123.09	12.34	
1277.31	120.00	3.37967	62775.18	10.03	9.60	6.79	8667.80	0.38	0.005663
		4493.87	133.12				123.79	12.34	

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1277.46	3.39086	63134.22	10.03	9.60	6.79	8669.18	0.38	0.005659
	121.00	4493.87				123.80	12.34	
	3.38851	63140.24						
1266.88	122.00	4493.82	9.98	9.56	6.77	8574.85	0.38	0.005690
		132.46				123.20	12.34	
	3.39569	62831.00						
1255.29	123.00	4493.77	9.93	9.53	6.75	8471.44	0.38	0.005696
		131.69				122.49	12.34	
	3.38826	62472.32						
1244.75	124.00	4493.71	9.87	9.50	6.73	8376.80	0.38	0.005724
		131.01				121.88	12.34	
	3.39373	62158.50						
1233.08	125.00	4493.65	9.81	9.47	6.71	8271.84	0.38	0.005729
		130.21				121.16	12.35	
	3.38512	61791.43						
1232.83	126.00	4493.65	9.81	9.47	6.71	8269.59	0.38	0.005729
		130.19				121.14	12.35	
	3.38489	61782.81						
1223.73	127.00	4493.61	9.77	9.44	6.69	8187.25	0.38	0.005755
		129.60				120.61	12.35	
	3.39092	61509.52						
1213.35	128.00	4493.55	9.71	9.41	6.67	8093.31	0.38	0.005759
		128.89				119.96	12.35	
	3.38333	61178.60						
1213.04	129.00	4493.55	9.71	9.41	6.67	8090.48	0.38	0.005760
		128.86				119.94	12.35	
	3.38323	61168.07						
1204.37	130.00	4493.51	9.67	9.39	6.65	8011.51	0.38	0.005784
		128.29				119.42	12.35	
	3.38848	60903.88						
1194.30	131.00	4493.46	9.62	9.36	6.63	7919.67	0.38	0.005789
		127.59				118.78	12.35	
	3.38131	60578.11						
1212.01	132.00	4493.54	9.70	9.41	6.67	8080.65	0.38	0.005735
		128.75				119.83	12.35	
	3.36909	61114.67						
1232.37	133.00	4493.65	9.81	9.47	6.71	8265.52	0.38	0.005728
		130.16				121.11	12.35	
	3.38441	61766.62						
1232.83	134.00	4493.65	9.81	9.47	6.71	8269.63	0.38	0.005729
		130.19				121.14	12.35	
	3.38493	61782.64						
1232.89	135.00	4493.65	9.81	9.47	6.71	8270.22	0.38	0.005729
		130.20				121.15	12.35	
	3.38505	61784.67						
1232.87	136.00	4493.65	9.81	9.47	6.71	8270.00	0.38	0.005728
		130.20				121.14	12.35	
	3.38484	61783.86						
1232.86	137.00	4493.65	9.81	9.47	6.71	8269.89	0.38	0.005729
		130.20				121.14	12.35	
	3.38489	61783.60						
1232.88	138.00	4493.65	9.81	9.47	6.71	8270.07	0.38	0.005729
		130.20				121.15	12.35	
	3.38517	61784.29						
1232.80	139.00	4493.65	9.81	9.47	6.71	8269.40	0.38	0.005729
		130.19				121.14	12.35	
	3.38507	61782.13						
1223.79	140.00	4493.61	9.77	9.44	6.69	8187.81	0.38	0.005755
		129.61				120.61	12.35	
	3.39093	61511.47						
1213.32	141.00	4493.55	9.71	9.41	6.67	8093.09	0.38	0.005760
		128.89				119.96	12.35	

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1213.09	3.38337	61177.88	9.71	6.67	8090.96	0.38	0.005759
142.00	4493.55	128.87	9.41	119.94	12.35		
1213.07	3.38292	61169.32	9.71	6.67	8090.75	0.38	0.005760
143.00	4493.55	128.87	9.41	119.94	12.35		
1213.06	3.38321	61168.80	9.71	6.67	8090.68	0.38	0.005759
144.00	4493.55	128.87	9.41	119.94	12.35		
1204.41	3.38305	61168.63	9.67	6.65	8011.89	0.38	0.005785
145.00	4493.51	128.30	9.39	119.42	12.35		
1194.19	3.38888	60905.64	9.62	6.63	7918.69	0.38	0.005789
146.00	4493.46	127.58	9.36	118.77	12.35		
1194.00	3.38122	60574.94	9.61	6.63	7916.96	0.38	0.005789
147.00	4493.45	127.57	9.36	118.76	12.35		
1194.01	3.38124	60568.01	9.61	6.63	7917.10	0.38	0.005789
148.00	4493.45	127.57	9.36	118.76	12.35		
1194.01	3.38126	60568.52	9.61	6.63	7917.07	0.38	0.005789
149.00	4493.45	127.57	9.36	118.76	12.35		
1193.95	3.38111	60568.30	9.61	6.63	7916.50	0.38	0.005789
150.00	4493.45	127.56	9.36	118.76	12.35		
1188.26	3.38113	60566.57	9.59	6.62	7864.37	0.38	0.005807
151.00	4493.43	127.19	9.34	118.41	12.35		
1178.63	3.38520	60391.52	9.53	6.60	7776.05	0.38	0.005818
152.00	4493.37	126.52	9.32	117.81	12.36		
1175.09	3.38230	60081.64	9.52	6.59	7743.47	0.38	0.005820
153.00	4493.36	126.26	9.31	117.58	12.36		
1174.97	3.38001	59964.50	9.51	6.59	7742.38	0.38	0.005820
154.00	4493.35	126.25	9.31	117.57	12.36		
1166.67	3.37960	59960.29	9.47	6.57	7665.73	0.38	0.005844
155.00	4493.31	125.69	9.28	117.06	12.36		
1173.59	3.38500	59700.16	9.50	6.59	7729.14	0.38	0.005801
156.00	4493.34	126.12	9.31	117.44	12.36		
1193.53	3.36846	59896.84	9.61	6.63	7912.71	0.38	0.005789
157.00	4493.45	127.53	9.36	118.73	12.35		
1194.02	3.38088	60550.76	9.61	6.63	7917.18	0.38	0.005789
158.00	4493.45	127.57	9.36	118.76	12.35		
1194.02	3.38126	60568.86	9.61	6.63	7917.15	0.38	0.005790
159.00	4493.45	127.57	9.36	118.76	12.35		
1193.98	3.38148	60568.70	9.61	6.63	7916.83	0.38	0.005789
160.00	4493.45	127.57	9.36	118.76	12.35		
1194.02	3.38107	60567.34	9.61	6.63	7917.13	0.38	0.005789
161.00	4493.45	127.57	9.36	118.76	12.35		
1194.00	3.38121	60568.60	9.61	6.63	7917.02	0.38	0.005789
162.00	4493.45	127.57	9.36	118.76	12.35		

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	3.38102	60568.34					
1193.99	163.00	4493.45	9.61	9.36	6.63	7916.90	0.38
		127.57				118.76	12.35
	3.38124	60567.83					0.005789
1193.94	164.00	4493.45	9.61	9.36	6.63	7916.47	0.38
		127.56				118.76	12.35
	3.38147	60566.62					0.005790
1185.38	165.00	4493.41	9.57	9.33	6.61	7837.90	0.38
		126.99				118.24	12.35
	3.38691	60301.95					0.005815
1175.26	166.00	4493.36	9.52	9.31	6.59	7744.98	0.38
		126.27				117.59	12.36
	3.37965	59970.59					0.005819
1175.04	167.00	4493.35	9.52	9.31	6.59	7743.03	0.38
		126.26				117.57	12.36
	3.37975	59962.51					0.005820
1175.03	168.00	4493.35	9.52	9.31	6.59	7742.87	0.38
		126.26				117.57	12.36
	3.37933	59961.97					0.005819
1175.04	169.00	4493.35	9.52	9.31	6.59	7743.04	0.38
		126.26				117.57	12.36
	3.37938	59962.51					0.005819
1175.05	170.00	4493.35	9.52	9.31	6.59	7743.07	0.38
		126.26				117.57	12.36
	3.38000	59962.78					0.005820
1175.04	171.00	4493.35	9.52	9.31	6.59	7742.96	0.38
		126.26				117.57	12.36
	3.37926	59962.05					0.005819
1174.99	172.00	4493.35	9.51	9.31	6.59	7742.55	0.38
		126.25				117.57	12.36
	3.37951	59961.27					0.005819
1166.49	173.00	4493.31	9.47	9.28	6.57	7664.00	0.38
		125.68				117.05	12.36
	3.38525	59694.60					0.005845
1156.44	174.00	4493.26	9.42	9.25	6.55	7571.12	0.38
		124.96				116.39	12.36
	3.37782	59360.66					0.005849
1156.22	175.00	4493.26	9.42	9.25	6.55	7569.09	0.38
		124.94				116.38	12.36
	3.37782	59352.51					0.005849
1156.20	176.00	4493.26	9.42	9.25	6.55	7568.89	0.38
		124.94				116.38	12.36
	3.37776	59351.69					0.005849
1156.24	177.00	4493.26	9.42	9.25	6.55	7569.27	0.38
		124.94				116.38	12.36
	3.37750	59352.92					0.005849
1156.16	178.00	4493.26	9.42	9.25	6.55	7568.55	0.38
		124.93				116.37	12.36
	3.37821	59350.68					0.005850
1156.31	179.00	4493.26	9.42	9.25	6.55	7569.97	0.38
		124.94				116.38	12.36
	3.37756	59354.79					0.005849
1173.48	180.00	4493.34	9.50	9.31	6.59	7728.16	0.38
		126.11				117.44	12.36
	3.36829	59891.99					0.005801
1193.51	181.00	4493.45	9.61	9.36	6.63	7912.50	0.38
		127.53				118.73	12.35
	3.38077	60550.03					0.005789
1202.82	182.00	4493.50	9.66	9.39	6.65	7997.37	0.38
		128.15				119.29	12.35
	3.37794	60837.60					0.005767
1212.81	183.00	4493.55	9.71	9.41	6.67	8088.36	0.38
		128.84				119.92	12.35

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## HYCHAN.OUT

1213.10	3.38289	61159.02	9.71	6.67	8091.06	0.38	0.005759
1213.10	184.00	4493.55	9.41	119.94	12.35		
1213.07	3.38281	61169.65	9.71	6.67	8090.80	0.38	0.005759
1213.07	185.00	4493.55	9.41	119.94	12.35		
1213.12	3.38306	61168.87	9.71	6.67	8091.21	0.38	0.005759
1213.12	186.00	4493.55	9.41	119.94	12.35		
1213.11	3.38309	61170.29	9.71	6.67	8091.14	0.38	0.005759
1213.11	187.00	4493.55	9.41	119.94	12.35		
1213.07	3.38308	61170.01	9.71	6.67	8090.81	0.38	0.005759
1213.07	188.00	4493.55	9.41	119.94	12.35		
1213.10	3.38302	61168.83	9.71	6.67	8091.07	0.38	0.005760
1213.10	189.00	4493.55	9.41	119.94	12.35		
1213.07	3.38320	61169.84	9.71	6.67	8090.77	0.38	0.005759
1213.07	190.00	4493.55	9.41	119.94	12.35		
1204.35	3.38298	61168.88	9.67	6.65	8011.32	0.38	0.005785
1204.35	191.00	4493.51	9.39	119.42	12.35		
1194.19	3.38898	60903.66	9.62	6.63	7918.73	0.38	0.005790
1194.19	192.00	4493.46	9.36	118.77	12.35		
1194.03	3.38157	60575.14	9.61	6.63	7917.22	0.38	0.005790
1194.03	193.00	4493.45	9.36	118.76	12.35		
1194.01	3.38154	60568.93	9.61	6.63	7917.09	0.38	0.005789
1194.01	194.00	4493.45	9.36	118.76	12.35		
1193.98	3.38112	60568.36	9.61	6.63	7916.79	0.38	0.005790
1193.98	195.00	4493.45	9.36	118.76	12.35		
1194.02	3.38147	60567.51	9.61	6.63	7917.14	0.38	0.005790
1194.02	196.00	4493.45	9.36	118.76	12.35		
1194.02	3.38158	60568.78	9.61	6.63	7917.13	0.38	0.005789
1194.02	197.00	4493.45	9.36	118.76	12.35		
1194.00	3.38135	60568.46	9.61	6.63	7916.93	0.38	0.005790
1194.00	198.00	4493.45	9.36	118.76	12.35		
1194.00	3.38138	60567.89	9.61	6.63	7916.93	0.38	0.005790
1194.00	199.00	4493.45	9.36	118.76	12.35		
	3.38138	60567.93					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 1109

MAXIMUM DISCHARGE (CFS) = 17823.46 AT TIME = 80.68  
 MAXIMUM STAGE = 4499.74 AT TIME = 80.68

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)					

HYCHAN.OUT									
0.00	0.00	4478.34	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4478.34	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4478.34	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
599.09	3.00	4484.84	6.50	5.18	6.93	4152.23	0.48		0.004877
	1.57577	115.70			101.79	15.66			
651.64	4.00	52929.40	8.48	4.61	8.40	5472.85	0.51		0.004887
	1.40552	4486.82			121.18	14.28			
643.39	5.00	141.37	8.41	4.58	8.36	5380.56	0.51		0.004890
	1.39744	63011.02			120.52	14.32			
638.21	6.00	4486.75	8.37	4.56	8.34	5322.07	0.51		0.004899
	1.39401	140.50			120.12	14.35			
625.06	7.00	62671.57	8.26	4.51	8.28	5174.51	0.51		0.004911
	1.38237	4486.71			119.08	14.41			
611.69	8.00	139.96	8.15	4.46	8.22	5025.31	0.51		0.004917
	1.36836	62460.91			118.02	14.48			
598.13	9.00	4486.60	8.03	4.41	8.16	4878.25	0.51		0.004910
	1.35119	138.57			116.88	14.56			
588.61	10.00	61921.06	7.94	4.37	8.11	4776.52	0.51		0.004910
	1.34043	4486.49			116.07	14.61			
583.76	11.00	137.15	7.90	4.36	8.09	4724.21	0.51		0.004902
	1.33267	61369.08			115.66	14.64			
570.24	12.00	4486.37	7.78	4.30	8.03	4579.23	0.51		0.004894
	1.31462	135.63			114.51	14.71			
560.36	13.00	60779.78	7.69	4.27	7.98	4473.96	0.51		0.004893
	1.30281	4486.28			113.65	14.77			
559.89	14.00	134.55	7.69	4.26	7.98	4469.05	0.51		0.004894
	1.30234	60355.88			113.61	14.78			
559.88	15.00	4486.24	7.69	4.26	7.98	4468.97	0.51		0.004893
	1.30230	134.00			113.61	14.78			
559.88	16.00	60142.89	7.69	4.26	7.98	4469.02	0.51		0.004893
	1.30228	4486.12			113.61	14.78			
559.88	17.00	132.46	7.69	4.26	7.98	4468.97	0.51		0.004893
	1.30226	59542.71			113.61	14.78			
564.17	18.00	4486.03	7.73	4.28	8.00	4515.11	0.51		0.004902
	1.30989	131.33			113.97	14.75			
578.04	19.00	59099.44	7.85	4.34	8.07	4663.74	0.51		0.004911
	1.32845	131.28			115.16	14.67			
592.36	20.00	59077.48	7.98	4.39	8.13	4817.30	0.51		0.004918
	1.34692	4486.32			116.38	14.59			
		134.96							
		60516.69							



			HYCHAN.OUT				
601.98	21.00	4486.40	8.06	8.17	4920.32	0.51	
		136.06	4.42	117.20	14.53		0.004917
	1.35757	60945.62					
602.32	22.00	4486.41	8.07	8.17	4923.88	0.51	
		136.10	4.43	117.23	14.53		0.004917
	1.35798	60961.48					
607.05	23.00	4486.45	8.11	8.20	4975.25	0.51	
		136.62	4.44	117.62	14.51		0.004919
	1.36385	61164.58					
625.75	24.00	4486.60	8.27	8.28	5183.23	0.51	
		138.61	4.51	119.11	14.41		0.004899
	1.37998	61939.57					
653.04	25.00	4486.83	8.49	8.41	5489.53	0.51	
		141.49	4.62	121.27	14.28		0.004871
	1.40286	63057.89					
680.45	26.00	4487.06	8.72	8.52	5798.06	0.51	
		144.38	4.71	123.41	14.14		0.004840
	1.42336	64174.93					
696.70	27.00	4487.20	8.86	8.58	5980.73	0.51	
		146.10	4.77	124.69	14.07		0.004832
	1.43792	64839.73					
697.09	28.00	4487.21	8.87	8.59	5985.07	0.51	
		146.14	4.77	124.72	14.07		0.004832
	1.43834	64856.58					
703.07	29.00	4487.26	8.92	8.61	6052.85	0.51	
		146.76	4.79	125.18	14.04		0.004819
	1.44043	65094.66					
711.71	30.00	4487.33	8.99	8.64	6149.93	0.51	
		147.67	4.82	125.86	14.00		0.004814
	1.44791	65445.29					
711.93	31.00	4487.33	8.99	8.64	6152.35	0.51	
		147.69	4.82	125.87	14.00		0.004814
	1.44812	65454.60					
718.25	32.00	4487.38	9.04	8.67	6224.02	0.51	
		148.34	4.84	126.36	13.97		0.004799
	1.44994	65705.16					
727.14	33.00	4487.46	9.12	8.70	6323.91	0.51	
		149.28	4.87	127.05	13.93		0.004795
	1.45734	66064.32					
727.30	34.00	4487.46	9.12	8.70	6325.67	0.51	
		149.29	4.87	127.06	13.93		0.004795
	1.45755	66071.33					
721.00	35.00	4487.41	9.07	8.67	6254.09	0.51	
		148.65	4.85	126.58	13.96		0.004810
	1.45577	65821.70					
712.09	36.00	4487.33	8.99	8.64	6154.08	0.51	
		147.71	4.82	125.89	14.00		0.004814
	1.44811	65461.59					
705.90	37.00	4487.28	8.94	8.62	6083.79	0.51	
		147.07	4.80	125.41	14.03		0.004828
	1.44604	65214.39					
697.30	38.00	4487.21	8.87	8.59	5987.28	0.51	
		146.17	4.77	124.74	14.07		0.004832
	1.43853	64865.28					
697.09	39.00	4487.21	8.87	8.59	5984.96	0.51	
		146.14	4.77	124.72	14.07		0.004832
	1.43832	64856.18					
697.09	40.00	4487.21	8.87	8.59	5985.06	0.51	
		146.14	4.77	124.72	14.07		0.004832
	1.43827	64856.51					
697.10	41.00	4487.21	8.87	8.59	5985.09	0.51	
		146.14	4.77	124.72	14.07		0.004832
	1.43824	64856.66					

				HYCHAN.OUT			
697.10	42.00	4487.21	8.87	8.59	5985.08	0.51	
	1.43833	146.14	4.77	124.72	14.07	0.004832	
		64856.56					
703.09	43.00	4487.26	8.92	8.61	6053.08	0.51	
	1.44048	146.76	4.79	125.18	14.04	0.004819	
		65095.54					
711.74	44.00	4487.33	8.99	8.64	6150.24	0.51	
	1.44790	147.67	4.82	125.86	14.00	0.004814	
		65446.36					
718.26	45.00	4487.38	9.04	8.67	6224.17	0.51	
	1.45007	148.35	4.84	126.36	13.97	0.004800	
		65705.60					
733.63	46.00	4487.51	9.17	8.72	6397.60	0.51	
	1.45909	149.94	4.89	127.54	13.90	0.004779	
		66320.65					
749.05	47.00	4487.64	9.30	8.77	6571.41	0.51	
	1.46759	151.54	4.94	128.72	13.83	0.004758	
		66934.71					
764.53	48.00	4487.77	9.43	8.82	6745.86	0.51	
	1.47544	153.14	4.99	129.90	13.77	0.004736	
		67548.11					
779.28	49.00	4487.90	9.56	8.87	6911.97	0.51	
	1.48220	154.65	5.04	131.02	13.71	0.004714	
		68129.37					
795.36	50.00	4488.03	9.69	8.92	7092.78	0.50	
	1.48971	156.30	5.09	132.23	13.64	0.004691	
		68759.17					
817.00	51.00	4488.21	9.88	8.98	7335.96	0.50	
	1.49520	158.49	5.15	133.84	13.55	0.004648	
		69596.88					
835.09	52.00	4488.37	10.03	9.03	7538.56	0.50	
	1.50803	160.33	5.21	135.19	13.48	0.004640	
		70299.79					
842.27	53.00	4488.43	10.09	9.05	7620.90	0.50	
	1.50820	161.04	5.23	135.71	13.45	0.004621	
		70571.17					
872.28	54.00	4488.67	10.33	9.13	7963.53	0.50	
	1.51485	164.00	5.32	137.88	13.34	0.004564	
		71698.43					
931.77	55.00	4489.16	10.82	9.27	8637.62	0.50	
	1.52805	169.81	5.49	142.12	13.13	0.004463	
		73901.78					
1017.43	56.00	4489.86	11.52	9.43	9592.90	0.49	
	1.54459	177.97	5.72	148.04	12.85	0.004330	
		76981.30					
1171.25	57.00	4491.32	12.98	9.18	10754.78	0.45	
	1.64992	194.75	6.01	160.11	12.33	0.004397	
		83257.66					
1459.55	58.00	4493.23	14.89	8.17	11931.08	0.37	
	2.01152	215.91	6.76	175.14	11.76	0.004769	
		91072.99					
1674.19	59.00	4494.37	16.03	7.74	12959.09	0.34	
	2.06645	227.83	7.35	183.85	11.47	0.004507	
		95600.31					
1796.23	60.00	4494.90	16.56	7.89	14174.88	0.34	
	2.02945	228.89	7.85	187.81	11.34	0.004144	
		97662.70					
1926.66	61.00	4495.58	17.24	7.90	15224.67	0.34	
	2.36251	230.24	8.37	192.80	11.18	0.004524	
		100254.89					
2062.96	62.00	4496.41	18.07	7.73	15944.83	0.32	
	2.39466	231.91	8.90	198.84	11.00	0.004314	
		103397.83					

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HYCHAN.OUT							
2185.47	63.00	4497.09	18.75	7.61	16642.08	0.31	0.004184
	2.44597	233.26	9.37	203.70	10.86		
		105921.77					
2276.30	64.00	4497.55	19.21	7.54	17160.23	0.30	0.004152
	2.51844	234.19	9.72	206.98	10.77		
		107627.66					
2373.70	65.00	4498.03	19.69	7.47	17735.88	0.30	0.004102
	2.58419	235.13	10.10	210.30	10.68		
		109357.59					
2433.19	66.00	4498.31	19.97	7.43	18080.76	0.29	0.004087
	2.63278	235.70	10.32	212.28	10.63		
		110384.94					
2444.96	67.00	4498.37	20.03	7.42	18146.11	0.29	0.004086
	2.64352	235.82	10.37	212.69	10.62		
		110596.24					
2446.19	68.00	4498.38	20.04	7.42	18154.11	0.29	0.004087
	2.64503	235.83	10.37	212.74	10.62		
		110622.70					
2447.45	69.00	4498.38	20.04	7.42	18163.88	0.29	0.004087
	2.64664	235.85	10.38	212.79	10.62		
		110650.99					
2449.57	70.00	4498.40	20.06	7.42	18179.10	0.29	0.004087
	2.64847	235.87	10.39	212.88	10.61		
		110696.38					
2450.23	71.00	4498.40	20.06	7.42	18183.48	0.29	0.004087
	2.64923	235.88	10.39	212.91	10.61		
		110710.81					
2449.05	72.00	4498.39	20.05	7.42	18174.70	0.29	0.004088
	2.64872	235.87	10.38	212.85	10.61		
		110684.30					
2458.83	73.00	4498.45	20.11	7.42	18251.53	0.29	0.004102
	2.66683	235.98	10.42	213.25	10.60		
		110889.95					
2483.67	74.00	4498.60	20.26	7.41	18415.49	0.29	0.004093
	2.68436	236.28	10.51	214.29	10.58		
		111431.84					
2490.30	75.00	4498.64	20.30	7.41	18449.56	0.29	0.004092
	2.69023	236.36	10.54	214.58	10.57		
		111581.72					
2497.34	76.00	4498.68	20.34	7.40	18492.55	0.29	0.004091
	2.69624	236.45	10.56	214.88	10.56		
		111735.34					
2531.81	77.00	4498.90	20.56	7.38	18682.00	0.29	0.004059
	2.70700	236.88	10.69	216.35	10.52		
		112500.62					
2583.61	78.00	4499.22	20.88	7.33	18931.15	0.28	0.004015
	2.72530	237.52	10.88	218.58	10.47		
		113660.67					
2619.75	79.00	4499.45	21.11	7.29	19090.66	0.28	0.003985
	2.73728	237.98	11.01	220.13	10.43		
		114466.45					
2654.23	80.00	4499.66	21.32	7.25	19253.47	0.28	0.003941
	2.73826	238.40	11.13	221.56	10.39		
		115212.20					
2686.20	81.00	4499.86	21.52	7.22	19382.79	0.27	0.003913
	2.74654	238.79	11.25	222.90	10.36		
		115909.34					
2679.71	82.00	4499.82	21.48	7.22	19341.86	0.27	0.003930
	2.75279	238.72	11.23	222.65	10.37		
		115777.58					
2655.90	83.00	4499.67	21.33	7.24	19240.35	0.28	0.003959
	2.75185	238.43	11.14	221.66	10.39		
		115261.46					

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HYCHAN.OUT									
2648.75	84.00	4499.63	21.29	11.11	7.25	19214.38	0.28	0.003962	
	2.74773	238.34			221.35	10.40			
		115103.55							
2648.97	85.00	4499.63	21.29	11.11	7.25	19216.27	0.28	0.003960	
	2.74632	238.34			221.36	10.40			
		115107.95							
2650.84	86.00	4499.64	21.30	11.12	7.25	19221.71	0.28	0.003955	
	2.74454	238.36			221.45	10.40			
		115152.62							
2626.21	87.00	4499.49	21.15	11.03	7.27	19087.84	0.28	0.003993	
	2.74835	238.07			220.45	10.42			
		114632.61							
2535.03	88.00	4498.93	20.59	10.70	7.35	18636.12	0.29	0.004071	
	2.71797	236.94			216.58	10.52			
		112620.67							
2350.37	89.00	4497.93	19.59	10.00	7.46	17542.40	0.30	0.004154	
	2.59329	234.94			209.63	10.70			
		109006.05							
2101.09	90.00	4496.64	18.30	9.04	7.67	16120.40	0.32	0.004358	
	2.45882	232.36			200.47	10.96			
		104243.84							
1927.03	91.00	4495.59	17.25	8.37	7.88	15191.09	0.33	0.004047	
	2.11333	230.26			192.88	11.18			
		100297.16							
1799.58	92.00	4494.93	16.59	7.86	7.88	14181.32	0.34	0.004382	
	2.14948	228.94			187.98	11.33			
		97751.87							
1708.46	93.00	4494.54	16.20	7.49	7.76	13262.76	0.34	0.004612	
	2.15489	228.16			185.08	11.43			
		96241.26							
1635.43	94.00	4494.20	15.86	7.22	7.68	12560.54	0.34	0.004728	
	2.13068	226.45			182.56	11.51			
		94929.19							
1504.94	95.00	4493.48	15.14	6.88	8.00	12034.19	0.36	0.004395	
	1.88774	218.66			177.08	11.70			
		92080.93							
1300.14	96.00	4492.55	14.21	6.24	8.82	11466.81	0.41	0.004358	
	1.69584	208.48			169.88	11.95			
		88338.66							
1209.98	97.00	4491.73	13.39	6.07	9.06	10961.02	0.44	0.004338	
	1.64341	199.29			163.35	12.20			
		84943.86							
1141.12	98.00	4491.06	12.72	5.95	9.24	10547.47	0.46	0.004321	
	1.60445	191.77			157.98	12.42			
		82147.66							
1086.29	99.00	4490.50	12.16	5.86	9.39	10204.37	0.47	0.004314	
	1.57749	185.38			153.39	12.61			
		79762.88							
1043.59	100.00	4490.08	11.74	5.78	9.46	9870.94	0.49	0.004361	
	1.57279	180.55			149.90	12.77			
		77949.35							
1010.62	101.00	4489.81	11.47	5.70	9.42	9515.62	0.49	0.004406	
	1.56632	177.40			147.63	12.87			
		76765.98							
984.78	102.00	4489.60	11.26	5.63	9.37	9228.50	0.49	0.004445	
	1.56138	174.96			145.86	12.95			
		75845.70							
962.54	103.00	4489.42	11.08	5.57	9.33	8980.38	0.49	0.004473	
	1.55463	172.83			144.32	13.03			
		75044.18							
944.53	104.00	4489.27	10.93	5.52	9.29	8778.26	0.50	0.004498	
	1.54955	171.10			143.06	13.09			
		74390.00							

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HYCHAN.OUT							
105.00	4489.06	10.72	9.24	8491.40	0.50		
919.15	168.65	5.45	141.27	13.17	0.004545		
1.54568	73460.91						
106.00	4488.85	10.51	9.18	8195.72	0.50		
892.93	166.08	5.38	139.40	13.27	0.004571		
1.53364	72486.46						
107.00	4488.72	10.38	9.14	8016.33	0.50		
877.12	164.52	5.33	138.26	13.32	0.004592		
1.52772	71894.24						
108.00	4488.59	10.25	9.10	7843.13	0.50		
861.89	163.01	5.29	137.16	13.38	0.004612		
1.52172	71320.69						
109.00	4488.52	10.18	9.08	7745.99	0.50		
853.30	162.15	5.26	136.53	13.41	0.004617		
1.51605	70993.44						
110.00	4488.57	10.23	9.10	7821.66	0.50		
859.88	162.80	5.28	137.00	13.39	0.004599		
1.51571	71239.52						
111.00	4488.75	10.41	9.15	8071.82	0.50		
881.84	164.96	5.35	138.58	13.31	0.004559		
1.52081	72062.41						
112.00	4488.84	10.50	9.18	8185.04	0.50		
891.96	165.98	5.37	139.32	13.27	0.004571		
1.53294	72448.91						
113.00	4488.72	10.38	9.14	8016.89	0.50		
877.16	164.52	5.33	138.26	13.32	0.004592		
1.52781	71895.62						
114.00	4488.76	10.42	9.15	8078.65	0.50		
882.45	165.02	5.35	138.63	13.30	0.004562		
1.52221	72085.63						
115.00	4489.03	10.69	9.23	8447.72	0.50		
915.00	168.21	5.44	140.95	13.19	0.004511		
1.53119	73295.25						
116.00	4489.12	10.78	9.26	8572.81	0.50		
926.25	169.33	5.47	141.77	13.15	0.004524		
1.54425	73719.36						
117.00	4489.05	10.71	9.24	8473.30	0.50		
917.38	168.46	5.45	141.14	13.18	0.004529		
1.53897	73391.02						
118.00	4489.05	10.71	9.24	8470.76	0.50		
917.15	168.44	5.45	141.12	13.18	0.004526		
1.53780	73381.98						
119.00	4489.11	10.77	9.25	8561.64	0.50		
925.14	169.21	5.47	141.68	13.15	0.004506		
1.53736	73673.54						
120.00	4489.19	10.85	9.27	8667.59	0.50		
934.60	170.13	5.49	142.35	13.12	0.004503		
1.54371	74023.66						
121.00	4489.19	10.85	9.27	8669.37	0.50		
934.76	170.15	5.49	142.37	13.12	0.004500		
1.54280	74029.99						
122.00	4489.13	10.79	9.26	8577.58	0.50		
926.69	169.37	5.47	141.80	13.15	0.004524		
1.54457	73736.04						
123.00	4489.05	10.71	9.24	8471.94	0.50		
917.27	168.45	5.45	141.13	13.18	0.004529		
1.53894	73387.02						
124.00	4488.98	10.64	9.22	8379.53	0.50		
909.15	167.66	5.42	140.56	13.21	0.004549		
1.53922	73088.84						
125.00	4488.90	10.56	9.20	8272.17	0.50		
899.60	166.72	5.40	139.87	13.24	0.004553		
1.53306	72732.27						

HYCHAN.OUT							
899.38	126.00	4488.90	10.56	9.19	8269.67	0.50	0.004553
	1.53276	166.70	5.40	139.85	13.24		
892.38	127.00	4488.84	10.50	9.18	8189.73	0.50	0.004572
	1.53348	166.02	5.38	139.36	13.27		
883.86	128.00	4488.77	10.43	9.16	8093.61	0.50	0.004575
	1.52775	165.18	5.35	138.74	13.30		
883.58	129.00	4488.77	10.43	9.16	8090.58	0.50	0.004575
	1.52741	165.15	5.35	138.72	13.30		
876.89	130.00	4488.71	10.38	9.14	8013.84	0.50	0.004592
	1.52756	164.49	5.33	138.24	13.32		
868.57	131.00	4488.65	10.31	9.12	7919.86	0.50	0.004597
	1.52220	163.67	5.31	137.64	13.36		
882.18	132.00	4488.76	10.42	9.15	8075.68	0.50	0.004560
	1.52143	164.99	5.35	138.61	13.31		
898.95	133.00	4488.90	10.56	9.19	8264.99	0.50	0.004553
	1.53255	166.66	5.39	139.82	13.24		
899.37	134.00	4488.90	10.56	9.19	8269.63	0.50	0.004553
	1.53287	166.70	5.40	139.85	13.24		
899.42	135.00	4488.90	10.56	9.20	8270.22	0.50	0.004553
	1.53296	166.71	5.40	139.86	13.24		
899.40	136.00	4488.90	10.56	9.19	8269.99	0.50	0.004553
	1.53279	166.70	5.40	139.85	13.24		
899.40	137.00	4488.90	10.56	9.19	8269.90	0.50	0.004553
	1.53280	166.70	5.40	139.85	13.24		
899.41	138.00	4488.90	10.56	9.20	8270.10	0.50	0.004553
	1.53290	166.71	5.40	139.86	13.24		
899.36	139.00	4488.90	10.56	9.19	8269.47	0.50	0.004553
	1.53292	166.70	5.40	139.85	13.24		
892.43	140.00	4488.84	10.50	9.18	8190.29	0.50	0.004572
	1.53343	166.03	5.38	139.36	13.27		
883.84	141.00	4488.77	10.43	9.16	8093.40	0.50	0.004576
	1.52777	165.18	5.35	138.74	13.30		
883.61	142.00	4488.77	10.43	9.16	8090.93	0.50	0.004575
	1.52742	165.15	5.35	138.72	13.30		
883.60	143.00	4488.77	10.43	9.16	8090.79	0.50	0.004576
	1.52758	165.15	5.35	138.72	13.30		
883.60	144.00	4488.77	10.43	9.16	8090.73	0.50	0.004575
	1.52746	165.15	5.35	138.72	13.30		
876.93	145.00	4488.72	10.38	9.14	8014.34	0.50	0.004593
	1.52774	164.50	5.33	138.24	13.32		
868.49	146.00	4488.65	10.31	9.12	7918.94	0.50	0.004596
	1.52195	163.66	5.31	137.63	13.36		
		71567.38					

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HYCHAN.OUT							
147.00	4488.64	10.30	9.12	7916.96	0.50		
868.31	163.64	5.31	137.62	13.36		0.004596	
1.52184	71560.33						
148.00	4488.64	10.30	9.12	7917.11	0.50		
868.32	163.64	5.31	137.62	13.36		0.004596	
1.52179	71560.80						
149.00	4488.64	10.30	9.12	7917.05	0.50		
868.31	163.64	5.31	137.62	13.36		0.004596	
1.52166	71560.55						
150.00	4488.64	10.30	9.12	7916.54	0.50		
868.27	163.64	5.31	137.61	13.36		0.004596	
1.52178	71558.98						
151.00	4488.61	10.27	9.11	7866.03	0.50		
863.87	163.20	5.29	137.30	13.37		0.004608	
1.52184	71394.67						
152.00	4488.54	10.20	9.08	7777.07	0.50		
856.04	162.43	5.27	136.73	13.40		0.004616	
1.51802	71098.20						
153.00	4488.52	10.18	9.08	7743.59	0.50		
853.08	162.13	5.26	136.51	13.41		0.004617	
1.51596	70985.16						
154.00	4488.52	10.18	9.08	7742.39	0.50		
852.98	162.12	5.26	136.50	13.41		0.004617	
1.51576	70980.95						
155.00	4488.46	10.12	9.06	7667.96	0.50		
846.50	161.48	5.24	136.03	13.44		0.004633	
1.51548	70737.40						
156.00	4488.50	10.16	9.07	7724.73	0.50		
851.35	161.94	5.26	136.37	13.42		0.004604	
1.51031	70913.75						
157.00	4488.64	10.30	9.12	7912.06	0.50		
867.86	163.59	5.30	137.58	13.36		0.004596	
1.52157	71542.74						
158.00	4488.64	10.30	9.12	7917.22	0.50		
868.33	163.64	5.31	137.62	13.36		0.004596	
1.52181	71561.21						
159.00	4488.64	10.30	9.12	7917.16	0.50		
868.33	163.64	5.31	137.62	13.36		0.004596	
1.52187	71560.99						
160.00	4488.64	10.30	9.12	7916.77	0.50		
868.29	163.64	5.31	137.61	13.36		0.004596	
1.52180	71559.56						
161.00	4488.64	10.30	9.12	7917.13	0.50		
868.32	163.64	5.31	137.62	13.36		0.004596	
1.52181	71560.84						
162.00	4488.64	10.30	9.12	7917.04	0.50		
868.31	163.64	5.31	137.62	13.36		0.004596	
1.52172	71560.61						
163.00	4488.64	10.30	9.12	7916.91	0.50		
868.30	163.64	5.31	137.62	13.36		0.004596	
1.52187	71560.16						
164.00	4488.64	10.30	9.12	7916.55	0.50		
868.27	163.64	5.31	137.61	13.36		0.004596	
1.52176	71559.12						
165.00	4488.59	10.25	9.10	7840.24	0.50		
861.62	162.98	5.29	137.14	13.38		0.004613	
1.52176	71310.45						
166.00	4488.52	10.18	9.08	7745.30	0.50		
853.24	162.15	5.26	136.52	13.41		0.004617	
1.51591	70991.25						
167.00	4488.52	10.18	9.08	7743.03	0.50		
853.03	162.12	5.26	136.51	13.41		0.004617	
1.51580	70983.08						

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HYCHAN.OUT							
168.00	4488.52	10.18	9.08	7742.88	0.50		
853.02	162.12	5.26	136.50	13.41	0.004616		
1.51568	70982.52						
169.00	4488.52	10.18	9.08	7743.03	0.50		
853.03	162.12	5.26	136.51	13.41	0.004616		
1.51571	70983.05						
170.00	4488.52	10.18	9.08	7743.10	0.50		
853.04	162.12	5.26	136.51	13.41	0.004617		
1.51599	70983.34						
171.00	4488.52	10.18	9.08	7742.91	0.50		
853.02	162.12	5.26	136.50	13.41	0.004616		
1.51567	70982.52						
172.00	4488.52	10.18	9.08	7742.66	0.50		
853.00	162.12	5.26	136.50	13.41	0.004616		
1.51564	70982.03						
173.00	4488.46	10.12	9.06	7666.36	0.50		
846.36	161.47	5.24	136.02	13.44	0.004633		
1.51543	70732.38						
174.00	4488.39	10.05	9.04	7571.41	0.50		
837.99	160.62	5.22	135.41	13.47	0.004636		
1.50939	70411.61						
175.00	4488.39	10.05	9.03	7569.11	0.50		
837.78	160.60	5.22	135.39	13.47	0.004637		
1.50934	70403.39						
176.00	4488.39	10.05	9.03	7568.89	0.50		
837.76	160.60	5.22	135.39	13.47	0.004637		
1.50926	70402.64						
177.00	4488.39	10.05	9.03	7569.24	0.50		
837.79	160.60	5.22	135.39	13.47	0.004636		
1.50906	70403.72						
178.00	4488.39	10.05	9.03	7568.60	0.50		
837.74	160.60	5.22	135.39	13.47	0.004637		
1.50943	70401.77						
179.00	4488.39	10.05	9.03	7569.78	0.50		
837.84	160.61	5.22	135.39	13.47	0.004637		
1.50935	70405.27						
180.00	4488.50	10.16	9.07	7723.37	0.50		
851.23	161.93	5.26	136.36	13.42	0.004607		
1.51112	70908.56						
181.00	4488.64	10.30	9.12	7911.86	0.50		
867.84	163.59	5.30	137.58	13.36	0.004597		
1.52157	71542.06						
182.00	4488.70	10.36	9.14	7995.05	0.50		
875.13	164.31	5.33	138.10	13.33	0.004580		
1.52211	71814.29						
183.00	4488.77	10.43	9.16	8088.00	0.50		
883.35	165.13	5.35	138.70	13.30	0.004575		
1.52733	72124.83						
184.00	4488.77	10.43	9.16	8091.05	0.50		
883.62	165.15	5.35	138.72	13.30	0.004575		
1.52745	72135.58						
185.00	4488.77	10.43	9.16	8090.81	0.50		
883.60	165.15	5.35	138.72	13.30	0.004575		
1.52751	72134.88						
186.00	4488.77	10.43	9.16	8091.21	0.50		
883.64	165.15	5.35	138.72	13.30	0.004575		
1.52752	72136.16						
187.00	4488.77	10.43	9.16	8091.14	0.50		
883.63	165.15	5.35	138.72	13.30	0.004575		
1.52749	72135.92						
188.00	4488.77	10.43	9.16	8090.80	0.50		
883.60	165.15	5.35	138.72	13.30	0.004575		
1.52751	72134.79						

HYCHAN.OUT							
189.00	4488.77	10.43	9.16	8091.10	0.50		
883.63	165.15	5.35	138.72	13.30	0.004575		
1.52756	72135.88						
190.00	4488.77	10.43	9.16	8090.82	0.50		
883.60	165.15	5.35	138.72	13.30	0.004575		
1.52740	72134.94						
191.00	4488.71	10.38	9.14	8013.78	0.50		
876.88	164.49	5.33	138.24	13.32	0.004593		
1.52772	71885.23						
192.00	4488.65	10.31	9.12	7918.99	0.50		
868.49	163.66	5.31	137.63	13.36	0.004597		
1.52210	71567.54						
193.00	4488.64	10.30	9.12	7917.23	0.50		
868.33	163.64	5.31	137.62	13.36	0.004597		
1.52200	71561.21						
194.00	4488.64	10.30	9.12	7917.06	0.50		
868.31	163.64	5.31	137.62	13.36	0.004596		
1.52182	71560.59						
195.00	4488.64	10.30	9.12	7916.81	0.50		
868.29	163.64	5.31	137.62	13.36	0.004596		
1.52187	71559.85						
196.00	4488.64	10.30	9.12	7917.17	0.50		
868.33	163.64	5.31	137.62	13.36	0.004596		
1.52189	71561.06						
197.00	4488.64	10.30	9.12	7917.10	0.50		
868.32	163.64	5.31	137.62	13.36	0.004596		
1.52186	71560.70						
198.00	4488.64	10.30	9.12	7916.93	0.50		
868.30	163.64	5.31	137.62	13.36	0.004596		
1.52189	71560.20						
199.00	4488.64	10.30	9.12	7916.93	0.50		
868.31	163.64	5.31	137.62	13.36	0.004596		
1.52187	71560.22						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1134

MAXIMUM DISCHARGE (CFS) = 18580.69 AT TIME = 80.72  
 MAXIMUM STAGE = 4496.81 AT TIME = 80.72

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	0.00	4477.17	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	0.00	4477.17	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	0.00	4477.17	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	0.00	4482.76	5.59	-4.82	-3908.11	0.36	0.002484
810.17	148.98	74316.08	5.44	137.62	24.63	0.42	0.002478
0.84281	0.00	4484.73	7.56	-6.51	-5476.25	0.42	0.002478
841.31	168.06	82352.23	5.01	152.50	20.16	0.42	0.002478
0.77405	0.00	4484.66	7.49	-6.47	-5381.32	0.42	0.002478

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		HYCHAN.OUT					
831.20	0.76811	167.37	4.97	151.97	20.30	0.002479	
	6.00	82061.91					
825.28	0.76267	4484.61	7.44	-6.45	-5325.47	0.42	
	7.00	166.95	4.94	151.65	20.38	0.002473	
809.71	0.75165	81888.73	7.32	-6.40	-5178.67	0.42	
	8.00	4484.49	4.88	150.80	20.61	0.002467	
794.07	0.73963	165.86	7.20	-6.33	-5029.23	0.42	
	9.00	81432.33	4.82	149.94	20.84	0.002459	
781.35	0.72691	4484.27	7.10	-6.25	-4881.95	0.41	
	10.00	163.84	4.77	149.23	21.03	0.002443	
772.95	0.72101	80585.54	7.03	-6.18	-4777.39	0.41	
	11.00	4484.20	4.74	148.76	21.16	0.002440	
768.94	0.71427	163.23	7.00	-6.15	-4727.07	0.41	
	12.00	80332.05	4.72	148.53	21.23	0.002426	
757.42	0.70236	4484.17	6.91	-6.05	-4582.94	0.41	
	13.00	162.94	4.67	147.88	21.41	0.002409	
748.78	0.69627	79853.80	6.84	-5.98	-4474.88	0.40	
	14.00	4484.01	4.64	147.38	21.55	0.002406	
748.31	0.69605	161.46	6.84	-5.97	-4469.04	0.40	
	15.00	79587.03	4.64	147.36	21.56	0.002406	
748.31	0.69601	161.42	6.84	-5.97	-4468.96	0.40	
	16.00	79572.79	4.64	147.36	21.56	0.002406	
748.31	0.69598	161.42	6.84	-5.97	-4469.03	0.40	
	17.00	79572.77	4.64	147.36	21.56	0.002406	
748.31	0.69606	161.42	6.84	-5.97	-4468.96	0.40	
	18.00	79572.60	4.65	147.56	21.50	0.002421	
751.77	0.70243	4484.03	6.86	-6.00	-4512.23	0.40	
	19.00	161.68	4.70	148.23	21.31	0.002438	
763.58	0.71473	79680.97	6.96	-6.10	-4659.96	0.41	
	20.00	162.55	4.75	148.93	21.12	0.002456	
775.86	0.72740	80045.93	7.05	-6.20	-4813.48	0.41	
	21.00	4484.22	4.78	149.40	20.99	0.002458	
784.35	0.73318	163.45	7.12	-6.27	-4919.49	0.41	
	22.00	80421.52	4.78	149.42	20.98	0.002458	
784.70	0.73344	4484.29	7.15	-6.30	-4972.05	0.42	
	23.00	164.06	4.80	149.65	20.92	0.002470	
788.74	0.73963	80677.94	7.32	-6.39	-5175.48	0.42	
	24.00	4484.29	4.88	150.79	20.61	0.002482	
809.41	0.75588	164.08	7.57	-6.51	-5480.94	0.42	
	25.00	80688.28	5.01	152.54	20.15	0.002493	
841.85	0.77905	4484.32	7.82	-6.62	-5789.57	0.42	
	26.00	164.38					
		80810.77					
		4484.49					
		165.85					
		81426.67					
		4484.74					
		168.11					
		82370.49					
		4484.99					

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		HYCHAN.OUT				
874.79	170.34	5.14	154.26	19.72	0.002503	
0.80200	83302.85					
27.00	4485.15	7.98	-6.68	-5979.52	0.42	
895.10	171.69	5.21	155.30	19.46	0.002501	
0.81349	83864.45					
28.00	4485.16	7.99	-6.68	-5985.04	0.42	
895.69	171.73	5.22	155.33	19.45	0.002501	
0.81391	83880.30					
29.00	4485.21	8.04	-6.70	-6048.85	0.42	
902.56	172.18	5.24	155.68	19.37	0.002508	
0.82032	84069.28					
30.00	4485.29	8.12	-6.73	-6149.27	0.42	
913.35	172.89	5.28	156.23	19.24	0.002507	
0.82635	84362.03					
31.00	4485.29	8.12	-6.73	-6152.31	0.42	
913.67	172.91	5.28	156.24	19.23	0.002507	
0.82671	84370.72					
32.00	4485.35	8.18	-6.75	-6219.82	0.42	
920.96	173.38	5.31	156.61	19.14	0.002514	
0.83338	84568.33					
33.00	4485.44	8.27	-6.78	-6323.27	0.42	
932.10	174.10	5.35	157.16	19.01	0.002513	
0.83951	84866.42					
34.00	4485.44	8.27	-6.78	-6325.75	0.42	
932.37	174.12	5.35	157.17	19.01	0.002513	
0.83957	84873.35					
35.00	4485.38	8.21	-6.76	-6258.24	0.42	
925.10	173.65	5.33	156.81	19.10	0.002505	
0.83279	84677.14					
36.00	4485.30	8.13	-6.73	-6154.81	0.42	
913.94	172.93	5.29	156.26	19.23	0.002506	
0.82638	84377.76					
37.00	4485.24	8.07	-6.71	-6087.74	0.42	
906.74	172.45	5.26	155.89	19.32	0.002499	
0.81996	84180.83					
38.00	4485.16	7.99	-6.68	-5987.96	0.42	
896.01	171.75	5.22	155.35	19.45	0.002501	
0.81402	83888.71					
39.00	4485.16	7.99	-6.68	-5984.94	0.42	
895.68	171.73	5.22	155.33	19.45	0.002501	
0.81383	83880.04					
40.00	4485.16	7.99	-6.68	-5985.06	0.42	
895.69	171.73	5.22	155.33	19.45	0.002501	
0.81387	83880.41					
41.00	4485.16	7.99	-6.68	-5985.07	0.42	
895.70	171.73	5.22	155.33	19.45	0.002501	
0.81385	83880.41					
42.00	4485.16	7.99	-6.68	-5985.02	0.42	
895.69	171.73	5.22	155.33	19.45	0.002501	
0.81395	83880.27					
43.00	4485.21	8.04	-6.70	-6049.11	0.42	
902.59	172.19	5.24	155.69	19.37	0.002508	
0.82030	84070.04					
44.00	4485.29	8.12	-6.73	-6149.54	0.42	
913.38	172.89	5.28	156.23	19.24	0.002507	
0.82649	84362.87					
45.00	4485.35	8.18	-6.75	-6219.91	0.42	
920.97	173.39	5.31	156.61	19.14	0.002515	
0.83366	84568.59					
46.00	4485.49	8.32	-6.80	-6392.68	0.42	
939.61	174.59	5.38	157.53	18.93	0.002521	
0.84674	85067.27					
47.00	4485.64	8.47	-6.85	-6566.48	0.42	

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		HYCHAN.OUT					
958.42	175.78	5.45	158.45	18.71	0.002528		
0.86001	85563.00						
48.00	4485.78	8.61	-6.90	-6740.94	0.41		
977.34	176.97	5.52	159.36	18.50	0.002534		
0.87325	86055.06						
49.00	4485.92	8.75	-6.94	-6906.99	0.41		
995.40	178.09	5.59	160.22	18.31	0.002541		
0.88617	86518.34						
50.00	4486.07	8.90	-6.98	-7087.79	0.41		
1015.12	179.29	5.66	161.14	18.11	0.002548		
0.90019	87017.37						
51.00	4486.27	9.10	-7.04	-7326.90	0.41		
1041.30	180.87	5.76	162.35	17.85	0.002561		
0.91986	87669.95						
52.00	4486.44	9.27	-7.08	-7537.17	0.41		
1064.02	182.22	5.84	163.38	17.63	0.002557		
0.93178	88225.47						
53.00	4486.50	9.33	-7.10	-7616.37	0.41		
1072.06	182.69	5.87	163.74	17.55	0.002558		
0.93653	88421.09						
54.00	4486.75	9.58	-7.19	-7949.35	0.41		
1106.01	184.67	5.99	165.25	17.24	0.002565		
0.95862	89233.48						
55.00	4487.26	10.09	-7.34	-8615.59	0.41		
1174.29	188.51	6.23	168.17	16.66	0.002567		
0.99791	90814.29						
56.00	4487.99	10.82	-7.52	-9563.45	0.40		
1272.28	193.79	6.57	172.17	15.91	0.002587		
1.06002	92973.04						
57.00	4488.79	11.62	-7.74	-10700.10	0.40		
1382.39	199.40	6.93	176.41	15.18	0.003260		
1.41038	95261.16						
58.00	4489.59	12.42	-7.96	-11886.69	0.40		
1492.38	204.73	7.29	180.42	14.53	0.003813		
1.73448	97427.05						
59.00	4490.38	13.21	-8.06	-12923.82	0.39		
1602.96	209.84	7.64	184.25	13.94	0.003048		
1.45293	99496.04						
60.00	4491.54	14.37	-8.05	-14227.43	0.37		
1767.64	216.99	8.15	189.58	13.19	0.002730		
1.38793	102373.70						
61.00	4492.61	15.44	-5.31	-15295.77	0.24		
2878.69	223.28	12.89	194.25	12.58	0.002742		
2.20604	104895.99						
62.00	4493.45	16.28	0.00	0.00	0.00		
0.00	225.73	0.00	197.78	12.15	0.002660		
0.00000	106798.70						
63.00	4494.19	17.02	0.00	0.00	0.00		
0.00	227.20	0.00	200.76	11.80	0.003243		
0.00000	108411.27						
64.00	4494.60	17.43	0.00	0.00	0.00		
0.00	228.02	0.00	202.38	11.61	0.003126		
0.00000	109285.05						
65.00	4494.98	17.81	0.00	0.00	0.00		
0.00	228.79	0.00	203.88	11.45	0.003063		
0.00000	110096.38						
66.00	4495.23	18.06	0.00	0.00	0.00		
0.00	229.29	0.00	204.85	11.34	0.003043		
0.00000	110619.26						
67.00	4495.28	18.11	0.00	0.00	0.00		
0.00	229.39	0.00	205.04	11.32	0.003039		
0.00000	110722.47						
68.00	4495.29	18.12	0.00	0.00	0.00		

HYCHAN.OUT						
0.00		229.40	0.00	205.07	11.32	0.003040
	0.00000	110735.67				
	69.00	4495.29	18.13	0.00	0.00	0.00
0.00		229.41	0.00	205.09	11.32	0.003040
	0.00000	110747.70				
	70.00	4495.31	18.14	0.00	0.00	0.00
0.00		229.43	0.00	205.13	11.31	0.003039
	0.00000	110768.48				
	71.00	4495.31	18.14	0.00	0.00	0.00
0.00		229.44	0.00	205.14	11.31	0.003040
	0.00000	110775.91				
	72.00	4495.30	18.13	0.00	0.00	0.00
0.00		229.43	0.00	205.12	11.31	0.003042
	0.00000	110763.89				
	73.00	4495.34	18.17	0.00	0.00	0.00
0.00		229.51	0.00	205.27	11.30	0.003056
	0.00000	110845.23				
	74.00	4495.46	18.29	0.00	0.00	0.00
0.00		229.75	0.00	205.73	11.25	0.003040
	0.00000	111095.16				
	75.00	4495.50	18.33	0.00	0.00	0.00
0.00		229.83	0.00	205.88	11.23	0.003037
	0.00000	111175.16				
	76.00	4495.54	18.37	0.00	0.00	0.00
0.00		229.89	0.00	206.01	11.22	0.003048
	0.00000	111243.86				
	77.00	4495.73	18.56	0.00	0.00	0.00
0.00		230.28	0.00	206.74	11.14	0.003062
	0.00000	111639.21				
	78.00	4496.04	18.87	0.00	0.00	0.00
0.00		230.91	0.00	207.92	11.02	0.003062
	0.00000	112279.32				
	79.00	4496.27	19.10	0.00	0.00	0.00
0.00		231.37	0.00	208.77	10.93	0.003068
	0.00000	112737.42				
	80.00	4496.49	19.32	0.00	0.00	0.00
0.00		231.81	0.00	209.59	10.85	0.003084
	0.00000	113179.40				
	81.00	4496.72	19.55	0.00	0.00	0.00
0.00		232.26	0.00	210.41	10.76	0.003059
	0.00000	113622.30				
	82.00	4496.69	19.52	0.00	0.00	0.00
0.00		232.20	0.00	210.30	10.77	0.003056
	0.00000	113562.44				
	83.00	4496.53	19.36	0.00	0.00	0.00
0.00		231.88	0.00	209.71	10.83	0.003060
	0.00000	113243.03				
	84.00	4496.47	19.30	0.00	0.00	0.00
0.00		231.77	0.00	209.51	10.85	0.003061
	0.00000	113136.43				
	85.00	4496.47	19.30	0.00	0.00	0.00
0.00		231.77	0.00	209.51	10.85	0.003061
	0.00000	113137.80				
	86.00	4496.49	19.32	0.00	0.00	0.00
0.00		231.80	0.00	209.57	10.85	0.003054
	0.00000	113168.82				
	87.00	4496.35	19.18	0.00	0.00	0.00
0.00		231.52	0.00	209.05	10.90	0.003010
	0.00000	112889.14				
	88.00	4495.81	18.64	0.00	0.00	0.00
0.00		230.44	0.00	207.05	11.11	0.002980
	0.00000	111804.57				
	89.00	4494.97	17.80	0.00	0.00	0.00

HYCHAN.OUT							
0.00		228.76	0.00	203.82	11.45		0.002966
	0.00000	110063.84					
0.00	90.00	4493.85	16.68	0.00	0.00	0.00	
		226.53	0.00	199.41	11.95		0.002550
	0.00000	107680.77					
3607.25	91.00	4492.78	15.61	-4.28	-15441.02	0.19	
		224.25	16.09	194.97	12.49		0.002593
	2.60287	105285.09					
1786.03	92.00	4491.66	14.49	-8.05	-14371.81	0.37	
		217.71	8.20	190.12	13.12		0.002928
	1.49883	102664.03					
1662.47	93.00	4490.80	13.63	-8.06	-13398.33	0.38	
		212.44	7.83	186.19	13.66		0.003143
	1.53460	100542.27					
1568.25	94.00	4490.13	12.96	-8.06	-12643.74	0.39	
		208.24	7.53	183.05	14.12		0.003744
	1.75947	98846.61					
1509.59	95.00	4489.71	12.54	-8.00	-12073.13	0.40	
		205.53	7.34	181.02	14.43		0.003457
	1.58462	97751.40					
1455.60	96.00	4489.32	12.15	-7.90	-11493.87	0.40	
		202.97	7.17	179.10	14.74		0.003146
	1.40771	96712.71					
1407.74	97.00	4488.98	11.81	-7.80	-10978.66	0.40	
		200.65	7.02	177.35	15.02		0.002931
	1.28325	95770.60					
1369.50	98.00	4488.70	11.53	-7.71	-10564.91	0.40	
		198.76	6.89	175.93	15.26		0.002719
	1.16926	95000.01					
1337.28	99.00	4488.46	11.29	-7.64	-10215.38	0.40	
		197.14	6.78	174.70	15.47		0.002589
	1.09571	94340.16					
1305.20	100.00	4488.23	11.06	-7.57	-9883.60	0.40	
		195.49	6.68	173.46	15.69		0.002547
	1.06097	93669.38					
1267.97	101.00	4487.96	10.79	-7.51	-9524.27	0.40	
		193.55	6.55	172.00	15.95		0.002549
	1.04208	92878.71					
1238.12	102.00	4487.74	10.57	-7.46	-9236.25	0.40	
		191.97	6.45	170.80	16.17		0.002551
	1.02645	92232.14					
1212.25	103.00	4487.54	10.37	-7.41	-8986.06	0.41	
		190.58	6.36	169.75	16.36		0.002553
	1.01345	91663.51					
1191.43	104.00	4487.39	10.22	-7.37	-8784.00	0.41	
		189.45	6.29	168.89	16.52		0.002551
	1.00105	91198.86					
1162.43	105.00	4487.17	10.00	-7.31	-8501.53	0.41	
		187.85	6.19	167.67	16.76		0.002550
	0.98476	90540.40					
1131.64	106.00	4486.95	9.78	-7.25	-8201.20	0.41	
		186.12	6.08	166.36	17.02		0.002553
	0.96865	89832.11					
1113.23	107.00	4486.81	9.64	-7.21	-8021.04	0.41	
		185.08	6.02	165.56	17.18		0.002554
	0.95860	89401.48					
1095.58	108.00	4486.68	9.51	-7.16	-7847.73	0.41	
		184.06	5.95	164.78	17.34		0.002554
	0.94874	88983.22					
1085.27	109.00	4486.60	9.43	-7.14	-7746.52	0.41	
		183.46	5.92	164.33	17.43		0.002557
	0.94391	88738.16					
110.00	110.00	4486.65	9.48	-7.16	-7817.37	0.41	

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		HYCHAN.OUT					
1092.49	183.89	5.94	164.65	17.36	0.002557		
0.94812	88911.74						
111.00	4486.84	9.67	-7.21	-8063.07	0.41		
1117.55	185.33	6.03	165.75	17.14	0.002557		
0.96224	89505.59						
112.00	4486.94	9.77	-7.24	-8188.27	0.41		
1130.31	186.05	6.08	166.30	17.03	0.002553		
0.96795	89801.88						
113.00	4486.81	9.64	-7.21	-8021.22	0.41		
1113.25	185.08	6.02	165.56	17.18	0.002556		
0.95935	89401.99						
114.00	4486.85	9.68	-7.22	-8070.63	0.41		
1118.32	185.37	6.03	165.78	17.13	0.002561		
0.96416	89523.52						
115.00	4487.13	9.96	-7.30	-8437.29	0.41		
1155.84	187.49	6.16	167.40	16.81	0.002560		
0.98463	90394.34						
116.00	4487.23	10.06	-7.33	-8576.38	0.41		
1170.08	188.28	6.21	167.99	16.70	0.002554		
0.99033	90717.03						
117.00	4487.15	9.98	-7.31	-8473.84	0.41		
1159.54	187.69	6.18	167.55	16.78	0.002558		
0.98610	90477.67						
118.00	4487.15	9.98	-7.31	-8470.52	0.41		
1159.20	187.68	6.18	167.54	16.78	0.002556		
0.98508	90470.09						
119.00	4487.22	10.05	-7.33	-8556.89	0.41		
1168.08	188.17	6.21	167.91	16.71	0.002559		
0.99118	90673.40						
120.00	4487.30	10.13	-7.35	-8667.23	0.41		
1179.40	188.79	6.25	168.39	16.62	0.002554		
0.99546	90929.58						
121.00	4487.30	10.13	-7.35	-8669.51	0.41		
1179.64	188.81	6.25	168.40	16.62	0.002552		
0.99496	90934.77						
122.00	4487.24	10.07	-7.33	-8582.27	0.41		
1170.68	188.31	6.22	168.02	16.69	0.002554		
0.99064	90730.52						
123.00	4487.15	9.98	-7.31	-8472.84	0.41		
1159.44	187.69	6.18	167.55	16.78	0.002555		
0.98488	90475.25						
124.00	4487.08	9.92	-7.29	-8384.11	0.41		
1150.35	187.18	6.15	167.16	16.86	0.002554		
0.97931	90265.63						
125.00	4487.00	9.83	-7.26	-8272.78	0.41		
1138.95	186.54	6.11	166.67	16.95	0.002556		
0.97382	90003.31						
126.00	4487.00	9.83	-7.26	-8269.78	0.41		
1138.64	186.52	6.10	166.66	16.96	0.002555		
0.97322	89996.32						
127.00	4486.94	9.77	-7.25	-8193.95	0.41		
1130.89	186.08	6.08	166.32	17.02	0.002555		
0.96875	89815.15						
128.00	4486.86	9.69	-7.22	-8094.17	0.41		
1120.69	185.50	6.04	165.88	17.11	0.002556		
0.96363	89577.86						
129.00	4486.86	9.69	-7.22	-8090.72	0.41		
1120.34	185.48	6.04	165.87	17.12	0.002555		
0.96299	89569.70						
130.00	4486.81	9.64	-7.20	-8017.82	0.41		
1112.90	185.06	6.01	165.54	17.18	0.002555		
0.95868	89393.92						
131.00	4486.73	9.56	-7.18	-7920.28	0.41		

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		HYCHAN.OUT				
1102.95	184.49	5.98	165.11	17.27	0.002558	
	0.95414 89159.81					
132.00	4486.84	9.67	-7.22	-8067.23	0.41	
1117.97	185.35	6.03	165.77	17.14	0.002561	
	0.96386 89515.48					
133.00	4486.99	9.82	-7.26	-8264.00	0.41	
1138.05	186.49	6.10	166.63	16.96	0.002556	
	0.97319 89982.88					
134.00	4487.00	9.83	-7.26	-8269.65	0.41	
1138.62	186.52	6.10	166.66	16.96	0.002556	
	0.97361 89996.02					
135.00	4487.00	9.83	-7.26	-8270.23	0.41	
1138.69	186.52	6.10	166.66	16.96	0.002556	
	0.97360 89997.41					
136.00	4487.00	9.83	-7.26	-8269.95	0.41	
1138.66	186.52	6.10	166.66	16.96	0.002556	
	0.97351 89996.78					
137.00	4487.00	9.83	-7.26	-8269.92	0.41	
1138.65	186.52	6.10	166.66	16.96	0.002556	
	0.97349 89996.71					
138.00	4487.00	9.83	-7.26	-8270.14	0.41	
1138.68	186.52	6.10	166.66	16.96	0.002556	
	0.97362 89997.20					
139.00	4487.00	9.83	-7.26	-8269.56	0.41	
1138.62	186.52	6.10	166.66	16.96	0.002555	
	0.97330 89995.83					
140.00	4486.94	9.77	-7.25	-8194.50	0.41	
1130.95	186.08	6.08	166.33	17.02	0.002554	
	0.96876 89816.48					
141.00	4486.86	9.69	-7.22	-8093.97	0.41	
1120.67	185.50	6.04	165.88	17.11	0.002556	
	0.96364 89577.38					
142.00	4486.86	9.69	-7.22	-8090.89	0.41	
1120.35	185.49	6.04	165.87	17.12	0.002556	
	0.96339 89570.15					
143.00	4486.86	9.69	-7.22	-8090.85	0.41	
1120.35	185.48	6.04	165.87	17.12	0.002556	
	0.96330 89570.02					
144.00	4486.86	9.69	-7.22	-8090.77	0.41	
1120.34	185.48	6.04	165.87	17.12	0.002555	
	0.96313 89569.86					
145.00	4486.81	9.64	-7.20	-8018.48	0.41	
1112.97	185.06	6.01	165.55	17.18	0.002554	
	0.95851 89395.47					
146.00	4486.73	9.56	-7.18	-7919.41	0.41	
1102.87	184.48	5.98	165.11	17.27	0.002556	
	0.95357 89157.70					
147.00	4486.73	9.56	-7.18	-7916.98	0.41	
1102.62	184.47	5.98	165.10	17.27	0.002557	
	0.95359 89151.95					
148.00	4486.73	9.56	-7.18	-7917.12	0.41	
1102.63	184.47	5.98	165.10	17.27	0.002556	
	0.95348 89152.28					
149.00	4486.73	9.56	-7.18	-7917.02	0.41	
1102.62	184.47	5.98	165.10	17.27	0.002556	
	0.95331 89152.06					
150.00	4486.73	9.56	-7.18	-7916.60	0.41	
1102.58	184.47	5.98	165.09	17.27	0.002556	
	0.95335 89150.99					
151.00	4486.69	9.52	-7.17	-7868.83	0.41	
1097.72	184.18	5.96	164.88	17.32	0.002555	
	0.95013 89034.79					
152.00	4486.62	9.45	-7.15	-7778.85	0.41	

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		HYCHAN.OUT				
1088.56	183.65	5.93	164.48	17.40	0.002556	
0.94534	88816.60					
153.00	4486.60	9.43	-7.14	-7743.81	0.41	
1084.99	183.45	5.91	164.32	17.43	0.002556	
0.94345	88731.65					
154.00	4486.60	9.43	-7.14	-7742.39	0.41	
1084.85	183.44	5.91	164.31	17.43	0.002556	
0.94337	88728.23					
155.00	4486.54	9.37	-7.12	-7671.77	0.41	
1077.68	183.02	5.89	163.99	17.50	0.002556	
0.93918	88554.77					
156.00	4486.58	9.41	-7.13	-7717.27	0.41	
1082.33	183.30	5.90	164.20	17.46	0.002559	
0.94289	88668.78					
157.00	4486.72	9.55	-7.18	-7910.84	0.41	
1101.99	184.43	5.98	165.07	17.28	0.002557	
0.95319	89137.43					
158.00	4486.73	9.56	-7.18	-7917.26	0.41	
1102.65	184.47	5.98	165.10	17.27	0.002556	
0.95329	89152.63					
159.00	4486.73	9.56	-7.18	-7917.19	0.41	
1102.64	184.47	5.98	165.10	17.27	0.002556	
0.95324	89152.45					
160.00	4486.73	9.56	-7.18	-7916.69	0.41	
1102.59	184.47	5.98	165.09	17.27	0.002556	
0.95340	89151.28					
161.00	4486.73	9.56	-7.18	-7917.12	0.41	
1102.63	184.47	5.98	165.10	17.27	0.002557	
0.95354	89152.30					
162.00	4486.73	9.56	-7.18	-7917.07	0.41	
1102.63	184.47	5.98	165.10	17.27	0.002556	
0.95339	89152.16					
163.00	4486.73	9.56	-7.18	-7916.93	0.41	
1102.61	184.47	5.98	165.10	17.27	0.002556	
0.95339	89151.81					
164.00	4486.73	9.56	-7.18	-7916.68	0.41	
1102.59	184.47	5.98	165.09	17.27	0.002555	
0.95308	89151.20					
165.00	4486.67	9.50	-7.16	-7844.23	0.41	
1095.22	184.04	5.95	164.77	17.34	0.002555	
0.94869	88974.89					
166.00	4486.60	9.43	-7.14	-7745.92	0.41	
1085.21	183.46	5.92	164.33	17.43	0.002557	
0.94367	88736.67					
167.00	4486.60	9.43	-7.14	-7743.04	0.41	
1084.92	183.44	5.91	164.31	17.43	0.002556	
0.94341	88729.83					
168.00	4486.60	9.43	-7.14	-7742.87	0.41	
1084.90	183.44	5.91	164.31	17.43	0.002556	
0.94327	88729.40					
169.00	4486.60	9.43	-7.14	-7743.02	0.41	
1084.91	183.44	5.91	164.31	17.43	0.002556	
0.94327	88729.76					
170.00	4486.60	9.43	-7.14	-7743.17	0.41	
1084.93	183.44	5.91	164.32	17.43	0.002557	
0.94351	88730.12					
171.00	4486.60	9.43	-7.14	-7742.79	0.41	
1084.89	183.44	5.91	164.31	17.43	0.002556	
0.94342	88729.27					
172.00	4486.60	9.43	-7.14	-7742.82	0.41	
1084.89	183.44	5.91	164.31	17.43	0.002555	
0.94298	88729.25					
173.00	4486.54	9.37	-7.12	-7670.42	0.41	

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				HYCHAN.OUT			
1077.55		183.01		5.89	163.98	17.50	0.002555
	0.93867	88551.41					
	174.00	4486.46	9.29	-7.09	-7571.94	0.41	
1067.54		182.43		5.85	163.54	17.59	0.002557
	0.93356	88310.57					
	175.00	4486.46	9.29	-7.09	-7569.14	0.41	
1067.26		182.41		5.85	163.53	17.60	0.002557
	0.93353	88303.85					
	176.00	4486.46	9.29	-7.09	-7568.88	0.41	
1067.23		182.41		5.85	163.52	17.60	0.002557
	0.93338	88303.23					
	177.00	4486.46	9.29	-7.09	-7569.17	0.41	
1067.26		182.41		5.85	163.53	17.60	0.002556
	0.93328	88303.93					
	178.00	4486.46	9.29	-7.09	-7568.70	0.41	
1067.21		182.41		5.85	163.52	17.60	0.002557
	0.93354	88302.74					
	179.00	4486.46	9.29	-7.09	-7569.48	0.41	
1067.29		182.41		5.85	163.53	17.60	0.002558
	0.93411	88304.77					
	180.00	4486.58	9.41	-7.13	-7715.32	0.41	
1082.13		183.28		5.90	164.19	17.46	0.002562
	0.94382	88664.18					
	181.00	4486.72	9.55	-7.18	-7910.57	0.41	
1101.97		184.43		5.97	165.07	17.28	0.002557
	0.95345	89136.78					
	182.00	4486.79	9.62	-7.20	-7991.12	0.41	
1110.18		184.91		6.00	165.43	17.20	0.002557
	0.95781	89331.66					
	183.00	4486.86	9.69	-7.22	-8087.31	0.41	
1119.99		185.46		6.04	165.86	17.12	0.002556
	0.96322	89561.73					
	184.00	4486.86	9.69	-7.22	-8091.02	0.41	
1120.37		185.49		6.04	165.87	17.12	0.002556
	0.96344	89570.45					
	185.00	4486.86	9.69	-7.22	-8090.84	0.41	
1120.35		185.48		6.04	165.87	17.12	0.002556
	0.96339	89569.99					
	186.00	4486.86	9.69	-7.22	-8091.21	0.41	
1120.39		185.49		6.04	165.87	17.11	0.002556
	0.96338	89570.90					
	187.00	4486.86	9.69	-7.22	-8091.14	0.41	
1120.38		185.49		6.04	165.87	17.11	0.002556
	0.96332	89570.74					
	188.00	4486.86	9.69	-7.22	-8090.78	0.41	
1120.34		185.48		6.04	165.87	17.12	0.002556
	0.96342	89569.88					
	189.00	4486.86	9.69	-7.22	-8091.15	0.41	
1120.38		185.49		6.04	165.87	17.11	0.002556
	0.96338	89570.73					
	190.00	4486.86	9.69	-7.22	-8090.88	0.41	
1120.35		185.49		6.04	165.87	17.12	0.002555
	0.96313	89570.08					
	191.00	4486.81	9.64	-7.20	-8017.95	0.41	
1112.92		185.06		6.01	165.54	17.18	0.002554
	0.95851	89394.18					
	192.00	4486.73	9.56	-7.18	-7919.49	0.41	
1102.87		184.48		5.98	165.11	17.27	0.002557
	0.95372	89157.86					
	193.00	4486.73	9.56	-7.18	-7917.25	0.41	
1102.65		184.47		5.98	165.10	17.27	0.002556
	0.95344	89152.61					
	194.00	4486.73	9.56	-7.18	-7917.00	0.41	

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HYCHAN.OUT						
1102.62	184.47	5.98	165.10	17.27	0.002556	
0.95339	89152.05					
195.00	4486.73	9.56	-7.18	-7916.85	0.41	
1102.60	184.47	5.98	165.10	17.27	0.002556	
0.95346	89151.63					
196.00	4486.73	9.56	-7.18	-7917.21	0.41	
1102.64	184.47	5.98	165.10	17.27	0.002556	
0.95342	89152.49					
197.00	4486.73	9.56	-7.18	-7917.06	0.41	
1102.63	184.47	5.98	165.10	17.27	0.002556	
0.95342	89152.16					
198.00	4486.73	9.56	-7.18	-7916.94	0.41	
1102.61	184.47	5.98	165.10	17.27	0.002556	
0.95349	89151.84					
199.00	4486.73	9.56	-7.18	-7916.93	0.41	
1102.61	184.47	5.98	165.10	17.27	0.002556	
0.95342	89151.80					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1160

MAXIMUM DISCHARGE (CFS) = 20091.38 AT TIME = 80.79  
 MAXIMUM STAGE = 4494.75 AT TIME = 80.79

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4476.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4476.30	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4476.30	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4480.81	4.51	5.92	4.82	3908.11	0.40		
810.17	136.80	5.92	127.98	28.38			0.000516	
0.19061	72950.51							
4.00	4482.61	6.31	5.38	6.51	5476.25	0.46		
841.31	156.35	5.38	143.40	22.73			0.000505	
0.16963	81738.23							
5.00	4482.54	6.24	5.34	6.47	5381.32	0.46		
831.20	155.67	5.34	142.88	22.90			0.000505	
0.16810	81438.75							
6.00	4482.50	6.20	5.31	6.45	5325.47	0.46		
825.28	155.29	5.31	142.57	22.99			0.000494	
0.16370	81266.46							
7.00	4482.40	6.10	5.25	6.40	5178.67	0.46		
809.71	154.25	5.25	141.76	23.25			0.000482	
0.15788	80803.12							
8.00	4482.29	5.99	5.18	6.33	5029.23	0.46		
794.07	153.18	5.18	140.93	23.52			0.000477	
0.15428	80327.65							
9.00	4482.20	5.90	5.13	6.25	4881.95	0.45		
781.35	152.24	5.13	140.18	23.76			0.000489	
0.15649	79905.30							
10.00	4482.14	5.84	5.10	6.18	4777.39	0.45		
772.95	151.59	5.10	139.67	23.93			0.000493	

		HYCHAN.OUT					
	0.15691	79613.64					
768.94	11.00	4482.11	5.81	6.15	4727.07	0.45	
		151.28	5.08	139.43	24.01		0.000500
	0.15844	79475.55					
757.42	12.00	4482.02	5.72	6.05	4582.94	0.45	
		150.38	5.04	138.72	24.25		0.000511
	0.16063	79073.23					
748.78	13.00	4481.96	5.66	5.98	4474.88	0.44	
		149.69	5.00	138.19	24.44		0.000516
	0.16110	78765.66					
748.31	14.00	4481.95	5.65	5.97	4469.04	0.44	
		149.65	5.00	138.15	24.45		0.000516
	0.16102	78748.12					
748.31	15.00	4481.95	5.65	5.97	4468.96	0.44	
		149.65	5.00	138.15	24.45		0.000516
	0.16107	78747.88					
748.31	16.00	4481.95	5.65	5.97	4469.03	0.44	
		149.65	5.00	138.15	24.45		0.000516
	0.16104	78748.10					
748.31	17.00	4481.95	5.65	5.97	4468.96	0.44	
		149.65	5.00	138.15	24.45		0.000516
	0.16103	78747.88					
751.77	18.00	4481.98	5.68	6.00	4512.23	0.44	
		149.92	5.01	138.36	24.37		0.000510
	0.15953	78867.64					
763.58	19.00	4482.06	5.77	6.10	4659.96	0.45	
		150.84	5.06	139.09	24.13		0.000498
	0.15743	79282.04					
775.86	20.00	4482.16	5.86	6.20	4813.48	0.45	
		151.80	5.11	139.84	23.87		0.000487
	0.15526	79709.16					
784.35	21.00	4482.22	5.92	6.27	4919.49	0.45	
		152.46	5.14	140.36	23.70		0.000482
	0.15467	80004.30					
784.70	22.00	4482.22	5.92	6.27	4923.87	0.45	
		152.49	5.15	140.38	23.70		0.000482
	0.15476	80017.14					
788.74	23.00	4482.25	5.95	6.30	4972.05	0.46	
		152.78	5.16	140.61	23.62		0.000482
	0.15523	80149.27					
809.41	24.00	4482.39	6.09	6.39	5175.48	0.46	
		154.19	5.25	141.72	23.26		0.000505
	0.16549	80778.34					
841.85	25.00	4482.61	6.31	6.51	5480.94	0.46	
		156.35	5.38	143.40	22.73		0.000529
	0.17763	81738.10					
874.79	26.00	4482.83	6.53	6.62	5789.57	0.46	
		158.48	5.52	145.07	22.23		0.000551
	0.18967	82687.13					
895.10	27.00	4482.96	6.66	6.68	5979.52	0.46	
		159.79	5.60	146.09	21.92		0.000551
	0.19256	83269.39					
895.69	28.00	4482.97	6.67	6.68	5985.04	0.46	
		159.83	5.60	146.12	21.92		0.000551
	0.19260	83287.51					
902.56	29.00	4483.01	6.71	6.70	6048.85	0.46	
		160.25	5.63	146.45	21.82		0.000563
	0.19787	83473.76					
913.35	30.00	4483.08	6.78	6.73	6149.27	0.46	
		160.93	5.68	146.98	21.67		0.000563
	0.19947	83776.26					
913.67	31.00	4483.09	6.79	6.73	6152.31	0.46	
		160.96	5.68	146.99	21.66		0.000563

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		HYCHAN.OUT					
	0.19960	83786.12					
920.96	32.00	4483.13	6.83	6.75	6219.82	0.46	
		161.39	5.71	147.33	21.56		0.000576
	0.20503	83980.88					
932.10	33.00	4483.21	6.91	6.78	6323.27	0.46	
		162.09	5.75	147.88	21.41		0.000576
	0.20658	84288.93					
932.37	34.00	4483.21	6.91	6.78	6325.75	0.46	
		162.11	5.75	147.89	21.41		0.000575
	0.20651	84297.19					
925.10	35.00	4483.16	6.86	6.76	6258.24	0.46	
		161.67	5.72	147.55	21.50		0.000563
	0.20097	84103.69					
913.94	36.00	4483.09	6.79	6.73	6154.81	0.46	
		160.97	5.68	147.01	21.66		0.000562
	0.19922	83794.51					
906.74	37.00	4483.04	6.74	6.71	6087.74	0.46	
		160.53	5.65	146.66	21.76		0.000550
	0.19401	83598.98					
896.01	38.00	4482.97	6.67	6.68	5987.96	0.46	
		159.85	5.61	146.14	21.91		0.000551
	0.19255	83297.23					
895.68	39.00	4482.97	6.67	6.68	5984.94	0.46	
		159.83	5.60	146.12	21.92		0.000551
	0.19251	83287.23					
895.69	40.00	4482.97	6.67	6.68	5985.06	0.46	
		159.83	5.60	146.12	21.92		0.000551
	0.19255	83287.63					
895.70	41.00	4482.97	6.67	6.68	5985.07	0.46	
		159.83	5.60	146.12	21.92		0.000551
	0.19251	83287.60					
895.69	42.00	4482.97	6.67	6.68	5985.02	0.46	
		159.83	5.60	146.12	21.92		0.000551
	0.19267	83287.45					
902.59	43.00	4483.01	6.71	6.70	6049.11	0.46	
		160.25	5.63	146.45	21.82		0.000563
	0.19795	83474.54					
913.38	44.00	4483.08	6.78	6.73	6149.54	0.46	
		160.93	5.68	146.98	21.67		0.000563
	0.19951	83777.05					
920.97	45.00	4483.13	6.83	6.75	6219.91	0.46	
		161.39	5.71	147.34	21.56		0.000577
	0.20540	83981.09					
939.61	46.00	4483.25	6.95	6.80	6392.68	0.45	
		162.54	5.78	148.22	21.31		0.000589
	0.21262	84486.91					
958.42	47.00	4483.38	7.08	6.85	6566.48	0.45	
		163.68	5.86	149.11	21.07		0.000602
	0.22013	84990.69					
977.34	48.00	4483.50	7.20	6.90	6740.94	0.45	
		164.81	5.93	149.98	20.83		0.000615
	0.22745	85490.62					
995.40	49.00	4483.62	7.32	6.94	6906.99	0.45	
		165.87	6.00	150.81	20.61		0.000628
	0.23516	85961.18					
1015.12	50.00	4483.75	7.45	6.98	7087.79	0.45	
		167.02	6.08	151.70	20.37		0.000641
	0.24315	86467.92					
1041.30	51.00	4483.91	7.61	7.04	7326.90	0.45	
		168.51	6.18	152.85	20.07		0.000665
	0.25651	87124.84					
1064.02	52.00	4484.07	7.77	7.08	7537.17	0.45	
		169.86	6.26	153.89	19.81		0.000661



HYCHAN.OUT									
	0.25820	87716.64							
1072.06	53.00	4484.13	7.83	6.29	7.10	7616.37	0.45		0.000656
	0.25744	87948.08				154.29	19.71		
1106.01	54.00	4484.39	8.09	6.41	7.19	7949.35	0.45		0.000645
	0.25775	88913.19				155.99	19.29		
1174.29	55.00	4484.90	8.60	6.64	7.34	8615.59	0.44		0.000617
	0.25573	90799.66				159.30	18.52		
1272.28	56.00	4485.64	9.34	6.96	7.52	9563.45	0.43		0.000570
	0.24771	93363.36				163.80	17.54		
1382.39	57.00	4486.39	10.09	7.34	7.74	10700.10	0.43		0.000661
	0.30267	95833.80				168.13	16.67		
1492.38	58.00	4487.07	10.77	7.71	7.96	11886.69	0.43		0.000725
	0.34912	97991.85				171.92	15.96		
1602.96	59.00	4487.77	11.47	8.08	8.06	12923.82	0.42		0.000752
	0.37938	100109.61				175.63	15.31		
1767.64	60.00	4488.86	12.56	8.60	8.05	14227.43	0.40		0.000762
	0.40881	103226.91				181.10	14.42		
2878.69	61.00	4489.85	13.55	13.58	5.31	15295.77	0.25		0.000788
	0.66779	105912.15				185.81	13.72		
0.00	62.00	4490.67	14.37	0.00	0.00	0.00	0.00		0.000842
	0.00000	108043.27				189.55	13.19		
0.00	63.00	4491.59	15.29	0.00	0.00	0.00	0.00		0.000776
	0.00000	110361.44				193.62	12.66		
0.00	64.00	4492.27	15.97	0.00	0.00	0.00	0.00		0.000679
	0.00000	111983.27				196.46	12.30		
0.00	65.00	4492.80	16.50	0.00	0.00	0.00	0.00		0.000643
	0.00000	113245.44				198.68	12.04		
0.00	66.00	4493.14	16.84	0.00	0.00	0.00	0.00		0.000626
	0.00000	114018.39				200.03	11.88		
0.00	67.00	4493.21	16.91	0.00	0.00	0.00	0.00		0.000622
	0.00000	114171.70				200.30	11.85		
0.00	68.00	4493.21	16.91	0.00	0.00	0.00	0.00		0.000622
	0.00000	114192.05				200.34	11.84		
0.00	69.00	4493.22	16.92	0.00	0.00	0.00	0.00		0.000622
	0.00000	114206.52				200.36	11.84		
0.00	70.00	4493.23	16.93	0.00	0.00	0.00	0.00		0.000622
	0.00000	114231.35				200.41	11.84		
0.00	71.00	4493.24	16.94	0.00	0.00	0.00	0.00		0.000622
	0.00000	114242.77				200.43	11.83		
0.00	72.00	4493.23	16.93	0.00	0.00	0.00	0.00		0.000623
	0.00000	114227.91				200.40	11.84		
0.00	73.00	4493.26	16.96	0.00	0.00	0.00	0.00		0.000630
	0.00000	114227.91				200.54	11.82		

HYCHAN.OUT							
0.00000	114307.66						
74.00	4493.41	17.11	0.00	0.00	0.00		
0.00	226.67	0.00	201.12	11.76	0.00	0.000620	
0.00000	114635.60						
75.00	4493.46	17.16	0.00	0.00	0.00		
0.00	226.78	0.00	201.33	11.73	0.00	0.000618	
0.00000	114758.52						
76.00	4493.50	17.20	0.00	0.00	0.00		
0.00	226.84	0.00	201.46	11.72	0.00	0.000630	
0.00000	114831.45						
77.00	4493.68	17.38	0.00	0.00	0.00		
0.00	227.22	0.00	202.20	11.63	0.00	0.000670	
0.00000	115252.53						
78.00	4493.99	17.69	0.00	0.00	0.00		
0.00	227.83	0.00	203.39	11.50	0.00	0.000705	
0.00000	115932.09						
79.00	4494.20	17.90	0.00	0.00	0.00		
0.00	228.26	0.00	204.24	11.41	0.00	0.000736	
0.00000	116416.90						
80.00	4494.40	18.10	0.00	0.00	0.00		
0.00	228.65	0.00	204.98	11.33	0.00	0.000792	
0.00000	116836.91						
81.00	4494.60	18.30	0.00	0.00	0.00		
0.00	229.06	0.00	205.77	11.24	0.00	0.000820	
0.00000	117290.98						
82.00	4494.59	18.29	0.00	0.00	0.00		
0.00	229.03	0.00	205.71	11.25	0.00	0.000774	
0.00000	117252.96						
83.00	4494.44	18.14	0.00	0.00	0.00		
0.00	228.73	0.00	205.14	11.31	0.00	0.000751	
0.00000	116928.88						
84.00	4494.39	18.09	0.00	0.00	0.00		
0.00	228.63	0.00	204.95	11.33	0.00	0.000750	
0.00000	116820.29						
85.00	4494.39	18.09	0.00	0.00	0.00		
0.00	228.63	0.00	204.95	11.33	0.00	0.000750	
0.00000	116820.16						
86.00	4494.40	18.10	0.00	0.00	0.00		
0.00	228.66	0.00	205.01	11.32	0.00	0.000748	
0.00000	116853.62						
87.00	4494.30	18.00	0.00	0.00	0.00		
0.00	228.45	0.00	204.59	11.37	0.00	0.000671	
0.00000	116617.62						
88.00	4493.82	17.52	0.00	0.00	0.00		
0.00	227.50	0.00	202.75	11.57	0.00	0.000579	
0.00000	115565.29						
89.00	4492.96	16.66	0.00	0.00	0.00		
0.00	225.76	0.00	199.29	11.97	0.00	0.000525	
0.00000	113595.99						
90.00	4491.36	15.06	0.00	0.00	0.00		
0.00	221.06	0.00	192.61	12.79	0.00	0.000711	
0.00000	109787.66						
91.00	4490.09	13.79	4.28	15441.02	0.20		
3607.25	213.43	16.90	186.93	13.56	0.000654		
0.68993	106550.47						
92.00	4489.02	12.72	8.05	14371.81	0.40		
1786.03	206.70	8.64	181.90	14.30	0.000697		
0.37569	103680.79						
93.00	4488.20	11.90	8.06	13398.33	0.41		
1662.47	201.25	8.26	177.81	14.95	0.000705		
0.36334	101349.72						
94.00	4487.56	11.27	8.06	12643.74	0.42		
1568.25	196.93	7.96	174.55	15.49	0.000708		

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0.35180	99494.81						
95.00	4487.19	10.89	8.00	12073.13	0.43		
1509.59	194.28	7.77		172.54	15.85	0.000671	
0.32538	98350.16						
96.00	4486.85	10.55	7.90	11493.87	0.43		
1455.60	191.89	7.59		170.73	16.18	0.000635	
0.30057	97318.65						
97.00	4486.56	10.26	7.80	10978.66	0.43		
1407.74	189.71	7.42		169.09	16.49	0.000609	
0.28185	96378.80						
98.00	4486.32	10.02	7.71	10564.91	0.43		
1369.50	187.95	7.29		167.74	16.74	0.000581	
0.26424	95613.54						
99.00	4486.12	9.82	7.64	10215.38	0.43		
1337.28	186.43	7.17		166.59	16.97	0.000564	
0.25254	94954.98						
100.00	4485.90	9.60	7.57	9883.60	0.43		
1305.20	184.79	7.06		165.34	17.22	0.000568	
0.25025	94244.19						
101.00	4485.62	9.32	7.51	9524.27	0.43		
1267.97	182.64	6.94		163.70	17.56	0.000581	
0.25176	93309.66						
102.00	4485.40	9.10	7.46	9236.25	0.44		
1238.12	180.87	6.85		162.35	17.85	0.000592	
0.25293	92539.98						
103.00	4485.20	8.90	7.41	8986.06	0.44		
1212.25	179.31	6.76		161.16	18.10	0.000604	
0.25479	91859.52						
104.00	4485.04	8.74	7.37	8784.00	0.44		
1191.43	178.04	6.69		160.18	18.32	0.000611	
0.25499	91304.66						
105.00	4484.82	8.53	7.31	8501.53	0.44		
1162.43	176.26	6.60		158.81	18.63	0.000623	
0.25650	90524.23						
106.00	4484.59	8.29	7.25	8201.20	0.44		
1131.64	174.30	6.49		157.31	18.98	0.000635	
0.25709	89666.87						
107.00	4484.45	8.15	7.21	8021.04	0.45		
1113.23	173.11	6.43		156.40	19.19	0.000642	
0.25755	89147.42						
108.00	4484.31	8.01	7.16	7847.73	0.45		
1095.58	171.96	6.37		155.51	19.41	0.000649	
0.25808	88643.06						
109.00	4484.23	7.93	7.14	7746.52	0.45		
1085.27	171.27	6.34		154.98	19.54	0.000653	
0.25812	88340.34						
110.00	4484.29	7.99	7.16	7817.37	0.45		
1092.49	171.73	6.36		155.34	19.45	0.000648	
0.25719	88541.52						
111.00	4484.48	8.18	7.21	8063.07	0.44		
1117.55	173.35	6.45		156.58	19.15	0.000637	
0.25613	89249.90						
112.00	4484.58	8.28	7.24	8188.27	0.44		
1130.31	174.21	6.49		157.24	18.99	0.000634	
0.25685	89626.34						
113.00	4484.45	8.15	7.21	8021.22	0.45		
1113.25	173.11	6.43		156.40	19.19	0.000643	
0.25821	89147.48						
114.00	4484.48	8.18	7.22	8070.63	0.44		
1118.32	173.40	6.45		156.62	19.14	0.000638	
0.25662	89273.05						
115.00	4484.77	8.47	7.30	8437.29	0.44		
1155.84	175.78	6.58		158.45	18.71	0.000623	

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1170.08	0.25551	90315.12	8.58	7.33	8576.38	0.44	0.000620
1170.08	116.00	4484.88	6.62	159.17	18.55		
1159.54	0.25636	90724.65	8.50	7.31	8473.84	0.44	0.000625
1159.54	117.00	4484.80	6.59	158.66	18.67		
1159.20	0.25698	90433.49	8.50	7.31	8470.52	0.44	0.000625
1159.20	118.00	4484.80	6.59	158.64	18.67		
1168.08	0.25697	90422.79	8.56	7.33	8556.89	0.44	0.000620
1168.08	119.00	4484.86	6.62	159.05	18.58		
1179.40	0.25611	90659.25	8.65	7.35	8667.23	0.44	0.000614
1179.40	120.00	4484.95	6.65	159.60	18.45		
1179.64	0.25469	90972.64	8.65	7.35	8669.51	0.44	0.000614
1179.64	121.00	4484.95	6.65	159.61	18.45		
1170.68	0.25508	90979.88	8.59	7.33	8582.27	0.44	0.000620
1170.68	122.00	4484.89	6.62	159.20	18.54		
1159.44	0.25638	90743.05	8.50	7.31	8472.84	0.44	0.000623
1159.44	123.00	4484.80	6.59	158.65	18.67		
1150.35	0.25596	90431.05	8.43	7.29	8384.11	0.44	0.000628
1150.35	124.00	4484.73	6.56	158.22	18.77		
1138.95	0.25679	90185.62	8.34	7.26	8272.78	0.44	0.000632
1138.95	125.00	4484.64	6.52	157.66	18.90		
1138.64	0.25689	89864.34	8.34	7.26	8269.78	0.44	0.000631
1138.64	126.00	4484.64	6.52	157.64	18.90		
1130.89	0.25643	89854.96	8.28	7.25	8193.95	0.44	0.000636
1130.89	127.00	4484.58	6.49	157.27	18.99		
1120.69	0.25749	89644.19	8.20	7.22	8094.17	0.44	0.000639
1120.69	128.00	4484.50	6.46	156.76	19.11		
1120.34	0.25730	89352.74	8.20	7.22	8090.72	0.44	0.000638
1120.34	129.00	4484.50	6.46	156.74	19.11		
1112.90	0.25682	89342.07	8.15	7.20	8017.82	0.45	0.000642
1112.90	130.00	4484.45	6.43	156.38	19.20		
1102.95	0.25776	89136.98	8.07	7.18	7920.28	0.45	0.000647
1102.95	131.00	4484.37	6.40	155.88	19.32		
1117.97	0.25807	88849.02	8.18	7.22	8067.23	0.44	0.000640
1117.97	132.00	4484.48	6.45	156.60	19.15		
1138.05	0.25733	89262.49	8.34	7.26	8264.00	0.44	0.000632
1138.05	133.00	4484.64	6.51	157.61	18.91		
1138.62	0.25673	89836.70	8.34	7.26	8269.65	0.44	0.000631
1138.62	134.00	4484.64	6.52	157.64	18.90		
1138.69	0.25679	89854.52	8.34	7.26	8270.23	0.44	0.000631
1138.69	135.00	4484.64	6.52	157.64	18.90		
1138.66	0.25678	89856.16	8.34	7.26	8269.95	0.44	0.000631
1138.66	136.00	4484.64	6.52	157.64	18.90		

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1138.65	0.25675	89855.26	8.34	7.26	8269.92	0.44	0.000631
137.00	4484.64	174.73	6.52	157.64	18.90		
1138.68	0.25660	89855.29	8.34	7.26	8270.14	0.44	0.000631
138.00	4484.64	174.73	6.52	157.64	18.90		
1138.62	0.25678	89855.95	8.34	7.26	8269.56	0.44	0.000631
139.00	4484.64	174.73	6.52	157.64	18.90		
1130.95	0.25652	89854.32	8.28	7.25	8194.50	0.44	0.000636
140.00	4484.58	174.25	6.49	157.27	18.99		
1120.67	0.25741	89645.74	8.20	7.22	8093.97	0.44	0.000638
141.00	4484.50	173.58	6.46	156.76	19.11		
1120.35	0.25718	89352.20	8.20	7.22	8090.89	0.44	0.000638
142.00	4484.50	173.56	6.46	156.74	19.11		
1120.35	0.25718	89342.35	8.20	7.22	8090.85	0.44	0.000639
143.00	4484.50	173.56	6.46	156.74	19.11		
1120.34	0.25723	89342.38	8.20	7.22	8090.77	0.44	0.000638
144.00	4484.50	173.56	6.46	156.74	19.11		
1112.97	0.25704	89342.11	8.15	7.20	8018.48	0.45	0.000642
145.00	4484.45	173.09	6.43	156.38	19.20		
1102.87	0.25757	89139.07	8.07	7.18	7919.41	0.45	0.000646
146.00	4484.37	172.43	6.40	155.87	19.32		
1102.62	0.25768	88846.57	8.07	7.18	7916.98	0.45	0.000646
147.00	4484.37	172.41	6.40	155.86	19.32		
1102.63	0.25775	88838.72	8.07	7.18	7917.12	0.45	0.000645
148.00	4484.37	172.41	6.40	155.86	19.32		
1102.62	0.25756	88839.08	8.07	7.18	7917.02	0.45	0.000645
149.00	4484.37	172.41	6.40	155.86	19.32		
1102.58	0.25745	88838.73	8.06	7.18	7916.60	0.45	0.000645
150.00	4484.36	172.41	6.40	155.86	19.32		
1097.72	0.25757	88837.66	8.03	7.17	7868.83	0.45	0.000648
151.00	4484.33	172.10	6.38	155.62	19.38		
1088.56	0.25779	88702.13	7.96	7.15	7778.85	0.45	0.000651
152.00	4484.26	171.49	6.35	155.15	19.50		
1084.99	0.25790	88437.14	7.93	7.14	7743.81	0.45	0.000652
153.00	4484.23	171.25	6.34	154.97	19.54		
1084.85	0.25775	88331.83	7.93	7.14	7742.39	0.45	0.000652
154.00	4484.23	171.24	6.34	154.96	19.54		
1077.68	0.25778	88327.30	7.88	7.12	7671.77	0.45	0.000657
155.00	4484.18	170.78	6.31	154.60	19.63		
1082.33	0.25858	88124.26	7.91	7.13	7717.27	0.45	0.000650
156.00	4484.21	171.05	6.33	154.81	19.58		
1101.99	0.25680	88242.72	8.06	7.18	7910.84	0.45	0.000646
157.00	4484.36	172.36	6.39	155.82	19.33		

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## HYCHAN.OUT

1102.65	0.25757	88818.91	8.07	7.18	7917.26	0.45	0.000645
158.00	4484.37	172.41	6.40	155.86	19.32		
1102.64	0.25735	88839.52	8.07	7.18	7917.19	0.45	0.000645
159.00	4484.37	172.41	6.40	155.86	19.32		
1102.59	0.25733	88839.31	8.06	7.18	7916.69	0.45	0.000645
160.00	4484.36	172.41	6.40	155.86	19.32		
1102.63	0.25759	88837.71	8.07	7.18	7917.12	0.45	0.000646
161.00	4484.37	172.41	6.40	155.86	19.32		
1102.63	0.25762	88839.08	8.07	7.18	7917.07	0.45	0.000645
162.00	4484.37	172.41	6.40	155.86	19.32		
1102.61	0.25756	88838.96	8.07	7.18	7916.93	0.45	0.000645
163.00	4484.37	172.41	6.40	155.86	19.32		
1102.59	0.25737	88838.55	8.07	7.18	7916.68	0.45	0.000644
164.00	4484.36	172.41	6.40	155.86	19.32		
1095.22	0.25718	88837.92	8.01	7.16	7844.23	0.45	0.000649
165.00	4484.31	171.94	6.37	155.49	19.41		
1085.21	0.25797	88631.92	7.93	7.14	7745.92	0.45	0.000652
166.00	4484.23	171.27	6.34	154.98	19.54		
1084.92	0.25789	88338.66	7.93	7.14	7743.04	0.45	0.000652
167.00	4484.23	171.25	6.34	154.96	19.54		
1084.90	0.25781	88329.21	7.93	7.14	7742.87	0.45	0.000652
168.00	4484.23	171.25	6.34	154.96	19.54		
1084.91	0.25781	88328.68	7.93	7.14	7743.02	0.45	0.000652
169.00	4484.23	171.25	6.34	154.96	19.54		
1084.93	0.25761	88329.11	7.93	7.14	7743.17	0.45	0.000652
170.00	4484.23	171.25	6.34	154.96	19.54		
1084.89	0.25784	88329.71	7.93	7.14	7742.79	0.45	0.000652
171.00	4484.23	171.25	6.34	154.96	19.54		
1084.89	0.25789	88328.33	7.93	7.14	7742.82	0.45	0.000651
172.00	4484.23	171.25	6.34	154.96	19.54		
1077.55	0.25741	88328.73	7.87	7.12	7670.42	0.45	0.000656
173.00	4484.17	170.77	6.31	154.60	19.63		
1067.54	0.25836	88120.59	7.80	7.09	7571.94	0.45	0.000659
174.00	4484.10	170.10	6.28	154.08	19.76		
1067.26	0.25818	87823.28	7.79	7.09	7569.14	0.45	0.000659
175.00	4484.09	170.08	6.28	154.06	19.77		
1067.23	0.25819	87814.14	7.79	7.09	7568.88	0.45	0.000659
176.00	4484.09	170.08	6.28	154.06	19.77		
1067.26	0.25807	87813.27	7.79	7.09	7569.17	0.45	0.000659
177.00	4484.09	170.08	6.28	154.06	19.77		
1067.21	0.25804	87814.05	7.79	7.09	7568.70	0.45	0.000660
178.00	4484.09	170.07	6.27	154.06	19.77		

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		HYCHAN.OUT					
	0.25824	87812.96					
1067.29	179.00	4484.09	7.79	6.28	7.09	7569.48	0.45
		170.08				154.06	19.77
	0.25867	87814.73					0.000661
1082.13	180.00	4484.20	7.90	6.33	7.13	7715.32	0.45
		171.04				154.80	19.58
	0.25709	88236.12					0.000651
1101.97	181.00	4484.36	8.06	6.39	7.18	7910.57	0.45
		172.36				155.82	19.33
	0.25781	88817.94					0.000646
1110.18	182.00	4484.42	8.12	6.42	7.20	7991.12	0.45
		172.89				156.23	19.24
	0.25631	89048.52					0.000640
1119.99	183.00	4484.50	8.20	6.45	7.22	8087.31	0.44
		173.53				156.72	19.12
	0.25721	89331.13					0.000639
1120.37	184.00	4484.50	8.20	6.46	7.22	8091.02	0.44
		173.56				156.74	19.11
	0.25722	89342.72					0.000639
1120.35	185.00	4484.50	8.20	6.46	7.22	8090.84	0.44
		173.56				156.74	19.11
	0.25719	89342.30					0.000638
1120.39	186.00	4484.50	8.20	6.46	7.22	8091.21	0.44
		173.56				156.74	19.11
	0.25715	89343.32					0.000638
1120.38	187.00	4484.50	8.20	6.46	7.22	8091.14	0.44
		173.56				156.74	19.11
	0.25717	89343.11					0.000638
1120.34	188.00	4484.50	8.20	6.46	7.22	8090.78	0.44
		173.56				156.74	19.11
	0.25727	89342.10					0.000639
1120.38	189.00	4484.50	8.20	6.46	7.22	8091.15	0.44
		173.56				156.74	19.11
	0.25712	89343.18					0.000638
1120.35	190.00	4484.50	8.20	6.46	7.22	8090.88	0.44
		173.56				156.74	19.11
	0.25697	89342.41					0.000638
1112.92	191.00	4484.45	8.15	6.43	7.20	8017.95	0.45
		173.09				156.38	19.20
	0.25747	89137.59					0.000642
1102.87	192.00	4484.37	8.07	6.40	7.18	7919.49	0.45
		172.43				155.87	19.32
	0.25760	88846.80					0.000645
1102.65	193.00	4484.37	8.07	6.40	7.18	7917.25	0.45
		172.41				155.86	19.32
	0.25744	88839.47					0.000645
1102.62	194.00	4484.37	8.07	6.40	7.18	7917.00	0.45
		172.41				155.86	19.32
	0.25753	88838.64					0.000645
1102.60	195.00	4484.36	8.07	6.40	7.18	7916.85	0.45
		172.41				155.86	19.32
	0.25753	88838.38					0.000645
1102.64	196.00	4484.37	8.07	6.40	7.18	7917.21	0.45
		172.41				155.86	19.32
	0.25744	88839.39					0.000645
1102.63	197.00	4484.37	8.07	6.40	7.18	7917.06	0.45
		172.41				155.86	19.32
	0.25745	88838.84					0.000645
1102.61	198.00	4484.37	8.07	6.40	7.18	7916.94	0.45
		172.41				155.86	19.32
	0.25758	88838.56					0.000645
1102.61	199.00	4484.37	8.07	6.40	7.18	7916.93	0.45
		172.41				155.86	19.32

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## HYCHAN.OUT

0.25741 88838.52

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1185

MAXIMUM DISCHARGE (CFS) = 20090.60 AT TIME = 80.79  
 MAXIMUM STAGE = 4495.45 AT TIME = 80.79

AREA BED	TIME WETTED (HRS)	ELEV. PERIMETER SURFACE (FT)	THALWEG HYDRAULIC RADIUS (FT)	DEPTH (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY	FLOW SLOPE
(FT^2)	(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4476.10	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4476.10	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4476.10	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
891.85	3.00	4481.57	5.47	5.97	-4.10	-3655.59	0.31	0.002026
	0.75452	149.44			142.40	26.04		
926.71	4.00	4484.01	7.91	5.70	-5.91	-5479.62	0.37	0.002020
	0.71856	162.56			153.03	19.34		
917.36	5.00	4483.94	7.84	5.65	-5.87	-5382.18	0.37	0.002020
	0.71281	162.25			152.77	19.48		
912.27	6.00	4483.91	7.81	5.63	-5.84	-5328.84	0.37	0.002014
	0.70741	162.07			152.63	19.55		
898.33	7.00	4483.81	7.71	5.56	-5.77	-5182.89	0.37	0.002008
	0.69661	161.59			152.25	19.76		
884.00	8.00	4483.70	7.60	5.49	-5.69	-5033.31	0.36	0.002005
	0.68665	161.09			151.84	19.97		
868.39	9.00	4483.59	7.49	5.41	-5.63	-4886.11	0.36	0.002011
	0.67876	160.54			151.40	20.22		
856.58	10.00	4483.50	7.40	5.35	-5.58	-4778.47	0.36	0.002014
	0.67241	160.12			151.06	20.41		
851.30	11.00	4483.46	7.36	5.32	-5.56	-4730.15	0.36	0.002016
	0.66972	159.92			150.90	20.49		
835.68	12.00	4483.35	7.25	5.24	-5.49	-4587.12	0.36	0.002022
	0.66171	159.35			150.44	20.75		
823.56	13.00	4483.26	7.16	5.18	-5.43	-4476.02	0.36	0.002026
	0.65509	158.91			150.08	20.96		
822.79	14.00	4483.25	7.16	5.18	-5.43	-4469.04	0.36	0.002026
	0.65459	158.88			150.06	20.97		
822.79	15.00	4483.25	7.16	5.18	-5.43	-4468.96	0.36	0.002026
	0.65455	158.88			150.06	20.97		
		79531.48						

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822.79	16.00	4483.25	7.16	-5.43	-4469.04	0.36	
	0.65460	158.88	5.18		150.06	20.97	0.002026
	17.00	79531.64					
822.79	17.00	4483.25	7.16	-5.43	-4468.96	0.36	
	0.65459	158.88	5.18		150.06	20.97	0.002026
	18.00	79531.49					
827.17	18.00	4483.29	7.19	-5.45	-4509.11	0.36	
	0.65671	159.04	5.20		150.19	20.90	0.002024
	19.00	79601.61					
843.17	19.00	4483.40	7.30	-5.52	-4655.74	0.36	
	0.66511	159.63	5.28		150.67	20.63	0.002018
	20.00	79853.50					
859.96	20.00	4483.53	7.43	-5.59	-4809.21	0.36	
	0.67393	160.24	5.37		151.16	20.35	0.002012
	21.00	80113.45					
871.93	21.00	4483.61	7.51	-5.64	-4918.44	0.36	
	0.68023	160.67	5.43		151.50	20.16	0.002009
	22.00	80295.78					
872.52	22.00	4483.62	7.52	-5.64	-4923.86	0.36	
	0.68066	160.69	5.43		151.52	20.15	0.002009
	23.00	80304.62					
877.38	23.00	4483.65	7.55	-5.66	-4968.73	0.36	
	0.68399	160.86	5.45		151.66	20.07	0.002010
	24.00	80378.60					
896.93	24.00	4483.80	7.70	-5.76	-5167.73	0.37	
	0.70052	161.54	5.55		152.21	19.78	0.002022
	25.00	80670.95					
926.06	25.00	4484.01	7.91	-5.91	-5472.24	0.37	
	0.72315	162.54	5.70		153.01	19.35	0.002034
	26.00	81097.09					
955.72	26.00	4484.22	8.12	-6.05	-5780.91	0.37	
	0.74593	163.53	5.84		153.81	18.94	0.002045
	27.00	81519.66					
974.68	27.00	4484.36	8.26	-6.13	-5978.09	0.38	
	0.75756	164.15	5.94		154.31	18.69	0.002045
	28.00	81783.95					
975.35	28.00	4484.36	8.26	-6.14	-5985.01	0.38	
	0.75796	164.17	5.94		154.33	18.68	0.002045
	29.00	81792.96					
981.15	29.00	4484.40	8.30	-6.16	-6044.89	0.38	
	0.76420	164.36	5.97		154.48	18.60	0.002052
	30.00	81873.35					
991.17	30.00	4484.47	8.37	-6.20	-6148.49	0.38	
	0.77043	164.68	6.02		154.74	18.48	0.002051
	31.00	82010.30					
991.54	31.00	4484.48	8.38	-6.20	-6152.29	0.38	
	0.77067	164.70	6.02		154.75	18.47	0.002051
	32.00	82015.19					
997.69	32.00	4484.52	8.42	-6.23	-6215.65	0.38	
	0.77732	164.89	6.05		154.90	18.39	0.002059
	33.00	82099.30					
1008.05	33.00	4484.59	8.50	-6.27	-6322.50	0.38	
	0.78362	165.22	6.10		155.17	18.27	0.002058
	34.00	82238.91					
1008.37	34.00	4484.60	8.50	-6.27	-6325.83	0.38	
	0.78376	165.23	6.10		155.18	18.26	0.002058
	35.00	82243.13					
1002.22	35.00	4484.55	8.45	-6.25	-6262.33	0.38	
	0.77701	165.03	6.07		155.02	18.34	0.002050
	36.00	82159.48					
991.86	36.00	4484.48	8.38	-6.21	-6155.65	0.38	
	0.77064	164.71	6.02		154.75	18.47	0.002051
		82019.52					

		HYCHAN.OUT			
985.68	37.00 4484.43	8.34	-6.18	-6091.67	0.38
	164.51	5.99	154.59	18.55	0.002044
	0.76411 81934.41				
975.71	38.00 4484.36	8.26	-6.14	-5988.77	0.38
	164.19	5.94	154.34	18.68	0.002044
	0.75815 81797.87				
975.34	39.00 4484.36	8.26	-6.14	-5984.92	0.38
	164.17	5.94	154.33	18.68	0.002045
	0.75793 81792.86				
975.36	40.00 4484.36	8.26	-6.14	-5985.07	0.38
	164.17	5.94	154.33	18.68	0.002044
	0.75787 81793.05				
975.35	41.00 4484.36	8.26	-6.14	-5985.04	0.38
	164.17	5.94	154.33	18.68	0.002045
	0.75796 81793.02				
975.35	42.00 4484.36	8.26	-6.14	-5984.98	0.38
	164.17	5.94	154.33	18.68	0.002045
	0.75808 81792.95				
981.18	43.00 4484.40	8.30	-6.16	-6045.17	0.38
	164.36	5.97	154.48	18.60	0.002052
	0.76431 81873.73				
991.19	44.00 4484.47	8.37	-6.20	-6148.74	0.38
	164.68	6.02	154.74	18.48	0.002052
	0.77051 82010.64				
997.70	45.00 4484.52	8.42	-6.23	-6215.72	0.38
	164.89	6.05	154.90	18.39	0.002060
	0.77759 82099.39				
1014.40	46.00 4484.64	8.54	-6.30	-6387.69	0.38
	165.42	6.13	155.33	18.19	0.002066
	0.79069 82324.45				
1031.32	47.00 4484.76	8.66	-6.36	-6561.49	0.38
	165.95	6.21	155.75	17.98	0.002074
	0.80423 82549.23				
1048.35	48.00 4484.88	8.78	-6.43	-6735.94	0.38
	166.47	6.30	156.17	17.78	0.002081
	0.81768 82772.35				
1064.60	49.00 4485.00	8.90	-6.48	-6901.97	0.38
	166.97	6.38	156.57	17.60	0.002089
	0.83102 82982.42				
1082.33	50.00 4485.12	9.02	-6.54	-7082.77	0.38
	167.50	6.46	157.00	17.40	0.002097
	0.84539 83208.70				
1105.48	51.00 4485.28	9.18	-6.62	-7317.80	0.39
	168.19	6.57	157.55	17.15	0.002112
	0.86619 83499.58				
1127.72	52.00 4485.44	9.34	-6.68	-7535.27	0.39
	168.83	6.68	158.06	16.92	0.002114
	0.88123 83773.80				
1136.91	53.00 4485.50	9.40	-6.69	-7610.79	0.38
	169.10	6.72	158.28	16.83	0.002136
	0.89614 83886.33				
1176.25	54.00 4485.78	9.68	-6.74	-7932.19	0.38
	170.21	6.91	159.17	16.44	0.002202
	0.94970 84358.45				
1257.12	55.00 4486.34	10.24	-6.83	-8588.35	0.38
	172.41	7.29	160.92	15.72	0.002303
	1.04804 85288.21				
1374.22	56.00 4487.14	11.04	-6.93	-9527.67	0.37
	175.39	7.84	163.30	14.79	0.002429
	1.18779 86549.25				
1488.89	57.00 4487.91	11.81	-7.17	-10668.58	0.37
	178.11	8.36	165.47	14.01	0.002577
	1.34447 87696.60				

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HYCHAN.OUT							
1587.26	58.00	4488.57	12.47	-7.47	-11860.91	0.37	0.002689
	1.47693	180.33	8.80	167.22	13.41		
		88628.38					
1692.97	59.00	4489.27	13.17	-7.61	-12882.08	0.37	0.002916
	1.68690	182.59	9.27	169.02	12.83		
		89578.75					
1871.57	60.00	4490.43	14.34	-7.58	-14180.47	0.35	0.003173
	1.99040	186.15	10.05	171.83	11.99		
		91072.39					
3136.27	61.00	4491.43	15.33	-4.87	-15267.08	0.22	0.003450
	3.57223	189.02	16.59	174.10	11.36		
		92271.92					
0.00	62.00	4492.12	16.03	0.00	0.00	0.00	0.003765
	0.00000	190.53	0.00	175.61	10.96		
		93073.70					
0.00	63.00	4492.91	16.81	0.00	0.00	0.00	0.003318
	0.00000	192.10	0.00	177.26	10.54		
		93946.86					
0.00	64.00	4493.48	17.38	0.00	0.00	0.00	0.003530
	0.00000	193.23	0.00	178.41	10.27		
		94555.79					
0.00	65.00	4493.94	17.84	0.00	0.00	0.00	0.003692
	0.00000	194.17	0.00	179.33	10.05		
		95045.36					
0.00	66.00	4494.25	18.15	0.00	0.00	0.00	0.003730
	0.00000	194.78	0.00	179.93	9.91		
		95361.48					
0.00	67.00	4494.31	18.21	0.00	0.00	0.00	0.003737
	0.00000	194.90	0.00	180.05	9.89		
		95425.41					
0.00	68.00	4494.32	18.22	0.00	0.00	0.00	0.003737
	0.00000	194.92	0.00	180.06	9.88		
		95433.91					
0.00	69.00	4494.33	18.23	0.00	0.00	0.00	0.003741
	0.00000	194.93	0.00	180.08	9.88		
		95439.82					
0.00	70.00	4494.34	18.24	0.00	0.00	0.00	0.003744
	0.00000	194.95	0.00	180.09	9.88		
		95449.69					
0.00	71.00	4494.34	18.24	0.00	0.00	0.00	0.003744
	0.00000	194.96	0.00	180.10	9.87		
		95454.49					
0.00	72.00	4494.34	18.24	0.00	0.00	0.00	0.003741
	0.00000	194.95	0.00	180.09	9.88		
		95448.40					
0.00	73.00	4494.36	18.26	0.00	0.00	0.00	0.003776
	0.00000	195.00	0.00	180.15	9.86		
		95477.45					
0.00	74.00	4494.49	18.39	0.00	0.00	0.00	0.003809
	0.00000	195.26	0.00	180.39	9.81		
		95605.52					
0.00	75.00	4494.54	18.44	0.00	0.00	0.00	0.003812
	0.00000	195.35	0.00	180.48	9.79		
		95655.02					
0.00	76.00	4494.56	18.47	0.00	0.00	0.00	0.003841
	0.00000	195.41	0.00	180.53	9.78		
		95681.38					
0.00	77.00	4494.72	18.62	0.00	0.00	0.00	0.003922
	0.00000	195.71	0.00	180.82	9.71		
		95836.39					
0.00	78.00	4494.97	18.87	0.00	0.00	0.00	0.004004
	0.00000	196.22	0.00	181.30	9.61		
		96087.35					

HYCHAN.OUT							
0.00	79.00	4495.15	19.05	0.00	0.00	0.00	0.00
		196.58	0.00	181.63	9.53	0.00	0.004054
	0.00000	96265.64					
0.00	80.00	4495.30	19.20	0.00	0.00	0.00	0.00
		196.88	0.00	181.92	9.47	0.00	0.004115
	0.00000	96415.95					
0.00	81.00	4495.44	19.34	0.00	0.00	0.00	0.00
		197.15	0.00	182.16	9.42	0.00	0.004154
	0.00000	96546.03					
0.00	82.00	4495.43	19.33	0.00	0.00	0.00	0.00
		197.14	0.00	182.15	9.42	0.00	0.004111
	0.00000	96540.94					
0.00	83.00	4495.34	19.24	0.00	0.00	0.00	0.00
		196.96	0.00	181.99	9.46	0.00	0.004081
	0.00000	96454.56					
0.00	84.00	4495.30	19.20	0.00	0.00	0.00	0.00
		196.88	0.00	181.91	9.47	0.00	0.004078
	0.00000	96414.10					
0.00	85.00	4495.30	19.20	0.00	0.00	0.00	0.00
		196.88	0.00	181.91	9.47	0.00	0.004079
	0.00000	96413.86					
0.00	86.00	4495.31	19.21	0.00	0.00	0.00	0.00
		196.91	0.00	181.94	9.47	0.00	0.004081
	0.00000	96426.55					
0.00	87.00	4495.23	19.13	0.00	0.00	0.00	0.00
		196.74	0.00	181.79	9.50	0.00	0.004001
	0.00000	96346.95					
0.00	88.00	4494.85	18.75	0.00	0.00	0.00	0.00
		195.98	0.00	181.08	9.66	0.00	0.003810
	0.00000	95970.12					
0.00	89.00	4494.12	18.02	0.00	0.00	0.00	0.00
		194.52	0.00	179.68	9.97	0.00	0.003415
	0.00000	95231.09					
0.00	90.00	4492.81	16.71	0.00	0.00	0.00	0.00
		191.90	0.00	177.05	10.60	0.00	0.003567
	0.00000	93835.26					
5192.65	91.00	4491.71	15.61	-3.00	-15572.22	0.13	
		189.70	27.37	174.72	11.19	0.003215	
	5.49077	92602.84					
1907.07	92.00	4490.66	14.56	-7.57	-14435.33	0.35	
		186.81	10.21	172.35	11.84	0.002960	
	1.88567	91348.05					
1768.58	93.00	4489.76	13.66	-7.60	-13436.62	0.36	
		184.12	9.61	170.23	12.46	0.002795	
	1.67532	90221.07					
1664.47	94.00	4489.08	12.98	-7.61	-12670.60	0.37	
		181.98	9.15	168.54	12.99	0.002676	
	1.52748	89323.56					
1605.79	95.00	4488.69	12.59	-7.53	-12086.60	0.37	
		180.73	8.89	167.54	13.31	0.002618	
	1.45145	88797.45					
1557.84	96.00	4488.37	12.27	-7.39	-11508.84	0.37	
		179.67	8.67	166.71	13.58	0.002554	
	1.38170	88354.15					
1514.80	97.00	4488.08	11.99	-7.25	-10989.04	0.37	
		178.71	8.48	165.94	13.85	0.002508	
	1.32629	87947.84					
1480.71	98.00	4487.86	11.76	-7.14	-10575.11	0.37	
		177.93	8.32	165.32	14.06	0.002461	
	1.27785	87618.36					
1451.67	99.00	4487.66	11.56	-7.04	-10221.89	0.37	
		177.25	8.19	164.78	14.25	0.002431	
	1.24221	87333.40					

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		HYCHAN.OUT					
100.00	4487.45	11.35	-6.97	-9896.85	0.36		
1419.80	176.49	8.04	164.18	14.47	0.002376		
1.19292	87013.49						
101.00	4487.14	11.04	-6.93	-9535.14	0.37		
1374.97	175.40	7.84	163.31	14.79	0.002337		
1.14298	86554.97						
102.00	4486.90	10.80	-6.91	-9245.95	0.37		
1338.75	174.50	7.67	162.59	15.06	0.002301		
1.10157	86175.07						
103.00	4486.68	10.58	-6.88	-8993.34	0.37		
1307.24	173.71	7.53	161.96	15.31	0.002276		
1.06885	85837.62						
104.00	4486.51	10.41	-6.86	-8791.03	0.37		
1282.09	173.06	7.41	161.44	15.51	0.002251		
1.04047	85563.19						
105.00	4486.27	10.17	-6.82	-8514.09	0.38		
1247.81	172.15	7.25	160.72	15.80	0.002204		
0.99693	85180.87						
106.00	4486.01	9.91	-6.78	-8208.23	0.38		
1210.06	171.14	7.07	159.91	16.13	0.002181		
0.96224	84751.54						
107.00	4485.86	9.76	-6.76	-8026.97	0.38		
1187.79	170.53	6.97	159.42	16.34	0.002160		
0.93885	84492.56						
108.00	4485.71	9.61	-6.73	-7853.50	0.38		
1166.54	169.93	6.86	158.95	16.54	0.002140		
0.91671	84241.51						
109.00	4485.62	9.52	-6.72	-7747.35	0.38		
1153.56	169.57	6.80	158.65	16.66	0.002139		
0.90790	84086.92						
110.00	4485.68	9.58	-6.73	-7812.07	0.38		
1161.47	169.80	6.84	158.83	16.59	0.002159		
0.92149	84182.41						
111.00	4485.88	9.78	-6.76	-8052.20	0.38		
1190.91	170.62	6.98	159.49	16.31	0.002199		
0.95771	84530.77						
112.00	4486.00	9.90	-6.78	-8191.95	0.38		
1208.05	171.08	7.06	159.87	16.15	0.002181		
0.96087	84728.80						
113.00	4485.86	9.76	-6.76	-8026.79	0.38		
1187.77	170.53	6.97	159.42	16.34	0.002162		
0.93980	84492.34						
114.00	4485.89	9.79	-6.76	-8061.00	0.38		
1191.99	170.65	6.99	159.52	16.30	0.002201		
0.95918	84543.24						
115.00	4486.20	10.10	-6.81	-8424.22	0.38		
1236.71	171.86	7.20	160.49	15.89	0.002247		
1.00901	85058.30						
116.00	4486.33	10.23	-6.83	-8580.39	0.38		
1255.98	172.37	7.29	160.89	15.73	0.002228		
1.01322	85273.84						
117.00	4486.24	10.14	-6.82	-8474.79	0.38		
1242.91	172.03	7.23	160.62	15.84	0.002227		
1.00401	85127.41						
118.00	4486.24	10.14	-6.82	-8470.18	0.38		
1242.34	172.01	7.22	160.61	15.84	0.002229		
1.00472	85121.12						
119.00	4486.31	10.21	-6.83	-8551.12	0.38		
1252.36	172.28	7.27	160.82	15.76	0.002250		
1.02082	85234.33						
120.00	4486.40	10.30	-6.84	-8666.40	0.38		
1266.62	172.65	7.34	161.12	15.64	0.002250		
1.03018	85393.14						

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HYCHAN.OUT									
121.00	4486.41	10.31	-6.84	-8669.64	0.38				
1267.02	172.66	7.34	161.13	15.63	0.002251				
1.03063	85397.48								
122.00	4486.34	10.24	-6.83	-8588.14	0.38				
1256.94	172.40	7.29	160.91	15.72	0.002228				
1.01377	85284.37								
123.00	4486.24	10.14	-6.82	-8474.06	0.38				
1242.82	172.02	7.22	160.62	15.84	0.002225				
1.00298	85126.36								
124.00	4486.17	10.07	-6.81	-8389.72	0.38				
1232.42	171.74	7.18	160.39	15.93	0.002203				
0.98662	85007.90								
125.00	4486.07	9.97	-6.79	-8273.71	0.38				
1218.11	171.36	7.11	160.08	16.06	0.002202				
0.97684	84845.02								
126.00	4486.07	9.97	-6.79	-8269.85	0.38				
1217.64	171.35	7.11	160.07	16.06	0.002201				
0.97619	84839.68								
127.00	4486.00	9.91	-6.78	-8199.17	0.38				
1208.94	171.11	7.07	159.88	16.14	0.002182				
0.96185	84738.88								
128.00	4485.92	9.82	-6.77	-8094.99	0.38				
1196.13	170.76	7.00	159.61	16.26	0.002180				
0.95297	84590.78								
129.00	4485.91	9.81	-6.77	-8090.83	0.38				
1195.62	170.75	7.00	159.59	16.26	0.002179				
0.95221	84584.91								
130.00	4485.85	9.76	-6.76	-8022.72	0.38				
1187.27	170.51	6.96	159.41	16.34	0.002161				
0.93891	84486.59								
131.00	4485.77	9.67	-6.74	-7921.01	0.38				
1174.80	170.17	6.90	159.13	16.46	0.002161				
0.93076	84340.19								
132.00	4485.88	9.79	-6.76	-8056.95	0.38				
1191.49	170.63	6.98	159.50	16.30	0.002200				
0.95879	84537.51								
133.00	4486.06	9.96	-6.79	-8262.37	0.38				
1216.72	171.32	7.10	160.06	16.07	0.002202				
0.97593	84829.28								
134.00	4486.07	9.97	-6.79	-8269.67	0.38				
1217.61	171.35	7.11	160.07	16.06	0.002202				
0.97646	84839.44								
135.00	4486.07	9.97	-6.79	-8270.25	0.38				
1217.69	171.35	7.11	160.08	16.06	0.002202				
0.97646	84840.24								
136.00	4486.07	9.97	-6.79	-8269.88	0.38				
1217.64	171.35	7.11	160.07	16.06	0.002202				
0.97653	84839.73								
137.00	4486.07	9.97	-6.79	-8269.94	0.38				
1217.65	171.35	7.11	160.08	16.06	0.002202				
0.97646	84839.80								
138.00	4486.07	9.97	-6.79	-8270.21	0.38				
1217.68	171.35	7.11	160.08	16.06	0.002202				
0.97641	84840.18								
139.00	4486.07	9.97	-6.79	-8269.63	0.38				
1217.61	171.35	7.11	160.07	16.06	0.002201				
0.97606	84839.37								
140.00	4486.01	9.91	-6.78	-8199.69	0.38				
1209.01	171.11	7.07	159.89	16.14	0.002182				
0.96194	84739.62								
141.00	4485.92	9.82	-6.77	-8094.82	0.38				
1196.11	170.76	7.00	159.60	16.26	0.002180				
0.95290	84590.52								

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		HYCHAN.OUT					
1195.62	142.00	4485.91	9.81	-6.77	-8090.83	0.38	
	0.95263	170.75	7.00		159.59	16.26	0.002180
1195.63	143.00	84584.92	9.81	-6.77	-8090.92	0.38	
	0.95254	170.75	7.00		159.59	16.26	0.002180
1195.62	144.00	84585.04	9.81	-6.77	-8090.81	0.38	
	0.95240	170.75	7.00		159.59	16.26	0.002180
1187.37	145.00	84584.88	9.76	-6.76	-8023.53	0.38	
	0.93864	170.52	6.96		159.41	16.34	0.002160
1174.69	146.00	84487.72	9.67	-6.74	-7920.18	0.38	
	0.93014	170.16	6.90		159.13	16.46	0.002159
1174.31	147.00	84338.97	9.67	-6.74	-7917.02	0.38	
	0.92993	170.15	6.90		159.12	16.46	0.002159
1174.32	148.00	84334.48	9.67	-6.74	-7917.11	0.38	
	0.92987	170.15	6.90		159.12	16.46	0.002159
1174.30	149.00	84334.62	9.67	-6.74	-7916.96	0.38	
	0.92985	170.15	6.90		159.12	16.46	0.002159
1174.27	150.00	84334.42	9.67	-6.74	-7916.68	0.38	
	0.92980	170.15	6.90		159.12	16.46	0.002159
1168.83	151.00	84333.98	9.63	-6.74	-7872.25	0.38	
	0.92062	170.00	6.88		159.00	16.52	0.002146
1157.69	152.00	84269.07	9.55	-6.72	-7781.13	0.38	
	0.91033	169.69	6.82		158.75	16.62	0.002138
1153.16	153.00	84136.26	9.52	-6.72	-7744.12	0.38	
	0.90701	169.56	6.80		158.65	16.67	0.002137
1152.95	154.00	84082.25	9.52	-6.72	-7742.40	0.38	
	0.90693	169.55	6.80		158.64	16.67	0.002137
1144.92	155.00	84079.76	9.46	-6.70	-7676.49	0.38	
	0.89451	169.32	6.76		158.46	16.75	0.002120
1148.80	156.00	83982.23	9.49	-6.71	-7708.19	0.38	
	0.91184	169.44	6.78		158.55	16.71	0.002155
1173.34	157.00	84030.56	9.66	-6.74	-7909.14	0.38	
	0.92922	170.13	6.90		159.10	16.47	0.002159
1174.34	158.00	84323.27	9.67	-6.74	-7917.27	0.38	
	0.92964	170.16	6.90		159.12	16.46	0.002159
1174.33	159.00	84334.86	9.67	-6.74	-7917.22	0.38	
	0.92967	170.15	6.90		159.12	16.46	0.002159
1174.26	160.00	84334.77	9.66	-6.74	-7916.62	0.38	
	0.92980	170.15	6.90		159.12	16.46	0.002159
1174.32	161.00	84333.91	9.67	-6.74	-7917.13	0.38	
	0.92987	170.15	6.90		159.12	16.46	0.002159
1174.31	162.00	84334.62	9.67	-6.74	-7917.09	0.38	
	0.92989	170.15	6.90		159.12	16.46	0.002159
		84334.59					

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			HYCHAN.OUT				
1174.30	163.00	4485.76	9.67	-6.74	-7916.95	0.38	
	0.92963	170.15	6.90		159.12	16.46	0.002159
		84334.38					
1174.28	164.00	4485.76	9.67	-6.74	-7916.80	0.38	
	0.92931	170.15	6.90		159.12	16.46	0.002158
		84334.16					
1166.01	165.00	4485.71	9.61	-6.73	-7849.15	0.38	
	0.91620	169.92	6.86		158.93	16.54	0.002140
		84235.27					
1153.49	166.00	4485.62	9.52	-6.72	-7746.81	0.38	
	0.90753	169.57	6.80		158.65	16.66	0.002138
		84086.12					
1153.03	167.00	4485.62	9.52	-6.72	-7743.04	0.38	
	0.90717	169.56	6.80		158.64	16.67	0.002138
		84080.71					
1153.01	168.00	4485.62	9.52	-6.72	-7742.84	0.38	
	0.90722	169.55	6.80		158.64	16.67	0.002138
		84080.41					
1153.02	169.00	4485.62	9.52	-6.72	-7742.99	0.38	
	0.90717	169.56	6.80		158.64	16.67	0.002138
		84080.63					
1153.06	170.00	4485.62	9.52	-6.72	-7743.28	0.38	
	0.90709	169.56	6.80		158.64	16.67	0.002138
		84081.05					
1152.98	171.00	4485.62	9.52	-6.72	-7742.65	0.38	
	0.90741	169.55	6.80		158.64	16.67	0.002138
		84080.16					
1153.02	172.00	4485.62	9.52	-6.72	-7742.95	0.38	
	0.90690	169.56	6.80		158.64	16.67	0.002137
		84080.55					
1144.79	173.00	4485.56	9.46	-6.70	-7675.44	0.38	
	0.89386	169.32	6.76		158.45	16.75	0.002119
		83980.62					
1132.27	174.00	4485.47	9.37	-6.69	-7572.73	0.39	
	0.88539	168.96	6.70		158.17	16.88	0.002117
		83829.07					
1131.83	175.00	4485.47	9.37	-6.69	-7569.19	0.39	
	0.88506	168.95	6.70		158.16	16.88	0.002117
		83823.91					
1131.79	176.00	4485.47	9.37	-6.69	-7568.85	0.39	
	0.88496	168.95	6.70		158.16	16.88	0.002117
		83823.41					
1131.82	177.00	4485.47	9.37	-6.69	-7569.08	0.39	
	0.88512	168.95	6.70		158.16	16.88	0.002117
		83823.77					
1131.79	178.00	4485.47	9.37	-6.69	-7568.88	0.39	
	0.88486	168.95	6.70		158.16	16.88	0.002117
		83823.43					
1131.83	179.00	4485.47	9.37	-6.69	-7569.20	0.39	
	0.88580	168.95	6.70		158.16	16.88	0.002119
		83823.95					
1148.47	180.00	4485.59	9.49	-6.71	-7705.44	0.38	
	0.91140	169.43	6.78		158.54	16.71	0.002155
		84026.63					
1173.29	181.00	4485.76	9.66	-6.74	-7908.71	0.38	
	0.92953	170.13	6.90		159.10	16.47	0.002160
		84322.66					
1182.79	182.00	4485.82	9.72	-6.75	-7986.17	0.38	
	0.94304	170.39	6.94		159.31	16.38	0.002177
		84435.07					
1195.08	183.00	4485.91	9.81	-6.77	-8086.44	0.38	
	0.95231	170.73	7.00		159.58	16.27	0.002180
		84578.72					

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		HYCHAN.OUT					
1195.64	184.00	4485.91	9.81	-6.77	-8090.97	0.38	
	0.95270	170.75	7.00		159.59	16.26	0.002180
1195.63	185.00	4485.91	9.81	-6.77	-8090.88	0.38	
	0.95259	170.75	7.00		159.59	16.26	0.002180
1195.67	186.00	4485.91	9.81	-6.77	-8091.20	0.38	
	0.95271	170.75	7.00		159.60	16.26	0.002180
1195.66	187.00	4485.91	9.81	-6.77	-8091.13	0.38	
	0.95263	170.75	7.00		159.59	16.26	0.002180
1195.61	188.00	4485.91	9.81	-6.77	-8090.79	0.38	
	0.95271	170.74	7.00		159.59	16.26	0.002180
1195.66	189.00	4485.91	9.81	-6.77	-8091.17	0.38	
	0.95263	170.75	7.00		159.60	16.26	0.002180
1195.63	190.00	4485.91	9.81	-6.77	-8090.92	0.38	
	0.95237	170.75	7.00		159.59	16.26	0.002180
1187.31	191.00	4485.85	9.76	-6.76	-8023.05	0.38	
	0.93845	170.51	6.96		159.41	16.34	0.002160
1174.71	192.00	4485.77	9.67	-6.74	-7920.28	0.38	
	0.93008	170.17	6.90		159.13	16.46	0.002159
1174.34	193.00	4485.77	9.67	-6.74	-7917.26	0.38	
	0.92967	170.15	6.90		159.12	16.46	0.002159
1174.30	194.00	4485.76	9.67	-6.74	-7916.93	0.38	
	0.92989	170.15	6.90		159.12	16.46	0.002159
1174.29	195.00	4485.76	9.67	-6.74	-7916.92	0.38	
	0.92977	170.15	6.90		159.12	16.46	0.002159
1174.33	196.00	4485.77	9.67	-6.74	-7917.24	0.38	
	0.92963	170.15	6.90		159.12	16.46	0.002159
1174.31	197.00	4485.77	9.67	-6.74	-7917.02	0.38	
	0.92971	170.15	6.90		159.12	16.46	0.002159
1174.30	198.00	4485.76	9.67	-6.74	-7916.96	0.38	
	0.92983	170.15	6.90		159.12	16.46	0.002159
1174.29	199.00	4485.76	9.67	-6.74	-7916.91	0.38	
	0.92966	170.15	6.90		159.12	16.46	0.002159

CHANNEL HYDROGRAPH FOR ELEMENT NO: 1212

MAXIMUM DISCHARGE (CFS) = 20377.36 AT TIME = 80.81  
 MAXIMUM STAGE = 4484.43 AT TIME = 80.81

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)			
0.00	4472.19	0.00	0.00	0.00	0.00	0.00	0.00

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HYCHAN.OUT							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4472.19	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4472.19	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4476.87	4.68	4.10	3655.59	0.33	0.005337
891.85	2.56091	115.99	7.69	114.44	24.48	0.39	0.005322
926.71	4.00	4479.16	6.97	5.91	5479.62	0.39	0.005319
917.36	2.25270	136.61	6.78	134.24	19.26	0.39	0.005303
912.27	5.00	4479.10	6.91	5.87	5382.18	0.39	0.005284
898.33	2.23652	136.14	6.74	133.79	19.36	0.39	0.005265
884.00	6.00	4479.07	6.88	5.84	5328.84	0.39	0.005243
868.39	2.22163	135.88	6.71	133.54	19.42	0.39	0.005239
856.58	7.00	4478.98	6.79	5.77	5182.89	0.39	0.005221
851.30	2.19137	135.17	6.65	132.86	19.57	0.39	0.005200
835.68	8.00	4478.89	6.70	5.69	5033.31	0.39	0.005195
823.56	2.16033	134.43	6.58	132.15	19.72	0.39	0.005195
822.79	9.00	4478.79	6.60	5.63	4886.11	0.39	0.005195
822.79	2.12632	133.62	6.50	131.38	19.90	0.39	0.005195
822.79	10.00	4478.72	6.53	5.58	4778.47	0.38	0.005195
822.79	2.10550	133.00	6.44	130.78	20.04	0.38	0.005195
822.79	11.00	4478.68	6.49	5.56	4730.15	0.38	0.005195
822.79	2.08982	132.72	6.41	130.52	20.10	0.38	0.005195
822.79	12.00	4478.59	6.40	5.49	4587.12	0.38	0.005195
822.79	2.05575	131.89	6.34	129.72	20.28	0.38	0.005195
822.79	13.00	4478.51	6.32	5.43	4476.02	0.38	0.005195
822.79	2.03426	131.24	6.28	129.09	20.43	0.38	0.005195
822.79	14.00	4478.50	6.31	5.43	4469.04	0.38	0.005195
822.79	2.03304	131.19	6.27	129.05	20.44	0.38	0.005195
822.79	15.00	4478.50	6.31	5.43	4468.96	0.38	0.005195
822.79	2.03300	131.19	6.27	129.05	20.44	0.38	0.005195
822.79	16.00	4478.50	6.31	5.43	4469.04	0.38	0.005195
822.79	2.03306	131.19	6.27	129.05	20.44	0.38	0.005195
822.79	17.00	4478.50	6.31	5.43	4468.96	0.38	0.005195
822.79	2.03304	131.19	6.27	129.05	20.44	0.38	0.005195
822.79	18.00	4478.53	6.34	5.45	4509.11	0.38	0.005213
822.79	2.04722	131.42	6.29	129.27	20.39	0.38	0.005235
822.79	19.00	4478.63	6.44	5.52	4655.74	0.38	0.005257
822.79	2.08217	132.28	6.37	130.09	20.20	0.39	0.005257
822.79	20.00	4478.74	6.55	5.59	4809.21	0.39	0.005257
822.79	2.11859	133.16	6.46	130.94	20.00	0.39	0.005257
822.79	21.00	4478.81	6.62	5.64	4918.44	0.39	0.005257

		HYCHAN.OUT					
871.93	2.13945	133.80	6.52	131.55	19.86	0.005261	
	22.00	4478.82	6.63	5.64	4923.86	0.39	
872.52	2.14045	133.83	6.52	131.58	19.85	0.005261	
	23.00	4478.85	6.66	5.66	4968.73	0.39	
877.38	2.15556	134.08	6.54	131.81	19.80	0.005279	
	24.00	4478.97	6.78	5.76	5167.73	0.39	
896.93	2.20198	135.08	6.64	132.77	19.59	0.005314	
	25.00	4479.15	6.96	5.91	5472.24	0.39	
926.06	2.26515	136.56	6.78	134.19	19.28	0.005353	
	26.00	4479.34	7.15	6.05	5780.91	0.40	
955.72	2.32923	138.03	6.92	135.61	18.97	0.005391	
	27.00	4479.46	7.27	6.13	5978.09	0.40	
974.68	2.36112	138.98	7.01	136.51	18.79	0.005395	
	28.00	4479.46	7.27	6.14	5985.01	0.40	
975.35	2.36229	139.01	7.02	136.55	18.78	0.005396	
	29.00	4479.50	7.31	6.16	6044.89	0.40	
981.15	2.37981	139.29	7.04	136.81	18.73	0.005414	
	30.00	4479.56	7.37	6.20	6148.49	0.40	
991.17	2.39681	139.78	7.09	137.28	18.63	0.005417	
	31.00	4479.56	7.37	6.20	6152.29	0.40	
991.54	2.39742	139.80	7.09	137.30	18.63	0.005417	
	32.00	4479.60	7.41	6.23	6215.65	0.40	
997.69	2.41605	140.08	7.12	137.57	18.57	0.005436	
	33.00	4479.66	7.47	6.27	6322.50	0.40	
1008.05	2.43349	140.59	7.17	138.05	18.47	0.005439	
	34.00	4479.67	7.48	6.27	6325.83	0.40	
1008.37	2.43378	140.60	7.17	138.07	18.47	0.005438	
	35.00	4479.63	7.44	6.25	6262.33	0.40	
1002.22	2.41528	140.31	7.14	137.79	18.53	0.005419	
	36.00	4479.56	7.37	6.21	6155.65	0.40	
991.86	2.39762	139.81	7.09	137.31	18.62	0.005416	
	37.00	4479.53	7.34	6.18	6091.67	0.40	
985.68	2.37953	139.52	7.06	137.03	18.68	0.005398	
	38.00	4479.46	7.27	6.14	5988.77	0.40	
975.71	2.36274	139.03	7.02	136.57	18.78	0.005395	
	39.00	4479.46	7.27	6.14	5984.92	0.40	
975.34	2.36222	139.01	7.02	136.55	18.78	0.005395	
	40.00	4479.46	7.27	6.14	5985.07	0.40	
975.36	2.36213	139.01	7.02	136.55	18.78	0.005395	
	41.00	4479.46	7.27	6.14	5985.04	0.40	
975.35	2.36229	139.01	7.02	136.55	18.78	0.005396	
	42.00	4479.46	7.27	6.14	5984.98	0.40	

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HYCHAN.OUT						
975.35	2.36236	139.01	7.02	136.55	18.78	0.005396
	43.00	4479.50	7.31	6.16	6045.17	0.40
981.18	2.37984	139.29	7.04	136.81	18.73	0.005414
	44.00	4479.56	7.37	6.20	6148.74	0.40
991.19	2.39698	139.78	7.09	137.28	18.63	0.005417
	45.00	4479.60	7.41	6.23	6215.72	0.40
997.70	2.41617	140.09	7.12	137.58	18.57	0.005437
	46.00	4479.70	7.51	6.30	6387.69	0.41
1014.40	2.45287	140.88	7.20	138.34	18.42	0.005459
	47.00	4479.81	7.62	6.36	6561.49	0.41
1031.32	2.48994	141.68	7.28	139.10	18.26	0.005482
	48.00	4479.91	7.72	6.43	6735.94	0.41
1048.35	2.52713	142.47	7.36	139.86	18.12	0.005504
	49.00	4480.01	7.82	6.48	6901.97	0.41
1064.60	2.56329	143.22	7.43	140.58	17.98	0.005526
	50.00	4480.12	7.93	6.54	7082.77	0.41
1082.33	2.60204	144.04	7.51	141.36	17.83	0.005549
	51.00	4480.26	8.07	6.62	7317.80	0.41
1105.48	2.65849	145.08	7.62	142.35	17.64	0.005591
	52.00	4480.39	8.20	6.68	7535.27	0.41
1127.72	2.69999	146.01	7.72	143.25	17.48	0.005602
	53.00	4480.42	8.23	6.69	7610.79	0.41
1136.91	2.73832	146.26	7.77	143.49	17.43	0.005646
	54.00	4480.57	8.38	6.74	7932.19	0.41
1176.25	2.87817	147.34	7.98	144.52	17.25	0.005778
	55.00	4480.87	8.68	6.83	8588.35	0.41
1257.12	3.14024	149.50	8.41	146.59	16.88	0.005985
	56.00	4481.31	9.12	6.93	9527.67	0.40
1374.22	3.51443	152.52	9.01	149.48	16.40	0.006251
	57.00	4481.69	9.50	7.17	10668.58	0.41
1488.89	3.83867	155.13	9.60	151.98	15.99	0.006410
	58.00	4481.98	9.79	7.47	11860.91	0.42
1587.26	4.12330	157.07	10.11	153.82	15.71	0.006539
	59.00	4482.26	10.07	7.61	12882.08	0.42
1692.97	4.59512	158.89	10.66	155.56	15.44	0.006911
	60.00	4482.68	10.49	7.58	14180.47	0.41
1871.57	5.30816	161.57	11.58	158.12	15.07	0.007344
	61.00	4483.02	10.83	4.87	15267.08	0.26
3136.27	8.47393	163.70	19.16	160.16	14.78	0.007088
	62.00	4483.23	11.04	0.00	0.00	0.00
0.00	0.00000	164.98	0.00	161.38	14.62	0.007404
	63.00	4483.46	11.27	0.00	0.00	0.00

HYCHAN.OUT						
0.00		166.39	0.00	162.72	14.44	0.007675
	0.00000	92750.27				
	64.00	4483.63	11.44	0.00	0.00	0.00
0.00		167.40	0.00	163.69	14.31	0.007871
	0.00000	93300.77				
	65.00	4483.80	11.61	0.00	0.00	0.00
0.00		168.40	0.00	164.64	14.18	0.008022
	0.00000	93843.48				
	66.00	4483.92	11.73	0.00	0.00	0.00
0.00		169.11	0.00	165.31	14.10	0.008050
	0.00000	94229.20				
	67.00	4483.94	11.75	0.00	0.00	0.00
0.00		169.25	0.00	165.45	14.08	0.008053
	0.00000	94309.30				
	68.00	4483.94	11.75	0.00	0.00	0.00
0.00		169.27	0.00	165.47	14.08	0.008054
	0.00000	94319.52				
	69.00	4483.95	11.76	0.00	0.00	0.00
0.00		169.28	0.00	165.49	14.08	0.008056
	0.00000	94326.45				
	70.00	4483.95	11.76	0.00	0.00	0.00
0.00		169.31	0.00	165.51	14.07	0.008059
	0.00000	94338.17				
	71.00	4483.95	11.76	0.00	0.00	0.00
0.00		169.32	0.00	165.52	14.07	0.008058
	0.00000	94344.03				
	72.00	4483.95	11.76	0.00	0.00	0.00
0.00		169.30	0.00	165.50	14.07	0.008056
	0.00000	94336.73				
	73.00	4483.96	11.77	0.00	0.00	0.00
0.00		169.37	0.00	165.56	14.07	0.008084
	0.00000	94370.62				
	74.00	4484.01	11.82	0.00	0.00	0.00
0.00		169.65	0.00	165.84	14.03	0.008105
	0.00000	94527.12				
	75.00	4484.03	11.84	0.00	0.00	0.00
0.00		169.77	0.00	165.95	14.02	0.008106
	0.00000	94590.07				
	76.00	4484.04	11.85	0.00	0.00	0.00
0.00		169.83	0.00	166.00	14.01	0.008124
	0.00000	94622.84				
	77.00	4484.10	11.91	0.00	0.00	0.00
0.00		170.19	0.00	166.35	13.97	0.008170
	0.00000	94819.08				
	78.00	4484.20	12.01	0.00	0.00	0.00
0.00		170.78	0.00	166.91	13.90	0.008187
	0.00000	95136.73				
	79.00	4484.28	12.09	0.00	0.00	0.00
0.00		171.21	0.00	167.32	13.84	0.008188
	0.00000	95373.48				
	80.00	4484.34	12.15	0.00	0.00	0.00
0.00		171.58	0.00	167.67	13.80	0.008185
	0.00000	95573.19				
	81.00	4484.40	12.21	0.00	0.00	0.00
0.00		171.91	0.00	167.99	13.76	0.008148
	0.00000	95755.80				
	82.00	4484.40	12.20	0.00	0.00	0.00
0.00		171.90	0.00	167.98	13.76	0.008166
	0.00000	95748.78				
	83.00	4484.36	12.17	0.00	0.00	0.00
0.00		171.67	0.00	167.76	13.79	0.008177
	0.00000	95625.05				
	84.00	4484.34	12.15	0.00	0.00	0.00



HYCHAN.OUT						
0.00		171.58	0.00	167.67	13.80	0.008179
	0.00000	95572.94				
85.00		4484.34	12.15	0.00	0.00	0.00
0.00		171.58	0.00	167.67	13.80	0.008179
	0.00000	95572.55				
86.00		4484.34	12.15	0.00	0.00	0.00
0.00		171.61	0.00	167.70	13.80	0.008169
	0.00000	95588.52				
87.00		4484.31	12.12	0.00	0.00	0.00
0.00		171.42	0.00	167.52	13.82	0.008158
	0.00000	95486.76				
88.00		4484.16	11.97	0.00	0.00	0.00
0.00		170.51	0.00	166.66	13.93	0.008090
	0.00000	94994.47				
89.00		4483.87	11.68	0.00	0.00	0.00
0.00		168.84	0.00	165.06	14.13	0.007807
	0.00000	94082.97				
90.00		4483.44	11.25	0.00	0.00	0.00
0.00		166.24	0.00	162.58	14.45	0.007262
	0.00000	92669.47				
91.00		4483.11	10.92	3.00	15572.22	0.16
5192.65		164.26	31.61	160.69	14.71	0.007473
	14.74236	91593.59				
92.00		4482.77	10.58	7.57	14435.33	0.41
1907.07		162.11	11.76	158.64	15.00	0.007033
	5.16251	90426.11				
93.00		4482.44	10.25	7.60	13436.62	0.42
1768.58		160.06	11.05	156.68	15.28	0.006739
	4.64639	89307.78				
94.00		4482.20	10.01	7.61	12670.60	0.42
1664.47		158.47	10.50	155.16	15.50	0.006529
	4.27922	88440.62				
95.00		4482.04	9.85	7.53	12086.60	0.42
1605.79		157.43	10.20	154.17	15.65	0.006463
	4.11331	87878.88				
96.00		4481.90	9.71	7.39	11508.84	0.42
1557.84		156.51	9.95	153.29	15.79	0.006389
	3.96856	87373.77				
97.00		4481.77	9.58	7.25	10989.04	0.41
1514.80		155.66	9.73	152.48	15.91	0.006338
	3.84854	86914.91				
98.00		4481.67	9.48	7.14	10575.11	0.41
1480.71		154.99	9.55	151.84	16.02	0.006287
	3.74813	86547.26				
99.00		4481.58	9.39	7.04	10221.89	0.41
1451.67		154.41	9.40	151.28	16.10	0.006255
	3.66955	86231.30				
100.00		4481.48	9.29	6.97	9896.85	0.40
1419.80		153.70	9.24	150.61	16.21	0.006160
	3.55087	85846.14				
101.00		4481.32	9.13	6.93	9535.14	0.40
1374.97		152.58	9.01	149.54	16.39	0.006079
	3.41805	85235.20				
102.00		4481.18	8.99	6.91	9245.95	0.41
1338.75		151.66	8.83	148.65	16.53	0.006005
	3.30784	84731.15				
103.00		4481.06	8.87	6.88	8993.34	0.41
1307.24		150.84	8.67	147.87	16.66	0.005950
	3.21781	84286.73				
104.00		4480.97	8.78	6.86	8791.03	0.41
1282.09		150.18	8.54	147.24	16.77	0.005897
	3.14141	83928.80				
105.00		4480.84	8.65	6.82	8514.09	0.41

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		HYCHAN.OUT					
1247.81	149.28	8.36	146.38	16.92	0.005802		
3.02601	83437.21						
106.00	4480.70	8.51	6.78	8208.23	0.41		
1210.06	148.27	8.16	145.41	17.09	0.005749		
2.92771	82885.09						
107.00	4480.62	8.43	6.76	8026.97	0.41		
1187.79	147.67	8.04	144.83	17.19	0.005704		
2.86288	82555.95						
108.00	4480.53	8.34	6.73	7853.50	0.41		
1166.54	147.09	7.93	144.28	17.29	0.005660		
2.80099	82239.49						
109.00	4480.48	8.29	6.72	7747.35	0.41		
1153.56	146.73	7.86	143.94	17.35	0.005654		
2.77391	82043.16						
110.00	4480.51	8.32	6.73	7812.07	0.41		
1161.47	146.94	7.90	144.14	17.32	0.005695		
2.80915	82159.56						
111.00	4480.62	8.44	6.76	8052.20	0.41		
1190.91	147.74	8.06	144.90	17.18	0.005779		
2.90658	82595.62						
112.00	4480.69	8.50	6.78	8191.95	0.41		
1208.05	148.21	8.15	145.36	17.10	0.005748		
2.92363	82854.23						
113.00	4480.61	8.42	6.76	8026.79	0.41		
1187.77	147.67	8.04	144.83	17.19	0.005706		
2.86413	82555.52						
114.00	4480.63	8.44	6.76	8061.00	0.41		
1191.99	147.77	8.07	144.93	17.17	0.005781		
2.91005	82612.11						
115.00	4480.80	8.61	6.81	8424.22	0.41		
1236.71	148.97	8.30	146.08	16.97	0.005880		
3.04607	83266.73						
116.00	4480.87	8.68	6.83	8580.39	0.41		
1255.98	149.49	8.40	146.58	16.88	0.005848		
3.06599	83552.59						
117.00	4480.82	8.63	6.82	8474.79	0.41		
1242.91	149.15	8.33	146.25	16.94	0.005841		
3.03751	83362.64						
118.00	4480.82	8.63	6.82	8470.18	0.41		
1242.34	149.13	8.33	146.23	16.94	0.005845		
3.03822	83353.88						
119.00	4480.86	8.67	6.83	8551.12	0.41		
1252.36	149.39	8.38	146.49	16.90	0.005888		
3.08026	83496.80						
120.00	4480.91	8.72	6.84	8666.40	0.41		
1266.62	149.77	8.46	146.85	16.84	0.005894		
3.11042	83704.30						
121.00	4480.91	8.72	6.84	8669.64	0.41		
1267.02	149.78	8.46	146.86	16.84	0.005893		
3.11074	83710.48						
122.00	4480.88	8.69	6.83	8588.14	0.41		
1256.94	149.52	8.41	146.61	16.88	0.005848		
3.06766	83567.20						
123.00	4480.82	8.63	6.82	8474.06	0.41		
1242.82	149.14	8.33	146.25	16.94	0.005839		
3.03615	83361.41						
124.00	4480.78	8.59	6.81	8389.72	0.41		
1232.42	148.87	8.28	145.99	16.99	0.005796		
2.99423	83211.62						
125.00	4480.73	8.54	6.79	8273.71	0.41		
1218.11	148.48	8.20	145.62	17.05	0.005790		
2.96388	83001.02						
126.00	4480.73	8.54	6.79	8269.85	0.41		

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				HYCHAN.OUT			
1217.64		148.47		8.20	145.60	17.06	0.005789
	2.96265	82993.73					
127.00		4480.69	8.50	6.78	8199.17	0.41	
1208.94		148.24		8.16	145.38	17.09	0.005749
	2.92575	82867.94					
128.00		4480.65	8.46	6.77	8094.99	0.41	
1196.13		147.89		8.09	145.05	17.15	0.005743
	2.89860	82677.67					
129.00		4480.64	8.45	6.77	8090.83	0.41	
1195.62		147.88		8.09	145.03	17.16	0.005743
	2.89729	82669.78					
130.00		4480.61	8.42	6.76	8022.72	0.41	
1187.27		147.65		8.04	144.82	17.19	0.005705
	2.86240	82547.83					
131.00		4480.57	8.38	6.74	7921.01	0.41	
1174.80		147.31		7.97	144.49	17.25	0.005700
	2.83648	82360.99					
132.00		4480.63	8.44	6.76	8056.95	0.41	
1191.49		147.76		8.06	144.92	17.18	0.005779
	2.90793	82604.49					
133.00		4480.72	8.53	6.79	8262.37	0.41	
1216.72		148.44		8.20	145.58	17.06	0.005790
	2.96147	82979.54					
134.00		4480.73	8.54	6.79	8269.67	0.41	
1217.61		148.47		8.20	145.60	17.06	0.005790
	2.96305	82993.41					
135.00		4480.73	8.54	6.79	8270.25	0.41	
1217.69		148.47		8.20	145.60	17.05	0.005790
	2.96311	82994.45					
136.00		4480.73	8.54	6.79	8269.88	0.41	
1217.64		148.47		8.20	145.60	17.06	0.005790
	2.96323	82993.74					
137.00		4480.73	8.54	6.79	8269.94	0.41	
1217.65		148.47		8.20	145.60	17.06	0.005790
	2.96312	82993.89					
138.00		4480.73	8.54	6.79	8270.21	0.41	
1217.68		148.47		8.20	145.60	17.05	0.005790
	2.96300	82994.45					
139.00		4480.73	8.54	6.79	8269.63	0.41	
1217.61		148.47		8.20	145.60	17.06	0.005789
	2.96255	82993.31					
140.00		4480.70	8.51	6.78	8199.69	0.41	
1209.01		148.24		8.16	145.38	17.09	0.005749
	2.92576	82868.87					
141.00		4480.65	8.46	6.77	8094.82	0.41	
1196.11		147.89		8.09	145.05	17.15	0.005743
	2.89846	82677.37					
142.00		4480.64	8.45	6.77	8090.83	0.41	
1195.62		147.88		8.09	145.03	17.16	0.005744
	2.89783	82669.73					
143.00		4480.64	8.45	6.77	8090.92	0.41	
1195.63		147.88		8.09	145.04	17.16	0.005743
	2.89748	82669.99					
144.00		4480.64	8.45	6.77	8090.81	0.41	
1195.62		147.88		8.09	145.03	17.16	0.005743
	2.89741	82669.73					
145.00		4480.61	8.42	6.76	8023.53	0.41	
1187.37		147.66		8.04	144.82	17.19	0.005704
	2.86217	82549.34					
146.00		4480.56	8.38	6.74	7920.18	0.41	
1174.69		147.31		7.97	144.49	17.25	0.005699
	2.83574	82359.51					
147.00		4480.56	8.37	6.74	7917.02	0.41	

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		HYCHAN.OUT					
1174.31	147.30	7.97	144.48	17.25	0.005698		
2.83488	82353.41						
148.00	4480.56	8.37	6.74	7917.11	0.41		
1174.32	147.30	7.97	144.48	17.25	0.005699		
2.83497	82353.58						
149.00	4480.56	8.37	6.74	7916.96	0.41		
1174.30	147.30	7.97	144.48	17.25	0.005699		
2.83499	82353.28						
150.00	4480.56	8.37	6.74	7916.68	0.41		
1174.27	147.29	7.97	144.48	17.25	0.005698		
2.83464	82352.84						
151.00	4480.54	8.35	6.74	7872.25	0.41		
1168.83	147.15	7.94	144.34	17.28	0.005672		
2.81136	82272.86						
152.00	4480.50	8.31	6.72	7781.13	0.41		
1157.69	146.84	7.88	144.05	17.33	0.005655		
2.78183	82105.66						
153.00	4480.48	8.29	6.72	7744.12	0.41		
1153.16	146.72	7.86	143.92	17.35	0.005652		
2.77227	82037.02						
154.00	4480.48	8.29	6.72	7742.40	0.41		
1152.95	146.71	7.86	143.92	17.36	0.005652		
2.77179	82033.75						
155.00	4480.45	8.26	6.70	7676.49	0.41		
1144.92	146.49	7.82	143.71	17.39	0.005616		
2.73889	81914.34						
156.00	4480.47	8.28	6.71	7708.19	0.41		
1148.80	146.59	7.84	143.80	17.38	0.005686		
2.78081	81967.56						
157.00	4480.56	8.37	6.74	7909.14	0.41		
1173.34	147.27	7.97	144.45	17.26	0.005699		
2.83313	82338.36						
158.00	4480.56	8.37	6.74	7917.27	0.41		
1174.34	147.30	7.97	144.48	17.25	0.005698		
2.83485	82353.84						
159.00	4480.56	8.37	6.74	7917.22	0.41		
1174.33	147.30	7.97	144.48	17.25	0.005698		
2.83467	82353.79						
160.00	4480.56	8.37	6.74	7916.62	0.41		
1174.26	147.29	7.97	144.48	17.25	0.005699		
2.83485	82352.67						
161.00	4480.56	8.37	6.74	7917.13	0.41		
1174.32	147.30	7.97	144.48	17.25	0.005699		
2.83501	82353.60						
162.00	4480.56	8.37	6.74	7917.09	0.41		
1174.31	147.30	7.97	144.48	17.25	0.005699		
2.83502	82353.56						
163.00	4480.56	8.37	6.74	7916.95	0.41		
1174.30	147.30	7.97	144.48	17.25	0.005698		
2.83480	82353.30						
164.00	4480.56	8.37	6.74	7916.80	0.41		
1174.28	147.30	7.97	144.48	17.25	0.005697		
2.83422	82353.04						
165.00	4480.53	8.34	6.73	7849.15	0.41		
1166.01	147.07	7.93	144.27	17.29	0.005660		
2.79988	82231.21						
166.00	4480.48	8.29	6.72	7746.81	0.41		
1153.49	146.73	7.86	143.93	17.35	0.005653		
2.77324	82042.20						
167.00	4480.48	8.29	6.72	7743.04	0.41		
1153.03	146.71	7.86	143.92	17.35	0.005653		
2.77228	82034.88						
168.00	4480.48	8.29	6.72	7742.84	0.41		

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				HYCHAN.OUT			
1153.01	146.71	7.86	143.92	17.36	0.005653		
2.77237	82034.55						
169.00	4480.48	8.29	6.72	7742.99	0.41		
1153.02	146.71	7.86	143.92	17.36	0.005653		
2.77250	82034.81						
170.00	4480.48	8.29	6.72	7743.28	0.41		
1153.06	146.71	7.86	143.92	17.35	0.005653		
2.77213	82035.40						
171.00	4480.48	8.29	6.72	7742.65	0.41		
1152.98	146.71	7.86	143.92	17.36	0.005654		
2.77266	82034.15						
172.00	4480.48	8.29	6.72	7742.95	0.41		
1153.02	146.71	7.86	143.92	17.36	0.005653		
2.77220	82034.77						
173.00	4480.45	8.26	6.70	7675.44	0.41		
1144.79	146.49	7.81	143.71	17.39	0.005614		
2.73763	81912.50						
174.00	4480.40	8.21	6.69	7572.73	0.41		
1132.27	146.14	7.75	143.37	17.45	0.005608		
2.71154	81721.65						
175.00	4480.40	8.21	6.69	7569.19	0.41		
1131.83	146.13	7.75	143.36	17.46	0.005608		
2.71061	81714.81						
176.00	4480.40	8.21	6.69	7568.85	0.41		
1131.79	146.12	7.75	143.36	17.46	0.005608		
2.71062	81714.12						
177.00	4480.40	8.21	6.69	7569.08	0.41		
1131.82	146.12	7.75	143.36	17.46	0.005609		
2.71097	81714.55						
178.00	4480.40	8.21	6.69	7568.88	0.41		
1131.79	146.12	7.75	143.36	17.46	0.005608		
2.71022	81714.27						
179.00	4480.40	8.21	6.69	7569.20	0.41		
1131.83	146.13	7.75	143.36	17.46	0.005610		
2.71153	81714.73						
180.00	4480.46	8.27	6.71	7705.44	0.41		
1148.47	146.58	7.84	143.79	17.38	0.005686		
2.77979	81962.17						
181.00	4480.56	8.37	6.74	7908.71	0.41		
1173.29	147.27	7.97	144.45	17.26	0.005699		
2.83342	82337.54						
182.00	4480.60	8.41	6.75	7986.17	0.41		
1182.79	147.52	8.02	144.70	17.22	0.005737		
2.87027	82477.65						
183.00	4480.64	8.45	6.77	8086.44	0.41		
1195.08	147.86	8.08	145.02	17.16	0.005743		
2.89666	82661.48						
184.00	4480.64	8.45	6.77	8090.97	0.41		
1195.64	147.88	8.09	145.04	17.16	0.005744		
2.89797	82669.99						
185.00	4480.64	8.45	6.77	8090.88	0.41		
1195.63	147.88	8.09	145.03	17.16	0.005744		
2.89776	82669.88						
186.00	4480.64	8.45	6.77	8091.20	0.41		
1195.67	147.88	8.09	145.04	17.16	0.005743		
2.89780	82670.48						
187.00	4480.64	8.45	6.77	8091.13	0.41		
1195.66	147.88	8.09	145.04	17.16	0.005744		
2.89787	82670.30						
188.00	4480.64	8.45	6.77	8090.79	0.41		
1195.61	147.88	8.09	145.03	17.16	0.005744		
2.89776	82669.71						
189.00	4480.64	8.45	6.77	8091.17	0.41		

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HYCHAN.OUT						
1195.66	2.89766	147.88	8.09	145.04	17.16	0.005743
190.00	4480.64	82670.38	8.45	6.77	8090.92	0.41
1195.63	2.89758	147.88	8.09	145.03	17.16	0.005743
191.00	4480.61	82669.95	8.42	6.76	8023.05	0.41
1187.31	2.86183	147.65	8.04	144.82	17.19	0.005703
192.00	4480.56	82548.47	8.38	6.74	7920.28	0.41
1174.71	2.83544	147.31	7.97	144.49	17.25	0.005698
193.00	4480.56	82359.69	8.37	6.74	7917.26	0.41
1174.34	2.83468	147.30	7.97	144.48	17.25	0.005698
194.00	4480.56	82353.84	8.37	6.74	7916.93	0.41
1174.30	2.83502	147.30	7.97	144.48	17.25	0.005699
195.00	4480.56	82353.22	8.37	6.74	7916.92	0.41
1174.29	2.83478	147.30	7.97	144.48	17.25	0.005698
196.00	4480.56	82353.27	8.37	6.74	7917.24	0.41
1174.33	2.83460	147.30	7.97	144.48	17.25	0.005698
197.00	4480.56	82353.82	8.37	6.74	7917.02	0.41
1174.31	2.83474	147.30	7.97	144.48	17.25	0.005698
198.00	4480.56	82353.38	8.37	6.74	7916.96	0.41
1174.30	2.83471	147.30	7.97	144.48	17.25	0.005698
199.00	4480.56	82353.34	8.37	6.74	7916.91	0.41
1174.29	2.83481	147.30	7.97	144.48	17.25	0.005698
		82353.19				

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1213

MAXIMUM DISCHARGE (CFS) = 21431.40 AT TIME = 80.86  
 MAXIMUM STAGE = 4481.54 AT TIME = 80.86

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)			
0.00	0.00	4470.02	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4470.02	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4470.02	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4473.92	3.90	5.63	3548.31	0.50	0.003658
629.75	155.40	4.05	153.94	39.47	0.60	0.003653
0.92504	58498.43	5.97	8.31	5481.01	0.60	0.003653
4.00	4475.99	3.59	181.47	30.41	0.60	0.003647
659.40	183.74	5.92	8.25	5382.57	0.60	0.003647
0.81807	68960.34	3.56	180.90	30.57	0.60	0.003647
5.00	4475.94					
652.06	183.15					

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		HYCHAN.OUT					
	0.81027	68741.99					
648.17	6.00	4475.91	5.89	8.22	5330.22	0.60	
		182.83	3.55		180.60	30.65	0.003642
	0.80575	68627.13					
637.39	7.00	4475.84	5.82	8.13	5184.66	0.59	
		181.96	3.50		179.75	30.88	0.003632
	0.79400	68303.59					
626.29	8.00	4475.77	5.75	8.04	5035.08	0.59	
		181.04	3.46		178.86	31.12	0.003621
	0.78166	67966.57					
614.30	9.00	4475.69	5.67	7.96	4888.10	0.59	
		180.04	3.41		177.89	31.39	0.003607
	0.76794	67596.52					
605.10	10.00	4475.62	5.60	7.90	4779.02	0.59	
		179.25	3.38		177.12	31.61	0.003599
	0.75819	67306.38					
601.13	11.00	4475.60	5.58	7.87	4731.59	0.59	
		178.91	3.36		176.79	31.70	0.003593
	0.75325	67181.81					
589.21	12.00	4475.52	5.50	7.79	4589.11	0.59	
		177.89	3.31		175.80	31.98	0.003580
	0.73986	66802.43					
579.82	13.00	4475.45	5.43	7.72	4476.60	0.58	
		177.06	3.27		174.99	32.22	0.003572
	0.72995	66497.58					
579.19	14.00	4475.45	5.43	7.72	4469.04	0.58	
		177.00	3.27		174.94	32.23	0.003572
	0.72940	66476.27					
579.18	15.00	4475.45	5.43	7.72	4468.95	0.58	
		177.00	3.27		174.94	32.23	0.003572
	0.72942	66476.01					
579.19	16.00	4475.45	5.43	7.72	4469.05	0.58	
		177.00	3.27		174.94	32.23	0.003572
	0.72941	66476.23					
579.18	17.00	4475.45	5.43	7.72	4468.96	0.58	
		177.00	3.27		174.94	32.23	0.003572
	0.72940	66476.05					
582.41	18.00	4475.47	5.45	7.74	4507.67	0.58	
		177.28	3.29		175.21	32.15	0.003578
	0.73354	66578.35					
594.61	19.00	4475.55	5.53	7.83	4653.73	0.59	
		178.34	3.33		176.23	31.86	0.003592
	0.74738	66969.28					
607.48	20.00	4475.64	5.62	7.91	4807.17	0.59	
		179.44	3.39		177.31	31.55	0.003607
	0.76201	67377.00					
616.80	21.00	4475.70	5.68	7.97	4917.90	0.59	
		180.24	3.42		178.08	31.34	0.003614
	0.77180	67671.04					
617.31	22.00	4475.71	5.69	7.98	4923.86	0.59	
		180.29	3.42		178.13	31.32	0.003614
	0.77225	67687.56					
620.93	23.00	4475.73	5.71	8.00	4967.25	0.59	
		180.58	3.44		178.41	31.24	0.003621
	0.77691	67797.52					
635.93	24.00	4475.83	5.81	8.12	5164.52	0.59	
		181.82	3.50		179.61	30.91	0.003644
	0.79524	68252.73					
658.52	25.00	4475.98	5.96	8.30	5468.59	0.60	
		183.65	3.59		181.39	30.44	0.003668
	0.82078	68926.99					
681.63	26.00	4476.13	6.11	8.48	5777.26	0.60	
		185.48	3.67		183.16	29.97	0.003695

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		HYCHAN.OUT					
	0.84730	69601.43					
696.67	27.00	4476.23	6.21	8.58	5977.43	0.61	
		186.66	3.73		184.31	29.68	0.003698
	0.86122	70036.85					
697.24	28.00	4476.23	6.21	8.58	5985.00	0.61	
		186.70	3.73		184.35	29.66	0.003698
	0.86164	70053.90					
701.66	29.00	4476.26	6.24	8.61	6043.24	0.61	
		187.04	3.75		184.68	29.58	0.003709
	0.86825	70176.83					
709.60	30.00	4476.31	6.29	8.66	6148.14	0.61	
		187.65	3.78		185.27	29.43	0.003713
	0.87612	70402.25					
709.92	31.00	4476.32	6.30	8.67	6152.28	0.61	
		187.67	3.78		185.29	29.43	0.003713
	0.87639	70411.48					
714.61	32.00	4476.35	6.33	8.70	6213.92	0.61	
		188.02	3.80		185.63	29.34	0.003729
	0.88442	70540.50					
722.84	33.00	4476.40	6.38	8.75	6322.13	0.61	
		188.65	3.83		186.24	29.19	0.003729
	0.89170	70771.25					
723.13	34.00	4476.40	6.38	8.75	6325.86	0.61	
		188.67	3.83		186.26	29.18	0.003729
	0.89193	70779.58					
718.43	35.00	4476.37	6.35	8.72	6264.03	0.61	
		188.32	3.81		185.92	29.27	0.003718
	0.88517	70650.77					
710.20	36.00	4476.32	6.30	8.67	6156.03	0.61	
		187.70	3.78		185.32	29.42	0.003712
	0.87649	70419.94					
705.45	37.00	4476.29	6.27	8.64	6093.30	0.61	
		187.34	3.77		184.97	29.51	0.003703
	0.87013	70287.65					
697.56	38.00	4476.24	6.22	8.59	5989.14	0.61	
		186.73	3.74		184.38	29.66	0.003697
	0.86189	70063.27					
697.24	39.00	4476.23	6.21	8.58	5984.92	0.61	
		186.70	3.73		184.35	29.66	0.003697
	0.86161	70053.72					
697.25	40.00	4476.23	6.21	8.58	5985.07	0.61	
		186.71	3.73		184.35	29.66	0.003697
	0.86164	70054.07					
697.25	41.00	4476.23	6.21	8.58	5985.03	0.61	
		186.70	3.73		184.35	29.66	0.003698
	0.86164	70053.96					
697.24	42.00	4476.23	6.21	8.58	5984.97	0.61	
		186.70	3.73		184.35	29.66	0.003698
	0.86169	70053.84					
701.68	43.00	4476.26	6.24	8.61	6043.53	0.61	
		187.04	3.75		184.68	29.58	0.003709
	0.86826	70177.46					
709.62	44.00	4476.31	6.29	8.66	6148.37	0.61	
		187.65	3.78		185.27	29.43	0.003713
	0.87616	70402.72					
714.62	45.00	4476.35	6.33	8.70	6213.99	0.61	
		188.03	3.80		185.63	29.34	0.003730
	0.88452	70540.66					
727.70	46.00	4476.43	6.41	8.78	6385.57	0.61	
		189.01	3.85		186.59	29.10	0.003746
	0.89992	70902.95					
741.00	47.00	4476.52	6.50	8.85	6559.37	0.61	
		190.00	3.90		187.55	28.87	0.003762

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0.91554	71267.48					
48.00	4476.60	6.58	8.93	6733.81	0.61	
754.41	190.98	3.95	188.50	28.64	0.003781	
0.93193	71630.30					
49.00	4476.68	6.66	8.99	6899.84	0.61	
767.23	191.91	4.00	189.40	28.42	0.003798	
0.94749	71973.02					
50.00	4476.77	6.75	9.06	7080.64	0.61	
781.24	192.92	4.05	190.38	28.19	0.003819	
0.96503	72343.25					
51.00	4476.89	6.87	9.15	7313.93	0.62	
799.44	194.20	4.12	191.62	27.90	0.003859	
0.99118	72814.68					
52.00	4476.99	6.97	9.23	7534.61	0.62	
816.06	195.38	4.18	192.76	27.64	0.003861	
1.00625	73249.67					
53.00	4477.02	7.00	9.27	7609.23	0.62	
820.61	195.71	4.19	193.09	27.57	0.003875	
1.01384	73372.76					
54.00	4477.15	7.13	9.44	7927.40	0.62	
840.08	197.13	4.26	194.46	27.26	0.003919	
1.04215	73893.05					
55.00	4477.42	7.40	9.75	8580.65	0.63	
880.33	199.99	4.40	197.23	26.66	0.003992	
1.09661	74946.73					
56.00	4477.80	7.78	10.14	9517.42	0.64	
938.77	203.99	4.60	201.10	25.85	0.004091	
1.17476	76419.05					
57.00	4478.23	8.21	10.76	10661.77	0.66	
991.32	208.33	4.76	205.31	25.01	0.004143	
1.23002	78017.68					
58.00	4478.64	8.62	11.50	11855.32	0.69	
1031.28	212.43	4.85	209.27	24.27	0.004195	
1.27065	79523.60					
59.00	4478.97	8.95	12.03	12874.34	0.71	
1070.10	215.57	4.96	212.31	23.72	0.004309	
1.33469	80679.37					
60.00	4479.33	9.31	12.55	14171.85	0.73	
1129.08	218.94	5.16	215.57	23.15	0.004363	
1.40399	81916.13					
61.00	4479.64	9.62	12.96	15261.00	0.74	
1177.47	221.77	5.31	218.31	22.70	0.004376	
1.44978	82956.68					
62.00	4479.86	9.84	13.24	15985.19	0.74	
1207.05	223.75	5.39	220.22	22.38	0.004464	
1.50286	83684.22					
63.00	4480.11	10.09	13.54	16800.25	0.75	
1240.40	225.95	5.49	222.35	22.04	0.004528	
1.55107	84494.00					
64.00	4480.29	10.27	13.75	17393.65	0.76	
1264.76	227.54	5.56	223.88	21.81	0.004568	
1.58448	85076.16					
65.00	4480.47	10.45	13.97	18008.24	0.76	
1289.35	229.17	5.63	225.46	21.57	0.004536	
1.59246	85673.77					
66.00	4480.62	10.60	14.12	18456.76	0.76	
1307.14	230.44	5.67	226.68	21.38	0.004494	
1.59071	86139.88					
67.00	4480.66	10.64	14.15	18551.26	0.76	
1310.90	230.73	5.68	226.97	21.34	0.004486	
1.59041	86248.45					
68.00	4480.66	10.64	14.16	18563.06	0.77	
1311.37	230.77	5.68	227.01	21.33	0.004485	

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1311.69	1.59024	86263.97	10.64	5.68	14.16	18571.07	0.77	0.004483
	69.00	4480.66				227.04	21.33	
	1.58971	86273.66	10.65	5.68	14.16	18584.51	0.77	0.004480
	70.00	4480.67				227.08	21.32	
	1.58912	86289.14	10.65	5.69	14.16	18591.15	0.77	0.004480
	71.00	4480.67				227.10	21.32	
	1.58931	86297.50	10.65	5.68	14.16	18582.87	0.77	0.004482
	72.00	4480.67				227.07	21.32	
	1.58989	86287.74	10.66	5.69	14.17	18621.39	0.77	0.004471
	73.00	4480.68				227.18	21.31	
	1.58698	86328.36	10.72	5.71	14.23	18804.29	0.77	0.004441
	74.00	4480.75				227.70	21.23	
	1.58150	86525.18	10.75	5.71	14.26	18879.46	0.77	0.004436
	75.00	4480.77				227.93	21.20	
	1.58158	86614.86	10.77	5.72	14.27	18918.16	0.77	0.004424
	76.00	4480.79				228.05	21.18	
	1.57814	86657.57	10.85	5.74	14.35	19152.64	0.77	0.004367
	77.00	4480.87				228.73	21.08	
	1.56409	86919.09	11.00	5.77	14.47	19532.55	0.77	0.004270
	78.00	4481.02				229.98	20.90	
	1.53839	87392.09	11.14	5.80	14.56	19822.93	0.77	0.004218
	79.00	4481.16				231.05	20.75	
	1.52547	87798.78	11.26	5.81	14.64	20080.14	0.77	0.004157
	80.00	4481.28				232.01	20.61	
	1.50800	88164.38	11.39	5.83	14.72	20337.45	0.77	0.004095
	81.00	4481.41				233.07	20.46	
	1.48894	88566.17	11.39	5.83	14.72	20328.98	0.77	0.004122
	82.00	4481.41				233.08	20.46	
	1.49837	88571.40	11.30	5.82	14.66	20153.88	0.77	0.004170
	83.00	4481.32				232.37	20.56	
	1.51364	88300.74	11.26	5.81	14.64	20080.78	0.77	0.004177
	84.00	4481.28				232.07	20.60	
	1.51515	88185.60	11.26	5.81	14.64	20080.15	0.77	0.004174
	85.00	4481.28				232.06	20.60	
	1.51399	88184.02	11.28	5.81	14.64	20102.85	0.77	0.004159
	86.00	4481.30				232.18	20.59	
	1.50870	88228.95	11.22	5.80	14.60	19970.72	0.77	0.004215
	87.00	4481.24				231.74	20.65	
	1.52652	88060.41	10.96	5.75	14.41	19366.53	0.77	0.004383
	88.00	4480.98				229.63	20.95	
	1.57395	87259.89	10.56	5.65	14.06	18292.90	0.76	0.004533
	89.00	4480.58				226.38	21.43	
	230.12							

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1237.24	90.00	1.59877	4480.09	86023.53	10.07	5.48	13.51	16719.49	0.75	0.004424
		1.51259	225.78	84431.28				222.19	22.07	
1190.53	91.00	1.43893	4479.74	83284.25	9.72	5.35	13.09	15578.49	0.74	0.004313
		1.39935	222.66	82180.77				219.17	22.55	
1141.51	92.00	1.34112	4479.41	81233.61	9.39	5.20	12.65	14444.29	0.73	0.004315
		1.28912	219.66	80492.92				216.27	23.04	
1095.67	93.00	1.26377	4479.13	79823.44	9.11	5.05	12.27	13442.68	0.72	0.004258
		1.24339	217.08	79106.07				213.77	23.46	
1061.08	94.00	1.22742	4478.92	78448.34	8.90	4.93	11.95	12675.35	0.71	0.004187
		1.21407	215.07	77920.12				211.82	23.81	
1039.03	95.00	1.20478	4478.73	77462.96	8.71	4.87	11.64	12089.41	0.70	0.004157
		1.18415	213.24	77018.74				210.06	24.12	
1019.58	96.00	1.15633	4478.53	76463.94	8.51	4.83	11.29	11512.10	0.68	0.004129
		1.13286	211.29	76012.89				208.17	24.47	
1002.05	97.00	1.11416	4478.35	75614.53	8.33	4.78	10.97	10991.30	0.67	0.004113
		1.09841	209.51	75294.14				206.44	24.80	
988.20	98.00	1.07425	4478.20	74856.28	8.18	4.75	10.70	10577.33	0.66	0.004097
		1.05338	208.07	74359.75				205.05	25.06	
976.36	99.00	1.04031	4478.08	74064.38	8.06	4.72	10.47	10223.30	0.65	0.004090
		1.02777	206.83	73780.70				203.85	25.30	
962.18	100.00	1.02112	4477.96	73602.78	7.94	4.68	10.29	9900.42	0.64	0.004055
		1.00984	205.62	73294.14				202.68	25.53	
939.84	101.00	1.00841	4477.81	7294.14	7.79	4.60	10.15	9538.24	0.64	0.004024
		1.00742	204.11	72614.53				201.22	25.82	
921.70	102.00	1.00431	4477.69	72359.75	7.67	4.54	10.03	9248.71	0.64	0.003996
		1.00338	202.89	72012.89				200.03	26.07	
905.89	103.00	1.00277	4477.59	71759.75	7.57	4.49	9.93	8995.44	0.64	0.003978
		1.00211	201.80	71414.53				198.99	26.28	
893.32	104.00	1.00112	4477.51	71164.53	7.49	4.45	9.84	8793.03	0.63	0.003959
		1.00084	200.93	70814.53				198.14	26.46	
876.30	105.00	1.00041	4477.40	70529.14	7.38	4.39	9.72	8517.63	0.63	0.003924
		1.00025	199.74	70256.28				196.99	26.71	
857.34	106.00	1.00012	4477.27	70012.89	7.25	4.32	9.58	8210.26	0.63	0.003906
		1.00008	198.39	69759.75				195.68	26.99	
846.20	107.00	1.00004	4477.20	69529.14	7.18	4.28	9.49	8028.66	0.62	0.003893
		1.00001	197.59	69264.38				194.91	27.16	
835.59	108.00	1.00000	4477.13	69014.53	7.11	4.25	9.40	7855.14	0.62	0.003880
		1.00000	196.82	68780.70				194.16	27.33	
829.03	109.00	1.00000	4477.08	68539.75	7.06	4.22	9.35	7747.61	0.62	0.003876
		1.00000	196.34	68302.78				193.69	27.43	
832.87	110.00	1.00000	4477.11	68062.78	7.09	4.24	9.38	7810.59	0.62	0.003891
		1.00000	196.62	67814.53				193.96	27.37	

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	1.02842	73704.70					
111.00	4477.20	7.18	9.50	8049.13	0.62		
847.48	197.67	4.29	194.98	27.14	0.003919		
	1.04846	74093.33					
112.00	4477.26	7.24	9.57	8192.92	0.63		
856.27	198.32	4.32	195.61	27.01	0.003906		
	1.05245	74330.60					
113.00	4477.20	7.18	9.49	8028.39	0.62		
846.19	197.59	4.28	194.90	27.16	0.003893		
	1.04037	74063.88					
114.00	4477.21	7.19	9.50	8058.32	0.62		
848.04	197.71	4.29	195.02	27.13	0.003919		
	1.04895	74108.66					
115.00	4477.35	7.33	9.68	8420.49	0.63		
870.31	199.30	4.37	196.56	26.80	0.003953		
	1.07711	74693.59					
116.00	4477.42	7.40	9.75	8581.46	0.63		
880.21	200.01	4.40	197.25	26.65	0.003940		
	1.08193	74956.15					
117.00	4477.38	7.36	9.70	8475.08	0.63		
873.63	199.55	4.38	196.80	26.75	0.003940		
	1.07635	74785.04					
118.00	4477.38	7.36	9.70	8470.10	0.63		
873.33	199.53	4.38	196.78	26.75	0.003942		
	1.07665	74776.71					
119.00	4477.41	7.39	9.73	8549.48	0.63		
878.24	199.87	4.39	197.11	26.68	0.003955		
	1.08452	74902.50					
120.00	4477.46	7.44	9.79	8666.12	0.63		
885.44	200.38	4.42	197.61	26.58	0.003958		
	1.09140	75090.09					
121.00	4477.46	7.44	9.79	8669.69	0.63		
885.66	200.39	4.42	197.62	26.57	0.003957		
	1.09129	75096.11					
122.00	4477.42	7.41	9.75	8589.79	0.63		
880.73	200.05	4.40	197.29	26.64	0.003942		
	1.08284	74970.00					
123.00	4477.38	7.36	9.70	8474.41	0.63		
873.59	199.55	4.38	196.80	26.75	0.003937		
	1.07547	74784.03					
124.00	4477.34	7.32	9.66	8391.29	0.63		
868.48	199.19	4.36	196.45	26.82	0.003922		
	1.06716	74651.57					
125.00	4477.30	7.28	9.61	8274.00	0.63		
861.25	198.67	4.34	195.95	26.93	0.003923		
	1.06126	74461.23					
126.00	4477.29	7.27	9.61	8269.86	0.63		
860.99	198.65	4.33	195.93	26.94	0.003922		
	1.06070	74454.27					
127.00	4477.27	7.25	9.57	8200.63	0.63		
856.75	198.35	4.32	195.64	27.00	0.003907		
	1.05294	74343.60					
128.00	4477.22	7.20	9.52	8095.25	0.63		
850.27	197.88	4.30	195.19	27.10	0.003904		
	1.04685	74171.45					
129.00	4477.22	7.20	9.52	8090.85	0.63		
850.00	197.86	4.30	195.17	27.10	0.003906		
	1.04694	74164.09					
130.00	4477.19	7.17	9.49	8024.11	0.62		
845.92	197.57	4.28	194.89	27.17	0.003893		
	1.04010	74056.68					
131.00	4477.15	7.13	9.43	7921.25	0.62		
839.62	197.11	4.26	194.44	27.26	0.003893		

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		HYCHAN.OUT					
	1.03480	73887.68					
847.78	132.00	4477.21	7.19	9.50	8054.08	0.62	
		197.69	4.29		195.00	27.14	0.003919
	1.04861	74101.57					
860.50	133.00	4477.29	7.27	9.60	8261.85	0.63	
		198.61	4.33		195.90	26.94	0.003923
	1.06063	74440.80					
860.98	134.00	4477.29	7.27	9.60	8269.67	0.63	
		198.65	4.33		195.93	26.94	0.003921
	1.06046	74453.95					
861.02	135.00	4477.29	7.27	9.61	8270.25	0.63	
		198.65	4.33		195.93	26.94	0.003921
	1.06046	74454.88					
860.99	136.00	4477.29	7.27	9.61	8269.87	0.63	
		198.65	4.33		195.93	26.94	0.003923
	1.06087	74454.27					
861.00	137.00	4477.29	7.27	9.61	8269.95	0.63	
		198.65	4.33		195.93	26.94	0.003923
	1.06107	74454.38					
861.02	138.00	4477.29	7.27	9.61	8270.23	0.63	
		198.65	4.33		195.93	26.94	0.003920
	1.06018	74454.91					
860.98	139.00	4477.29	7.27	9.60	8269.65	0.63	
		198.65	4.33		195.93	26.94	0.003921
	1.06054	74453.91					
856.78	140.00	4477.27	7.25	9.57	8201.15	0.63	
		198.35	4.32		195.64	27.00	0.003907
	1.05297	74344.43					
850.26	141.00	4477.22	7.20	9.52	8095.08	0.63	
		197.88	4.30		195.19	27.10	0.003904
	1.04687	74171.19					
850.00	142.00	4477.22	7.20	9.52	8090.82	0.63	
		197.86	4.30		195.17	27.10	0.003906
	1.04701	74164.01					
850.01	143.00	4477.22	7.20	9.52	8090.94	0.63	
		197.86	4.30		195.17	27.10	0.003904
	1.04659	74164.23					
850.00	144.00	4477.22	7.20	9.52	8090.82	0.63	
		197.86	4.30		195.17	27.10	0.003905
	1.04675	74164.01					
845.97	145.00	4477.19	7.17	9.49	8024.94	0.62	
		197.57	4.28		194.89	27.16	0.003893
	1.04011	74058.05					
839.57	146.00	4477.15	7.13	9.43	7920.43	0.62	
		197.11	4.26		194.44	27.26	0.003892
	1.03457	73886.36					
839.36	147.00	4477.15	7.13	9.43	7917.03	0.62	
		197.09	4.26		194.42	27.27	0.003891
	1.03393	73880.55					
839.37	148.00	4477.15	7.13	9.43	7917.11	0.62	
		197.09	4.26		194.42	27.27	0.003889
	1.03343	73880.69					
839.36	149.00	4477.15	7.13	9.43	7916.95	0.62	
		197.09	4.26		194.42	27.27	0.003894
	1.03475	73880.34					
839.34	150.00	4477.15	7.13	9.43	7916.70	0.62	
		197.09	4.26		194.42	27.27	0.003893
	1.03446	73880.02					
836.69	151.00	4477.13	7.11	9.41	7873.20	0.62	
		196.90	4.25		194.24	27.31	0.003883
	1.02962	73809.66					
831.11	152.00	4477.10	7.08	9.36	7781.78	0.62	
		196.49	4.23		193.84	27.40	0.003877

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1.02334	73659.34						
153.00	4477.08	7.06	9.34	7744.21	0.62		
828.82	196.32	4.22	193.68	27.43		0.003875	
1.02092	73597.03						
154.00	4477.08	7.06	9.34	7742.40	0.62		
828.71	196.31	4.22	193.67	27.44		0.003875	
1.02083	73593.96						
155.00	4477.05	7.03	9.31	7677.82	0.62		
824.78	196.03	4.21	193.39	27.50		0.003867	
1.01528	73488.77						
156.00	4477.06	7.04	9.32	7705.66	0.62		
826.50	196.14	4.21	193.50	27.47		0.003889	
1.02252	73531.08						
157.00	4477.15	7.13	9.43	7908.62	0.62		
838.85	197.05	4.26	194.38	27.28		0.003892	
1.03386	73866.30						
158.00	4477.15	7.13	9.43	7917.26	0.62		
839.38	197.09	4.26	194.42	27.27		0.003889	
1.03362	73880.92						
159.00	4477.15	7.13	9.43	7917.23	0.62		
839.38	197.09	4.26	194.42	27.27		0.003894	
1.03471	73880.91						
160.00	4477.15	7.13	9.43	7916.60	0.62		
839.34	197.09	4.26	194.42	27.27		0.003890	
1.03378	73879.85						
161.00	4477.15	7.13	9.43	7917.13	0.62		
839.37	197.09	4.26	194.42	27.27		0.003894	
1.03475	73880.70						
162.00	4477.15	7.13	9.43	7917.09	0.62		
839.37	197.09	4.26	194.42	27.27		0.003892	
1.03437	73880.64						
163.00	4477.15	7.13	9.43	7916.95	0.62		
839.36	197.09	4.26	194.42	27.27		0.003891	
1.03413	73880.43						
164.00	4477.15	7.13	9.43	7916.83	0.62		
839.35	197.09	4.26	194.42	27.27		0.003889	
1.03335	73880.23						
165.00	4477.12	7.10	9.40	7850.53	0.62		
835.31	196.80	4.24	194.14	27.33		0.003879	
1.02749	73772.89						
166.00	4477.08	7.06	9.35	7747.09	0.62		
828.99	196.34	4.22	193.69	27.43		0.003876	
1.02112	73601.94						
167.00	4477.08	7.06	9.34	7743.04	0.62		
828.75	196.32	4.22	193.67	27.44		0.003875	
1.02088	73594.98						
168.00	4477.08	7.06	9.34	7742.84	0.62		
828.73	196.32	4.22	193.67	27.44		0.003875	
1.02087	73594.66						
169.00	4477.08	7.06	9.34	7742.98	0.62		
828.74	196.32	4.22	193.67	27.44		0.003875	
1.02076	73594.89						
170.00	4477.08	7.06	9.34	7743.32	0.62		
828.76	196.32	4.22	193.67	27.44		0.003876	
1.02090	73595.49						
171.00	4477.08	7.06	9.34	7742.62	0.62		
828.72	196.32	4.22	193.67	27.44		0.003875	
1.02084	73594.27						
172.00	4477.08	7.06	9.34	7742.97	0.62		
828.74	196.32	4.22	193.67	27.44		0.003875	
1.02079	73594.89						
173.00	4477.05	7.03	9.31	7676.85	0.62		
824.72	196.02	4.21	193.39	27.50		0.003867	

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## HYCHAN.OUT

1.01517	73487.23						
174.00	4477.01	6.99	9.25	7572.98	0.62		
818.40	195.56	4.19	192.93	27.60		0.003863	
1.00883	73314.47						
175.00	4477.01	6.99	9.25	7569.21	0.62		
818.17	195.54	4.18	192.92	27.61		0.003863	
1.00860	73307.96						
176.00	4477.01	6.99	9.25	7568.84	0.62		
818.15	195.54	4.18	192.91	27.61		0.003863	
1.00852	73307.34						
177.00	4477.01	6.99	9.25	7569.05	0.62		
818.16	195.54	4.18	192.91	27.61		0.003863	
1.00853	73307.70						
178.00	4477.01	6.99	9.25	7568.92	0.62		
818.15	195.54	4.18	192.91	27.61		0.003863	
1.00852	73307.56						
179.00	4477.01	6.99	9.25	7569.14	0.62		
818.17	195.54	4.18	192.92	27.61		0.003863	
1.00870	73307.80						
180.00	4477.06	7.04	9.32	7702.65	0.62		
826.32	196.13	4.21	193.49	27.48		0.003889	
1.02232	73525.85						
181.00	4477.15	7.13	9.43	7908.17	0.62		
838.82	197.05	4.26	194.38	27.28		0.003893	
1.03403	73865.52						
182.00	4477.18	7.16	9.47	7984.76	0.62		
843.51	197.39	4.27	194.71	27.20		0.003905	
1.04131	73989.91						
183.00	4477.22	7.20	9.52	8086.19	0.63		
849.72	197.84	4.29	195.15	27.11		0.003907	
1.04717	74156.27						
184.00	4477.22	7.20	9.52	8090.96	0.63		
850.01	197.86	4.30	195.17	27.10		0.003908	
1.04761	74164.21						
185.00	4477.22	7.20	9.52	8090.88	0.63		
850.00	197.86	4.30	195.17	27.10		0.003908	
1.04768	74164.12						
186.00	4477.22	7.20	9.52	8091.20	0.63		
850.02	197.86	4.30	195.17	27.10		0.003907	
1.04748	74164.62						
187.00	4477.22	7.20	9.52	8091.12	0.63		
850.02	197.86	4.30	195.17	27.10		0.003907	
1.04731	74164.52						
188.00	4477.22	7.20	9.52	8090.80	0.63		
850.00	197.86	4.30	195.17	27.10		0.003904	
1.04659	74163.98						
189.00	4477.22	7.20	9.52	8091.17	0.63		
850.02	197.86	4.30	195.17	27.10		0.003904	
1.04657	74164.60						
190.00	4477.22	7.20	9.52	8090.93	0.63		
850.01	197.86	4.30	195.17	27.10		0.003904	
1.04665	74164.20						
191.00	4477.19	7.17	9.49	8024.48	0.62		
845.94	197.57	4.28	194.89	27.16		0.003893	
1.04002	74057.31						
192.00	4477.15	7.13	9.43	7920.53	0.62		
839.58	197.11	4.26	194.44	27.26		0.003893	
1.03467	73886.52						
193.00	4477.15	7.13	9.43	7917.26	0.62		
839.38	197.09	4.26	194.42	27.27		0.003889	
1.03351	73880.92						
194.00	4477.15	7.13	9.43	7916.92	0.62		
839.36	197.09	4.26	194.42	27.27		0.003890	

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## HYCHAN.OUT

1.03362	73880.34	7.13	9.43	7916.93	0.62	
195.00	4477.15	4.26	194.42	27.27	0.003894	
839.36	197.09					
1.03479	73880.40	7.13	9.43	7917.25	0.62	
196.00	4477.15	4.26	194.42	27.27	0.003893	
839.38	197.09					
1.03454	73880.87	7.13	9.43	7917.01	0.62	
197.00	4477.15	4.26	194.42	27.27	0.003890	
839.36	197.09					
1.03370	73880.46	7.13	9.43	7916.96	0.62	
198.00	4477.15	4.26	194.42	27.27	0.003889	
839.36	197.09					
1.03348	73880.43	7.13	9.43	7916.90	0.62	
199.00	4477.15	4.26	194.42	27.27	0.003889	
839.36	197.09					
1.03349	73880.31					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1239

MAXIMUM DISCHARGE (CFS) = 21459.66 AT TIME = 80.91  
 MAXIMUM STAGE = 4480.42 AT TIME = 80.91

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)							
0.00	0.00	4466.58	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4466.58	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4466.58	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
788.93	3.00	4471.27	4.69	6.79	-4.22	-3333.15	0.34	0.003730
	1.57991	116.21			114.43	24.39		
835.77	4.00	4473.89	7.31	5.25	-6.56	-5484.25	0.43	0.003725
	1.22056	159.16			156.09	21.34		
826.28	5.00	4473.84	7.26	5.22	-6.52	-5383.24	0.43	0.003725
	1.21288	158.36			155.32	21.39		
821.23	6.00	4473.81	7.23	5.20	-6.49	-5333.47	0.43	0.003720
	1.20754	157.88			154.85	21.41		
807.02	7.00	4473.73	7.15	5.15	-6.43	-5188.59	0.42	0.003716
	1.19490	156.59			153.61	21.49		
792.52	8.00	4473.64	7.06	5.10	-6.36	-5038.90	0.42	0.003711
	1.18187	155.28			152.33	21.57		
777.80	9.00	4473.56	6.98	5.05	-6.29	-4892.26	0.42	0.003705
	1.16798	153.97			151.07	21.64		
766.68	10.00	4473.50	6.92	5.01	-6.23	-4779.99	0.42	0.003706
	1.15841	153.03			150.16	21.70		
		90094.17						

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		HYCHAN.OUT					
761.91	11.00	4473.47	6.89	-6.21	-4734.76	0.42	
		152.58	4.99	149.72	21.73	0.003699	
	1.15257	89832.03					
747.07	12.00	4473.38	6.80	-6.15	-4593.34	0.42	
		151.20	4.94	148.38	21.81	0.003693	
	1.13862	89028.87					
735.50	13.00	4473.32	6.74	-6.09	-4477.64	0.41	
		150.18	4.90	147.39	21.87	0.003693	
	1.12866	88433.62					
734.96	14.00	4473.32	6.74	-6.08	-4469.04	0.41	
		150.16	4.89	147.38	21.88	0.003693	
	1.12794	88425.19					
734.95	15.00	4473.32	6.74	-6.08	-4468.94	0.41	
		150.16	4.89	147.37	21.88	0.003693	
	1.12792	88424.44					
734.97	16.00	4473.32	6.74	-6.08	-4469.06	0.41	
		150.16	4.89	147.38	21.88	0.003693	
	1.12794	88425.48					
734.95	17.00	4473.32	6.74	-6.08	-4468.96	0.41	
		150.16	4.89	147.37	21.88	0.003693	
	1.12795	88424.43					
739.11	18.00	4473.34	6.76	-6.09	-4504.43	0.41	
		150.60	4.91	147.80	21.85	0.003700	
	1.13297	88680.27					
754.36	19.00	4473.44	6.86	-6.16	-4649.50	0.41	
		152.03	4.96	149.19	21.76	0.003706	
	1.14730	89512.52					
770.11	20.00	4473.53	6.95	-6.24	-4802.93	0.42	
		153.45	5.02	150.56	21.67	0.003712	
	1.16243	90337.01					
781.34	21.00	4473.59	7.01	-6.29	-4916.92	0.42	
		154.40	5.06	151.48	21.62	0.003711	
	1.17200	90887.30					
781.74	22.00	4473.59	7.01	-6.30	-4923.85	0.42	
		154.40	5.06	151.48	21.62	0.003712	
	1.17262	90889.69					
786.30	23.00	4473.62	7.04	-6.31	-4963.91	0.42	
		154.86	5.08	151.92	21.59	0.003717	
	1.17785	91153.25					
805.21	24.00	4473.73	7.15	-6.41	-5157.62	0.42	
		156.57	5.14	153.58	21.49	0.003726	
	1.19575	92146.72					
834.20	25.00	4473.89	7.31	-6.55	-5460.66	0.43	
		159.12	5.24	156.05	21.34	0.003735	
	1.22199	93631.03					
863.58	26.00	4474.05	7.47	-6.68	-5769.42	0.43	
		161.62	5.34	158.47	21.20	0.003744	
	1.24840	95082.83					
883.14	27.00	4474.16	7.58	-6.77	-5975.93	0.43	
		163.22	5.41	160.02	21.11	0.003743	
	1.26376	96011.25					
883.94	28.00	4474.16	7.58	-6.77	-5984.96	0.43	
		163.27	5.41	160.07	21.11	0.003743	
	1.26451	96042.43					
889.19	29.00	4474.19	7.61	-6.79	-6039.69	0.43	
		163.72	5.43	160.50	21.09	0.003749	
	1.27060	96302.22					
899.40	30.00	4474.25	7.67	-6.84	-6147.46	0.44	
		164.54	5.47	161.30	21.04	0.003748	
	1.27836	96777.34					
899.77	31.00	4474.25	7.67	-6.84	-6152.25	0.44	
		164.56	5.47	161.31	21.04	0.003748	
	1.27877	96788.79					

		HYCHAN.OUT					
905.28	32.00	4474.28	7.70	-6.86	-6210.42	0.44	
	1.28447	165.01	5.49	161.76	21.02	0.003752	
		97054.51					
915.84	33.00	4474.33	7.75	-6.90	-6321.22	0.44	
	1.29301	165.85	5.52	162.57	20.97	0.003752	
		97540.82					
916.15	34.00	4474.33	7.75	-6.90	-6325.96	0.44	
	1.29325	165.86	5.52	162.58	20.97	0.003752	
		97546.36					
910.16	35.00	4474.30	7.72	-6.89	-6267.75	0.44	
	1.28713	165.33	5.51	162.06	21.00	0.003747	
		97237.91					
899.95	36.00	4474.25	7.67	-6.84	-6156.64	0.44	
	1.27881	164.55	5.47	161.31	21.04	0.003747	
		96784.41					
894.03	37.00	4474.21	7.63	-6.82	-6096.95	0.44	
	1.27273	164.04	5.45	160.81	21.07	0.003742	
		96486.95					
884.16	38.00	4474.16	7.58	-6.77	-5989.77	0.43	
	1.26479	163.27	5.42	160.07	21.11	0.003743	
		96039.99					
883.93	39.00	4474.16	7.58	-6.77	-5984.89	0.43	
	1.26445	163.27	5.41	160.07	21.11	0.003743	
		96041.81					
883.95	40.00	4474.16	7.58	-6.77	-5985.08	0.43	
	1.26444	163.27	5.41	160.07	21.11	0.003743	
		96043.16					
883.95	41.00	4474.16	7.58	-6.77	-5985.01	0.43	
	1.26452	163.27	5.41	160.07	21.11	0.003743	
		96042.77					
883.94	42.00	4474.16	7.58	-6.77	-5984.96	0.43	
	1.26466	163.27	5.41	160.07	21.11	0.003744	
		96042.23					
889.22	43.00	4474.19	7.61	-6.79	-6039.99	0.43	
	1.27059	163.72	5.43	160.51	21.09	0.003749	
		96303.93					
899.42	44.00	4474.25	7.67	-6.84	-6147.66	0.44	
	1.27837	164.54	5.47	161.30	21.04	0.003748	
		96778.48					
905.28	45.00	4474.28	7.70	-6.86	-6210.51	0.44	
	1.28460	165.01	5.49	161.76	21.02	0.003753	
		97054.60					
921.27	46.00	4474.36	7.78	-6.93	-6381.08	0.44	
	1.29956	166.28	5.54	162.98	20.95	0.003759	
		97787.93					
937.59	47.00	4474.44	7.86	-6.99	-6554.90	0.44	
	1.31430	167.55	5.60	164.21	20.88	0.003764	
		98525.62					
953.94	48.00	4474.53	7.95	-7.05	-6729.51	0.44	
	1.32803	168.80	5.65	165.42	20.81	0.003766	
		99251.34					
969.46	49.00	4474.61	8.03	-7.11	-6895.43	0.44	
	1.34262	169.97	5.70	166.55	20.75	0.003772	
		99928.85					
986.33	50.00	4474.69	8.11	-7.17	-7076.32	0.44	
	1.35786	171.21	5.76	167.75	20.69	0.003777	
		100652.38					
1007.73	51.00	4474.79	8.21	-7.25	-7306.37	0.45	
	1.37805	172.77	5.83	169.27	20.61	0.003786	
		101559.08					
1029.03	52.00	4474.89	8.31	-7.32	-7532.92	0.45	
	1.39359	174.27	5.90	170.71	20.53	0.003782	
		102428.54					

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1035.78	53.00	4474.92	8.34	-7.34	-7605.68	0.45	
	1.39871	174.73	5.93	171.16	20.51	0.003781	
		102693.91					
1064.89	54.00	4475.06	8.48	-7.43	-7916.37	0.45	
	1.41894	176.68	6.03	173.04	20.41	0.003773	
		103822.99					
1125.63	55.00	4475.32	8.74	-7.61	-8563.16	0.45	
	1.46081	180.56	6.23	176.79	20.23	0.003755	
		106075.23					
1213.28	56.00	4475.68	9.10	-7.83	-9494.00	0.46	
	1.51783	185.83	6.53	181.89	19.98	0.003726	
		109131.51					
1318.65	57.00	4476.10	9.52	-8.07	-10635.53	0.46	
	1.57877	191.80	6.88	187.66	19.71	0.003680	
		112594.27					
1427.39	58.00	4476.51	9.93	-8.29	-11833.76	0.46	
	1.63777	197.61	7.22	193.27	19.47	0.003634	
		115961.48					
1544.52	59.00	4476.86	10.28	-8.32	-12851.10	0.46	
	1.56447	202.49	7.63	197.98	19.26	0.003287	
		118786.38					
1776.33	60.00	4477.41	10.83	-7.96	-14140.85	0.43	
	1.47282	210.16	8.45	205.38	18.96	0.002793	
		123229.71					
1949.76	61.00	4477.94	11.36	-7.82	-15239.29	0.41	
	1.51157	217.43	8.97	212.39	18.69	0.002701	
		127436.54					
1993.31	62.00	4478.11	11.53	-8.01	-15973.15	0.42	
	1.58874	219.70	9.07	214.58	18.61	0.002806	
		128746.36					
2033.23	63.00	4478.27	11.69	-8.26	-16789.07	0.43	
	1.65513	221.88	9.16	216.68	18.53	0.002895	
		130009.70					
2060.88	64.00	4478.41	11.83	-8.43	-17383.02	0.43	
	1.67658	223.68	9.21	218.42	18.47	0.002916	
		131052.66					
2136.95	65.00	4478.66	12.08	-8.42	-17991.17	0.43	
	1.60724	227.04	9.41	221.66	18.35	0.002737	
		132996.86					
2214.32	66.00	4478.94	12.36	-8.36	-18511.59	0.42	
	1.58617	230.80	9.59	225.28	18.22	0.002650	
		135170.45					
2234.68	67.00	4479.02	12.44	-8.34	-18643.19	0.42	
	1.58485	231.79	9.64	226.23	18.19	0.002634	
		135740.31					
2237.73	68.00	4479.03	12.45	-8.34	-18662.60	0.42	
	1.58526	231.94	9.65	226.38	18.18	0.002633	
		135825.58					
2239.39	69.00	4479.04	12.46	-8.34	-18673.96	0.42	
	1.58308	232.02	9.65	226.45	18.18	0.002628	
		135872.27					
2242.00	70.00	4479.04	12.47	-8.34	-18691.56	0.42	
	1.58083	232.14	9.66	226.58	18.18	0.002623	
		135945.55					
2243.62	71.00	4479.05	12.47	-8.34	-18701.92	0.42	
	1.58146	232.22	9.66	226.65	18.17	0.002623	
		135990.72					
2241.97	72.00	4479.04	12.46	-8.34	-18690.55	0.42	
	1.58366	232.14	9.66	226.57	18.18	0.002628	
		135944.56					
2247.66	73.00	4479.07	12.49	-8.33	-18731.57	0.42	
	1.56544	232.42	9.67	226.84	18.17	0.002594	
		136105.30					

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2280.10	74.00	4479.19	12.60	9.74	-8.31	-18949.21	0.41	0.002533
	1.54013	233.98				228.35	18.12	
		137009.97						
2297.25	75.00	4479.25	12.67	9.78	-8.30	-19058.21	0.41	0.002524
	1.54089	234.80				229.14	18.09	
		137483.14						
2303.73	76.00	4479.27	12.69	9.80	-8.29	-19102.86	0.41	0.002493
	1.52440	235.11				229.44	18.08	
		137663.30						
2346.67	77.00	4479.43	12.85	9.89	-8.26	-19390.05	0.41	0.002377
	1.46756	237.16				231.41	18.01	
		138845.58						
2433.16	78.00	4479.74	13.16	10.09	-8.20	-19951.48	0.40	0.002236
	1.40764	241.20				235.30	17.88	
		141182.22						
2498.12	79.00	4479.97	13.39	10.23	-8.18	-20437.83	0.39	0.002177
	1.38984	244.18				238.17	17.79	
		142903.12						
2551.55	80.00	4480.16	13.58	10.35	-8.18	-20864.50	0.39	0.002112
	1.36351	246.60				240.50	17.72	
		144302.05						
2614.47	81.00	4480.38	13.79	10.48	-8.17	-21356.18	0.39	0.002054
	1.34369	249.41				243.21	17.63	
		145926.59						
2619.25	82.00	4480.39	13.81	10.49	-8.16	-21382.66	0.39	0.002078
	1.36075	249.62				243.41	17.62	
		146045.17						
2577.77	83.00	4480.25	13.67	10.40	-8.17	-21056.38	0.39	0.002128
	1.38132	247.77				241.63	17.68	
		144976.36						
2558.52	84.00	4480.18	13.60	10.36	-8.17	-20910.24	0.39	0.002135
	1.38056	246.91				240.80	17.71	
		144479.59						
2558.01	85.00	4480.18	13.60	10.36	-8.17	-20907.13	0.39	0.002132
	1.37823	246.89				240.78	17.71	
		144466.64						
2565.57	86.00	4480.20	13.62	10.38	-8.17	-20965.66	0.39	0.002120
	1.37304	247.23				241.11	17.70	
		144663.50						
2544.68	87.00	4480.13	13.55	10.33	-8.17	-20789.47	0.39	0.002184
	1.40839	246.28				240.19	17.73	
		144115.05						
2425.20	88.00	4479.71	13.13	10.07	-8.19	-19871.31	0.40	0.002449
	1.53885	240.80				234.92	17.90	
		140951.75						
2214.49	89.00	4478.94	12.36	9.60	-8.34	-18461.53	0.42	0.002881
	1.72481	230.78				225.26	18.22	
		135158.67						
2031.92	90.00	4478.27	11.69	9.16	-8.25	-16757.00	0.43	0.002763
	1.57934	221.81				216.62	18.53	
		129971.70						
1974.07	91.00	4478.04	11.46	9.03	-7.90	-15594.65	0.41	0.002632
	1.48274	218.68				213.60	18.64	
		128159.45						
1853.89	92.00	4477.62	11.04	8.70	-7.81	-14479.62	0.41	0.003034
	1.64788	212.99				208.11	18.85	
		124863.02						
1661.70	93.00	4477.11	10.53	8.06	-8.10	-13463.83	0.44	0.003385
	1.70308	206.07				201.44	19.12	
		120861.02						
1525.08	94.00	4476.80	10.22	7.56	-8.32	-12690.59	0.46	0.003621
	1.70843	201.71				197.22	19.30	
		118332.80						

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1452.83	95.00	4476.60	10.02	-8.33	-12100.04	0.46	
		198.85		7.31	194.47	19.41	0.003637
	1.65818	116680.06					
1400.57	96.00	4476.41	9.83	-8.23	-11524.79	0.46	
		196.15		7.14	191.86	19.53	0.003667
	1.63406	115113.27					
1352.71	97.00	4476.23	9.65	-8.13	-11000.12	0.46	
		193.61		6.99	189.41	19.64	0.003685
	1.60662	113643.41					
1315.18	98.00	4476.08	9.50	-8.05	-10585.93	0.46	
		191.56		6.87	187.42	19.72	0.003702
	1.58606	112452.11					
1282.72	99.00	4475.96	9.38	-7.97	-10228.89	0.46	
		189.75		6.76	185.67	19.80	0.003713
	1.56638	111402.73					
1253.47	100.00	4475.84	9.26	-7.91	-9909.24	0.46	
		188.07		6.66	184.05	19.88	0.003724
	1.54863	110431.09					
1218.97	101.00	4475.70	9.12	-7.83	-9545.19	0.46	
		186.10		6.55	182.15	19.97	0.003733
	1.52592	109287.61					
1191.47	102.00	4475.59	9.01	-7.77	-9254.92	0.46	
		184.49		6.46	180.59	20.04	0.003740
	1.50707	108355.59					
1167.37	103.00	4475.49	8.91	-7.71	-9000.28	0.46	
		183.06		6.38	179.21	20.11	0.003746
	1.49055	107524.02					
1148.23	104.00	4475.41	8.83	-7.66	-8797.61	0.45	
		181.90		6.31	178.09	20.16	0.003752
	1.47774	106851.16					
1122.90	105.00	4475.31	8.73	-7.59	-8525.63	0.45	
		180.33		6.23	176.57	20.24	0.003759
	1.46066	105943.81					
1093.60	106.00	4475.18	8.60	-7.51	-8214.98	0.45	
		178.50		6.13	174.81	20.33	0.003767
	1.43998	104883.17					
1076.27	107.00	4475.10	8.52	-7.46	-8032.65	0.45	
		177.38		6.07	173.72	20.38	0.003771
	1.42770	104231.98					
1059.70	108.00	4475.03	8.45	-7.42	-7859.03	0.45	
		176.28		6.01	172.66	20.43	0.003776
	1.41625	103594.48					
1049.44	109.00	4474.99	8.41	-7.38	-7748.11	0.45	
		175.64		5.97	172.04	20.47	0.003778
	1.40847	103221.29					
1054.74	110.00	4475.01	8.43	-7.40	-7807.31	0.45	
		175.99		5.99	172.37	20.45	0.003776
	1.41206	103424.59					
1076.76	111.00	4475.11	8.53	-7.47	-8042.05	0.45	
		177.44		6.07	173.78	20.38	0.003770
	1.42742	104265.75					
1091.52	112.00	4475.17	8.59	-7.51	-8194.90	0.45	
		178.37		6.12	174.68	20.33	0.003766
	1.43806	104808.41					
1076.23	113.00	4475.10	8.52	-7.46	-8032.19	0.45	
		177.38		6.07	173.72	20.38	0.003772
	1.42798	104231.05					
1077.77	114.00	4475.11	8.53	-7.47	-8052.29	0.45	
		177.50		6.07	173.84	20.37	0.003769
	1.42814	104303.49					
1111.54	115.00	4475.26	8.68	-7.57	-8411.91	0.45	
		179.66		6.19	175.93	20.27	0.003758
	1.45076	105556.07					

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1127.97	116.00 4475.33 180.66	8.75	-7.61	-8583.75	0.45		
	1.46363 106131.95	6.24		176.89	20.22	0.003757	
1117.76	117.00 4475.28 180.02	8.70	-7.58	-8475.87	0.45		
	1.45606 105765.28	6.21		176.28	20.25	0.003758	
1117.19	118.00 4475.28 179.99	8.70	-7.58	-8470.00	0.45		
	1.45576 105747.14	6.21		176.25	20.25	0.003759	
1124.24	119.00 4475.31 180.45	8.73	-7.60	-8545.68	0.45		
	1.46037 106009.47	6.23		176.68	20.23	0.003756	
1135.60	120.00 4475.36 181.14	8.78	-7.63	-8665.46	0.45		
	1.46866 106412.09	6.27		177.35	20.20	0.003754	
1136.03	121.00 4475.36 181.16	8.78	-7.63	-8669.73	0.45		
	1.46961 106425.93	6.27		177.38	20.20	0.003756	
1128.94	122.00 4475.33 180.71	8.75	-7.61	-8593.54	0.45		
	1.46506 106163.37	6.25		176.94	20.22	0.003758	
1117.71	123.00 4475.28 180.02	8.70	-7.58	-8475.15	0.45		
	1.45653 105764.26	6.21		176.27	20.25	0.003760	
1110.32	124.00 4475.25 179.55	8.67	-7.56	-8394.93	0.45		
	1.45184 105492.34	6.18		175.82	20.27	0.003763	
1098.84	125.00 4475.20 178.83	8.62	-7.53	-8274.88	0.45		
	1.44342 105073.58	6.14		175.12	20.31	0.003765	
1098.33	126.00 4475.20 178.80	8.62	-7.53	-8269.87	0.45		
	1.44231 105055.98	6.14		175.09	20.31	0.003763	
1092.51	127.00 4475.18 178.44	8.60	-7.51	-8203.85	0.45		
	1.43907 104846.00	6.12		174.74	20.33	0.003767	
1082.09	128.00 4475.13 177.77	8.55	-7.48	-8095.83	0.45		
	1.43183 104456.27	6.09		174.09	20.36	0.003770	
1081.50	129.00 4475.13 177.72	8.55	-7.48	-8090.98	0.45		
	1.43148 104430.77	6.09		174.05	20.36	0.003770	
1075.82	130.00 4475.10 177.36	8.52	-7.46	-8027.31	0.45		
	1.42743 104220.75	6.07		173.70	20.38	0.003771	
1065.83	131.00 4475.06 176.72	8.48	-7.43	-7921.94	0.45		
	1.42044 103848.62	6.03		173.08	20.41	0.003774	
1077.27	132.00 4475.11 177.47	8.53	-7.47	-8047.41	0.45		
	1.42767 104284.66	6.07		173.81	20.38	0.003769	
1097.43	133.00 4475.20 178.75	8.62	-7.53	-8260.66	0.45		
	1.44199 105025.95	6.14		175.04	20.31	0.003764	
1098.31	134.00 4475.20 178.80	8.62	-7.53	-8269.60	0.45		
	1.44250 105055.19	6.14		175.09	20.31	0.003763	
1098.36	135.00 4475.20 178.80	8.62	-7.53	-8270.20	0.45		
	1.44347 105056.14	6.14		175.09	20.31	0.003766	
1098.32	136.00 4475.20 178.80	8.62	-7.53	-8269.91	0.45		
	1.44318 105054.95	6.14		175.09	20.31	0.003765	

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1098.34	137.00	4475.20	8.62	-7.53	-8270.01	0.45
		178.80	6.14		175.09	20.31
	1.44260	105055.90				0.003764
1098.36	138.00	4475.20	8.62	-7.53	-8270.15	0.45
		178.80	6.14		175.10	20.31
	1.44270	105057.04				0.003764
1098.31	139.00	4475.20	8.62	-7.53	-8269.69	0.45
		178.80	6.14		175.09	20.31
	1.44320	105054.02				0.003765
1092.53	140.00	4475.18	8.60	-7.51	-8204.44	0.45
		178.44	6.12		174.74	20.33
	1.43902	104845.66				0.003767
1082.07	141.00	4475.13	8.55	-7.48	-8095.77	0.45
		177.77	6.09		174.09	20.36
	1.43093	104454.87				0.003767
1081.48	142.00	4475.13	8.55	-7.48	-8090.83	0.45
		177.72	6.09		174.05	20.36
	1.43040	104429.72				0.003767
1081.50	143.00	4475.13	8.55	-7.48	-8090.84	0.45
		177.72	6.09		174.05	20.36
	1.43144	104430.82				0.003770
1081.49	144.00	4475.13	8.55	-7.48	-8090.88	0.45
		177.72	6.09		174.05	20.36
	1.43150	104430.10				0.003770
1075.82	145.00	4475.10	8.52	-7.46	-8028.24	0.45
		177.35	6.07		173.69	20.38
	1.42725	104216.80				0.003771
1065.74	146.00	4475.06	8.48	-7.43	-7921.11	0.45
		176.71	6.03		173.07	20.41
	1.42036	103844.73				0.003774
1065.38	147.00	4475.06	8.48	-7.43	-7917.01	0.45
		176.70	6.03		173.06	20.41
	1.41877	103834.99				0.003771
1065.33	148.00	4475.06	8.48	-7.43	-7916.99	0.45
		176.69	6.03		173.05	20.41
	1.41918	103830.00				0.003772
1065.28	149.00	4475.06	8.48	-7.43	-7917.13	0.45
		176.68	6.03		173.04	20.41
	1.41966	103825.35				0.003773
1065.27	150.00	4475.06	8.48	-7.43	-7916.70	0.45
		176.68	6.03		173.04	20.41
	1.41993	103826.30				0.003774
1061.40	151.00	4475.04	8.46	-7.42	-7875.33	0.45
		176.42	6.02		172.79	20.43
	1.41710	103673.78				0.003775
1052.70	152.00	4475.00	8.42	-7.39	-7783.31	0.45
		175.85	5.99		172.23	20.46
	1.41074	103340.95				0.003777
1049.17	153.00	4474.99	8.41	-7.38	-7744.36	0.45
		175.63	5.97		172.03	20.47
	1.40792	103216.23				0.003777
1049.04	154.00	4474.99	8.41	-7.38	-7742.40	0.45
		175.63	5.97		172.02	20.47
	1.40789	103214.34				0.003777
1042.83	155.00	4474.95	8.37	-7.37	-7681.12	0.45
		175.16	5.95		171.57	20.49
	1.40423	102943.57				0.003780
1044.56	156.00	4474.96	8.38	-7.37	-7699.77	0.45
		175.32	5.96		171.73	20.48
	1.40418	103036.38				0.003777
1064.27	157.00	4475.05	8.47	-7.43	-7907.32	0.45
		176.62	6.03		172.98	20.42
	1.41923	103787.73				0.003774

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			HYCHAN.OUT				
1065.31	158.00	4475.06	8.48	-7.43	-7917.10	0.45	
		176.69	6.03		173.05	20.41	0.003773
	1.41967	103828.56					
1065.40	159.00	4475.06	8.48	-7.43	-7917.49	0.45	
		176.70	6.03		173.06	20.41	0.003773
	1.41964	103834.09					
1065.22	160.00	4475.06	8.48	-7.43	-7916.37	0.45	
		176.68	6.03		173.04	20.41	0.003773
	1.41964	103824.47					
1065.38	161.00	4475.06	8.48	-7.43	-7917.34	0.45	
		176.69	6.03		173.06	20.41	0.003774
	1.41981	103833.39					
1065.36	162.00	4475.06	8.48	-7.43	-7917.06	0.45	
		176.69	6.03		173.06	20.41	0.003771
	1.41871	103833.53					
1065.32	163.00	4475.06	8.48	-7.43	-7916.91	0.45	
		176.69	6.03		173.05	20.41	0.003770
	1.41857	103829.80					
1065.31	164.00	4475.06	8.48	-7.43	-7916.69	0.45	
		176.69	6.03		173.05	20.41	0.003773
	1.41952	103829.56					
1059.31	165.00	4475.03	8.45	-7.41	-7853.93	0.45	
		176.27	6.01		172.64	20.43	0.003775
	1.41574	103586.08					
1049.40	166.00	4474.99	8.41	-7.38	-7747.63	0.45	
		175.64	5.97		172.03	20.47	0.003777
	1.40832	103219.82					
1049.11	167.00	4474.99	8.41	-7.38	-7743.01	0.45	
		175.63	5.97		172.03	20.47	0.003777
	1.40780	103217.45					
1049.08	168.00	4474.99	8.41	-7.38	-7742.83	0.45	
		175.63	5.97		172.03	20.47	0.003777
	1.40798	103215.87					
1049.10	169.00	4474.99	8.41	-7.38	-7742.92	0.45	
		175.63	5.97		172.03	20.47	0.003777
	1.40791	103217.50					
1049.15	170.00	4474.99	8.41	-7.38	-7743.43	0.45	
		175.63	5.97		172.03	20.47	0.003777
	1.40788	103218.42					
1049.05	171.00	4474.99	8.41	-7.38	-7742.52	0.45	
		175.63	5.97		172.02	20.47	0.003778
	1.40806	103214.84					
1049.11	172.00	4474.99	8.41	-7.38	-7743.02	0.45	
		175.63	5.97		172.03	20.47	0.003777
	1.40795	103217.37					
1042.75	173.00	4474.95	8.37	-7.37	-7680.39	0.45	
		175.15	5.95		171.57	20.49	0.003780
	1.40406	102939.25					
1032.77	174.00	4474.91	8.33	-7.33	-7573.45	0.45	
		174.51	5.92		170.94	20.52	0.003782
	1.39670	102565.00					
1032.53	175.00	4474.91	8.33	-7.33	-7569.25	0.45	
		174.51	5.92		170.94	20.52	0.003782
	1.39631	102564.54					
1032.48	176.00	4474.91	8.33	-7.33	-7568.78	0.45	
		174.50	5.92		170.94	20.52	0.003782
	1.39620	102562.92					
1032.51	177.00	4474.91	8.33	-7.33	-7568.99	0.45	
		174.51	5.92		170.94	20.52	0.003782
	1.39632	102563.84					
1032.51	178.00	4474.91	8.33	-7.33	-7569.07	0.45	
		174.50	5.92		170.94	20.52	0.003781
	1.39611	102563.22					

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			HYCHAN.OUT				
1032.51	179.00	4474.91	8.33	-7.33	-7568.99	0.45	
	1.39666	174.51	5.92		170.94	20.52	0.003783
		102563.85					
1044.25	180.00	4474.96	8.38	-7.37	-7696.23	0.45	
	1.40372	175.30	5.96		171.71	20.48	0.003776
		103027.09					
1064.28	181.00	4475.05	8.47	-7.43	-7906.88	0.45	
	1.41799	176.62	6.03		172.99	20.42	0.003771
		103791.09					
1071.09	182.00	4475.08	8.50	-7.45	-7981.47	0.45	
	1.42320	177.06	6.05		173.41	20.40	0.003770
		104044.66					
1080.99	183.00	4475.13	8.55	-7.48	-8085.58	0.45	
	1.43099	177.69	6.08		174.02	20.36	0.003770
		104413.76					
1081.51	184.00	4475.13	8.55	-7.48	-8090.97	0.45	
	1.43125	177.72	6.09		174.05	20.36	0.003769
		104431.48					
1081.50	185.00	4475.13	8.55	-7.48	-8090.94	0.45	
	1.43085	177.72	6.09		174.05	20.36	0.003768
		104431.26					
1081.53	186.00	4475.13	8.55	-7.48	-8091.17	0.45	
	1.43043	177.73	6.09		174.05	20.36	0.003767
		104432.78					
1081.51	187.00	4475.13	8.55	-7.48	-8091.07	0.45	
	1.43033	177.73	6.09		174.05	20.36	0.003767
		104431.58					
1081.48	188.00	4475.13	8.55	-7.48	-8090.70	0.45	
	1.43080	177.72	6.09		174.05	20.36	0.003768
		104430.35					
1081.52	189.00	4475.13	8.55	-7.48	-8091.09	0.45	
	1.43135	177.72	6.09		174.05	20.36	0.003769
		104431.41					
1081.50	190.00	4475.13	8.55	-7.48	-8090.98	0.45	
	1.43136	177.72	6.09		174.05	20.36	0.003769
		104430.49					
1075.78	191.00	4475.10	8.52	-7.46	-8027.84	0.45	
	1.42712	177.35	6.07		173.69	20.38	0.003770
		104215.05					
1065.76	192.00	4475.06	8.48	-7.43	-7921.26	0.45	
	1.42022	176.71	6.03		173.08	20.41	0.003774
		103845.48					
1065.40	193.00	4475.06	8.48	-7.43	-7917.02	0.45	
	1.41946	176.70	6.03		173.06	20.41	0.003773
		103836.47					
1065.32	194.00	4475.06	8.48	-7.43	-7916.91	0.45	
	1.41977	176.69	6.03		173.05	20.41	0.003774
		103829.85					
1065.39	195.00	4475.06	8.48	-7.43	-7917.23	0.45	
	1.41951	176.69	6.03		173.06	20.41	0.003773
		103833.78					
1065.32	196.00	4475.06	8.48	-7.43	-7917.21	0.45	
	1.41980	176.69	6.03		173.05	20.41	0.003774
		103828.99					
1065.27	197.00	4475.06	8.48	-7.43	-7916.80	0.45	
	1.41977	176.68	6.03		173.04	20.41	0.003774
		103826.59					
1065.30	198.00	4475.06	8.48	-7.43	-7916.94	0.45	
	1.41966	176.69	6.03		173.05	20.41	0.003773
		103828.22					
1065.31	199.00	4475.06	8.48	-7.43	-7916.87	0.45	
	1.41948	176.69	6.03		173.05	20.41	0.003773
		103829.97					

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## HYCHAN.OUT

CHANNEL HYDROGRAPH FOR ELEMENT NO: 1268

MAXIMUM DISCHARGE (CFS) = 21471.98 AT TIME = 80.92  
 MAXIMUM STAGE = 4479.60 AT TIME = 80.91

AREA BED SHEAR (FT <sup>2</sup> )	TIME WETTED PERIMETER (HRS) (LB/FT <sup>2</sup> )	ELEV. SURFACE AREA (FT) (FT <sup>2</sup> )	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4464.99	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4464.99	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4464.99	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
788.93	3.00	4468.35	3.36	4.22	3333.15	0.41	0.003076
	1.17287	129.11	6.11	128.26	38.16		
835.77	4.00	4470.54	5.55	6.56	5484.25	0.49	0.003080
	0.99103	162.06	5.16	160.44	28.93		
826.28	5.00	4470.49	5.50	6.52	5383.24	0.49	0.003089
	0.98657	161.43	5.12	159.83	29.07		
821.23	6.00	4470.46	5.48	6.49	5333.47	0.49	0.003092
	0.98323	161.13	5.10	159.53	29.14		
807.02	7.00	4470.40	5.41	6.43	5188.59	0.49	0.003104
	0.97554	160.23	5.04	158.66	29.34		
792.52	8.00	4470.33	5.34	6.36	5038.90	0.49	0.003117
	0.96778	159.29	4.98	157.74	29.55		
777.80	9.00	4470.25	5.26	6.29	4892.26	0.48	0.003131
	0.95990	158.29	4.91	156.76	29.77		
766.68	10.00	4470.20	5.21	6.23	4779.99	0.48	0.003142
	0.95443	157.48	4.87	155.97	29.96		
761.91	11.00	4470.17	5.18	6.21	4734.76	0.48	0.003144
	0.95122	157.16	4.85	155.66	30.04		
747.07	12.00	4470.10	5.11	6.15	4593.34	0.48	0.003158
	0.94283	156.15	4.78	154.68	30.27		
735.50	13.00	4470.04	5.05	6.09	4477.64	0.48	0.003170
	0.93674	155.30	4.74	153.85	30.47		
734.96	14.00	4470.03	5.04	6.08	4469.04	0.48	0.003170
	0.93646	155.24	4.73	153.79	30.49		
734.95	15.00	4470.03	5.04	6.08	4468.94	0.48	0.003170
	0.93652	155.23	4.73	153.79	30.49		
	16.00	4470.03	5.04	6.08	4469.06	0.48	

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			HYCHAN.OUT			
734.97		155.24	4.73	153.79	30.49	0.003170
	0.93646	78430.84				
	17.00	4470.03	5.04	6.08	4468.96	0.48
734.95		155.23	4.73	153.79	30.49	0.003170
	0.93647	78430.41				
	18.00	4470.05	5.06	6.09	4504.43	0.48
739.11		155.48	4.75	154.03	30.43	0.003168
	0.93956	78554.20				
	19.00	4470.13	5.14	6.16	4649.50	0.48
754.36		156.53	4.82	155.05	30.18	0.003153
	0.94817	79073.25				
	20.00	4470.21	5.22	6.24	4802.93	0.48
770.11		157.63	4.89	156.12	29.93	0.003139
	0.95686	79619.75				
	21.00	4470.27	5.28	6.29	4916.92	0.48
781.34		158.45	4.93	156.92	29.74	0.003128
	0.96239	80027.35				
	22.00	4470.27	5.28	6.30	4923.85	0.48
781.74		158.50	4.93	156.97	29.73	0.003128
	0.96258	80053.75				
	23.00	4470.29	5.30	6.31	4963.91	0.48
786.30		158.77	4.95	157.23	29.66	0.003125
	0.96560	80189.00				
	24.00	4470.38	5.39	6.41	5157.62	0.49
805.21		160.01	5.03	158.44	29.39	0.003100
	0.97350	80804.43				
	25.00	4470.52	5.53	6.55	5460.66	0.49
834.20		161.89	5.15	160.27	28.97	0.003072
	0.98780	81738.34				
	26.00	4470.67	5.68	6.68	5769.42	0.49
863.58		163.78	5.27	162.11	28.56	0.003045
	1.00190	82677.74				
	27.00	4470.76	5.77	6.77	5975.93	0.50
883.14		165.04	5.35	163.35	28.30	0.003035
	1.01355	83306.59				
	28.00	4470.77	5.78	6.77	5984.96	0.50
883.94		165.10	5.35	163.40	28.29	0.003037
	1.01447	83335.73				
	29.00	4470.79	5.80	6.79	6039.69	0.50
889.19		165.42	5.38	163.72	28.22	0.003029
	1.01615	83495.09				
	30.00	4470.84	5.85	6.84	6147.46	0.50
899.40		166.07	5.42	164.35	28.08	0.003021
	1.02090	83819.04				
	31.00	4470.84	5.85	6.84	6152.25	0.50
899.77		166.10	5.42	164.38	28.08	0.003021
	1.02120	83834.43				
	32.00	4470.87	5.88	6.86	6210.42	0.50
905.28		166.44	5.44	164.71	28.01	0.003008
	1.02074	84002.37				
	33.00	4470.92	5.93	6.90	6321.22	0.50
915.84		167.11	5.48	165.36	27.87	0.003006
	1.02793	84333.34				
	34.00	4470.92	5.94	6.90	6325.96	0.50
916.15		167.14	5.48	165.39	27.87	0.003005
	1.02780	84348.45				
	35.00	4470.90	5.91	6.89	6267.75	0.50
910.16		166.80	5.46	165.06	27.93	0.003012
	1.02549	84180.99				
	36.00	4470.85	5.86	6.84	6156.64	0.50
899.95		166.13	5.42	164.41	28.07	0.003021
	1.02132	83848.69				
	37.00	4470.82	5.83	6.82	6096.95	0.50

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		HYCHAN.OUT				
894.03	165.78	5.39	164.07	28.14	0.003027	
1.01873	83674.27					
38.00	4470.77	5.78	6.77	5989.77	0.50	
884.16	165.13	5.35	163.43	28.28	0.003036	
1.01422	83351.38					
39.00	4470.77	5.78	6.77	5984.89	0.50	
883.93	165.10	5.35	163.40	28.29	0.003037	
1.01448	83335.55					
40.00	4470.77	5.78	6.77	5985.08	0.50	
883.95	165.10	5.35	163.40	28.28	0.003036	
1.01425	83336.12					
41.00	4470.77	5.78	6.77	5985.01	0.50	
883.95	165.10	5.35	163.40	28.29	0.003037	
1.01452	83335.89					
42.00	4470.77	5.78	6.77	5984.96	0.50	
883.94	165.10	5.35	163.40	28.29	0.003036	
1.01442	83335.75					
43.00	4470.79	5.80	6.79	6039.99	0.50	
889.22	165.42	5.38	163.72	28.22	0.003029	
1.01613	83495.98					
44.00	4470.84	5.85	6.84	6147.66	0.50	
899.42	166.07	5.42	164.35	28.08	0.003022	
1.02117	83819.57					
45.00	4470.87	5.88	6.86	6210.51	0.50	
905.28	166.44	5.44	164.71	28.01	0.003008	
1.02075	84002.65					
46.00	4470.95	5.96	6.93	6381.08	0.50	
921.27	167.45	5.50	165.70	27.80	0.002995	
1.02817	84505.14					
47.00	4471.03	6.04	6.99	6554.90	0.50	
937.59	168.48	5.57	166.69	27.60	0.002981	
1.03520	85014.23					
48.00	4471.11	6.12	7.05	6729.51	0.50	
953.94	169.50	5.63	167.69	27.39	0.002963	
1.04064	85521.73					
49.00	4471.19	6.20	7.11	6895.43	0.50	
969.46	170.47	5.69	168.63	27.20	0.002950	
1.04694	86001.25					
50.00	4471.27	6.28	7.17	7076.32	0.50	
986.33	171.51	5.75	169.65	27.00	0.002933	
1.05250	86519.72					
51.00	4471.38	6.39	7.25	7306.37	0.51	
1007.73	172.82	5.83	170.92	26.75	0.002902	
1.05589	87169.25					
52.00	4471.49	6.50	7.32	7532.92	0.51	
1029.03	174.13	5.91	172.20	26.51	0.002893	
1.06669	87819.72					
53.00	4471.52	6.53	7.34	7605.68	0.51	
1035.78	174.55	5.93	172.61	26.43	0.002881	
1.06664	88030.95					
54.00	4471.67	6.68	7.43	7916.37	0.51	
1064.89	176.36	6.04	174.37	26.10	0.002832	
1.06690	88926.67					
55.00	4471.98	6.99	7.61	8563.16	0.51	
1125.63	180.07	6.25	177.98	25.45	0.002753	
1.07384	90769.77					
56.00	4472.44	7.45	7.83	9494.00	0.51	
1213.28	185.27	6.55	183.04	24.58	0.002643	
1.08000	93348.45					
57.00	4472.97	7.98	8.07	10635.53	0.50	
1318.65	191.21	6.90	188.82	23.65	0.002514	
1.08174	96295.77					
58.00	4473.52	8.53	8.29	11833.76	0.50	

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				HYCHAN.OUT			
1427.39		197.05		7.24	194.50	22.80	0.002400
	1.08483	99193.27					
	59.00	4474.18	9.19	8.32	12851.10	0.48	
1544.52		203.81		7.58	201.06	21.88	0.002255
	1.06617	102541.99					
	60.00	4475.53	10.54	7.96	14140.85	0.43	
1776.33		216.93		8.19	213.80	20.28	0.002116
	1.08127	109036.84					
	61.00	4476.47	11.48	7.82	15239.29	0.41	
1949.76		225.46		8.65	222.08	19.35	0.002052
	1.10717	113259.11					
	62.00	4476.59	11.60	8.01	15973.15	0.41	
1993.31		226.54		8.80	223.12	19.24	0.001965
	1.07892	113793.09					
	63.00	4476.67	11.68	8.26	16789.07	0.43	
2033.23		227.27		8.95	223.82	19.16	0.001902
	1.06166	114150.30					
	64.00	4476.74	11.75	8.43	17383.02	0.43	
2060.88		227.90		9.04	224.44	19.10	0.001861
	1.04989	114464.59					
	65.00	4477.12	12.13	8.42	17991.17	0.43	
2136.95		231.23		9.24	227.66	18.77	0.001851
	1.06771	116108.20					
	66.00	4477.55	12.56	8.36	18511.59	0.42	
2214.32		234.90		9.43	231.23	18.41	0.001853
	1.08978	117925.84					
	67.00	4477.66	12.67	8.34	18643.19	0.41	
2234.68		235.85		9.48	232.15	18.32	0.001853
	1.09543	118394.07					
	68.00	4477.68	12.69	8.34	18662.60	0.41	
2237.73		235.99		9.48	232.28	18.31	0.001853
	1.09636	118463.86					
	69.00	4477.69	12.70	8.34	18673.96	0.41	
2239.39		236.07		9.49	232.36	18.30	0.001854
	1.09731	118501.41					
	70.00	4477.70	12.71	8.34	18691.56	0.41	
2242.00		236.19		9.49	232.47	18.29	0.001854
	1.09798	118560.57					
	71.00	4477.71	12.72	8.34	18701.92	0.41	
2243.62		236.26		9.50	232.54	18.28	0.001854
	1.09851	118597.38					
	72.00	4477.70	12.71	8.34	18690.55	0.41	
2241.97		236.19		9.49	232.47	18.29	0.001853
	1.09767	118560.33					
	73.00	4477.73	12.74	8.33	18731.57	0.41	
2247.66		236.44		9.51	232.72	18.26	0.001856
	1.10115	118687.66					
	74.00	4477.91	12.92	8.31	18949.21	0.41	
2280.10		237.91		9.58	234.14	18.13	0.001860
	1.11243	119411.55					
	75.00	4478.00	13.01	8.30	19058.21	0.41	
2297.25		238.68		9.62	234.88	18.05	0.001860
	1.11719	119790.99					
	76.00	4478.03	13.04	8.29	19102.86	0.40	
2303.73		238.96		9.64	235.16	18.03	0.001864
	1.12109	119931.88					
	77.00	4478.26	13.27	8.26	19390.05	0.40	
2346.67		240.83		9.74	236.97	17.86	0.001876
	1.14053	120854.77					
	78.00	4478.70	13.71	8.20	19951.48	0.39	
2433.16		244.45		9.95	240.48	17.54	0.001884
	1.17029	122643.56					
	79.00	4479.01	14.02	8.18	20437.83	0.39	

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2498.12		246.93		10.12	242.88	17.32	0.001882
	1.18806	123867.37					
80.00	4479.25	14.26	8.18	20864.50	0.38		
2551.55		248.87	10.25	244.75	17.16	0.001882	
	1.20404	124824.68					
81.00	4479.54	14.55	8.17	21356.18	0.38		
2614.47		251.10	10.41	246.92	16.97	0.001879	
	1.22050	125927.98					
82.00	4479.56	14.57	8.16	21382.66	0.38		
2619.25		251.27	10.42	247.09	16.96	0.001877	
	1.22110	126013.77					
83.00	4479.37	14.38	8.17	21056.38	0.38		
2577.77		249.81	10.32	245.67	17.08	0.001878	
	1.20942	125291.99					
84.00	4479.29	14.30	8.17	20910.24	0.38		
2558.52		249.12	10.27	245.00	17.14	0.001879	
	1.20421	124951.48					
85.00	4479.28	14.29	8.17	20907.13	0.38		
2558.01		249.10	10.27	244.98	17.14	0.001880	
	1.20434	124942.17					
86.00	4479.32	14.33	8.17	20965.66	0.38		
2565.57		249.38	10.29	245.25	17.12	0.001878	
	1.20586	125076.54					
87.00	4479.22	14.23	8.17	20789.47	0.38		
2544.68		248.63	10.23	244.53	17.18	0.001877	
	1.19871	124709.13					
88.00	4478.66	13.67	8.19	19871.31	0.39		
2425.20		244.12	9.93	240.16	17.57	0.001856	
	1.15026	122479.20					
89.00	4477.55	12.56	8.34	18461.53	0.41		
2214.49		234.94	9.43	231.26	18.41	0.001843	
	1.08391	117943.48					
90.00	4476.67	11.68	8.25	16757.00	0.43		
2031.92		227.27	8.94	223.83	19.16	0.001994	
	1.11215	114153.95					
91.00	4476.55	11.56	7.90	15594.65	0.41		
1974.07		226.21	8.73	222.80	19.27	0.002099	
	1.14287	113627.84					
92.00	4475.97	10.98	7.81	14479.62	0.42		
1853.89		220.99	8.39	217.74	19.83	0.002159	
	1.12997	111047.86					
93.00	4474.89	9.90	8.10	13463.83	0.45		
1661.70		210.82	7.88	207.86	21.00	0.002273	
	1.11801	106010.89					
94.00	4474.06	9.07	8.32	12690.59	0.49		
1525.08		202.66	7.53	199.94	22.04	0.002387	
	1.12106	101970.07					
95.00	4473.65	8.66	8.33	12100.04	0.50		
1452.83		198.42	7.32	195.82	22.61	0.002435	
	1.11252	99869.69					
96.00	4473.39	8.40	8.23	11524.79	0.50		
1400.57		195.67	7.16	193.16	23.00	0.002506	
	1.11935	98509.68					
97.00	4473.15	8.16	8.13	11000.12	0.50		
1352.71		193.11	7.00	190.66	23.37	0.002550	
	1.11472	97238.91					
98.00	4472.96	7.97	8.05	10585.93	0.50		
1315.18		191.07	6.88	188.68	23.67	0.002595	
	1.11462	96225.76					
99.00	4472.80	7.81	7.97	10228.89	0.50		
1282.72		189.28	6.78	186.94	23.95	0.002622	
	1.10884	95337.29					
100.00	4472.65	7.66	7.91	9909.24	0.50		

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1253.47	187.63	6.68	185.34	24.20	0.002663		
101.00	94523.40						
1218.97	4472.47	7.48	7.83	9545.19	0.50		
102.00	185.65	6.57		183.41	24.52	0.002697	
1191.47	93537.53						
102.00	4472.33	7.34	7.77	9254.92	0.51		
103.00	184.04	6.47		181.84	24.78	0.002727	
1167.37	92739.99						
103.00	4472.20	7.21	7.71	9000.28	0.51		
104.00	182.61	6.39		180.46	25.02	0.002748	
1148.23	92032.41						
104.00	4472.10	7.11	7.66	8797.61	0.51		
105.00	181.47	6.33		179.34	25.21	0.002769	
1122.90	91465.83						
105.00	4471.97	6.98	7.59	8525.63	0.51		
106.00	179.94	6.24		177.85	25.47	0.002806	
1093.60	90704.50						
106.00	4471.82	6.83	7.51	8214.98	0.51		
107.00	178.14	6.14		176.11	25.78	0.002831	
1076.27	89813.77						
107.00	4471.73	6.74	7.46	8032.65	0.51		
108.00	177.08	6.08		175.07	25.97	0.002849	
1059.70	89287.23						
108.00	4471.65	6.66	7.42	7859.03	0.51		
109.00	176.07	6.02		174.09	26.15	0.002867	
1049.44	88783.74						
109.00	4471.59	6.60	7.38	7748.11	0.51		
110.00	175.41	5.98		173.44	26.27	0.002874	
1054.74	88455.21						
111.00	4471.62	6.63	7.40	7807.31	0.51		
1076.76	175.74	6.00		173.77	26.21	0.002859	
111.00	88621.52						
107.00	4471.73	6.74	7.47	8042.05	0.51		
112.00	177.10	6.08		175.09	25.97	0.002826	
1091.52	89296.88						
112.00	4471.81	6.82	7.51	8194.90	0.51		
113.00	178.02	6.13		175.98	25.81	0.002831	
1076.23	89751.09						
113.00	4471.73	6.74	7.46	8032.19	0.51		
114.00	177.08	6.08		175.07	25.97	0.002849	
1077.77	89285.80						
114.00	4471.74	6.75	7.47	8052.29	0.51		
115.00	177.17	6.08		175.15	25.96	0.002828	
1111.54	89328.25						
115.00	4471.91	6.92	7.57	8411.91	0.51		
116.00	179.23	6.20		177.17	25.59	0.002785	
1127.97	90354.62						
117.00	4472.00	7.01	7.61	8583.75	0.51		
1117.76	180.25	6.26		178.16	25.42	0.002792	
118.00	90859.61						
117.00	4471.95	6.96	7.58	8475.87	0.51		
119.00	179.63	6.22		177.55	25.52	0.002794	
120.00	90551.70						
1117.19	4471.94	6.95	7.58	8470.00	0.51		
121.00	179.59	6.22		177.52	25.53	0.002793	
122.00	90533.69						
1124.24	4471.98	6.99	7.60	8545.68	0.51		
123.00	180.01	6.25		177.93	25.46	0.002780	
124.00	90742.55						
125.00	4472.04	7.05	7.63	8665.46	0.51		
126.00	180.71	6.28		178.60	25.34	0.002775	
127.00	91085.63						
128.00	4472.04	7.05	7.63	8669.73	0.51		

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1136.03	180.73	6.29	178.63	25.33	0.002776		
	91099.24						
122.00	4472.00	7.01	7.61	8593.54	0.51		
1128.94	180.31	6.26	178.22	25.41	0.002791		
	90889.66						
123.00	4471.95	6.96	7.58	8475.15	0.51		
1117.71	179.63	6.22	177.55	25.52	0.002797		
	90549.79						
124.00	4471.91	6.92	7.56	8394.93	0.51		
1110.32	179.18	6.20	177.11	25.60	0.002813		
	90326.02						
125.00	4471.85	6.86	7.53	8274.88	0.51		
1098.84	178.48	6.16	176.43	25.72	0.002815		
	89978.80						
126.00	4471.85	6.86	7.53	8269.87	0.51		
1098.33	178.44	6.16	176.40	25.73	0.002814		
	89963.04						
127.00	4471.81	6.82	7.51	8203.85	0.51		
1092.51	178.07	6.14	176.04	25.80	0.002832		
	89779.40						
128.00	4471.76	6.77	7.48	8095.83	0.51		
1082.09	177.44	6.10	175.42	25.91	0.002838		
	89464.48						
129.00	4471.76	6.77	7.48	8090.98	0.51		
1081.50	177.41	6.10	175.39	25.91	0.002837		
	89449.40						
130.00	4471.73	6.74	7.46	8027.31	0.51		
1075.82	177.05	6.08	175.04	25.98	0.002849		
	89270.47						
131.00	4471.68	6.69	7.43	7921.94	0.51		
1065.83	176.43	6.04	174.43	26.09	0.002853		
	88961.51						
132.00	4471.74	6.75	7.47	8047.41	0.51		
1077.27	177.13	6.08	175.12	25.96	0.002826		
	89313.14						
133.00	4471.84	6.85	7.53	8260.66	0.51		
1097.43	178.39	6.15	176.34	25.74	0.002814		
	89934.41						
134.00	4471.85	6.86	7.53	8269.60	0.51		
1098.31	178.44	6.15	176.40	25.73	0.002818		
	89962.38						
135.00	4471.85	6.86	7.53	8270.20	0.51		
1098.36	178.45	6.16	176.40	25.73	0.002819		
	89964.39						
136.00	4471.85	6.86	7.53	8269.91	0.51		
1098.32	178.44	6.15	176.40	25.73	0.002816		
	89963.17						
137.00	4471.85	6.86	7.53	8270.01	0.51		
1098.34	178.44	6.16	176.40	25.73	0.002814		
	89963.44						
138.00	4471.85	6.86	7.53	8270.15	0.51		
1098.36	178.45	6.16	176.40	25.73	0.002819		
	89964.08						
139.00	4471.85	6.86	7.53	8269.69	0.51		
1098.31	178.44	6.15	176.40	25.73	0.002817		
	89962.83						
140.00	4471.81	6.82	7.51	8204.44	0.51		
1092.53	178.08	6.14	176.04	25.79	0.002831		
	89780.78						
141.00	4471.76	6.77	7.48	8095.77	0.51		
1082.07	177.44	6.10	175.42	25.91	0.002836		
	89464.18						
142.00	4471.76	6.77	7.48	8090.83	0.51		

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1081.48		177.41		6.10	175.39	25.91	0.002835
	1.07834	89448.80					
	143.00	4471.76	6.77		7.48	8090.84	0.51
1081.50		177.41		6.10	175.39	25.91	0.002838
	1.07964	89449.23					
	144.00	4471.76	6.77		7.48	8090.88	0.51
1081.49		177.41		6.10	175.39	25.91	0.002837
	1.07933	89449.05					
	145.00	4471.73	6.74		7.46	8028.24	0.51
1075.82		177.05		6.08	175.05	25.98	0.002848
	1.07992	89273.13					
	146.00	4471.68	6.69		7.43	7921.11	0.51
1065.74		176.42		6.04	174.43	26.09	0.002854
	1.07572	88959.21					
	147.00	4471.67	6.68		7.43	7917.01	0.51
1065.38		176.39		6.04	174.40	26.09	0.002852
	1.07493	88945.77					
	148.00	4471.67	6.68		7.43	7916.99	0.51
1065.33		176.40		6.04	174.40	26.09	0.002856
	1.07631	88946.09					
	149.00	4471.67	6.68		7.43	7917.13	0.51
1065.28		176.40		6.04	174.40	26.09	0.002851
	1.07424	88946.45					
	150.00	4471.67	6.68		7.43	7916.70	0.51
1065.27		176.39		6.04	174.40	26.09	0.002852
	1.07491	88945.31					
	151.00	4471.65	6.66		7.42	7875.33	0.51
1061.40		176.16		6.03	174.17	26.14	0.002863
	1.07633	88828.31					
	152.00	4471.61	6.62		7.39	7783.31	0.51
1052.70		175.62		5.99	173.65	26.24	0.002870
	1.07346	88559.32					
	153.00	4471.59	6.60		7.38	7744.36	0.51
1049.17		175.38		5.98	173.42	26.28	0.002873
	1.07237	88443.44					
	154.00	4471.59	6.60		7.38	7742.40	0.51
1049.04		175.37		5.98	173.41	26.28	0.002873
	1.07243	88437.40					
	155.00	4471.56	6.57		7.37	7681.12	0.51
1042.83		175.02		5.96	173.06	26.34	0.002883
	1.07177	88262.85					
	156.00	4471.57	6.58		7.37	7699.77	0.51
1044.56		175.10		5.97	173.14	26.33	0.002862
	1.06536	88303.49					
	157.00	4471.67	6.68		7.43	7907.32	0.51
1064.27		176.33		6.04	174.34	26.11	0.002854
	1.07497	88915.77					
	158.00	4471.67	6.68		7.43	7917.10	0.51
1065.31		176.40		6.04	174.40	26.09	0.002855
	1.07606	88946.20					
	159.00	4471.67	6.68		7.43	7917.49	0.51
1065.40		176.40		6.04	174.41	26.09	0.002851
	1.07435	88947.45					
	160.00	4471.67	6.68		7.43	7916.37	0.51
1065.22		176.39		6.04	174.40	26.10	0.002855
	1.07599	88944.16					
	161.00	4471.67	6.68		7.43	7917.34	0.51
1065.38		176.40		6.04	174.41	26.09	0.002851
	1.07450	88947.01					
	162.00	4471.67	6.68		7.43	7917.06	0.51
1065.36		176.39		6.04	174.40	26.09	0.002850
	1.07415	88945.95					
	163.00	4471.67	6.68		7.43	7916.91	0.51

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1065.32	176.39	6.04	174.40	26.09	0.002851		
	88945.70						
164.00	4471.67	6.68	7.43	7916.69	0.51		
1065.31	176.39	6.04	174.40	26.09	0.002855		
	88945.45						
165.00	4471.64	6.65	7.41	7853.93	0.51		
1059.31	176.04	6.02	174.05	26.16	0.002866		
	88767.72						
166.00	4471.59	6.60	7.38	7747.63	0.51		
1049.40	175.40	5.98	173.44	26.27	0.002873		
	88453.82						
167.00	4471.59	6.60	7.38	7743.01	0.51		
1049.11	175.37	5.98	173.41	26.28	0.002873		
	88439.08						
168.00	4471.59	6.60	7.38	7742.83	0.51		
1049.08	175.37	5.98	173.41	26.28	0.002873		
	88438.65						
169.00	4471.59	6.60	7.38	7742.92	0.51		
1049.10	175.37	5.98	173.41	26.28	0.002873		
	88438.78						
170.00	4471.59	6.60	7.38	7743.43	0.51		
1049.15	175.38	5.98	173.41	26.28	0.002872		
	88440.45						
171.00	4471.59	6.60	7.38	7742.52	0.51		
1049.05	175.37	5.98	173.41	26.28	0.002874		
	88437.70						
172.00	4471.59	6.60	7.38	7743.02	0.51		
1049.11	175.37	5.98	173.41	26.28	0.002873		
	88439.14						
173.00	4471.56	6.57	7.37	7680.39	0.51		
1042.75	175.02	5.96	173.06	26.35	0.002882		
	88260.98						
174.00	4471.51	6.52	7.33	7573.45	0.51		
1032.77	174.37	5.92	172.44	26.46	0.002890		
	87942.87						
175.00	4471.50	6.51	7.33	7569.25	0.51		
1032.53	174.35	5.92	172.41	26.47	0.002890		
	87929.30						
176.00	4471.50	6.51	7.33	7568.78	0.51		
1032.48	174.34	5.92	172.41	26.47	0.002891		
	87927.84						
177.00	4471.50	6.51	7.33	7568.99	0.51		
1032.51	174.35	5.92	172.41	26.47	0.002891		
	87928.45						
178.00	4471.50	6.51	7.33	7569.07	0.51		
1032.51	174.35	5.92	172.41	26.47	0.002890		
	87928.88						
179.00	4471.50	6.51	7.33	7568.99	0.51		
1032.51	174.35	5.92	172.41	26.47	0.002891		
	87928.47						
180.00	4471.56	6.57	7.37	7696.23	0.51		
1044.25	175.08	5.96	173.12	26.33	0.002861		
	88291.77						
181.00	4471.67	6.68	7.43	7906.88	0.51		
1064.28	176.33	6.04	174.34	26.11	0.002850		
	88914.16						
182.00	4471.70	6.71	7.45	7981.47	0.51		
1071.09	176.76	6.06	174.76	26.03	0.002838		
	89127.88						
183.00	4471.76	6.77	7.48	8085.58	0.51		
1080.99	177.38	6.09	175.36	25.92	0.002835		
	89432.80						
184.00	4471.76	6.77	7.48	8090.97	0.51		

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1081.51	177.41		6.10	175.39	25.91	0.002833	
1.07784	89449.17						
185.00	4471.76	6.77	7.48	8090.94	0.51		
1081.50	177.41		6.10	175.39	25.91	0.002831	
1.07702	89449.13						
186.00	4471.76	6.77	7.48	8091.17	0.51		
1081.53	177.41		6.10	175.39	25.91	0.002832	
1.07738	89449.72						
187.00	4471.76	6.77	7.48	8091.07	0.51		
1081.51	177.41		6.10	175.39	25.91	0.002833	
1.07784	89449.55						
188.00	4471.76	6.77	7.48	8090.70	0.51		
1081.48	177.41		6.10	175.39	25.91	0.002837	
1.07933	89448.62						
189.00	4471.76	6.77	7.48	8091.09	0.51		
1081.52	177.41		6.10	175.39	25.91	0.002838	
1.07948	89449.74						
190.00	4471.76	6.77	7.48	8090.98	0.51		
1081.50	177.41		6.10	175.39	25.91	0.002837	
1.07910	89449.32						
191.00	4471.73	6.74	7.46	8027.84	0.51		
1075.78	177.05		6.08	175.04	25.98	0.002848	
1.07994	89272.09						
192.00	4471.68	6.69	7.43	7921.26	0.51		
1065.76	176.42		6.04	174.43	26.09	0.002853	
1.07536	88959.64						
193.00	4471.67	6.68	7.43	7917.02	0.51		
1065.40	176.39		6.04	174.40	26.09	0.002855	
1.07606	88945.91						
194.00	4471.67	6.68	7.43	7916.91	0.51		
1065.32	176.39		6.04	174.40	26.09	0.002856	
1.07637	88945.76						
195.00	4471.67	6.68	7.43	7917.23	0.51		
1065.39	176.40		6.04	174.41	26.09	0.002850	
1.07418	88946.68						
196.00	4471.67	6.68	7.43	7917.21	0.51		
1065.32	176.40		6.04	174.41	26.09	0.002852	
1.07488	88946.68						
197.00	4471.67	6.68	7.43	7916.80	0.51		
1065.27	176.39		6.04	174.40	26.09	0.002856	
1.07639	88945.37						
198.00	4471.67	6.68	7.43	7916.94	0.51		
1065.30	176.39		6.04	174.40	26.09	0.002856	
1.07615	88945.84						
199.00	4471.67	6.68	7.43	7916.87	0.51		
1065.31	176.39		6.04	174.40	26.09	0.002855	
1.07586	88945.52						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1297

MAXIMUM DISCHARGE (CFS) = 21483.61 AT TIME = 80.93  
 MAXIMUM STAGE = 4476.07 AT TIME = 80.94

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4461.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	



HYCHAN.OUT									
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4461.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4461.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
863.79	3.00	4465.51	4.51	3.71	3203.33	0.31			0.003795
		83.69	10.32		81.05	17.98			
	2.44382	40526.79							
900.83	4.00	4468.57	7.57	6.09	5485.81	0.39			0.003805
		100.69	8.95		95.82	12.66			
	2.12391	47908.28							
890.93	5.00	4468.50	7.50	6.04	5383.75	0.39			0.003810
		100.38	8.88		95.55	12.74			
	2.11018	47774.97							
886.23	6.00	4468.47	7.47	6.02	5335.00	0.39			0.003820
		100.24	8.84		95.42	12.77			
	2.10742	47711.53							
872.30	7.00	4468.38	7.38	5.95	5190.64	0.39			0.003837
		99.79	8.74		95.04	12.88			
	2.09317	47519.31							
857.87	8.00	4468.28	7.28	5.88	5040.93	0.38			0.003854
		99.32	8.64		94.63	13.00			
	2.07716	47314.88							
842.68	9.00	4468.18	7.18	5.81	4894.54	0.38			0.003867
		98.84	8.53		94.22	13.12			
	2.05747	47108.67							
830.49	10.00	4468.10	7.10	5.76	4780.70	0.38			0.003874
		98.45	8.44		93.89	13.22			
	2.03920	46943.62							
825.76	11.00	4468.07	7.07	5.74	4736.30	0.38			0.003884
		98.30	8.40		93.75	13.26			
	2.03583	46876.53							
810.80	12.00	4467.97	6.97	5.67	4595.61	0.38			0.003900
		97.81	8.29		93.33	13.38			
	2.01759	46665.07							
798.35	13.00	4467.89	6.89	5.61	4478.39	0.38			0.003908
		97.39	8.20		92.97	13.49			
	1.99900	46484.89							
797.36	14.00	4467.88	6.88	5.60	4469.04	0.38			0.003908
		97.36	8.19		92.94	13.50			
	1.99723	46469.77							
797.35	15.00	4467.88	6.88	5.60	4468.94	0.38			0.003908
		97.36	8.19		92.94	13.50			
	1.99719	46469.63							
797.36	16.00	4467.88	6.88	5.60	4469.07	0.38			0.003908
		97.36	8.19		92.94	13.50			
	1.99721	46469.82							
797.35	17.00	4467.88	6.88	5.60	4468.96	0.38			0.003908
		97.36	8.19		92.94	13.50			
	1.99724	46469.67							
800.96	18.00	4467.91	6.91	5.62	4502.90	0.38			0.003897
		97.48	8.22		93.04	13.47			
	1.99835	46520.99							
816.28	19.00	4468.01	7.01	5.69	4647.21	0.38			0.003881
		97.99	8.33		93.48	13.34			
	2.01724	46741.30							
832.63	20.00	4468.12	7.12	5.77	4800.61	0.38			0.003866
		98.51	8.45		93.94	13.20			
	2.03873	46969.59							
844.98	21.00	4468.20	7.20	5.82	4916.20	0.38			0.003859
		98.90	8.54		94.27	13.10			

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HYCHAN.OUT									
2.05736	47137.43	7.20	5.82	4923.84	0.38				
845.80	22.00 4468.20	8.55		94.30	13.10	0.003859			
2.05886	47148.66	7.23	5.84	4962.30	0.38				
849.89	23.00 4468.23	8.58		94.40	13.06	0.003850			
2.06136	47202.02	7.35	5.93	5153.92	0.39				
868.81	24.00 4468.35	8.72		94.93	12.91	0.003822			
2.07913	47464.65	7.54	6.08	5456.43	0.39				
898.04	25.00 4468.54	8.93		95.73	12.69	0.003790			
2.11102	47865.39	7.74	6.21	5765.18	0.39				
928.07	26.00 4468.74	9.14		96.51	12.47	0.003761			
2.14609	48256.67	7.87	6.30	5975.02	0.40				
948.55	27.00 4468.87	9.29		97.03	12.33	0.003753			
2.17572	48515.70	7.87	6.30	5984.95	0.40				
949.52	28.00 4468.87	9.30		97.06	12.33	0.003754			
2.17768	48528.38	7.90	6.32	6037.89	0.40				
954.74	29.00 4468.90	9.33		97.18	12.29	0.003745			
2.18115	48590.57	7.97	6.37	6146.95	0.40				
965.46	30.00 4468.97	9.41		97.44	12.23	0.003740			
2.19628	48720.75	7.97	6.37	6152.24	0.40				
965.98	31.00 4468.97	9.42		97.45	12.22	0.003739			
2.19697	48727.40	8.01	6.39	6208.44	0.40				
971.53	32.00 4469.01	9.46		97.58	12.19	0.003729			
2.20045	48791.71	8.07	6.43	6320.76	0.40				
982.61	33.00 4469.07	9.54		97.85	12.12	0.003727			
2.21737	48923.16	8.08	6.43	6325.99	0.40				
983.13	34.00 4469.08	9.54		97.86	12.12	0.003726			
2.21772	48929.47	8.04	6.41	6269.64	0.40				
977.57	35.00 4469.04	9.50		97.73	12.15	0.003735			
2.21385	48865.73	7.98	6.37	6157.16	0.40				
966.46	36.00 4468.98	9.42		97.47	12.22	0.003740			
2.19805	48733.55	7.94	6.35	6098.78	0.40				
960.73	37.00 4468.94	9.38		97.33	12.25	0.003749			
2.19387	48665.51	7.88	6.31	5990.28	0.40				
950.05	38.00 4468.88	9.30		97.07	12.32	0.003753			
2.17788	48535.29	7.87	6.30	5984.89	0.40				
949.52	39.00 4468.87	9.30		97.06	12.33	0.003754			
2.17764	48528.30	7.87	6.30	5985.08	0.40				
949.54	40.00 4468.87	9.30		97.06	12.33	0.003753			
2.17705	48528.38	7.87	6.30	5985.00	0.40				
949.53	41.00 4468.87	9.30		97.06	12.33	0.003754			
2.17773	48528.36	7.87	6.30	5984.96	0.40				
949.53	42.00 4468.87	9.30		97.06	12.33	0.003753			

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		HYCHAN.OUT						
	2.17728	48528.23						
954.77	43.00	4468.90	7.90	6.32	6038.18	0.40		
		102.28	9.33		97.18	12.29	0.003744	
	2.18111	48590.88						
965.47	44.00	4468.97	7.97	6.37	6147.13	0.40		
		102.58	9.41		97.44	12.23	0.003740	
	2.19672	48720.91						
971.54	45.00	4469.01	8.01	6.39	6208.54	0.40		
		102.75	9.46		97.58	12.19	0.003729	
	2.20048	48791.94						
988.36	46.00	4469.11	8.11	6.45	6378.69	0.40		
		103.20	9.58		97.98	12.09	0.003717	
	2.22131	48988.36						
1005.60	47.00	4469.21	8.21	6.52	6552.45	0.40		
		103.66	9.70		98.37	11.99	0.003705	
	2.24282	49184.97						
1022.98	48.00	4469.31	8.31	6.58	6726.93	0.40		
		104.11	9.83		98.76	11.89	0.003697	
	2.26646	49378.32						
1039.59	49.00	4469.40	8.40	6.63	6893.04	0.40		
		104.53	9.94		99.12	11.80	0.003685	
	2.28650	49559.08						
1057.73	50.00	4469.50	8.50	6.69	7073.87	0.40		
		104.98	10.08		99.50	11.70	0.003674	
	2.30980	49751.92						
1080.75	51.00	4469.63	8.63	6.76	7301.95	0.41		
		105.54	10.24		99.98	11.58	0.003658	
	2.33779	49988.65						
1104.16	52.00	4469.76	8.76	6.82	7531.79	0.41		
		106.09	10.41		100.45	11.47	0.003653	
	2.37228	50225.21						
1111.81	53.00	4469.80	8.80	6.84	7603.37	0.41		
		106.26	10.46		100.59	11.44	0.003650	
	2.38348	50296.61						
1144.69	54.00	4469.96	8.96	6.91	7909.03	0.41		
		106.95	10.70		101.19	11.30	0.003635	
	2.42793	50595.12						
1214.36	55.00	4470.29	9.29	7.04	8551.13	0.41		
		108.36	11.21		102.40	11.02	0.003621	
	2.53220	51198.77						
1316.41	56.00	4470.76	9.76	7.20	9477.41	0.41		
		110.27	11.94		104.03	10.66	0.003608	
	2.68733	52013.78						
1439.76	57.00	4471.31	10.31	7.37	10616.48	0.40		
		112.44	12.81		105.87	10.27	0.003593	
	2.87058	52936.68						
1567.88	58.00	4471.85	10.85	7.54	11817.42	0.40		
		114.54	13.69		107.66	9.92	0.003587	
	3.06406	53830.66						
1723.48	59.00	4472.32	11.32	7.44	12815.60	0.39		
		116.27	14.82		109.14	9.64	0.003871	
	3.58018	54567.89						
2056.35	60.00	4472.98	11.98	6.85	14095.41	0.35		
		118.66	17.33		111.16	9.28	0.004273	
	4.62062	55579.47						
2296.72	61.00	4473.53	12.53	6.63	15222.65	0.33		
		120.55	19.05		112.77	9.00	0.004298	
	5.10983	56382.82						
2328.21	62.00	4473.80	12.80	6.86	15970.28	0.34		
		121.50	19.16		113.57	8.87	0.004170	
	4.98611	56782.78						
2349.30	63.00	4474.09	13.09	7.15	16786.53	0.35		
		122.46	19.18		114.38	8.74	0.004055	

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## HYCHAN.OUT

2367.91	4.85471	57188.97	13.29	7.34	17377.54	0.35	0.004018
	64.00	4474.29	19.23		114.95	8.65	
		123.14					
2466.66	4.82178	57476.19	13.55	7.29	17970.80	0.35	0.004167
	65.00	4474.55	19.90		115.66	8.54	
		123.97					
2579.85	5.17331	57827.62	13.79	7.17	18502.64	0.34	0.004226
	66.00	4474.79	20.68		116.32	8.44	
		124.76					
2609.61	5.45337	58158.43	13.85	7.14	18641.64	0.34	0.004237
	67.00	4474.85	20.88		116.49	8.41	
		124.96					
2614.06	5.52093	58244.37	13.86	7.14	18662.44	0.34	0.004238
	68.00	4474.86	20.91		116.51	8.41	
		124.99					
2616.45	5.53052	58257.09	13.87	7.14	18673.55	0.34	0.004242
	69.00	4474.87	20.93		116.53	8.40	
		125.01					
2620.21	5.53993	58263.94	13.87	7.13	18691.12	0.34	0.004246
	70.00	4474.88	20.96		116.55	8.40	
		125.03					
2622.56	5.55200	58274.58	13.88	7.13	18702.09	0.34	0.004245
	71.00	4474.88	20.97		116.56	8.40	
		125.05					
2620.21	5.55577	58281.33	13.87	7.13	18691.14	0.34	0.004242
	72.00	4474.88	20.96		116.55	8.40	
		125.03					
2628.26	5.54668	58274.74	13.89	7.13	18728.68	0.34	0.004273
	73.00	4474.89	21.01		116.59	8.39	
		125.09					
2674.64	5.60209	58296.94	13.99	7.08	18944.55	0.33	0.004317
	74.00	4474.99	21.33		116.85	8.35	
		125.39					
2699.29	5.74562	58427.04	14.04	7.06	19058.82	0.33	0.004323
	75.00	4475.04	21.50		116.99	8.33	
		125.56					
2708.39	5.79895	58496.46	14.06	7.05	19101.03	0.33	0.004351
	76.00	4475.06	21.56		117.04	8.33	
		125.62					
2768.63	5.85411	58521.79	14.18	7.00	19379.62	0.33	0.004447
	77.00	4475.18	21.97		117.37	8.28	
		126.01					
2888.31	6.09746	58685.94	14.43	6.90	19943.31	0.32	0.004540
	78.00	4475.43	22.78		118.03	8.18	
		126.79					
2972.29	6.45326	59013.86	14.64	6.88	20438.46	0.32	0.004561
	79.00	4475.64	23.32		118.58	8.10	
		127.44					
3038.90	6.63748	59288.89	14.81	6.87	20864.22	0.31	0.004590
	80.00	4475.81	23.74		119.04	8.04	
		127.98					
3116.95	6.80069	59518.14	15.02	6.85	21360.46	0.31	0.004601
	81.00	4476.02	24.23		119.57	7.96	
		128.62					
3123.28	6.95776	59783.91	15.04	6.85	21400.64	0.31	0.004587
	82.00	4476.04	24.27		119.62	7.95	
		128.68					
3072.08	6.94734	59808.73	14.90	6.86	21075.56	0.31	0.004572
	83.00	4475.90	23.95		119.27	8.00	
		128.26					
3048.00	6.83262	59635.99	14.84	6.86	20922.18	0.31	0.004571
	84.00	4475.84	23.80		119.10	8.03	
		128.07					

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HYCHAN.OUT									
3047.31	6.78811	59552.23	14.84	23.80	6.86	20917.88	0.31	0.004571	
	85.00	4475.84				119.10	8.03		
	6.78782	59549.70							
3056.79	86.00	4475.86	14.86	23.86	6.86	20978.20	0.31	0.004574	
		128.14				119.16	8.02		
	6.80809	59582.47							
3031.24	87.00	4475.80	14.80	23.69	6.87	20815.31	0.31	0.004538	
		127.94				119.00	8.04		
	6.70977	59498.05							
2877.84	88.00	4475.42	14.42	22.70	6.92	19914.70	0.32	0.004354	
		126.77				118.01	8.18		
	6.16853	59005.03							
2581.09	89.00	4474.80	13.80	20.68	7.17	18512.68	0.34	0.004005	
		124.79				116.34	8.43		
	5.16929	58171.16							
2349.94	90.00	4474.09	13.09	19.19	7.13	16766.41	0.35	0.004207	
		122.45				114.37	8.74		
	5.03827	57184.29							
2318.64	91.00	4473.67	12.67	19.15	6.73	15598.09	0.33	0.004363	
		121.06				113.19	8.93		
	5.21480	56595.19							
2169.70	92.00	4473.21	12.21	18.16	6.69	14520.27	0.34	0.004031	
		119.46				111.84	9.16		
	4.56911	55918.70							
1898.42	93.00	4472.68	11.68	16.15	7.11	13495.99	0.37	0.003755	
		117.57				110.23	9.44		
	3.78392	55117.22							
1697.52	94.00	4472.28	11.28	14.62	7.49	12714.19	0.39	0.003578	
		116.11				109.00	9.67		
	3.26424	54498.57							
1599.07	95.00	4471.99	10.99	13.90	7.57	12107.83	0.40	0.003573	
		115.05				108.09	9.84		
	3.09908	54047.10							
1537.25	96.00	4471.73	10.73	13.47	7.50	11534.43	0.40	0.003583	
		114.08				107.28	9.99		
	3.01234	53637.70							
1480.76	97.00	4471.49	10.49	13.09	7.43	11006.62	0.40	0.003587	
		113.16				106.49	10.15		
	2.92888	53246.26							
1436.78	98.00	4471.30	10.30	12.78	7.37	10592.27	0.40	0.003592	
		112.42				105.86	10.28		
	2.86491	52930.67							
1398.85	99.00	4471.13	10.13	12.52	7.32	10232.93	0.41	0.003598	
		111.76				105.30	10.39		
	2.81026	52649.04							
1364.81	100.00	4470.98	9.98	12.28	7.27	9915.47	0.41	0.003602	
		111.16				104.79	10.50		
	2.75987	52394.03							
1324.19	101.00	4470.80	9.80	11.99	7.21	9550.18	0.41	0.003606	
		110.45				104.18	10.63		
	2.69774	52087.75							
1291.93	102.00	4470.66	9.66	11.76	7.17	9259.25	0.41	0.003610	
		109.86				103.68	10.74		
	2.64931	51838.60							
1263.73	103.00	4470.53	9.53	11.56	7.12	9003.64	0.41	0.003614	
		109.34				103.23	10.83		
	2.60631	51615.33							
1241.46	104.00	4470.43	9.43	11.40	7.09	8800.80	0.41	0.003617	
		108.92				102.87	10.91		
	2.57286	51434.51							
1212.02	105.00	4470.29	9.29	11.19	7.04	8531.15	0.41	0.003624	
		108.34				102.38	11.02		

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				HYCHAN.OUT			
1177.99	2.53003	51190.21	9.13	6.98	8218.32	0.41	0.003631
	106.00	4470.12	10.94		101.80	11.16	
	2.47944	50897.71					
1158.21	107.00	4470.03	9.03	6.94	8035.31	0.41	0.003637
		107.25	10.80		101.45	11.24	
	2.45093	50722.86					
1139.50	108.00	4469.94	8.94	6.90	7861.65	0.41	0.003644
		106.86	10.66		101.11	11.31	
	2.42472	50554.64					
1127.35	109.00	4469.88	8.88	6.87	7748.60	0.41	0.003646
		106.60	10.58		100.89	11.37	
	2.40609	50442.65					
1133.42	110.00	4469.90	8.90	6.89	7805.08	0.41	0.003643
		106.72	10.62		100.99	11.34	
	2.41452	50496.77					
1158.45	111.00	4470.03	9.03	6.94	8037.31	0.41	0.003632
		107.25	10.80		101.44	11.24	
	2.44800	50720.82					
1175.58	112.00	4470.11	9.11	6.97	8196.10	0.41	0.003631
		107.61	10.92		101.75	11.17	
	2.47553	50875.53					
1158.15	113.00	4470.03	9.03	6.94	8034.80	0.41	0.003638
		107.25	10.80		101.44	11.24	
	2.45116	50722.42					
1159.63	114.00	4470.03	9.03	6.94	8048.32	0.41	0.003635
		107.27	10.81		101.46	11.23	
	2.45183	50732.02					
1198.39	115.00	4470.22	9.22	7.01	8405.94	0.41	0.003625
		108.06	11.09		102.14	11.08	
	2.50830	51068.70					
1217.87	116.00	4470.32	9.32	7.05	8585.22	0.41	0.003623
		108.46	11.23		102.48	11.00	
	2.53886	51238.05					
1206.01	117.00	4470.26	9.26	7.03	8476.39	0.41	0.003624
		108.22	11.14		102.28	11.05	
	2.51981	51137.54					
1205.30	118.00	4470.26	9.26	7.03	8469.94	0.41	0.003623
		108.21	11.14		102.26	11.05	
	2.51849	51131.28					
1213.29	119.00	4470.29	9.29	7.04	8543.17	0.41	0.003622
		108.36	11.20		102.39	11.02	
	2.53058	51197.50					
1226.57	120.00	4470.36	9.36	7.06	8664.94	0.41	0.003620
		108.62	11.29		102.62	10.97	
	2.55106	51309.88					
1227.11	121.00	4470.36	9.36	7.07	8669.88	0.41	0.003618
		108.64	11.30		102.63	10.97	
	2.54992	51314.72					
1219.06	122.00	4470.32	9.32	7.05	8596.04	0.41	0.003621
		108.48	11.24		102.50	11.00	
	2.53926	51248.45					
1205.93	123.00	4470.26	9.26	7.03	8475.74	0.41	0.003623
		108.22	11.14		102.27	11.05	
	2.51934	51136.86					
1197.42	124.00	4470.22	9.22	7.01	8397.38	0.41	0.003627
		108.05	11.08		102.13	11.08	
	2.50828	51065.16					
1184.17	125.00	4470.15	9.15	6.99	8275.42	0.41	0.003628
		107.78	10.99		101.90	11.13	
	2.48745	50950.07					
1183.56	126.00	4470.15	9.15	6.99	8269.81	0.41	0.003630
		107.77	10.98		101.89	11.13	

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		HYCHAN.OUT							
	2.48751	50944.62							
1176.67	127.00	4470.12	9.12	6.97	8206.16	0.41			
		107.63	10.93		101.77	11.16		0.003632	
	2.47802	50885.66							
1164.78	128.00	4470.06	9.06	6.95	8096.33	0.41			
		107.39	10.85		101.56	11.21		0.003634	
	2.45989	50780.32							
1164.21	129.00	4470.06	9.06	6.95	8091.02	0.41			
		107.37	10.84		101.55	11.21		0.003634	
	2.45900	50774.88							
1157.57	130.00	4470.03	9.03	6.94	8029.40	0.41			
		107.24	10.79		101.43	11.24		0.003637	
	2.45001	50716.99							
1146.03	131.00	4469.97	8.97	6.91	7922.44	0.41			
		106.99	10.71		101.23	11.29		0.003638	
	2.43186	50612.72							
1159.06	132.00	4470.03	9.03	6.94	8043.00	0.41			
		107.26	10.81		101.45	11.23		0.003632	
	2.44923	50726.53							
1182.46	133.00	4470.15	9.15	6.99	8259.64	0.41			
		107.75	10.97		101.87	11.14		0.003628	
	2.48468	50934.39							
1183.54	134.00	4470.15	9.15	6.99	8269.59	0.41			
		107.77	10.98		101.89	11.13		0.003631	
	2.48837	50944.29							
1183.61	135.00	4470.15	9.15	6.99	8270.31	0.41			
		107.77	10.98		101.89	11.13		0.003629	
	2.48706	50945.11							
1183.57	136.00	4470.15	9.15	6.99	8269.86	0.41			
		107.77	10.98		101.89	11.13		0.003629	
	2.48678	50944.59							
1183.57	137.00	4470.15	9.15	6.99	8269.95	0.41			
		107.77	10.98		101.89	11.13		0.003629	
	2.48684	50944.66							
1183.60	138.00	4470.15	9.15	6.99	8270.19	0.41			
		107.77	10.98		101.89	11.13		0.003631	
	2.48830	50945.00							
1183.55	139.00	4470.15	9.15	6.99	8269.77	0.41			
		107.77	10.98		101.89	11.13		0.003628	
	2.48628	50944.51							
1176.72	140.00	4470.12	9.12	6.97	8206.62	0.41			
		107.63	10.93		101.77	11.16		0.003632	
	2.47783	50886.06							
1164.77	141.00	4470.06	9.06	6.95	8096.21	0.41			
		107.39	10.85		101.56	11.21		0.003636	
	2.46128	50780.27							
1164.19	142.00	4470.06	9.06	6.95	8090.81	0.41			
		107.37	10.84		101.55	11.21		0.003637	
	2.46035	50774.81							
1164.20	143.00	4470.06	9.06	6.95	8090.98	0.41			
		107.37	10.84		101.55	11.21		0.003635	
	2.45920	50775.03							
1164.20	144.00	4470.06	9.06	6.95	8090.90	0.41			
		107.37	10.84		101.55	11.21		0.003634	
	2.45889	50774.88							
1157.66	145.00	4470.03	9.03	6.94	8030.32	0.41			
		107.24	10.80		101.44	11.24		0.003638	
	2.45040	50717.82							
1145.95	146.00	4469.97	8.97	6.91	7921.65	0.41			
		106.99	10.71		101.22	11.29		0.003640	
	2.43242	50612.05							
1145.43	147.00	4469.96	8.96	6.91	7916.89	0.41			
		106.98	10.71		101.21	11.29		0.003641	

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		HYCHAN.OUT					
	2.43241	50607.03					
1145.45	148.00	4469.96	8.96	6.91	7917.04	0.41	
		106.98	10.71		101.21	11.29	0.003641
	2.43239	50607.20					
1145.46	149.00	4469.96	8.96	6.91	7917.16	0.41	
		106.98	10.71		101.21	11.29	0.003639
	2.43100	50607.24					
1145.42	150.00	4469.96	8.96	6.91	7916.76	0.41	
		106.98	10.71		101.21	11.29	0.003639
	2.43105	50607.04					
1141.12	151.00	4469.94	8.94	6.90	7876.75	0.41	
		106.89	10.68		101.14	11.31	0.003643
	2.42652	50568.75					
1131.19	152.00	4469.89	8.89	6.88	7784.35	0.41	
		106.68	10.60		100.96	11.35	0.003644
	2.41140	50477.98					
1126.91	153.00	4469.87	8.87	6.87	7744.52	0.41	
		106.59	10.57		100.88	11.37	0.003646
	2.40528	50438.34					
1126.69	154.00	4469.87	8.87	6.87	7742.42	0.41	
		106.58	10.57		100.87	11.37	0.003646
	2.40502	50436.01					
1120.35	155.00	4469.84	8.84	6.86	7683.17	0.41	
		106.45	10.52		100.76	11.40	0.003649
	2.39666	50378.54					
1121.74	156.00	4469.85	8.85	6.86	7695.98	0.41	
		106.47	10.54		100.78	11.39	0.003644
	2.39600	50388.03					
1144.31	157.00	4469.96	8.96	6.91	7906.42	0.41	
		106.96	10.70		101.19	11.30	0.003640
	2.43003	50596.33					
1145.45	158.00	4469.96	8.96	6.91	7917.06	0.41	
		106.98	10.71		101.21	11.29	0.003640
	2.43164	50607.13					
1145.50	159.00	4469.97	8.97	6.91	7917.50	0.41	
		106.98	10.71		101.22	11.29	0.003638
	2.43071	50607.59					
1145.38	160.00	4469.96	8.96	6.91	7916.37	0.41	
		106.98	10.71		101.21	11.29	0.003640
	2.43203	50606.64					
1145.48	161.00	4469.97	8.97	6.91	7917.35	0.41	
		106.98	10.71		101.22	11.29	0.003638
	2.43076	50607.51					
1145.44	162.00	4469.96	8.96	6.91	7916.95	0.41	
		106.98	10.71		101.21	11.29	0.003641
	2.43237	50607.12					
1145.43	163.00	4469.96	8.96	6.91	7916.89	0.41	
		106.98	10.71		101.21	11.29	0.003641
	2.43236	50607.05					
1145.43	164.00	4469.96	8.96	6.91	7916.83	0.41	
		106.98	10.71		101.21	11.29	0.003639
	2.43140	50607.16					
1138.90	165.00	4469.93	8.93	6.90	7856.06	0.41	
		106.84	10.66		101.10	11.32	0.003643
	2.42292	50548.95					
1127.30	166.00	4469.87	8.87	6.87	7748.13	0.41	
		106.60	10.58		100.88	11.37	0.003646
	2.40575	50442.12					
1126.75	167.00	4469.87	8.87	6.87	7742.99	0.41	
		106.58	10.57		100.87	11.37	0.003646
	2.40510	50436.62					
1126.73	168.00	4469.87	8.87	6.87	7742.85	0.41	
		106.58	10.57		100.87	11.37	0.003646

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		HYCHAN.OUT						
	2.40517	50436.54						
1126.74	169.00	4469.87	8.87	10.57	6.87	7742.88	0.41	0.003645
	2.40437	50436.47						
1126.80	170.00	4469.87	8.87	10.57	6.87	7743.48	0.41	0.003645
	2.40455	50437.18						
1126.70	171.00	4469.87	8.87	10.57	6.87	7742.51	0.41	0.003646
	2.40484	50436.30						
1126.75	172.00	4469.87	8.87	10.57	6.87	7743.02	0.41	0.003645
	2.40478	50436.72						
1120.28	173.00	4469.84	8.84	10.52	6.86	7682.55	0.41	0.003650
	2.39672	50377.94						
1108.65	174.00	4469.78	8.78	10.44	6.83	7573.95	0.41	0.003652
	2.37908	50268.66						
1108.15	175.00	4469.78	8.78	10.44	6.83	7569.26	0.41	0.003652
	2.37863	50263.58						
1108.10	176.00	4469.78	8.78	10.44	6.83	7568.75	0.41	0.003652
	2.37854	50263.05						
1108.12	177.00	4469.78	8.78	10.44	6.83	7568.97	0.41	0.003652
	2.37850	50263.09						
1108.13	178.00	4469.78	8.78	10.44	6.83	7569.11	0.41	0.003652
	2.37827	50263.40						
1108.12	179.00	4469.78	8.78	10.44	6.83	7568.97	0.41	0.003652
	2.37851	50263.24						
1121.31	180.00	4469.84	8.84	10.53	6.86	7691.87	0.41	0.003644
	2.39495	50383.66						
1144.24	181.00	4469.96	8.96	10.70	6.91	7905.84	0.41	0.003640
	2.43013	50595.80						
1152.17	182.00	4470.00	9.00	10.76	6.93	7979.35	0.41	0.003636
	2.44035	50666.57						
1163.58	183.00	4470.05	9.05	10.84	6.95	8085.19	0.41	0.003634
	2.45768	50769.05						
1164.20	184.00	4470.06	9.06	10.84	6.95	8090.92	0.41	0.003634
	2.45858	50774.77						
1164.20	185.00	4470.06	9.06	10.84	6.95	8090.91	0.41	0.003633
	2.45793	50774.83						
1164.22	186.00	4470.06	9.06	10.84	6.95	8091.12	0.41	0.003635
	2.45928	50774.95						
1164.21	187.00	4470.06	9.06	10.84	6.95	8091.06	0.41	0.003636
	2.45997	50774.96						
1164.18	188.00	4470.06	9.06	10.84	6.95	8090.75	0.41	0.003636
	2.45993	50774.69						
1164.22	189.00	4470.06	9.06	10.84	6.95	8091.15	0.41	0.003634

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## HYCHAN.OUT

1164.21	2.45880	50775.08	9.06	6.95	8091.00	0.41	0.003634
	190.00	4470.06	10.84		101.55	11.21	
	2.45837	50774.92					
1157.63	191.00	4470.03	9.03	6.94	8029.96	0.41	0.003637
	107.24		10.79		101.44	11.24	
	2.45020	50717.50					
1145.96	192.00	4469.97	8.97	6.91	7921.80	0.41	0.003639
	106.99		10.71		101.22	11.29	
	2.43212	50612.18					
1145.44	193.00	4469.96	8.96	6.91	7916.97	0.41	0.003639
	106.98		10.71		101.21	11.29	
	2.43150	50607.14					
1145.43	194.00	4469.96	8.96	6.91	7916.91	0.41	0.003640
	106.98		10.71		101.21	11.29	
	2.43202	50607.04					
1145.47	195.00	4469.96	8.96	6.91	7917.23	0.41	0.003639
	106.98		10.71		101.21	11.29	
	2.43101	50607.27					
1145.47	196.00	4469.96	8.97	6.91	7917.24	0.41	0.003639
	106.98		10.71		101.21	11.29	
	2.43136	50607.35					
1145.42	197.00	4469.96	8.96	6.91	7916.78	0.41	0.003641
	106.98		10.71		101.21	11.29	
	2.43227	50606.94					
1145.44	198.00	4469.96	8.96	6.91	7916.94	0.41	0.003640
	106.98		10.71		101.21	11.29	
	2.43168	50607.19					
1145.43	199.00	4469.96	8.96	6.91	7916.84	0.41	0.003639
	106.98		10.71		101.21	11.29	
	2.43125	50606.91					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1327

MAXIMUM DISCHARGE (CFS) = 21491.68 AT TIME = 80.94  
 MAXIMUM STAGE = 4471.78 AT TIME = 80.94

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
STRESS	SURFACE AREA	AREA						
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(FT^2)	(LB/FT^2)	(FT^2)	(FT)	(FT)				
0.00	0.00	4456.86	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4456.86	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4456.86	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
778.02	3.00	4461.32	4.46	3.87	3009.90	0.32		
		83.39	9.33		80.79	18.11		0.004412
	2.56828	40395.36						
816.44	4.00	4464.67	7.81	6.72	5488.17	0.42		
		101.86	8.02		96.82	12.39		0.004408
	2.20445	48410.42						
806.67	5.00	4464.61	7.75	6.68	5384.61	0.42		
		101.57	7.94		96.57	12.46		0.004408
	2.18466	48284.04						

				HYCHAN.OUT				
802.27	6.00	4464.58	7.72	7.91	6.65	5337.35	0.42	0.004405
	2.17393	101.43			96.45	12.49		
	7.00	4464.49	7.63		6.58	5193.89	0.42	
788.79		101.01		7.81	96.09	12.59		0.004400
	2.14425	48044.75						
774.64	8.00	4464.40	7.54		6.51	5044.13	0.42	
	2.11351	100.56		7.70	95.70	12.70		0.004397
	9.00	4464.30	7.44		6.44	4897.92	0.42	
760.30		100.11		7.59	95.32	12.80		0.004395
	2.08294	47658.81						
748.63	10.00	4464.23	7.37		6.39	4781.81	0.41	
	2.05915	99.75		7.50	95.01	12.89		0.004397
	11.00	47502.73						
744.23		4464.20	7.34		6.37	4738.61	0.41	
	2.04832	99.61		7.47	94.88	12.93		0.004393
	12.00	47440.04						
730.17		4464.10	7.24		6.30	4599.09	0.41	
	2.01709	99.15		7.36	94.48	13.04		0.004389
	13.00	47241.94						
718.05		4464.02	7.16		6.24	4479.61	0.41	
	1.99193	98.75		7.27	94.14	13.14		0.004390
	14.00	47071.36						
716.94		4464.02	7.16		6.23	4469.04	0.41	
	1.98955	98.72		7.26	94.11	13.15		0.004390
	15.00	47056.39						
716.93		4464.02	7.16		6.23	4468.94	0.41	
	1.98967	98.72		7.26	94.11	13.15		0.004390
	16.00	47056.25						
716.94		4464.02	7.16		6.23	4469.07	0.41	
	1.98952	98.72		7.26	94.11	13.15		0.004390
	17.00	47056.45						
716.93		4464.02	7.16		6.23	4468.97	0.41	
	1.98956	98.72		7.26	94.11	13.15		0.004390
	18.00	47056.27						
720.08		4464.04	7.18		6.25	4500.58	0.41	
	1.99851	98.82		7.29	94.21	13.12		0.004395
	19.00	47103.02						
734.54		4464.14	7.28		6.32	4643.67	0.41	
	2.03022	99.30		7.40	94.62	13.00		0.004399
	20.00	47309.46						
750.00		4464.24	7.38		6.40	4797.16	0.42	
	2.06335	99.80		7.51	95.05	12.88		0.004400
	21.00	47524.10						
761.85		4464.32	7.46		6.45	4915.09	0.42	
	2.08759	100.17		7.61	95.37	12.79		0.004399
	22.00	47682.98						
762.76		4464.32	7.46		6.46	4923.83	0.42	
	2.08956	100.20		7.61	95.39	12.78		0.004399
	23.00	47694.16						
766.28		4464.35	7.49		6.47	4959.94	0.42	
	2.09855	100.31		7.64	95.49	12.76		0.004402
	24.00	47742.78						
784.23		4464.46	7.60		6.56	5148.10	0.42	
	2.14025	100.88		7.77	95.98	12.62		0.004412
	25.00	47987.86						
812.60		4464.65	7.79		6.71	5449.83	0.42	
	2.20124	101.75		7.99	96.73	12.42		0.004417
	26.00	48364.82						
841.50		4464.84	7.98		6.84	5758.71	0.43	
	2.26108	102.61		8.20	97.47	12.22		0.004418
		48733.48						

		HYCHAN.OUT					
861.66	27.00	4464.96	8.10	6.93	5973.57	0.43	
	2.30089	103.19	8.35		97.96	12.09	0.004416
862.77	28.00	4464.97	8.11	6.94	5984.93	0.43	
	2.30291	103.22	8.36		97.99	12.08	0.004415
867.38	29.00	4465.00	8.14	6.96	6035.27	0.43	
	2.31313	103.35	8.39		98.10	12.05	0.004417
877.74	30.00	4465.06	8.20	7.00	6146.14	0.43	
	2.33373	103.64	8.47		98.35	11.99	0.004416
878.34	31.00	4465.07	8.21	7.00	6152.24	0.43	
	2.33462	103.65	8.47		98.36	11.99	0.004415
883.20	32.00	4465.10	8.24	7.03	6205.58	0.43	
	2.34540	103.79	8.51		98.48	11.96	0.004417
893.89	33.00	4465.16	8.30	7.07	6320.03	0.43	
	2.36587	104.08	8.59		98.73	11.89	0.004415
894.48	34.00	4465.16	8.30	7.07	6326.04	0.43	
	2.36722	104.10	8.59		98.74	11.89	0.004415
889.60	35.00	4465.13	8.27	7.05	6272.35	0.43	
	2.35664	103.96	8.56		98.63	11.92	0.004413
878.90	36.00	4465.07	8.21	7.01	6157.97	0.43	
	2.33559	103.67	8.48		98.37	11.98	0.004415
873.71	37.00	4465.04	8.18	6.98	6101.43	0.43	
	2.32420	103.52	8.44		98.25	12.02	0.004413
863.38	38.00	4464.97	8.11	6.94	5991.10	0.43	
	2.30425	103.23	8.36		98.00	12.08	0.004415
862.77	39.00	4464.97	8.11	6.94	5984.89	0.43	
	2.30279	103.22	8.36		97.99	12.08	0.004415
862.77	40.00	4464.97	8.11	6.94	5985.08	0.43	
	2.30303	103.22	8.36		97.99	12.08	0.004415
862.77	41.00	4464.97	8.11	6.94	5984.99	0.43	
	2.30286	103.22	8.36		97.99	12.08	0.004415
862.77	42.00	4464.97	8.11	6.94	5984.98	0.43	
	2.30323	103.22	8.36		97.99	12.08	0.004416
867.40	43.00	4465.00	8.14	6.96	6035.54	0.43	
	2.31325	103.35	8.39		98.10	12.05	0.004417
877.75	44.00	4465.06	8.20	7.00	6146.34	0.43	
	2.33289	103.64	8.47		98.35	11.99	0.004414
883.21	45.00	4465.10	8.24	7.03	6205.67	0.43	
	2.34545	103.79	8.51		98.48	11.96	0.004417
898.93	46.00	4465.19	8.33	7.09	6375.23	0.43	
	2.37599	104.22	8.63		98.85	11.86	0.004415
915.04	47.00	4465.29	8.43	7.16	6548.96	0.43	
	2.40790	104.66	8.74		99.22	11.77	0.004413
		49610.81					

HYCHAN.OUT							
931.19	48.00	4465.39	8.53	7.22	6723.37	0.44	0.004413
	2.44009	105.08	8.86		99.59	11.68	
		49793.60					
946.58	49.00	4465.48	8.62	7.28	6889.65	0.44	
		105.48	8.97		99.93	11.60	0.004409
	2.46884	49964.81					
963.30	50.00	4465.58	8.72	7.34	7070.41	0.44	
		105.91	9.10		100.30	11.51	0.004405
	2.49992	50147.60					
984.07	51.00	4465.70	8.84	7.41	7295.91	0.44	
		106.43	9.25		100.74	11.40	0.004397
	2.53704	50371.09					
1005.72	52.00	4465.82	8.96	7.49	7530.23	0.44	
		106.96	9.40		101.20	11.29	0.004394
	2.57782	50598.09					
1011.84	53.00	4465.86	9.00	7.51	7600.60	0.44	
		107.11	9.45		101.33	11.26	0.004397
	2.59200	50664.54					
1037.74	54.00	4466.01	9.15	7.61	7899.80	0.44	
		107.76	9.63		101.88	11.14	0.004395
	2.64078	50941.77					
1093.02	55.00	4466.33	9.47	7.81	8536.69	0.45	
		109.09	10.02		103.02	10.88	0.004384
	2.74113	51507.79					
1173.01	56.00	4466.77	9.91	8.06	9457.91	0.45	
		110.89	10.58		104.55	10.55	0.004356
	2.87525	52277.50					
1267.25	57.00	4467.29	10.43	8.36	10594.27	0.46	
		112.94	11.22		106.30	10.19	0.004355
	3.04892	53150.11					
1361.89	58.00	4467.82	10.96	8.66	11798.87	0.46	
		114.92	11.85		107.99	9.86	0.004339
	3.20868	53994.12					
1440.32	59.00	4468.24	11.38	8.88	12796.25	0.46	
		116.49	12.36		109.32	9.61	0.004358
	3.36265	54661.17					
1539.95	60.00	4468.78	11.92	9.14	14072.60	0.47	
		118.43	13.00		110.96	9.31	0.004397
	3.56754	55481.88					
1627.72	61.00	4469.24	12.38	9.34	15206.03	0.47	
		120.03	13.56		112.32	9.08	0.004386
	3.71149	56161.71					
1684.41	62.00	4469.52	12.66	9.47	15958.20	0.47	
		121.02	13.92		113.16	8.94	0.004357
	3.78456	56578.82					
1746.00	63.00	4469.83	12.97	9.61	16775.71	0.47	
		122.06	14.30		114.04	8.79	0.004322
	3.85761	57018.12					
1791.00	64.00	4470.05	13.19	9.70	17368.81	0.47	
		122.80	14.58		114.66	8.69	0.004304
	3.91717	57331.64					
1835.36	65.00	4470.28	13.42	9.78	17958.74	0.47	
		123.54	14.86		115.29	8.59	0.004314
	3.99940	57644.50					
1875.11	66.00	4470.49	13.63	9.86	18497.12	0.47	
		124.23	15.09		115.87	8.50	0.004314
	4.06296	57936.00					
1885.65	67.00	4470.54	13.68	9.89	18640.68	0.47	
		124.42	15.16		116.03	8.48	0.004314
	4.07980	58014.91					
1887.24	68.00	4470.55	13.69	9.89	18662.34	0.47	
		124.44	15.17		116.05	8.48	0.004314
	4.08230	58026.72					

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HYCHAN.OUT							
1888.05	69.00	4470.56	13.70	9.89	18673.36	0.47	0.004314
	4.08340	124.46	15.17		116.07	8.47	
		58032.79					
1889.32	70.00	4470.56	13.70	9.89	18690.92	0.47	0.004314
	4.08577	124.48	15.18		116.08	8.47	
		58042.28					
1890.15	71.00	4470.57	13.71	9.89	18702.24	0.47	0.004313
	4.08605	124.50	15.18		116.10	8.47	
		58048.48					
1889.38	72.00	4470.56	13.70	9.89	18691.44	0.47	0.004314
	4.08540	124.48	15.18		116.09	8.47	
		58042.68					
1891.83	73.00	4470.58	13.72	9.90	18726.39	0.47	0.004317
	4.09244	124.53	15.19		116.12	8.46	
		58061.17					
1907.51	74.00	4470.66	13.80	9.93	18942.95	0.47	0.004315
	4.11571	124.80	15.28		116.36	8.43	
		58177.77					
1916.14	75.00	4470.71	13.85	9.95	19060.20	0.47	0.004315
	4.12941	124.95	15.33		116.48	8.41	
		58241.57					
1919.15	76.00	4470.73	13.87	9.95	19102.10	0.47	0.004318
	4.13661	125.01	15.35		116.53	8.40	
		58263.89					
1938.87	77.00	4470.83	13.97	9.99	19375.10	0.47	0.004322
	4.17152	125.35	15.47		116.82	8.36	
		58409.28					
1980.58	78.00	4471.06	14.20	10.07	19939.72	0.47	0.004302
	4.21741	126.07	15.71		117.42	8.27	
		58712.49					
2022.83	79.00	4471.29	14.43	10.11	20443.39	0.47	0.004266
	4.24732	126.79	15.95		118.03	8.18	
		59014.46					
2059.83	80.00	4471.49	14.63	10.13	20869.10	0.47	0.004228
	4.26579	127.41	16.17		118.55	8.11	
		59275.20					
2103.73	81.00	4471.72	14.86	10.16	21368.64	0.46	0.004191
	4.29389	128.13	16.42		119.16	8.02	
		59580.05					
2109.03	82.00	4471.75	14.89	10.16	21420.82	0.46	0.004203
	4.31383	128.22	16.45		119.23	8.01	
		59615.80					
2080.81	83.00	4471.60	14.74	10.14	21097.25	0.47	0.004234
	4.30351	127.75	16.29		118.84	8.06	
		59420.48					
2066.50	84.00	4471.52	14.66	10.13	20937.94	0.47	0.004239
	4.28679	127.52	16.21		118.64	8.09	
		59321.21					
2065.97	85.00	4471.52	14.66	10.13	20932.66	0.47	0.004237
	4.28386	127.51	16.20		118.64	8.09	
		59317.57					
2071.37	86.00	4471.55	14.69	10.14	20993.49	0.47	0.004228
	4.28320	127.60	16.23		118.71	8.08	
		59355.38					
2058.82	87.00	4471.48	14.62	10.12	20841.62	0.47	0.004261
	4.29746	127.39	16.16		118.53	8.11	
		59266.68					
1984.57	88.00	4471.08	14.22	10.05	19952.12	0.47	0.004303
	4.22472	126.13	15.73		117.47	8.26	
		58737.45					
1880.43	89.00	4470.51	13.65	9.86	18548.69	0.47	0.004281
	4.04054	124.31	15.13		115.94	8.49	
		57971.68					

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90.00	4469.84	12.98	9.60	16791.75	0.47		
1749.21	122.09	14.33	114.06	8.79	0.004353		
3.89208	57032.46						
91.00	4469.39	12.53	9.41	15613.22	0.47		
1659.81	120.58	13.77	112.79	9.00	0.004385		
3.76623	56393.73						
92.00	4468.97	12.11	9.21	14542.70	0.47		
1578.25	119.12	13.25	111.55	9.21	0.004357		
3.60181	55775.44						
93.00	4468.55	11.69	9.02	13512.30	0.47		
1497.46	117.60	12.73	110.26	9.44	0.004338		
3.44650	55131.97						
94.00	4468.21	11.35	8.86	12727.58	0.46		
1435.96	116.39	12.34	109.23	9.62	0.004327		
3.33120	54616.78						
95.00	4467.95	11.09	8.73	12116.30	0.46		
1387.72	115.43	12.02	108.42	9.77	0.004327		
3.24626	54209.66						
96.00	4467.71	10.85	8.60	11545.68	0.46		
1342.93	114.52	11.73	107.65	9.92	0.004341		
3.17633	53823.52						
97.00	4467.48	10.62	8.47	11014.14	0.46		
1300.93	113.65	11.45	106.91	10.07	0.004345		
3.10326	53453.02						
98.00	4467.30	10.44	8.36	10599.70	0.46		
1268.36	112.95	11.23	106.31	10.18	0.004345		
3.04440	53156.40						
99.00	4467.14	10.28	8.26	10237.74	0.45		
1239.80	112.33	11.04	105.78	10.29	0.004345		
2.99269	52891.19						
100.00	4466.99	10.13	8.17	9922.73	0.45		
1214.32	111.77	10.86	105.30	10.39	0.004352		
2.95035	52652.02						
101.00	4466.82	9.96	8.08	9556.02	0.45		
1182.41	111.08	10.64	104.72	10.51	0.004363		
2.89771	52359.57						
102.00	4466.68	9.82	8.01	9264.39	0.45		
1156.97	110.53	10.47	104.24	10.61	0.004369		
2.85404	52122.43						
103.00	4466.56	9.70	7.94	9007.66	0.45		
1134.60	110.03	10.31	103.82	10.70	0.004377		
2.81645	51910.34						
104.00	4466.46	9.60	7.88	8804.60	0.45		
1116.92	109.63	10.19	103.48	10.78	0.004380		
2.78427	51739.14						
105.00	4466.33	9.47	7.81	8537.84	0.45		
1093.83	109.09	10.03	103.02	10.88	0.004384		
2.74266	51509.75						
106.00	4466.17	9.31	7.71	8222.50	0.45		
1066.26	108.44	9.83	102.47	11.00	0.004389		
2.69269	51232.87						
107.00	4466.08	9.22	7.65	8038.63	0.44		
1050.22	108.06	9.72	102.14	11.08	0.004390		
2.66233	51067.91						
108.00	4465.99	9.13	7.60	7864.94	0.44		
1035.09	107.69	9.61	101.82	11.15	0.004391		
2.63378	50909.79						
109.00	4465.93	9.07	7.56	7749.27	0.44		
1024.92	107.44	9.54	101.61	11.20	0.004393		
2.61487	50803.31						
110.00	4465.96	9.10	7.58	7802.40	0.44		
1029.43	107.55	9.57	101.71	11.18	0.004395		
2.62518	50852.52						

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1049.26	111.00 4466.08 108.04	9.22	9.71	7.65	8031.31	0.44	0.004391
	2.66080 51061.52				102.12	11.08	
1063.96	112.00 4466.16 108.39	9.30	9.82	7.70	8197.47	0.45	0.004388
	2.68788 51210.63				102.42	11.01	
1050.17	113.00 4466.08 108.06	9.22	9.72	7.65	8038.07	0.44	0.004391
	2.66284 51067.49				102.13	11.08	
1050.37	114.00 4466.08 108.07	9.22	9.72	7.66	8043.58	0.44	0.004392
	2.66369 51072.65				102.15	11.08	
1081.18	115.00 4466.26 108.81	9.40	9.94	7.77	8398.60	0.45	0.004387
	2.71989 51388.47				102.78	10.93	
1097.87	116.00 4466.35 109.19	9.49	10.05	7.82	8586.88	0.45	0.004384
	2.75022 51552.47				103.10	10.86	
1088.27	117.00 4466.30 108.97	9.44	9.99	7.79	8476.99	0.45	0.004386
	2.73304 51457.17				102.91	10.90	
1087.62	118.00 4466.30 108.95	9.44	9.98	7.79	8469.86	0.45	0.004387
	2.73239 51450.90				102.90	10.91	
1093.63	119.00 4466.33 109.10	9.47	10.02	7.81	8540.23	0.45	0.004385
	2.74293 51512.03				103.02	10.88	
1104.51	120.00 4466.39 109.35	9.53	10.10	7.84	8664.24	0.45	0.004383
	2.76251 51619.20				103.24	10.83	
1105.03	121.00 4466.39 109.36	9.53	10.10	7.85	8669.97	0.45	0.004381
	2.76218 51624.14				103.25	10.83	
1098.98	122.00 4466.36 109.22	9.50	10.06	7.82	8599.05	0.45	0.004382
	2.75143 51562.96				103.13	10.86	
1088.22	123.00 4466.30 108.97	9.44	9.99	7.79	8476.49	0.45	0.004385
	2.73233 51456.56				102.91	10.90	
1081.69	124.00 4466.26 108.81	9.40	9.94	7.77	8400.37	0.45	0.004386
	2.72044 51390.03				102.78	10.93	
1070.78	125.00 4466.20 108.56	9.34	9.86	7.73	8276.10	0.45	0.004387
	2.70026 51280.46				102.56	10.98	
1070.21	126.00 4466.20 108.54	9.34	9.86	7.73	8269.81	0.45	0.004391
	2.70146 51275.02				102.55	10.98	
1065.02	127.00 4466.17 108.42	9.31	9.82	7.71	8208.93	0.45	0.004388
	2.69000 51220.80				102.44	11.01	
1055.19	128.00 4466.11 108.18	9.25	9.75	7.67	8097.02	0.44	0.004391
	2.67228 51120.68				102.24	11.05	
1054.64	129.00 4466.11 108.17	9.25	9.75	7.67	8091.05	0.44	0.004389
	2.67040 51115.21				102.23	11.06	
1049.61	130.00 4466.08 108.04	9.22	9.71	7.65	8031.98	0.44	0.004391
	2.66167 51062.04				102.12	11.08	
1040.05	131.00 4466.02 107.81	9.16	9.65	7.62	7923.10	0.44	0.004391
	2.64331 50963.06				101.93	11.13	

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		HYCHAN.OUT					
1049.83	132.00 4466.08 108.06	9.22	7.66	8037.59	0.44		
	2.66200 51067.16		9.72	102.13	11.08	0.004391	
1069.15	133.00 4466.19 108.52	9.33	7.72	8258.28	0.45		
	2.69817 51264.71		9.85	102.53	10.99	0.004389	
1070.19	134.00 4466.20 108.54	9.34	7.73	8269.67	0.45		
	2.70046 51274.74		9.86	102.55	10.98	0.004389	
1070.25	135.00 4466.20 108.54	9.34	7.73	8270.33	0.45		
	2.69926 51275.49		9.86	102.55	10.98	0.004387	
1070.20	136.00 4466.20 108.54	9.34	7.73	8269.79	0.45		
	2.69935 51274.94		9.86	102.55	10.98	0.004387	
1070.21	137.00 4466.20 108.54	9.34	7.73	8269.89	0.45		
	2.70067 51275.02		9.86	102.55	10.98	0.004390	
1070.25	138.00 4466.20 108.54	9.34	7.73	8270.31	0.45		
	2.69990 51275.43		9.86	102.55	10.98	0.004388	
1070.20	139.00 4466.20 108.54	9.34	7.73	8269.76	0.45		
	2.69931 51274.89		9.86	102.55	10.98	0.004387	
1065.05	140.00 4466.17 108.42	9.31	7.71	8209.29	0.45		
	2.68959 51221.15		9.82	102.44	11.01	0.004388	
1055.19	141.00 4466.11 108.18	9.25	7.67	8096.90	0.44		
	2.67279 51120.65		9.75	102.24	11.05	0.004391	
1054.63	142.00 4466.11 108.17	9.25	7.67	8090.77	0.44		
	2.67210 51115.16		9.75	102.23	11.06	0.004392	
1054.65	143.00 4466.11 108.17	9.25	7.67	8091.07	0.44		
	2.67105 51115.42		9.75	102.23	11.06	0.004390	
1054.64	144.00 4466.11 108.17	9.25	7.67	8090.93	0.44		
	2.67100 51115.25		9.75	102.23	11.06	0.004390	
1049.68	145.00 4466.08 108.05	9.22	7.65	8032.85	0.44		
	2.66106 51062.78		9.72	102.13	11.08	0.004390	
1039.99	146.00 4466.02 107.81	9.16	7.62	7922.37	0.44		
	2.64282 50962.48		9.65	101.92	11.13	0.004391	
1039.48	147.00 4466.02 107.80	9.16	7.62	7916.84	0.44		
	2.64391 50957.37		9.64	101.91	11.13	0.004394	
1039.50	148.00 4466.02 107.80	9.16	7.62	7917.08	0.44		
	2.64288 50957.58		9.64	101.92	11.13	0.004392	
1039.49	149.00 4466.02 107.80	9.16	7.62	7917.09	0.44		
	2.64185 50957.55		9.64	101.92	11.13	0.004391	
1039.49	150.00 4466.02 107.80	9.16	7.62	7916.84	0.44		
	2.64218 50957.46		9.64	101.91	11.13	0.004391	
1036.21	151.00 4466.00 107.72	9.14	7.60	7878.53	0.44		
	2.63583 50922.29		9.62	101.84	11.14	0.004391	
1028.10	152.00 4465.95 107.52	9.09	7.57	7785.69	0.44		
	2.62060 50836.80		9.56	101.67	11.18	0.004392	

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		HYCHAN.OUT					
1024.50	153.00 4465.93 107.43 50799.03	9.07	9.54	7.56	7744.72	0.44	0.004392
1024.29	154.00 4465.93 107.42 50796.74	9.07	9.53	7.56	7742.49	0.44	0.004392
1019.45	155.00 4465.90 107.30 50744.05	9.04	9.50	7.54	7685.70	0.44	0.004392
1019.70	156.00 4465.90 107.31 50749.46	9.04	9.50	7.54	7691.34	0.44	0.004397
1038.41	157.00 4466.01 107.77 50946.69	9.15	9.64	7.61	7905.14	0.44	0.004391
1039.49	158.00 4466.02 107.80 50957.46	9.16	9.64	7.62	7917.04	0.44	0.004392
1039.53	159.00 4466.02 107.80 50957.88	9.16	9.64	7.62	7917.44	0.44	0.004390
1039.45	160.00 4466.02 107.80 50957.07	9.16	9.64	7.62	7916.40	0.44	0.004392
1039.52	161.00 4466.02 107.80 50957.83	9.16	9.64	7.62	7917.32	0.44	0.004391
1039.48	162.00 4466.02 107.80 50957.45	9.16	9.64	7.62	7916.86	0.44	0.004394
1039.48	163.00 4466.02 107.80 50957.42	9.16	9.64	7.62	7916.91	0.44	0.004394
1039.49	164.00 4466.02 107.80 50957.58	9.16	9.64	7.62	7916.94	0.44	0.004392
1034.52	165.00 4465.99 107.67 50904.12	9.13	9.61	7.60	7858.71	0.44	0.004392
1024.87	166.00 4465.93 107.44 50802.80	9.07	9.54	7.56	7748.79	0.44	0.004392
1024.33	167.00 4465.93 107.43 50797.31	9.07	9.54	7.56	7743.00	0.44	0.004391
1024.33	168.00 4465.93 107.43 50797.24	9.07	9.54	7.56	7742.85	0.44	0.004393
1024.32	169.00 4465.93 107.42 50797.15	9.07	9.54	7.56	7742.84	0.44	0.004393
1024.38	170.00 4465.93 107.43 50797.86	9.07	9.54	7.56	7743.52	0.44	0.004393
1024.30	171.00 4465.93 107.42 50797.03	9.07	9.54	7.56	7742.52	0.44	0.004393
1024.34	172.00 4465.93 107.43 50797.39	9.07	9.54	7.56	7743.01	0.44	0.004394
1019.41	173.00 4465.90 107.30 50743.52	9.04	9.50	7.54	7685.24	0.44	0.004392

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			HYCHAN.OUT					
1009.70	174.00	4465.84	8.98	9.43	7.50	7574.63	0.44	0.004394
	2.58568	107.06				101.28	11.27	
		50640.02						
1009.20	175.00	4465.84	8.98	9.43	7.50	7569.26	0.44	0.004393
	2.58426	107.05				101.27	11.28	
		50634.89						
1009.15	176.00	4465.84	8.98	9.43	7.50	7568.73	0.44	0.004393
	2.58440	107.04				101.27	11.28	
		50634.39						
1009.16	177.00	4465.84	8.98	9.43	7.50	7568.95	0.44	0.004393
	2.58427	107.04				101.27	11.28	
		50634.39						
1009.18	178.00	4465.84	8.98	9.43	7.50	7569.15	0.44	0.004393
	2.58407	107.05				101.27	11.28	
		50634.73						
1009.17	179.00	4465.84	8.98	9.43	7.50	7568.97	0.44	0.004393
	2.58432	107.04				101.27	11.28	
		50634.57						
1019.25	180.00	4465.90	9.04	9.50	7.54	7686.43	0.44	0.004396
	2.60556	107.30				101.49	11.23	
		50744.96						
1038.35	181.00	4466.01	9.15	9.63	7.61	7904.48	0.44	0.004394
	2.64189	107.77				101.89	11.13	
		50946.17						
1044.61	182.00	4466.05	9.19	9.68	7.64	7976.74	0.44	0.004394
	2.65374	107.93				102.02	11.10	
		51012.12						
1054.06	183.00	4466.10	9.24	9.75	7.67	8084.64	0.44	0.004388
	2.66845	108.15				102.22	11.06	
		51109.43						
1054.62	184.00	4466.11	9.25	9.75	7.67	8090.81	0.44	0.004389
	2.67047	108.17				102.23	11.06	
		51115.07						
1054.63	185.00	4466.11	9.25	9.75	7.67	8090.89	0.44	0.004390
	2.67089	108.17				102.23	11.06	
		51115.17						
1054.65	186.00	4466.11	9.25	9.75	7.67	8091.10	0.44	0.004392
	2.67182	108.17				102.23	11.06	
		51115.27						
1054.65	187.00	4466.11	9.25	9.75	7.67	8091.08	0.44	0.004392
	2.67240	108.17				102.23	11.06	
		51115.30						
1054.63	188.00	4466.11	9.25	9.75	7.67	8090.86	0.44	0.004391
	2.67163	108.17				102.23	11.06	
		51115.09						
1054.65	189.00	4466.11	9.25	9.75	7.67	8091.14	0.44	0.004390
	2.67111	108.17				102.23	11.06	
		51115.41						
1054.64	190.00	4466.11	9.25	9.75	7.67	8090.98	0.44	0.004392
	2.67182	108.17				102.23	11.06	
		51115.25						
1049.66	191.00	4466.08	9.22	9.71	7.65	8032.57	0.44	0.004390
	2.66111	108.05				102.13	11.08	
		51062.52						
1040.00	192.00	4466.02	9.16	9.65	7.62	7922.50	0.44	0.004390
	2.64268	107.81				101.93	11.13	
		50962.58						
1039.49	193.00	4466.02	9.16	9.64	7.62	7916.94	0.44	0.004392
	2.64265	107.80				101.91	11.13	
		50957.48						
1039.49	194.00	4466.02	9.16	9.64	7.62	7916.94	0.44	0.004392
	2.64277	107.80				101.91	11.13	
		50957.40						

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		HYCHAN.OUT							
1039.50	195.00	4466.02	9.16	7.62	7917.18	0.44			
	2.64207	107.80	9.64		101.92	11.13		0.004391	
1039.51	196.00	4466.02	9.16	7.62	7917.29	0.44			
	2.64150	107.80	9.64		101.92	11.13		0.004390	
1039.48	197.00	4466.02	9.16	7.62	7916.84	0.44			
	2.64183	107.80	9.64		101.91	11.13		0.004391	
1039.49	198.00	4466.02	9.16	7.62	7916.91	0.44			
	2.64249	107.80	9.64		101.92	11.13		0.004392	
1039.47	199.00	4466.02	9.16	7.62	7916.79	0.44			
	2.64273	107.80	9.64		101.91	11.13		0.004392	
		50957.23							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1358

MAXIMUM DISCHARGE (CFS) = 21496.79 AT TIME = 80.95  
 MAXIMUM STAGE = 4470.67 AT TIME = 80.95

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	0.00	4455.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4455.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4455.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
778.02	3.00	4459.16	3.66	3.87	3009.90	0.36	0.003751
	1.26983	143.43	5.42	141.61	38.68		
816.44	4.00	4462.24	6.74	6.72	5488.17	0.46	0.003761
	1.07903	177.59	4.60	173.95	25.80		
806.67	5.00	4462.17	6.67	6.68	5384.61	0.46	0.003768
	1.07178	176.96	4.56	173.35	25.98		
802.27	6.00	4462.14	6.64	6.65	5337.35	0.46	0.003777
	1.07017	176.67	4.54	173.09	26.06		
788.79	7.00	4462.05	6.55	6.58	5193.89	0.45	0.003793
	1.06209	175.80	4.49	172.26	26.31		
774.64	8.00	4461.95	6.45	6.51	5044.13	0.45	0.003809
	1.05284	174.87	4.43	171.38	26.57		
760.30	9.00	4461.85	6.35	6.44	4897.92	0.45	0.003826
	1.04385	173.89	4.37	170.46	26.85		
748.63	10.00	4461.76	6.26	6.39	4781.81	0.45	0.003836
	1.03534	173.08	4.33	169.70	27.09		
	11.00	4461.73	6.23	6.37	4738.61	0.45	

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		HYCHAN.OUT				
744.23	172.78	4.31	169.41	27.18	0.003845	
1.03348	85554.05					
12.00	4461.63	6.13	6.30	4599.09	0.45	
730.17	171.81	4.25	168.49	27.48	0.003864	
1.02484	85088.91					
13.00	4461.55	6.05	6.24	4479.61	0.45	
718.05	170.95	4.20	167.69	27.74	0.003873	
1.01520	84681.12					
14.00	4461.54	6.04	6.23	4469.04	0.45	
716.94	170.87	4.20	167.61	27.76	0.003873	
1.01403	84642.98					
15.00	4461.54	6.04	6.23	4468.94	0.45	
716.93	170.87	4.20	167.61	27.76	0.003874	
1.01420	84642.63					
16.00	4461.54	6.04	6.23	4469.07	0.45	
716.94	170.87	4.20	167.61	27.76	0.003873	
1.01402	84643.09					
17.00	4461.54	6.04	6.23	4468.97	0.45	
716.93	170.87	4.20	167.61	27.76	0.003874	
1.01424	84642.75					
18.00	4461.56	6.06	6.25	4500.58	0.45	
720.08	171.09	4.21	167.81	27.69	0.003864	
1.01471	84746.40					
19.00	4461.66	6.16	6.32	4643.67	0.45	
734.54	172.10	4.27	168.77	27.39	0.003845	
1.02392	85227.11					
20.00	4461.77	6.27	6.40	4797.16	0.45	
750.00	173.17	4.33	169.78	27.07	0.003826	
1.03388	85739.03					
21.00	4461.86	6.36	6.45	4915.09	0.45	
761.85	174.00	4.38	170.56	26.82	0.003817	
1.04291	86132.25					
22.00	4461.87	6.37	6.46	4923.83	0.45	
762.76	174.06	4.38	170.62	26.81	0.003817	
1.04367	86162.97					
23.00	4461.89	6.39	6.47	4959.94	0.45	
766.28	174.30	4.40	170.85	26.74	0.003807	
1.04448	86276.88					
24.00	4462.02	6.52	6.56	5148.10	0.45	
784.23	175.49	4.47	171.97	26.39	0.003783	
1.05500	86842.82					
25.00	4462.21	6.71	6.71	5449.83	0.46	
812.60	177.33	4.58	173.71	25.88	0.003749	
1.07203	87721.52					
26.00	4462.42	6.92	6.84	5758.71	0.46	
841.50	179.19	4.70	175.46	25.37	0.003715	
1.08877	88604.98					
27.00	4462.56	7.06	6.93	5973.57	0.46	
861.66	180.47	4.77	176.67	25.03	0.003701	
1.10264	89216.55					
28.00	4462.57	7.07	6.94	5984.93	0.46	
862.77	180.54	4.78	176.73	25.01	0.003701	
1.10356	89250.56					
29.00	4462.60	7.10	6.96	6035.27	0.46	
867.38	180.83	4.80	177.00	24.94	0.003690	
1.10443	89387.12					
30.00	4462.67	7.17	7.00	6146.14	0.46	
877.74	181.48	4.84	177.62	24.77	0.003684	
1.11182	89697.22					
31.00	4462.68	7.18	7.00	6152.24	0.46	
878.34	181.52	4.84	177.65	24.76	0.003684	
1.11236	89715.30					
32.00	4462.71	7.21	7.03	6205.58	0.46	

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		HYCHAN.OUT				
883.20	1.11341	181.82	4.86	177.94	24.68	0.003673
	33.00	4462.79	7.29	7.07	6320.03	0.46
893.89	1.12046	182.49	4.90	178.57	24.51	0.003666
	34.00	4462.79	7.29	7.07	6326.04	0.46
894.48	1.12118	182.52	4.90	178.60	24.50	0.003666
	35.00	4462.76	7.26	7.05	6272.35	0.46
889.60	1.12019	182.22	4.88	178.32	24.58	0.003677
	36.00	4462.68	7.18	7.01	6157.97	0.46
878.90	1.11280	181.55	4.84	177.69	24.75	0.003684
	37.00	4462.64	7.14	6.98	6101.43	0.46
873.71	1.11140	181.23	4.82	177.38	24.83	0.003694
	38.00	4462.57	7.07	6.94	5991.10	0.46
863.38	1.10421	180.58	4.78	176.77	25.00	0.003701
	39.00	4462.57	7.07	6.94	5984.89	0.46
862.77	1.10361	180.54	4.78	176.73	25.01	0.003701
	40.00	4462.57	7.07	6.94	5985.08	0.46
862.77	1.10370	180.54	4.78	176.73	25.01	0.003701
	41.00	4462.57	7.07	6.94	5984.99	0.46
862.77	1.10362	180.54	4.78	176.73	25.01	0.003701
	42.00	4462.57	7.07	6.94	5984.98	0.46
862.77	1.10389	180.54	4.78	176.73	25.01	0.003702
	43.00	4462.60	7.10	6.96	6035.54	0.46
867.40	1.10447	180.83	4.80	177.01	24.94	0.003690
	44.00	4462.67	7.17	7.00	6146.34	0.46
877.75	1.11155	181.48	4.84	177.62	24.77	0.003683
	45.00	4462.71	7.21	7.03	6205.67	0.46
883.21	1.11344	181.82	4.86	177.94	24.68	0.003673
	46.00	4462.82	7.32	7.09	6375.23	0.46
898.93	1.12108	182.79	4.92	178.86	24.43	0.003653
	47.00	4462.94	7.43	7.16	6548.96	0.46
915.04	1.12998	183.79	4.98	179.79	24.18	0.003637
	48.00	4463.05	7.55	7.22	6723.37	0.46
931.19	1.13830	184.77	5.04	180.72	23.94	0.003620
	49.00	4463.16	7.66	7.28	6889.65	0.46
946.58	1.14570	185.70	5.10	181.59	23.71	0.003602
	50.00	4463.28	7.78	7.34	7070.41	0.46
963.30	1.15431	186.70	5.16	182.54	23.47	0.003585
	51.00	4463.42	7.92	7.41	7295.91	0.46
984.07	1.16214	187.93	5.24	183.69	23.18	0.003557
	52.00	4463.58	8.08	7.49	7530.23	0.46
1005.72	1.17603	189.19	5.32	184.88	22.89	0.003545
	53.00	4463.62	8.12	7.51	7600.60	0.46

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				HYCHAN.OUT			
1011.84		189.54		5.34	185.20	22.81	0.003536
	1.17801	93527.98					
	54.00	4463.80	8.30	7.61	7899.80	0.47	
1037.74		190.97		5.43	186.55	22.49	0.003497
	1.18575	94207.09					
	55.00	4464.17	8.67	7.81	8536.69	0.47	
1093.02		193.97		5.64	189.37	21.83	0.003433
	1.20729	95631.28					
	56.00	4464.72	9.22	8.06	9457.91	0.47	
1173.01		198.16		5.92	193.31	20.97	0.003351
	1.23765	97622.93					
	57.00	4465.35	9.85	8.36	10594.27	0.47	
1267.25		202.77		6.25	197.64	20.07	0.003262
	1.27226	99807.70					
	58.00	4465.96	10.46	8.66	11798.87	0.47	
1361.89		207.10		6.58	201.70	19.29	0.003188
	1.30801	101859.12					
	59.00	4466.46	10.96	8.88	12796.25	0.47	
1440.32		210.51		6.84	204.90	18.70	0.003136
	1.33875	103473.88					
	60.00	4467.08	11.58	9.14	14072.60	0.47	
1539.95		214.59		7.18	208.72	18.03	0.003068
	1.37369	105403.09					
	61.00	4467.62	12.12	9.34	15206.03	0.47	
1627.72		218.08		7.46	211.98	17.49	0.003013
	1.40343	107051.52					
	62.00	4467.98	12.48	9.47	15958.20	0.47	
1684.41		220.28		7.65	214.05	17.16	0.002971
	1.41757	108094.73					
	63.00	4468.36	12.86	9.61	16775.71	0.47	
1746.00		222.63		7.84	216.24	16.82	0.002931
	1.43429	109201.51					
	64.00	4468.64	13.14	9.70	17368.81	0.47	
1791.00		224.30		7.98	217.80	16.58	0.002904
	1.44683	109991.44					
	65.00	4468.90	13.40	9.78	17958.74	0.47	
1835.36		225.88		8.13	219.29	16.36	0.002862
	1.45125	110739.41					
	66.00	4469.15	13.65	9.86	18497.12	0.47	
1875.11		227.31		8.25	220.62	16.17	0.002845
	1.46425	111411.05					
	67.00	4469.21	13.71	9.89	18640.68	0.47	
1885.65		227.69		8.28	220.97	16.12	0.002835
	1.46524	111590.55					
	68.00	4469.22	13.72	9.89	18662.34	0.47	
1887.24		227.74		8.29	221.03	16.11	0.002838
	1.46749	111617.66					
	69.00	4469.23	13.73	9.89	18673.36	0.47	
1888.05		227.77		8.29	221.05	16.11	0.002835
	1.46618	111631.24					
	70.00	4469.23	13.73	9.89	18690.92	0.47	
1889.32		227.82		8.29	221.09	16.10	0.002837
	1.46821	111652.77					
	71.00	4469.24	13.74	9.89	18702.24	0.47	
1890.15		227.85		8.30	221.12	16.09	0.002834
	1.46701	111666.86					
	72.00	4469.23	13.73	9.89	18691.44	0.47	
1889.38		227.82		8.29	221.10	16.10	0.002835
	1.46715	111653.63					
	73.00	4469.25	13.75	9.90	18726.39	0.47	
1891.83		227.91		8.30	221.18	16.09	0.002827
	1.46440	111695.06					
	74.00	4469.35	13.85	9.93	18942.95	0.47	

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1907.51		228.47		8.35	221.70	16.01	0.002817
	1.46764	111959.09					
	75.00	4469.40	13.90	9.95	19060.20	0.47	
1916.14		228.78		8.38	221.99	15.97	0.002817
	1.47222	112104.04					
	76.00	4469.42	13.92	9.95	19102.10	0.47	
1919.15		228.88		8.38	222.09	15.96	0.002805
	1.46752	112154.36					
	77.00	4469.54	14.04	9.99	19375.10	0.47	
1938.87		229.58		8.45	222.74	15.87	0.002784
	1.46715	112483.09					
	78.00	4469.80	14.30	10.07	19939.72	0.47	
1980.58		231.05		8.57	224.11	15.68	0.002757
	1.47489	113176.39					
	79.00	4470.07	14.57	10.11	20443.39	0.47	
2022.83		232.59		8.70	225.55	15.48	0.002749
	1.49174	113904.67					
	80.00	4470.31	14.81	10.13	20869.10	0.46	
2059.83		233.94		8.81	226.81	15.31	0.002745
	1.50809	114538.77					
	81.00	4470.60	15.10	10.16	21368.64	0.46	
2103.73		235.50		8.93	228.27	15.12	0.002742
	1.52868	115277.17					
	82.00	4470.63	15.13	10.16	21420.82	0.46	
2109.03		235.69		8.95	228.45	15.10	0.002743
	1.53161	115364.87					
	83.00	4470.45	14.95	10.14	21097.25	0.46	
2080.81		234.69		8.87	227.51	15.22	0.002743
	1.51772	114893.12					
	84.00	4470.36	14.86	10.13	20937.94	0.46	
2066.50		234.18		8.82	227.03	15.28	0.002743
	1.51061	114652.02					
	85.00	4470.35	14.85	10.13	20932.66	0.46	
2065.97		234.16		8.82	227.02	15.28	0.002742
	1.50948	114643.07					
	86.00	4470.39	14.89	10.14	20993.49	0.46	
2071.37		234.35		8.84	227.20	15.26	0.002741
	1.51149	114734.76					
	87.00	4470.31	14.81	10.12	20841.62	0.46	
2058.82		233.90		8.80	226.77	15.32	0.002746
	1.50846	114521.26					
	88.00	4469.82	14.32	10.05	19952.12	0.47	
1984.57		231.20		8.58	224.26	15.66	0.002789
	1.49411	113249.67					
	89.00	4469.18	13.68	9.86	18548.69	0.47	
1880.43		227.50		8.27	220.80	16.14	0.002882
	1.48637	111501.88					
	90.00	4468.38	12.88	9.60	16791.75	0.47	
1749.21		222.73		7.85	216.34	16.80	0.002973
	1.45704	109252.68					
	91.00	4467.82	12.32	9.41	15613.22	0.47	
1659.81		219.33		7.57	213.16	17.30	0.003024
	1.42782	107643.37					
	92.00	4467.31	11.81	9.21	14542.70	0.47	
1578.25		216.13		7.30	210.16	17.79	0.003088
	1.40708	106129.33					
	93.00	4466.81	11.31	9.02	13512.30	0.47	
1497.46		212.88		7.03	207.12	18.31	0.003134
	1.37560	104593.34					
	94.00	4466.43	10.93	8.86	12727.58	0.47	
1435.96		210.34		6.83	204.74	18.73	0.003173
	1.35161	103393.77					
	95.00	4466.13	10.63	8.73	12116.30	0.47	

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1387.72		208.26		6.66	202.79	19.08	0.003197
	1.32944	102410.17					
96.00		4465.84	10.34	8.60	11545.68	0.47	
1342.93		206.26		6.51	200.92	19.43	0.003249
	1.31987	101462.96					
97.00		4465.57	10.07	8.47	11014.14	0.47	
1300.93		204.35		6.37	199.13	19.78	0.003280
	1.30290	100558.29					
98.00		4465.36	9.86	8.36	10599.70	0.47	
1268.36		202.85		6.25	197.71	20.06	0.003310
	1.29143	99844.36					
99.00		4465.17	9.67	8.26	10237.74	0.47	
1239.80		201.51		6.15	196.46	20.31	0.003330
	1.27847	99210.31					
100.00		4465.00	9.50	8.17	9922.73	0.47	
1214.32		200.28		6.06	195.30	20.55	0.003358
	1.27060	98627.33					
101.00		4464.79	9.29	8.08	9556.02	0.47	
1182.41		198.67		5.95	193.79	20.87	0.003385
	1.25726	97863.02					
102.00		4464.61	9.11	8.01	9264.39	0.47	
1156.97		197.36		5.86	192.56	21.13	0.003407
	1.24636	97240.91					
103.00		4464.46	8.96	7.94	9007.66	0.47	
1134.60		196.19		5.78	191.46	21.37	0.003427
	1.23680	96686.22					
104.00		4464.34	8.84	7.88	8804.60	0.47	
1116.92		195.26		5.72	190.58	21.56	0.003444
	1.22947	96243.66					
105.00		4464.18	8.68	7.81	8537.84	0.47	
1093.83		194.03		5.64	189.43	21.82	0.003472
	1.22123	95660.25					
106.00		4463.99	8.49	7.71	8222.50	0.47	
1066.26		192.54		5.54	188.03	22.14	0.003493
	1.20701	94954.10					
107.00		4463.88	8.38	7.65	8038.63	0.47	
1050.22		191.66		5.48	187.20	22.33	0.003508
	1.19940	94538.18					
108.00		4463.78	8.28	7.60	7864.94	0.47	
1035.09		190.83		5.42	186.42	22.52	0.003523
	1.19248	94143.03					
109.00		4463.71	8.21	7.56	7749.27	0.47	
1024.92		190.27		5.39	185.89	22.65	0.003528
	1.18583	93874.84					
110.00		4463.74	8.24	7.58	7802.40	0.47	
1029.43		190.51		5.40	186.12	22.59	0.003518
	1.18604	93992.62					
111.00		4463.87	8.37	7.65	8031.31	0.47	
1049.26		191.60		5.48	187.15	22.35	0.003491
	1.19279	94509.92					
112.00		4463.98	8.48	7.70	8197.47	0.47	
1063.96		192.41		5.53	187.91	22.17	0.003493
	1.20516	94894.13					
113.00		4463.88	8.38	7.65	8038.07	0.47	
1050.17		191.66		5.48	187.20	22.33	0.003508
	1.19940	94536.88					
114.00		4463.88	8.38	7.66	8043.58	0.47	
1050.37		191.67		5.48	187.21	22.33	0.003490
	1.19356	94539.47					
115.00		4464.09	8.59	7.77	8398.60	0.47	
1081.18		193.34		5.59	188.78	21.97	0.003458
	1.20660	95333.56					
116.00		4464.21	8.71	7.82	8586.88	0.47	

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1097.87	194.24	5.65	189.63	21.78	0.003459		
	1.22007 95762.29						
117.00	4464.14	8.64	7.79	8476.99	0.47		
1088.27	193.73	5.62	189.14	21.89	0.003466		
	1.21497 95517.89						
118.00	4464.14	8.64	7.79	8469.86	0.47		
1087.62	193.69	5.62	189.11	21.89	0.003466		
	1.21434 95501.16						
119.00	4464.18	8.68	7.81	8540.23	0.47		
1093.63	194.01	5.64	189.41	21.82	0.003453		
	1.21456 95653.58						
120.00	4464.25	8.75	7.84	8664.24	0.47		
1104.51	194.60	5.68	189.96	21.70	0.003449		
	1.22141 95930.07						
121.00	4464.26	8.76	7.85	8669.97	0.47		
1105.03	194.62	5.68	189.99	21.69	0.003447		
	1.22114 95943.56						
122.00	4464.22	8.72	7.82	8599.05	0.47		
1098.98	194.30	5.66	189.69	21.76	0.003459		
	1.22071 95790.98						
123.00	4464.14	8.64	7.79	8476.49	0.47		
1088.22	193.72	5.62	189.14	21.89	0.003463		
	1.21403 95516.97						
124.00	4464.10	8.60	7.77	8400.37	0.47		
1081.69	193.37	5.59	188.81	21.96	0.003476		
	1.21334 95350.39						
125.00	4464.02	8.52	7.73	8276.10	0.47		
1070.78	192.78	5.55	188.26	22.09	0.003482		
	1.20671 95069.97						
126.00	4464.02	8.52	7.73	8269.81	0.47		
1070.21	192.75	5.55	188.23	22.10	0.003484		
	1.20690 95055.06						
127.00	4463.98	8.48	7.71	8208.93	0.47		
1065.02	192.47	5.53	187.96	22.16	0.003493		
	1.20593 94921.65						
128.00	4463.92	8.42	7.67	8097.02	0.47		
1055.19	191.93	5.50	187.46	22.27	0.003497		
	1.19980 94667.02						
129.00	4463.91	8.41	7.67	8091.05	0.47		
1054.64	191.90	5.50	187.43	22.28	0.003497		
	1.19907 94652.66						
130.00	4463.88	8.38	7.65	8031.98	0.47		
1049.61	191.63	5.48	187.17	22.34	0.003508		
	1.19894 94522.15						
131.00	4463.81	8.31	7.62	7923.10	0.47		
1040.05	191.10	5.44	186.68	22.46	0.003512		
	1.19251 94272.38						
132.00	4463.88	8.38	7.66	8037.59	0.47		
1049.83	191.64	5.48	187.18	22.34	0.003491		
	1.19339 94525.07						
133.00	4464.01	8.51	7.72	8258.28	0.47		
1069.15	192.69	5.55	188.17	22.11	0.003483		
	1.20576 95027.38						
134.00	4464.02	8.52	7.73	8269.67	0.47		
1070.19	192.75	5.55	188.23	22.10	0.003482		
	1.20642 95054.75						
135.00	4464.02	8.52	7.73	8270.33	0.47		
1070.25	192.75	5.55	188.23	22.10	0.003481		
	1.20601 95056.10						
136.00	4464.02	8.52	7.73	8269.79	0.47		
1070.20	192.75	5.55	188.23	22.10	0.003481		
	1.20604 95054.84						
137.00	4464.02	8.52	7.73	8269.89	0.47		

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1070.21		192.75		5.55	188.23	22.10	0.003483
	1.20675	95055.12					
138.00		4464.02	8.52	7.73	8270.31	0.47	
1070.25		192.75		5.55	188.23	22.09	0.003482
	1.20635	95056.20					
139.00		4464.02	8.52	7.73	8269.76	0.47	
1070.20		192.75		5.55	188.23	22.10	0.003481
	1.20616	95054.79					
140.00		4463.98	8.48	7.71	8209.29	0.47	
1065.05		192.47		5.53	187.97	22.16	0.003492
	1.20586	94922.42					
141.00		4463.92	8.42	7.67	8096.90	0.47	
1055.19		191.93		5.50	187.46	22.27	0.003497
	1.19983	94666.84					
142.00		4463.91	8.41	7.67	8090.77	0.47	
1054.63		191.90		5.50	187.43	22.28	0.003498
	1.19961	94652.01					
143.00		4463.91	8.41	7.67	8091.07	0.47	
1054.65		191.90		5.50	187.43	22.28	0.003497
	1.19936	94652.73					
144.00		4463.91	8.41	7.67	8090.93	0.47	
1054.64		191.90		5.50	187.43	22.28	0.003497
	1.19922	94652.39					
145.00		4463.88	8.38	7.65	8032.85	0.47	
1049.68		191.63		5.48	187.18	22.34	0.003507
	1.19872	94524.04					
146.00		4463.81	8.31	7.62	7922.37	0.47	
1039.99		191.10		5.44	186.67	22.46	0.003511
	1.19231	94270.84					
147.00		4463.81	8.31	7.62	7916.84	0.47	
1039.48		191.07		5.44	186.65	22.46	0.003514
	1.19276	94257.34					
148.00		4463.81	8.31	7.62	7917.08	0.47	
1039.50		191.07		5.44	186.65	22.46	0.003513
	1.19243	94257.86					
149.00		4463.81	8.31	7.62	7917.09	0.47	
1039.49		191.07		5.44	186.65	22.46	0.003511
	1.19206	94257.75					
150.00		4463.81	8.31	7.62	7916.84	0.47	
1039.49		191.07		5.44	186.65	22.46	0.003511
	1.19198	94257.48					
151.00		4463.79	8.29	7.60	7878.53	0.47	
1036.21		190.89		5.43	186.48	22.50	0.003519
	1.19205	94172.15					
152.00		4463.73	8.23	7.57	7785.69	0.47	
1028.10		190.44		5.40	186.06	22.61	0.003526
	1.18781	93959.19					
153.00		4463.71	8.21	7.56	7744.72	0.47	
1024.50		190.24		5.39	185.87	22.65	0.003527
	1.18531	93863.83					
154.00		4463.70	8.20	7.56	7742.49	0.47	
1024.29		190.23		5.38	185.86	22.65	0.003526
	1.18480	93858.38					
155.00		4463.67	8.17	7.54	7685.70	0.46	
1019.45		189.96		5.37	185.61	22.71	0.003538
	1.18483	93730.91					
156.00		4463.67	8.17	7.54	7691.34	0.47	
1019.70		189.97		5.37	185.61	22.71	0.003524
	1.18047	93735.16					
157.00		4463.80	8.30	7.61	7905.14	0.47	
1038.41		191.01		5.44	186.59	22.48	0.003512
	1.19121	94228.88					
158.00		4463.81	8.31	7.62	7917.04	0.47	

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1039.49		191.07		5.44	186.65	22.46	0.003514
	1.19281	94257.75					
159.00		4463.81	8.31	7.62	7917.44	0.47	
1039.53		191.07		5.44	186.65	22.46	0.003511
	1.19196	94258.59					
160.00		4463.81	8.31	7.62	7916.40	0.47	
1039.45		191.07		5.44	186.65	22.47	0.003513
	1.19242	94256.47					
161.00		4463.81	8.31	7.62	7917.32	0.47	
1039.52		191.07		5.44	186.65	22.46	0.003511
	1.19197	94258.30					
162.00		4463.81	8.31	7.62	7916.86	0.47	
1039.48		191.07		5.44	186.65	22.46	0.003514
	1.19287	94257.44					
163.00		4463.81	8.31	7.62	7916.91	0.47	
1039.48		191.07		5.44	186.65	22.46	0.003514
	1.19289	94257.45					
164.00		4463.81	8.31	7.62	7916.94	0.47	
1039.49		191.07		5.44	186.65	22.46	0.003512
	1.19238	94257.63					
165.00		4463.77	8.27	7.60	7858.71	0.47	
1034.52		190.80		5.42	186.39	22.53	0.003523
	1.19211	94127.89					
166.00		4463.71	8.21	7.56	7748.79	0.47	
1024.87		190.26		5.39	185.89	22.65	0.003528
	1.18572	93873.74					
167.00		4463.70	8.20	7.56	7743.00	0.47	
1024.33		190.23		5.38	185.86	22.65	0.003527
	1.18499	93859.51					
168.00		4463.70	8.20	7.56	7742.85	0.47	
1024.33		190.23		5.38	185.86	22.65	0.003527
	1.18522	93859.33					
169.00		4463.70	8.20	7.56	7742.84	0.47	
1024.32		190.23		5.38	185.86	22.65	0.003528
	1.18539	93859.12					
170.00		4463.71	8.21	7.56	7743.52	0.47	
1024.38		190.24		5.38	185.86	22.65	0.003528
	1.18534	93860.80					
171.00		4463.70	8.20	7.56	7742.52	0.47	
1024.30		190.23		5.38	185.86	22.65	0.003528
	1.18534	93858.49					
172.00		4463.70	8.20	7.56	7743.01	0.47	
1024.34		190.23		5.38	185.86	22.65	0.003528
	1.18540	93859.59					
173.00		4463.67	8.17	7.54	7685.24	0.46	
1019.41		189.96		5.37	185.60	22.71	0.003538
	1.18473	93729.93					
174.00		4463.60	8.10	7.50	7574.63	0.46	
1009.70		189.42		5.33	185.09	22.84	0.003543
	1.17851	93472.02					
175.00		4463.60	8.10	7.50	7569.26	0.46	
1009.20		189.39		5.33	185.07	22.84	0.003543
	1.17808	93458.70					
176.00		4463.60	8.10	7.50	7568.73	0.46	
1009.15		189.39		5.33	185.06	22.84	0.003544
	1.17821	93457.45					
177.00		4463.60	8.10	7.50	7568.95	0.46	
1009.16		189.39		5.33	185.07	22.84	0.003543
	1.17815	93457.91					
178.00		4463.60	8.10	7.50	7569.15	0.46	
1009.18		189.39		5.33	185.07	22.84	0.003543
	1.17810	93458.46					
179.00		4463.60	8.10	7.50	7568.97	0.46	

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				HYCHAN.OUT			
1009.17		189.39		5.33	185.07	22.84	0.003543
	1.17821	93458.04					
	180.00	4463.67	8.17	7.54	7686.43	0.47	
1019.25		189.95		5.37	185.59	22.72	0.003524
	1.17995	93722.81					
	181.00	4463.80	8.30	7.61	7904.48	0.47	
1038.35		191.01		5.44	186.59	22.48	0.003514
	1.19207	94227.39					
	182.00	4463.84	8.34	7.64	7976.74	0.47	
1044.61		191.35		5.46	186.91	22.40	0.003504
	1.19376	94390.41					
	183.00	4463.91	8.41	7.67	8084.64	0.47	
1054.06		191.87		5.49	187.40	22.29	0.003495
	1.19816	94637.25					
	184.00	4463.91	8.41	7.67	8090.81	0.47	
1054.62		191.90		5.50	187.43	22.28	0.003496
	1.19896	94652.09					
	185.00	4463.91	8.41	7.67	8090.89	0.47	
1054.63		191.90		5.50	187.43	22.28	0.003498
	1.19940	94652.26					
	186.00	4463.91	8.41	7.67	8091.10	0.47	
1054.65		191.90		5.50	187.43	22.28	0.003499
	1.20001	94652.85					
	187.00	4463.91	8.41	7.67	8091.08	0.47	
1054.65		191.90		5.50	187.43	22.28	0.003499
	1.19999	94652.79					
	188.00	4463.91	8.41	7.67	8090.86	0.47	
1054.63		191.90		5.50	187.43	22.28	0.003498
	1.19954	94652.28					
	189.00	4463.91	8.41	7.67	8091.14	0.47	
1054.65		191.90		5.50	187.43	22.28	0.003498
	1.19943	94652.81					
	190.00	4463.91	8.41	7.67	8090.98	0.47	
1054.64		191.90		5.50	187.43	22.28	0.003498
	1.19967	94652.55					
	191.00	4463.88	8.38	7.65	8032.57	0.47	
1049.66		191.63		5.48	187.18	22.34	0.003507
	1.19878	94523.42					
	192.00	4463.81	8.31	7.62	7922.50	0.47	
1040.00		191.10		5.44	186.68	22.46	0.003511
	1.19236	94271.12					
	193.00	4463.81	8.31	7.62	7916.94	0.47	
1039.49		191.07		5.44	186.65	22.46	0.003512
	1.19227	94257.57					
	194.00	4463.81	8.31	7.62	7916.94	0.47	
1039.49		191.07		5.44	186.65	22.46	0.003513
	1.19267	94257.62					
	195.00	4463.81	8.31	7.62	7917.18	0.47	
1039.50		191.07		5.44	186.65	22.46	0.003512
	1.19213	94257.96					
	196.00	4463.81	8.31	7.62	7917.29	0.47	
1039.51		191.07		5.44	186.65	22.46	0.003511
	1.19193	94258.38					
	197.00	4463.81	8.31	7.62	7916.84	0.47	
1039.48		191.07		5.44	186.65	22.46	0.003512
	1.19232	94257.40					
	198.00	4463.81	8.31	7.62	7916.91	0.47	
1039.49		191.07		5.44	186.65	22.46	0.003513
	1.19245	94257.50					
	199.00	4463.81	8.31	7.62	7916.79	0.47	
1039.47		191.07		5.44	186.65	22.46	0.003513
	1.19241	94257.15					

## HYCHAN.OUT

CHANNEL HYDROGRAPH FOR ELEMENT NO: 1389

MAXIMUM DISCHARGE (CFS) = 21518.68 AT TIME = 80.95  
 MAXIMUM STAGE = 4466.67 AT TIME = 80.94

AREA (FT^2)	TIME WETTED (HRS)	ELEV. PERIMETER (FT)	THALWEG DEPTH HYDRAULIC SURFACE AREA (FT)	DEPTH RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	فروده NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4448.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4448.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4448.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
770.47	3.00	4453.92	5.52	8.85	3.76	2896.98	0.28	0.004069
	2.24668	87.07			80.78	14.64		
798.28	4.00	4458.85	10.45	7.00	6.88	5489.65	0.38	0.004063
	1.77541	113.99			102.30	9.79		
788.06	5.00	4458.77	10.37	6.93	6.83	5385.21	0.37	0.004064
	1.75843	113.64			102.02	9.84		
783.54	6.00	4458.74	10.34	6.90	6.81	5338.80	0.37	0.004056
	1.74733	113.49			101.90	9.86		
769.63	7.00	4458.63	10.23	6.81	6.75	5195.94	0.37	0.004052
	1.72241	112.99			101.51	9.92		
755.07	8.00	4458.52	10.12	6.71	6.68	5046.15	0.37	0.004049
	1.69621	112.47			101.10	9.99		
740.04	9.00	4458.41	10.01	6.61	6.62	4900.13	0.37	0.004039
	1.66634	111.94			100.68	10.06		
727.61	10.00	4458.31	9.91	6.53	6.57	4782.61	0.37	0.004038
	1.64434	111.50			100.33	10.12		
723.13	11.00	4458.28	9.88	6.50	6.55	4740.03	0.37	0.004035
	1.63563	111.32			100.19	10.14		
708.56	12.00	4458.16	9.76	6.40	6.49	4601.30	0.37	0.004033
	1.60956	110.78			99.77	10.22		
695.89	13.00	4458.06	9.66	6.31	6.44	4480.44	0.37	0.004033
	1.58775	110.30			99.38	10.29		
694.70	14.00	4458.05	9.65	6.30	6.43	4469.04	0.37	0.004033
	1.58578	110.25			99.35	10.29		
694.68	15.00	4458.05	9.65	6.30	6.43	4468.94	0.37	0.004033
	1.58569	110.25			99.35	10.29		
694.70	16.00	4458.05	9.65	6.30	6.43	4469.07	0.37	0.004033
		110.25			99.35	10.29		

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		HYCHAN.OUT						
	1.58573	50170.12						
694.69	17.00	4458.05	9.65	6.43	4468.97	0.37		
		110.25	6.30		99.35	10.29	0.004033	
	1.58577	50169.97						
697.85	18.00	4458.08	9.68	6.45	4499.16	0.37		
		110.37	6.32		99.44	10.28	0.004035	
	1.59209	50217.49						
712.77	19.00	4458.20	9.80	6.51	4641.43	0.37		
		110.94	6.43		99.89	10.20	0.004039	
	1.61942	50444.06						
728.92	20.00	4458.32	9.92	6.58	4794.89	0.37		
		111.53	6.54		100.36	10.12	0.004046	
	1.64994	50681.55						
741.53	21.00	4458.42	10.02	6.63	4914.30	0.37		
		111.98	6.62		100.72	10.05	0.004046	
	1.67170	50861.68						
742.54	22.00	4458.43	10.02	6.63	4923.82	0.37		
		112.02	6.63		100.75	10.05	0.004046	
	1.67359	50877.00						
746.19	23.00	4458.45	10.05	6.64	4958.44	0.37		
		112.15	6.65		100.84	10.03	0.004054	
	1.68307	50925.82						
764.67	24.00	4458.59	10.19	6.73	5144.52	0.37		
		112.80	6.78		101.36	9.95	0.004063	
	1.71880	51186.27						
794.02	25.00	4458.81	10.41	6.86	5445.57	0.37		
		113.83	6.98		102.17	9.81	0.004075	
	1.77376	51595.81						
824.35	26.00	4459.04	10.63	6.98	5754.43	0.38		
		114.85	7.18		102.97	9.68	0.004092	
	1.83270	52000.77						
845.87	27.00	4459.19	10.79	7.06	5972.52	0.38		
		115.56	7.32		103.53	9.59	0.004091	
	1.86837	52284.17						
847.09	28.00	4459.20	10.80	7.07	5984.93	0.38		
		115.61	7.33		103.57	9.59	0.004092	
	1.87075	52301.64						
851.93	29.00	4459.23	10.83	7.08	6033.54	0.38		
		115.76	7.36		103.68	9.57	0.004100	
	1.88297	52360.31						
863.06	30.00	4459.31	10.91	7.12	6145.55	0.38		
		116.10	7.43		103.96	9.53	0.004100	
	1.90194	52497.93						
863.72	31.00	4459.32	10.92	7.12	6152.21	0.38		
		116.12	7.44		103.97	9.52	0.004101	
	1.90331	52506.49						
868.86	32.00	4459.35	10.95	7.14	6203.68	0.38		
		116.28	7.47		104.09	9.51	0.004112	
	1.91736	52566.99						
880.41	33.00	4459.43	11.03	7.18	6319.50	0.38		
		116.63	7.55		104.37	9.46	0.004113	
	1.93717	52706.52						
881.06	34.00	4459.43	11.03	7.18	6326.06	0.38		
		116.65	7.55		104.39	9.46	0.004111	
	1.93773	52714.74						
875.89	35.00	4459.40	11.00	7.16	6274.16	0.38		
		116.50	7.52		104.27	9.48	0.004102	
	1.92453	52654.26						
864.35	36.00	4459.32	10.92	7.13	6158.56	0.38		
		116.14	7.44		103.99	9.52	0.004102	
	1.90473	52514.61						
858.85	37.00	4459.28	10.88	7.11	6103.19	0.38		
		115.98	7.41		103.86	9.54	0.004093	

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1.89136	52448.14								
38.00	4459.21	10.81	7.07	5991.67	0.38				
847.76	115.63	7.33	103.59	9.59	0.004091				
1.87141	52310.49								
39.00	4459.20	10.80	7.07	5984.90	0.38				
847.09	115.61	7.33	103.57	9.59	0.004092				
1.87094	52301.67								
40.00	4459.20	10.80	7.07	5985.06	0.38				
847.11	115.61	7.33	103.57	9.59	0.004091				
1.87037	52301.72								
41.00	4459.20	10.80	7.07	5985.00	0.38				
847.10	115.61	7.33	103.57	9.59	0.004092				
1.87089	52301.73								
42.00	4459.20	10.80	7.07	5984.98	0.38				
847.10	115.61	7.33	103.57	9.59	0.004091				
1.87061	52301.75								
43.00	4459.23	10.83	7.08	6033.79	0.38				
851.95	115.76	7.36	103.68	9.57	0.004100				
1.88308	52360.62								
44.00	4459.31	10.91	7.12	6145.72	0.38				
863.07	116.10	7.43	103.96	9.53	0.004103				
1.90309	52498.11								
45.00	4459.35	10.95	7.14	6203.79	0.38				
868.87	116.28	7.47	104.09	9.51	0.004112				
1.91748	52567.29								
46.00	4459.46	11.06	7.19	6372.82	0.38				
885.75	116.78	7.58	104.49	9.44	0.004122				
1.95065	52768.06								
47.00	4459.58	11.18	7.25	6546.53	0.38				
903.17	117.30	7.70	104.89	9.38	0.004136				
1.98707	52970.79								
48.00	4459.69	11.29	7.30	6720.90	0.38				
920.73	117.80	7.82	105.29	9.32	0.004149				
2.02337	53170.07								
49.00	4459.80	11.40	7.35	6887.21	0.38				
937.54	118.27	7.93	105.66	9.27	0.004160				
2.05794	53356.52								
50.00	4459.92	11.52	7.39	7067.93	0.38				
955.88	118.77	8.05	106.05	9.21	0.004175				
2.09686	53555.06								
51.00	4460.06	11.66	7.45	7291.52	0.38				
978.70	119.38	8.20	106.52	9.14	0.004204				
2.15084	53794.30								
52.00	4460.20	11.80	7.51	7529.06	0.39				
1002.69	120.01	8.35	107.02	9.07	0.004208				
2.19380	54045.13								
53.00	4460.24	11.84	7.53	7598.80	0.39				
1009.24	120.19	8.40	107.16	9.05	0.004217				
2.20962	54115.54								
54.00	4460.42	12.02	7.61	7893.48	0.39				
1036.93	120.93	8.57	107.74	8.97	0.004255				
2.27684	54406.39								
55.00	4460.78	12.38	7.77	8526.46	0.39				
1096.84	122.45	8.96	108.93	8.80	0.004320				
2.41439	55007.41								
56.00	4461.28	12.88	7.97	9443.65	0.39				
1184.84	124.52	9.52	110.53	8.58	0.004418				
2.62349	55820.07								
57.00	4461.86	13.46	8.22	10579.36	0.39				
1287.29	126.86	10.15	112.35	8.35	0.004502				
2.85093	56738.82								
58.00	4462.44	14.04	8.49	11786.00	0.40				
1388.94	129.13	10.76	114.11	8.13	0.004584				

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1473.09	3.07669	57626.67	14.49	11.26	8.68	12784.21	0.40	0.004665
	59.00	4462.89				115.46	7.97	
	3.27658	58308.57						
1578.56	60.00	4463.44	15.04	11.87	8.91	14058.41	0.40	0.004761
		132.94				117.06	7.78	
	3.52791	59116.95						
1672.85	61.00	4463.91	15.51	12.42	9.08	15194.61	0.41	0.004844
		134.68				118.41	7.63	
	3.75402	59795.20						
1734.65	62.00	4464.21	15.81	12.78	9.19	15949.30	0.41	0.004909
		135.78				119.25	7.54	
	3.91360	60223.49						
1802.04	63.00	4464.53	16.13	13.16	9.30	16767.54	0.41	0.004971
		136.93				120.14	7.45	
	4.08212	60670.74						
1851.31	64.00	4464.76	16.36	13.44	9.38	17362.54	0.41	0.005017
		137.75				120.77	7.38	
	4.20716	60987.57						
1898.87	65.00	4465.00	16.60	13.70	9.45	17951.10	0.41	0.005034
		138.60				121.42	7.31	
	4.30388	61318.54						
1942.34	66.00	4465.27	16.87	13.92	9.52	18493.65	0.41	0.005040
		139.53				122.13	7.24	
	4.37799	61677.95						
1954.11	67.00	4465.34	16.94	13.98	9.54	18640.08	0.41	0.005029
		139.78				122.33	7.22	
	4.38742	61775.02						
1955.90	68.00	4465.35	16.95	13.99	9.54	18662.28	0.41	0.005033
		139.82				122.36	7.22	
	4.39334	61791.32						
1956.79	69.00	4465.36	16.96	13.99	9.54	18673.29	0.41	0.005029
		139.84				122.37	7.22	
	4.39112	61799.08						
1958.20	70.00	4465.36	16.96	14.00	9.54	18690.83	0.41	0.005036
		139.86				122.39	7.22	
	4.39940	61806.20						
1959.13	71.00	4465.37	16.97	14.00	9.55	18702.36	0.41	0.005034
		139.90				122.42	7.21	
	4.39892	61821.04						
1958.26	72.00	4465.37	16.97	14.00	9.54	18691.62	0.41	0.005030
		139.87				122.40	7.21	
	4.39423	61811.37						
1960.96	73.00	4465.38	16.98	14.01	9.55	18725.04	0.41	0.005031
		139.92				122.44	7.21	
	4.39956	61830.21						
1978.35	74.00	4465.49	17.09	14.10	9.57	18940.58	0.41	0.005034
		140.29				122.72	7.18	
	4.42963	61972.34						
1987.98	75.00	4465.54	17.14	14.15	9.59	19059.92	0.41	0.005039
		140.49				122.87	7.17	
	4.44951	62050.00						
1991.31	76.00	4465.56	17.16	14.17	9.59	19101.10	0.41	0.005031
		140.56				122.92	7.16	
	4.44776	62076.17						
2013.21	77.00	4465.69	17.29	14.28	9.62	19371.60	0.41	0.005027
		141.01				123.27	7.13	
	4.47895	62251.03						
2060.03	78.00	4465.97	17.56	14.51	9.68	19935.02	0.41	0.005052
		141.94				123.98	7.06	
	4.57571	62609.77						
2110.12	79.00	4466.21	17.81	14.78	9.69	20443.35	0.40	0.005090
		142.75				124.60	7.00	

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4.69504	62925.49						
80.00	4466.40	18.00	9.69	20869.56	0.40		
2154.43	143.40	15.02		125.10	6.95	0.005138	
4.81711	63176.31						
81.00	4466.62	18.22	9.68	21372.11	0.40		
2206.90	144.14	15.31		125.67	6.90	0.005188	
4.95644	63462.78						
82.00	4466.64	18.24	9.68	21433.59	0.40		
2213.33	144.20	15.35		125.71	6.89	0.005175	
4.95598	63485.40						
83.00	4466.50	18.10	9.69	21111.95	0.40		
2179.70	143.74	15.16		125.36	6.93	0.005124	
4.84873	63304.92						
84.00	4466.43	18.03	9.69	20947.61	0.40		
2162.56	143.52	15.07		125.19	6.94	0.005120	
4.81437	63219.95						
85.00	4466.43	18.03	9.69	20941.36	0.40		
2161.90	143.51	15.06		125.18	6.94	0.005118	
4.81154	63216.65						
86.00	4466.46	18.06	9.69	21003.70	0.40		
2168.40	143.60	15.10		125.25	6.94	0.005130	
4.83368	63250.93						
87.00	4466.39	17.99	9.69	20860.66	0.40		
2153.50	143.38	15.02		125.09	6.95	0.005088	
4.76831	63168.41						
88.00	4465.99	17.59	9.67	19977.25	0.41		
2065.62	142.02	14.54		124.04	7.05	0.005026	
4.56166	62641.20						
89.00	4465.32	16.92	9.53	18573.47	0.41		
1949.06	139.71	13.95		122.27	7.23	0.005016	
4.36623	61746.62						
90.00	4464.56	16.15	9.31	16812.31	0.41		
1805.95	137.01	13.18		120.20	7.44	0.004884	
4.01748	60700.60						
91.00	4464.09	15.69	9.15	15624.77	0.41		
1708.13	135.33	12.62		118.90	7.58	0.004805	
3.78449	60046.34						
92.00	4463.66	15.26	8.99	14557.23	0.41		
1620.07	133.74	12.11		117.68	7.71	0.004706	
3.55704	59427.32						
93.00	4463.22	14.82	8.82	13522.47	0.40		
1533.92	132.11	11.61		116.42	7.86	0.004637	
3.35986	58791.46						
94.00	4462.88	14.47	8.67	12735.99	0.40		
1469.08	130.81	11.23		115.41	7.97	0.004583	
3.21211	58283.96						
95.00	4462.60	14.20	8.55	12122.07	0.40		
1417.37	129.74	10.92		114.59	8.07	0.004541	
3.09522	57868.73						
96.00	4462.34	13.93	8.44	11553.57	0.40		
1369.02	128.73	10.64		113.80	8.17	0.004496	
2.98383	57470.00						
97.00	4462.08	13.68	8.32	11019.28	0.40		
1323.82	127.73	10.36		113.03	8.26	0.004466	
2.88832	57080.31						
98.00	4461.88	13.48	8.23	10604.67	0.40		
1289.00	126.94	10.15		112.41	8.34	0.004438	
2.81220	56768.77						
99.00	4461.70	13.30	8.14	10240.96	0.39		
1258.58	126.22	9.97		111.86	8.41	0.004422	
2.75159	56487.32						
100.00	4461.54	13.14	8.06	9927.89	0.39		
1231.19	125.58	9.80		111.36	8.47	0.004387	

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101.00	2.68389	56237.62	12.95	7.99	9560.36	0.39	
1195.84	4461.35	124.80	9.58	110.75	8.55	0.004357	
102.00	2.60502	55930.06	12.79	7.94	9268.14	0.39	
1167.63	4461.19	124.16	9.40	110.26	8.62	0.004331	
103.00	2.54137	55679.65	12.65	7.88	9010.62	0.39	
1142.88	4461.05	123.59	9.25	109.81	8.68	0.004310	
104.00	2.48699	55454.37	12.54	7.84	8807.31	0.39	
1123.43	4460.94	123.13	9.12	109.45	8.73	0.004295	
105.00	2.44509	55272.47	12.39	7.78	8542.54	0.39	
1098.22	4460.79	122.51	8.96	108.97	8.79	0.004264	
106.00	2.38500	55031.05	12.21	7.70	8225.47	0.39	
1068.14	4460.61	121.76	8.77	108.38	8.87	0.004248	
107.00	2.32531	54733.00	12.11	7.65	8040.93	0.39	
1050.72	4460.51	121.31	8.66	108.03	8.92	0.004235	
108.00	2.28910	54555.38	12.00	7.61	7867.22	0.39	
1034.38	4460.41	120.88	8.56	107.69	8.97	0.004224	
109.00	2.25536	54385.79	11.94	7.57	7749.76	0.39	
1023.35	4460.34	120.58	8.49	107.46	9.00	0.004222	
110.00	2.23568	54268.57	11.96	7.59	7800.61	0.39	
1028.13	4460.36	120.70	8.52	107.56	8.99	0.004230	
111.00	2.24849	54317.80	12.10	7.65	8027.11	0.39	
1049.44	4460.50	121.26	8.65	108.00	8.93	0.004256	
112.00	2.29808	54538.41	12.20	7.69	8198.35	0.39	
1065.57	4460.60	121.69	8.76	108.33	8.88	0.004247	
113.00	2.32057	54706.08	12.11	7.65	8040.36	0.39	
1050.67	4460.51	121.31	8.66	108.03	8.92	0.004234	
114.00	2.28858	54554.91	12.10	7.65	8040.36	0.39	
1050.68	4460.50	121.30	8.66	108.02	8.92	0.004256	
115.00	2.30049	54551.94	12.31	7.74	8393.43	0.39	
1084.08	4460.71	122.15	8.88	108.69	8.83	0.004287	
116.00	2.37425	54887.29	12.42	7.79	8587.95	0.39	
1102.51	4460.82	122.62	8.99	109.05	8.78	0.004276	
117.00	2.39938	55071.47	12.36	7.76	8477.46	0.39	
1092.00	4460.76	122.36	8.92	108.85	8.81	0.004277	
118.00	2.38180	54968.93	12.35	7.76	8469.82	0.39	
1091.27	4460.75	122.34	8.92	108.83	8.81	0.004276	
119.00	2.37992	54961.64	12.39	7.78	8538.15	0.39	
1097.77	4460.79	122.50	8.96	108.96	8.79	0.004288	
120.00	2.39816	55023.95	12.46	7.81	8663.73	0.39	
1109.72	4460.86	122.79	9.04	109.19	8.76	0.004292	
121.00	2.42030	55140.31	12.46	7.81	8669.96	0.39	
1110.31	4460.86	122.81	9.04	109.20	8.76	0.004290	

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1103.77	2.42026	55146.34	12.43	9.00	7.79	8601.17	0.39	0.004277
	122.00	4460.83				109.08	8.78	
		122.65						
1091.96	2.40181	55084.18	12.36	8.92	7.76	8477.06	0.39	0.004274
	123.00	4460.76				108.85	8.81	
		122.36						
1084.89	2.37990	54968.59	12.31	8.88	7.74	8402.46	0.39	0.004262
	124.00	4460.71				108.71	8.83	
		122.18						
1072.96	2.36130	54899.66	12.24	8.80	7.71	8276.60	0.39	0.004261
	125.00	4460.64				108.48	8.86	
		121.88						
1072.32	2.34052	54780.26	12.24	8.80	7.71	8269.88	0.39	0.004259
	126.00	4460.64				108.46	8.86	
		121.86						
1066.75	2.33851	54773.76	12.20	8.76	7.70	8210.79	0.39	0.004248
	127.00	4460.60				108.35	8.88	
		121.72						
1056.04	2.32305	54718.46	12.14	8.70	7.67	8097.51	0.39	0.004246
	128.00	4460.54				108.14	8.91	
		121.44						
1055.43	2.30375	54609.23	12.13	8.69	7.67	8091.06	0.39	0.004246
	129.00	4460.54				108.12	8.91	
		121.43						
1050.04	2.30282	54602.62	12.10	8.66	7.65	8033.75	0.39	0.004234
	130.00	4460.50				108.02	8.93	
		121.29						
1039.66	2.28737	54548.25	12.04	8.59	7.62	7923.54	0.39	0.004232
	131.00	4460.44				107.80	8.96	
		121.01						
1050.08	2.26879	54440.06	12.10	8.66	7.65	8033.90	0.39	0.004256
	132.00	4460.50				108.01	8.93	
		121.28						
1071.13	2.29967	54545.26	12.23	8.79	7.71	8257.30	0.39	0.004260
	133.00	4460.63				108.44	8.87	
		121.83						
1072.31	2.33711	54761.13	12.24	8.80	7.71	8269.75	0.39	0.004259
	134.00	4460.64				108.46	8.86	
		121.86						
1072.36	2.33877	54773.54	12.24	8.80	7.71	8270.31	0.39	0.004259
	135.00	4460.64				108.46	8.86	
		121.86						
1072.31	2.33891	54774.13	12.24	8.80	7.71	8269.75	0.39	0.004260
	136.00	4460.64				108.46	8.86	
		121.86						
1072.32	2.33914	54773.53	12.24	8.80	7.71	8269.89	0.39	0.004260
	137.00	4460.64				108.46	8.86	
		121.86						
1072.37	2.33922	54773.69	12.24	8.80	7.71	8270.38	0.39	0.004259
	138.00	4460.64				108.46	8.86	
		121.86						
1072.31	2.33887	54774.22	12.24	8.80	7.71	8269.73	0.39	0.004259
	139.00	4460.64				108.46	8.86	
		121.86						
1066.78	2.33847	54773.48	12.20	8.76	7.70	8211.14	0.39	0.004248
	140.00	4460.60				108.35	8.88	
		121.72						
1056.04	2.32316	54718.75	12.14	8.70	7.67	8097.44	0.39	0.004246
	141.00	4460.54				108.14	8.91	
		121.44						
1055.41	2.30409	54609.13	12.13	8.69	7.67	8090.76	0.39	0.004247
	142.00	4460.54				108.12	8.91	
		121.43						

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1055.44	2.30319	54602.44	12.13	8.69	7.67	8091.10	0.39	0.004246
	143.00	4460.54				108.12	8.91	
		121.43						
1055.42	2.30282	54602.79	12.13	8.69	7.67	8090.93	0.39	0.004245
	144.00	4460.54				108.12	8.91	
		121.43						
1050.12	2.30237	54602.57	12.10	8.66	7.65	8034.58	0.39	0.004235
	145.00	4460.50				108.02	8.93	
		121.29						
1039.60	2.28813	54549.02	12.04	8.59	7.62	7922.88	0.39	0.004233
	146.00	4460.44				107.80	8.96	
		121.01						
1039.03	2.26925	54439.57	12.03	8.59	7.62	7916.85	0.39	0.004233
	147.00	4460.43				107.79	8.96	
		121.00						
1039.05	2.26809	54433.34	12.03	8.59	7.62	7917.08	0.39	0.004233
	148.00	4460.43				107.79	8.96	
		121.00						
1039.05	2.26828	54433.48	12.03	8.59	7.62	7917.01	0.39	0.004233
	149.00	4460.43				107.79	8.96	
		121.00						
1039.04	2.26849	54433.35	12.03	8.59	7.62	7916.92	0.39	0.004232
	150.00	4460.43				107.79	8.96	
		121.00						
1035.55	2.26749	54433.50	12.01	8.56	7.61	7879.75	0.39	0.004227
	151.00	4460.41				107.72	8.97	
		120.91						
1026.81	2.25897	54397.60	11.96	8.51	7.58	7786.59	0.39	0.004222
	152.00	4460.36				107.54	8.99	
		120.67						
1022.90	2.24147	54305.32	11.93	8.48	7.57	7744.88	0.39	0.004221
	153.00	4460.33				107.45	9.01	
		120.57						
1022.67	2.23460	54263.51	11.93	8.48	7.57	7742.48	0.39	0.004221
	154.00	4460.33				107.45	9.01	
		120.56						
1017.53	2.23449	54260.82	11.90	8.45	7.56	7687.45	0.39	0.004211
	155.00	4460.30				107.34	9.02	
		120.42						
1017.62	2.22047	54206.90	11.90	8.45	7.56	7688.30	0.39	0.004231
	156.00	4460.30				107.34	9.02	
		120.42						
1037.84	2.23088	54204.88	12.03	8.58	7.62	7904.16	0.39	0.004233
	157.00	4460.43				107.76	8.96	
		120.96						
1039.05	2.26634	54420.17	12.03	8.59	7.62	7917.02	0.39	0.004234
	158.00	4460.43				107.79	8.96	
		121.00						
1039.08	2.26906	54433.50	12.03	8.59	7.62	7917.39	0.39	0.004232
	159.00	4460.43				107.79	8.96	
		121.00						
1039.00	2.26796	54433.84	12.03	8.59	7.62	7916.47	0.39	0.004234
	160.00	4460.43				107.79	8.96	
		121.00						
1039.07	2.26870	54433.00	12.03	8.59	7.62	7917.25	0.39	0.004232
	161.00	4460.43				107.79	8.96	
		121.00						
1039.04	2.26792	54433.81	12.03	8.59	7.62	7916.90	0.39	0.004234
	162.00	4460.43				107.79	8.96	
		121.00						
1039.04	2.26888	54433.39	12.03	8.59	7.62	7916.90	0.39	0.004234
	163.00	4460.43				107.79	8.96	
		121.00						

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1039.05	2.26855	54433.40	12.03	8.59	7.62	7916.98	0.39	0.004232
	164.00	4460.43						
	121.00							
1033.75	2.26786	54433.55	12.00	8.55	7.60	7860.49	0.39	0.004222
	165.00	4460.40						
	120.86							
1023.31	2.25342	54378.91	11.93	8.49	7.57	7749.27	0.39	0.004221
	166.00	4460.33						
	120.58							
1022.72	2.23552	54268.05	11.93	8.48	7.57	7742.96	0.39	0.004223
	167.00	4460.33						
	120.56							
1022.71	2.23524	54261.48	11.93	8.48	7.57	7742.91	0.39	0.004222
	168.00	4460.33						
	120.56							
1022.70	2.23460	54261.42	11.93	8.48	7.57	7742.80	0.39	0.004221
	169.00	4460.33						
	120.56							
1022.77	2.23405	54261.28	11.93	8.48	7.57	7743.54	0.39	0.004221
	170.00	4460.33						
	120.56							
1022.68	2.23437	54262.00	11.93	8.48	7.57	7742.54	0.39	0.004221
	171.00	4460.33						
	120.56							
1022.72	2.23429	54261.09	11.93	8.48	7.57	7743.01	0.39	0.004220
	172.00	4460.33						
	120.56							
1017.49	2.23406	54261.55	11.90	8.45	7.55	7687.03	0.39	0.004211
	173.00	4460.30						
	120.42							
1007.02	2.22006	54206.50	11.83	8.38	7.52	7575.13	0.39	0.004209
	174.00	4460.23						
	120.13							
1006.47	2.20177	54093.05	11.83	8.38	7.52	7569.26	0.39	0.004210
	175.00	4460.23						
	120.12							
1006.42	2.20130	54086.74	11.83	8.38	7.52	7568.73	0.39	0.004210
	176.00	4460.23						
	120.12							
1006.44	2.20113	54086.16	11.83	8.38	7.52	7568.92	0.39	0.004210
	177.00	4460.23						
	120.12							
1006.46	2.20124	54086.19	11.83	8.38	7.52	7569.16	0.39	0.004210
	178.00	4460.23						
	120.12							
1006.45	2.20113	54086.60	11.83	8.38	7.52	7568.98	0.39	0.004210
	179.00	4460.23						
	120.12							
1017.12	2.20120	54086.52	11.89	8.45	7.55	7682.80	0.39	0.004231
	180.00	4460.29						
	120.40							
1037.78	2.23052	54199.09	12.03	8.58	7.62	7903.50	0.39	0.004233
	181.00	4460.43						
	120.96							
1044.50	2.26634	54419.69	12.07	8.62	7.64	7974.95	0.39	0.004244
	182.00	4460.47						
	121.14							
1054.78	2.28361	54489.10	12.13	8.69	7.66	8084.12	0.39	0.004247
	183.00	4460.53						
	121.41							
1055.41	2.30247	54595.57	12.13	8.69	7.67	8090.80	0.39	0.004247
	184.00	4460.53						
	121.43							

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1055.42	2.30324	54602.32	12.13	8.69	7.67	8090.86	0.39	0.004246
	185.00	4460.54						
	121.43							
1055.44	2.30307	54602.59	12.13	8.69	7.67	8091.15	0.39	0.004248
	186.00	4460.54						
	121.43							
1055.44	2.30390	54602.82	12.13	8.69	7.67	8091.11	0.39	0.004247
	187.00	4460.54						
	121.43							
1055.42	2.30352	54602.67	12.13	8.69	7.67	8090.89	0.39	0.004246
	188.00	4460.54						
	121.43							
1055.44	2.30298	54602.50	12.13	8.69	7.67	8091.12	0.39	0.004245
	189.00	4460.54						
	121.43							
1055.43	2.30267	54602.75	12.13	8.69	7.67	8091.01	0.39	0.004245
	190.00	4460.54						
	121.43							
1050.09	2.30228	54602.61	12.10	8.66	7.65	8034.31	0.39	0.004235
	191.00	4460.50						
	121.29							
1039.61	2.28802	54548.72	12.04	8.59	7.62	7922.99	0.39	0.004233
	192.00	4460.44						
	121.01							
1039.04	2.26918	54439.64	12.03	8.59	7.62	7916.95	0.39	0.004233
	193.00	4460.43						
	121.00							
1039.05	2.26828	54433.41	12.03	8.59	7.62	7916.97	0.39	0.004234
	194.00	4460.43						
	121.00							
1039.06	2.26854	54433.49	12.03	8.59	7.62	7917.10	0.39	0.004233
	195.00	4460.43						
	121.00							
1039.08	2.26842	54433.41	12.03	8.59	7.62	7917.31	0.39	0.004233
	196.00	4460.43						
	121.00							
1039.04	2.26830	54433.72	12.03	8.59	7.62	7916.87	0.39	0.004234
	197.00	4460.43						
	121.00							
1039.04	2.26857	54433.32	12.03	8.59	7.62	7916.92	0.39	0.004233
	198.00	4460.43						
	121.00							
1039.02	2.26828	54433.47	12.03	8.59	7.62	7916.75	0.39	0.004233
	199.00	4460.43						
	121.00							
	2.26821	54433.16						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1421

MAXIMUM DISCHARGE (CFS) = 21526.83 AT TIME = 80.95  
 MAXIMUM STAGE = 4462.09 AT TIME = 80.95

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)		
(LB/FT^2)	(FT^2)					
0.00	4447.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00					

HYCHAN.OUT									
0.00	1.00	4447.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4447.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
808.63	3.00	4451.88	4.48	3.32	2687.39	0.28			
		79.73	10.14	74.77	16.70				0.003514
	2.22385	37761.27							
847.36	4.00	4456.16	8.76	6.48	5491.90	0.39			
		105.84	8.01	95.85	10.94				0.003492
	1.74446	48405.04							
838.32	5.00	4456.10	8.70	6.42	5386.17	0.38			
		105.53	7.94	95.60	10.99				0.003484
	1.72697	48280.34							
834.51	6.00	4456.08	8.68	6.40	5341.06	0.38			
		105.39	7.92	95.50	11.01				0.003462
	1.71075	48227.10							
822.30	7.00	4455.99	8.59	6.32	5199.19	0.38			
		104.96	7.83	95.15	11.08				0.003431
	1.67738	48053.20							
809.38	8.00	4455.90	8.50	6.24	5049.39	0.38			
		104.50	7.75	94.79	11.15				0.003402
	1.64439	47869.80							
796.50	9.00	4455.81	8.41	6.16	4903.48	0.37			
		104.04	7.66	94.42	11.22				0.003372
	1.61074	47683.34							
785.79	10.00	4455.74	8.34	6.09	4783.88	0.37			
		103.65	7.58	94.12	11.29				0.003359
	1.58889	47528.09							
781.72	11.00	4455.71	8.31	6.07	4742.34	0.37			
		103.49	7.55	93.99	11.31				0.003339
	1.57370	47464.43							
768.89	12.00	4455.62	8.22	5.99	4604.89	0.37			
		103.01	7.46	93.60	11.39				0.003302
	1.53810	47267.85							
757.38	13.00	4455.54	8.14	5.92	4481.81	0.37			
		102.58	7.38	93.26	11.46				0.003293
	1.51710	47094.71							
756.08	14.00	4455.53	8.13	5.91	4469.04	0.37			
		102.53	7.37	93.22	11.47				0.003291
	1.51439	47076.85							
756.07	15.00	4455.53	8.13	5.91	4468.94	0.37			
		102.53	7.37	93.22	11.47				0.003292
	1.51495	47076.74							
756.09	16.00	4455.53	8.13	5.91	4469.05	0.37			
		102.53	7.37	93.22	11.47				0.003292
	1.51481	47076.90							
756.07	17.00	4455.53	8.13	5.91	4468.98	0.37			
		102.53	7.37	93.22	11.47				0.003291
	1.51416	47076.78							
758.74	18.00	4455.55	8.15	5.93	4496.89	0.37			
		102.64	7.39	93.30	11.45				0.003315
	1.52914	47118.98							
772.11	19.00	4455.64	8.24	6.01	4637.77	0.37			
		103.15	7.49	93.71	11.37				0.003349
	1.56423	47324.60							
786.34	20.00	4455.74	8.34	6.09	4791.37	0.37			
		103.68	7.58	94.13	11.28				0.003381
	1.60029	47537.23							
797.27	21.00	4455.82	8.42	6.16	4913.03	0.37			
		104.07	7.66	94.45	11.22				0.003393
	1.62192	47696.21							

HYCHAN.OUT							
798.27	22.00	4455.83	8.43	6.17	4923.81	0.37	
	1.62264	104.11	7.67		94.48	11.21	0.003391
	23.00	4455.85	8.45	6.19	4956.21	0.38	
801.06		104.21	7.69		94.56	11.20	0.003415
	1.63789	47751.63					
	24.00	4455.96	8.56	6.29	5138.83	0.38	
816.91		104.78	7.80		95.01	11.10	0.003467
	1.68660	47979.99					
	25.00	4456.13	8.73	6.45	5438.92	0.39	
842.66		105.68	7.97		95.73	10.96	0.003530
	1.75643	48344.05					
	26.00	4456.31	8.91	6.62	5747.90	0.39	
868.45		106.57	8.15		96.44	10.83	0.003591
	1.82598	48700.30					
	27.00	4456.43	9.03	6.73	5970.78	0.40	
886.74		107.19	8.27		96.92	10.73	0.003606
	1.86156	48946.49					
	28.00	4456.44	9.04	6.74	5984.91	0.40	
887.93		107.23	8.28		96.95	10.73	0.003606
	1.86334	48961.68					
	29.00	4456.46	9.06	6.76	6031.04	0.40	
891.61		107.35	8.31		97.05	10.71	0.003630
	1.88147	49012.03					
	30.00	4456.52	9.12	6.82	6144.65	0.40	
900.75		107.65	8.37		97.29	10.66	0.003638
	1.89951	49132.95					
	31.00	4456.53	9.13	6.83	6152.21	0.40	
901.37		107.67	8.37		97.31	10.66	0.003637
	1.90001	49140.86					
	32.00	4456.55	9.15	6.85	6201.01	0.40	
905.18		107.80	8.40		97.41	10.64	0.003666
	1.92081	49192.35					
	33.00	4456.61	9.21	6.91	6318.60	0.40	
914.53		108.11	8.46		97.65	10.60	0.003672
	1.93831	49314.83					
	34.00	4456.62	9.22	6.91	6326.12	0.40	
915.12		108.13	8.46		97.67	10.60	0.003671
	1.93846	49322.26					
	35.00	4456.59	9.19	6.89	6276.73	0.40	
911.30		108.00	8.44		97.57	10.61	0.003645
	1.91938	49270.71					
	36.00	4456.53	9.13	6.83	6159.47	0.40	
901.96		107.69	8.38		97.32	10.66	0.003638
	1.90132	49148.30					
	37.00	4456.50	9.10	6.80	6105.71	0.40	
897.70		107.55	8.35		97.21	10.68	0.003613
	1.88199	49090.86					
	38.00	4456.44	9.04	6.74	5992.60	0.40	
888.58		107.25	8.29		96.97	10.73	0.003607
	1.86470	48969.91					
	39.00	4456.44	9.04	6.74	5984.90	0.40	
887.94		107.23	8.28		96.95	10.73	0.003606
	1.86323	48961.75					
	40.00	4456.44	9.04	6.74	5985.06	0.40	
887.93		107.23	8.28		96.95	10.73	0.003606
	1.86358	48961.65					
	41.00	4456.44	9.04	6.74	5984.99	0.40	
887.95		107.23	8.28		96.95	10.73	0.003605
	1.86308	48961.79					
	42.00	4456.44	9.04	6.74	5985.02	0.40	
887.95		107.23	8.28		96.95	10.73	0.003606
	1.86320	48961.84					

		HYCHAN.OUT			
891.63	43.00 4456.46	9.06	6.76	6031.24	0.40
	1.88143 107.35	8.31		97.05	10.71
	44.00 49012.30				0.003630
900.76	4456.52	9.12	6.82	6144.85	0.40
	107.65	8.37		97.29	10.66
	1.89956 49133.11				0.003638
905.20	4456.55	9.15	6.85	6201.11	0.40
	107.80	8.40		97.41	10.64
	1.92031 49192.76				0.003665
918.42	4456.64	9.24	6.94	6369.28	0.40
	108.24	8.49		97.76	10.58
	1.95819 49367.12				0.003698
931.94	4456.73	9.33	7.02	6543.17	0.41
	108.68	8.58		98.11	10.51
	1.99534 49543.16				0.003729
945.35	4456.82	9.42	7.11	6717.40	0.41
	109.11	8.66		98.45	10.45
	2.03463 49715.52				0.003763
958.01	4456.90	9.50	7.19	6883.84	0.41
	109.51	8.75		98.77	10.40
	2.07255 49876.38				0.003797
971.50	4456.99	9.59	7.27	7064.58	0.41
	109.94	8.84		99.10	10.34
	2.11078 50046.78				0.003828
987.79	4457.10	9.69	7.38	7285.71	0.42
	110.45	8.94		99.51	10.26
	2.16927 50250.74				0.003887
1005.46	4457.21	9.81	7.49	7527.40	0.42
	110.99	9.06		99.93	10.19
	2.20451 50466.38				0.003900
1010.39	4457.24	9.84	7.52	7596.29	0.42
	111.14	9.09		100.05	10.17
	2.22671 50526.78				0.003925
1030.75	4457.37	9.97	7.65	7884.79	0.43
	111.77	9.22		100.54	10.08
	2.30875 50774.77				0.004012
1074.24	4457.64	10.24	7.92	8512.98	0.44
	113.05	9.50		101.56	9.91
	2.45814 51285.82				0.004146
1133.87	4458.02	10.62	8.31	9425.73	0.45
	114.76	9.88		102.90	9.69
	2.66657 51965.34				0.004325
1204.89	4458.45	11.05	8.76	10559.13	0.46
	116.71	10.32		104.43	9.45
	2.91432 52736.94				0.004524
1276.64	4458.87	11.47	9.22	11769.33	0.48
	118.59	10.77		105.91	9.23
	3.15047 53482.55				0.004690
1333.22	4459.20	11.80	9.58	12768.88	0.49
	120.02	11.11		107.03	9.07
	3.36021 54047.71				0.004848
1402.06	4459.60	12.20	10.01	14040.81	0.51
	121.70	11.52		108.34	8.88
	3.61310 54711.06				0.005026
1461.23	4459.94	12.53	10.39	15180.88	0.52
	123.10	11.87		109.43	8.73
	3.82957 55262.09				0.005170
1499.32	4460.15	12.75	10.63	15938.80	0.52
	123.98	12.09		110.11	8.64
	3.98495 55607.86				0.005281
1539.53	4460.37	12.97	10.89	16758.01	0.53
	124.89	12.33		110.82	8.54
	4.13812 55965.84				0.005380

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HYCHAN.OUT							
1568.74	64.00	4460.53	13.13	11.06	17355.21	0.54	0.005456
	4.25426	125.54	12.50	111.33	8.48		
		56219.60					
1599.58	65.00	4460.71	13.31	11.22	17939.65	0.54	0.005563
	4.39784	126.26	12.67	111.89	8.41		
		56504.17					
1632.55	66.00	4460.94	13.53	11.32	18487.64	0.54	0.005612
	4.49595	127.15	12.84	112.58	8.32		
		56853.50					
1641.59	67.00	4461.00	13.60	11.35	18638.85	0.54	0.005627
	4.52445	127.40	12.89	112.77	8.29		
		56949.04					
1643.15	68.00	4461.01	13.61	11.36	18662.36	0.54	0.005622
	4.52330	127.44	12.89	112.80	8.29		
		56965.95					
1643.85	69.00	4461.01	13.61	11.36	18673.20	0.54	0.005626
	4.52788	127.46	12.90	112.82	8.29		
		56973.75					
1644.47	70.00	4461.02	13.62	11.37	18690.45	0.54	0.005627
	4.53003	127.47	12.90	112.83	8.29		
		56978.62					
1645.89	71.00	4461.03	13.63	11.36	18702.43	0.54	0.005633
	4.53654	127.52	12.91	112.86	8.28		
		56996.66					
1645.01	72.00	4461.02	13.62	11.36	18692.18	0.54	0.005627
	4.53023	127.49	12.90	112.84	8.29		
		56985.99					
1646.60	73.00	4461.03	13.63	11.37	18722.75	0.54	0.005652
	4.55338	127.53	12.91	112.88	8.28		
		57002.95					
1659.55	74.00	4461.12	13.72	11.41	18936.60	0.54	0.005682
	4.60099	127.89	12.98	113.15	8.25		
		57143.21					
1666.82	75.00	4461.17	13.77	11.43	19059.22	0.54	0.005687
	4.61832	128.09	13.01	113.31	8.23		
		57219.69					
1669.18	76.00	4461.19	13.79	11.44	19098.95	0.54	0.005714
	4.64433	128.15	13.03	113.36	8.22		
		57245.17					
1685.16	77.00	4461.30	13.90	11.49	19363.57	0.54	0.005776
	4.72353	128.59	13.10	113.70	8.18		
		57417.69					
1718.54	78.00	4461.53	14.13	11.59	19924.02	0.54	0.005884
	4.87252	129.49	13.27	114.40	8.09		
		57770.24					
1749.51	79.00	4461.73	14.33	11.68	20439.94	0.54	0.005960
	4.99556	130.25	13.43	114.98	8.02		
		58066.86					
1775.79	80.00	4461.88	14.48	11.75	20866.53	0.54	0.006032
	5.10908	130.84	13.57	115.44	7.97		
		58295.36					
1807.96	81.00	4462.06	14.66	11.82	21374.01	0.54	0.006089
	5.22405	131.50	13.75	115.95	7.91		
		58553.36					
1813.96	82.00	4462.07	14.67	11.83	21451.31	0.54	0.006058
	5.21330	131.54	13.79	115.98	7.91		
		58569.73					
1793.98	83.00	4461.96	14.56	11.78	21132.78	0.54	0.006011
	5.13210	131.12	13.68	115.66	7.94		
		58407.46					
1782.92	84.00	4461.91	14.51	11.76	20962.22	0.54	0.006006
	5.10332	130.94	13.62	115.51	7.96		
		58334.82					

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HYCHAN.OUT							
1782.20	85.00	4461.91	14.51	11.76	20955.10	0.54	0.006011
	5.10560	130.93	13.61	115.51	7.96		
		58331.95					
1786.21	86.00	4461.93	14.53	11.77	21022.62	0.54	0.006021
	5.12259	131.01	13.63	115.57	7.96		
		58362.13					
1778.69	87.00	4461.88	14.48	11.74	20890.27	0.54	0.005937
	5.03678	130.82	13.60	115.42	7.97		
		58287.70					
1725.26	88.00	4461.55	14.15	11.60	20014.58	0.54	0.005733
	4.76304	129.57	13.32	114.46	8.09		
		57800.96					
1640.61	89.00	4460.98	13.58	11.34	18611.25	0.54	0.005467
	4.39478	127.35	12.88	112.73	8.30		
		56929.49					
1544.04	90.00	4460.39	12.99	10.90	16836.78	0.53	0.005246
	4.04484	124.96	12.36	110.88	8.54		
		55993.95					
1484.69	91.00	4460.06	12.66	10.53	15638.07	0.52	0.005112
	3.83127	123.63	12.01	109.84	8.67		
		55468.98					
1430.54	92.00	4459.76	12.36	10.19	14574.69	0.51	0.004935
	3.60030	122.36	11.69	108.85	8.81		
		54969.52					
1375.49	93.00	4459.44	12.04	9.84	13535.20	0.50	0.004806
	3.40819	121.04	11.36	107.82	8.95		
		54450.94					
1332.35	94.00	4459.20	11.80	9.57	12746.78	0.49	0.004698
	3.25510	119.98	11.10	107.00	9.07		
		54032.58					
1297.55	95.00	4458.99	11.59	9.35	12129.22	0.48	0.004621
	3.14128	119.11	10.89	106.31	9.17		
		53688.61					
1265.10	96.00	4458.80	11.40	9.14	11564.01	0.48	0.004522
	3.01803	118.28	10.70	105.66	9.27		
		53358.33					
1233.30	97.00	4458.61	11.21	8.94	11026.14	0.47	0.004454
	2.91871	117.45	10.50	105.01	9.36		
		53031.62					
1208.36	98.00	4458.47	11.06	8.78	10611.46	0.47	0.004387
	2.83249	116.79	10.35	104.49	9.44		
		52769.55					
1185.88	99.00	4458.33	10.93	8.64	10245.42	0.46	0.004345
	2.76728	116.19	10.21	104.02	9.52		
		52530.86					
1166.56	100.00	4458.21	10.81	8.52	9934.46	0.46	0.004279
	2.69304	115.66	10.09	103.61	9.58		
		52320.93					
1143.14	101.00	4458.07	10.67	8.37	9565.79	0.45	0.004225
	2.62023	115.01	9.94	103.10	9.66		
		52064.51					
1124.57	102.00	4457.96	10.56	8.25	9272.84	0.45	0.004176
	2.55987	114.49	9.82	102.69	9.73		
		51856.54					
1108.03	103.00	4457.85	10.45	8.14	9014.45	0.44	0.004135
	2.50785	114.01	9.72	102.31	9.79		
		51669.04					
1094.64	104.00	4457.77	10.37	8.05	8810.87	0.44	0.004103
	2.46619	113.63	9.63	102.01	9.84		
		51516.30					
1076.97	105.00	4457.66	10.26	7.94	8548.73	0.44	0.004041
	2.40079	113.12	9.52	101.61	9.90		
		51312.50					

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HYCHAN.OUT							
106.00	4457.52	10.12	7.80	8229.56	0.43		
1055.02	112.48	9.38	101.11	9.99	0.004003		
2.34279	51058.36						
107.00	4457.44	10.04	7.72	8044.09	0.43		
1042.04	112.10	9.30	100.80	10.04	0.003973		
2.30454	50906.04						
108.00	4457.36	9.96	7.64	7870.36	0.43		
1029.87	111.73	9.22	100.52	10.09	0.003942		
2.26750	50761.04						
109.00	4457.31	9.91	7.59	7750.46	0.42		
1021.41	111.48	9.16	100.32	10.12	0.003937		
2.25121	50659.68						
110.00	4457.33	9.93	7.61	7798.17	0.43		
1024.68	111.58	9.18	100.40	10.11	0.003960		
2.26930	50700.89						
111.00	4457.43	10.03	7.71	8021.40	0.43		
1040.37	112.05	9.28	100.77	10.05	0.004016		
2.32700	50889.01						
112.00	4457.51	10.11	7.79	8199.45	0.43		
1052.89	112.42	9.37	101.06	10.00	0.004003		
2.33928	51034.59						
113.00	4457.44	10.04	7.72	8043.49	0.43		
1042.02	112.10	9.30	100.80	10.04	0.003974		
2.30498	50905.80						
114.00	4457.44	10.04	7.72	8036.05	0.43		
1041.43	112.08	9.29	100.79	10.04	0.004018		
2.32974	50901.12						
115.00	4457.59	10.19	7.87	8386.51	0.43		
1065.72	112.80	9.45	101.36	9.95	0.004084		
2.40794	51186.50						
116.00	4457.68	10.28	7.96	8589.25	0.44		
1079.63	113.20	9.54	101.67	9.89	0.004068		
2.42117	51345.34						
117.00	4457.63	10.23	7.91	8478.18	0.44		
1072.05	112.98	9.49	101.50	9.92	0.004063		
2.40594	51258.23						
118.00	4457.63	10.23	7.90	8469.75	0.44		
1071.49	112.97	9.49	101.49	9.92	0.004064		
2.40511	51251.89						
119.00	4457.65	10.25	7.93	8535.42	0.44		
1075.94	113.10	9.51	101.59	9.91	0.004090		
2.42804	51303.91						
120.00	4457.71	10.31	7.99	8663.00	0.44		
1084.61	113.35	9.57	101.79	9.88	0.004096		
2.44598	51403.23						
121.00	4457.71	10.31	7.99	8669.95	0.44		
1085.08	113.36	9.57	101.80	9.87	0.004096		
2.44655	51408.50						
122.00	4457.68	10.28	7.96	8603.95	0.44		
1080.66	113.23	9.54	101.70	9.89	0.004069		
2.42320	51356.64						
123.00	4457.63	10.23	7.91	8477.83	0.44		
1072.04	112.98	9.49	101.50	9.92	0.004062		
2.40513	51257.98						
124.00	4457.60	10.20	7.88	8405.25	0.43		
1067.09	112.83	9.46	101.39	9.94	0.004035		
2.38122	51199.89						
125.00	4457.54	10.14	7.82	8277.36	0.43		
1058.26	112.58	9.40	101.18	9.98	0.004029		
2.36358	51097.62						
126.00	4457.54	10.14	7.82	8269.95	0.43		
1057.75	112.56	9.40	101.17	9.98	0.004028		
2.36167	51091.98						

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HYCHAN.OUT									
1053.87	127.00	4457.52	10.11	9.37	7.79	8213.27	0.43	9.99	0.004004
	2.34172	112.45				101.08			
		51045.58							
1045.82	128.00	4457.46	10.06	9.32	7.74	8098.24	0.43	10.02	0.003996
	2.32403	112.21				100.89			
		50951.66							
1045.29	129.00	4457.46	10.06	9.32	7.74	8091.04	0.43	10.03	0.003997
	2.32375	112.20				100.88			
		50945.59							
1041.51	130.00	4457.44	10.04	9.29	7.72	8036.18	0.43	10.04	0.003973
	2.30380	112.08				100.79			
		50900.04							
1033.60	131.00	4457.39	9.99	9.24	7.67	7924.20	0.43	10.07	0.003967
	2.28752	111.85				100.61			
		50806.61							
1040.90	132.00	4457.44	10.03	9.29	7.71	8028.93	0.43	10.04	0.004018
	2.32859	112.07				100.78			
		50895.07							
1056.74	133.00	4457.53	10.13	9.39	7.81	8255.91	0.43	9.98	0.004029
	2.36105	112.53				101.15			
		51080.61							
1057.72	134.00	4457.54	10.14	9.40	7.82	8269.81	0.43	9.98	0.004028
	2.36169	112.56				101.17			
		51091.67							
1057.78	135.00	4457.54	10.14	9.40	7.82	8270.26	0.43	9.98	0.004028
	2.36223	112.56				101.17			
		51092.27							
1057.72	136.00	4457.54	10.14	9.40	7.82	8269.70	0.43	9.98	0.004030
	2.36296	112.56				101.17			
		51091.59							
1057.73	137.00	4457.54	10.14	9.40	7.82	8269.95	0.43	9.98	0.004029
	2.36272	112.56				101.17			
		51091.72							
1057.79	138.00	4457.54	10.14	9.40	7.82	8270.43	0.43	9.98	0.004028
	2.36177	112.56				101.17			
		51092.33							
1057.71	139.00	4457.54	10.14	9.40	7.82	8269.71	0.43	9.98	0.004027
	2.36146	112.56				101.17			
		51091.59							
1053.89	140.00	4457.52	10.11	9.37	7.79	8213.61	0.43	9.99	0.004003
	2.34135	112.45				101.08			
		51045.74							
1045.83	141.00	4457.46	10.06	9.32	7.74	8098.20	0.43	10.02	0.003998
	2.32536	112.21				100.89			
		50951.58							
1045.30	142.00	4457.46	10.06	9.32	7.74	8090.76	0.43	10.03	0.003998
	2.32447	112.20				100.88			
		50945.64							
1045.33	143.00	4457.46	10.06	9.32	7.74	8091.12	0.43	10.03	0.003997
	2.32401	112.20				100.88			
		50945.93							
1045.30	144.00	4457.46	10.06	9.32	7.74	8090.94	0.43	10.03	0.003995
	2.32280	112.20				100.88			
		50945.67							
1041.57	145.00	4457.44	10.04	9.29	7.72	8036.92	0.43	10.04	0.003974
	2.30461	112.08				100.79			
		50900.69							
1033.55	146.00	4457.39	9.99	9.24	7.67	7923.61	0.43	10.07	0.003967
	2.28766	111.85				100.61			
		50806.30							
1033.07	147.00	4457.38	9.98	9.24	7.66	7916.93	0.43	10.08	0.003966
	2.28640	111.83				100.60			
		50800.75							

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			HYCHAN.OUT					
1033.06	148.00	4457.38	9.98	9.24	7.66	7917.05	10.08	0.003967
	2.28670	111.83				100.60		
		50800.68						
1033.06	149.00	4457.38	9.98	9.24	7.66	7916.92	10.08	0.003968
	2.28739	111.83				100.60		
		50800.62						
1033.08	150.00	4457.38	9.98	9.24	7.66	7916.95	10.08	0.003967
	2.28670	111.83				100.60		
		50800.98						
1030.61	151.00	4457.37	9.97	9.22	7.65	7881.46	10.09	0.003950
	2.27292	111.76				100.54		
		50770.69						
1024.06	152.00	4457.33	9.93	9.18	7.60	7787.90	10.11	0.003937
	2.25500	111.56				100.38		
		50691.32						
1021.02	153.00	4457.31	9.91	9.16	7.59	7745.09	10.12	0.003937
	2.25036	111.47				100.31		
		50655.12						
1020.81	154.00	4457.31	9.91	9.16	7.58	7742.53	10.13	0.003935
	2.24879	111.46				100.30		
		50652.52						
1017.15	155.00	4457.28	9.88	9.14	7.56	7689.86	10.14	0.003911
	2.22935	111.35				100.21		
		50607.09						
1016.59	156.00	4457.28	9.88	9.13	7.56	7684.17	10.14	0.003955
	2.25324	111.34				100.20		
		50603.15						
1032.02	157.00	4457.38	9.98	9.23	7.66	7902.63	10.08	0.003967
	2.28508	111.80				100.57		
		50788.81						
1033.08	158.00	4457.38	9.98	9.24	7.66	7917.05	10.08	0.003968
	2.28709	111.83				100.60		
		50800.84						
1033.09	159.00	4457.38	9.98	9.24	7.66	7917.29	10.08	0.003967
	2.28686	111.83				100.60		
		50801.07						
1033.05	160.00	4457.38	9.98	9.24	7.66	7916.56	10.08	0.003968
	2.28714	111.83				100.59		
		50800.47						
1033.11	161.00	4457.38	9.98	9.24	7.66	7917.16	10.08	0.003967
	2.28683	111.83				100.60		
		50801.25						
1033.07	162.00	4457.38	9.98	9.24	7.66	7916.96	10.08	0.003968
	2.28756	111.83				100.60		
		50800.74						
1033.08	163.00	4457.38	9.98	9.24	7.66	7916.92	10.08	0.003967
	2.28683	111.83				100.60		
		50800.78						
1033.09	164.00	4457.38	9.98	9.24	7.66	7916.99	10.08	0.003967
	2.28687	111.83				100.60		
		50800.98						
1029.34	165.00	4457.36	9.96	9.21	7.64	7862.97	10.09	0.003943
	2.26696	111.72				100.50		
		50754.88						
1021.38	166.00	4457.31	9.91	9.16	7.59	7749.96	10.12	0.003937
	2.25082	111.48				100.32		
		50659.20						
1020.86	167.00	4457.31	9.91	9.16	7.58	7742.93	10.13	0.003937
	2.25023	111.46				100.30		
		50653.28						
1020.86	168.00	4457.31	9.91	9.16	7.58	7742.95	10.13	0.003936
	2.24954	111.46				100.30		
		50653.25						

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			HYCHAN.OUT				
1020.84	169.00	4457.31	9.91	7.58	7742.79	0.42	
	2.25033	111.46	9.16		100.30	10.13	0.003938
		50653.09					
1020.89	170.00	4457.31	9.91	7.59	7743.56	0.42	
	2.24941	111.46	9.16		100.30	10.13	0.003936
		50653.66					
1020.84	171.00	4457.31	9.91	7.58	7742.56	0.42	
	2.24898	111.46	9.16		100.30	10.13	0.003935
		50653.00					
1020.87	172.00	4457.31	9.91	7.58	7742.98	0.42	
	2.24989	111.46	9.16		100.30	10.13	0.003937
		50653.39					
1017.15	173.00	4457.28	9.88	7.56	7689.52	0.42	
	2.22910	111.34	9.14		100.21	10.14	0.003910
		50606.82					
1009.01	174.00	4457.23	9.83	7.51	7575.87	0.42	
	2.21261	111.10	9.08		100.02	10.17	0.003904
		50508.55					
1008.51	175.00	4457.23	9.83	7.51	7569.25	0.42	
	2.21198	111.08	9.08		100.01	10.18	0.003905
		50502.77					
1008.47	176.00	4457.23	9.83	7.51	7568.73	0.42	
	2.21218	111.08	9.08		100.00	10.18	0.003905
		50502.30					
1008.46	177.00	4457.23	9.83	7.51	7568.90	0.42	
	2.21247	111.08	9.08		100.00	10.18	0.003905
		50502.06					
1008.50	178.00	4457.23	9.83	7.51	7569.17	0.42	
	2.21229	111.08	9.08		100.01	10.18	0.003905
		50502.58					
1008.50	179.00	4457.23	9.83	7.51	7569.01	0.42	
	2.21216	111.08	9.08		100.01	10.18	0.003905
		50502.63					
1016.14	180.00	4457.28	9.88	7.56	7677.80	0.42	
	2.25281	111.32	9.13		100.19	10.14	0.003955
		50597.95					
1032.01	181.00	4457.38	9.98	7.66	7902.06	0.43	
	2.28522	111.80	9.23		100.57	10.08	0.003967
		50788.62					
1036.97	182.00	4457.41	10.01	7.69	7972.54	0.43	
	2.30666	111.95	9.26		100.69	10.06	0.003991
		50847.82					
1044.74	183.00	4457.46	10.06	7.74	8083.37	0.43	
	2.32294	112.18	9.31		100.87	10.03	0.003997
		50939.27					
1045.28	184.00	4457.46	10.06	7.74	8090.71	0.43	
	2.32516	112.19	9.32		100.88	10.03	0.004000
		50945.37					
1045.30	185.00	4457.46	10.06	7.74	8090.90	0.43	
	2.32446	112.20	9.32		100.88	10.03	0.003998
		50945.79					
1045.32	186.00	4457.46	10.06	7.74	8091.20	0.43	
	2.32471	112.20	9.32		100.88	10.03	0.003999
		50945.94					
1045.30	187.00	4457.46	10.06	7.74	8091.14	0.43	
	2.32431	112.20	9.32		100.88	10.03	0.003998
		50945.65					
1045.30	188.00	4457.46	10.06	7.74	8090.93	0.43	
	2.32242	112.20	9.32		100.88	10.03	0.003995
		50945.61					
1045.31	189.00	4457.46	10.06	7.74	8091.09	0.43	
	2.32349	112.20	9.32		100.88	10.03	0.003997
		50945.82					

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HYCHAN.OUT							
190.00	4457.46	10.06	7.74	8091.02	0.43		
1045.30	112.20	9.32		100.88	10.03	0.003996	
2.32319	50945.66						
191.00	4457.44	10.04	7.72	8036.66	0.43		
1041.53	112.08	9.29		100.79	10.04	0.003974	
2.30444	50900.28						
192.00	4457.39	9.99	7.67	7923.70	0.43		
1033.58	111.85	9.24		100.61	10.07	0.003967	
2.28768	50806.40						
193.00	4457.38	9.98	7.66	7916.98	0.43		
1033.08	111.83	9.24		100.60	10.08	0.003967	
2.28691	50800.81						
194.00	4457.38	9.98	7.66	7917.02	0.43		
1033.08	111.83	9.24		100.60	10.08	0.003967	
2.28653	50800.85						
195.00	4457.38	9.98	7.66	7916.99	0.43		
1033.06	111.83	9.24		100.60	10.08	0.003968	
2.28745	50800.56						
196.00	4457.38	9.98	7.66	7917.32	0.43		
1033.09	111.83	9.24		100.60	10.08	0.003967	
2.28697	50800.96						
197.00	4457.38	9.98	7.66	7916.95	0.43		
1033.06	111.83	9.24		100.60	10.08	0.003967	
2.28655	50800.60						
198.00	4457.38	9.98	7.66	7916.94	0.43		
1033.07	111.83	9.24		100.60	10.08	0.003967	
2.28666	50800.92						
199.00	4457.38	9.98	7.66	7916.71	0.43		
1033.04	111.83	9.24		100.60	10.08	0.003967	
2.28642	50800.50						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1454

MAXIMUM DISCHARGE (CFS) = 21518.03 AT TIME = 80.96  
 MAXIMUM STAGE = 4458.45 AT TIME = 81.31

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	SURFACE AREA	DEPTH					
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)			
(LB/FT^2)	(FT^2)						
0.00	0.00	4446.40	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4446.40	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4446.40	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
843.87	3.00	4449.99	3.59	3.02	2546.07	0.28	0.003077
	1.07533	150.66	5.60	148.24	41.32		
882.85	4.00	4453.78	7.38	6.22	5493.37	0.40	0.003066
	0.82748	204.09	4.33	199.22	27.00		
872.44	5.00	4453.73	7.33	6.17	5386.87	0.40	0.003064
	0.81963	203.50	4.29	198.65	27.11		
	6.00	4453.70	7.30	6.15	5342.49	0.40	

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		HYCHAN.OUT				
868.11	0.81416	203.24	4.27	198.40	27.16	0.003055
	7.00	4453.64	7.24	6.09	5201.32	0.40
854.31	0.80145	202.43	4.22	197.64	27.31	0.003043
	8.00	4453.56	7.16	6.02	5051.58	0.40
839.47	0.78709	201.56	4.16	196.80	27.48	0.003029
	9.00	4453.49	7.09	5.95	4905.68	0.39
824.77	0.77390	200.68	4.11	195.97	27.65	0.003018
	10.00	4453.43	7.03	5.89	4784.69	0.39
812.44	0.76489	199.94	4.06	195.27	27.79	0.003017
	11.00	4453.40	7.00	5.87	4743.89	0.39
807.86	0.75817	199.68	4.05	195.02	27.84	0.003003
	12.00	4453.33	6.93	5.81	4607.06	0.39
793.59	0.74422	198.81	3.99	194.19	28.01	0.002988
	13.00	4453.27	6.87	5.74	4482.83	0.39
780.49	0.73383	198.01	3.94	193.43	28.17	0.002983
	14.00	4453.26	6.86	5.74	4468.93	0.39
778.87	0.73307	197.91	3.94	193.33	28.19	0.002985
	15.00	4453.26	6.86	5.74	4469.04	0.39
778.87	0.73295	197.91	3.94	193.33	28.19	0.002985
	16.00	4453.26	6.86	5.74	4469.03	0.39
778.88	0.73265	197.91	3.94	193.33	28.19	0.002983
	17.00	4453.26	6.86	5.74	4468.92	0.39
778.86	0.73299	197.91	3.94	193.33	28.19	0.002985
	18.00	4453.27	6.87	5.75	4495.52	0.39
781.64	0.73781	198.09	3.95	193.50	28.16	0.002996
	19.00	4453.35	6.95	5.82	4635.42	0.39
796.49	0.75189	199.00	4.00	194.37	27.98	0.003011
	20.00	4453.43	7.03	5.89	4789.05	0.39
812.69	0.76676	199.98	4.06	195.30	27.79	0.003024
	21.00	4453.49	7.09	5.95	4912.21	0.39
825.32	0.77673	200.73	4.11	196.02	27.64	0.003027
	22.00	4453.50	7.10	5.96	4923.75	0.39
826.56	0.77773	200.81	4.12	196.09	27.63	0.003028
	23.00	4453.51	7.11	5.97	4954.81	0.39
829.59	0.78208	200.99	4.13	196.27	27.59	0.003037
	24.00	4453.60	7.20	6.06	5135.12	0.40
847.46	0.80066	202.06	4.19	197.28	27.39	0.003059
	25.00	4453.75	7.35	6.20	5434.59	0.40
876.78	0.82797	203.77	4.30	198.91	27.06	0.003084
	26.00	4453.89	7.49	6.34	5743.67	0.41
906.41	0.85541	205.44	4.41	200.50	26.76	0.003107
	27.00	4454.00	7.60	6.43	5969.58	0.41

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		HYCHAN.OUT					
927.86	206.62	4.49	201.61	26.54	0.003111		
0.87169	102822.48						
28.00	4454.00	7.60	6.44	5984.93	0.41		
929.39	206.69	4.50	201.69	26.53	0.003111		
0.87276	102860.23						
29.00	4454.02	7.62	6.46	6029.43	0.41		
933.45	206.92	4.51	201.90	26.49	0.003121		
0.87845	102970.53						
30.00	4454.07	7.67	6.51	6144.03	0.41		
944.16	207.50	4.55	202.45	26.38	0.003122		
0.88645	103250.48						
31.00	4454.08	7.68	6.51	6152.18	0.41		
944.97	207.54	4.55	202.49	26.38	0.003122		
0.88714	103269.77						
32.00	4454.10	7.70	6.53	6199.38	0.42		
949.18	207.77	4.57	202.71	26.34	0.003134		
0.89333	103383.00						
33.00	4454.15	7.75	6.58	6317.95	0.42		
960.20	208.36	4.61	203.27	26.23	0.003135		
0.90161	103665.78						
34.00	4454.15	7.75	6.58	6326.13	0.42		
960.97	208.39	4.61	203.30	26.23	0.003134		
0.90192	103683.68						
35.00	4454.13	7.73	6.56	6278.37	0.42		
956.71	208.16	4.60	203.08	26.27	0.003124		
0.89601	103569.88						
36.00	4454.08	7.68	6.51	6160.12	0.41		
945.73	207.57	4.56	202.52	26.37	0.003123		
0.88784	103287.35						
37.00	4454.06	7.66	6.49	6107.29	0.41		
940.88	207.31	4.54	202.27	26.42	0.003113		
0.88150	103158.88						
38.00	4454.01	7.61	6.44	5993.22	0.41		
930.23	206.74	4.50	201.73	26.52	0.003111		
0.87346	102880.70						
39.00	4454.00	7.60	6.44	5984.90	0.41		
929.41	206.69	4.50	201.69	26.53	0.003112		
0.87306	102860.66						
40.00	4454.00	7.60	6.44	5985.07	0.41		
929.38	206.69	4.50	201.69	26.53	0.003111		
0.87290	102860.16						
41.00	4454.00	7.60	6.44	5985.00	0.41		
929.41	206.69	4.50	201.69	26.53	0.003111		
0.87279	102860.80						
42.00	4454.00	7.60	6.44	5985.03	0.41		
929.42	206.69	4.50	201.69	26.53	0.003110		
0.87250	102860.97						
43.00	4454.02	7.62	6.46	6029.62	0.41		
933.47	206.92	4.51	201.90	26.49	0.003121		
0.87855	102971.27						
44.00	4454.07	7.67	6.51	6144.21	0.41		
944.18	207.50	4.55	202.45	26.38	0.003122		
0.88645	103250.80						
45.00	4454.10	7.70	6.53	6199.46	0.42		
949.22	207.77	4.57	202.71	26.34	0.003134		
0.89341	103383.70						
46.00	4454.17	7.77	6.60	6366.98	0.42		
964.53	208.59	4.62	203.49	26.19	0.003145		
0.90755	103779.26						
47.00	4454.24	7.84	6.67	6540.93	0.42		
980.33	209.42	4.68	204.28	26.05	0.003155		
0.92166	104180.28						
48.00	4454.32	7.92	6.74	6715.21	0.42		

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996.05	210.23	4.74	205.05	25.91	0.003168		
0.93662	104574.90						
49.00	4454.38	7.98	6.81	6881.69	0.42		
1010.96	210.99	4.79	205.77	25.77	0.003179		
0.95040	104944.16						
50.00	4454.46	8.06	6.88	7062.39	0.43		
1026.88	211.79	4.85	206.53	25.64	0.003190		
0.96504	105331.64						
51.00	4454.54	8.14	6.96	7282.09	0.43		
1046.01	212.75	4.92	207.44	25.48	0.003210		
0.98497	105792.40						
52.00	4454.64	8.24	7.05	7526.22	0.43		
1067.34	213.78	4.99	208.42	25.30	0.003211		
1.00046	106294.02						
53.00	4454.66	8.26	7.08	7594.76	0.43		
1073.13	214.06	5.01	208.69	25.26	0.003221		
1.00745	106430.28						
54.00	4454.77	8.37	7.18	7879.29	0.44		
1096.80	215.21	5.10	209.78	25.07	0.003252		
1.03416	106985.97						
55.00	4454.99	8.59	7.41	8504.45	0.45		
1148.40	217.64	5.28	212.08	24.68	0.003294		
1.08464	108162.38						
56.00	4455.30	8.90	7.72	9414.58	0.46		
1220.26	220.84	5.53	215.12	24.18	0.003346		
1.15384	109709.59						
57.00	4455.65	9.25	8.07	10546.33	0.47		
1307.14	224.51	5.82	218.60	23.63	0.003405		
1.23703	111487.20						
58.00	4456.01	9.61	8.42	11758.84	0.48		
1396.28	228.10	6.12	222.00	23.11	0.003447		
1.31686	113219.89						
59.00	4456.28	9.88	8.70	12759.43	0.49		
1467.44	230.82	6.36	224.58	22.73	0.003491		
1.38510	114533.82						
60.00	4456.61	10.21	9.03	14029.83	0.50		
1554.32	234.00	6.64	227.59	22.29	0.003532		
1.46386	116072.36						
61.00	4456.89	10.49	9.30	15172.54	0.51		
1630.70	236.66	6.89	230.11	21.94	0.003569		
1.53471	117358.27						
62.00	4457.06	10.66	9.48	15932.49	0.51		
1680.11	238.33	7.05	231.70	21.73	0.003599		
1.58308	118165.30						
63.00	4457.25	10.85	9.67	16752.13	0.52		
1732.53	240.06	7.22	233.33	21.51	0.003617		
1.62888	118998.62						
64.00	4457.38	10.98	9.79	17350.71	0.52		
1772.74	241.30	7.35	234.51	21.35	0.003634		
1.66581	119599.38						
65.00	4457.51	11.11	9.90	17933.94	0.52		
1812.19	242.52	7.47	235.66	21.20	0.003689		
1.71998	120186.45						
66.00	4457.64	11.24	9.99	18484.97	0.53		
1849.92	243.68	7.59	236.76	21.06	0.003710		
1.75741	120745.41						
67.00	4457.68	11.28	10.02	18638.38	0.53		
1860.92	244.00	7.63	237.06	21.02	0.003726		
1.77313	120900.02						
68.00	4457.68	11.28	10.02	18662.20	0.53		
1862.66	244.05	7.63	237.11	21.02	0.003722		
1.77257	120924.95						
69.00	4457.68	11.28	10.02	18673.18	0.53		

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1863.50		244.07		7.63	237.13	21.02	0.003728
	1.77606	120936.37					
	70.00	4457.69	11.29	10.02	18690.49	0.53	
1864.68		244.11		7.64	237.16	21.01	0.003723
	1.77477	120951.66					
	71.00	4457.69	11.29	10.03	18702.63	0.53	
1865.58		244.14		7.64	237.19	21.01	0.003725
	1.77618	120967.23					
	72.00	4457.69	11.29	10.02	18692.19	0.53	
1864.88		244.11		7.64	237.17	21.01	0.003727
	1.77687	120955.82					
	73.00	4457.69	11.29	10.03	18721.90	0.53	
1866.55		244.17		7.64	237.22	21.00	0.003744
	1.78598	120983.30					
	74.00	4457.74	11.34	10.07	18934.77	0.53	
1880.61		244.61		7.69	237.64	20.95	0.003764
	1.80589	121194.00					
	75.00	4457.77	11.37	10.09	19059.11	0.53	
1889.31		244.86		7.72	237.88	20.92	0.003760
	1.81043	121316.59					
	76.00	4457.78	11.38	10.09	19098.13	0.53	
1891.89		244.94		7.72	237.95	20.91	0.003784
	1.82359	121355.00					
	77.00	4457.84	11.44	10.14	19359.75	0.53	
1909.10		245.47		7.78	238.45	20.85	0.003837
	1.86226	121610.98					
	78.00	4457.96	11.56	10.23	19919.20	0.53	
1947.22		246.59		7.90	239.51	20.72	0.003877
	1.91021	122152.48					
	79.00	4458.10	11.70	10.21	20435.45	0.53	
2000.89		247.78		8.08	240.64	20.58	0.003850
	1.94017	122726.10					
	80.00	4458.22	11.82	10.14	20860.71	0.52	
2057.58		248.91		8.27	241.70	20.45	0.003812
	1.96652	123268.70					
	81.00	4458.39	11.99	10.02	21368.59	0.51	
2133.44		250.39		8.52	243.10	20.28	0.003721
	1.97837	123981.02					
	82.00	4458.44	12.04	9.93	21453.33	0.50	
2160.78		250.84		8.61	243.53	20.23	0.003708
	1.99293	124199.00					
	83.00	4458.34	11.94	9.99	21137.46	0.51	
2116.77		249.94		8.47	242.67	20.33	0.003778
	1.99650	123764.14					
	84.00	4458.27	11.87	10.06	20963.32	0.51	
2083.99		249.34		8.36	242.11	20.40	0.003793
	1.97821	123474.94					
	85.00	4458.26	11.86	10.07	20955.87	0.52	
2080.62		249.29		8.35	242.06	20.40	0.003798
	1.97787	123450.48					
	86.00	4458.29	11.89	10.06	21026.18	0.51	
2090.44		249.48		8.38	242.24	20.38	0.003775
	1.97368	123544.12					
	87.00	4458.26	11.86	10.05	20899.15	0.51	
2079.48		249.21		8.34	241.99	20.41	0.003777
	1.96665	123412.66					
	88.00	4458.01	11.61	10.13	20028.39	0.52	
1976.52		247.02		8.00	239.91	20.67	0.003785
	1.88990	122356.34					
	89.00	4457.67	11.27	10.00	18624.91	0.53	
1862.08		243.97		7.63	237.03	21.03	0.003617
	1.72267	120886.88					
	90.00	4457.27	10.87	9.67	16850.15	0.52	

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1742.36	240.27	7.25	233.53	21.48	0.003580		
1.61979	119099.29						
91.00	4457.00	10.60	9.41	15645.72	0.51		
1663.13	237.71	7.00	231.11	21.81	0.003548		
1.54891	117864.35						
92.00	4456.75	10.35	9.15	14585.22	0.50		
1593.77	235.32	6.77	228.84	22.12	0.003502		
1.47998	116707.96						
93.00	4456.49	10.09	8.89	13543.14	0.49		
1523.07	232.81	6.54	226.47	22.45	0.003470		
1.41644	115498.77						
94.00	4456.28	9.88	8.68	12753.51	0.49		
1468.56	230.80	6.36	224.56	22.73	0.003441		
1.36612	114525.75						
95.00	4456.11	9.71	8.52	12133.51	0.48		
1424.56	229.14	6.22	222.99	22.96	0.003414		
1.32426	113723.70						
96.00	4455.95	9.55	8.36	11570.76	0.48		
1384.31	227.56	6.08	221.49	23.18	0.003393		
1.28805	112961.98						
97.00	4455.80	9.40	8.20	11030.48	0.47		
1344.38	225.99	5.95	220.00	23.41	0.003375		
1.25295	112200.30						
98.00	4455.67	9.27	8.08	10615.75	0.47		
1313.58	224.73	5.85	218.81	23.59	0.003355		
1.22371	111593.34						
99.00	4455.56	9.16	7.97	10248.30	0.46		
1285.81	223.59	5.75	217.72	23.76	0.003345		
1.20024	111038.31						
100.00	4455.47	9.07	7.87	9938.56	0.46		
1262.32	222.59	5.67	216.78	23.91	0.003325		
1.17649	110555.39						
101.00	4455.35	8.95	7.76	9569.22	0.46		
1233.49	221.36	5.57	215.61	24.10	0.003310		
1.15090	109963.09						
102.00	4455.25	8.85	7.66	9275.70	0.45		
1210.71	220.39	5.49	214.69	24.25	0.003297		
1.13006	109490.91						
103.00	4455.17	8.77	7.57	9016.80	0.45		
1190.55	219.51	5.42	213.86	24.38	0.003285		
1.11174	109066.56						
104.00	4455.10	8.70	7.51	8813.17	0.45		
1174.29	218.79	5.37	213.17	24.50	0.003275		
1.09684	108717.25						
105.00	4455.01	8.61	7.42	8552.68	0.45		
1153.19	217.82	5.29	212.25	24.65	0.003255		
1.07523	108247.10						
106.00	4454.90	8.50	7.31	8232.21	0.44		
1126.70	216.60	5.20	211.09	24.85	0.003243		
1.05281	107656.18						
107.00	4454.83	8.43	7.24	8046.15	0.44		
1111.13	215.86	5.15	210.40	24.96	0.003234		
1.03872	107302.18						
108.00	4454.76	8.36	7.18	7872.32	0.44		
1096.66	215.17	5.10	209.74	25.08	0.003226		
1.02583	106968.48						
109.00	4454.72	8.32	7.13	7751.02	0.44		
1086.44	214.70	5.06	209.29	25.15	0.003224		
1.01789	106736.66						
110.00	4454.74	8.34	7.15	7796.59	0.44		
1090.06	214.88	5.07	209.46	25.12	0.003231		
1.02295	106823.43						
111.00	4454.82	8.42	7.23	8017.78	0.44		

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1108.48	215.76	5.14	210.30	24.98	0.003252		
1.04255	107252.62						
112.00	4454.88	8.49	7.30	8200.06	0.44		
1123.88	216.47	5.19	210.98	24.86	0.003244		
1.05086	107597.49						
113.00	4454.83	8.43	7.24	8045.53	0.44		
1111.09	215.86	5.15	210.39	24.96	0.003235		
1.03913	107301.39						
114.00	4454.82	8.42	7.24	8033.36	0.44		
1109.86	215.82	5.14	210.36	24.97	0.003254		
1.04406	107282.76						
115.00	4454.95	8.55	7.36	8382.04	0.44		
1138.67	217.18	5.24	211.65	24.75	0.003273		
1.07091	107940.80						
116.00	4455.02	8.62	7.43	8589.99	0.45		
1156.00	217.96	5.30	212.39	24.63	0.003265		
1.08042	108317.93						
117.00	4454.98	8.58	7.39	8478.71	0.44		
1146.85	217.54	5.27	211.99	24.69	0.003265		
1.07393	108114.63						
118.00	4454.98	8.58	7.39	8469.70	0.44		
1146.11	217.51	5.27	211.96	24.70	0.003265		
1.07355	108099.62						
119.00	4455.00	8.60	7.41	8533.69	0.45		
1151.27	217.76	5.29	212.19	24.66	0.003274		
1.08010	108217.93						
120.00	4455.05	8.65	7.46	8662.48	0.45		
1161.82	218.24	5.32	212.65	24.58	0.003275		
1.08792	108449.86						
121.00	4455.05	8.65	7.46	8669.94	0.45		
1162.47	218.26	5.33	212.67	24.58	0.003275		
1.08832	108462.71						
122.00	4455.03	8.63	7.44	8605.71	0.45		
1157.35	218.02	5.31	212.44	24.62	0.003265		
1.08156	108345.43						
123.00	4454.98	8.58	7.39	8478.33	0.44		
1146.87	217.54	5.27	211.99	24.69	0.003264		
1.07384	108114.83						
124.00	4454.96	8.56	7.37	8407.02	0.44		
1141.03	217.27	5.25	211.73	24.74	0.003254		
1.06643	107981.45						
125.00	4454.91	8.51	7.32	8277.92	0.44		
1130.33	216.78	5.21	211.26	24.82	0.003255		
1.05903	107743.43						
126.00	4454.91	8.51	7.32	8269.96	0.44		
1129.65	216.75	5.21	211.23	24.82	0.003253		
1.05793	107729.12						
127.00	4454.89	8.49	7.30	8214.85	0.44		
1125.20	216.53	5.20	211.03	24.86	0.003245		
1.05228	107624.52						
128.00	4454.85	8.45	7.26	8098.70	0.44		
1115.47	216.08	5.16	210.60	24.93	0.003243		
1.04482	107405.03						
129.00	4454.85	8.45	7.26	8091.06	0.44		
1114.75	216.05	5.16	210.57	24.93	0.003243		
1.04415	107390.26						
130.00	4454.83	8.43	7.24	8037.74	0.44		
1110.43	215.83	5.14	210.37	24.97	0.003235		
1.03855	107287.31						
131.00	4454.78	8.38	7.20	7924.64	0.44		
1100.88	215.38	5.11	209.94	25.04	0.003233		
1.03123	107070.20						
132.00	4454.82	8.42	7.24	8025.81	0.44		

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1109.17	215.79	5.14	210.33	24.97	0.003253		
1.04330	107267.62						
133.00	4454.90	8.51	7.32	8254.97	0.44		
1128.34	216.69	5.21	211.18	24.83	0.003255		
1.05750	107701.51						
134.00	4454.91	8.51	7.32	8269.80	0.44		
1129.63	216.74	5.21	211.23	24.82	0.003253		
1.05787	107728.55						
135.00	4454.91	8.51	7.32	8270.24	0.44		
1129.69	216.75	5.21	211.24	24.82	0.003254		
1.05824	107729.97						
136.00	4454.91	8.51	7.32	8269.69	0.44		
1129.62	216.74	5.21	211.23	24.82	0.003255		
1.05861	107728.46						
137.00	4454.91	8.51	7.32	8269.97	0.44		
1129.66	216.75	5.21	211.23	24.82	0.003254		
1.05843	107728.83						
138.00	4454.91	8.51	7.32	8270.43	0.44		
1129.70	216.75	5.21	211.24	24.82	0.003253		
1.05789	107730.31						
139.00	4454.91	8.51	7.32	8269.71	0.44		
1129.62	216.74	5.21	211.23	24.82	0.003253		
1.05786	107728.20						
140.00	4454.89	8.49	7.30	8215.17	0.44		
1125.20	216.53	5.20	211.03	24.86	0.003244		
1.05200	107625.02						
141.00	4454.85	8.45	7.26	8098.75	0.44		
1115.46	216.08	5.16	210.60	24.93	0.003244		
1.04502	107405.35						
142.00	4454.85	8.45	7.26	8090.76	0.44		
1114.78	216.05	5.16	210.57	24.93	0.003244		
1.04453	107390.45						
143.00	4454.85	8.45	7.26	8091.11	0.44		
1114.80	216.05	5.16	210.57	24.93	0.003244		
1.04438	107391.70						
144.00	4454.85	8.45	7.26	8090.90	0.44		
1114.75	216.05	5.16	210.57	24.93	0.003243		
1.04418	107390.57						
145.00	4454.83	8.43	7.24	8038.45	0.44		
1110.50	215.84	5.15	210.37	24.97	0.003235		
1.03870	107289.10						
146.00	4454.78	8.38	7.20	7924.09	0.44		
1100.83	215.38	5.11	209.94	25.04	0.003234		
1.03133	107068.38						
147.00	4454.78	8.38	7.20	7916.99	0.44		
1100.20	215.35	5.11	209.91	25.05	0.003233		
1.03059	107055.06						
148.00	4454.78	8.38	7.20	7917.05	0.44		
1100.18	215.35	5.11	209.91	25.05	0.003234		
1.03082	107054.73						
149.00	4454.78	8.38	7.20	7916.86	0.44		
1100.18	215.35	5.11	209.91	25.05	0.003234		
1.03109	107054.80						
150.00	4454.78	8.38	7.20	7916.96	0.44		
1100.21	215.35	5.11	209.91	25.05	0.003234		
1.03098	107055.04						
151.00	4454.77	8.37	7.18	7882.47	0.44		
1097.41	215.21	5.10	209.78	25.07	0.003229		
1.02727	106988.01						
152.00	4454.73	8.33	7.15	7788.72	0.44		
1089.60	214.85	5.07	209.43	25.13	0.003223		
1.02010	106809.81						
153.00	4454.72	8.32	7.13	7745.33	0.44		

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				HYCHAN.OUT			
1085.93		214.67		5.06	209.27	25.16	0.003223
	1.01746	106725.55					
154.00		4454.72	8.32	7.13	7742.49	0.44	
1085.66		214.66		5.06	209.25	25.16	0.003223
	1.01709	106719.86					
155.00		4454.70	8.30	7.11	7691.35	0.44	
1081.49		214.46		5.04	209.06	25.19	0.003214
	1.01149	106620.18					
156.00		4454.69	8.29	7.11	7681.70	0.44	
1080.37		214.41		5.04	209.02	25.20	0.003231
	1.01586	106599.41					
157.00		4454.78	8.38	7.19	7901.57	0.44	
1098.83		215.29		5.10	209.85	25.06	0.003233
	1.02978	107025.52					
158.00		4454.78	8.38	7.20	7917.08	0.44	
1100.22		215.35		5.11	209.91	25.05	0.003234
	1.03099	107055.09					
159.00		4454.78	8.38	7.20	7917.20	0.44	
1100.21		215.35		5.11	209.91	25.05	0.003234
	1.03097	107055.26					
160.00		4454.78	8.38	7.20	7916.64	0.44	
1100.17		215.35		5.11	209.91	25.05	0.003234
	1.03087	107054.75					
161.00		4454.78	8.38	7.20	7917.08	0.44	
1100.22		215.36		5.11	209.91	25.05	0.003234
	1.03093	107055.93					
162.00		4454.78	8.38	7.20	7917.03	0.44	
1100.18		215.35		5.11	209.91	25.05	0.003235
	1.03113	107054.69					
163.00		4454.78	8.38	7.20	7916.91	0.44	
1100.19		215.35		5.11	209.91	25.05	0.003233
	1.03079	107055.22					
164.00		4454.78	8.38	7.20	7916.99	0.44	
1100.23		215.35		5.11	209.91	25.05	0.003234
	1.03092	107055.52					
165.00		4454.76	8.36	7.18	7864.51	0.44	
1095.95		215.14		5.09	209.71	25.08	0.003224
	1.02487	106953.88					
166.00		4454.72	8.32	7.13	7750.41	0.44	
1086.40		214.69		5.06	209.29	25.15	0.003224
	1.01808	106735.85					
167.00		4454.72	8.32	7.13	7742.96	0.44	
1085.72		214.66		5.06	209.26	25.16	0.003223
	1.01725	106721.01					
168.00		4454.72	8.32	7.13	7742.92	0.44	
1085.72		214.66		5.06	209.26	25.16	0.003224
	1.01762	106721.05					
169.00		4454.72	8.32	7.13	7742.81	0.44	
1085.70		214.66		5.06	209.26	25.16	0.003224
	1.01736	106720.52					
170.00		4454.72	8.32	7.13	7743.57	0.44	
1085.76		214.67		5.06	209.26	25.16	0.003223
	1.01709	106722.14					
171.00		4454.72	8.32	7.13	7742.54	0.44	
1085.70		214.66		5.06	209.26	25.16	0.003224
	1.01745	106720.36					
172.00		4454.72	8.32	7.13	7743.04	0.44	
1085.73		214.66		5.06	209.26	25.16	0.003223
	1.01728	106721.15					
173.00		4454.70	8.30	7.11	7691.01	0.44	
1081.51		214.46		5.04	209.06	25.19	0.003214
	1.01134	106620.84					
174.00		4454.66	8.26	7.07	7576.38	0.43	

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				HYCHAN.OUT			
1071.77		213.99		5.01	208.62	25.27	0.003213
	1.00405	106394.56					
	175.00	4454.65	8.25		7.07	7569.24	0.43
1071.12		213.96		5.01	208.59	25.27	0.003213
	1.00380	106380.36					
	176.00	4454.65	8.25		7.07	7568.75	0.43
1071.08		213.96		5.01	208.59	25.28	0.003214
	1.00393	106379.36					
	177.00	4454.65	8.25		7.07	7568.87	0.43
1071.05		213.96		5.01	208.59	25.28	0.003214
	1.00387	106379.25					
	178.00	4454.65	8.25		7.07	7569.17	0.43
1071.10		213.96		5.01	208.59	25.28	0.003213
	1.00377	106380.09					
	179.00	4454.65	8.25		7.07	7569.03	0.43
1071.11		213.96		5.01	208.59	25.28	0.003213
	1.00379	106380.02					
	180.00	4454.69	8.29		7.11	7674.72	0.44
1079.76		214.39		5.04	208.99	25.20	0.003232
	1.01562	106586.32					
	181.00	4454.78	8.38		7.19	7901.09	0.44
1098.81		215.29		5.10	209.85	25.06	0.003234
	1.02997	107024.98					
	182.00	4454.80	8.40		7.22	7971.01	0.44
1104.67		215.57		5.12	210.12	25.01	0.003241
	1.03646	107161.12					
	183.00	4454.84	8.44		7.26	8082.82	0.44
1114.04		216.01		5.16	210.54	24.94	0.003243
	1.04364	107375.05					
	184.00	4454.85	8.45		7.26	8090.73	0.44
1114.76		216.05		5.16	210.57	24.93	0.003246
	1.04503	107390.24					
	185.00	4454.85	8.45		7.26	8090.92	0.44
1114.78		216.05		5.16	210.57	24.93	0.003244
	1.04451	107390.34					
	186.00	4454.85	8.45		7.26	8091.24	0.44
1114.80		216.05		5.16	210.57	24.93	0.003244
	1.04449	107391.40					
	187.00	4454.85	8.45		7.26	8091.14	0.44
1114.78		216.05		5.16	210.57	24.93	0.003244
	1.04437	107390.72					
	188.00	4454.85	8.45		7.26	8090.83	0.44
1114.77		216.05		5.16	210.57	24.93	0.003244
	1.04443	107390.73					
	189.00	4454.85	8.45		7.26	8091.16	0.44
1114.79		216.05		5.16	210.57	24.93	0.003243
	1.04405	107390.86					
	190.00	4454.85	8.45		7.26	8091.02	0.44
1114.78		216.05		5.16	210.57	24.93	0.003242
	1.04387	107390.73					
	191.00	4454.83	8.43		7.24	8038.18	0.44
1110.46		215.83		5.14	210.37	24.97	0.003235
	1.03872	107287.74					
	192.00	4454.78	8.38		7.20	7924.16	0.44
1100.86		215.38		5.11	209.94	25.04	0.003234
	1.03146	107069.49					
	193.00	4454.78	8.38		7.20	7917.02	0.44
1100.22		215.35		5.11	209.91	25.05	0.003234
	1.03093	107055.66					
	194.00	4454.78	8.38		7.20	7917.04	0.44
1100.20		215.35		5.11	209.91	25.05	0.003234
	1.03095	107055.31					
	195.00	4454.78	8.38		7.20	7916.96	0.44

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HYCHAN.OUT						
1100.17	215.35	5.11	209.91	25.05	0.003235	
1.03122	107054.67					
196.00	4454.78	8.38	7.20	7917.29	0.44	
1100.22	215.35	5.11	209.91	25.05	0.003234	
1.03105	107055.76					
197.00	4454.78	8.38	7.20	7917.02	0.44	
1100.20	215.35	5.11	209.91	25.05	0.003234	
1.03083	107054.84					
198.00	4454.78	8.38	7.20	7916.96	0.44	
1100.18	215.35	5.11	209.91	25.05	0.003233	
1.03075	107054.76					
199.00	4454.78	8.38	7.20	7916.67	0.44	
1100.16	215.35	5.11	209.91	25.05	0.003234	
1.03089	107054.21					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1488

MAXIMUM DISCHARGE (CFS) = 21513.99 AT TIME = 80.96  
 MAXIMUM STAGE = 4457.19 AT TIME = 81.32

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRONDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)			
0.00	4445.40	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4445.40	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4445.40	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4448.16	2.76	3.22	2435.90	0.34	0.003679
755.47	134.92	5.60	133.13	48.23		
1.28545	69227.70					
4.00	4451.36	5.96	6.89	5494.70	0.50	0.003681
797.64	186.59	4.27	182.56	30.62		
0.98201	94932.01					
5.00	4451.31	5.91	6.84	5387.54	0.50	0.003688
787.19	185.93	4.23	181.92	30.77		
0.97434	94600.81					
6.00	4451.29	5.89	6.83	5343.83	0.50	0.003692
782.92	185.65	4.22	181.66	30.84		
0.97165	94463.73					
7.00	4451.22	5.82	6.77	5203.39	0.49	0.003700
769.11	184.75	4.16	180.80	31.05		
0.96118	94017.69					
8.00	4451.15	5.75	6.70	5053.56	0.49	0.003708
754.24	183.77	4.10	179.87	31.28		
0.94970	93531.84					
9.00	4451.08	5.68	6.64	4907.84	0.49	0.003716
739.50	182.78	4.05	178.93	31.52		
0.93806	93043.05					
10.00	4451.02	5.62	6.58	4785.57	0.49	0.003725
727.09	181.94	4.00	178.13	31.72		
0.92892	92627.53					
11.00	4450.99	5.59	6.57	4745.22	0.49	0.003725
722.24	181.61	3.98	177.81	31.80		

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		HYCHAN.OUT					
	0.92428	92462.88					
707.78	12.00	4450.92	5.52	6.51	4609.29	0.49	
		180.61	3.92		176.86	32.05	0.003737
	0.91370	91966.75					
694.62	13.00	4450.85	5.45	6.45	4483.75	0.49	
		179.69	3.87		175.98	32.28	0.003741
	0.90241	91511.50					
693.00	14.00	4450.84	5.44	6.45	4469.00	0.49	
		179.58	3.86		175.88	32.31	0.003745
	0.90192	91455.57					
693.00	15.00	4450.84	5.44	6.45	4469.02	0.49	
		179.58	3.86		175.88	32.31	0.003742
	0.90115	91455.60					
693.00	16.00	4450.84	5.44	6.45	4468.97	0.49	
		179.58	3.86		175.88	32.31	0.003742
	0.90115	91455.50					
693.00	17.00	4450.84	5.44	6.45	4469.01	0.49	
		179.58	3.86		175.88	32.31	0.003745
	0.90183	91455.55					
695.66	18.00	4450.86	5.46	6.46	4494.22	0.49	
		179.77	3.87		176.06	32.26	0.003741
	0.90327	91549.42					
710.60	19.00	4450.93	5.53	6.52	4633.04	0.49	
		180.81	3.93		177.05	32.00	0.003731
	0.91495	92067.42					
727.01	20.00	4451.02	5.62	6.58	4786.85	0.49	
		181.94	4.00		178.13	31.72	0.003721
	0.92783	92626.79					
739.76	21.00	4451.08	5.68	6.64	4911.38	0.49	
		182.81	4.05		178.95	31.51	0.003714
	0.93794	93054.60					
741.06	22.00	4451.09	5.69	6.64	4923.77	0.49	
		182.89	4.05		179.03	31.49	0.003716
	0.93960	93097.44					
744.02	23.00	4451.10	5.70	6.66	4953.46	0.49	
		183.09	4.06		179.22	31.44	0.003712
	0.94119	93196.60					
761.78	24.00	4451.19	5.79	6.74	5131.58	0.49	
		184.27	4.13		180.35	31.16	0.003698
	0.95386	93782.01					
791.20	25.00	4451.33	5.93	6.86	5430.40	0.50	
		186.19	4.25		182.17	30.71	0.003679
	0.97555	94730.07					
821.21	26.00	4451.48	6.08	6.99	5739.54	0.50	
		188.08	4.37		183.98	30.28	0.003659
	0.99690	95670.65					
843.22	27.00	4451.58	6.18	7.08	5968.34	0.50	
		189.44	4.45		185.28	29.97	0.003650
	1.01372	96344.18					
844.87	28.00	4451.59	6.19	7.08	5984.92	0.50	
		189.54	4.46		185.37	29.95	0.003650
	1.01525	96393.42					
848.92	29.00	4451.61	6.21	7.10	6027.89	0.50	
		189.79	4.47		185.61	29.90	0.003644
	1.01696	96516.41					
859.90	30.00	4451.66	6.26	7.14	6143.38	0.50	
		190.46	4.51		186.24	29.75	0.003639
	1.02515	96845.83					
860.79	31.00	4451.66	6.26	7.15	6152.20	0.50	
		190.51	4.52		186.29	29.74	0.003639
	1.02606	96871.96					
864.96	32.00	4451.68	6.28	7.17	6197.77	0.50	
		190.76	4.53		186.53	29.68	0.003632

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		HYCHAN.OUT					
	1.02763	96997.08					
876.35	33.00	4451.74	6.34	7.21	6317.26	0.50	
		191.44	4.58		187.18	29.54	0.003627
	1.03611	97334.11					
877.19	34.00	4451.74	6.34	7.21	6326.17	0.50	
		191.49	4.58		187.23	29.53	0.003627
	1.03686	97358.55					
872.93	35.00	4451.72	6.32	7.19	6279.95	0.50	
		191.24	4.56		186.98	29.58	0.003635
	1.03525	97231.61					
861.62	36.00	4451.67	6.27	7.15	6160.78	0.50	
		190.56	4.52		186.34	29.73	0.003639
	1.02670	96896.45					
856.70	37.00	4451.64	6.24	7.13	6108.84	0.50	
		190.26	4.50		186.05	29.79	0.003644
	1.02389	96748.36					
845.78	38.00	4451.59	6.19	7.09	5993.91	0.50	
		189.60	4.46		185.42	29.94	0.003649
	1.01566	96420.36					
844.89	39.00	4451.59	6.19	7.08	5984.90	0.50	
		189.55	4.46		185.37	29.95	0.003649
	1.01504	96393.95					
844.86	40.00	4451.59	6.19	7.08	5985.09	0.50	
		189.54	4.46		185.37	29.95	0.003649
	1.01485	96392.99					
844.89	41.00	4451.59	6.19	7.08	5984.95	0.50	
		189.55	4.46		185.37	29.95	0.003650
	1.01528	96394.16					
844.90	42.00	4451.59	6.19	7.08	5985.04	0.50	
		189.55	4.46		185.37	29.95	0.003648
	1.01466	96394.43					
848.93	43.00	4451.61	6.21	7.10	6028.06	0.50	
		189.79	4.47		185.61	29.90	0.003644
	1.01707	96516.74					
859.92	44.00	4451.66	6.26	7.14	6143.61	0.50	
		190.46	4.51		186.24	29.75	0.003638
	1.02487	96846.46					
865.03	45.00	4451.68	6.28	7.16	6197.83	0.50	
		190.77	4.53		186.54	29.68	0.003634
	1.02829	96999.10					
880.71	46.00	4451.76	6.36	7.23	6364.66	0.51	
		191.70	4.59		187.43	29.48	0.003620
	1.03762	97462.97					
897.02	47.00	4451.83	6.43	7.29	6538.77	0.51	
		192.66	4.66		188.34	29.28	0.003608
	1.04821	97938.52					
913.24	48.00	4451.91	6.51	7.35	6712.88	0.51	
		193.61	4.72		189.24	29.08	0.003597
	1.05860	98405.52					
928.69	49.00	4451.98	6.58	7.41	6879.48	0.51	
		194.50	4.77		190.09	28.89	0.003584
	1.06792	98844.61					
945.31	50.00	4452.06	6.66	7.47	7060.14	0.51	
		195.44	4.84		190.98	28.69	0.003572
	1.07815	99310.92					
965.24	51.00	4452.15	6.75	7.54	7278.39	0.51	
		196.55	4.91		192.04	28.47	0.003552
	1.08840	99862.23					
987.74	52.00	4452.25	6.85	7.62	7524.93	0.51	
		197.79	4.99		193.22	28.22	0.003541
	1.10350	100474.42					
993.80	53.00	4452.27	6.87	7.64	7593.15	0.51	
		198.12	5.02		193.53	28.15	0.003534

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1.10625	100637.69						
54.00	4452.38	6.98	5.11	7.73	7873.70	0.52	
1018.36	199.44				194.79	27.89	0.003509
1.11816	101291.51						
55.00	4452.62	7.22	5.30	7.92	8495.48	0.52	
1072.24	202.26				197.47	27.35	0.003462
1.14514	102685.41						
56.00	4452.95	7.55	5.57	8.18	9402.34	0.53	
1148.93	206.10				201.12	26.64	0.003391
1.17943	104583.03						
57.00	4453.34	7.94	5.90	8.48	10532.21	0.53	
1242.52	210.54				205.34	25.85	0.003314
1.22052	106777.08						
58.00	4453.74	8.34	6.23	8.77	11746.79	0.54	
1339.62	214.91				209.49	25.12	0.003240
1.26031	108934.70						
59.00	4454.05	8.65	6.50	8.99	12748.59	0.54	
1418.07	218.27				212.68	24.58	0.003183
1.29035	110593.52						
60.00	4454.43	9.03	6.81	9.26	14016.55	0.54	
1514.33	222.21				216.42	23.97	0.003094
1.31576	112536.25						
61.00	4454.76	9.36	7.09	9.47	15162.51	0.55	
1600.46	225.59				219.62	23.47	0.003040
1.34598	114202.29						
62.00	4454.97	9.57	7.27	9.61	15924.90	0.55	
1656.46	227.71				221.64	23.16	0.002997
1.36034	115250.42						
63.00	4455.19	9.79	7.46	9.76	16744.49	0.55	
1716.23	229.92				223.73	22.85	0.002946
1.37230	116339.80						
64.00	4455.37	9.97	7.61	9.83	17344.79	0.55	
1763.78	231.64				225.36	22.61	0.002896
1.37586	117186.67						
65.00	4455.53	10.13	7.76	9.90	17926.51	0.55	
1810.09	233.28				226.91	22.39	0.002834
1.37209	117995.55						
66.00	4455.69	10.29	7.90	9.97	18481.27	0.55	
1854.10	234.82				228.37	22.19	0.002797
1.37803	118749.95						
67.00	4455.74	10.34	7.94	9.98	18637.69	0.55	
1867.37	235.27				228.80	22.13	0.002792
1.38291	118974.19						
68.00	4455.75	10.35	7.94	9.98	18662.08	0.55	
1869.43	235.34				228.86	22.12	0.002794
1.38488	119008.80						
69.00	4455.75	10.35	7.95	9.98	18673.12	0.55	
1870.46	235.38				228.90	22.11	0.002793
1.38496	119026.23						
70.00	4455.76	10.36	7.95	9.98	18690.39	0.55	
1871.97	235.43				228.95	22.11	0.002790
1.38438	119051.71						
71.00	4455.76	10.36	7.95	9.99	18702.76	0.55	
1872.87	235.46				228.97	22.10	0.002788
1.38361	119066.93						
72.00	4455.76	10.36	7.95	9.98	18692.39	0.55	
1872.13	235.43				228.95	22.10	0.002793
1.38567	119054.41						
73.00	4455.76	10.36	7.96	9.99	18720.84	0.55	
1873.89	235.49				229.01	22.10	0.002782
1.38159	119084.33						
74.00	4455.82	10.42	8.01	10.02	18932.45	0.55	
1889.97	236.04				229.53	22.02	0.002764

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1900.35	1.38112	119355.09	10.46	8.04	10.03	19058.75	0.55	0.002756
	75.00	4455.86				229.86	21.98	
	1.38261	119528.23						
1903.32	76.00	4455.87	10.47	8.05	10.03	19096.99	0.55	0.002748
		236.50				229.96	21.97	
	1.38001	119577.92						
1922.98	77.00	4455.94	10.54	8.11	10.07	19355.35	0.55	0.002725
		237.16				230.59	21.88	
	1.37862	119904.94						
1967.81	78.00	4456.10	10.70	8.25	10.12	19911.07	0.55	0.002616
		238.66				232.00	21.69	
	1.34621	120641.37						
2042.85	79.00	4456.36	10.96	8.47	10.00	20424.35	0.53	0.002401
		241.11				234.32	21.38	
	1.26951	121848.11						
2126.06	80.00	4456.65	11.25	8.72	9.81	20847.62	0.52	0.002176
		243.75				236.82	21.06	
	1.18422	123146.52						
2237.95	81.00	4457.03	11.63	9.05	9.54	21354.08	0.49	0.001906
		247.18				240.07	20.65	
	1.07694	124835.62						
2280.85	82.00	4457.17	11.77	9.18	9.41	21456.52	0.48	0.001939
		248.45				241.27	20.50	
	1.11079	125459.05						
2217.45	83.00	4456.96	11.56	8.99	9.54	21149.01	0.49	0.002137
		246.55				239.47	20.72	
	1.19914	124523.41						
2167.90	84.00	4456.79	11.39	8.85	9.67	20965.97	0.51	0.002188
		245.03				238.04	20.90	
	1.20771	123779.58						
2162.44	85.00	4456.77	11.37	8.83	9.69	20956.12	0.51	0.002182
		244.87				237.88	20.92	
	1.20216	123697.23						
2176.79	86.00	4456.82	11.42	8.87	9.66	21027.21	0.50	0.002124
		245.31				238.30	20.87	
	1.17630	123914.47						
2162.42	87.00	4456.77	11.37	8.83	9.67	20912.94	0.51	0.002286
		244.86				237.87	20.92	
	1.25967	123694.25						
2015.41	88.00	4456.26	10.86	8.39	9.95	20054.93	0.53	0.002707
		240.21				233.47	21.49	
	1.41745	121404.76						
1869.95	89.00	4455.75	10.35	7.95	9.97	18642.43	0.55	0.002845
		235.34				228.86	22.12	
	1.41082	119006.96						
1729.99	90.00	4455.24	9.84	7.51	9.75	16867.94	0.55	0.002993
		230.40				224.18	22.78	
	1.40214	116573.45						
1638.37	91.00	4454.90	9.50	7.22	9.56	15655.07	0.55	0.003049
		227.02				220.98	23.26	
	1.37300	114907.82						
1560.36	92.00	4454.60	9.20	6.97	9.36	14597.84	0.54	0.003119
		224.01				218.13	23.70	
	1.35546	113427.10						
1481.00	93.00	4454.30	8.90	6.71	9.15	13552.51	0.54	0.003175
		220.86				215.13	24.18	
	1.32862	111869.41						
1420.64	94.00	4454.06	8.66	6.51	8.98	12761.24	0.54	0.003218
		218.37				212.77	24.56	
	1.30642	110641.97						
1372.01	95.00	4453.87	8.47	6.34	8.85	12138.27	0.54	0.003239
		216.31				210.82	24.89	



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	1.28202	109626.31						
1328.03	96.00	4453.69	8.29	6.19	8.72	11578.67	0.53	0.003291
	1.27209	108680.12				209.00	25.20	
1284.21	97.00	4453.51	8.11	6.04	8.59	11035.37	0.53	0.003321
	1.25270	107718.78				207.15	25.53	
1250.81	98.00	4453.38	7.98	5.93	8.49	10620.51	0.53	0.003347
	1.23846	106968.06				205.71	25.79	
1220.74	99.00	4453.25	7.85	5.83	8.40	10251.48	0.53	0.003365
	1.22321	106280.85				204.39	26.03	
1195.58	100.00	4453.15	7.75	5.74	8.32	9943.05	0.53	0.003389
	1.21356	105693.73				203.26	26.23	
1164.39	101.00	4453.02	7.62	5.63	8.22	9572.99	0.53	0.003413
	1.19870	104955.66				201.84	26.50	
1139.65	102.00	4452.91	7.51	5.54	8.14	9278.90	0.52	0.003433
	1.18710	104359.45				200.69	26.72	
1117.84	103.00	4452.82	7.42	5.46	8.07	9019.44	0.52	0.003453
	1.17729	103826.09				199.67	26.92	
1100.40	104.00	4452.74	7.34	5.40	8.01	8815.60	0.52	0.003463
	1.16748	103393.98				198.83	27.08	
1078.25	105.00	4452.65	7.25	5.32	7.94	8556.79	0.52	0.003485
	1.15741	102835.93				197.76	27.29	
1050.27	106.00	4452.52	7.12	5.22	7.84	8235.06	0.52	0.003502
	1.14101	102122.12				196.39	27.56	
1033.90	107.00	4452.45	7.05	5.16	7.78	8048.25	0.52	0.003512
	1.13143	101697.85				195.57	27.73	
1018.77	108.00	4452.39	6.99	5.11	7.73	7874.46	0.52	0.003523
	1.12296	101300.63				194.81	27.89	
1007.89	109.00	4452.34	6.94	5.07	7.69	7751.49	0.51	0.003526
	1.11503	101013.69				194.26	28.00	
1011.60	110.00	4452.35	6.95	5.08	7.71	7795.02	0.52	0.003521
	1.11649	101113.05				194.45	27.96	
1030.73	111.00	4452.44	7.04	5.15	7.78	8014.08	0.52	0.003504
	1.12619	101617.28				195.42	27.76	
1047.14	112.00	4452.51	7.11	5.21	7.83	8200.55	0.52	0.003500
	1.13813	102042.84				196.24	27.60	
1033.87	113.00	4452.45	7.05	5.16	7.78	8047.64	0.52	0.003513
	1.13158	101697.06				195.57	27.73	
1032.23	114.00	4452.45	7.05	5.16	7.78	8030.71	0.52	0.003504
	1.12762	101656.20				195.49	27.75	
1062.29	115.00	4452.58	7.18	5.27	7.89	8377.35	0.52	0.003479
	1.14317	102433.73				196.99	27.44	
1080.96	116.00	4452.66	7.26	5.33	7.95	8590.62	0.52	0.003477
		202.71				197.90	27.26	

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	1.15713	102907.09						
1071.30	117.00	4452.62	7.22	5.30	7.91	8479.30	0.52	0.003482
	1.15099	102662.29						
1070.47	118.00	4452.61	7.21	5.29	7.91	8469.67	0.52	0.003483
	1.15075	102641.48						
1075.77	119.00	4452.64	7.24	5.31	7.93	8531.92	0.52	0.003476
	1.15260	102776.75						
1086.99	120.00	4452.69	7.29	5.35	7.97	8661.89	0.52	0.003470
	1.15926	103059.93						
1087.72	121.00	4452.69	7.29	5.36	7.97	8669.94	0.52	0.003471
	1.16020	103078.07						
1082.46	122.00	4452.67	7.27	5.34	7.95	8607.53	0.52	0.003478
	1.15854	102944.34						
1071.32	123.00	4452.62	7.22	5.30	7.91	8478.90	0.52	0.003482
	1.15109	102662.97						
1065.26	124.00	4452.59	7.19	5.28	7.89	8408.81	0.52	0.003488
	1.14841	102507.66						
1053.92	125.00	4452.54	7.14	5.24	7.86	8278.59	0.52	0.003495
	1.14167	102217.82						
1053.17	126.00	4452.54	7.14	5.23	7.85	8269.93	0.52	0.003493
	1.14059	102198.80						
1048.62	127.00	4452.52	7.12	5.22	7.84	8216.47	0.52	0.003501
	1.13938	102080.46						
1038.35	128.00	4452.47	7.07	5.18	7.80	8099.30	0.52	0.003504
	1.13246	101814.70						
1037.54	129.00	4452.47	7.07	5.18	7.80	8090.97	0.52	0.003505
	1.13194	101794.17						
1033.14	130.00	4452.45	7.05	5.16	7.78	8039.33	0.52	0.003513
	1.13102	101678.34						
1023.05	131.00	4452.40	7.00	5.12	7.75	7925.13	0.52	0.003517
	1.12424	101414.59						
1031.49	132.00	4452.44	7.04	5.15	7.78	8022.67	0.52	0.003504
	1.12684	101636.81						
1051.71	133.00	4452.53	7.13	5.23	7.85	8253.92	0.52	0.003496
	1.14022	102161.66						
1053.16	134.00	4452.54	7.14	5.23	7.85	8269.77	0.52	0.003493
	1.14059	102198.55						
1053.22	135.00	4452.54	7.14	5.23	7.85	8270.23	0.52	0.003494
	1.14077	102200.03						
1053.14	136.00	4452.54	7.14	5.23	7.85	8269.71	0.52	0.003495
	1.14104	102198.04						
1053.20	137.00	4452.54	7.14	5.23	7.85	8269.99	0.52	0.003494
		201.28						

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	1.14095	102199.45							
1053.21	138.00	4452.54	7.14	5.23	7.85	8270.40	0.52		
		201.28				196.54	27.53	0.003494	
	1.14084	102199.87							
1053.15	139.00	4452.54	7.14	5.23	7.85	8269.74	0.52		
		201.27				196.53	27.54	0.003495	
	1.14097	102198.12							
1048.60	140.00	4452.52	7.12	5.22	7.84	8216.73	0.52		
		201.03				196.31	27.58	0.003500	
	1.13925	102079.92							
1038.32	141.00	4452.47	7.07	5.18	7.80	8099.35	0.52		
		200.50				195.80	27.68	0.003504	
	1.13246	101814.09							
1037.58	142.00	4452.47	7.07	5.18	7.80	8090.76	0.52		
		200.46				195.76	27.69	0.003505	
	1.13202	101795.12							
1037.58	143.00	4452.47	7.07	5.18	7.80	8091.11	0.52		
		200.46				195.76	27.69	0.003505	
	1.13197	101795.05							
1037.53	144.00	4452.47	7.07	5.18	7.80	8090.96	0.52		
		200.46				195.76	27.69	0.003506	
	1.13223	101793.82							
1033.21	145.00	4452.45	7.05	5.16	7.78	8039.91	0.52		
		200.23				195.54	27.74	0.003512	
	1.13069	101680.14							
1023.04	146.00	4452.40	7.00	5.12	7.75	7924.62	0.52		
		199.69				195.03	27.84	0.003516	
	1.12404	101414.27							
1022.34	147.00	4452.40	7.00	5.12	7.74	7917.04	0.52		
		199.65				194.99	27.85	0.003516	
	1.12341	101396.06							
1022.31	148.00	4452.40	7.00	5.12	7.74	7917.04	0.52		
		199.65				194.99	27.85	0.003517	
	1.12378	101395.32							
1022.30	149.00	4452.40	7.00	5.12	7.74	7916.84	0.52		
		199.65				194.99	27.85	0.003518	
	1.12399	101395.23							
1022.35	150.00	4452.40	7.00	5.12	7.74	7916.93	0.52		
		199.65				194.99	27.85	0.003517	
	1.12381	101396.32							
1019.49	151.00	4452.39	6.99	5.11	7.73	7883.59	0.52		
		199.50				194.85	27.88	0.003521	
	1.12267	101320.44							
1011.21	152.00	4452.35	6.95	5.08	7.70	7789.59	0.52		
		199.06				194.43	27.97	0.003527	
	1.11802	101101.43							
1007.32	153.00	4452.33	6.93	5.07	7.69	7745.47	0.51		
		198.85				194.23	28.01	0.003527	
	1.11477	100998.72							
1007.02	154.00	4452.33	6.93	5.06	7.69	7742.56	0.51		
		198.83				194.21	28.01	0.003528	
	1.11499	100990.75							
1002.73	155.00	4452.31	6.91	5.05	7.67	7692.88	0.51		
		198.60				193.99	28.06	0.003535	
	1.11359	100875.35							
1001.37	156.00	4452.31	6.91	5.04	7.67	7679.15	0.51		
		198.53				193.92	28.07	0.003525	
	1.10953	100840.80							
1020.82	157.00	4452.40	7.00	5.12	7.74	7900.41	0.52		
		199.57				194.92	27.86	0.003516	
	1.12215	101356.68							
1022.36	158.00	4452.40	7.00	5.12	7.74	7917.12	0.52		
		199.65				194.99	27.85	0.003515	

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1022.34	1.12323	101396.77	7.00	5.12	7.74	7917.15	0.52	0.003518
159.00	4452.40	199.65				194.99	27.85	
1022.29	1.12415	101396.12	7.00	5.12	7.74	7916.68	0.52	0.003516
160.00	4452.40	199.65				194.99	27.85	
1022.34	1.12333	101394.82	7.00	5.12	7.74	7917.04	0.52	0.003518
161.00	4452.40	199.65				194.99	27.85	
1022.30	1.12422	101396.12	7.00	5.12	7.74	7917.07	0.52	0.003516
162.00	4452.40	199.65				194.99	27.85	
1022.30	1.12346	101395.09	7.00	5.12	7.74	7916.91	0.52	0.003517
163.00	4452.40	199.65				194.99	27.85	
1022.37	1.12368	101395.15	7.00	5.12	7.74	7916.99	0.52	0.003517
164.00	4452.40	199.65				194.99	27.85	
1017.97	1.12378	101397.01	6.98	5.10	7.73	7866.10	0.52	0.003521
165.00	4452.38	199.42				194.77	27.90	
1007.84	1.12157	101279.90	6.94	5.07	7.69	7750.95	0.51	0.003526
166.00	4452.34	198.88				194.25	28.00	
1007.09	1.11506	101012.12	6.93	5.06	7.69	7742.89	0.51	0.003527
167.00	4452.33	198.84				194.22	28.01	
1007.11	1.11469	100992.66	6.93	5.06	7.69	7742.99	0.51	0.003528
168.00	4452.33	198.84				194.22	28.01	
1007.09	1.11518	100992.98	6.93	5.06	7.69	7742.81	0.51	0.003525
169.00	4452.33	198.84				194.22	28.01	
1007.14	1.11421	100992.45	6.93	5.07	7.69	7743.53	0.51	0.003527
170.00	4452.33	198.84				194.22	28.01	
1007.09	1.11485	100993.89	6.93	5.06	7.69	7742.61	0.51	0.003529
171.00	4452.33	198.84				194.22	28.01	
1007.12	1.11534	100992.45	6.93	5.07	7.69	7742.99	0.51	0.003527
172.00	4452.33	198.84				194.22	28.01	
1002.73	1.11488	100993.44	6.91	5.05	7.67	7692.60	0.51	0.003535
173.00	4452.31	198.60				193.99	28.06	
992.50	1.11365	100875.31	6.87	5.01	7.63	7576.95	0.51	0.003539
174.00	4452.27	198.05				193.47	28.17	
991.77	1.10681	100601.91	6.87	5.01	7.63	7569.24	0.51	0.003538
175.00	4452.27	198.01				193.43	28.17	
991.73	1.10567	100582.59	6.87	5.01	7.63	7568.77	0.51	0.003538
176.00	4452.27	198.01				193.43	28.17	
991.69	1.10565	100581.58	6.87	5.01	7.63	7568.85	0.51	0.003538
177.00	4452.27	198.00				193.42	28.17	
991.76	1.10582	100580.38	6.87	5.01	7.63	7569.16	0.51	0.003538
178.00	4452.27	198.01				193.43	28.17	
991.78	1.10567	100582.20	6.87	5.01	7.63	7569.05	0.51	0.003538
179.00	4452.27	198.01				193.43	28.17	

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1.10575	100582.70						
180.00	4452.31	6.91	5.04	7.67	7671.52	0.51	
1000.69	198.49				193.89	28.08	0.003525
1.10903	100822.76						
181.00	4452.40	6.99	5.11	7.74	7900.01	0.52	
1020.80	199.57				194.92	27.87	0.003517
1.12250	101356.01						
182.00	4452.42	7.02	5.14	7.76	7969.43	0.52	
1026.90	199.90				195.22	27.80	0.003509
1.12495	101516.62						
183.00	4452.47	7.07	5.17	7.80	8082.30	0.52	
1036.76	200.42				195.72	27.70	0.003506
1.13182	101774.11						
184.00	4452.47	7.07	5.18	7.80	8090.70	0.52	
1037.55	200.46				195.76	27.69	0.003506
1.13252	101794.43						
185.00	4452.47	7.07	5.18	7.80	8090.92	0.52	
1037.59	200.46				195.76	27.69	0.003507
1.13269	101795.39						
186.00	4452.47	7.07	5.18	7.80	8091.24	0.52	
1037.58	200.46				195.76	27.69	0.003505
1.13205	101795.09						
187.00	4452.47	7.07	5.18	7.80	8091.14	0.52	
1037.57	200.46				195.76	27.69	0.003505
1.13201	101794.93						
188.00	4452.47	7.07	5.18	7.80	8090.89	0.52	
1037.56	200.46				195.76	27.69	0.003508
1.13304	101794.57						
189.00	4452.47	7.07	5.18	7.80	8091.08	0.52	
1037.60	200.46				195.76	27.69	0.003505
1.13214	101795.55						
190.00	4452.47	7.07	5.18	7.80	8091.01	0.52	
1037.58	200.46				195.76	27.69	0.003505
1.13205	101795.09						
191.00	4452.45	7.05	5.16	7.78	8039.73	0.52	
1033.18	200.22				195.54	27.74	0.003511
1.13063	101679.36						
192.00	4452.40	7.00	5.12	7.75	7924.69	0.52	
1023.05	199.69				195.03	27.84	0.003516
1.12403	101414.64						
193.00	4452.40	7.00	5.12	7.74	7917.05	0.52	
1022.34	199.65				194.99	27.85	0.003517
1.12367	101396.05						
194.00	4452.40	7.00	5.12	7.74	7917.08	0.52	
1022.31	199.65				194.99	27.85	0.003516
1.12346	101395.39						
195.00	4452.40	7.00	5.12	7.74	7916.92	0.52	
1022.29	199.65				194.99	27.85	0.003518
1.12397	101394.83						
196.00	4452.40	7.00	5.12	7.74	7917.25	0.52	
1022.33	199.65				194.99	27.85	0.003517
1.12374	101396.02						
197.00	4452.40	7.00	5.12	7.74	7917.16	0.52	
1022.34	199.65				194.99	27.85	0.003516
1.12355	101396.17						
198.00	4452.40	7.00	5.12	7.74	7916.90	0.52	
1022.31	199.65				194.99	27.85	0.003517
1.12363	101395.28						
199.00	4452.40	7.00	5.12	7.74	7916.68	0.52	
1022.29	199.65				194.99	27.85	0.003517
1.12358	101394.78						

HYCHAN.OUT  
CHANNEL HYDROGRAPH FOR ELEMENT NO: 1525

MAXIMUM DISCHARGE (CFS) = 21495.77 AT TIME = 81.32  
MAXIMUM STAGE = 4455.88 AT TIME = 81.32

AREA BED SHEAR (FT <sup>2</sup> )	TIME WETTED PERIMETER (HRS) (LB/FT <sup>2</sup> )	ELEV. SURFACE AREA (FT) (FT <sup>2</sup> )	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW
0.00	0.00	4440.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4440.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4440.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
767.52	3.00	4443.83	3.18	2.96	2274.74	0.29	0.003844
	1.28554	143.23	5.36	141.10	44.36		
817.37	4.00	4448.01	7.36	6.72	5496.51	0.44	0.003857
	0.96490	203.90	4.01	199.03	27.04		
806.43	5.00	4447.95	7.30	6.68	5388.67	0.44	0.003865
	0.95727	203.17	3.97	198.34	27.18		
802.03	6.00	4447.92	7.27	6.67	5345.71	0.44	0.003879
	0.95684	202.88	3.95	198.06	27.23		
787.97	7.00	4447.84	7.19	6.61	5206.30	0.43	0.003894
	0.94824	201.93	3.90	197.15	27.41		
772.81	8.00	4447.75	7.10	6.54	5056.46	0.43	0.003916
	0.94000	200.89	3.85	196.17	27.61		
757.67	9.00	4447.67	7.02	6.48	4910.85	0.43	0.003935
	0.93100	199.84	3.79	195.17	27.81		
744.58	10.00	4447.59	6.94	6.43	4786.94	0.43	0.003948
	0.92204	198.92	3.74	194.29	27.99		
740.20	11.00	4447.56	6.91	6.41	4746.94	0.43	0.003957
	0.92028	198.60	3.73	194.00	28.06		
725.99	12.00	4447.48	6.83	6.35	4612.41	0.43	0.003977
	0.91180	197.58	3.67	193.02	28.26		
712.42	13.00	4447.40	6.75	6.30	4485.14	0.43	0.003988
	0.90182	196.60	3.62	192.09	28.46		
710.56	14.00	4447.39	6.74	6.29	4469.08	0.43	0.003989
	0.90021	196.47	3.62	191.96	28.48		
710.56	15.00	4447.39	6.74	6.29	4469.00	0.43	0.003987
	0.89988	196.47	3.62	191.96	28.48		
710.55	16.00	4447.39	6.74	6.29	4468.88	0.43	0.003991
	0.90066	196.47	3.62	191.96	28.48		
		97899.91					

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		HYCHAN.OUT					
710.56	17.00	4447.39	6.74	6.29	4469.13	28.48	0.003989
	0.90033	196.47	3.62		191.96		
	18.00	97900.10					
713.06		4447.40	6.75	6.30	4492.38	28.45	0.003981
	0.90085	196.65	3.63		192.14		
	19.00	97989.88					
727.72		4447.49	6.84	6.36	4629.90	28.23	0.003959
	0.90926	197.72	3.68		193.15		
	20.00	98506.65					
744.12		4447.59	6.94	6.43	4783.69	28.00	0.003936
	0.91900	198.89	3.74		194.27		
	21.00	99075.42					
757.49		4447.67	7.02	6.48	4910.05	27.81	0.003927
	0.92877	199.83	3.79		195.16		
	22.00	99531.84					
758.97		4447.67	7.02	6.49	4923.76	27.79	0.003926
	0.92996	199.93	3.80		195.26		
	23.00	99581.37					
761.84		4447.69	7.04	6.50	4951.61	27.76	0.003915
	0.92995	200.13	3.81		195.45		
	24.00	99679.27					
779.77		4447.80	7.15	6.57	5126.54	27.52	0.003883
	0.93826	201.37	3.87		196.63		
	25.00	100280.49					
809.88		4447.97	7.32	6.70	5424.38	27.13	0.003843
	0.95476	203.41	3.98		198.56		
	26.00	101266.44					
840.98		4448.14	7.49	6.82	5733.57	26.75	0.003798
	0.97003	205.45	4.09		200.50		
	27.00	102257.02					
864.31		4448.27	7.62	6.90	5966.46	26.48	0.003781
	0.98543	206.94	4.18		201.93		
	28.00	102982.04					
866.19		4448.28	7.63	6.91	5984.90	26.46	0.003782
	0.98731	207.06	4.18		202.04		
	29.00	103039.27					
870.23		4448.31	7.66	6.92	6025.67	26.42	0.003766
	0.98629	207.32	4.20		202.28		
	30.00	103163.77					
881.88		4448.37	7.72	6.97	6142.38	26.29	0.003759
	0.99423	208.05	4.24		202.98		
	31.00	103518.31					
882.90		4448.38	7.73	6.97	6152.13	26.28	0.003759
	0.99522	208.11	4.24		203.04		
	32.00	103549.02					
887.11		4448.40	7.75	6.98	6195.52	26.23	0.003743
	0.99439	208.38	4.26		203.29		
	33.00	103676.98					
899.21		4448.47	7.82	7.02	6316.26	26.10	0.003732
	1.00124	209.13	4.30		204.00		
	34.00	104039.97					
900.20		4448.47	7.82	7.03	6326.09	26.09	0.003735
	1.00302	209.19	4.30		204.06		
	35.00	104069.33					
895.88		4448.45	7.80	7.01	6282.32	26.13	0.003749
	1.00315	208.92	4.29		203.80		
	36.00	103938.70					
883.86		4448.38	7.73	6.97	6161.77	26.26	0.003759
	0.99583	208.17	4.25		203.09		
	37.00	103577.48					
878.83		4448.35	7.70	6.95	6111.06	26.32	0.003772
	0.99509	207.86	4.23		202.79		
		103423.99					



HYCHAN.OUT									
867.25	38.00	4448.29	7.64	6.91	5994.89	0.44			
	0.98835	207.13	4.19	202.10	26.45		0.003783		
		103071.25							
866.21	39.00	4448.28	7.63	6.91	5984.95	0.44			
	0.98679	207.06	4.18	202.04	26.46		0.003780		
		103039.80							
866.21	40.00	4448.28	7.63	6.91	5985.04	0.44			
	0.98749	207.06	4.18	202.04	26.46		0.003783		
		103039.75							
866.22	41.00	4448.28	7.63	6.91	5984.99	0.44			
	0.98729	207.06	4.18	202.04	26.46		0.003782		
		103040.02							
866.23	42.00	4448.29	7.64	6.91	5984.99	0.44			
	0.98746	207.06	4.18	202.04	26.46		0.003783		
		103040.28							
870.23	43.00	4448.31	7.66	6.92	6025.87	0.44			
	0.98657	207.32	4.20	202.28	26.42		0.003767		
		103163.82							
881.90	44.00	4448.37	7.72	6.97	6142.59	0.44			
	0.99346	208.05	4.24	202.98	26.29		0.003756		
		103519.02							
887.12	45.00	4448.40	7.75	6.98	6195.58	0.44			
	0.99443	208.38	4.26	203.29	26.23		0.003743		
		103677.41							
903.62	46.00	4448.49	7.84	7.04	6361.20	0.44			
	1.00124	209.40	4.32	204.26	26.05		0.003718		
		104172.03							
920.91	47.00	4448.59	7.94	7.10	6535.40	0.44			
	1.00763	210.46	4.38	205.26	25.87		0.003690		
		104683.45							
938.20	48.00	4448.68	8.03	7.15	6709.60	0.44			
	1.01483	211.50	4.44	206.25	25.69		0.003666		
		105187.47							
954.73	49.00	4448.77	8.12	7.20	6876.24	0.45			
	1.02125	212.48	4.49	207.18	25.52		0.003642		
		105662.77							
972.59	50.00	4448.86	8.21	7.26	7056.80	0.45			
	1.02744	213.52	4.55	208.18	25.35		0.003615		
		106169.73							
993.93	51.00	4448.98	8.33	7.32	7272.80	0.45			
	1.03175	214.76	4.63	209.35	25.14		0.003573		
		106766.63							
1018.61	52.00	4449.11	8.46	7.39	7522.90	0.45			
	1.04523	216.16	4.71	210.68	24.92		0.003555		
		107444.60							
1025.00	53.00	4449.14	8.49	7.41	7590.83	0.45			
	1.04661	216.52	4.73	211.02	24.86		0.003543		
		107618.17							
1050.36	54.00	4449.27	8.62	7.49	7865.67	0.45			
	1.04936	217.92	4.82	212.35	24.63		0.003489		
		108299.34							
1107.32	55.00	4449.56	8.91	7.66	8482.11	0.45			
	1.06200	220.99	5.01	215.26	24.15		0.003397		
		109784.49							
1190.42	56.00	4449.98	9.33	7.88	9383.98	0.46			
	1.07731	225.27	5.28	219.32	23.51		0.003267		
		111852.25							
1291.77	57.00	4450.47	9.82	8.14	10511.21	0.46			
	1.09607	230.20	5.61	223.99	22.81		0.003130		
		114234.25							
1397.41	58.00	4450.97	10.32	8.39	11728.58	0.46			
	1.11476	235.05	5.95	228.59	22.15		0.003005		
		116579.73							

HYCHAN.OUT							
1483.43	59.00	4451.36	10.71	8.58	12732.50	0.46	0.002908
	1.12737	238.80	6.21	232.14	21.67		
1588.13	60.00	4451.83	11.18	8.81	13996.16	0.46	0.002774
	1.13062	243.15	6.53	236.26	21.13		
1683.50	61.00	4452.25	11.60	9.00	15147.56	0.47	0.002690
	1.14427	246.94	6.82	239.84	20.67		
1745.37	62.00	4452.52	11.87	9.12	15913.34	0.47	0.002624
	1.14616	249.32	7.00	242.09	20.40		
1811.56	63.00	4452.80	12.15	9.24	16733.51	0.47	0.002563
	1.15044	251.80	7.19	244.44	20.12		
1859.66	64.00	4453.03	12.38	9.32	17330.01	0.47	0.002521
	1.15783	252.65	7.36	246.30	19.90		
1904.51	65.00	4453.25	12.60	9.40	17906.10	0.47	0.002471
	1.16045	253.10	7.52	248.10	19.69		
1947.78	66.00	4453.46	12.81	9.48	18468.31	0.47	0.002444
	1.17176	253.52	7.68	249.80	19.50		
1960.81	67.00	4453.52	12.87	9.50	18634.42	0.47	0.002441
	1.17769	253.65	7.73	250.31	19.44		
1962.91	68.00	4453.53	12.88	9.51	18661.10	0.47	0.002441
	1.17879	253.67	7.74	250.39	19.43		
1963.83	69.00	4453.54	12.89	9.51	18672.63	0.47	0.002440
	1.17844	253.68	7.74	250.42	19.43		
1965.19	70.00	4453.55	12.90	9.51	18690.03	0.47	0.002439
	1.17894	253.69	7.75	250.48	19.42		
1966.16	71.00	4453.55	12.90	9.51	18702.73	0.47	0.002439
	1.17935	253.70	7.75	250.51	19.42		
1965.39	72.00	4453.55	12.90	9.51	18692.62	0.47	0.002439
	1.17923	253.69	7.75	250.48	19.42		
1967.31	73.00	4453.56	12.91	9.52	18719.29	0.47	0.002431
	1.17631	253.71	7.75	250.56	19.41		
1983.09	74.00	4453.63	12.98	9.54	18926.90	0.47	0.002414
	1.17661	253.87	7.81	251.17	19.35		
1993.18	75.00	4453.68	13.03	9.56	19056.45	0.47	0.002411
	1.18051	253.96	7.85	251.56	19.30		
1996.09	76.00	4453.70	13.05	9.57	19094.78	0.47	0.002405
	1.17924	253.99	7.86	251.67	19.29		
2015.07	77.00	4453.79	13.14	9.60	19345.22	0.47	0.002381
	1.17777	254.18	7.93	252.41	19.21		
2059.57	78.00	4454.01	13.36	9.66	19887.55	0.47	0.002286
	1.15405	254.61	8.09	254.11	19.03		
2153.57	79.00	4454.46	13.81	9.46	20382.23	0.45	0.002079
	1.09316	255.52	8.43	257.63	18.65		
		131389.53					

				HYCHAN.OUT			
2260.37	80.00	4454.97	14.32	8.81	9.20	20802.38	0.43
		256.54				261.49	18.26
	1.02510	133358.31					0.001865
2395.51	81.00	4455.61	14.96	9.29	8.89	21303.33	0.41
		257.82				266.20	17.79
	0.95145	135764.55					0.001641
2446.93	82.00	4455.85	15.20	9.47	8.77	21456.57	0.40
		258.29				267.92	17.63
	0.98976	136638.09					0.001674
2374.27	83.00	4455.50	14.85	9.22	8.92	21183.91	0.41
		257.61				265.43	17.87
	1.05773	135369.44					0.001839
2314.51	84.00	4455.22	14.57	9.00	9.06	20978.56	0.42
		257.05				263.36	18.07
	1.05924	134313.84					0.001885
2307.47	85.00	4455.19	14.54	8.98	9.08	20957.47	0.42
		256.98				263.12	18.09
	1.05184	134190.61					0.001877
2324.58	86.00	4455.27	14.62	9.04	9.04	21023.34	0.42
		257.14				263.72	18.04
	1.03253	134497.70					0.001830
2308.46	87.00	4455.19	14.54	8.98	9.07	20942.32	0.42
		256.99				263.14	18.09
	1.11028	134203.56					0.001981
2126.29	88.00	4454.32	13.67	8.33	9.48	20147.20	0.45
		255.25				256.57	18.76
	1.23384	130853.06					0.002374
1966.63	89.00	4453.55	12.90	7.75	9.50	18692.33	0.47
		253.69				250.49	19.42
	1.20205	127750.71					0.002485
1827.90	90.00	4452.88	12.23	7.24	9.25	16914.09	0.47
		252.35				245.06	20.04
	1.18750	124981.52					0.002627
1726.83	91.00	4452.44	11.79	6.95	9.07	15669.22	0.47
		248.60				241.41	20.48
	1.17449	123118.38					0.002710
1641.22	92.00	4452.06	11.41	6.69	8.91	14616.71	0.46
		245.27				238.26	20.87
	1.17726	121511.07					0.002819
1553.63	93.00	4451.68	11.03	6.43	8.73	13566.68	0.46
		241.73				234.91	21.30
	1.16644	119806.62					0.002908
1487.97	94.00	4451.38	10.73	6.23	8.58	12772.73	0.46
		238.99				232.31	21.65
	1.15753	118480.00					0.002979
1434.52	95.00	4451.14	10.49	6.06	8.47	12145.28	0.46
		236.69				230.14	21.94
	1.14329	117369.27					0.003023
1386.62	96.00	4450.92	10.27	5.91	8.36	11590.70	0.46
		234.56				228.12	22.22
	1.14553	116342.51					0.003105
1338.75	97.00	4450.69	10.04	5.76	8.25	11042.81	0.46
		232.39				226.07	22.51
	1.13456	115294.66					0.003156
1302.71	98.00	4450.52	9.87	5.65	8.16	10627.48	0.46
		230.72				224.48	22.74
	1.12806	114485.38					0.003202
1270.30	99.00	4450.37	9.72	5.54	8.07	10256.22	0.46
		229.18				223.03	22.95
	1.11738	113744.63					0.003231
1243.39	100.00	4450.24	9.59	5.46	8.00	9949.71	0.46
		227.88				221.80	23.14
	1.11515	113116.39					0.003275

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		HYCHAN.OUT					
1209.09	101.00 4450.07	9.42	5.35	7.92	9578.80	0.46	0.003318
	1.10671 226.20 112303.28				220.20	23.38	
1181.82	102.00 4449.93	9.28	5.26	7.86	9283.77	0.45	0.003354
	1.10019 224.84 111644.19				218.91	23.58	
1157.80	103.00 4449.82	9.17	5.18	7.79	9023.43	0.45	0.003386
	1.09402 223.62 111054.59				217.75	23.76	
1138.88	104.00 4449.72	9.07	5.12	7.74	8819.17	0.45	0.003410
	1.08830 222.64 110583.29				216.83	23.90	
1115.32	105.00 4449.60	8.95	5.04	7.68	8562.87	0.45	0.003451
	1.08487 221.41 109986.37				215.66	24.09	
1085.28	106.00 4449.45	8.80	4.94	7.59	8239.26	0.45	0.003481
	1.07243 219.82 109215.06				214.15	24.34	
1067.80	107.00 4449.36	8.71	4.88	7.54	8051.39	0.45	0.003501
	1.06595 218.87 108758.80				213.25	24.48	
1051.76	108.00 4449.28	8.63	4.82	7.49	7877.60	0.45	0.003521
	1.06001 218.00 108334.48				212.42	24.62	
1040.07	109.00 4449.22	8.57	4.79	7.45	7752.29	0.45	0.003530
	1.05413 217.35 108023.48				211.81	24.72	
1043.74	110.00 4449.24	8.59	4.80	7.47	7792.68	0.45	0.003518
	1.05319 217.56 108122.76				212.01	24.69	
1063.69	111.00 4449.34	8.69	4.86	7.53	8008.72	0.45	0.003483
	1.05715 218.65 108652.94				213.04	24.52	
1081.62	112.00 4449.43	8.78	4.92	7.58	8201.13	0.45	0.003483
	1.07026 219.62 109121.57				213.96	24.37	
1067.72	113.00 4449.36	8.71	4.88	7.54	8050.82	0.45	0.003503
	1.06626 218.87 108756.57				213.25	24.48	
1065.39	114.00 4449.35	8.70	4.87	7.53	8026.95	0.45	0.003481
	1.05786 218.75 108697.48				213.13	24.50	
1097.10	115.00 4449.51	8.86	4.98	7.63	8370.39	0.45	0.003433
	1.06609 220.45 109523.84				214.75	24.24	
1117.75	116.00 4449.61	8.96	5.05	7.69	8591.42	0.45	0.003435
	1.08139 221.54 110051.09				215.79	24.07	
1107.46	117.00 4449.56	8.91	5.01	7.66	8480.19	0.45	0.003442
	1.07640 221.00 109788.80				215.27	24.15	
1106.45	118.00 4449.56	8.91	5.01	7.65	8469.67	0.45	0.003442
	1.07565 220.95 109763.20				215.22	24.16	
1111.88	119.00 4449.58	8.94	5.03	7.67	8529.31	0.45	0.003427
	1.07473 221.24 109902.63				215.50	24.12	
1124.09	120.00 4449.65	9.00	5.07	7.70	8660.97	0.45	0.003418
	1.08052 221.88 110212.66				216.10	24.02	
1124.94	121.00 4449.65	9.00	5.07	7.71	8669.92	0.45	0.003419
	1.08144 221.92 110233.95				216.14	24.01	

		HYCHAN.OUT					
1119.53	122.00 4449.62 221.64	8.97	5.05	7.69	8610.17	0.45	0.003436
	1.08292 110095.55				215.87	24.06	
1107.43	123.00 4449.56 221.00	8.91	5.01	7.66	8479.81	0.45	0.003442
	1.07641 109788.06				215.27	24.15	
1101.17	124.00 4449.53 220.67	8.88	4.99	7.64	8411.35	0.45	0.003458
	1.07669 109626.43				214.95	24.20	
1088.92	125.00 4449.47 220.01	8.82	4.95	7.60	8279.65	0.45	0.003465
	1.07003 109311.12				214.34	24.31	
1088.04	126.00 4449.46 219.97	8.81	4.95	7.60	8269.88	0.45	0.003467
	1.06997 109288.78				214.29	24.31	
1083.35	127.00 4449.44 219.71	8.79	4.93	7.59	8218.82	0.45	0.003481
	1.07106 109165.80				214.05	24.35	
1072.28	128.00 4449.38 219.12	8.73	4.89	7.55	8100.10	0.45	0.003486
	1.06458 108877.62				213.49	24.44	
1071.44	129.00 4449.38 219.07	8.73	4.89	7.55	8090.99	0.45	0.003488
	1.06439 108855.84				213.44	24.45	
1066.88	130.00 4449.36 218.82	8.71	4.88	7.54	8041.65	0.45	0.003503
	1.06567 108734.84				213.21	24.49	
1056.09	131.00 4449.30 218.24	8.65	4.84	7.50	7925.88	0.45	0.003512
	1.06059 108450.71				212.65	24.58	
1064.57	132.00 4449.34 218.70	8.69	4.87	7.53	8018.14	0.45	0.003480
	1.05713 108675.95				213.09	24.51	
1086.31	133.00 4449.46 219.88	8.81	4.94	7.60	8252.25	0.45	0.003468
	1.06911 109244.41				214.20	24.33	
1088.02	134.00 4449.46 219.97	8.81	4.95	7.60	8269.71	0.45	0.003466
	1.06967 109288.30				214.29	24.31	
1088.07	135.00 4449.46 219.97	8.81	4.95	7.60	8270.25	0.45	0.003466
	1.06972 109289.41				214.29	24.31	
1088.01	136.00 4449.46 219.97	8.81	4.95	7.60	8269.70	0.45	0.003467
	1.07003 109288.03				214.29	24.31	
1088.06	137.00 4449.46 219.97	8.81	4.95	7.60	8270.03	0.45	0.003466
	1.06977 109289.34				214.29	24.31	
1088.05	138.00 4449.46 219.97	8.81	4.95	7.60	8270.32	0.45	0.003467
	1.06997 109289.09				214.29	24.31	
1088.03	139.00 4449.46 219.97	8.81	4.95	7.60	8269.77	0.45	0.003468
	1.07027 109288.36				214.29	24.31	
1083.33	140.00 4449.44 219.71	8.79	4.93	7.59	8219.04	0.45	0.003481
	1.07089 109165.40				214.05	24.35	
1072.30	141.00 4449.38 219.12	8.73	4.89	7.55	8100.25	0.45	0.003487
	1.06490 108877.93				213.49	24.44	
1071.43	142.00 4449.38 219.07	8.73	4.89	7.55	8090.78	0.45	0.003487
	1.06414 108855.41				213.44	24.45	

		HYCHAN.OUT				
1071.45	143.00 4449.38 219.07	8.73	7.55	8091.10	0.45	
	1.06420 108856.17	4.89	213.44	24.45	0.003487	
1071.40	144.00 4449.38 219.07	8.73	7.55	8090.89	0.45	
	1.06421 108854.74	4.89	213.44	24.45	0.003487	
1066.96	145.00 4449.36 218.83	8.71	7.54	8042.22	0.45	
	1.06512 108736.98	4.88	213.21	24.49	0.003501	
1056.04	146.00 4449.30 218.23	8.65	7.50	7925.43	0.45	
	1.05943 108449.34	4.84	212.65	24.58	0.003509	
1055.28	147.00 4449.30 218.19	8.65	7.50	7917.07	0.45	
	1.05965 108429.38	4.84	212.61	24.59	0.003511	
1055.28	148.00 4449.30 218.19	8.65	7.50	7917.07	0.45	
	1.05927 108429.52	4.84	212.61	24.59	0.003510	
1055.24	149.00 4449.30 218.19	8.65	7.50	7916.82	0.45	
	1.05956 108428.56	4.84	212.61	24.59	0.003511	
1055.26	150.00 4449.30 218.19	8.65	7.50	7916.92	0.45	
	1.05938 108428.92	4.84	212.61	24.59	0.003510	
1052.36	151.00 4449.28 218.03	8.63	7.49	7885.12	0.45	
	1.05905 108351.28	4.83	212.45	24.62	0.003516	
1043.64	152.00 4449.24 217.55	8.59	7.47	7790.87	0.45	
	1.05618 108118.88	4.80	212.00	24.69	0.003528	
1039.45	153.00 4449.21 217.32	8.56	7.45	7745.76	0.45	
	1.05369 108007.04	4.78	211.78	24.73	0.003530	
1039.13	154.00 4449.21 217.30	8.56	7.45	7742.58	0.45	
	1.05392 107998.47	4.78	211.76	24.73	0.003532	
1034.79	155.00 4449.19 217.06	8.54	7.44	7695.10	0.45	
	1.05438 107880.71	4.77	211.53	24.77	0.003544	
1032.86	156.00 4449.18 216.96	8.53	7.43	7675.52	0.45	
	1.04698 107830.48	4.76	211.43	24.79	0.003524	
1053.53	157.00 4449.29 218.10	8.64	7.50	7898.70	0.45	
	1.05758 108383.66	4.83	212.52	24.61	0.003509	
1055.29	158.00 4449.30 218.19	8.65	7.50	7917.16	0.45	
	1.05876 108429.73	4.84	212.61	24.59	0.003508	
1055.25	159.00 4449.30 218.19	8.65	7.50	7917.07	0.45	
	1.05989 108428.74	4.84	212.61	24.59	0.003512	
1055.23	160.00 4449.30 218.19	8.65	7.50	7916.75	0.45	
	1.05860 108428.23	4.84	212.60	24.59	0.003508	
1055.24	161.00 4449.30 218.19	8.65	7.50	7916.96	0.45	
	1.05986 108428.36	4.84	212.60	24.59	0.003512	
1055.24	162.00 4449.30 218.19	8.65	7.50	7917.17	0.45	
	1.05881 108428.50	4.84	212.60	24.59	0.003508	
1055.24	163.00 4449.30 218.19	8.65	7.50	7916.86	0.45	
	1.05931 108428.38	4.84	212.60	24.59	0.003510	

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		HYCHAN.OUT					
1055.27	164.00 4449.30 218.19	8.65	4.84	7.50	7916.99	0.45	0.003511
	1.05946 108429.29				212.61	24.59	
1050.83	165.00 4449.27 217.95	8.62	4.82	7.49	7868.34	0.45	0.003525
	1.06045 108310.27				212.37	24.63	
1040.02	166.00 4449.22 217.35	8.57	4.78	7.45	7751.76	0.45	0.003529
	1.05373 108022.23				211.81	24.72	
1039.18	167.00 4449.21 217.31	8.56	4.78	7.45	7742.89	0.45	0.003530
	1.05350 108000.04				211.76	24.73	
1039.19	168.00 4449.21 217.31	8.56	4.78	7.45	7743.03	0.45	0.003530
	1.05343 108000.20				211.77	24.73	
1039.17	169.00 4449.21 217.30	8.56	4.78	7.45	7742.76	0.45	0.003532
	1.05387 107999.70				211.76	24.73	
1039.24	170.00 4449.21 217.31	8.56	4.78	7.45	7743.55	0.45	0.003533
	1.05416 108001.45				211.77	24.73	
1039.17	171.00 4449.21 217.30	8.56	4.78	7.45	7742.64	0.45	0.003531
	1.05366 107999.62				211.76	24.73	
1039.20	172.00 4449.21 217.31	8.56	4.78	7.45	7742.98	0.45	0.003532
	1.05412 108000.47				211.77	24.73	
1034.77	173.00 4449.19 217.06	8.54	4.77	7.44	7694.85	0.45	0.003545
	1.05441 107880.30				211.53	24.77	
1023.89	174.00 4449.13 216.45	8.48	4.73	7.40	7577.78	0.45	0.003552
	1.04853 107586.98				210.95	24.87	
1023.08	175.00 4449.13 216.41	8.48	4.73	7.40	7569.26	0.45	0.003549
	1.04706 107565.34				210.91	24.88	
1023.05	176.00 4449.13 216.41	8.48	4.73	7.40	7568.80	0.45	0.003550
	1.04713 107564.45				210.91	24.88	
1023.02	177.00 4449.13 216.40	8.48	4.73	7.40	7568.80	0.45	0.003551
	1.04750 107563.77				210.91	24.88	
1023.07	178.00 4449.13 216.41	8.48	4.73	7.40	7569.16	0.45	0.003550
	1.04732 107565.02				210.91	24.88	
1023.07	179.00 4449.13 216.41	8.48	4.73	7.40	7569.06	0.45	0.003551
	1.04747 107565.08				210.91	24.88	
1032.07	180.00 4449.18 216.91	8.53	4.76	7.43	7666.97	0.45	0.003525
	1.04643 107809.46				211.39	24.79	
1053.50	181.00 4449.29 218.10	8.64	4.83	7.50	7898.40	0.45	0.003510
	1.05792 108382.73				212.52	24.61	
1059.90	182.00 4449.32 218.45	8.67	4.85	7.52	7967.09	0.45	0.003496
	1.05844 108552.56				212.85	24.55	
1070.55	183.00 4449.37 219.03	8.72	4.89	7.55	8081.49	0.45	0.003487
	1.06367 108832.73				213.40	24.46	
1071.41	184.00 4449.38 219.07	8.73	4.89	7.55	8090.78	0.45	0.003488
	1.06445 108854.98				213.44	24.45	

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HYCHAN.OUT									
1071.43	185.00	4449.38	8.73	7.55	8090.87	0.45	213.44	24.45	0.003490
	1.06508	219.07	4.89						
		108855.62							
1071.45	186.00	4449.38	8.73	7.55	8091.27	0.45	213.44	24.45	0.003487
	1.06423	219.07	4.89						
		108856.08							
1071.42	187.00	4449.38	8.73	7.55	8091.14	0.45	213.44	24.45	0.003487
	1.06413	219.07	4.89						
		108855.39							
1071.43	188.00	4449.38	8.73	7.55	8090.92	0.45	213.44	24.45	0.003488
	1.06433	219.07	4.89						
		108855.45							
1071.46	189.00	4449.38	8.73	7.55	8090.98	0.45	213.44	24.45	0.003488
	1.06463	219.08	4.89						
		108856.35							
1071.45	190.00	4449.38	8.73	7.55	8091.00	0.45	213.44	24.45	0.003488
	1.06456	219.07	4.89						
		108856.02							
1066.93	191.00	4449.36	8.71	7.54	8042.05	0.45	213.21	24.49	0.003501
	1.06517	218.83	4.88						
		108736.23							
1056.08	192.00	4449.30	8.65	7.50	7925.50	0.45	212.65	24.58	0.003509
	1.05969	218.24	4.84						
		108450.26							
1055.29	193.00	4449.30	8.65	7.50	7917.08	0.45	212.61	24.59	0.003510
	1.05921	218.19	4.84						
		108429.65							
1055.26	194.00	4449.30	8.65	7.50	7917.07	0.45	212.61	24.59	0.003508
	1.05876	218.19	4.84						
		108429.02							
1055.25	195.00	4449.30	8.65	7.50	7916.93	0.45	212.61	24.59	0.003510
	1.05940	218.19	4.84						
		108428.73							
1055.29	196.00	4449.30	8.65	7.50	7917.18	0.45	212.61	24.59	0.003511
	1.05947	218.19	4.84						
		108429.84							
1055.30	197.00	4449.30	8.65	7.50	7917.22	0.45	212.61	24.59	0.003510
	1.05926	218.19	4.84						
		108429.91							
1055.25	198.00	4449.30	8.65	7.50	7916.94	0.45	212.61	24.59	0.003510
	1.05934	218.19	4.84						
		108428.55							
1055.22	199.00	4449.30	8.65	7.50	7916.61	0.45	212.60	24.59	0.003510
	1.05927	218.19	4.84						
		108427.88							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1566

MAXIMUM DISCHARGE (CFS) = 21488.24 AT TIME = 81.33  
 MAXIMUM STAGE = 4454.77 AT TIME = 81.33

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4435.99	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4435.99	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4435.99	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
767.52	3.00	4439.84	3.85	2.96	2274.74	0.27	0.003144
	1.19595	125.92	6.10	124.24	32.31		
	4.00	63361.48	9.27	6.72	5496.51	0.39	
817.37	0.70152	228.94	3.57	215.02	23.18		0.003149
	5.00	109659.78	9.20	6.68	5388.67	0.39	
806.43	0.69668	227.76	3.54	214.00	23.25		0.003153
	6.00	109139.26	9.18	6.67	5345.71	0.39	
802.03	0.69518	227.29	3.53	213.60	23.28		0.003157
	7.00	108933.83	9.09	6.61	5206.30	0.39	
787.97	0.68961	225.76	3.49	212.28	23.37		0.003166
	8.00	108262.41	8.99	6.54	5056.46	0.38	
772.81	0.68308	224.11	3.45	210.85	23.46		0.003175
	9.00	107535.30	8.89	6.48	4910.85	0.38	
757.67	0.67698	222.42	3.41	209.39	23.56		0.003185
	10.00	106788.88	8.80	6.43	4786.94	0.38	
744.58	0.67085	220.91	3.37	208.09	23.65		0.003190
	11.00	106125.41	8.77	6.41	4746.94	0.38	
740.20	0.66943	220.43	3.36	207.67	23.68		0.003195
	12.00	105912.35	8.68	6.35	4612.41	0.38	
725.99	0.66352	218.80	3.32	206.27	23.77		0.003205
	13.00	105195.70	8.58	6.30	4485.14	0.38	
712.42	0.65780	217.24	3.28	204.92	23.87		0.003214
	14.00	104507.61	8.57	6.29	4469.08	0.38	
710.56	0.65614	217.04	3.27	204.74	23.88		0.003212
	15.00	104417.97	8.57	6.29	4469.00	0.38	
710.56	0.65591	217.04	3.27	204.74	23.88		0.003211
	16.00	104417.18	8.57	6.29	4468.88	0.38	
710.55	0.65668	217.04	3.27	204.74	23.88		0.003214
	17.00	104416.84	8.57	6.29	4469.13	0.38	
710.56	0.65611	217.04	3.27	204.74	23.88		0.003212
	18.00	104418.04	8.59	6.30	4492.38	0.38	
713.06	0.65716	217.31	3.28	204.98	23.87		0.003210
	19.00	104539.16	8.69	6.36	4629.90	0.38	
727.72	0.66299	218.98	3.32	206.42	23.76		0.003197
	20.00	105274.24	8.80	6.43	4783.69	0.38	
744.12	0.67013	220.84	3.37	208.03	23.65		0.003187
	21.00	106096.68	8.89	6.48	4910.05	0.38	
757.49	0.67600	222.38	3.41	209.36	23.56		0.003180
	22.00	106774.20	8.90	6.49	4923.76	0.38	

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		HYCHAN.OUT				
758.97	222.56	3.41	209.51	23.55	0.003181	
0.67690	106850.27					
23.00	4444.91	8.91	6.50	4951.61	0.38	
761.84	222.88	3.42	209.79	23.53	0.003177	
0.67760	106993.29					
24.00	4445.02	9.03	6.57	5126.54	0.39	
779.77	224.85	3.47	211.49	23.42	0.003165	
0.68488	107859.07					
25.00	4445.22	9.22	6.70	5424.38	0.39	
809.88	228.11	3.55	214.30	23.23	0.003147	
0.69713	109295.47					
26.00	4445.42	9.43	6.82	5733.57	0.39	
840.98	231.48	3.63	217.21	23.04	0.003132	
0.71005	110776.94					
27.00	4445.57	9.58	6.90	5966.46	0.39	
864.31	234.03	3.69	219.40	22.90	0.003120	
0.71904	111894.34					
28.00	4445.58	9.59	6.91	5984.90	0.39	
866.19	234.24	3.70	219.58	22.89	0.003121	
0.72024	111986.48					
29.00	4445.61	9.62	6.92	6025.67	0.39	
870.23	234.67	3.71	219.95	22.87	0.003119	
0.72183	112174.34					
30.00	4445.68	9.69	6.97	6142.38	0.39	
881.88	235.93	3.74	221.04	22.80	0.003113	
0.72608	112729.38					
31.00	4445.69	9.70	6.97	6152.13	0.39	
882.90	236.04	3.74	221.13	22.79	0.003115	
0.72701	112777.74					
32.00	4445.72	9.73	6.98	6195.52	0.39	
887.11	236.50	3.75	221.52	22.77	0.003113	
0.72861	112977.02					
33.00	4445.80	9.81	7.02	6316.26	0.40	
899.21	237.80	3.78	222.64	22.70	0.003106	
0.73284	113548.55					
34.00	4445.80	9.81	7.03	6326.09	0.40	
900.20	237.91	3.78	222.74	22.69	0.003107	
0.73350	113597.53					
35.00	4445.78	9.79	7.01	6282.32	0.40	
895.88	237.46	3.77	222.35	22.72	0.003109	
0.73198	113396.65					
36.00	4445.70	9.71	6.97	6161.77	0.39	
883.86	236.15	3.74	221.23	22.79	0.003115	
0.72745	112825.70					
37.00	4445.67	9.68	6.95	6111.06	0.39	
878.83	235.61	3.73	220.76	22.82	0.003117	
0.72554	112588.62					
38.00	4445.59	9.60	6.91	5994.89	0.39	
867.25	234.35	3.70	219.68	22.89	0.003123	
0.72120	112036.13					
39.00	4445.58	9.59	6.91	5984.95	0.39	
866.21	234.24	3.70	219.58	22.89	0.003122	
0.72033	111986.59					
40.00	4445.58	9.59	6.91	5985.04	0.39	
866.21	234.24	3.70	219.58	22.89	0.003122	
0.72038	111987.09					
41.00	4445.58	9.59	6.91	5984.99	0.39	
866.22	234.24	3.70	219.58	22.89	0.003122	
0.72031	111986.78					
42.00	4445.58	9.59	6.91	5984.99	0.39	
866.23	234.24	3.70	219.58	22.89	0.003124	
0.72081	111986.72					
43.00	4445.61	9.62	6.92	6025.87	0.39	

		HYCHAN.OUT				
870.23	234.67	3.71	219.95	22.87	0.003119	
0.72170	112175.41					
44.00	4445.69	9.69	6.97	6142.59	0.39	
881.90	235.94	3.74	221.04	22.80	0.003115	
0.72662	112730.06					
45.00	4445.72	9.73	6.98	6195.58	0.39	
887.12	236.50	3.75	221.52	22.77	0.003111	
0.72812	112977.73					
46.00	4445.83	9.84	7.04	6361.20	0.40	
903.62	238.27	3.79	223.05	22.68	0.003105	
0.73478	113754.28					
47.00	4445.94	9.95	7.10	6535.40	0.40	
920.91	240.14	3.83	224.65	22.58	0.003098	
0.74129	114570.69					
48.00	4446.05	10.06	7.15	6709.60	0.40	
938.20	242.00	3.88	226.24	22.48	0.003089	
0.74739	115384.09					
49.00	4446.16	10.17	7.20	6876.24	0.40	
954.73	243.77	3.92	227.76	22.39	0.003083	
0.75350	116158.31					
50.00	4446.28	10.29	7.26	7056.80	0.40	
972.59	245.68	3.96	229.40	22.29	0.003077	
0.76006	116993.77					
51.00	4446.42	10.43	7.32	7272.80	0.40	
993.93	247.94	4.01	231.34	22.18	0.003070	
0.76795	117983.33					
52.00	4446.58	10.59	7.39	7522.90	0.40	
1018.61	250.55	4.07	233.57	22.05	0.003064	
0.77730	119119.88					
53.00	4446.62	10.63	7.41	7590.83	0.40	
1025.00	251.17	4.08	234.10	22.02	0.003062	
0.77964	119392.55					
54.00	4446.77	10.78	7.49	7865.67	0.40	
1050.36	253.63	4.14	236.20	21.90	0.003051	
0.78832	120462.72					
55.00	4447.12	11.13	7.66	8482.11	0.40	
1107.32	259.12	4.27	240.90	21.64	0.003034	
0.80901	122856.49					
56.00	4447.63	11.64	7.88	9383.98	0.41	
1190.42	267.08	4.46	247.67	21.28	0.003016	
0.83892	126313.20					
57.00	4448.23	12.24	8.14	10511.21	0.41	
1291.77	276.37	4.67	255.56	20.88	0.002992	
0.87258	130337.98					
58.00	4448.83	12.84	8.39	11728.58	0.41	
1397.41	285.57	4.89	263.36	20.51	0.002929	
0.89432	134313.20					
59.00	4449.32	13.33	8.58	12732.50	0.41	
1483.43	292.85	5.07	269.52	20.22	0.002877	
0.90929	137453.59					
60.00	4449.88	13.89	8.81	13996.16	0.42	
1588.13	301.18	5.27	276.54	19.91	0.002795	
0.91959	141034.73					
61.00	4450.39	14.39	9.00	15147.56	0.42	
1683.50	308.58	5.46	282.76	19.64	0.002753	
0.93719	144210.06					
62.00	4450.70	14.71	9.12	15913.34	0.42	
1745.37	313.20	5.57	286.65	19.48	0.002812	
0.97779	146192.00					
63.00	4451.04	15.05	9.24	16733.51	0.42	
1811.56	318.07	5.70	290.74	19.32	0.002862	
1.01702	148275.09					
64.00	4451.29	15.30	9.32	17330.01	0.42	

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				HYCHAN.OUT			
1859.66		321.59		5.78	293.69	19.20	0.002922
	1.05435	149781.31					
	65.00	4451.51	15.52	9.40	17906.10	0.42	
1904.51		324.81		5.86	296.38	19.09	0.002968
	1.08599	151155.83					
	66.00	4451.73	15.74	9.48	18468.31	0.42	
1947.78		327.88		5.94	298.96	18.99	0.003002
	1.11287	152467.97					
	67.00	4451.80	15.81	9.50	18634.42	0.42	
1960.81		328.80		5.96	299.72	18.96	0.003004
	1.11779	152858.00					
	68.00	4451.81	15.82	9.51	18661.10	0.42	
1962.91		328.94		5.97	299.84	18.96	0.003006
	1.11941	152920.52					
	69.00	4451.81	15.82	9.51	18672.63	0.42	
1963.83		329.01		5.97	299.90	18.96	0.003008
	1.12053	152947.47					
	70.00	4451.82	15.83	9.51	18690.03	0.42	
1965.19		329.10		5.97	299.98	18.95	0.003011
	1.12182	152987.80					
	71.00	4451.82	15.83	9.51	18702.73	0.42	
1966.16		329.17		5.97	300.03	18.95	0.003010
	1.12174	153017.41					
	72.00	4451.82	15.83	9.51	18692.62	0.42	
1965.39		329.12		5.97	299.99	18.95	0.003010
	1.12180	152993.81					
	73.00	4451.83	15.84	9.52	18719.29	0.42	
1967.31		329.26		5.98	300.10	18.95	0.003019
	1.12543	153053.52					
	74.00	4451.91	15.92	9.54	18926.90	0.42	
1983.09		330.38		6.00	301.04	18.91	0.003027
	1.13363	153531.23					
	75.00	4451.96	15.97	9.56	19056.45	0.42	
1993.18		331.08		6.02	301.63	18.89	0.003030
	1.13825	153832.91					
	76.00	4451.97	15.98	9.57	19094.78	0.42	
1996.09		331.29		6.03	301.80	18.88	0.003035
	1.14120	153920.25					
	77.00	4452.07	16.08	9.60	19345.22	0.42	
2015.07		332.63		6.06	302.92	18.84	0.003054
	1.15435	154490.92					
	78.00	4452.30	16.31	9.66	19887.55	0.42	
2059.57		335.89		6.13	305.65	18.74	0.003120
	1.19378	155880.73					
	79.00	4452.92	16.93	9.46	20382.23	0.41	
2153.57		344.48		6.25	312.81	18.48	0.003250
	1.26771	159534.41					
	80.00	4453.61	17.62	9.20	20802.38	0.39	
2260.37		353.93		6.39	320.68	18.20	0.003401
	1.35521	163544.86					
	81.00	4454.43	18.44	8.89	21303.33	0.37	
2395.51		365.06		6.56	329.92	17.89	0.003569
	1.46149	168258.36					
	82.00	4454.72	18.73	8.77	21456.57	0.36	
2446.93		369.00		6.63	333.18	17.79	0.003532
	1.46154	169922.06					
	83.00	4454.29	18.30	8.92	21183.91	0.37	
2374.27		363.24		6.54	328.41	17.94	0.003400
	1.38675	167488.20					
	84.00	4453.94	17.95	9.06	20978.56	0.38	
2314.51		358.41		6.46	324.40	18.08	0.003373
	1.35912	165441.83					
	85.00	4453.89	17.90	9.08	20957.47	0.38	

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2307.47		357.84		6.45	323.92	18.09	0.003378
	1.35940	165201.02					
86.00		4454.00	18.01	9.04	21023.34	0.38	
2324.58		359.26		6.47	325.11	18.05	0.003411
	1.37732	165803.56					
87.00		4453.90	17.91	9.07	20942.32	0.38	
2308.46		357.89		6.45	323.97	18.09	0.003287
	1.32295	165222.27					
88.00		4452.74	16.75	9.48	20147.20	0.41	
2126.29		341.99		6.22	310.74	18.55	0.003042
	1.18037	158477.36					
89.00		4451.82	15.83	9.50	18692.33	0.42	
1966.63		329.18		5.97	300.04	18.95	0.002937
	1.09496	153021.64					
90.00		4451.12	15.13	9.25	16914.09	0.42	
1827.90		319.24		5.73	291.72	19.28	0.002796
	0.99909	148774.88					
91.00		4450.61	14.62	9.07	15669.22	0.42	
1726.83		311.83		5.54	285.50	19.53	0.002758
	0.95317	145602.89					
92.00		4450.16	14.17	8.91	14616.71	0.42	
1641.22		305.35		5.37	280.05	19.76	0.002808
	0.94171	142824.09					
93.00		4449.70	13.71	8.73	13566.68	0.42	
1553.63		298.48		5.21	274.27	20.01	0.002859
	0.92862	139876.73					
94.00		4449.34	13.35	8.58	12772.73	0.41	
1487.97		293.24		5.07	269.84	20.21	0.002902
	0.91900	137619.23					
95.00		4449.05	13.06	8.47	12145.28	0.41	
1434.52		288.78		4.97	266.08	20.38	0.002928
	0.90765	135700.19					
96.00		4448.77	12.78	8.36	11590.70	0.41	
1386.62		284.66		4.87	262.59	20.54	0.002967
	0.90196	133920.48					
97.00		4448.50	12.51	8.25	11042.81	0.41	
1338.75		280.52		4.77	259.08	20.71	0.002989
	0.89004	132131.03					
98.00		4448.29	12.30	8.16	10627.48	0.41	
1302.71		277.37		4.70	256.41	20.84	0.002996
	0.87804	130770.23					
99.00		4448.11	12.12	8.07	10256.22	0.41	
1270.30		274.53		4.63	254.01	20.96	0.003002
	0.86678	129543.32					
100.00		4447.95	11.96	8.00	9949.71	0.41	
1243.39		272.12		4.57	251.95	21.06	0.003008
	0.85766	128496.72					
101.00		4447.74	11.75	7.92	9578.80	0.41	
1209.09		268.91		4.50	249.23	21.20	0.003013
	0.84544	127104.83					
102.00		4447.58	11.59	7.86	9283.77	0.41	
1181.82		266.31		4.44	247.02	21.32	0.003020
	0.83615	125978.93					
103.00		4447.43	11.44	7.79	9023.43	0.41	
1157.80		264.01		4.39	245.06	21.42	0.003024
	0.82761	124979.94					
104.00		4447.32	11.33	7.74	8819.17	0.41	
1138.88		262.20		4.34	243.52	21.50	0.003029
	0.82086	124193.54					
105.00		4447.17	11.18	7.68	8562.87	0.40	
1115.32		259.93		4.29	241.58	21.61	0.003037
	0.81311	123208.25					
106.00		4446.99	11.00	7.59	8239.26	0.40	

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1085.28		257.04		4.22	239.11	21.74	0.003045
	0.80222	121947.58					
107.00		4446.88	10.89	7.54	8051.39	0.40	
1067.80		255.35		4.18	237.67	21.82	0.003049
	0.79561	121212.06					
108.00		4446.78	10.79	7.49	7877.60	0.40	
1051.76		253.78		4.14	236.34	21.90	0.003055
	0.78996	120531.34					
109.00		4446.71	10.72	7.45	7752.29	0.40	
1040.07		252.65		4.12	235.36	21.95	0.003059
	0.78570	120034.66					
110.00		4446.73	10.74	7.47	7792.68	0.40	
1043.74		253.00		4.13	235.66	21.93	0.003055
	0.78650	120187.31					
111.00		4446.86	10.87	7.53	8008.72	0.40	
1063.69		254.93		4.17	237.31	21.84	0.003049
	0.79375	121028.61					
112.00		4446.97	10.98	7.58	8201.13	0.40	
1081.62		256.68		4.21	238.81	21.76	0.003046
	0.80102	121791.70					
113.00		4446.88	10.89	7.54	8050.82	0.40	
1067.72		255.34		4.18	237.67	21.82	0.003049
	0.79554	121209.89					
114.00		4446.87	10.88	7.53	8026.95	0.40	
1065.39		255.10		4.18	237.46	21.83	0.003046
	0.79387	121103.11					
115.00		4447.06	11.07	7.63	8370.39	0.40	
1097.10		258.16		4.25	240.07	21.69	0.003037
	0.80529	122435.70					
116.00		4447.19	11.20	7.69	8591.42	0.40	
1117.75		260.16		4.30	241.78	21.60	0.003034
	0.81344	123308.20					
117.00		4447.12	11.13	7.66	8480.19	0.40	
1107.46		259.17		4.27	240.94	21.64	0.003037
	0.80968	122877.75					
118.00		4447.12	11.13	7.65	8469.67	0.40	
1106.45		259.08		4.27	240.85	21.65	0.003036
	0.80904	122834.87					
119.00		4447.15	11.16	7.67	8529.31	0.40	
1111.88		259.60		4.28	241.30	21.62	0.003035
	0.81102	123061.06					
120.00		4447.22	11.23	7.70	8660.97	0.41	
1124.09		260.77		4.31	242.30	21.57	0.003032
	0.81555	123573.92					
121.00		4447.23	11.24	7.71	8669.92	0.41	
1124.94		260.86		4.31	242.37	21.56	0.003032
	0.81583	123610.20					
122.00		4447.20	11.21	7.69	8610.17	0.41	
1119.53		260.34		4.30	241.93	21.59	0.003034
	0.81421	123384.56					
123.00		4447.12	11.13	7.66	8479.81	0.40	
1107.43		259.17		4.27	240.93	21.64	0.003037
	0.80985	122876.16					
124.00		4447.08	11.09	7.64	8411.35	0.40	
1101.17		258.57		4.26	240.42	21.67	0.003039
	0.80773	122613.80					
125.00		4447.01	11.02	7.60	8279.65	0.40	
1088.92		257.38		4.23	239.41	21.72	0.003041
	0.80292	122098.48					
126.00		4447.00	11.01	7.60	8269.88	0.40	
1088.04		257.29		4.23	239.33	21.73	0.003043
	0.80293	122058.55					
127.00		4446.98	10.99	7.59	8218.82	0.40	

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				HYCHAN.OUT			
1083.35		256.85		4.22	238.95	21.75	0.003044
	0.80124	121864.31					
128.00	4446.91		10.92	7.55	8100.10	0.40	
1072.28		255.77		4.19	238.03	21.80	0.003048
	0.79744	121397.75					
129.00	4446.90		10.91	7.55	8090.99	0.40	
1071.44		255.69		4.19	237.96	21.80	0.003048
	0.79699	121360.87					
130.00	4446.88		10.89	7.54	8041.65	0.40	
1066.88		255.26		4.18	237.59	21.83	0.003049
	0.79510	121172.33					
131.00	4446.81		10.82	7.50	7925.88	0.40	
1056.09		254.21		4.15	236.70	21.88	0.003054
	0.79173	120716.19					
132.00	4446.86		10.87	7.53	8018.14	0.40	
1064.57		255.01		4.17	237.39	21.84	0.003047
	0.79380	121066.99					
133.00	4446.99		11.00	7.60	8252.25	0.40	
1086.31		257.13		4.22	239.19	21.74	0.003041
	0.80169	121986.63					
134.00	4447.00		11.01	7.60	8269.71	0.40	
1088.02		257.29		4.23	239.33	21.73	0.003043
	0.80304	122057.75					
135.00	4447.00		11.01	7.60	8270.25	0.40	
1088.07		257.29		4.23	239.33	21.73	0.003043
	0.80292	122059.98					
136.00	4447.00		11.01	7.60	8269.70	0.40	
1088.01		257.29		4.23	239.33	21.73	0.003042
	0.80268	122058.05					
137.00	4447.00		11.01	7.60	8270.03	0.40	
1088.06		257.29		4.23	239.33	21.73	0.003042
	0.80261	122059.03					
138.00	4447.00		11.01	7.60	8270.32	0.40	
1088.05		257.30		4.23	239.33	21.73	0.003042
	0.80279	122060.30					
139.00	4447.00		11.01	7.60	8269.77	0.40	
1088.03		257.29		4.23	239.33	21.73	0.003045
	0.80340	122058.00					
140.00	4446.98		10.99	7.59	8219.04	0.40	
1083.33		256.85		4.22	238.95	21.75	0.003046
	0.80162	121865.03					
141.00	4446.91		10.92	7.55	8100.25	0.40	
1072.30		255.78		4.19	238.04	21.80	0.003046
	0.79693	121398.80					
142.00	4446.90		10.91	7.55	8090.78	0.40	
1071.43		255.69		4.19	237.96	21.80	0.003046
	0.79636	121359.95					
143.00	4446.90		10.91	7.55	8091.10	0.40	
1071.45		255.69		4.19	237.96	21.80	0.003046
	0.79646	121361.19					
144.00	4446.90		10.91	7.55	8090.89	0.40	
1071.40		255.69		4.19	237.96	21.80	0.003048
	0.79693	121360.29					
145.00	4446.88		10.89	7.54	8042.22	0.40	
1066.96		255.26		4.18	237.60	21.83	0.003049
	0.79526	121174.48					
146.00	4446.81		10.82	7.50	7925.43	0.40	
1056.04		254.20		4.15	236.70	21.88	0.003053
	0.79134	120714.49					
147.00	4446.81		10.82	7.50	7917.07	0.40	
1055.28		254.13		4.15	236.63	21.88	0.003053
	0.79114	120680.16					
148.00	4446.81		10.82	7.50	7917.07	0.40	

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				HYCHAN.OUT			
1055.28		254.13		4.15	236.63	21.88	0.003052
	0.79080	120680.06					
149.00		4446.81	10.82	7.50	7916.82	0.40	
1055.24		254.12		4.15	236.63	21.88	0.003053
	0.79109	120679.06					
150.00		4446.81	10.82	7.50	7916.92	0.40	
1055.26		254.12		4.15	236.63	21.88	0.003053
	0.79102	120679.38					
151.00		4446.79	10.80	7.49	7885.12	0.40	
1052.36		253.84		4.15	236.39	21.89	0.003054
	0.79001	120557.62					
152.00		4446.73	10.74	7.47	7790.87	0.40	
1043.64		252.99		4.13	235.66	21.93	0.003057
	0.78691	120187.20					
153.00		4446.71	10.72	7.45	7745.76	0.40	
1039.45		252.58		4.12	235.31	21.95	0.003057
	0.78514	120007.84					
154.00		4446.71	10.72	7.45	7742.58	0.40	
1039.13		252.55		4.11	235.28	21.95	0.003059
	0.78543	119994.77					
155.00		4446.68	10.69	7.44	7695.10	0.40	
1034.79		252.13		4.10	234.93	21.97	0.003062
	0.78406	119812.03					
156.00		4446.67	10.68	7.43	7675.52	0.40	
1032.86		251.93		4.10	234.75	21.98	0.003058
	0.78218	119723.88					
157.00		4446.79	10.80	7.50	7898.70	0.40	
1053.53		253.95		4.15	236.48	21.89	0.003053
	0.79033	120604.58					
158.00		4446.81	10.82	7.50	7917.16	0.40	
1055.29		254.13		4.15	236.63	21.88	0.003052
	0.79086	120680.43					
159.00		4446.81	10.82	7.50	7917.07	0.40	
1055.25		254.13		4.15	236.63	21.88	0.003053
	0.79096	120680.07					
160.00		4446.81	10.82	7.50	7916.75	0.40	
1055.23		254.12		4.15	236.62	21.88	0.003052
	0.79069	120678.74					
161.00		4446.81	10.82	7.50	7916.96	0.40	
1055.24		254.12		4.15	236.63	21.88	0.003052
	0.79091	120679.66					
162.00		4446.81	10.82	7.50	7917.17	0.40	
1055.24		254.13		4.15	236.63	21.88	0.003052
	0.79078	120680.55					
163.00		4446.81	10.82	7.50	7916.86	0.40	
1055.24		254.12		4.15	236.63	21.88	0.003053
	0.79101	120679.16					
164.00		4446.81	10.82	7.50	7916.99	0.40	
1055.27		254.13		4.15	236.63	21.88	0.003051
	0.79065	120679.83					
165.00		4446.78	10.79	7.49	7868.34	0.40	
1050.83		253.70		4.14	236.26	21.90	0.003057
	0.79001	120493.15					
166.00		4446.71	10.72	7.45	7751.76	0.40	
1040.02		252.64		4.12	235.36	21.95	0.003058
	0.78561	120032.46					
167.00		4446.71	10.72	7.45	7742.89	0.40	
1039.18		252.56		4.11	235.29	21.95	0.003058
	0.78513	119995.97					
168.00		4446.71	10.72	7.45	7743.03	0.40	
1039.19		252.56		4.11	235.29	21.95	0.003057
	0.78499	119996.67					
169.00		4446.71	10.72	7.45	7742.76	0.40	

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				HYCHAN.OUT			
1039.17		252.55		4.11	235.28	21.95	0.003060
	0.78554	119995.27					
170.00	4446.71	10.72		7.45	7743.55	0.40	
1039.24		252.56		4.11	235.29	21.95	0.003059
	0.78544	119998.61					
171.00	4446.71	10.72		7.45	7742.64	0.40	
1039.17		252.55		4.11	235.28	21.95	0.003057
	0.78499	119995.07					
172.00	4446.71	10.72		7.45	7742.98	0.40	
1039.20		252.56		4.11	235.29	21.95	0.003057
	0.78499	119996.27					
173.00	4446.68	10.69		7.44	7694.85	0.40	
1034.77		252.13		4.10	234.92	21.98	0.003060
	0.78370	119811.05					
174.00	4446.61	10.62		7.40	7577.78	0.40	
1023.89		251.07		4.08	234.01	22.03	0.003063
	0.77944	119347.03					
175.00	4446.61	10.62		7.40	7569.26	0.40	
1023.08		250.99		4.08	233.94	22.03	0.003064
	0.77929	119311.53					
176.00	4446.61	10.62		7.40	7568.80	0.40	
1023.05		250.98		4.08	233.94	22.03	0.003063
	0.77918	119309.93					
177.00	4446.61	10.62		7.40	7568.80	0.40	
1023.02		250.98		4.08	233.94	22.03	0.003063
	0.77910	119309.93					
178.00	4446.61	10.62		7.40	7569.16	0.40	
1023.07		250.99		4.08	233.94	22.03	0.003064
	0.77943	119311.22					
179.00	4446.61	10.62		7.40	7569.06	0.40	
1023.07		250.99		4.08	233.94	22.03	0.003063
	0.77904	119311.01					
180.00	4446.66	10.67		7.43	7666.97	0.40	
1032.07		251.85		4.10	234.68	21.99	0.003058
	0.78190	119688.45					
181.00	4446.79	10.80		7.50	7898.40	0.40	
1053.50		253.95		4.15	236.48	21.89	0.003052
	0.79014	120603.43					
182.00	4446.83	10.84		7.52	7967.09	0.40	
1059.90		254.57		4.16	237.00	21.86	0.003050
	0.79241	120871.59					
183.00	4446.90	10.91		7.55	8081.49	0.40	
1070.55		255.60		4.19	237.89	21.81	0.003049
	0.79679	121321.92					
184.00	4446.90	10.91		7.55	8090.78	0.40	
1071.41		255.69		4.19	237.96	21.80	0.003047
	0.79662	121360.20					
185.00	4446.90	10.91		7.55	8090.87	0.40	
1071.43		255.69		4.19	237.96	21.80	0.003047
	0.79666	121360.24					
186.00	4446.90	10.91		7.55	8091.27	0.40	
1071.45		255.69		4.19	237.96	21.80	0.003046
	0.79658	121361.88					
187.00	4446.90	10.91		7.55	8091.14	0.40	
1071.42		255.69		4.19	237.96	21.80	0.003046
	0.79652	121361.36					
188.00	4446.90	10.91		7.55	8090.92	0.40	
1071.43		255.69		4.19	237.96	21.80	0.003046
	0.79654	121360.59					
189.00	4446.90	10.91		7.55	8090.98	0.40	
1071.46		255.69		4.19	237.96	21.80	0.003047
	0.79673	121360.58					
190.00	4446.90	10.91		7.55	8091.00	0.40	

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		HYCHAN.OUT					
1071.45	255.69	4.19	237.96	21.80	0.003047		
0.79682	121360.79						
191.00	4446.88	10.89	7.54	8042.05	0.40		
1066.93	255.26	4.18	237.60	21.83	0.003049		
0.79530	121173.88						
192.00	4446.81	10.82	7.50	7925.50	0.40		
1056.08	254.21	4.15	236.70	21.88	0.003053		
0.79157	120714.80						
193.00	4446.81	10.82	7.50	7917.08	0.40		
1055.29	254.13	4.15	236.63	21.88	0.003053		
0.79108	120680.13						
194.00	4446.81	10.82	7.50	7917.07	0.40		
1055.26	254.13	4.15	236.63	21.88	0.003053		
0.79100	120680.07						
195.00	4446.81	10.82	7.50	7916.93	0.40		
1055.25	254.12	4.15	236.63	21.88	0.003052		
0.79073	120679.55						
196.00	4446.81	10.82	7.50	7917.18	0.40		
1055.29	254.13	4.15	236.63	21.88	0.003053		
0.79104	120680.44						
197.00	4446.81	10.82	7.50	7917.22	0.40		
1055.30	254.13	4.15	236.63	21.88	0.003051		
0.79071	120680.64						
198.00	4446.81	10.82	7.50	7916.94	0.40		
1055.25	254.12	4.15	236.63	21.88	0.003052		
0.79078	120679.52						
199.00	4446.81	10.81	7.50	7916.61	0.40		
1055.22	254.12	4.15	236.62	21.88	0.003054		
0.79140	120678.18						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1628

MAXIMUM DISCHARGE (CFS) = 21399.36 AT TIME = 81.35  
 MAXIMUM STAGE = 4450.39 AT TIME = 81.34

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	AREA	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4433.30	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4433.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4433.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4437.30	4.00	5.36	3.21	2174.14	0.28			
678.18	126.46	37143.03	10.17	7.65	5497.66	0.42			
0.79572	4443.47	2.05	2.05	7.65	5497.66	0.42			
718.55	351.14	71352.07	10.09	7.60	5389.33	0.42			
0.30277	4443.39	2.04	2.04	7.60	5389.33	0.42			
709.34	348.33	70985.96	10.06	7.58	5346.87	0.42			
0.30183	4443.36	2.03	2.03	7.58	5346.87	0.42			
705.75	347.21	140.28	13.94	13.94	0.002371				

		HYCHAN.OUT					
	0.30066	70841.15					
694.05	7.00	4443.27	9.97	7.50	5208.06	0.42	
		343.64	2.02	139.35	13.98		0.002368
	0.29839	70374.09					
681.51	8.00	4443.16	9.86	7.42	5058.23	0.42	
		339.69	2.01	138.33	14.03		0.002362
	0.29568	69855.53					
668.77	9.00	4443.06	9.76	7.35	4912.68	0.41	
		335.75	1.99	137.30	14.07		0.002362
	0.29363	69336.88					
657.55	10.00	4442.97	9.67	7.28	4787.84	0.41	
		332.26	1.98	136.39	14.11		0.002357
	0.29110	68875.44					
653.99	11.00	4442.93	9.63	7.26	4747.96	0.41	
		331.09	1.98	136.08	14.12		0.002357
	0.29050	68719.60					
642.10	12.00	4442.83	9.53	7.19	4614.29	0.41	
		327.29	1.96	135.08	14.17		0.002353
	0.28805	68214.40					
630.76	13.00	4442.73	9.43	7.11	4485.98	0.41	
		323.55	1.95	134.09	14.21		0.002357
	0.28667	67715.52					
629.27	14.00	4442.72	9.42	7.10	4469.14	0.41	
		323.01	1.95	133.95	14.22		0.002354
	0.28620	67643.12					
629.26	15.00	4442.72	9.42	7.10	4468.95	0.41	
		323.00	1.95	133.95	14.22		0.002356
	0.28644	67642.43					
629.25	16.00	4442.72	9.42	7.10	4468.92	0.41	
		323.00	1.95	133.95	14.22		0.002354
	0.28616	67642.42					
629.27	17.00	4442.72	9.42	7.10	4469.13	0.41	
		323.01	1.95	133.95	14.22		0.002354
	0.28622	67643.07					
631.23	18.00	4442.74	9.44	7.12	4491.36	0.41	
		323.61	1.95	134.11	14.21		0.002358
	0.28706	67724.11					
643.32	19.00	4442.84	9.54	7.19	4627.94	0.41	
		327.55	1.96	135.15	14.17		0.002362
	0.28949	68249.32					
657.02	20.00	4442.96	9.66	7.28	4781.73	0.41	
		331.94	1.98	136.30	14.11		0.002366
	0.29218	68833.24					
668.45	21.00	4443.05	9.75	7.34	4909.25	0.41	
		335.52	1.99	137.24	14.07		0.002364
	0.29393	69306.76					
669.76	22.00	4443.06	9.76	7.35	4923.76	0.41	
		335.96	1.99	137.36	14.07		0.002365
	0.29418	69364.94					
672.17	23.00	4443.08	9.78	7.36	4950.46	0.42	
		336.65	2.00	137.53	14.06		0.002369
	0.29522	69455.04					
687.00	24.00	4443.20	9.90	7.46	5123.55	0.42	
		341.19	2.01	138.72	14.01		0.002378
	0.29873	70053.56					
712.06	25.00	4443.41	10.11	7.61	5420.67	0.42	
		348.91	2.04	140.72	13.92		0.002385
	0.30366	71062.65					
738.49	26.00	4443.61	10.31	7.76	5729.77	0.43	
		356.74	2.07	142.73	13.84		0.002397
	0.30961	72077.16					
758.84	27.00	4443.77	10.47	7.86	5965.21	0.43	
		362.66	2.09	144.24	13.78		0.002394

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HYCHAN.OUT									
0.31258	72839.46								
28.00	4443.78	10.49	7.87	5984.94	0.43				
760.56	363.24	2.09	144.38	13.77	0.002391				
0.31246	72914.04								
29.00	4443.81	10.51	7.89	6024.22	0.43				
763.99	364.11	2.10	144.61	13.76	0.002405				
0.31490	73025.66								
30.00	4443.88	10.58	7.93	6141.75	0.43				
774.28	366.97	2.11	145.33	13.73	0.002401				
0.31606	73392.06								
31.00	4443.89	10.59	7.94	6152.15	0.43				
775.20	367.28	2.11	145.41	13.73	0.002399				
0.31595	73431.30								
32.00	4443.92	10.62	7.95	6194.00	0.43				
778.89	368.18	2.12	145.64	13.72	0.002411				
0.31826	73547.16								
33.00	4443.99	10.69	8.00	6315.56	0.43				
789.61	371.12	2.13	146.38	13.69	0.002411				
0.32005	73921.13								
34.00	4444.00	10.70	8.00	6326.14	0.43				
790.55	371.41	2.13	146.45	13.69	0.002408				
0.31979	73958.38								
35.00	4443.97	10.67	7.99	6283.78	0.43				
786.81	370.43	2.12	146.20	13.70	0.002403				
0.31845	73833.31								
36.00	4443.90	10.60	7.94	6162.48	0.43				
776.11	367.53	2.11	145.47	13.73	0.002400				
0.31623	73463.88								
37.00	4443.87	10.57	7.92	6112.44	0.43				
771.72	366.34	2.11	145.17	13.74	0.002394				
0.31467	73311.38								
38.00	4443.79	10.49	7.87	5995.56	0.43				
761.48	363.49	2.09	144.45	13.77	0.002395				
0.31306	72946.44								
39.00	4443.78	10.48	7.87	5984.95	0.43				
760.56	363.24	2.09	144.38	13.77	0.002393				
0.31262	72913.91								
40.00	4443.78	10.48	7.87	5985.06	0.43				
760.57	363.20	2.09	144.37	13.77	0.002395				
0.31295	72908.91								
41.00	4443.78	10.48	7.87	5985.00	0.43				
760.56	363.22	2.09	144.38	13.77	0.002391				
0.31243	72912.37								
42.00	4443.79	10.49	7.87	5984.97	0.43				
760.56	363.25	2.09	144.39	13.77	0.002392				
0.31254	72915.33								
43.00	4443.81	10.51	7.89	6024.45	0.43				
764.01	364.10	2.10	144.60	13.76	0.002402				
0.31457	73025.02								
44.00	4443.88	10.58	7.93	6141.87	0.43				
774.29	366.97	2.11	145.33	13.73	0.002403				
0.31643	73392.68								
45.00	4443.92	10.62	7.95	6194.17	0.43				
778.90	368.18	2.12	145.64	13.72	0.002409				
0.31797	73546.34								
46.00	4444.02	10.72	8.01	6358.97	0.43				
793.48	372.07	2.13	146.62	13.68	0.002419				
0.32193	74042.15								
47.00	4444.12	10.83	8.08	6533.14	0.43				
808.99	376.17	2.15	147.65	13.64	0.002431				
0.32620	74562.87								
48.00	4444.23	10.93	8.13	6707.45	0.43				
824.64	380.21	2.17	148.66	13.60	0.002436				

HYCHAN.OUT									
0.32971	75073.93								
49.00	4444.33	11.03	8.19	6874.02	0.43				
839.71	384.02	2.19	149.61	13.56	0.002448				
0.33406	75554.34								
50.00	4444.44	11.14	8.24	7054.52	0.44				
856.16	388.07	2.21	150.62	13.52	0.002460				
0.33869	76062.58								
51.00	4444.56	11.26	8.30	7269.02	0.44				
875.91	392.79	2.23	151.79	13.48	0.002481				
0.34527	76653.13								
52.00	4444.71	11.41	8.37	7521.47	0.44				
898.96	398.31	2.26	153.15	13.43	0.002489				
0.35047	77339.39								
53.00	4444.74	11.44	8.39	7589.41	0.44				
904.55	399.73	2.26	153.50	13.41	0.002494				
0.35216	77515.99								
54.00	4444.89	11.59	8.48	7860.45	0.44				
926.68	405.28	2.29	154.86	13.36	0.002515				
0.35886	78202.30								
55.00	4445.21	11.91	8.67	8473.20	0.44				
977.44	417.53	2.34	157.83	13.25	0.002558				
0.37371	79704.81								
56.00	4445.65	12.35	8.89	9371.33	0.45				
1053.78	434.64	2.42	161.94	13.11	0.002626				
0.39734	81777.71								
57.00	4446.18	12.88	9.15	10497.08	0.45				
1147.30	454.90	2.52	166.72	12.95	0.002682				
0.42208	84194.74								
58.00	4446.77	13.47	9.42	11715.94	0.45				
1244.35	477.72	2.60	172.02	12.77	0.002597				
0.42208	86870.77								
59.00	4447.28	13.98	9.60	12721.65	0.45				
1324.67	497.81	2.66	176.61	12.63	0.002526				
0.41938	89189.02								
60.00	4447.89	14.59	9.84	13982.21	0.45				
1420.30	521.72	2.72	181.99	12.47	0.002415				
0.41028	91903.43								
61.00	4448.44	15.14	10.03	15137.38	0.45				
1508.48	543.09	2.78	186.72	12.33	0.002370				
0.41071	94292.76								
62.00	4448.69	15.39	10.16	15905.42	0.46				
1565.22	553.14	2.83	188.92	12.27	0.002540				
0.44847	95405.11								
63.00	4448.84	15.54	10.28	16725.84	0.46				
1626.35	558.86	2.91	190.17	12.24	0.002708				
0.49177	96034.20								
64.00	4448.95	15.65	10.36	17324.31	0.46				
1671.47	563.34	2.97	191.14	12.21	0.002807				
0.51971	96526.05								
65.00	4449.07	15.77	10.45	17899.18	0.46				
1713.34	567.84	3.02	192.11	12.18	0.002936				
0.55286	97017.52								
66.00	4449.18	15.88	10.53	18464.74	0.47				
1753.92	572.21	3.07	193.06	12.16	0.003014				
0.57642	97494.28								
67.00	4449.21	15.91	10.55	18633.91	0.47				
1766.13	573.57	3.08	193.35	12.15	0.003015				
0.57937	97642.75								
68.00	4449.22	15.92	10.55	18661.02	0.47				
1768.09	573.81	3.08	193.40	12.15	0.003022				
0.58096	97668.62								
69.00	4449.22	15.92	10.56	18672.65	0.47				
1768.93	573.89	3.08	193.42	12.15	0.003024				

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1770.20	0.58163	97677.27	15.92	3.08	10.56	18690.10	0.47	0.003026
	70.00	4449.22				193.45	12.15	
		574.02						
1771.13	0.58231	97691.21	15.93	3.08	10.56	18702.93	0.47	0.003027
	71.00	4449.23				193.47	12.15	
		574.11						
1770.39	0.58271	97701.38	15.93	3.08	10.56	18692.78	0.47	0.003020
	72.00	4449.22				193.45	12.15	
		574.04						
1772.24	0.58114	97694.16	15.93	3.09	10.56	18718.30	0.47	0.003041
	73.00	4449.23				193.49	12.15	
		574.23						
1787.25	0.58561	97714.35	15.98	3.11	10.59	18924.84	0.47	0.003051
	74.00	4449.28				193.96	12.13	
		575.47						
1796.80	0.59127	97949.41	16.02	3.12	10.61	19056.12	0.47	0.003057
	75.00	4449.32				194.29	12.13	
		575.55						
1799.55	0.59554	98115.03	16.03	3.13	10.61	19093.88	0.47	0.003061
	76.00	4449.33				194.38	12.12	
		575.57						
1817.65	0.59719	98161.57	16.11	3.16	10.64	19341.16	0.47	0.003078
	77.00	4449.41				195.02	12.11	
		575.72						
1862.13	0.60648	98483.51	16.27	3.23	10.67	19876.96	0.47	0.003195
	78.00	4449.57				196.37	12.07	
		576.04						
1982.17	0.64449	99164.66	16.49	3.44	10.27	20362.83	0.45	0.003457
	79.00	4449.79				198.25	12.02	
		576.49						
2120.01	0.74164	100114.02	16.72	3.67	9.80	20781.45	0.42	0.003748
	80.00	4450.02				200.14	11.97	
		576.94						
2289.57	0.85941	101072.75	16.98	3.96	9.29	21281.44	0.40	0.004056
	81.00	4450.28				202.37	11.92	
		577.47						
2352.29	1.00354	102194.36	17.09	4.07	9.12	21461.21	0.39	0.003994
	82.00	4450.39				203.24	11.89	
		577.68						
2262.11	1.01484	102637.28	16.95	3.92	9.37	21200.98	0.40	0.003755
	83.00	4450.25				202.09	11.92	
		577.40						
2188.11	0.91800	102053.41	16.83	3.79	9.59	20982.85	0.41	0.003700
	84.00	4450.13				201.10	11.95	
		577.17						
2179.43	0.87532	101557.45	16.82	3.78	9.62	20957.13	0.41	0.003711
	85.00	4450.12				200.97	11.95	
		577.14						
2200.95	0.87452	101489.36	16.85	3.81	9.55	21020.83	0.41	0.003775
	86.00	4450.15				201.27	11.94	
		577.21						
2180.25	0.89812	101639.12	16.82	3.78	9.61	20960.25	0.41	0.003547
	87.00	4450.12				201.03	11.95	
		577.15						
1946.54	0.83605	101518.72	16.43	3.38	10.37	20187.12	0.45	0.003069
	88.00	4449.73				197.74	12.03	
		576.37						
1771.87	0.64676	99856.66	15.95	3.08	10.56	18708.63	0.47	0.002852
	89.00	4449.25				193.63	12.14	
		574.84						
1642.00	0.54860	97780.80	15.58	2.93	10.31	16931.77	0.46	0.002522
	90.00	4448.88				190.50	12.23	
		560.38						

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0.46113	96200.75						
91.00	4448.64	15.34	10.12	15678.88	0.46		
1548.59	550.81	2.81	188.41	12.29	0.002377		
0.41700	95147.89						
92.00	4448.23	14.93	9.95	14629.72	0.45		
1469.99	535.00	2.75	184.93	12.38	0.002426		
0.41597	93392.14						
93.00	4447.73	14.43	9.77	13576.37	0.45		
1389.16	515.37	2.70	180.57	12.51	0.002496		
0.41981	91186.89						
94.00	4447.34	14.04	9.61	12780.56	0.45		
1329.24	500.01	2.66	177.11	12.62	0.002556		
0.42400	89440.29						
95.00	4447.01	13.71	9.50	12150.17	0.45		
1279.54	487.38	2.63	174.24	12.70	0.002593		
0.42478	87989.13						
96.00	4446.73	13.43	9.39	11599.02	0.45		
1234.72	476.43	2.59	171.72	12.78	0.002637		
0.42637	86720.81						
97.00	4446.44	13.14	9.28	11047.88	0.45		
1190.45	465.14	2.56	169.11	12.87	0.002661		
0.42500	85401.03						
98.00	4446.25	12.95	9.19	10632.19	0.45		
1157.54	457.66	2.53	167.37	12.93	0.002644		
0.41727	84520.18						
99.00	4446.08	12.78	9.09	10259.35	0.45		
1128.32	451.14	2.50	165.84	12.98	0.002630		
0.41046	83748.90						
100.00	4445.94	12.64	9.02	9954.27	0.45		
1103.86	445.74	2.48	164.57	13.02	0.002610		
0.40325	83107.02						
101.00	4445.76	12.46	8.94	9582.80	0.45		
1071.75	438.88	2.44	162.94	13.08	0.002587		
0.39416	82286.36						
102.00	4445.62	12.32	8.88	9287.17	0.45		
1046.23	433.37	2.41	161.63	13.12	0.002571		
0.38724	81625.10						
103.00	4445.49	12.19	8.82	9026.15	0.45		
1023.90	428.43	2.39	160.45	13.16	0.002556		
0.38115	81028.59						
104.00	4445.39	12.09	8.76	8821.61	0.44		
1006.54	424.52	2.37	159.51	13.19	0.002543		
0.37629	80554.73						
105.00	4445.26	11.96	8.70	8566.89	0.44		
985.12	419.57	2.35	158.32	13.24	0.002526		
0.37006	79953.32						
106.00	4445.09	11.79	8.60	8242.03	0.44		
958.02	413.12	2.32	156.76	13.29	0.002514		
0.36382	79165.08						
107.00	4444.99	11.69	8.55	8053.42	0.44		
942.43	409.31	2.30	155.84	13.33	0.002506		
0.36010	78697.77						
108.00	4444.90	11.60	8.49	7879.64	0.44		
928.17	405.78	2.29	154.98	13.36	0.002499		
0.35669	78263.37						
109.00	4444.83	11.53	8.45	7752.86	0.44		
917.81	403.16	2.28	154.34	13.38	0.002496		
0.35459	77939.64						
110.00	4444.85	11.55	8.46	7791.20	0.44		
920.94	403.92	2.28	154.52	13.38	0.002502		
0.35603	78034.30						
111.00	4444.97	11.67	8.53	8005.22	0.44		
938.50	408.28	2.30	155.59	13.34	0.002516		

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		HYCHAN.OUT					
	0.36090	78570.87					
112.00	4445.07	11.77	8.59	8201.47	0.44		
954.65	412.29	2.32	156.56	13.30	0.002514		
	0.36329	79063.83					
113.00	4444.99	11.69	8.55	8052.87	0.44		
942.39	409.30	2.30	155.84	13.33	0.002506		
	0.36009	78697.28					
114.00	4444.98	11.68	8.54	8024.54	0.44		
940.07	408.68	2.30	155.68	13.33	0.002516		
	0.36113	78620.55					
115.00	4445.15	11.85	8.64	8365.78	0.44		
968.34	415.51	2.33	157.34	13.27	0.002537		
	0.36892	79457.56					
116.00	4445.27	11.97	8.70	8591.90	0.44		
987.18	420.03	2.35	158.44	13.23	0.002535		
	0.37178	80009.87					
117.00	4445.22	11.92	8.67	8480.83	0.44		
977.88	417.84	2.34	157.91	13.25	0.002531		
	0.36959	79742.70					
118.00	4445.21	11.91	8.67	8469.62	0.44		
976.94	417.62	2.34	157.85	13.25	0.002531		
	0.36952	79715.74					
119.00	4445.24	11.94	8.69	8527.59	0.44		
981.80	418.74	2.34	158.12	13.24	0.002539		
	0.37151	79852.95					
120.00	4445.31	12.01	8.72	8660.36	0.44		
992.93	421.35	2.36	158.75	13.22	0.002542		
	0.37383	80170.78					
121.00	4445.31	12.01	8.72	8669.89	0.44		
993.73	421.55	2.36	158.80	13.22	0.002542		
	0.37393	80194.23					
122.00	4445.28	11.98	8.71	8611.94	0.44		
988.87	420.43	2.35	158.53	13.23	0.002533		
	0.37182	80058.41					
123.00	4445.22	11.92	8.67	8480.41	0.44		
977.84	417.84	2.34	157.91	13.25	0.002532		
	0.36970	79742.12					
124.00	4445.18	11.88	8.65	8413.06	0.44		
972.23	416.51	2.33	157.59	13.26	0.002523		
	0.36750	79580.78					
125.00	4445.11	11.81	8.61	8280.28	0.44		
961.18	413.86	2.32	156.94	13.29	0.002520		
	0.36527	79256.38					
126.00	4445.11	11.81	8.61	8269.89	0.44		
960.31	413.65	2.32	156.89	13.29	0.002521		
	0.36520	79230.59					
127.00	4445.08	11.78	8.60	8220.39	0.44		
956.22	412.68	2.32	156.66	13.30	0.002513		
	0.36340	79111.74					
128.00	4445.02	11.72	8.56	8100.58	0.44		
946.31	410.26	2.31	156.07	13.32	0.002512		
	0.36150	78814.44					
129.00	4445.01	11.71	8.56	8091.03	0.44		
945.52	410.05	2.31	156.02	13.32	0.002513		
	0.36159	78789.37					
130.00	4444.99	11.69	8.54	8043.13	0.44		
941.58	409.11	2.30	155.79	13.33	0.002506		
	0.35987	78672.95					
131.00	4444.93	11.63	8.50	7926.42	0.44		
931.99	406.72	2.29	155.21	13.35	0.002504		
	0.35802	78378.89					
132.00	4444.97	11.67	8.53	8015.16	0.44		
939.30	408.48	2.30	155.64	13.33	0.002517		

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		HYCHAN.OUT					
	0.36110	78596.12					
133.00	4445.10	11.80	8.61	8251.16	0.44		
958.76	413.27	2.32	156.80	13.29	0.002520		
	0.36479	79183.53					
134.00	4445.11	11.81	8.61	8269.65	0.44		
960.29	413.65	2.32	156.89	13.29	0.002521		
	0.36526	79230.05					
135.00	4445.11	11.81	8.61	8270.25	0.44		
960.34	413.66	2.32	156.89	13.29	0.002521		
	0.36519	79231.66					
136.00	4445.11	11.81	8.61	8269.76	0.44		
960.30	413.65	2.32	156.89	13.29	0.002520		
	0.36500	79230.07					
137.00	4445.11	11.81	8.61	8269.99	0.44		
960.32	413.65	2.32	156.89	13.29	0.002521		
	0.36514	79231.07					
138.00	4445.11	11.81	8.61	8270.33	0.44		
960.35	413.66	2.32	156.89	13.29	0.002520		
	0.36509	79231.84					
139.00	4445.11	11.81	8.61	8269.74	0.44		
960.30	413.65	2.32	156.89	13.29	0.002521		
	0.36524	79230.34					
140.00	4445.08	11.78	8.60	8220.55	0.44		
956.23	412.68	2.32	156.66	13.30	0.002515		
	0.36364	79111.48					
141.00	4445.02	11.72	8.56	8100.87	0.44		
946.33	410.26	2.31	156.07	13.32	0.002511		
	0.36144	78814.68					
142.00	4445.01	11.71	8.56	8090.77	0.44		
945.50	410.05	2.31	156.02	13.32	0.002511		
	0.36128	78789.56					
143.00	4445.01	11.71	8.56	8091.09	0.44		
945.53	410.05	2.31	156.02	13.32	0.002512		
	0.36137	78789.64					
144.00	4445.01	11.71	8.56	8090.86	0.44		
945.51	410.05	2.31	156.02	13.32	0.002512		
	0.36137	78788.88					
145.00	4444.99	11.69	8.54	8043.68	0.44		
941.63	409.11	2.30	155.79	13.33	0.002506		
	0.35997	78674.14					
146.00	4444.93	11.63	8.50	7926.00	0.44		
931.96	406.71	2.29	155.20	13.35	0.002505		
	0.35818	78378.08					
147.00	4444.92	11.62	8.50	7917.11	0.44		
931.23	406.52	2.29	155.16	13.35	0.002503		
	0.35785	78355.16					
148.00	4444.92	11.62	8.50	7917.07	0.44		
931.23	406.52	2.29	155.16	13.35	0.002504		
	0.35793	78354.34					
149.00	4444.92	11.62	8.50	7916.82	0.44		
931.20	406.51	2.29	155.16	13.35	0.002505		
	0.35802	78353.93					
150.00	4444.92	11.62	8.50	7916.91	0.44		
931.21	406.52	2.29	155.16	13.35	0.002505		
	0.35803	78354.92					
151.00	4444.90	11.60	8.49	7886.08	0.44		
928.69	405.90	2.29	155.01	13.36	0.002501		
	0.35703	78278.58					
152.00	4444.85	11.55	8.46	7791.73	0.44		
920.98	403.95	2.28	154.53	13.38	0.002497		
	0.35518	78038.38					
153.00	4444.83	11.53	8.44	7745.95	0.44		
917.25	403.01	2.28	154.30	13.38	0.002496		

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	0.35445	77921.48							
916.98	154.00	4444.83	11.53	2.28	8.44	7742.59	13.38	0.44	0.002496
	0.35446	77912.14							
913.23	155.00	4444.80	11.50	2.27	8.43	7696.49	13.39	0.44	0.002492
	0.35326	77796.18							
911.36	156.00	4444.79	11.49	2.27	8.42	7673.24	13.40	0.44	0.002500
	0.35416	77730.54							
929.63	157.00	4444.91	11.61	2.29	8.50	7897.54	13.36	0.44	0.002505
	0.35787	78304.05							
931.23	158.00	4444.92	11.62	2.29	8.50	7917.17	13.35	0.44	0.002503
	0.35781	78355.39							
931.23	159.00	4444.92	11.62	2.29	8.50	7917.08	13.35	0.44	0.002504
	0.35787	78354.81							
931.20	160.00	4444.92	11.62	2.29	8.50	7916.73	13.35	0.44	0.002503
	0.35783	78353.73							
931.22	161.00	4444.92	11.62	2.29	8.50	7916.98	13.35	0.44	0.002504
	0.35786	78354.95							
931.23	162.00	4444.92	11.62	2.29	8.50	7917.19	13.35	0.44	0.002504
	0.35797	78354.87							
931.21	163.00	4444.92	11.62	2.29	8.50	7916.84	13.35	0.44	0.002504
	0.35794	78353.91							
931.22	164.00	4444.92	11.62	2.29	8.50	7917.02	13.35	0.44	0.002503
	0.35778	78355.20							
927.36	165.00	4444.90	11.60	2.29	8.49	7869.77	13.36	0.44	0.002498
	0.35644	78237.39							
917.77	166.00	4444.83	11.53	2.28	8.45	7752.30	13.38	0.44	0.002497
	0.35466	77938.13							
917.00	167.00	4444.83	11.53	2.28	8.44	7742.90	13.38	0.44	0.002496
	0.35449	77913.38							
917.02	168.00	4444.83	11.53	2.28	8.44	7743.08	13.38	0.44	0.002496
	0.35440	77913.94							
916.99	169.00	4444.83	11.53	2.28	8.44	7742.71	13.38	0.44	0.002496
	0.35448	77913.00							
917.06	170.00	4444.83	11.53	2.28	8.44	7743.57	13.38	0.44	0.002495
	0.35433	77914.83							
916.98	171.00	4444.83	11.53	2.28	8.44	7742.67	13.38	0.44	0.002495
	0.35437	77913.13							
917.01	172.00	4444.83	11.53	2.28	8.44	7742.98	13.38	0.44	0.002496
	0.35439	77913.74							
913.21	173.00	4444.80	11.50	2.27	8.43	7696.26	13.39	0.44	0.002491
	0.35306	77795.67							
903.65	174.00	4444.74	11.44	2.26	8.39	7578.37	13.42	0.44	0.002488
		399.53							

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HYCHAN.OUT									
0.35121	77490.70								
175.00	4444.73	11.43		8.38	7569.21	0.44			
902.91	399.33	2.26		153.40	13.42		0.002489		
0.35121	77465.89								
176.00	4444.73	11.43		8.38	7568.82	0.44			
902.87	399.32	2.26		153.40	13.42		0.002489		
0.35112	77465.01								
177.00	4444.73	11.43		8.38	7568.82	0.44			
902.87	399.32	2.26		153.39	13.42		0.002489		
0.35110	77464.20								
178.00	4444.73	11.43		8.38	7569.14	0.44			
902.90	399.33	2.26		153.40	13.42		0.002490		
0.35126	77465.58								
179.00	4444.73	11.43		8.38	7569.09	0.44			
902.90	399.33	2.26		153.40	13.42		0.002488		
0.35107	77466.02								
180.00	4444.78	11.48		8.42	7664.09	0.44			
910.62	401.27	2.27		153.87	13.40		0.002499		
0.35391	77706.31								
181.00	4444.91	11.61		8.50	7897.26	0.44			
929.61	406.11	2.29		155.06	13.36		0.002504		
0.35772	78303.66								
182.00	4444.95	11.65		8.52	7965.59	0.44			
935.21	407.49	2.30		155.40	13.34		0.002510		
0.35940	78474.83								
183.00	4445.01	11.71		8.55	8080.91	0.44			
944.69	409.85	2.30		155.97	13.32		0.002514		
0.36156	78763.88								
184.00	4445.01	11.71		8.56	8090.85	0.44			
945.51	410.05	2.31		156.02	13.32		0.002512		
0.36148	78789.23								
185.00	4445.01	11.71		8.56	8090.85	0.44			
945.51	410.05	2.31		156.02	13.32		0.002512		
0.36139	78789.56								
186.00	4445.01	11.71		8.56	8091.27	0.44			
945.54	410.06	2.31		156.02	13.32		0.002512		
0.36139	78789.89								
187.00	4445.01	11.71		8.56	8091.13	0.44			
945.53	410.06	2.31		156.02	13.32		0.002512		
0.36138	78789.72								
188.00	4445.01	11.71		8.56	8090.93	0.44			
945.51	410.05	2.31		156.02	13.32		0.002512		
0.36139	78789.66								
189.00	4445.01	11.71		8.56	8090.94	0.44			
945.51	410.06	2.31		156.02	13.32		0.002511		
0.36134	78789.70								
190.00	4445.01	11.71		8.56	8090.99	0.44			
945.52	410.06	2.31		156.02	13.32		0.002512		
0.36141	78789.82								
191.00	4444.99	11.69		8.54	8043.52	0.44			
941.62	409.11	2.30		155.79	13.33		0.002506		
0.35996	78673.80								
192.00	4444.93	11.63		8.50	7926.07	0.44			
931.96	406.71	2.29		155.20	13.35		0.002505		
0.35811	78378.38								
193.00	4444.92	11.62		8.50	7917.09	0.44			
931.23	406.52	2.29		155.16	13.35		0.002505		
0.35804	78355.02								
194.00	4444.92	11.62		8.50	7917.08	0.44			
931.23	406.52	2.29		155.16	13.35		0.002504		
0.35795	78354.50								
195.00	4444.92	11.62		8.50	7916.94	0.44			
931.22	406.51	2.29		155.16	13.35		0.002503		

## HYCHAN.OUT

0.35784	78354.14							
196.00	4444.92	11.62	8.50	7917.18	0.44			
931.23	406.52	2.29	155.16	13.35	0.002503			
0.35785	78354.54							
197.00	4444.92	11.62	8.50	7917.23	0.44			
931.24	406.52	2.29	155.16	13.35	0.002502			
0.35769	78354.91							
198.00	4444.92	11.62	8.50	7916.94	0.44			
931.21	406.52	2.29	155.16	13.35	0.002504			
0.35787	78354.28							
199.00	4444.92	11.62	8.50	7916.59	0.44			
931.19	406.51	2.29	155.16	13.35	0.002504			
0.35790	78353.29							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1693

MAXIMUM DISCHARGE (CFS) = 21353.61 AT TIME = 81.32  
 MAXIMUM STAGE = 4448.46 AT TIME = 81.35

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE			
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4432.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	1.00	4432.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	2.00	4432.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	3.00	4436.20	3.40	2.04	1891.52	0.20			
927.39	0.73559	108.65	8.54	106.62	31.38	0.001381			
1040.38	4.00	4442.12	9.32	5.29	5500.55	0.31			
0.48136	5.00	186.03	5.59	180.18	19.33	0.001379			
1028.32	0.47868	91890.80	9.24	5.24	5391.44	0.30			
1023.64	6.00	185.24	5.55	179.43	19.41	0.001382			
0.47631	7.00	91510.97	9.22	5.23	5349.91	0.30			
1008.71	0.47373	184.92	5.54	179.13	19.44	0.001379			
992.07	8.00	91358.47	9.12	5.17	5212.95	0.30			
0.46886	9.00	183.95	5.48	178.21	19.53	0.001384			
975.68	0.46297	90887.94	9.02	5.10	5063.03	0.30			
961.03	10.00	182.85	5.43	177.18	19.64	0.001385			
956.12	0.46025	90359.88	8.92	5.04	4917.88	0.30			
0.45779	11.00	181.76	5.37	176.14	19.74	0.001382			
	12.00	89831.55	8.83	4.98	4790.12	0.30			
	13.00	180.77	5.32	175.21	19.84	0.001387			
	14.00	89356.27	8.80	4.97	4750.89	0.30			
	15.00	180.44	5.30	174.90	19.87	0.001385			
	16.00	89198.05							



HYCHAN.OUT							
940.58	12.00	4441.50	8.70	4.91	4619.53	0.29	
	0.45297	179.38	5.24		173.90	19.98	0.001384
		88686.57					
925.00	13.00	4441.41	8.61	4.85	4488.64	0.29	
		178.31	5.19		172.88	20.09	0.001388
	0.44945	88168.88					
922.53	14.00	4441.39	8.59	4.84	4469.17	0.29	
		178.14	5.18		172.72	20.10	0.001386
	0.44790	88087.34					
922.51	15.00	4441.39	8.59	4.84	4468.89	0.29	
		178.14	5.18		172.72	20.10	0.001387
	0.44808	88087.10					
922.52	16.00	4441.39	8.59	4.84	4468.96	0.29	
		178.14	5.18		172.72	20.10	0.001387
	0.44832	88086.98					
922.53	17.00	4441.39	8.59	4.84	4469.14	0.29	
		178.14	5.18		172.72	20.10	0.001386
	0.44779	88087.44					
924.81	18.00	4441.41	8.61	4.85	4488.58	0.29	
		178.30	5.19		172.87	20.09	0.001388
	0.44930	88165.12					
940.88	19.00	4441.51	8.71	4.91	4622.44	0.29	
		179.41	5.24		173.92	19.98	0.001390
	0.45479	88699.84					
959.10	20.00	4441.62	8.82	4.98	4776.40	0.30	
		180.65	5.31		175.10	19.85	0.001388
	0.45978	89298.50					
974.10	21.00	4441.71	8.91	5.04	4906.86	0.30	
		181.66	5.36		176.05	19.75	0.001385
	0.46338	89785.41					
976.12	22.00	4441.72	8.92	5.04	4923.81	0.30	
		181.79	5.37		176.17	19.74	0.001385
	0.46398	89848.83					
978.74	23.00	4441.74	8.94	5.05	4947.48	0.30	
		181.97	5.38		176.35	19.72	0.001387
	0.46555	89936.51					
997.43	24.00	4441.86	9.06	5.13	5115.32	0.30	
		183.22	5.44		177.53	19.60	0.001388
	0.47143	90539.26					
1029.97	25.00	4442.06	9.26	5.25	5410.51	0.30	
		185.36	5.56		179.54	19.40	0.001384
	0.47985	91567.80					
1063.26	26.00	4442.26	9.46	5.38	5719.84	0.31	
		187.49	5.67		181.56	19.20	0.001382
	0.48895	92596.19					
1088.98	27.00	4442.41	9.61	5.47	5961.53	0.31	
		189.11	5.76		183.09	19.05	0.001377
	0.49489	93376.83					
1091.81	28.00	4442.43	9.63	5.48	5984.97	0.31	
		189.30	5.77		183.27	19.03	0.001377
	0.49558	93466.54					
1095.25	29.00	4442.45	9.65	5.50	6020.99	0.31	
		189.50	5.78		183.46	19.02	0.001377
	0.49651	93565.89					
1107.62	30.00	4442.52	9.72	5.54	6139.73	0.31	
		190.27	5.82		184.19	18.95	0.001375
	0.49933	93936.24					
1109.13	31.00	4442.53	9.73	5.55	6152.16	0.31	
		190.37	5.83		184.28	18.94	0.001374
	0.49958	93984.27					
1112.72	32.00	4442.55	9.75	5.56	6190.58	0.31	
		190.59	5.84		184.48	18.92	0.001375
	0.50091	94086.60					

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1125.46	33.00 4442.63 191.37 0.50413 94464.79	9.83	5.61	6313.58	0.32	0.001374	
1126.89	34.00 4442.64 191.46 0.50358 94508.03	9.84	5.61	6326.13	0.32	0.001371	
1122.86	35.00 4442.61 191.20 0.50271 94380.82	9.81	5.60	6287.41	0.32	0.001372	
1110.32	36.00 4442.54 190.44 0.50033 94014.74	9.74	5.55	6164.29	0.31	0.001375	
1105.28	37.00 4442.51 190.12 0.49848 93861.84	9.71	5.53	6115.87	0.31	0.001374	
1092.96	38.00 4442.43 189.35 0.49571 93493.31	9.63	5.49	5997.49	0.31	0.001376	
1091.81	39.00 4442.43 189.30 0.49589 93466.33	9.63	5.48	5984.81	0.31	0.001378	
1091.55	40.00 4442.43 189.27 0.49446 93451.53	9.63	5.48	5985.22	0.31	0.001374	
1091.72	41.00 4442.43 189.29 0.49557 93461.66	9.63	5.48	5984.81	0.31	0.001377	
1091.88	42.00 4442.43 189.31 0.49527 93469.74	9.63	5.48	5985.01	0.31	0.001376	
1095.20	43.00 4442.45 189.50 0.49696 93562.70	9.65	5.50	6021.10	0.31	0.001378	
1107.65	44.00 4442.52 190.28 0.49885 93937.41	9.72	5.54	6140.03	0.31	0.001373	
1112.66	45.00 4442.55 190.58 0.50112 94082.39	9.75	5.56	6190.56	0.31	0.001376	
1129.29	46.00 4442.65 191.60 0.50459 94575.66	9.85	5.63	6353.58	0.32	0.001372	
1147.04	47.00 4442.75 192.69 0.50860 95098.12	9.95	5.69	6527.77	0.32	0.001369	
1164.55	48.00 4442.86 193.74 0.51358 95607.02	10.06	5.76	6702.02	0.32	0.001369	
1181.11	49.00 4442.95 194.73 0.51750 96082.84	10.15	5.82	6868.91	0.32	0.001367	
1198.65	50.00 4443.05 195.76 0.52154 96579.18	10.25	5.88	7049.25	0.32	0.001365	
1219.07	51.00 4443.17 196.96 0.52632 97154.67	10.37	5.96	7260.55	0.33	0.001363	
1243.33	52.00 4443.31 198.34 0.53050 97817.40	10.51	6.05	7518.15	0.33	0.001356	
1249.69	53.00 4443.34 198.70 0.53178 97991.07	10.54	6.07	7585.86	0.33	0.001355	

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HYCHAN.OUT							
1274.30	54.00	4443.49	10.69	6.16	7847.77	0.33	0.001349
	0.53596	200.11	6.37	193.47	18.10		
		98672.10					
1329.32	55.00	4443.79	10.99	6.36	8452.68	0.34	0.001333
	0.54406	203.17	6.54	196.36	17.86		
		100142.08					
1406.71	56.00	4444.22	11.42	6.64	9343.80	0.35	0.001307
	0.55344	207.31	6.79	200.26	17.54		
		102134.95					
1500.46	57.00	4444.72	11.92	6.97	10464.63	0.36	0.001267
	0.55937	212.13	7.07	204.80	17.18		
		104448.80					
1626.09	58.00	4445.39	12.59	7.18	11677.36	0.36	0.001157
	0.53764	218.34	7.45	210.65	16.74		
		107431.25					
1750.79	59.00	4446.03	13.23	7.25	12687.81	0.35	0.001064
	0.51825	224.21	7.81	216.18	16.34		
		110250.02					
1900.64	60.00	4446.78	13.98	7.33	13936.98	0.35	0.000949
	0.48740	230.92	8.23	222.48	15.91		
		113466.27					
2036.40	61.00	4447.44	14.64	7.42	15106.93	0.34	0.000885
	0.47510	236.65	8.60	227.87	15.57		
		116213.34					
2086.55	62.00	4447.67	14.87	7.62	15900.59	0.35	0.000908
	0.49538	238.68	8.74	229.77	15.45		
		117182.44					
2085.51	63.00	4447.67	14.87	8.02	16721.69	0.37	0.000945
	0.51537	238.60	8.74	229.70	15.45		
		117147.68					
2086.17	64.00	4447.67	14.87	8.30	17319.35	0.38	0.000981
	0.53504	238.63	8.74	229.73	15.45		
		117162.50					
2088.05	65.00	4447.68	14.88	8.57	17894.12	0.39	0.001014
	0.55355	238.74	8.75	229.83	15.44		
		117213.76					
2089.18	66.00	4447.69	14.89	8.84	18462.89	0.40	0.001074
	0.58615	238.83	8.75	229.91	15.44		
		117254.28					
2090.22	67.00	4447.70	14.90	8.91	18633.10	0.41	0.001064
	0.58088	238.88	8.75	229.96	15.44		
		117281.85					
2090.52	68.00	4447.70	14.90	8.93	18661.22	0.41	0.001081
	0.59044	238.90	8.75	229.98	15.43		
		117289.16					
2090.42	69.00	4447.70	14.90	8.93	18672.66	0.41	0.001084
	0.59162	238.90	8.75	229.98	15.44		
		117287.63					
2090.33	70.00	4447.70	14.90	8.94	18690.02	0.41	0.001087
	0.59329	238.89	8.75	229.97	15.44		
		117286.47					
2090.26	71.00	4447.70	14.90	8.95	18703.30	0.41	0.001080
	0.58979	238.89	8.75	229.97	15.44		
		117285.69					
2090.45	72.00	4447.70	14.90	8.94	18692.80	0.41	0.001064
	0.58090	238.90	8.75	229.98	15.43		
		117289.03					
2090.29	73.00	4447.70	14.90	8.95	18717.43	0.41	0.001079
	0.58887	238.89	8.75	229.97	15.44		
		117286.32					
2098.80	74.00	4447.74	14.94	9.02	18920.97	0.41	0.001087
	0.59522	239.24	8.77	230.30	15.41		
		117454.02					

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HYCHAN.OUT							
2106.29	75.00	4447.78	14.98	8.80	9.05	19055.42	0.41
	0.59902	239.45				230.59	15.40
		117601.47					0.001091
2108.34	76.00	4447.79	14.99	8.80	9.06	19091.93	0.41
	0.59713	239.47				230.67	15.39
		117642.13					0.001087
2125.86	77.00	4447.86	15.06	8.87	9.09	19327.93	0.41
	0.57264	239.62				231.29	15.35
		117957.34					0.001034
2156.67	78.00	4448.01	15.21	8.99	9.20	19845.13	0.42
	0.60542	239.91				232.45	15.28
		118547.99					0.001079
2182.62	79.00	4448.14	15.34	9.09	9.30	20297.46	0.42
	0.64567	240.17				233.47	15.22
		119071.34					0.001139
2207.33	80.00	4448.26	15.46	9.18	9.37	20681.48	0.42
	0.68462	240.40				234.40	15.17
		119545.30					0.001195
2236.51	81.00	4448.39	15.59	9.29	9.45	21138.91	0.42
	0.72432	240.68				235.48	15.10
		120093.55					0.001249
2249.27	82.00	4448.45	15.65	9.34	9.48	21322.56	0.42
	0.72069	240.79				235.94	15.07
		120327.33					0.001236
2235.08	83.00	4448.38	15.58	9.29	9.44	21101.07	0.42
	0.69176	240.66				235.41	15.11
		120059.11					0.001194
2221.35	84.00	4448.32	15.52	9.24	9.41	20892.53	0.42
	0.68123	240.53				234.91	15.14
		119804.44					0.001182
2219.31	85.00	4448.31	15.51	9.23	9.40	20859.92	0.42
	0.68334	240.51				234.84	15.14
		119766.28					0.001187
2223.31	86.00	4448.33	15.53	9.24	9.41	20923.67	0.42
	0.69013	240.55				234.99	15.13
		119842.40					0.001197
2220.94	87.00	4448.32	15.52	9.23	9.40	20884.65	0.42
	0.66528	240.53				234.89	15.14
		119794.53					0.001155
2176.58	88.00	4448.11	15.31	9.07	9.28	20189.99	0.42
	0.60869	240.10				233.21	15.24
		118939.48					0.001076
2101.19	89.00	4447.74	14.94	8.78	8.91	18731.55	0.41
	0.55345	239.28				230.33	15.41
		117470.78					0.001010
2085.31	90.00	4447.67	14.87	8.74	8.13	16945.46	0.37
	0.49898	238.61				229.71	15.45
		117150.75					0.000915
2078.72	91.00	4447.63	14.83	8.72	7.55	15690.68	0.35
	0.48894	238.34				229.45	15.47
		117021.30					0.000898
1987.74	92.00	4447.20	14.40	8.47	7.38	14667.57	0.34
	0.51582	234.61				225.95	15.69
		115235.88					0.000976
1864.92	93.00	4446.60	13.80	8.13	7.30	13607.11	0.35
	0.53243	229.32				220.97	16.01
		112696.87					0.001049
1768.18	94.00	4446.11	13.31	7.86	7.24	12805.69	0.35
	0.54900	224.98				216.89	16.29
		110615.25					0.001119
1688.90	95.00	4445.71	12.91	7.63	7.20	12165.41	0.35
	0.55500	221.31				213.44	16.54
		108854.64					0.001165

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HYCHAN.OUT							
1622.30	96.00	4445.36	12.56	7.16	11623.54	0.36	0.001229
	0.57040	218.12	7.44	210.44	16.75		
		107325.06					
1553.12	97.00	4445.00	12.20	7.12	11062.61	0.36	0.001265
	0.57111	214.73	7.23	207.25	16.99		
		105698.16					
1514.94	98.00	4444.79	11.99	7.03	10643.03	0.36	0.001277
	0.56715	212.82	7.12	205.45	17.13		
		104779.20					
1483.95	99.00	4444.63	11.83	6.92	10266.57	0.35	0.001291
	0.56608	211.25	7.02	203.98	17.24		
		104027.47					
1458.87	100.00	4444.49	11.69	6.83	9964.39	0.35	0.001300
	0.56356	209.96	6.95	202.76	17.34		
		103407.20					
1427.27	101.00	4444.32	11.52	6.72	9591.40	0.35	0.001307
	0.55858	208.32	6.85	201.21	17.46		
		102617.39					
1402.17	102.00	4444.19	11.39	6.63	9294.69	0.35	0.001314
	0.55536	207.00	6.77	199.97	17.56		
		101985.89					
1379.64	103.00	4444.06	11.26	6.55	9032.20	0.34	0.001319
	0.55190	205.81	6.70	198.84	17.65		
		101410.00					
1361.88	104.00	4443.97	11.17	6.48	8827.10	0.34	0.001325
	0.54975	204.86	6.65	197.95	17.73		
		100955.49					
1339.65	105.00	4443.84	11.04	6.40	8576.27	0.34	0.001331
	0.54631	203.64	6.58	196.81	17.82		
		100370.84					
1310.34	106.00	4443.68	10.88	6.30	8248.62	0.34	0.001339
	0.54203	202.05	6.49	195.30	17.95		
		99604.84					
1293.07	107.00	4443.59	10.79	6.23	8058.32	0.33	0.001345
	0.53964	201.10	6.43	194.41	18.02		
		99148.62					
1277.20	108.00	4443.50	10.70	6.17	7884.63	0.33	0.001349
	0.53694	200.22	6.38	193.57	18.10		
		98722.35					
1265.26	109.00	4443.43	10.63	6.13	7754.23	0.33	0.001351
	0.53457	199.56	6.34	192.95	18.15		
		98406.41					
1268.49	110.00	4443.45	10.65	6.14	7787.62	0.33	0.001350
	0.53501	199.76	6.35	193.14	18.13		
		98502.70					
1287.90	111.00	4443.56	10.76	6.21	7996.79	0.33	0.001344
	0.53783	200.86	6.41	194.18	18.04		
		99033.05					
1306.34	112.00	4443.66	10.86	6.28	8202.25	0.34	0.001339
	0.54082	201.86	6.47	195.12	17.96		
		99510.67					
1293.06	113.00	4443.59	10.79	6.23	8057.79	0.33	0.001343
	0.53881	201.10	6.43	194.41	18.02		
		99148.62					
1289.81	114.00	4443.57	10.77	6.22	8018.75	0.33	0.001345
	0.53880	200.96	6.42	194.27	18.04		
		99079.38					
1320.45	115.00	4443.74	10.94	6.33	8354.98	0.34	0.001336
	0.54302	202.67	6.52	195.88	17.90		
		99900.94					
1341.37	116.00	4443.86	11.06	6.41	8593.03	0.34	0.001330
	0.54630	203.77	6.58	196.93	17.81		
		100431.77					

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HYCHAN.OUT							
1331.44	117.00	4443.80	11.00	6.55	6.37	8482.26	0.34
	0.54536	203.23				196.41	17.85
		100170.98					0.001334
1330.40	118.00	4443.80	11.00	6.55	6.37	8469.54	0.34
	0.54483	203.18				196.37	17.86
		100146.35					0.001333
1335.33	119.00	4443.82	11.02	6.56	6.38	8523.66	0.34
	0.54520	203.46				196.63	17.84
		100281.66					0.001331
1347.25	120.00	4443.89	11.09	6.60	6.43	8658.93	0.34
	0.54711	204.10				197.23	17.79
		100589.02					0.001328
1348.19	121.00	4443.89	11.09	6.60	6.43	8669.82	0.34
	0.54709	204.14				197.28	17.78
		100610.62					0.001328
1343.30	122.00	4443.87	11.07	6.59	6.41	8616.00	0.34
	0.54644	203.86				197.01	17.80
		100476.67					0.001329
1331.44	123.00	4443.80	11.00	6.55	6.37	8481.84	0.34
	0.54482	203.23				196.41	17.85
		100170.62					0.001333
1325.57	124.00	4443.77	10.97	6.53	6.35	8417.02	0.34
	0.54463	202.90				196.10	17.88
		100012.63					0.001336
1313.47	125.00	4443.70	10.90	6.49	6.31	8281.82	0.34
	0.54284	202.24				195.49	17.93
		99697.51					0.001339
1312.45	126.00	4443.70	10.90	6.49	6.30	8269.93	0.34
	0.54206	202.19				195.44	17.94
		99673.49					0.001338
1308.25	127.00	4443.67	10.87	6.48	6.29	8224.03	0.34
	0.54159	201.95				195.21	17.96
		99555.76					0.001340
1297.21	128.00	4443.61	10.81	6.44	6.25	8101.82	0.33
	0.53965	201.35				194.64	18.00
		99265.90					0.001342
1296.22	129.00	4443.60	10.81	6.44	6.24	8091.15	0.33
	0.54008	201.30				194.59	18.01
		99242.01					0.001344
1292.11	130.00	4443.58	10.78	6.43	6.23	8046.62	0.33
	0.53873	201.06				194.36	18.03
		99126.06					0.001343
1281.25	131.00	4443.52	10.72	6.39	6.19	7927.82	0.33
	0.53672	200.46				193.80	18.08
		98838.45					0.001346
1288.86	132.00	4443.57	10.77	6.42	6.21	8008.01	0.33
	0.53816	200.91				194.23	18.04
		99056.57					0.001344
1310.61	133.00	4443.69	10.89	6.48	6.29	8248.46	0.34
	0.54124	202.10				195.35	17.94
		99629.86					0.001338
1312.44	134.00	4443.70	10.90	6.49	6.30	8269.60	0.34
	0.54237	202.19				195.44	17.94
		99673.12					0.001339
1312.51	135.00	4443.70	10.90	6.49	6.30	8270.24	0.34
	0.54236	202.20				195.44	17.94
		99675.12					0.001339
1312.44	136.00	4443.70	10.90	6.49	6.30	8269.78	0.34
	0.54220	202.19				195.44	17.94
		99673.20					0.001339
1312.48	137.00	4443.70	10.90	6.49	6.30	8269.97	0.34
	0.54203	202.20				195.44	17.94
		99674.20					0.001338

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HYCHAN.OUT							
1312.50	138.00	4443.70	10.90	6.49	6.30	8270.32	0.34
	0.54239	202.20				195.44	17.94
		99674.97					0.001339
1312.45	139.00	4443.70	10.90	6.49	6.30	8269.79	0.34
	0.54175	202.19				195.44	17.94
		99673.70					0.001338
1308.22	140.00	4443.67	10.87	6.48	6.29	8224.10	0.34
	0.54168	201.95				195.21	17.96
		99554.89					0.001340
1297.21	141.00	4443.61	10.81	6.44	6.25	8102.25	0.33
	0.54009	201.35				194.64	18.00
		99265.77					0.001343
1296.23	142.00	4443.61	10.81	6.44	6.24	8090.73	0.33
	0.53976	201.30				194.59	18.01
		99242.63					0.001343
1296.23	143.00	4443.61	10.81	6.44	6.24	8091.12	0.33
	0.53973	201.30				194.59	18.01
		99242.56					0.001343
1296.20	144.00	4443.60	10.81	6.44	6.24	8090.85	0.33
	0.53951	201.30				194.59	18.01
		99241.70					0.001343
1292.14	145.00	4443.58	10.78	6.43	6.23	8047.17	0.33
	0.53920	201.06				194.37	18.03
		99127.10					0.001345
1281.23	146.00	4443.52	10.72	6.39	6.19	7927.42	0.33
	0.53768	200.46				193.80	18.08
		98837.77					0.001348
1280.33	147.00	4443.52	10.72	6.39	6.18	7917.14	0.33
	0.53658	200.41				193.76	18.08
		98816.38					0.001346
1280.30	148.00	4443.52	10.72	6.39	6.18	7917.08	0.33
	0.53680	200.41				193.76	18.08
		98815.56					0.001347
1280.28	149.00	4443.52	10.72	6.39	6.18	7916.86	0.33
	0.53684	200.41				193.75	18.08
		98814.96					0.001347
1280.33	150.00	4443.52	10.72	6.39	6.18	7916.87	0.33
	0.53688	200.41				193.76	18.08
		98816.30					0.001347
1277.63	151.00	4443.50	10.70	6.38	6.17	7888.42	0.33
	0.53705	200.25				193.61	18.09
		98739.64					0.001349
1268.86	152.00	4443.45	10.65	6.35	6.14	7793.82	0.33
	0.53482	199.76				193.14	18.13
		98502.77					0.001349
1264.55	153.00	4443.43	10.63	6.34	6.13	7746.41	0.33
	0.53463	199.52				192.92	18.15
		98389.05					0.001352
1264.19	154.00	4443.43	10.63	6.34	6.12	7742.68	0.33
	0.53390	199.51				192.90	18.15
		98380.14					0.001350
1260.14	155.00	4443.40	10.60	6.32	6.11	7699.99	0.33
	0.53350	199.26				192.67	18.17
		98263.53					0.001352
1257.38	156.00	4443.39	10.59	6.31	6.10	7667.58	0.33
	0.53341	199.14				192.56	18.18
		98203.66					0.001354
1278.35	157.00	4443.51	10.71	6.38	6.18	7894.74	0.33
	0.53693	200.31				193.66	18.09
		98768.46					0.001348
1280.34	158.00	4443.52	10.72	6.39	6.18	7917.08	0.33
	0.53681	200.41				193.76	18.08
		98816.91					0.001347

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HYCHAN.OUT									
1280.32	159.00	4443.52	10.72	6.39	6.18	7917.12	18.08	0.33	0.001346
	0.53675	200.41				193.76			
		98815.92							
1280.27	160.00	4443.52	10.72	6.39	6.18	7916.66	18.08	0.33	0.001347
	0.53704	200.41				193.75			
		98814.95							
1280.33	161.00	4443.52	10.72	6.39	6.18	7917.02	18.08	0.33	0.001346
	0.53672	200.41				193.76			
		98816.22							
1280.33	162.00	4443.52	10.72	6.39	6.18	7917.24	18.08	0.33	0.001347
	0.53716	200.41				193.76			
		98816.14							
1280.29	163.00	4443.52	10.72	6.39	6.18	7916.81	18.08	0.33	0.001347
	0.53689	200.41				193.76			
		98815.20							
1280.33	164.00	4443.52	10.72	6.39	6.18	7917.00	18.08	0.33	0.001347
	0.53678	200.41				193.76			
		98816.55							
1276.20	165.00	4443.49	10.69	6.38	6.17	7873.35	18.10	0.33	0.001347
	0.53599	200.17				193.53			
		98698.34							
1265.19	166.00	4443.43	10.63	6.34	6.13	7753.64	18.15	0.33	0.001351
	0.53458	199.56				192.95			
		98404.70							
1264.24	167.00	4443.43	10.63	6.34	6.12	7742.90	18.15	0.33	0.001352
	0.53464	199.51				192.91			
		98381.63							
1264.26	168.00	4443.43	10.63	6.34	6.12	7743.15	18.15	0.33	0.001352
	0.53450	199.51				192.91			
		98382.02							
1264.23	169.00	4443.43	10.63	6.34	6.12	7742.66	18.15	0.33	0.001351
	0.53409	199.51				192.90			
		98381.23							
1264.28	170.00	4443.43	10.63	6.34	6.12	7743.55	18.15	0.33	0.001350
	0.53393	199.51				192.91			
		98383.00							
1264.24	171.00	4443.43	10.63	6.34	6.12	7742.74	18.15	0.33	0.001351
	0.53414	199.51				192.90			
		98381.34							
1264.26	172.00	4443.43	10.63	6.34	6.12	7742.96	18.15	0.33	0.001351
	0.53411	199.51				192.91			
		98382.01							
1260.12	173.00	4443.40	10.60	6.32	6.11	7699.77	18.17	0.33	0.001352
	0.53335	199.26				192.67			
		98263.02							
1248.98	174.00	4443.34	10.54	6.29	6.07	7579.80	18.23	0.33	0.001355
	0.53153	198.64				192.08			
		97962.79							
1248.02	175.00	4443.33	10.53	6.28	6.06	7569.17	18.23	0.33	0.001355
	0.53128	198.59				192.04			
		97939.50							
1248.00	176.00	4443.33	10.53	6.28	6.06	7568.84	18.23	0.33	0.001356
	0.53162	198.59				192.04			
		97938.76							
1247.95	177.00	4443.33	10.53	6.28	6.06	7568.82	18.23	0.33	0.001356
	0.53161	198.59				192.03			
		97937.48							
1248.02	178.00	4443.33	10.53	6.28	6.06	7569.17	18.23	0.33	0.001355
	0.53129	198.59				192.04			
		97939.34							
1248.03	179.00	4443.33	10.53	6.28	6.06	7569.07	18.23	0.33	0.001355
	0.53136	198.59				192.04			
		97939.82							

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HYCHAN.OUT							
1256.45	180.00	4443.38	10.58	6.31	6.09	7656.98	0.33
	0.53319	199.09				192.51	18.19
		98180.98					0.001354
1278.33	181.00	4443.51	10.71	6.38	6.18	7894.52	0.33
	0.53630	200.31				193.66	18.09
		98767.84					0.001347
1284.56	182.00	4443.54	10.74	6.40	6.20	7961.95	0.33
	0.53741	200.66				193.99	18.06
		98936.09					0.001345
1295.23	183.00	4443.60	10.80	6.44	6.24	8079.64	0.33
	0.53953	201.25				194.55	18.01
		99218.48					0.001343
1296.21	184.00	4443.60	10.81	6.44	6.24	8090.89	0.33
	0.53950	201.30				194.59	18.01
		99242.05					0.001343
1296.23	185.00	4443.61	10.81	6.44	6.24	8090.78	0.33
	0.53901	201.30				194.59	18.01
		99242.66					0.001341
1296.23	186.00	4443.61	10.81	6.44	6.24	8091.25	0.33
	0.53950	201.30				194.59	18.01
		99242.73					0.001343
1296.23	187.00	4443.61	10.81	6.44	6.24	8091.11	0.33
	0.53958	201.30				194.59	18.01
		99242.51					0.001343
1296.23	188.00	4443.61	10.81	6.44	6.24	8090.99	0.33
	0.53918	201.30				194.59	18.01
		99242.44					0.001342
1296.23	189.00	4443.61	10.81	6.44	6.24	8090.83	0.33
	0.53949	201.30				194.59	18.01
		99242.60					0.001343
1296.24	190.00	4443.61	10.81	6.44	6.24	8091.00	0.33
	0.53969	201.30				194.59	18.01
		99242.80					0.001343
1292.14	191.00	4443.58	10.78	6.43	6.23	8047.07	0.33
	0.53915	201.06				194.37	18.03
		99126.91					0.001344
1281.24	192.00	4443.52	10.72	6.39	6.19	7927.49	0.33
	0.53749	200.46				193.80	18.08
		98838.03					0.001348
1280.32	193.00	4443.52	10.72	6.39	6.18	7917.13	0.33
	0.53710	200.41				193.76	18.08
		98816.23					0.001347
1280.30	194.00	4443.52	10.72	6.39	6.18	7917.07	0.33
	0.53722	200.41				193.76	18.08
		98815.79					0.001348
1280.29	195.00	4443.52	10.72	6.39	6.18	7916.91	0.33
	0.53683	200.41				193.76	18.08
		98815.23					0.001347
1280.30	196.00	4443.52	10.72	6.39	6.18	7917.17	0.33
	0.53732	200.41				193.76	18.08
		98815.39					0.001348
1280.32	197.00	4443.52	10.72	6.39	6.18	7917.20	0.33
	0.53643	200.41				193.76	18.08
		98816.20					0.001346
1280.29	198.00	4443.52	10.72	6.39	6.18	7917.00	0.33
	0.53684	200.41				193.76	18.08
		98815.30					0.001347
1280.26	199.00	4443.52	10.72	6.39	6.18	7916.59	0.33
	0.53682	200.41				193.75	18.08
		98814.43					0.001347

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## HYCHAN.OUT

MAXIMUM DISCHARGE (CFS) = 21324.89 AT TIME = 81.34  
 MAXIMUM STAGE = 4446.97 AT TIME = 81.36

AREA (FT^2)	TIME WETTED PERIMETER (HRS)	ELEV. SURFACE AREA (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4432.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4432.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4432.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
738.95	3.00	4435.23	3.03	2.36	1745.16	0.24	0.002759
		102.14	7.23	100.39	33.18		
	1.24547	54208.17					
790.37	4.00	4441.02	8.82	6.96	5501.92	0.41	0.002738
		180.62	4.38	175.06	19.86		
	0.74769	94534.09					
782.45	5.00	4440.95	8.75	6.89	5392.39	0.41	0.002723
		179.88	4.35	174.36	19.93		
	0.73900	94156.20					
779.46	6.00	4440.92	8.72	6.87	5351.31	0.41	0.002698
		179.59	4.34	174.10	19.96		
	0.73078	94011.81					
769.49	7.00	4440.84	8.64	6.78	5215.39	0.41	0.002667
		178.65	4.31	173.20	20.05		
	0.71669	93529.73					
758.32	8.00	4440.74	8.54	6.68	5065.34	0.40	0.002633
		177.59	4.27	172.20	20.16		
	0.70151	92987.79					
747.34	9.00	4440.65	8.45	6.58	4920.23	0.40	0.002591
		176.54	4.23	171.20	20.27		
	0.68453	92449.90					
737.52	10.00	4440.56	8.36	6.50	4791.40	0.40	0.002579
		175.59	4.20	170.31	20.37		
	0.67601	91965.91					
734.12	11.00	4440.53	8.33	6.47	4752.20	0.40	0.002557
		175.26	4.19	170.00	20.40		
	0.66829	91798.88					
723.57	12.00	4440.44	8.24	6.39	4622.06	0.39	0.002520
		174.23	4.15	169.02	20.51		
	0.65302	91272.80					
713.03	13.00	4440.35	8.15	6.30	4490.02	0.39	0.002502
		173.20	4.12	168.05	20.62		
	0.64268	90744.34					
711.35	14.00	4440.33	8.14	6.28	4469.10	0.39	0.002500
		173.04	4.11	167.89	20.64		
	0.64135	90661.29					
711.33	15.00	4440.33	8.14	6.28	4468.85	0.39	0.002500
		173.03	4.11	167.89	20.64		
	0.64139	90660.27					
711.35	16.00	4440.33	8.14	6.28	4469.06	0.39	0.002502
		173.04	4.11	167.89	20.64		
	0.64172	90660.96					
	17.00	4440.33	8.14	6.28	4469.07	0.39	

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			HYCHAN.OUT			
711.35		173.04	4.11	167.89	20.64	0.002500
	0.64129	90661.21				
	18.00	4440.35	8.15	6.29	4487.29	0.39
712.89		173.19	4.12	168.04	20.62	0.002520
	0.64717	90739.77				
	19.00	4440.44	8.24	6.38	4619.80	0.39
723.79		174.26	4.15	169.05	20.51	0.002559
	0.66319	91287.08				
	20.00	4440.55	8.35	6.49	4773.82	0.40
736.12		175.46	4.20	170.19	20.38	0.002598
	0.68016	91900.35				
	21.00	4440.64	8.44	6.57	4905.65	0.40
746.23		176.44	4.23	171.11	20.28	0.002614
	0.68975	92399.21				
	22.00	4440.65	8.45	6.59	4923.82	0.40
747.62		176.57	4.23	171.23	20.27	0.002613
	0.69032	92466.46				
	23.00	4440.66	8.46	6.60	4946.12	0.40
749.32		176.74	4.24	171.39	20.25	0.002637
	0.69756	92551.46				
	24.00	4440.77	8.57	6.71	5111.41	0.40
761.76		177.93	4.28	172.52	20.13	0.002694
	0.71982	93160.35				
	25.00	4440.96	8.76	6.90	5405.65	0.41
783.43		179.97	4.35	174.46	19.92	0.002767
	0.75167	94205.94				
	26.00	4441.15	8.95	7.09	5715.16	0.42
805.55		182.03	4.43	176.40	19.72	0.002838
	0.78382	95256.68				
	27.00	4441.29	9.09	7.25	5959.77	0.42
822.59		183.59	4.48	177.88	19.57	0.002865
	0.80107	96054.24				
	28.00	4441.31	9.11	7.26	5984.98	0.42
824.34		183.75	4.49	178.03	19.55	0.002866
	0.80237	96134.63				
	29.00	4441.33	9.13	7.28	6019.39	0.42
826.70		183.97	4.49	178.23	19.53	0.002886
	0.80936	96245.55				
	30.00	4441.40	9.20	7.35	6138.83	0.43
834.84		184.71	4.52	178.93	19.46	0.002903
	0.81867	96622.23				
	31.00	4441.40	9.20	7.36	6152.17	0.43
835.77		184.79	4.52	179.01	19.45	0.002903
	0.81940	96663.97				
	32.00	4441.42	9.22	7.38	6188.98	0.43
838.22		185.01	4.53	179.22	19.43	0.002927
	0.82742	96778.41				
	33.00	4441.49	9.29	7.46	6312.62	0.43
846.58		185.77	4.56	179.93	19.36	0.002941
	0.83645	97162.06				
	34.00	4441.50	9.30	7.46	6326.11	0.43
847.48		185.84	4.56	180.00	19.35	0.002941
	0.83681	97202.41				
	35.00	4441.48	9.28	7.44	6289.06	0.43
845.02		185.62	4.55	179.79	19.37	0.002915
	0.82794	97087.32				
	36.00	4441.41	9.21	7.37	6165.23	0.43
836.66		184.87	4.53	179.08	19.44	0.002903
	0.81983	96703.95				
	37.00	4441.38	9.18	7.34	6117.39	0.43
833.39		184.57	4.52	178.80	19.47	0.002878
	0.81087	96552.43				
	38.00	4441.31	9.11	7.27	5998.47	0.42

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825.27		183.83		4.49	178.10	19.54	0.002864
	0.80215	96176.43					
	39.00	4441.31	9.11		7.26	5984.77	0.42
824.33		183.75		4.49	178.03	19.55	0.002866
	0.80230	96134.37					
	40.00	4441.31	9.11		7.26	5985.15	0.42
824.33		183.75		4.49	178.03	19.55	0.002862
	0.80110	96134.03					
	41.00	4441.31	9.11		7.26	5984.86	0.42
824.33		183.75		4.49	178.03	19.55	0.002866
	0.80241	96134.17					
	42.00	4441.31	9.11		7.26	5985.03	0.42
824.34		183.75		4.49	178.03	19.55	0.002866
	0.80219	96135.07					
	43.00	4441.33	9.13		7.28	6019.53	0.42
826.71		183.97		4.49	178.23	19.53	0.002889
	0.81012	96245.70					
	44.00	4441.40	9.20		7.35	6139.08	0.43
834.85		184.71		4.52	178.93	19.46	0.002902
	0.81860	96622.71					
	45.00	4441.42	9.22		7.38	6188.98	0.43
838.25		185.02		4.53	179.22	19.43	0.002928
	0.82779	96779.59					
	46.00	4441.52	9.32		7.48	6350.96	0.43
849.14		186.00		4.57	180.15	19.34	0.002966
	0.84493	97279.92					
	47.00	4441.61	9.41		7.58	6525.25	0.44
860.72		187.03		4.60	181.12	19.24	0.003004
	0.86257	97806.90					
	48.00	4441.71	9.51		7.68	6699.55	0.44
872.14		188.04		4.64	182.08	19.15	0.003044
	0.88098	98323.15					
	49.00	4441.80	9.60		7.78	6866.55	0.44
882.95		188.99		4.67	182.98	19.06	0.003079
	0.89771	98807.50					
	50.00	4441.90	9.70		7.88	7046.76	0.45
894.45		189.99		4.71	183.93	18.97	0.003116
	0.91543	99319.55					
	51.00	4442.00	9.81		7.99	7256.67	0.45
907.70		191.14		4.75	185.01	18.87	0.003177
	0.94133	99904.39					
	52.00	4442.14	9.94		8.14	7516.47	0.46
923.80		192.52		4.80	186.31	18.75	0.003198
	0.95746	100606.12					
	53.00	4442.17	9.97		8.17	7584.26	0.46
927.96		192.87		4.81	186.64	18.72	0.003223
	0.96753	100786.79					
	54.00	4442.30	10.10		8.31	7841.92	0.46
943.63		194.20		4.86	187.90	18.60	0.003314
	1.00470	101464.76					
	55.00	4442.59	10.39		8.62	8443.20	0.47
979.09		197.16		4.97	190.69	18.35	0.003457
	1.07131	102972.08					
	56.00	4443.00	10.80		9.07	9331.05	0.49
1028.88		201.21		5.11	194.51	18.02	0.003647
	1.16355	105035.59					
	57.00	4443.48	11.28		9.59	10449.37	0.50
1089.10		205.95		5.29	198.98	17.64	0.003873
	1.27795	107449.30					
	58.00	4444.11	11.91		10.01	11657.49	0.51
1164.59		212.01		5.49	204.69	17.19	0.004182
	1.43340	110533.96					
	59.00	4444.72	12.52		10.25	12670.51	0.51

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1235.89		217.70		5.68	210.05	16.78	0.004451
	1.57690	113424.80					
60.00	4445.43	13.23		10.53	13914.05	0.51	
1321.48	224.20		5.89	216.16	16.34		0.004781
	1.75851	116727.01					
61.00	4446.05	13.85		10.76	15091.56	0.51	
1402.26	229.79		6.10	221.42	15.99		0.004975
	1.89439	119564.79					
62.00	4446.27	14.08		11.06	15900.62	0.52	
1438.07	231.76		6.21	223.27	15.86		0.004935
	1.91077	120566.55					
63.00	4446.27	14.07		11.52	16721.83	0.54	
1450.93	231.75		6.26	223.26	15.86		0.004894
	1.91199	120562.11					
64.00	4446.28	14.08		11.86	17318.09	0.56	
1460.65	231.77		6.30	223.28	15.86		0.004904
	1.92836	120573.49					
65.00	4446.28	14.08		12.15	17894.71	0.57	
1473.14	231.80		6.36	223.32	15.86		0.004840
	1.91953	120593.59					
66.00	4446.28	14.08		12.38	18463.23	0.58	
1491.16	231.80		6.43	223.33	15.86		0.004797
	1.92563	120595.71					
67.00	4446.28	14.08		12.43	18632.92	0.58	
1499.00	231.81		6.47	223.35	15.86		0.004780
	1.92891	120608.20					
68.00	4446.29	14.09		12.44	18661.28	0.58	
1500.53	231.81		6.47	223.36	15.86		0.004785
	1.93274	120612.29					
69.00	4446.28	14.09		12.44	18672.71	0.58	
1500.87	231.81		6.47	223.35	15.86		0.004784
	1.93284	120609.80					
70.00	4446.28	14.08		12.45	18690.00	0.58	
1501.41	231.81		6.48	223.35	15.86		0.004786
	1.93417	120607.28					
71.00	4446.28	14.08		12.45	18703.53	0.59	
1501.85	231.81		6.48	223.34	15.86		0.004779
	1.93208	120605.42					
72.00	4446.28	14.09		12.45	18692.65	0.58	
1501.74	231.81		6.48	223.35	15.86		0.004775
	1.93030	120609.45					
73.00	4446.28	14.08		12.46	18717.35	0.59	
1501.96	231.81		6.48	223.34	15.86		0.004776
	1.93102	120605.83					
74.00	4446.32	14.12		12.52	18919.07	0.59	
1511.69	231.88		6.52	223.65	15.84		0.004778
	1.94369	120770.59					
75.00	4446.35	14.15		12.53	19054.71	0.59	
1521.06	231.95		6.56	223.91	15.82		0.004768
	1.95130	120913.64					
76.00	4446.36	14.16		12.53	19090.66	0.59	
1523.43	231.96		6.57	223.99	15.82		0.004776
	1.95707	120953.02					
77.00	4446.45	14.25		12.68	19318.36	0.59	
1523.09	232.13		6.56	224.67	15.77		0.004972
	2.03550	121322.64					
78.00	4446.58	14.38		12.81	19829.99	0.60	
1547.72	232.40		6.66	225.78	15.70		0.004956
	2.05934	121923.46					
79.00	4446.69	14.49		12.87	20276.83	0.60	
1575.49	232.62		6.77	226.66	15.64		0.004992
	2.10989	122397.04					
80.00	4446.79	14.59		12.99	20651.08	0.60	

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1590.22		232.83		6.83	227.51	15.59	0.005051
	2.15268	122853.59					
81.00	4446.92	14.72		13.13	21098.72	0.60	
1606.63		233.07		6.89	228.50	15.53	0.005111
	2.19833	123387.52					
82.00	4446.97	14.77		13.19	21291.17	0.61	
1614.41		233.18		6.92	228.93	15.50	0.005100
	2.20342	123620.31					
83.00	4446.91	14.71		13.12	21075.16	0.60	
1606.65		233.06		6.89	228.45	15.53	0.005055
	2.17469	123362.21					
84.00	4446.85	14.65		13.05	20866.14	0.60	
1598.67		232.94		6.86	227.98	15.56	0.005043
	2.15971	123111.34					
85.00	4446.84	14.64		13.04	20833.98	0.60	
1597.42		232.93		6.86	227.91	15.56	0.005045
	2.15894	123073.34					
86.00	4446.86	14.66		13.06	20894.79	0.60	
1599.72		232.96		6.87	228.05	15.56	0.005058
	2.16753	123147.20					
87.00	4446.85	14.65		13.05	20861.95	0.60	
1598.67		232.94		6.86	227.97	15.56	0.005016
	2.14796	123103.91					
88.00	4446.66	14.46		12.83	20192.54	0.59	
1573.57		232.56		6.77	226.44	15.66	0.004872
	2.05685	122275.66					
89.00	4446.33	14.14		12.48	18738.77	0.59	
1501.94		231.91		6.48	223.76	15.83	0.004820
	1.94803	120832.92					
90.00	4446.27	14.07		11.61	16946.87	0.55	
1459.73		231.72		6.30	223.24	15.86	0.004927
	1.93676	120548.59					
91.00	4446.24	14.04		10.95	15694.58	0.52	
1433.06		231.46		6.19	222.99	15.88	0.004917
	1.89946	120415.01					
92.00	4445.83	13.63		10.68	14686.57	0.51	
1375.69		227.80		6.04	219.55	16.11	0.004663
	1.75714	118557.39					
93.00	4445.26	13.06		10.46	13622.51	0.51	
1302.27		222.68		5.85	214.73	16.44	0.004440
	1.62033	115954.22					
94.00	4444.80	12.60		10.28	12818.71	0.51	
1246.61		218.47		5.71	210.77	16.73	0.004245
	1.51157	113816.52					
95.00	4444.42	12.22		10.13	12173.32	0.51	
1201.32		214.91		5.59	207.42	16.98	0.004128
	1.43984	112008.97					
96.00	4444.09	11.89		10.00	11636.28	0.51	
1163.20		211.84		5.49	204.53	17.20	0.003930
	1.34672	110444.81					
97.00	4443.75	11.55		9.86	11069.85	0.51	
1123.14		208.57		5.38	201.45	17.44	0.003815
	1.28180	108782.41					
98.00	4443.56	11.36		9.69	10647.92	0.51	
1099.40		206.72		5.32	199.71	17.58	0.003737
	1.24001	107843.06					
99.00	4443.40	11.20		9.51	10270.11	0.50	
1079.59		205.20		5.26	198.27	17.70	0.003691
	1.21161	107065.44					
100.00	4443.27	11.07		9.37	9968.96	0.50	
1063.62		203.94		5.22	197.09	17.80	0.003618
	1.17726	106427.65					
101.00	4443.11	10.91		9.20	9595.31	0.49	

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		HYCHAN.OUT				
1043.41	202.35	5.16	195.59	17.92	0.003559	
1.14509	105616.74					
102.00	4442.98	10.78	9.05	9298.12	0.49	
1027.25	201.06	5.11	194.37	18.03	0.003506	
1.11766	104960.41					
103.00	4442.86	10.66	8.92	9035.08	0.48	
1012.79	199.90	5.07	193.27	18.12	0.003464	
1.09500	104367.07					
104.00	4442.77	10.57	8.82	8829.63	0.48	
1001.26	198.96	5.03	192.39	18.20	0.003426	
1.07590	103890.74					
105.00	4442.65	10.46	8.69	8580.59	0.47	
987.04	197.79	4.99	191.29	18.30	0.003360	
1.04615	103295.70					
106.00	4442.50	10.30	8.53	8251.86	0.47	
967.93	196.22	4.93	189.80	18.43	0.003316	
1.02077	102493.40					
107.00	4442.41	10.21	8.43	8060.62	0.46	
956.61	195.28	4.90	188.92	18.51	0.003282	
1.00329	102014.30					
108.00	4442.32	10.12	8.33	7886.91	0.46	
946.29	194.41	4.87	188.10	18.58	0.003247	
0.98610	101572.91					
109.00	4442.26	10.06	8.26	7754.94	0.46	
938.35	193.75	4.84	187.47	18.64	0.003238	
0.97852	101233.67					
110.00	4442.27	10.07	8.28	7786.05	0.46	
940.23	193.91	4.85	187.62	18.63	0.003263	
0.98730	101316.76					
111.00	4442.38	10.18	8.39	7992.87	0.46	
952.65	194.96	4.89	188.61	18.54	0.003323	
1.01323	101850.88					
112.00	4442.48	10.28	8.50	8202.41	0.47	
965.01	195.99	4.92	189.58	18.45	0.003315	
1.01846	102374.36					
113.00	4442.41	10.21	8.43	8060.04	0.46	
956.60	195.28	4.90	188.91	18.51	0.003280	
1.00258	102013.91					
114.00	4442.39	10.19	8.40	8016.28	0.46	
954.03	195.07	4.89	188.72	18.53	0.003324	
1.01439	101909.05					
115.00	4442.55	10.35	8.58	8349.94	0.47	
973.69	196.71	4.95	190.27	18.39	0.003399	
1.04976	102745.02					
116.00	4442.66	10.46	8.70	8593.31	0.47	
987.75	197.87	4.99	191.35	18.29	0.003387	
1.05521	103331.57					
117.00	4442.61	10.41	8.64	8483.01	0.47	
981.36	197.34	4.97	190.86	18.33	0.003379	
1.04861	103063.48					
118.00	4442.60	10.40	8.64	8469.51	0.47	
980.61	197.28	4.97	190.80	18.34	0.003379	
1.04820	103032.79					
119.00	4442.63	10.43	8.66	8521.91	0.47	
983.64	197.53	4.98	191.04	18.32	0.003408	
1.05886	103161.68					
120.00	4442.69	10.49	8.73	8658.14	0.48	
991.45	198.17	5.00	191.64	18.26	0.003416	
1.06656	103487.59					
121.00	4442.70	10.50	8.74	8669.82	0.48	
992.14	198.23	5.01	191.70	18.26	0.003417	
1.06719	103515.32					
122.00	4442.67	10.47	8.71	8617.79	0.47	

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		HYCHAN.OUT				
989.15	197.98	5.00	191.46	18.28	0.003388	
1.05625	103388.31					
123.00	4442.61	10.41	8.64	8482.59	0.47	
981.37	197.34	4.97	190.86	18.33	0.003378	
1.04834	103063.62					
124.00	4442.58	10.38	8.61	8418.82	0.47	
977.66	197.03	4.96	190.57	18.36	0.003351	
1.03758	102906.45					
125.00	4442.51	10.32	8.54	8282.67	0.47	
969.72	196.38	4.94	189.95	18.41	0.003343	
1.03009	102572.59					
126.00	4442.51	10.31	8.53	8269.90	0.47	
968.97	196.32	4.94	189.89	18.42	0.003341	
1.02895	102542.28					
127.00	4442.49	10.29	8.51	8225.63	0.47	
966.40	196.10	4.93	189.69	18.44	0.003314	
1.01923	102431.27					
128.00	4442.43	10.23	8.45	8102.59	0.47	
959.14	195.50	4.91	189.12	18.49	0.003307	
1.01256	102124.06					
129.00	4442.42	10.22	8.44	8091.16	0.47	
958.43	195.44	4.90	189.06	18.49	0.003306	
1.01181	102094.73					
130.00	4442.40	10.20	8.42	8048.16	0.46	
955.90	195.22	4.90	188.86	18.51	0.003280	
1.00232	101985.17					
131.00	4442.34	10.14	8.36	7928.55	0.46	
948.76	194.63	4.87	188.30	18.56	0.003271	
0.99506	101680.92					
132.00	4442.38	10.18	8.40	8004.78	0.46	
953.34	195.02	4.89	188.67	18.53	0.003323	
1.01373	101880.19					
133.00	4442.50	10.30	8.52	8247.03	0.47	
967.63	196.21	4.93	189.79	18.43	0.003340	
1.02780	102487.09					
134.00	4442.51	10.31	8.53	8269.62	0.47	
968.96	196.32	4.94	189.89	18.42	0.003341	
1.02902	102541.70					
135.00	4442.51	10.31	8.53	8270.21	0.47	
969.01	196.32	4.94	189.90	18.42	0.003341	
1.02917	102543.73					
136.00	4442.51	10.31	8.53	8269.78	0.47	
968.96	196.32	4.94	189.89	18.42	0.003341	
1.02898	102541.62					
137.00	4442.51	10.31	8.53	8269.98	0.47	
968.98	196.32	4.94	189.89	18.42	0.003341	
1.02905	102542.80					
138.00	4442.51	10.31	8.53	8270.32	0.47	
969.00	196.32	4.94	189.90	18.42	0.003341	
1.02911	102543.45					
139.00	4442.51	10.31	8.53	8269.84	0.47	
968.97	196.32	4.94	189.89	18.42	0.003341	
1.02909	102541.96					
140.00	4442.49	10.29	8.51	8225.66	0.47	
966.38	196.10	4.93	189.69	18.44	0.003315	
1.01936	102430.48					
141.00	4442.43	10.23	8.45	8102.96	0.47	
959.14	195.50	4.91	189.12	18.49	0.003307	
1.01236	102124.12					
142.00	4442.42	10.22	8.44	8090.72	0.47	
958.43	195.44	4.90	189.06	18.49	0.003307	
1.01196	102094.80					
143.00	4442.42	10.22	8.44	8091.11	0.47	

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		HYCHAN.OUT				
958.43	195.44	4.90	189.06	18.49	0.003306	
1.01177	102094.76					
144.00	4442.42	10.22	8.44	8090.94	0.47	
958.42	195.44	4.90	189.06	18.49	0.003307	
1.01201	102094.30					
145.00	4442.40	10.20	8.42	8048.65	0.46	
955.92	195.23	4.90	188.86	18.51	0.003281	
1.00260	101986.12					
146.00	4442.34	10.14	8.36	7928.19	0.46	
948.75	194.63	4.87	188.30	18.56	0.003273	
0.99547	101680.70					
147.00	4442.34	10.14	8.35	7917.12	0.46	
948.08	194.57	4.87	188.25	18.57	0.003271	
0.99471	101653.05					
148.00	4442.34	10.14	8.35	7917.10	0.46	
948.06	194.57	4.87	188.24	18.57	0.003272	
0.99472	101652.27					
149.00	4442.34	10.14	8.35	7916.89	0.46	
948.06	194.57	4.87	188.24	18.57	0.003271	
0.99465	101651.75					
150.00	4442.34	10.14	8.35	7916.84	0.46	
948.09	194.57	4.87	188.25	18.57	0.003272	
0.99476	101653.04					
151.00	4442.32	10.12	8.34	7889.48	0.46	
946.43	194.43	4.87	188.11	18.58	0.003255	
0.98880	101580.76					
152.00	4442.28	10.08	8.29	7794.81	0.46	
940.71	193.95	4.85	187.66	18.62	0.003240	
0.98074	101335.25					
153.00	4442.25	10.05	8.26	7746.64	0.46	
937.84	193.71	4.84	187.43	18.64	0.003238	
0.97830	101212.20					
154.00	4442.25	10.05	8.26	7742.74	0.46	
937.57	193.69	4.84	187.41	18.65	0.003237	
0.97772	101201.23					
155.00	4442.23	10.03	8.24	7701.56	0.46	
935.10	193.47	4.83	187.21	18.66	0.003211	
0.96854	101092.38					
156.00	4442.21	10.01	8.22	7665.15	0.46	
932.91	193.29	4.83	187.04	18.68	0.003254	
0.97991	101001.25					
157.00	4442.33	10.13	8.34	7893.25	0.46	
946.65	194.45	4.87	188.14	18.58	0.003272	
0.99386	101593.20					
158.00	4442.34	10.14	8.35	7917.01	0.46	
948.09	194.57	4.87	188.25	18.57	0.003272	
0.99499	101653.27					
159.00	4442.34	10.14	8.35	7917.17	0.46	
948.08	194.57	4.87	188.25	18.57	0.003271	
0.99469	101652.84					
160.00	4442.34	10.14	8.35	7916.62	0.46	
948.04	194.57	4.87	188.24	18.57	0.003273	
0.99508	101651.34					
161.00	4442.34	10.14	8.35	7917.06	0.46	
948.09	194.57	4.87	188.25	18.57	0.003272	
0.99477	101653.11					
162.00	4442.34	10.14	8.35	7917.24	0.46	
948.09	194.57	4.87	188.25	18.57	0.003272	
0.99480	101653.11					
163.00	4442.34	10.14	8.35	7916.83	0.46	
948.06	194.57	4.87	188.24	18.57	0.003272	
0.99488	101651.83					
164.00	4442.34	10.14	8.35	7916.96	0.46	

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		HYCHAN.OUT				
948.08	194.57	4.87	188.25	18.57	0.003272	
0.99485	101653.00					
165.00	4442.32	10.12	8.33	7874.97	0.46	
945.56	194.36	4.87	188.04	18.59	0.003246	
0.98534	101542.72					
166.00	4442.26	10.06	8.26	7754.34	0.46	
938.31	193.74	4.84	187.47	18.64	0.003238	
0.97846	101231.59					
167.00	4442.25	10.05	8.26	7742.92	0.46	
937.61	193.69	4.84	187.41	18.64	0.003238	
0.97817	101202.62					
168.00	4442.25	10.05	8.26	7743.15	0.46	
937.63	193.69	4.84	187.41	18.64	0.003237	
0.97795	101203.27					
169.00	4442.25	10.05	8.26	7742.67	0.46	
937.61	193.69	4.84	187.41	18.64	0.003238	
0.97796	101202.35					
170.00	4442.25	10.05	8.26	7743.52	0.46	
937.63	193.69	4.84	187.41	18.64	0.003238	
0.97803	101203.66					
171.00	4442.25	10.05	8.26	7742.77	0.46	
937.62	193.69	4.84	187.41	18.64	0.003237	
0.97779	101202.69					
172.00	4442.25	10.05	8.26	7742.94	0.46	
937.62	193.69	4.84	187.41	18.64	0.003237	
0.97786	101203.05					
173.00	4442.23	10.03	8.24	7701.36	0.46	
935.09	193.47	4.83	187.21	18.66	0.003212	
0.96861	101091.60					
174.00	4442.17	9.97	8.17	7580.54	0.46	
927.74	192.85	4.81	186.62	18.72	0.003203	
0.96139	100774.45					
175.00	4442.16	9.96	8.16	7569.12	0.46	
927.03	192.79	4.81	186.56	18.72	0.003203	
0.96106	100744.95					
176.00	4442.16	9.96	8.16	7568.89	0.46	
927.01	192.79	4.81	186.56	18.72	0.003204	
0.96123	100744.04					
177.00	4442.16	9.96	8.16	7568.82	0.46	
926.99	192.79	4.81	186.56	18.72	0.003203	
0.96106	100742.95					
178.00	4442.16	9.96	8.16	7569.19	0.46	
927.03	192.79	4.81	186.56	18.72	0.003203	
0.96093	100744.80					
179.00	4442.16	9.96	8.16	7569.02	0.46	
927.04	192.79	4.81	186.57	18.72	0.003202	
0.96084	100745.28					
180.00	4442.21	10.01	8.21	7653.81	0.46	
932.23	193.24	4.82	186.99	18.68	0.003254	
0.97966	100972.31					
181.00	4442.33	10.13	8.34	7893.07	0.46	
946.64	194.45	4.87	188.13	18.58	0.003271	
0.99379	101592.65					
182.00	4442.36	10.16	8.37	7960.34	0.46	
950.69	194.79	4.88	188.46	18.55	0.003298	
1.00434	101765.78					
183.00	4442.42	10.22	8.44	8079.00	0.47	
957.71	195.38	4.90	189.01	18.50	0.003307	
1.01147	102064.98					
184.00	4442.42	10.22	8.44	8090.80	0.47	
958.41	195.44	4.90	189.06	18.49	0.003305	
1.01144	102094.23					
185.00	4442.42	10.22	8.44	8090.79	0.47	

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HYCHAN.OUT									
958.43	1.01152	195.44	102094.98	4.90	189.06	18.49	0.003305		
186.00	4442.42	10.22	8.44	8091.21	0.47				
958.42	1.01168	195.44	102094.72	4.90	189.06	18.49	0.003306		
187.00	4442.42	10.22	8.44	8091.11	0.47				
958.43	1.01180	195.44	102094.85	4.90	189.06	18.49	0.003306		
188.00	4442.42	10.22	8.44	8091.01	0.47				
958.43	1.01160	195.44	102094.94	4.90	189.06	18.49	0.003306		
189.00	4442.42	10.22	8.44	8090.83	0.47				
958.43	1.01196	195.44	102094.89	4.90	189.06	18.49	0.003307		
190.00	4442.42	10.22	8.44	8091.01	0.47				
958.44	1.01201	195.44	102095.23	4.90	189.07	18.49	0.003307		
191.00	4442.40	10.20	8.42	8048.61	0.46				
955.93	1.00253	195.23	101986.24	4.90	188.86	18.51	0.003281		
192.00	4442.34	10.14	8.36	7928.26	0.46				
948.76	0.99539	194.63	101680.99	4.87	188.30	18.56	0.003272		
193.00	4442.34	10.14	8.35	7917.15	0.46				
948.08	0.99486	194.57	101652.88	4.87	188.25	18.57	0.003272		
194.00	4442.34	10.14	8.35	7917.08	0.46				
948.07	0.99511	194.57	101652.21	4.87	188.24	18.57	0.003273		
195.00	4442.34	10.14	8.35	7916.87	0.46				
948.06	0.99488	194.57	101651.91	4.87	188.24	18.57	0.003272		
196.00	4442.34	10.14	8.35	7917.18	0.46				
948.07	0.99499	194.57	101652.45	4.87	188.25	18.57	0.003272		
197.00	4442.34	10.14	8.35	7917.18	0.46				
948.07	0.99491	194.57	101652.52	4.87	188.25	18.57	0.003272		
198.00	4442.34	10.14	8.35	7917.04	0.46				
948.06	0.99492	194.57	101651.94	4.87	188.24	18.57	0.003272		
199.00	4442.34	10.14	8.35	7916.63	0.46				
948.04	0.99509	194.57	101651.02	4.87	188.24	18.57	0.003273		

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1831

MAXIMUM DISCHARGE (CFS) = 21346.32 AT TIME = 81.32  
 MAXIMUM STAGE = 4441.11 AT TIME = 81.36

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FR OUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)			
0.00	0.00	4431.50	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4431.50	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	2.00	4431.50	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
1088.87	3.00	4433.56	2.06	13.08	1.52	1650.95	0.19	0.003110	
	2.53842	83.24				82.22	39.89		
1235.23	4.00	4437.76	6.26	8.21	4.45	5502.52	0.31	0.003083	
	1.57982	150.44				146.46	23.41		
1218.12	5.00	4437.72	6.22	8.12	4.43	5392.85	0.31	0.003074	
	1.55780	150.00				146.05	23.47		
1211.69	6.00	4437.71	6.21	8.09	4.42	5351.91	0.31	0.003052	
	1.54014	149.83				145.89	23.49		
1190.60	7.00	4437.67	6.17	7.98	4.38	5216.55	0.31	0.003019	
	1.50236	149.28				145.36	23.57		
1166.77	8.00	4437.62	6.12	7.85	4.34	5066.42	0.31	0.002989	
	1.46401	148.64				144.76	23.66		
1143.35	9.00	4437.57	6.07	7.72	4.30	4921.30	0.31	0.002958	
	1.42592	148.02				144.16	23.75		
1122.14	10.00	4437.53	6.03	7.61	4.27	4792.04	0.31	0.002942	
	1.39727	147.45				143.62	23.84		
1114.95	11.00	4437.51	6.01	7.57	4.26	4752.83	0.31	0.002923	
	1.38107	147.25				143.43	23.87		
1093.41	12.00	4437.46	5.96	7.46	4.23	4623.26	0.31	0.002890	
	1.34482	146.62				142.84	23.96		
1071.18	13.00	4437.41	5.91	7.34	4.19	4490.69	0.30	0.002873	
	1.31523	146.00				142.24	24.05		
1067.21	14.00	4437.41	5.91	7.31	4.19	4469.06	0.30	0.002874	
	1.31187	145.90				142.15	24.06		
1067.20	15.00	4437.41	5.91	7.31	4.19	4468.84	0.30	0.002876	
	1.31279	145.89				142.15	24.06		
1067.22	16.00	4437.41	5.91	7.31	4.19	4469.11	0.30	0.002873	
	1.31156	145.90				142.15	24.06		
1067.22	17.00	4437.41	5.91	7.31	4.19	4469.03	0.30	0.002875	
	1.31210	145.90				142.15	24.06		
1070.03	18.00	4437.41	5.91	7.33	4.19	4486.67	0.30	0.002895	
	1.32388	145.99				142.24	24.05		
1092.09	19.00	4437.46	5.96	7.45	4.23	4618.53	0.31	0.002928	
	1.36069	146.64				142.86	23.95		
1117.97	20.00	4437.52	6.02	7.59	4.27	4772.64	0.31	0.002963	
	1.40272	147.37				143.55	23.85		
1139.84	21.00	4437.56	6.06	7.70	4.30	4905.05	0.31	0.002977	
	1.43102	147.95				144.10	23.76		
1143.22	22.00	4437.57	6.07	7.72	4.31	4923.83	0.31	0.002976	
		148.03				144.18	23.75		

## HYCHAN.OUT

1.43436	83624.33						
23.00	4437.58	6.08	4.31	4945.53	0.31		
1146.46	148.13	7.74		144.27	23.74	0.002997	
1.44735	83677.92						
24.00	4437.63	6.13	4.36	5109.57	0.31		
1172.18	148.84	7.88		144.94	23.64	0.003050	
1.49888	84067.97						
25.00	4437.73	6.23	4.43	5403.44	0.31		
1218.38	150.05	8.12		146.10	23.46	0.003115	
1.57838	84736.25						
26.00	4437.82	6.32	4.51	5713.03	0.32		
1266.89	151.26	8.38		147.25	23.29	0.003176	
1.65965	85403.42						
27.00	4437.89	6.39	4.56	5958.98	0.32		
1305.86	152.18	8.58		148.12	23.17	0.003195	
1.71097	85908.25						
28.00	4437.90	6.40	4.57	5984.99	0.32		
1310.48	152.27	8.61		148.21	23.16	0.003195	
1.71574	85959.45						
29.00	4437.91	6.41	4.58	6018.67	0.32		
1315.34	152.40	8.63		148.33	23.14	0.003218	
1.73320	86028.62						
30.00	4437.94	6.44	4.60	6138.44	0.32		
1333.99	152.83	8.73		148.73	23.08	0.003227	
1.75793	86264.95						
31.00	4437.95	6.45	4.60	6152.18	0.32		
1336.47	152.88	8.74		148.78	23.07	0.003227	
1.76054	86291.74						
32.00	4437.96	6.46	4.61	6188.28	0.32		
1341.57	153.00	8.77		148.90	23.06	0.003249	
1.77777	86362.30						
33.00	4437.99	6.49	4.64	6312.19	0.32		
1360.99	153.44	8.87		149.32	23.00	0.003260	
1.80440	86602.89						
34.00	4438.00	6.50	4.64	6326.09	0.32		
1363.43	153.49	8.88		149.36	22.99	0.003261	
1.80759	86628.51						
35.00	4437.99	6.49	4.63	6289.80	0.32		
1358.28	153.36	8.86		149.24	23.01	0.003237	
1.78894	86558.16						
36.00	4437.95	6.45	4.61	6165.65	0.32		
1338.90	152.92	8.76		148.82	23.07	0.003227	
1.76288	86317.88						
37.00	4437.94	6.44	4.59	6118.07	0.32		
1331.53	152.75	8.72		148.66	23.09	0.003205	
1.74329	86223.04						
38.00	4437.90	6.40	4.57	5998.90	0.32		
1312.95	152.32	8.62		148.25	23.15	0.003194	
1.71780	85986.87						
39.00	4437.90	6.40	4.57	5984.77	0.32		
1310.45	152.27	8.61		148.21	23.16	0.003194	
1.71545	85959.16						
40.00	4437.90	6.40	4.57	5985.11	0.32		
1310.47	152.27	8.61		148.21	23.16	0.003198	
1.71727	85959.38						
41.00	4437.90	6.40	4.57	5984.89	0.32		
1310.43	152.27	8.61		148.21	23.16	0.003195	
1.71580	85959.23						
42.00	4437.90	6.40	4.57	5985.03	0.32		
1310.47	152.27	8.61		148.21	23.16	0.003195	
1.71578	85959.45						
43.00	4437.91	6.41	4.58	6018.85	0.32		
1315.36	152.40	8.63		148.33	23.14	0.003217	

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		HYCHAN.OUT					
	1.73267	86028.81					
1334.04	44.00	4437.94	6.44	8.73	4.60	6138.67	0.32
	1.75861	86265.30				148.73	23.08
	45.00	4437.96	6.46	8.77	4.61	6188.26	0.32
1341.67		153.01				148.90	23.06
	1.77837	86363.70					0.003250
	46.00	4438.00	6.50	8.90	4.65	6349.83	0.32
1366.37		153.57				149.44	22.98
	1.82377	86675.61					0.003285
	47.00	4438.05	6.55	9.04	4.68	6524.15	0.32
1393.38		154.17				150.01	22.90
	1.87113	87004.05					0.003318
	48.00	4438.10	6.60	9.18	4.72	6698.46	0.32
1420.36		154.75				150.56	22.82
	1.91716	87324.92					0.003347
	49.00	4438.14	6.64	9.31	4.75	6865.52	0.32
1446.27		155.30				151.08	22.75
	1.96345	87625.37					0.003379
	50.00	4438.19	6.69	9.46	4.78	7045.67	0.33
1474.04		155.87				151.62	22.67
	2.01173	87942.08					0.003409
	51.00	4438.24	6.74	9.62	4.82	7255.02	0.33
1505.92		156.53				152.24	22.59
	2.07632	88301.88					0.003459
	52.00	4438.30	6.80	9.83	4.86	7515.72	0.33
1546.74		157.32				152.99	22.49
	2.13314	88736.95					0.003477
	53.00	4438.32	6.82	9.88	4.87	7583.58	0.33
1556.99		157.52				153.19	22.46
	2.15895	88848.31					0.003500
	54.00	4438.38	6.88	10.06	4.92	7839.51	0.33
1592.63		158.26				153.89	22.36
	2.24917	89257.88					0.003582
	55.00	4438.52	7.02	10.49	5.03	8439.30	0.33
1677.34		159.92				155.46	22.16
	2.42842	90167.54					0.003710
	56.00	4438.70	7.20	11.11	5.18	9325.89	0.34
1801.94		162.16				157.59	21.88
	2.69012	91399.69					0.003880
	57.00	4438.92	7.42	11.90	5.33	10443.49	0.34
1960.07		164.77				160.06	21.57
	3.02531	92837.42					0.004076
	58.00	4439.16	7.66	12.75	5.46	11651.98	0.35
2135.55		167.52				162.67	21.25
	3.45551	94349.12					0.004344
	59.00	4439.35	7.85	13.47	5.54	12665.97	0.35
2287.32		169.76				164.79	21.00
	3.84905	95575.73					0.004578
	60.00	4439.58	8.08	14.32	5.63	13907.29	0.35
2468.80		172.36				167.26	20.71
	4.34108	97007.96					0.004857
	61.00	4439.82	8.32	15.08	5.71	15086.25	0.35
2641.27		175.11				169.86	20.42
	4.72773	98516.32					0.005023
	62.00	4439.97	8.47	15.55	5.78	15896.99	0.35
2749.71		176.85				171.50	20.24
	4.85587	99469.20					0.005005
	63.00	4440.11	8.61	15.96	5.87	16718.57	0.35
2847.01		178.36				172.93	20.08
	4.95197	100298.51					0.004972
	64.00	4440.21	8.71	16.27	5.93	17315.87	0.35
2919.44		179.46				173.97	19.97

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				HYCHAN.OUT			
	5.01946	100901.73					
3012.25	65.00	4440.34	8.84	5.94	17889.41	0.35	
		180.84	16.66		175.28	19.83	0.004860
	5.05175	101659.67					
3153.83	66.00	4440.53	9.03	5.85	18459.84	0.34	
		182.88	17.25		177.20	19.63	0.004725
	5.08437	102778.64					
3214.48	67.00	4440.60	9.10	5.80	18631.61	0.34	
		183.73	17.50		178.01	19.55	0.004716
	5.14807	103244.59					
3226.05	68.00	4440.62	9.12	5.78	18661.51	0.34	
		183.89	17.54		178.16	19.54	0.004695
	5.13962	103332.18					
3229.21	69.00	4440.62	9.12	5.78	18672.66	0.34	
		183.94	17.56		178.20	19.53	0.004690
	5.13790	103356.48					
3233.99	70.00	4440.63	9.13	5.78	18690.05	0.34	
		184.00	17.58		178.26	19.53	0.004686
	5.13895	103392.83					
3237.89	71.00	4440.63	9.13	5.78	18703.45	0.34	
		184.06	17.59		178.31	19.52	0.004689
	5.14767	103422.63					
3236.26	72.00	4440.63	9.13	5.78	18692.35	0.34	
		184.03	17.59		178.29	19.52	0.004707
	5.16478	103410.25					
3238.69	73.00	4440.64	9.14	5.78	18717.05	0.34	
		184.07	17.60		178.33	19.52	0.004690
	5.14907	103428.80					
3288.58	74.00	4440.70	9.20	5.75	18916.77	0.33	
		184.76	17.80		178.98	19.45	0.004652
	5.16702	103807.22					
3339.54	75.00	4440.76	9.26	5.71	19053.97	0.33	
		185.45	18.01		179.63	19.39	0.004630
	5.20277	104186.84					
3351.93	76.00	4440.78	9.28	5.70	19090.03	0.33	
		185.62	18.06		179.79	19.37	0.004634
	5.22207	104278.63					
3561.93	77.00	4440.69	9.19	5.42	19321.31	0.32	
		184.70	19.29		178.92	19.46	0.004637
	5.57966	103772.84					
3847.10	78.00	4440.81	9.31	5.15	19824.92	0.30	
		185.97	20.69		180.12	19.34	0.004531
	5.84894	104469.14					
4035.17	79.00	4440.99	9.49	5.03	20281.20	0.29	
		187.85	21.48		181.90	19.17	0.004545
	6.09216	105499.15					
4085.89	80.00	4441.04	9.54	5.06	20661.02	0.29	
		188.34	21.69		182.36	19.12	0.004600
	6.22775	105768.51					
4136.83	81.00	4441.08	9.58	5.10	21115.05	0.29	
		188.81	21.91		182.81	19.08	0.004660
	6.37062	106029.15					
4164.04	82.00	4441.11	9.61	5.12	21315.97	0.29	
		189.07	22.02		183.05	19.05	0.004649
	6.38906	106170.51					
4141.49	83.00	4441.09	9.59	5.09	21097.16	0.29	
		188.86	21.93		182.86	19.07	0.004605
	6.30181	106055.91					
4115.43	84.00	4441.06	9.56	5.07	20882.55	0.29	
		188.62	21.82		182.62	19.10	0.004595
	6.25648	105921.96					
4110.93	85.00	4441.06	9.56	5.07	20849.60	0.29	
		188.57	21.80		182.58	19.10	0.004594

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6.24912	105898.72						
86.00	4441.07	9.57	5.08	20915.30	0.29		
4118.28	188.64	21.83		182.65	19.09	0.004610	
6.28026	105935.87						
87.00	4441.06	9.56	5.07	20884.07	0.29		
4116.87	188.63	21.83		182.63	19.09	0.004564	
6.21577	105927.46						
88.00	4440.99	9.49	5.00	20208.98	0.29		
4040.36	187.89	21.50		181.94	19.16	0.004443	
5.96162	105522.44						
89.00	4440.58	9.08	5.26	18751.00	0.31		
3567.46	183.47	19.44		177.76	19.58	0.004775	
5.79314	103100.44						
90.00	4440.20	8.70	5.82	16958.71	0.35		
2914.99	179.37	16.25		173.88	19.98	0.004973	
5.04322	100852.88						
91.00	4439.95	8.45	5.74	15699.20	0.35		
2735.77	176.62	15.49		171.28	20.26	0.004970	
4.80345	99342.37						
92.00	4439.76	8.26	5.66	14692.62	0.35		
2597.97	174.39	14.90		169.17	20.49	0.004737	
4.40384	98120.24						
93.00	4439.53	8.03	5.58	13627.27	0.35		
2443.01	171.87	14.21		166.79	20.76	0.004554	
4.03948	96736.92						
94.00	4439.38	7.88	5.52	12822.26	0.35		
2320.90	170.14	13.64		165.15	20.95	0.004384	
3.73136	95784.60						
95.00	4439.26	7.76	5.48	12175.66	0.35		
2223.74	168.74	13.18		163.82	21.11	0.004291	
3.52871	95018.09						
96.00	4439.16	7.66	5.43	11639.59	0.35		
2143.78	167.53	12.80		162.68	21.25	0.004110	
3.28152	94354.74						
97.00	4439.04	7.54	5.38	11072.20	0.35		
2058.38	166.21	12.38		161.43	21.40	0.004017	
3.10387	93629.23						
98.00	4438.96	7.46	5.33	10649.83	0.34		
1996.96	165.26	12.08		160.52	21.51	0.003954	
2.98131	93103.02						
99.00	4438.89	7.39	5.29	10271.56	0.34		
1943.24	164.41	11.82		159.72	21.61	0.003907	
2.88167	92638.49						
100.00	4438.83	7.33	5.24	9970.76	0.34		
1901.28	163.72	11.61		159.07	21.69	0.003845	
2.78642	92259.77						
101.00	4438.76	7.26	5.19	9596.91	0.34		
1847.42	162.84	11.35		158.23	21.80	0.003797	
2.68830	91772.95						
102.00	4438.70	7.20	5.15	9299.50	0.34		
1804.67	162.12	11.13		157.55	21.88	0.003752	
2.60617	91379.75						
103.00	4438.65	7.15	5.11	9036.23	0.34		
1767.12	161.48	10.94		156.94	21.96	0.003716	
2.53764	91024.84						
104.00	4438.60	7.10	5.08	8830.68	0.34		
1737.57	160.95	10.80		156.44	22.03	0.003682	
2.48036	90737.90						
105.00	4438.55	7.05	5.04	8582.36	0.33		
1702.47	160.31	10.62		155.83	22.11	0.003624	
2.40138	90380.54						
106.00	4438.48	6.98	4.99	8253.24	0.33		
1654.76	159.42	10.38		154.99	22.22	0.003583	

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107.00	2.32059	4438.43	89893.41	6.93	4.96	8061.59	0.33
1626.80		158.89		10.24		154.48	22.29
	2.26932		89600.84				0.003552
108.00		4438.39		6.89	4.92	7887.86	0.33
1601.97		158.40		10.11		154.02	22.35
	2.22112		89332.70				0.003520
109.00		4438.36		6.86	4.90	7755.24	0.33
1582.44		158.02		10.01		153.66	22.40
	2.19536		89124.14				0.003513
110.00		4438.37		6.87	4.91	7785.39	0.33
1585.99		158.11		10.03		153.75	22.38
	2.21321		89172.38				0.003536
111.00		4438.42		6.92	4.95	7991.25	0.33
1614.91		158.70		10.18		154.30	22.31
	2.28019		89495.13				0.003591
112.00		4438.46		6.96	4.98	8202.44	0.33
1646.25		159.28		10.34		154.86	22.24
	2.31081		89816.97				0.003583
113.00		4438.43		6.93	4.96	8060.99	0.33
1626.72		158.89		10.24		154.48	22.29
	2.26968		89600.85				0.003553
114.00		4438.42		6.92	4.95	8015.28	0.33
1618.89		158.76		10.20		154.37	22.30
	2.28461		89532.32				0.003591
115.00		4438.50		7.00	5.01	8347.83	0.33
1665.70		159.68		10.43		155.24	22.19
	2.38141		90036.34				0.003658
116.00		4438.55		7.05	5.05	8593.40	0.34
1702.47		160.34		10.62		155.86	22.10
	2.41755		90397.02				0.003649
117.00		4438.53		7.03	5.03	8483.34	0.33
1686.99		160.04		10.54		155.58	22.14
	2.39444		90235.68				0.003640
118.00		4438.52		7.02	5.03	8469.50	0.33
1684.75		160.01		10.53		155.55	22.14
	2.39236		90216.45				0.003641
119.00		4438.54		7.04	5.04	8521.19	0.33
1691.63		160.14		10.56		155.68	22.13
	2.41711		90292.31				0.003667
120.00		4438.56		7.07	5.06	8657.81	0.34
1711.45		160.50		10.66		156.02	22.08
	2.44498		90490.09				0.003675
121.00		4438.57		7.07	5.06	8669.81	0.34
1713.52		160.54		10.67		156.05	22.08
	2.44800		90508.02				0.003675
122.00		4438.56		7.06	5.05	8618.52	0.34
1706.72		160.40		10.64		155.92	22.10
	2.42302		90433.35				0.003649
123.00		4438.53		7.03	5.03	8482.90	0.33
1686.99		160.04		10.54		155.58	22.14
	2.39509		90236.16				0.003641
124.00		4438.51		7.01	5.02	8419.58	0.33
1678.11		159.87		10.50		155.42	22.16
	2.36802		90141.84				0.003615
125.00		4438.48		6.98	5.00	8283.06	0.33
1658.23		159.50		10.40		155.07	22.21
	2.33906		89938.57				0.003606
126.00		4438.48		6.98	4.99	8269.86	0.33
1656.03		159.47		10.38		155.03	22.21
	2.33685		89919.12				0.003606
127.00		4438.47		6.97	4.98	8226.30	0.33
1650.29		159.35		10.36		154.92	22.23
							0.003582

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	2.31488	89853.84					
1632.36	128.00	4438.44	6.94	10.27	4.96	8102.90	0.33
		159.01				154.60	22.27
	2.29044	89666.53					0.003575
1630.37	129.00	4438.44	6.94	10.26	4.96	8091.17	0.33
		158.97				154.56	22.27
	2.28760	89647.29					0.003575
1624.71	130.00	4438.43	6.93	10.23	4.95	8048.79	0.33
		158.85				154.45	22.29
	2.26719	89582.56					0.003552
1607.27	131.00	4438.40	6.90	10.14	4.93	7928.85	0.33
		158.52				154.13	22.33
	2.24292	89396.52					0.003545
1616.87	132.00	4438.42	6.92	10.19	4.95	8003.46	0.33
		158.73				154.33	22.31
	2.28263	89513.38					0.003591
1652.13	133.00	4438.47	6.97	10.36	4.99	8246.42	0.33
		159.40				154.97	22.22
	2.33269	89883.86					0.003607
1655.99	134.00	4438.48	6.98	10.38	4.99	8269.62	0.33
		159.47				155.03	22.21
	2.33659	89918.84					0.003606
1656.10	135.00	4438.48	6.98	10.39	4.99	8270.21	0.33
		159.47				155.03	22.21
	2.33708	89920.25					0.003606
1656.01	136.00	4438.48	6.98	10.38	4.99	8269.78	0.33
		159.47				155.03	22.21
	2.33656	89918.69					0.003606
1656.04	137.00	4438.48	6.98	10.38	4.99	8269.98	0.33
		159.47				155.03	22.21
	2.33702	89919.32					0.003606
1656.09	138.00	4438.48	6.98	10.39	4.99	8270.32	0.33
		159.47				155.03	22.21
	2.33687	89919.92					0.003606
1656.02	139.00	4438.48	6.98	10.38	4.99	8269.87	0.33
		159.47				155.03	22.21
	2.33677	89919.00					0.003606
1650.26	140.00	4438.47	6.97	10.36	4.98	8226.29	0.33
		159.35				154.92	22.23
	2.31553	89853.03					0.003583
1632.40	141.00	4438.44	6.94	10.27	4.96	8103.28	0.33
		159.01				154.60	22.27
	2.28991	89666.25					0.003575
1630.28	142.00	4438.44	6.94	10.26	4.96	8090.71	0.33
		158.97				154.56	22.27
	2.28777	89647.62					0.003575
1630.31	143.00	4438.44	6.94	10.26	4.96	8091.11	0.33
		158.97				154.56	22.27
	2.28773	89647.30					0.003575
1630.30	144.00	4438.44	6.94	10.26	4.96	8090.97	0.33
		158.97				154.56	22.27
	2.28742	89647.16					0.003574
1624.84	145.00	4438.43	6.93	10.23	4.95	8049.28	0.33
		158.86				154.45	22.29
	2.26709	89583.17					0.003552
1607.21	146.00	4438.40	6.90	10.14	4.93	7928.51	0.33
		158.52				154.13	22.33
	2.24246	89396.60					0.003544
1605.28	147.00	4438.40	6.90	10.13	4.93	7917.10	0.33
		158.48				154.10	22.34
	2.24047	89378.54					0.003545
1605.26	148.00	4438.40	6.90	10.13	4.93	7917.12	0.33
		158.48				154.10	22.34

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		HYCHAN.OUT					
	2.24036	89377.97					
1605.26	149.00	4438.40	6.90	4.93	7916.90	0.33	
	2.24011	89377.83	10.13		154.10	22.34	0.003544
1605.28	150.00	4438.40	6.90	4.93	7916.83	0.33	
	2.24030	89378.92	10.13		154.10	22.34	0.003545
1601.73	151.00	4438.39	6.89	4.93	7889.94	0.33	
	2.22582	89335.84	10.11		154.03	22.35	0.003528
1588.19	152.00	4438.37	6.87	4.91	7795.22	0.33	
	2.20350	89186.02	10.04		153.77	22.38	0.003516
1581.04	153.00	4438.36	6.86	4.90	7746.75	0.33	
	2.19304	89110.41	10.01		153.64	22.40	0.003512
1580.29	154.00	4438.36	6.86	4.90	7742.75	0.33	
	2.19226	89102.96	10.00		153.63	22.40	0.003512
1574.94	155.00	4438.35	6.85	4.89	7702.22	0.33	
	2.17231	89038.27	9.98		153.51	22.42	0.003489
1568.43	156.00	4438.34	6.84	4.89	7664.15	0.33	
	2.18870	88978.82	9.94		153.41	22.43	0.003528
1601.24	157.00	4438.39	6.89	4.93	7892.61	0.33	
	2.23504	89340.42	10.11		154.04	22.35	0.003544
1605.29	158.00	4438.40	6.90	4.93	7916.98	0.33	
	2.24075	89378.98	10.13		154.10	22.34	0.003545
1605.31	159.00	4438.40	6.90	4.93	7917.18	0.33	
	2.24022	89378.57	10.13		154.10	22.34	0.003544
1605.24	160.00	4438.40	6.90	4.93	7916.61	0.33	
	2.24068	89377.59	10.13		154.10	22.34	0.003545
1605.30	161.00	4438.40	6.90	4.93	7917.07	0.33	
	2.24049	89378.87	10.13		154.10	22.34	0.003545
1605.31	162.00	4438.40	6.90	4.93	7917.25	0.33	
	2.23963	89378.74	10.13		154.10	22.34	0.003543
1605.24	163.00	4438.40	6.90	4.93	7916.83	0.33	
	2.24038	89377.94	10.13		154.10	22.34	0.003545
1605.27	164.00	4438.40	6.90	4.93	7916.94	0.33	
	2.24049	89378.72	10.13		154.10	22.34	0.003545
1599.89	165.00	4438.39	6.89	4.92	7875.63	0.33	
	2.21963	89313.30	10.10		153.99	22.35	0.003521
1582.35	166.00	4438.36	6.86	4.90	7754.65	0.33	
	2.19519	89122.88	10.01		153.66	22.40	0.003513
1580.39	167.00	4438.36	6.86	4.90	7742.94	0.33	
	2.19189	89104.28	10.00		153.63	22.40	0.003511
1580.44	168.00	4438.36	6.86	4.90	7743.14	0.33	
	2.19273	89104.67	10.00		153.63	22.40	0.003513
1580.36	169.00	4438.36	6.86	4.90	7742.67	0.33	
		157.99	10.00		153.63	22.40	0.003513

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				HYCHAN.OUT				
	2.19303	89104.26						
1580.42	170.00	4438.36	6.86	4.90	7743.51	0.33		
		157.99	10.00		153.63	22.40		0.003514
	2.19329	89104.55						
1580.38	171.00	4438.36	6.86	4.90	7742.78	0.33		
		157.99	10.00		153.63	22.40		0.003513
	2.19312	89104.47						
1580.39	172.00	4438.36	6.86	4.90	7742.94	0.33		
		157.99	10.00		153.63	22.40		0.003514
	2.19320	89104.59						
1574.96	173.00	4438.35	6.85	4.89	7702.02	0.33		
		157.86	9.98		153.51	22.42		0.003490
	2.17266	89038.03						
1557.32	174.00	4438.32	6.82	4.87	7580.87	0.33		
		157.51	9.89		153.18	22.46		0.003481
	2.14773	88843.27						
1555.31	175.00	4438.32	6.82	4.87	7569.10	0.33		
		157.48	9.88		153.15	22.46		0.003482
	2.14599	88824.43						
1555.30	176.00	4438.32	6.82	4.87	7568.92	0.33		
		157.48	9.88		153.14	22.47		0.003481
	2.14550	88823.79						
1555.27	177.00	4438.32	6.82	4.87	7568.82	0.33		
		157.47	9.88		153.14	22.47		0.003481
	2.14555	88822.90						
1555.33	178.00	4438.32	6.82	4.87	7569.20	0.33		
		157.48	9.88		153.15	22.47		0.003482
	2.14594	88824.14						
1555.32	179.00	4438.32	6.82	4.87	7569.00	0.33		
		157.48	9.88		153.15	22.46		0.003481
	2.14560	88824.70						
1566.45	180.00	4438.34	6.84	4.89	7652.49	0.33		
		157.72	9.93		153.38	22.43		0.003528
	2.18668	88960.20						
1601.21	181.00	4438.39	6.89	4.93	7892.45	0.33		
		158.41	10.11		154.03	22.35		0.003544
	2.23531	89340.05						
1611.00	182.00	4438.41	6.91	4.94	7959.67	0.33		
		158.61	10.16		154.22	22.32		0.003568
	2.26142	89445.73						
1628.26	183.00	4438.44	6.94	4.96	8078.75	0.33		
		158.94	10.24		154.53	22.28		0.003574
	2.28449	89628.41						
1630.33	184.00	4438.44	6.94	4.96	8090.76	0.33		
		158.97	10.26		154.56	22.27		0.003575
	2.28759	89647.06						
1630.33	185.00	4438.44	6.94	4.96	8090.78	0.33		
		158.97	10.26		154.57	22.27		0.003576
	2.28819	89647.80						
1630.32	186.00	4438.44	6.94	4.96	8091.21	0.33		
		158.97	10.26		154.56	22.27		0.003576
	2.28845	89647.18						
1630.35	187.00	4438.44	6.94	4.96	8091.12	0.33		
		158.97	10.26		154.56	22.27		0.003576
	2.28841	89647.44						
1630.31	188.00	4438.44	6.94	4.96	8091.02	0.33		
		158.97	10.26		154.56	22.27		0.003576
	2.28824	89647.59						
1630.30	189.00	4438.44	6.94	4.96	8090.83	0.33		
		158.97	10.26		154.56	22.27		0.003576
	2.28854	89647.68						
1630.35	190.00	4438.44	6.94	4.96	8091.02	0.33		
		158.97	10.26		154.57	22.27		0.003576

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## HYCHAN.OUT

1624.77	191.00	2.28822	4438.43	89647.73	6.93	10.23	4.95	8049.26	0.33	0.003552
		2.26693	158.86	89583.13				154.45	22.29	
1607.25	192.00	2.24248	4438.40	89396.84	6.90	10.14	4.93	7928.58	0.33	0.003544
		2.23955	158.52	89378.58				154.13	22.33	
1605.30	193.00	2.23965	4438.40	89378.10	6.90	10.13	4.93	7917.16	0.33	0.003543
		2.24092	158.48	89377.89				154.10	22.34	
1605.27	194.00	2.23999	4438.40	89378.08	6.90	10.13	4.93	7917.11	0.33	0.003543
		2.24085	158.48	89378.23				154.10	22.34	
1605.25	195.00	2.24017	4438.40	89377.82	6.90	10.13	4.93	7916.83	0.33	0.003546
		2.23961	158.48	89377.39				154.10	22.34	
1605.28	196.00		4438.40		6.90	10.13	4.93	7917.19	0.33	0.003544
			158.48					154.10	22.34	
1605.29	197.00		4438.40		6.90	10.13	4.93	7917.16	0.33	0.003545
			158.48					154.10	22.34	
1605.27	198.00		4438.40		6.90	10.13	4.93	7917.06	0.33	0.003544
			158.48					154.10	22.34	
1605.20	199.00		4438.40		6.90	10.13	4.93	7916.66	0.33	0.003544
			158.48					154.10	22.34	

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1903

MAXIMUM DISCHARGE (CFS) = 21349.14 AT TIME = 81.34  
 MAXIMUM STAGE = 4441.63 AT TIME = 81.40

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)			
0.00	0.00	4430.74	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4430.74	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4430.74	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
859.67	3.00	4432.31	1.57	6.70	1.65	1414.83	0.23	0.002916
	1.21967	128.26			57.63	36.70		
1024.14	4.00	4436.18	5.44	2.07	5.37	5504.65	0.41	0.002919
	0.37693	494.96			221.57	40.74		
1006.79	5.00	4436.14	5.40	2.05	5.36	5395.86	0.41	0.002940
	0.37629	490.80			219.71	40.71		
1000.27	6.00	4436.12	5.38	2.04	5.35	5354.88	0.41	0.002956
	0.37711	489.22			219.01	40.70		
		118263.12						

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		HYCHAN.OUT					
979.25	7.00	4436.07	5.33	5.33	5222.66	0.41	
		484.10	2.02		216.72	40.67	0.002988
	0.37720	117028.18					
955.35	8.00	4436.01	5.27	5.31	5072.39	0.41	
		478.22	2.00		214.09	40.63	0.003025
	0.37707	115611.18					
931.88	9.00	4435.95	5.21	5.29	4927.20	0.41	
		472.38	1.97		211.48	40.59	0.003064
	0.37715	114201.63					
910.40	10.00	4435.90	5.16	5.27	4795.41	0.41	
		466.97	1.95		209.07	40.55	0.003085
	0.37535	112898.39					
903.35	11.00	4435.88	5.14	5.26	4755.73	0.41	
		465.18	1.94		208.27	40.54	0.003098
	0.37544	112466.61					
882.63	12.00	4435.82	5.08	5.24	4629.31	0.41	
		459.85	1.92		205.89	40.50	0.003137
	0.37568	111182.05					
860.58	13.00	4435.76	5.03	5.22	4494.30	0.41	
		454.14	1.89		203.34	40.47	0.003161
	0.37375	109804.97					
856.31	14.00	4435.75	5.01	5.22	4468.95	0.41	
		453.04	1.89		202.85	40.46	0.003161
	0.37283	109539.41					
856.32	15.00	4435.75	5.01	5.22	4468.96	0.41	
		453.04	1.89		202.85	40.46	0.003163
	0.37303	109540.10					
856.32	16.00	4435.75	5.01	5.22	4469.04	0.41	
		453.04	1.89		202.85	40.46	0.003161
	0.37278	109540.27					
856.32	17.00	4435.75	5.01	5.22	4469.00	0.41	
		453.04	1.89		202.85	40.46	0.003162
	0.37291	109539.91					
858.75	18.00	4435.76	5.02	5.22	4484.00	0.41	
		453.69	1.89		203.14	40.46	0.003150
	0.37207	109695.21					
879.82	19.00	4435.82	5.08	5.24	4612.10	0.41	
		459.17	1.92		205.59	40.50	0.003111
	0.37200	111017.24					
905.33	20.00	4435.88	5.14	5.26	4766.35	0.41	
		465.71	1.94		208.51	40.54	0.003071
	0.37250	112593.85					
927.50	21.00	4435.94	5.20	5.28	4901.70	0.41	
		471.31	1.97		211.01	40.58	0.003047
	0.37421	113944.24					
931.20	22.00	4435.95	5.21	5.29	4923.84	0.41	
		472.23	1.97		211.42	40.59	0.003047
	0.37495	114166.28					
934.17	23.00	4435.96	5.22	5.29	4942.56	0.41	
		472.98	1.98		211.76	40.59	0.003030
	0.37344	114347.70					
959.33	24.00	4436.02	5.28	5.32	5100.06	0.41	
		479.25	2.00		214.55	40.63	0.002978
	0.37199	115857.91					
1005.67	25.00	4436.13	5.39	5.36	5391.02	0.41	
		490.55	2.05		219.60	40.71	0.002905
	0.37166	118583.18					
1055.42	26.00	4436.25	5.51	5.40	5700.40	0.41	
		502.39	2.10		224.89	40.78	0.002831
	0.37107	121437.98					
1096.68	27.00	4436.35	5.61	5.43	5953.47	0.40	
		512.00	2.14		229.17	40.84	0.002793
	0.37333	123752.31					

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				HYCHAN.OUT			
1102.03	28.00	4436.36	5.62	2.15	5.43	229.72	0.002793
	0.37429	513.22				40.85	
		124046.41					
1106.78	29.00	4436.37	5.63	2.15	5.43	230.21	0.002773
	0.37241	514.31				40.86	
		124311.09					
1126.59	30.00	4436.42	5.68	2.17	5.45	232.22	0.002752
	0.37291	518.84				40.88	
		125401.02					
1129.49	31.00	4436.43	5.69	2.17	5.45	232.51	0.002752
	0.37335	519.49				40.89	
		125558.10					
1134.54	32.00	4436.44	5.70	2.18	5.45	233.03	0.002728
	0.37101	520.64				40.90	
		125836.09					
1155.35	33.00	4436.49	5.75	2.20	5.46	235.12	0.002708
	0.37170	525.33				40.92	
		126966.04					
1158.23	34.00	4436.49	5.75	2.20	5.46	235.41	0.002709
	0.37226	525.97				40.93	
		127120.39					
1153.08	35.00	4436.48	5.74	2.20	5.46	234.89	0.002731
	0.37440	524.80				40.92	
		126838.48					
1132.32	36.00	4436.43	5.69	2.18	5.45	232.80	0.002752
	0.37380	520.12				40.89	
		125710.66					
1124.58	37.00	4436.42	5.68	2.17	5.44	232.01	0.002773
	0.37536	518.36				40.88	
		125286.28					
1104.88	38.00	4436.37	5.63	2.15	5.43	230.00	0.002792
	0.37461	513.86				40.85	
		124201.69					
1101.99	39.00	4436.36	5.62	2.15	5.43	229.71	0.002793
	0.37420	513.21				40.85	
		124044.09					
1102.02	40.00	4436.36	5.62	2.15	5.43	229.71	0.002795
	0.37454	513.21				40.85	
		124045.51					
1101.95	41.00	4436.36	5.62	2.15	5.43	229.71	0.002793
	0.37425	513.20				40.85	
		124041.56					
1102.02	42.00	4436.36	5.62	2.15	5.43	229.71	0.002794
	0.37432	513.21				40.85	
		124045.53					
1106.79	43.00	4436.37	5.63	2.15	5.43	230.21	0.002771
	0.37209	514.32				40.86	
		124311.77					
1126.65	44.00	4436.42	5.68	2.17	5.45	232.23	0.002750
	0.37267	518.85				40.88	
		125404.42					
1134.63	45.00	4436.44	5.70	2.18	5.45	233.04	0.002729
	0.37113	520.66				40.90	
		125840.88					
1160.72	46.00	4436.50	5.76	2.20	5.46	235.66	0.002686
	0.36943	526.54				40.93	
		127257.95					
1189.83	47.00	4436.56	5.82	2.23	5.48	238.55	0.002640
	0.36779	533.01				40.97	
		128817.65					
1219.14	48.00	4436.63	5.89	2.26	5.49	241.42	0.002596
	0.36610	539.45				41.01	
		130368.84					

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				HYCHAN.OUT			
49.00	4436.69	5.95	5.50	6858.43	0.40		
1247.61	545.62	2.29	244.18	41.04	0.002555		
0.36462	131857.16						
50.00	4436.75	6.02	5.51	7037.85	0.40		
1278.29	552.20	2.31	247.11	41.08	0.002507		
0.36213	133441.17						
51.00	4436.83	6.09	5.51	7242.89	0.39		
1313.48	559.64	2.35	250.43	41.12	0.002438		
0.35701	135234.61						
52.00	4436.93	6.19	5.52	7509.32	0.39		
1359.99	569.31	2.39	254.75	41.18	0.002397		
0.35731	137564.28						
53.00	4436.95	6.21	5.53	7579.22	0.39		
1371.44	571.66	2.40	255.80	41.19	0.002380		
0.35623	138130.95						
54.00	4437.03	6.29	5.55	7822.74	0.39		
1409.38	579.40	2.43	259.25	41.23	0.002307		
0.35021	139995.52						
55.00	4437.21	6.47	5.60	8409.46	0.39		
1502.72	597.96	2.51	267.53	41.34	0.002170		
0.34031	144468.30						
56.00	4437.48	6.74	5.64	9282.51	0.38		
1644.90	625.12	2.63	279.65	41.48	0.001976		
0.32441	151012.98						
57.00	4437.82	7.08	5.67	10389.90	0.38		
1830.90	658.89	2.78	294.72	41.65	0.001753		
0.30395	159146.98						
58.00	4438.17	7.43	5.69	11600.78	0.37		
2039.36	694.73	2.94	310.70	41.82	0.001562		
0.28615	167779.75						
59.00	4438.46	7.72	5.68	12620.92	0.36		
2222.27	724.62	3.07	324.03	41.95	0.001399		
0.26781	174977.45						
60.00	4438.80	8.06	5.66	13839.97	0.35		
2444.30	759.22	3.22	339.46	42.11	0.001194		
0.23993	183309.34						
61.00	4439.14	8.40	5.61	15033.77	0.34		
2679.97	794.21	3.37	355.06	42.25	0.001059		
0.22298	191733.05						
62.00	4439.37	8.63	5.57	15858.26	0.33		
2845.06	817.77	3.48	365.56	42.35	0.000958		
0.20804	197403.88						
63.00	4439.60	8.86	5.54	16677.03	0.33		
3011.74	840.84	3.58	375.85	42.44	0.000839		
0.18762	202958.30						
64.00	4439.76	9.02	5.51	17287.35	0.32		
3139.16	858.03	3.66	383.51	42.51	0.000750		
0.17133	207094.55						
65.00	4439.98	9.24	5.38	17818.17	0.31		
3311.37	880.82	3.76	393.67	42.59	0.000563		
0.13208	212581.38						
66.00	4440.32	9.58	5.13	18403.30	0.29		
3588.03	915.94	3.92	409.32	42.72	0.000397		
0.09711	221034.09						
67.00	4440.46	9.72	5.02	18619.10	0.28		
3705.67	930.38	3.98	415.75	42.77	0.000387		
0.09614	224506.84						
68.00	4440.49	9.75	5.01	18659.65	0.28		
3728.02	933.09	4.00	416.96	42.78	0.000365		
0.09088	225161.02						
69.00	4440.49	9.75	5.00	18670.70	0.28		
3734.19	933.85	4.00	417.30	42.78	0.000361		
0.09019	225342.06						

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HYCHAN.OUT							
3743.46	70.00	4440.50	9.76	4.00	4.99	18688.45	0.28
	0.08866	934.98				417.80	42.79
		225614.14					0.000355
3750.97	71.00	4440.51	9.77	4.01	4.99	18702.40	0.28
	0.08924	935.89				418.21	42.79
		225833.88					0.000357
3747.74	72.00	4440.51	9.77	4.01	4.99	18694.92	0.28
	0.09437	935.49				418.03	42.79
		225738.25					0.000378
3752.35	73.00	4440.51	9.77	4.01	4.99	18707.77	0.28
	0.08718	936.07				418.29	42.79
		225876.42					0.000349
3843.22	74.00	4440.62	9.88	4.06	4.91	18883.24	0.28
	0.07027	947.09				423.20	42.83
		228529.78					0.000278
3936.24	75.00	4440.73	9.99	4.11	4.84	19042.92	0.27
	0.06517	958.16				428.13	42.87
		231192.39					0.000254
3958.51	76.00	4440.75	10.01	4.12	4.82	19081.28	0.27
	0.06153	960.79				429.31	42.88
		231826.56					0.000239
4077.23	77.00	4440.89	10.15	4.18	4.72	19264.89	0.26
	0.10590	974.82				435.56	42.93
		235202.31					0.000406
4359.45	78.00	4441.20	10.46	4.33	4.53	19738.60	0.25
	0.06872	1007.19				449.98	43.03
		242990.33					0.000254
4602.13	79.00	4441.45	10.71	4.45	4.40	20251.20	0.24
	0.06198	1033.96				461.91	43.12
		249429.12					0.000223
4667.87	80.00	4441.52	10.78	4.48	4.42	20650.24	0.24
	0.05979	1041.10				465.09	43.15
		251148.12					0.000214
4735.19	81.00	4441.59	10.85	4.52	4.46	21104.85	0.24
	0.05690	1048.38				468.33	43.17
		252898.77					0.000202
4770.30	82.00	4441.62	10.88	4.53	4.47	21326.22	0.24
	0.05712	1052.14				470.01	43.18
		253804.34					0.000202
4740.44	83.00	4441.59	10.85	4.52	4.45	21118.17	0.24
	0.05916	1048.92				468.57	43.17
		253028.69					0.000210
4706.38	84.00	4441.56	10.82	4.50	4.44	20893.84	0.24
	0.05994	1045.26				466.94	43.16
		252147.69					0.000213
4700.49	85.00	4441.55	10.81	4.50	4.44	20856.56	0.24
	0.05967	1044.63				466.66	43.16
		251995.61					0.000213
4709.97	86.00	4441.56	10.82	4.50	4.44	20920.70	0.24
	0.05921	1045.65				467.12	43.16
		252242.59					0.000211
4708.13	87.00	4441.56	10.82	4.50	4.44	20902.55	0.24
	0.06008	1045.44				467.02	43.16
		252191.30					0.000214
4608.07	88.00	4441.46	10.72	4.45	4.40	20281.07	0.24
	0.08121	1034.48				462.14	43.12
		249556.02					0.000292
3992.16	89.00	4440.79	10.05	4.14	4.76	18997.60	0.26
	0.13658	965.24				431.29	42.89
		232896.53					0.000529
3141.47	90.00	4439.76	9.02	3.66	5.45	17107.17	0.32
	0.21226	858.23				383.60	42.51
		207144.06					0.000929

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HYCHAN.OUT							
91.00	4439.35	8.61	5.57	15752.31	0.33		
2829.48	815.44	3.47	364.52	42.34	0.001082		
0.23431	196843.22						
92.00	4439.07	8.33	5.61	14748.93	0.34		
2630.74	786.88	3.34	351.79	42.22	0.001223		
0.25511	189969.16						
93.00	4438.76	8.02	5.65	13674.38	0.35		
2419.80	755.36	3.20	337.74	42.09	0.001365		
0.27293	182379.78						
94.00	4438.53	7.79	5.67	12856.53	0.36		
2268.18	731.82	3.10	327.24	41.99	0.001482		
0.28654	176710.16						
95.00	4438.35	7.61	5.67	12200.13	0.36		
2150.43	712.97	3.02	318.84	41.90	0.001581		
0.29751	172171.86						
96.00	4438.19	7.45	5.68	11668.80	0.37		
2055.03	697.26	2.95	311.83	41.83	0.001680		
0.30895	168388.97						
97.00	4438.03	7.29	5.68	11093.98	0.37		
1953.73	680.21	2.87	304.22	41.75	0.001765		
0.31641	164281.23						
98.00	4437.90	7.16	5.67	10668.04	0.37		
1880.29	667.54	2.82	298.58	41.69	0.001842		
0.32380	161231.00						
99.00	4437.79	7.05	5.66	10284.55	0.38		
1815.89	656.23	2.77	293.53	41.63	0.001894		
0.32711	158506.59						
100.00	4437.70	6.96	5.65	9986.53	0.38		
1766.45	647.38	2.73	289.58	41.59	0.001962		
0.33403	156375.44						
101.00	4437.59	6.85	5.64	9611.46	0.38		
1702.66	635.80	2.68	284.42	41.53	0.002031		
0.33936	153584.20						
102.00	4437.50	6.76	5.64	9311.36	0.38		
1652.16	626.47	2.64	280.25	41.48	0.002085		
0.34312	151336.45						
103.00	4437.41	6.67	5.62	9046.11	0.38		
1608.29	618.24	2.60	276.58	41.44	0.002132		
0.34611	149353.91						
104.00	4437.35	6.61	5.62	8839.16	0.39		
1574.16	611.76	2.57	273.69	41.41	0.002170		
0.34844	147792.28						
105.00	4437.27	6.53	5.60	8595.95	0.39		
1534.52	604.11	2.54	270.28	41.37	0.002231		
0.35355	145950.39						
106.00	4437.17	6.43	5.58	8263.83	0.39		
1480.49	593.56	2.49	265.57	41.31	0.002280		
0.35488	143408.88						
107.00	4437.11	6.37	5.57	8068.74	0.39		
1449.09	587.34	2.47	262.80	41.28	0.002313		
0.35607	141910.31						
108.00	4437.05	6.31	5.55	7894.88	0.39		
1421.62	581.83	2.44	260.34	41.25	0.002346		
0.35771	140583.19						
109.00	4437.01	6.27	5.54	7757.86	0.39		
1399.78	577.43	2.42	258.37	41.22	0.002361		
0.35712	139521.75						
110.00	4437.01	6.27	5.55	7780.93	0.39		
1403.07	578.11	2.43	258.68	41.23	0.002341		
0.35453	139686.03						
111.00	4437.08	6.34	5.56	7979.69	0.39		
1434.37	584.43	2.45	261.50	41.26	0.002291		
0.35082	141208.64						

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		HYCHAN.OUT					
1470.10	112.00	4437.15	6.41	5.58	8201.74	0.39	
	0.35381	591.54	2.49	264.67	41.30	0.002282	
1448.94	113.00	4437.11	6.37	5.57	8068.01	0.39	
	0.35625	587.31	2.47	262.78	41.28	0.002314	
1439.19	114.00	4437.09	6.35	5.56	8008.89	0.39	
	0.35146	585.39	2.46	261.93	41.27	0.002291	
1490.67	115.00	4437.19	6.45	5.59	8331.85	0.39	
	0.34634	595.61	2.50	266.49	41.32	0.002218	
1533.43	116.00	4437.27	6.53	5.60	8592.74	0.39	
	0.35000	603.94	2.54	270.20	41.37	0.002209	
1516.19	117.00	4437.24	6.50	5.60	8486.31	0.39	
	0.35026	600.58	2.52	268.71	41.35	0.002223	
1513.39	118.00	4437.23	6.49	5.60	8469.52	0.39	
	0.35011	600.04	2.52	268.46	41.35	0.002225	
1520.76	119.00	4437.25	6.51	5.60	8515.92	0.39	
	0.34756	601.49	2.53	269.11	41.35	0.002203	
1543.47	120.00	4437.29	6.55	5.61	8654.75	0.39	
	0.34764	605.89	2.55	271.07	41.38	0.002187	
1546.03	121.00	4437.30	6.56	5.61	8669.82	0.39	
	0.34791	606.38	2.55	271.29	41.38	0.002187	
1538.71	122.00	4437.28	6.54	5.60	8623.85	0.39	
	0.35058	604.95	2.54	270.65	41.37	0.002209	
1516.14	123.00	4437.24	6.50	5.60	8485.89	0.39	
	0.35056	600.57	2.52	268.70	41.35	0.002225	
1506.32	124.00	4437.22	6.48	5.59	8424.84	0.39	
	0.35281	598.65	2.52	267.84	41.34	0.002247	
1483.80	125.00	4437.17	6.44	5.58	8286.04	0.39	
	0.35226	594.24	2.50	265.87	41.32	0.002261	
1481.09	126.00	4437.17	6.43	5.58	8269.90	0.39	
	0.35215	593.71	2.49	265.64	41.31	0.002262	
1474.99	127.00	4437.16	6.42	5.58	8230.91	0.39	
	0.35442	592.49	2.49	265.09	41.31	0.002282	
1454.85	128.00	4437.12	6.38	5.57	8105.61	0.39	
	0.35408	588.50	2.47	263.32	41.28	0.002295	
1452.50	129.00	4437.11	6.37	5.57	8091.22	0.39	
	0.35387	588.04	2.47	263.11	41.28	0.002296	
1446.49	130.00	4437.10	6.36	5.57	8053.23	0.39	
	0.35598	586.83	2.46	262.57	41.28	0.002314	
1427.08	131.00	4437.06	6.32	5.56	7931.46	0.39	
	0.35570	582.95	2.45	260.84	41.25	0.002329	
1436.76	132.00	4437.08	6.34	5.56	7994.35	0.39	
	0.35113	584.91	2.46	261.71	41.26	0.002291	
		141323.73					

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		HYCHAN.OUT					
1476.32	133.00	4437.16	6.42	5.58	8241.15	0.39	
	0.35170	592.78	2.49	265.22	41.31	0.002263	
1481.03	134.00	143219.53	6.43	5.58	8269.58	0.39	
	0.35209	593.70	2.49	265.63	41.31	0.002262	
1481.14	135.00	143441.64	6.43	5.58	8270.17	0.39	
	0.35218	593.72	2.49	265.64	41.31	0.002262	
1481.08	136.00	143446.95	6.43	5.58	8269.84	0.39	
	0.35225	593.71	2.49	265.64	41.31	0.002263	
1481.08	137.00	143443.98	6.43	5.58	8270.00	0.39	
	0.35224	593.71	2.49	265.64	41.31	0.002263	
1481.14	138.00	143443.97	6.43	5.58	8270.26	0.39	
	0.35208	593.72	2.49	265.64	41.31	0.002262	
1481.08	139.00	143446.88	6.43	5.58	8269.84	0.39	
	0.35196	593.71	2.49	265.64	41.31	0.002261	
1474.99	140.00	143443.72	6.42	5.58	8230.97	0.39	
	0.35442	592.49	2.49	265.10	41.31	0.002282	
1454.94	141.00	143151.41	6.38	5.57	8105.94	0.39	
	0.35417	588.52	2.47	263.32	41.28	0.002296	
1452.33	142.00	142194.41	6.37	5.57	8090.75	0.39	
	0.35396	588.01	2.47	263.09	41.28	0.002297	
1452.40	143.00	142070.28	6.37	5.57	8091.01	0.39	
	0.35394	588.02	2.47	263.10	41.28	0.002296	
1452.39	144.00	142073.92	6.37	5.57	8091.06	0.39	
	0.35371	588.02	2.47	263.10	41.28	0.002295	
1446.69	145.00	142073.31	6.36	5.57	8053.69	0.39	
	0.35602	586.87	2.47	262.59	41.28	0.002314	
1426.96	146.00	141796.81	6.32	5.56	7931.21	0.39	
	0.35571	582.92	2.45	260.82	41.25	0.002329	
1424.62	147.00	140845.41	6.32	5.56	7917.11	0.39	
	0.35532	582.46	2.45	260.62	41.25	0.002328	
1424.62	148.00	140733.36	6.32	5.56	7917.00	0.39	
	0.35535	582.46	2.45	260.62	41.25	0.002328	
1424.64	149.00	140733.64	6.32	5.56	7917.01	0.39	
	0.35534	582.46	2.45	260.62	41.25	0.002328	
1424.60	150.00	140734.38	6.32	5.56	7916.89	0.39	
	0.35545	582.46	2.45	260.62	41.25	0.002329	
1420.98	151.00	140732.75	6.31	5.55	7892.57	0.39	
	0.35650	581.72	2.44	260.29	41.25	0.002339	
1406.21	152.00	140555.41	6.28	5.55	7798.46	0.39	
	0.35729	578.73	2.43	258.95	41.23	0.002356	
1398.13	153.00	139835.69	6.26	5.54	7747.70	0.39	
	0.35677	577.10	2.42	258.23	41.22	0.002360	
		139442.08					

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1397.25	154.00	4437.00	6.26	5.54	7742.84	0.39	
	0.35656	576.92	2.42		258.15	41.22	0.002359
1391.74	155.00	139399.55	6.25	5.54	7706.46	0.39	
	0.35876	575.79	2.42		257.64	41.21	0.002379
1383.73	156.00	139126.64	6.24	5.53	7658.24	0.39	
	0.35439	574.18	2.41		256.92	41.21	0.002357
1419.76	157.00	138737.73	6.31	5.56	7887.27	0.39	
	0.35472	581.49	2.44		260.19	41.25	0.002328
1424.61	158.00	140500.03	6.32	5.56	7916.87	0.39	
	0.35536	582.46	2.45		260.62	41.25	0.002328
1424.68	159.00	140733.20	6.32	5.56	7917.23	0.39	
	0.35522	582.47	2.45		260.62	41.25	0.002327
1424.62	160.00	140736.48	6.32	5.56	7916.63	0.39	
	0.35540	582.46	2.45		260.62	41.25	0.002329
1424.63	161.00	140733.62	6.32	5.56	7917.15	0.39	
	0.35537	582.46	2.45		260.62	41.25	0.002328
1424.67	162.00	140733.98	6.32	5.56	7917.23	0.39	
	0.35539	582.47	2.45		260.62	41.25	0.002329
1424.60	163.00	140735.73	6.32	5.56	7916.85	0.39	
	0.35538	582.45	2.45		260.62	41.25	0.002329
1424.60	164.00	140732.52	6.32	5.56	7916.89	0.39	
	0.35538	582.45	2.45		260.62	41.25	0.002328
1419.12	165.00	140732.55	6.31	5.55	7879.97	0.39	
	0.35740	581.34	2.44		260.12	41.25	0.002346
1399.72	166.00	140463.64	6.27	5.54	7757.27	0.39	
	0.35692	577.42	2.42		258.37	41.22	0.002360
1397.35	167.00	139518.80	6.26	5.54	7742.83	0.39	
	0.35666	576.94	2.42		258.16	41.22	0.002360
1397.41	168.00	139404.30	6.26	5.54	7743.28	0.39	
	0.35679	576.96	2.42		258.16	41.22	0.002361
1397.30	169.00	139407.48	6.26	5.54	7742.65	0.39	
	0.35692	576.93	2.42		258.15	41.22	0.002362
1397.39	170.00	139401.98	6.26	5.54	7743.44	0.39	
	0.35672	576.95	2.42		258.16	41.22	0.002360
1397.32	171.00	139406.69	6.26	5.54	7742.90	0.39	
	0.35681	576.94	2.42		258.15	41.22	0.002361
1397.34	172.00	139403.11	6.26	5.54	7742.86	0.39	
	0.35686	576.94	2.42		258.16	41.22	0.002361
1391.80	173.00	139403.83	6.25	5.54	7706.30	0.39	
	0.35879	575.80	2.42		257.65	41.21	0.002379
1372.39	174.00	139129.75	6.21	5.53	7583.54	0.39	
	0.35816	571.84	2.40		255.88	41.19	0.002392
		138174.45					

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1369.94	175.00	4436.95	6.21	5.53	7569.03	0.39	
	0.35805	571.34	2.40		255.66	41.19	0.002393
1369.98	176.00	4436.95	6.21	5.52	7568.95	0.39	
	0.35791	571.35	2.40		255.66	41.19	0.002392
1369.98	177.00	4436.95	6.21	5.52	7568.96	0.39	
	0.35785	571.35	2.40		255.66	41.19	0.002392
1370.00	178.00	4436.95	6.21	5.52	7569.11	0.39	
	0.35809	571.35	2.40		255.66	41.19	0.002393
1369.95	179.00	4436.95	6.21	5.52	7568.96	0.39	
	0.35779	571.34	2.40		255.66	41.19	0.002391
1381.33	180.00	4436.97	6.23	5.53	7643.83	0.39	
	0.35428	573.69	2.41		256.70	41.20	0.002358
1419.73	181.00	4437.05	6.31	5.56	7887.29	0.39	
	0.35477	581.48	2.44		260.18	41.25	0.002329
1430.59	182.00	4437.07	6.33	5.56	7955.13	0.39	
	0.35327	583.67	2.45		261.16	41.26	0.002310
1449.91	183.00	4437.11	6.37	5.57	8076.06	0.39	
	0.35325	587.53	2.47		262.88	41.28	0.002294
1452.46	184.00	4437.11	6.37	5.57	8090.84	0.39	
	0.35391	588.03	2.47		263.10	41.28	0.002296
1452.39	185.00	4437.11	6.37	5.57	8090.77	0.39	
	0.35384	588.02	2.47		263.10	41.28	0.002296
1452.42	186.00	4437.11	6.37	5.57	8091.14	0.39	
	0.35394	588.03	2.47		263.10	41.28	0.002296
1452.47	187.00	4437.11	6.37	5.57	8091.16	0.39	
	0.35400	588.04	2.47		263.11	41.28	0.002297
1452.37	188.00	4437.11	6.37	5.57	8091.01	0.39	
	0.35386	588.02	2.47		263.10	41.28	0.002296
1452.36	189.00	4437.11	6.37	5.57	8090.87	0.39	
	0.35392	588.01	2.47		263.10	41.28	0.002296
1452.43	190.00	4437.11	6.37	5.57	8091.03	0.39	
	0.35393	588.03	2.47		263.10	41.28	0.002296
1446.56	191.00	4437.10	6.36	5.57	8053.63	0.39	
	0.35597	586.85	2.46		262.58	41.28	0.002314
1427.01	192.00	4437.06	6.32	5.56	7931.31	0.39	
	0.35562	582.93	2.45		260.83	41.25	0.002328
1424.66	193.00	4437.06	6.32	5.56	7917.09	0.39	
	0.35530	582.47	2.45		260.62	41.25	0.002328
1424.64	194.00	4437.06	6.32	5.56	7917.06	0.39	
	0.35506	582.46	2.45		260.62	41.25	0.002326
1424.62	195.00	4437.06	6.32	5.56	7916.94	0.39	
	0.35560	582.46	2.45		260.62	41.25	0.002330
		140733.28					

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HYCHAN.OUT							
196.00	4437.06	6.32	5.56	7917.19	0.39		
1424.66	582.47	2.45	260.62	41.25	0.002328		
0.35531	140735.20						
197.00	4437.06	6.32	5.56	7917.03	0.39		
1424.66	582.47	2.45	260.62	41.25	0.002329		
0.35547	140735.52						
198.00	4437.06	6.32	5.56	7917.11	0.39		
1424.66	582.47	2.45	260.62	41.25	0.002329		
0.35551	140735.39						
199.00	4437.06	6.32	5.56	7916.65	0.39		
1424.56	582.45	2.45	260.61	41.25	0.002326		
0.35505	140730.80						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1902

MAXIMUM DISCHARGE (CFS) = 21337.88 AT TIME = 81.34  
 MAXIMUM STAGE = 4441.19 AT TIME = 81.34

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4423.96	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4423.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4423.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4426.25	2.29	11.42	-1.61	-1279.76	0.19			
796.63	69.78	35864.12	8.84	-5.67	-5505.50	0.34			
1.58432	4432.80	204.49	4.75	199.67	22.60	0.002233			
0.66202	103829.34	4432.72	8.76	-5.64	-5397.31	0.34			
957.30	203.12	103143.74	4.71	198.35	22.64	0.002248			
0.66100	4432.69	202.60	8.73	-5.63	-5356.26	0.34			
951.98	102883.46	4432.60	8.64	-5.59	-5225.47	0.34			
0.66397	200.95	102051.41	4.65	196.25	22.70	0.002292			
935.11	4432.50	199.04	8.54	-5.54	-5075.18	0.33			
0.66549	101095.16	4432.40	8.44	-5.50	-4930.10	0.33			
915.88	197.10	100119.81	4.55	192.54	22.82	0.002355			
0.66705	4432.30	195.22	8.34	-5.46	-4797.09	0.33			
896.50	99175.98	4432.27	8.31	-5.45	-4756.99	0.33			
0.66827	194.65	98890.96	4.48	190.17	22.90	0.002384			
877.91	4432.17		8.21	-5.42	-4632.30	0.33			
0.66552									
872.34									
0.66665									
12.00									

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		HYCHAN.OUT				
855.14	192.88	4.43	188.46	22.95	0.002416	
0.66851	97999.80					
13.00	4432.07	8.11	-5.37	-4496.05	0.33	
836.48	190.94	4.38	186.59	23.02	0.002437	
0.66621	97027.09					
14.00	4432.05	8.09	-5.37	-4468.92	0.33	
832.78	190.56	4.37	186.22	23.03	0.002438	
0.66482	96835.02					
15.00	4432.05	8.09	-5.37	-4469.01	0.33	
832.80	190.56	4.37	186.22	23.03	0.002438	
0.66485	96835.61					
16.00	4432.05	8.09	-5.37	-4469.01	0.33	
832.80	190.56	4.37	186.22	23.03	0.002436	
0.66439	96835.67					
17.00	4432.05	8.09	-5.37	-4468.98	0.33	
832.79	190.56	4.37	186.22	23.03	0.002438	
0.66482	96835.44					
18.00	4432.06	8.10	-5.37	-4482.79	0.33	
834.67	190.76	4.38	186.41	23.02	0.002425	
0.66215	96935.72					
19.00	4432.15	8.19	-5.41	-4609.06	0.33	
851.95	192.56	4.42	188.16	22.96	0.002392	
0.66037	97840.88					
20.00	4432.27	8.31	-5.45	-4763.25	0.33	
873.23	194.75	4.48	190.27	22.90	0.002359	
0.66008	98940.43					
21.00	4432.37	8.41	-5.49	-4900.00	0.33	
892.27	196.68	4.54	192.14	22.83	0.002341	
0.66257	99911.41					
22.00	4432.39	8.43	-5.50	-4923.85	0.33	
895.60	197.02	4.55	192.46	22.82	0.002341	
0.66394	100078.80					
23.00	4432.41	8.45	-5.50	-4941.11	0.33	
898.03	197.26	4.55	192.70	22.82	0.002327	
0.66114	100202.97					
24.00	4432.52	8.56	-5.55	-5095.69	0.33	
918.53	199.32	4.61	194.68	22.75	0.002280	
0.65574	101233.65					
25.00	4432.71	8.75	-5.63	-5385.22	0.34	
955.80	202.98	4.71	198.22	22.64	0.002220	
0.65217	103074.60					
26.00	4432.93	8.97	-5.72	-5694.51	0.34	
996.27	206.88	4.82	201.98	22.53	0.002162	
0.64955	105029.89					
27.00	4433.10	9.14	-5.78	-5950.82	0.34	
1030.30	210.09	4.90	205.08	22.44	0.002134	
0.65315	106639.60					
28.00	4433.12	9.16	-5.78	-5985.10	0.34	
1034.88	210.51	4.92	205.49	22.42	0.002134	
0.65471	106852.27					
29.00	4433.14	9.18	-5.79	-6012.85	0.34	
1038.61	210.86	4.93	205.82	22.41	0.002119	
0.65133	107028.12					
30.00	4433.23	9.27	-5.81	-6134.00	0.34	
1054.94	212.37	4.97	207.28	22.37	0.002104	
0.65232	107787.09					
31.00	4433.24	9.28	-5.82	-6152.21	0.34	
1057.40	212.60	4.97	207.50	22.36	0.002105	
0.65336	107899.81					
32.00	4433.26	9.30	-5.82	-6182.04	0.34	
1061.45	212.97	4.98	207.86	22.35	0.002088	
0.64944	108088.31					
33.00	4433.35	9.38	-5.85	-6307.78	0.34	

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				HYCHAN.OUT			
1078.56		214.54		5.03	209.37	22.31	0.002074
	0.65050	108873.84					
	34.00	4433.36	9.40	-5.85	-6326.02	0.34	
1081.05		214.76		5.03	209.59	22.30	0.002074
	0.65155	108986.41					
	35.00	4433.34	9.38	-5.85	-6296.00	0.34	
1076.96		214.39		5.02	209.23	22.31	0.002090
	0.65512	108797.05					
	36.00	4433.25	9.29	-5.82	-6170.20	0.34	
1059.84		212.82		4.98	207.71	22.36	0.002104
	0.65397	108010.95					
	37.00	4433.22	9.26	-5.81	-6123.85	0.34	
1053.57		212.24		4.96	207.15	22.37	0.002120
	0.65661	107720.38					
	38.00	4433.14	9.18	-5.79	-6003.18	0.34	
1037.31		210.73		4.92	205.70	22.42	0.002134
	0.65558	106964.39					
	39.00	4433.12	9.16	-5.78	-5984.84	0.34	
1034.84		210.51		4.92	205.48	22.42	0.002134
	0.65469	106850.54					
	40.00	4433.12	9.16	-5.78	-5985.23	0.34	
1034.90		210.51		4.92	205.49	22.42	0.002135
	0.65502	106853.02					
	41.00	4433.12	9.16	-5.78	-5984.77	0.34	
1034.83		210.51		4.92	205.48	22.42	0.002134
	0.65473	106850.15					
	42.00	4433.12	9.16	-5.78	-5985.05	0.34	
1034.87		210.51		4.92	205.48	22.42	0.002135
	0.65480	106851.92					
	43.00	4433.14	9.18	-5.79	-6013.00	0.34	
1038.63		210.86		4.93	205.83	22.41	0.002118
	0.65106	107029.04					
	44.00	4433.23	9.27	-5.81	-6134.25	0.34	
1054.98		212.38		4.97	207.29	22.37	0.002104
	0.65217	107788.73					
	45.00	4433.26	9.30	-5.82	-6182.17	0.34	
1061.47		212.97		4.98	207.86	22.35	0.002088
	0.64952	108089.06					
	46.00	4433.37	9.41	-5.85	-6339.03	0.34	
1082.85		214.93		5.04	209.75	22.30	0.002058
	0.64712	109070.80					
	47.00	4433.49	9.53	-5.88	-6513.29	0.34	
1106.79		217.10		5.10	211.84	22.24	0.002029
	0.64552	110157.06					
	48.00	4433.60	9.64	-5.91	-6687.38	0.34	
1130.94		219.25		5.16	213.92	22.18	0.001999
	0.64351	111239.23					
	49.00	4433.72	9.76	-5.94	-6855.14	0.34	
1154.41		221.33		5.22	215.92	22.12	0.001974
	0.64235	112279.33					
	50.00	4433.84	9.88	-5.96	-7034.11	0.33	
1179.68		223.53		5.28	218.05	22.07	0.001944
	0.64017	113386.61					
	51.00	4433.98	10.02	-5.99	-7237.29	0.33	
1208.67		226.04		5.35	220.46	22.00	0.001904
	0.63532	114641.26					
	52.00	4434.16	10.20	-6.02	-7506.35	0.33	
1246.61		229.26		5.44	223.57	21.92	0.001877
	0.63689	116256.88					
	53.00	4434.20	10.24	-6.04	-7577.50	0.33	
1255.04		229.97		5.46	224.25	21.90	0.001862
	0.63415	116611.34					
	54.00	4434.32	10.36	-6.10	-7816.16	0.33	

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				HYCHAN.OUT			
1281.46		232.17		5.52	226.38	21.84	0.001802
	0.62060	117717.31					
55.00		4434.62	10.66	-6.24	-8397.55	0.34	
1346.75		237.51		5.67	231.53	21.71	0.001698
	0.60066	120394.69					
56.00		4435.07	11.11	-6.40	-9265.53	0.34	
1446.69		245.43		5.89	239.15	21.52	0.001565
	0.57567	124359.49					
57.00		4435.62	11.66	-6.59	-10370.12	0.34	
1573.37		255.04		6.17	248.42	21.30	0.001417
	0.54546	129176.72					
58.00		4436.19	12.23	-6.78	-11582.70	0.34	
1707.54		264.81		6.45	257.82	21.09	0.001295
	0.52096	134063.94					
59.00		4436.65	12.69	-6.92	-12605.47	0.34	
1822.44		272.83		6.68	265.54	20.92	0.001199
	0.49970	138081.22					
60.00		4437.17	13.21	-7.07	-13818.57	0.34	
1953.56		281.65		6.94	274.03	20.74	0.001078
	0.46673	142493.19					
61.00		4437.68	13.72	-7.20	-15018.03	0.34	
2085.33		290.21		7.19	282.26	20.58	0.001003
	0.44964	146773.73					
62.00		4438.02	14.06	-7.28	-15846.42	0.34	
2176.54		295.97		7.35	287.79	20.47	0.000948
	0.43524	149651.56					
63.00		4438.36	14.40	-7.35	-16664.39	0.34	
2267.97		301.60		7.52	293.21	20.37	0.000889
	0.41722	152467.72					
64.00		4438.61	14.65	-7.39	-17278.74	0.34	
2337.93		305.83		7.64	297.27	20.29	0.000835
	0.39828	154580.55					
65.00		4438.97	15.01	-7.30	-17795.45	0.33	
2438.19		311.80		7.82	303.01	20.19	0.000864
	0.42161	157564.64					
66.00		4439.51	15.55	-7.09	-18386.31	0.32	
2592.38		320.67		8.08	311.53	20.04	0.000883
	0.44564	161996.61					
67.00		4439.72	15.76	-7.02	-18616.21	0.31	
2653.51		324.10		8.19	314.82	19.98	0.000898
	0.45853	163706.64					
68.00		4439.76	15.80	-7.00	-18658.62	0.31	
2664.84		324.73		8.21	315.43	19.97	0.000895
	0.45815	164021.91					
69.00		4439.77	15.81	-7.00	-18670.40	0.31	
2667.99		324.90		8.21	315.60	19.96	0.000900
	0.46092	164109.42					
70.00		4439.78	15.82	-6.99	-18688.05	0.31	
2672.71		325.17		8.22	315.85	19.96	0.000899
	0.46106	164241.05					
71.00		4439.80	15.84	-6.99	-18702.27	0.31	
2676.51		325.38		8.23	316.05	19.96	0.000899
	0.46129	164346.83					
72.00		4439.79	15.83	-6.99	-18695.96	0.31	
2674.83		325.28		8.22	315.96	19.96	0.000897
	0.46026	164299.14					
73.00		4439.80	15.84	-6.99	-18705.06	0.31	
2677.26		325.42		8.23	316.09	19.96	0.000906
	0.46489	164368.69					
74.00		4439.95	15.99	-6.93	-18874.38	0.31	
2722.73		327.95		8.30	318.52	19.92	0.000929
	0.48151	165631.41					
75.00		4440.10	16.14	-6.88	-19040.11	0.30	

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		HYCHAN.OUT					
2767.61	330.41	8.38	320.88	19.88	0.000938		
0.49013	166859.16						
76.00	4440.14	16.18	-6.87	-19079.05	0.30		
2778.20	330.99	8.39	321.44	19.87	0.000945		
0.49501	167147.73						
77.00	4440.30	16.34	-2.16	-19249.93	0.09		
8914.11	332.72	26.79	323.88	19.83	0.000499		
0.83434	168418.55						
78.00	4440.69	16.73	0.00	0.00	0.00		
0.00	333.51	0.00	330.02	19.72	0.000588		
0.00000	171611.73						
79.00	4441.01	17.05	0.00	0.00	0.00		
0.00	334.15	0.00	334.92	19.65	0.000561		
0.00000	174158.61						
80.00	4441.08	17.12	0.00	0.00	0.00		
0.00	334.29	0.00	336.01	19.63	0.000522		
0.00000	174724.23						
81.00	4441.15	17.19	0.00	0.00	0.00		
0.00	334.43	0.00	337.12	19.61	0.000479		
0.00000	175300.23						
82.00	4441.19	17.23	0.00	0.00	0.00		
0.00	334.50	0.00	337.68	19.60	0.000477		
0.00000	175592.66						
83.00	4441.15	17.19	0.00	0.00	0.00		
0.00	334.44	0.00	337.18	19.61	0.000506		
0.00000	175335.17						
84.00	4441.12	17.16	0.00	0.00	0.00		
0.00	334.37	0.00	336.63	19.62	0.000518		
0.00000	175047.58						
85.00	4441.11	17.15	0.00	0.00	0.00		
0.00	334.35	0.00	336.54	19.62	0.000518		
0.00000	174998.42						
86.00	4441.12	17.16	0.00	0.00	0.00		
0.00	334.37	0.00	336.69	19.62	0.000507		
0.00000	175079.50						
87.00	4441.12	17.16	0.00	0.00	0.00		
0.00	334.37	0.00	336.66	19.62	0.000528		
0.00000	175061.12						
88.00	4441.01	17.05	0.00	0.00	0.00		
0.00	334.14	0.00	334.92	19.65	0.000553		
0.00000	174155.81						
89.00	4440.14	16.18	-3.66	-19080.92	0.16		
5219.52	330.94	15.77	321.39	19.87	0.000856		
0.84213	167123.12						
90.00	4438.62	14.66	-7.33	-17156.91	0.34		
2341.43	305.97	7.65	297.40	20.29	0.000938		
0.44770	154650.38						
91.00	4437.99	14.03	-7.27	-15769.32	0.34		
2168.13	295.40	7.34	287.25	20.48	0.001016		
0.46542	149369.91						
92.00	4437.57	13.61	-7.18	-14766.18	0.34		
2057.56	288.39	7.13	280.51	20.61	0.001096		
0.48810	145865.73						
93.00	4437.11	13.15	-7.06	-13689.28	0.34		
1939.25	280.68	6.91	273.09	20.76	0.001179		
0.50848	142007.05						
94.00	4436.77	12.81	-6.95	-12868.02	0.34		
1850.90	274.75	6.74	267.39	20.88	0.001251		
0.52580	139041.58						
95.00	4436.47	12.51	-6.87	-12208.81	0.34		
1778.35	269.77	6.59	262.59	20.98	0.001310		
0.53884	136548.84						
96.00	4436.23	12.27	-6.80	-11678.99	0.34		

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				HYCHAN.OUT			
1718.16		265.54		6.47	258.52	21.07	0.001372
	0.55413	134432.38					
97.00	4435.96	12.00		-6.71	-11101.75	0.34	
1653.48	260.92		6.34	254.07	21.17	0.001425	
	0.56361	132118.56					
98.00	4435.76	11.80		-6.65	-10674.70	0.34	
1606.33	257.49		6.24	250.77	21.25	0.001476	
	0.57451	130399.30					
99.00	4435.58	11.62		-6.58	-10289.28	0.34	
1564.26	254.38		6.15	247.77	21.32	0.001513	
	0.58056	128842.96					
100.00	4435.44	11.48		-6.52	-9992.50	0.34	
1531.60	251.93		6.08	245.41	21.37	0.001559	
	0.59130	127615.02					
101.00	4435.25	11.29		-6.47	-9617.23	0.34	
1487.55	248.58		5.98	242.19	21.45	0.001602	
	0.59836	125939.38					
102.00	4435.10	11.14		-6.42	-9316.05	0.34	
1452.16	245.85		5.91	239.57	21.51	0.001638	
	0.60388	124573.92					
103.00	4434.96	11.00		-6.37	-9050.01	0.34	
1421.20	243.44		5.84	237.24	21.57	0.001671	
	0.60867	123364.39					
104.00	4434.85	10.89		-6.33	-8842.49	0.34	
1397.25	241.55		5.78	235.42	21.61	0.001698	
	0.61300	122418.61					
105.00	4434.73	10.77		-6.28	-8601.28	0.34	
1369.67	239.35		5.72	233.30	21.67	0.001743	
	0.62252	121314.77					
106.00	4434.56	10.60		-6.21	-8268.02	0.34	
1331.88	236.30		5.64	230.36	21.74	0.001782	
	0.62682	119788.27					
107.00	4434.46	10.49		-6.16	-8071.61	0.34	
1309.82	234.50		5.59	228.63	21.79	0.001808	
	0.63006	118886.70					
108.00	4434.37	10.40		-6.12	-7897.73	0.33	
1290.43	232.91		5.54	227.09	21.82	0.001836	
	0.63487	118085.95					
109.00	4434.29	10.33		-6.09	-7758.93	0.33	
1275.03	231.63		5.50	225.86	21.86	0.001846	
	0.63397	117447.27					
110.00	4434.30	10.34		-6.09	-7779.07	0.33	
1277.26	231.82		5.51	226.04	21.85	0.001831	
	0.62948	117542.58					
111.00	4434.41	10.45		-6.14	-7975.16	0.33	
1299.08	233.63		5.56	227.79	21.81	0.001788	
	0.62052	118448.55					
112.00	4434.52	10.56		-6.19	-8201.37	0.34	
1324.36	235.70		5.62	229.78	21.76	0.001783	
	0.62515	119485.73					
113.00	4434.45	10.49		-6.16	-8070.83	0.34	
1309.73	234.50		5.59	228.62	21.79	0.001809	
	0.63035	118883.08					
114.00	4434.42	10.46		-6.15	-8006.46	0.34	
1302.54	233.91		5.57	228.06	21.80	0.001789	
	0.62164	118590.94					
115.00	4434.59	10.63		-6.22	-8325.50	0.34	
1338.41	236.85		5.65	230.88	21.73	0.001733	
	0.61092	120060.14					
116.00	4434.72	10.76		-6.28	-8592.46	0.34	
1368.62	239.28		5.72	233.23	21.67	0.001726	
	0.61611	121278.72					
117.00	4434.67	10.71		-6.26	-8487.45	0.34	

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1356.67		238.32		5.69	232.30	21.69	0.001738
	0.61731	120796.84					
118.00	4434.66	10.70		-6.25	-8469.55	0.34	
1354.64		238.15		5.69	232.15	21.70	0.001738
	0.61702	120715.70					
119.00	4434.68	10.72		-6.26	-8513.87	0.34	
1359.68		238.56		5.70	232.54	21.69	0.001722
	0.61228	120920.26					
120.00	4434.76	10.80		-6.29	-8653.56	0.34	
1375.59		239.84		5.74	233.77	21.65	0.001710
	0.61203	121558.81					
121.00	4434.76	10.80		-6.29	-8669.78	0.34	
1377.44		239.98		5.74	233.91	21.65	0.001710
	0.61247	121632.15					
122.00	4434.74	10.78		-6.29	-8625.93	0.34	
1372.44		239.58		5.73	233.52	21.66	0.001727
	0.61725	121430.07					
123.00	4434.67	10.71		-6.26	-8487.11	0.34	
1356.63		238.31		5.69	232.30	21.69	0.001739
	0.61758	120795.28					
124.00	4434.64	10.68		-6.24	-8426.92	0.34	
1349.81		237.76		5.68	231.77	21.70	0.001755
	0.62172	120518.82					
125.00	4434.57	10.61		-6.21	-8287.20	0.34	
1334.02		236.48		5.64	230.54	21.74	0.001766
	0.62180	119878.68					
126.00	4434.56	10.60		-6.21	-8269.91	0.34	
1332.06		236.33		5.64	230.39	21.74	0.001767
	0.62163	119800.20					
127.00	4434.54	10.58		-6.20	-8232.74	0.34	
1327.89		235.98		5.63	230.05	21.75	0.001783
	0.62596	119628.10					
128.00	4434.47	10.51		-6.17	-8106.63	0.34	
1313.73		234.83		5.59	228.94	21.78	0.001794
	0.62629	119049.18					
129.00	4434.47	10.51		-6.17	-8091.31	0.34	
1312.01		234.69		5.59	228.81	21.78	0.001793
	0.62546	118979.45					
130.00	4434.45	10.49		-6.16	-8054.93	0.34	
1307.94		234.35		5.58	228.48	21.79	0.001809
	0.63003	118810.83					
131.00	4434.38	10.42		-6.13	-7932.49	0.33	
1294.28		233.23		5.55	227.40	21.82	0.001820
	0.63033	118247.61					
132.00	4434.41	10.45		-6.14	-7990.82	0.33	
1300.81		233.77		5.56	227.92	21.80	0.001789
	0.62105	118519.87					
133.00	4434.54	10.58		-6.20	-8239.04	0.34	
1328.60		236.05		5.63	230.12	21.75	0.001768
	0.62097	119660.12					
134.00	4434.56	10.60		-6.21	-8269.53	0.34	
1332.02		236.32		5.64	230.38	21.74	0.001767
	0.62143	119798.54					
135.00	4434.56	10.60		-6.21	-8270.19	0.34	
1332.10		236.33		5.64	230.39	21.74	0.001767
	0.62135	119801.48					
136.00	4434.56	10.60		-6.21	-8269.87	0.34	
1332.06		236.33		5.64	230.38	21.74	0.001768
	0.62174	119799.98					
137.00	4434.56	10.60		-6.21	-8269.98	0.34	
1332.07		236.33		5.64	230.39	21.74	0.001768
	0.62173	119800.52					
138.00	4434.56	10.60		-6.21	-8270.22	0.34	

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1332.10		236.33		5.64	230.39	21.74	0.001767
	0.62142	119801.68					
139.00		4434.56	10.60	-6.21	-8269.82	0.34	
1332.05		236.33		5.64	230.38	21.74	0.001767
	0.62158	119799.73					
140.00		4434.54	10.58	-6.20	-8232.82	0.34	
1327.90		235.98		5.63	230.05	21.75	0.001782
	0.62586	119628.45					
141.00		4434.47	10.51	-6.17	-8107.06	0.34	
1313.77		234.83		5.59	228.94	21.78	0.001794
	0.62622	119051.08					
142.00		4434.47	10.50	-6.17	-8090.77	0.34	
1311.95		234.68		5.59	228.80	21.78	0.001794
	0.62585	118977.00					
143.00		4434.47	10.50	-6.17	-8091.00	0.34	
1311.97		234.69		5.59	228.80	21.78	0.001795
	0.62607	118978.10					
144.00		4434.47	10.50	-6.17	-8090.97	0.34	
1311.97		234.69		5.59	228.80	21.78	0.001794
	0.62572	118978.05					
145.00		4434.45	10.49	-6.16	-8055.50	0.34	
1308.01		234.36		5.58	228.49	21.79	0.001809
	0.63004	118813.35					
146.00		4434.38	10.42	-6.13	-7932.30	0.33	
1294.26		233.23		5.55	227.40	21.82	0.001819
	0.62993	118246.68					
147.00		4434.38	10.42	-6.13	-7917.03	0.33	
1292.56		233.09		5.55	227.26	21.82	0.001820
	0.62974	118177.31					
148.00		4434.38	10.42	-6.13	-7917.04	0.33	
1292.56		233.09		5.55	227.26	21.82	0.001819
	0.62938	118177.21					
149.00		4434.38	10.42	-6.13	-7917.00	0.33	
1292.56		233.09		5.55	227.26	21.82	0.001819
	0.62952	118177.03					
150.00		4434.38	10.42	-6.13	-7916.93	0.33	
1292.55		233.09		5.55	227.26	21.82	0.001821
	0.62996	118176.73					
151.00		4434.36	10.40	-6.12	-7893.67	0.33	
1289.97		232.87		5.54	227.06	21.83	0.001829
	0.63237	118068.71					
152.00		4434.31	10.35	-6.10	-7799.78	0.33	
1279.55		232.01		5.52	226.22	21.85	0.001843
	0.63426	117635.57					
153.00		4434.29	10.33	-6.08	-7748.04	0.33	
1273.82		231.53		5.50	225.76	21.86	0.001847
	0.63394	117397.52					
154.00		4434.29	10.33	-6.08	-7742.79	0.33	
1273.24		231.49		5.50	225.72	21.86	0.001848
	0.63410	117373.69					
155.00		4434.27	10.31	-6.07	-7708.23	0.33	
1269.43		231.17		5.49	225.41	21.87	0.001862
	0.63816	117212.65					
156.00		4434.24	10.28	-6.06	-7655.87	0.33	
1263.67		230.69		5.48	224.95	21.88	0.001842
	0.62965	116974.10					
157.00		4434.36	10.40	-6.12	-7885.16	0.33	
1289.03		232.80		5.54	226.98	21.83	0.001819
	0.62857	118032.02					
158.00		4434.38	10.42	-6.13	-7916.82	0.33	
1292.54		233.09		5.55	227.26	21.82	0.001819
	0.62935	118176.27					
159.00		4434.38	10.42	-6.13	-7917.17	0.33	

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1292.57		233.09		5.55	227.27	21.82	0.001820
	0.62975	118177.91					
160.00		4434.38	10.42	-6.13	-7916.71	0.33	
1292.52		233.09		5.55	227.26	21.82	0.001819
	0.62945	118175.70					
161.00		4434.38	10.42	-6.13	-7917.11	0.33	
1292.57		233.09		5.55	227.26	21.82	0.001820
	0.62989	118177.60					
162.00		4434.38	10.42	-6.13	-7917.29	0.33	
1292.59		233.09		5.55	227.27	21.82	0.001820
	0.62979	118178.33					
163.00		4434.38	10.42	-6.13	-7916.82	0.33	
1292.54		233.09		5.55	227.26	21.82	0.001820
	0.62963	118176.29					
164.00		4434.38	10.42	-6.13	-7916.87	0.33	
1292.54		233.09		5.55	227.26	21.82	0.001820
	0.62974	118176.55					
165.00		4434.36	10.40	-6.12	-7881.67	0.33	
1288.64		232.76		5.54	226.95	21.83	0.001835
	0.63393	118012.93					
166.00		4434.29	10.33	-6.09	-7758.32	0.33	
1274.96		231.63		5.50	225.85	21.86	0.001846
	0.63408	117444.44					
167.00		4434.29	10.33	-6.08	-7742.87	0.33	
1273.25		231.49		5.50	225.72	21.86	0.001847
	0.63406	117373.94					
168.00		4434.29	10.33	-6.08	-7743.34	0.33	
1273.30		231.49		5.50	225.72	21.86	0.001846
	0.63345	117376.11					
169.00		4434.29	10.33	-6.08	-7742.64	0.33	
1273.22		231.48		5.50	225.72	21.86	0.001847
	0.63394	117372.92					
170.00		4434.29	10.33	-6.08	-7743.37	0.33	
1273.30		231.49		5.50	225.72	21.86	0.001846
	0.63365	117376.36					
171.00		4434.29	10.33	-6.08	-7742.95	0.33	
1273.26		231.49		5.50	225.72	21.86	0.001846
	0.63357	117374.29					
172.00		4434.29	10.33	-6.08	-7742.88	0.33	
1273.25		231.49		5.50	225.72	21.86	0.001846
	0.63351	117374.00					
173.00		4434.27	10.31	-6.07	-7707.99	0.33	
1269.40		231.16		5.49	225.41	21.87	0.001862
	0.63818	117211.55					
174.00		4434.20	10.24	-6.04	-7584.54	0.33	
1255.80		230.03		5.46	224.31	21.90	0.001874
	0.63856	116641.69					
175.00		4434.20	10.24	-6.04	-7569.10	0.33	
1254.10		229.89		5.46	224.18	21.90	0.001873
	0.63770	116571.03					
176.00		4434.20	10.24	-6.04	-7568.95	0.33	
1254.09		229.88		5.46	224.17	21.90	0.001873
	0.63762	116570.36					
177.00		4434.20	10.24	-6.04	-7568.91	0.33	
1254.08		229.88		5.46	224.17	21.90	0.001873
	0.63768	116570.23					
178.00		4434.20	10.24	-6.04	-7569.18	0.33	
1254.11		229.89		5.46	224.18	21.90	0.001874
	0.63795	116571.35					
179.00		4434.20	10.24	-6.04	-7568.85	0.33	
1254.08		229.88		5.46	224.17	21.90	0.001874
	0.63776	116570.02					
180.00		4434.23	10.27	-6.05	-7640.52	0.33	

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1261.99		230.55		5.47	224.82	21.88	0.001843
	0.62939	116903.81					
181.00		4434.36	10.40	-6.12	-7885.11	0.33	
1289.02		232.80		5.54	226.98	21.83	0.001820
	0.62885	118031.85					
182.00		4434.39	10.43	-6.13	-7953.32	0.33	
1296.61		233.43		5.55	227.59	21.81	0.001805
	0.62551	118345.81					
183.00		4434.46	10.50	-6.16	-8075.00	0.34	
1310.18		234.54		5.59	228.66	21.78	0.001794
	0.62520	118905.30					
184.00		4434.47	10.50	-6.17	-8090.91	0.34	
1311.96		234.69		5.59	228.80	21.78	0.001794
	0.62583	118977.62					
185.00		4434.47	10.50	-6.17	-8090.70	0.34	
1311.94		234.68		5.59	228.80	21.78	0.001794
	0.62581	118976.71					
186.00		4434.47	10.51	-6.17	-8091.19	0.34	
1311.99		234.69		5.59	228.81	21.78	0.001793
	0.62543	118978.95					
187.00		4434.47	10.51	-6.17	-8091.18	0.34	
1311.99		234.69		5.59	228.81	21.78	0.001793
	0.62553	118978.92					
188.00		4434.47	10.50	-6.17	-8090.96	0.34	
1311.97		234.69		5.59	228.80	21.78	0.001793
	0.62558	118977.98					
189.00		4434.47	10.50	-6.17	-8090.89	0.34	
1311.96		234.69		5.59	228.80	21.78	0.001793
	0.62562	118977.54					
190.00		4434.47	10.50	-6.17	-8091.04	0.34	
1311.98		234.69		5.59	228.80	21.78	0.001793
	0.62561	118978.27					
191.00		4434.45	10.49	-6.16	-8055.37	0.34	
1307.99		234.36		5.58	228.49	21.79	0.001809
	0.62993	118812.80					
192.00		4434.38	10.42	-6.13	-7932.37	0.33	
1294.27		233.23		5.55	227.40	21.82	0.001820
	0.63007	118247.05					
193.00		4434.38	10.42	-6.13	-7917.10	0.33	
1292.57		233.09		5.55	227.26	21.82	0.001821
	0.63002	118177.56					
194.00		4434.38	10.42	-6.13	-7917.02	0.33	
1292.56		233.09		5.55	227.26	21.82	0.001819
	0.62939	118177.22					
195.00		4434.38	10.42	-6.13	-7917.04	0.33	
1292.56		233.09		5.55	227.26	21.82	0.001820
	0.62961	118177.18					
196.00		4434.38	10.42	-6.13	-7917.13	0.33	
1292.57		233.09		5.55	227.26	21.82	0.001820
	0.62964	118177.74					
197.00		4434.38	10.42	-6.13	-7917.04	0.33	
1292.56		233.09		5.55	227.26	21.82	0.001820
	0.62968	118177.25					
198.00		4434.38	10.42	-6.13	-7917.17	0.33	
1292.58		233.09		5.55	227.26	21.82	0.001820
	0.62980	118177.77					
199.00		4434.38	10.41	-6.12	-7916.52	0.33	
1292.50		233.08		5.55	227.26	21.82	0.001819
	0.62943	118174.93					

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MAXIMUM DISCHARGE (CFS) = 21176.27 AT TIME = 88.49  
 MAXIMUM STAGE = 4439.62 AT TIME = 81.44

AREA	TIME WETTED BED SHEAR (FT^2)	ELEV. PERIMETER SURFACE (FT)	THALWEG DEPTH HYDRAULIC (FT)	VELOCITY RADIUS TOP (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW
	(HRS)	(FT)	(FT)	(FPS)	(FT)		
	(LB/FT^2)	(FT)	(FT)	(FPS)	(FT)		
0.00	0.00	4421.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4421.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4421.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
796.63	3.00	4424.26	2.56	1.61	1279.76	0.18	0.002461
	3.01927	40.52	19.66	39.70	15.48		
971.38	4.00	4432.08	10.38	5.67	5505.50	0.31	0.002428
	1.04029	141.48	6.87	136.88	13.18		
957.30	5.00	4432.01	10.31	5.64	5397.31	0.31	0.002430
	1.03206	140.64	6.81	136.07	13.19		
951.98	6.00	4431.99	10.29	5.63	5356.26	0.31	0.002428
	1.02805	140.32	6.78	135.77	13.20		
935.11	7.00	4431.90	10.20	5.59	5225.47	0.31	0.002428
	1.01727	139.29	6.71	134.78	13.21		
915.88	8.00	4431.80	10.10	5.54	5075.18	0.31	0.002429
	0.98007	138.08	6.63	133.62	13.22		
896.50	9.00	4431.71	10.01	5.50	4930.10	0.31	0.002427
	0.99197	136.89	6.55	132.47	13.24		
877.91	10.00	4431.61	9.91	5.46	4797.09	0.31	0.002429
	0.98007	135.76	6.47	131.40	13.25		
872.34	11.00	4431.59	9.89	5.45	4756.99	0.31	0.002428
	0.97602	135.40	6.44	131.05	13.26		
855.14	12.00	4431.50	9.80	5.42	4632.30	0.31	0.002428
	0.96454	134.32	6.37	130.02	13.27		
836.48	13.00	4431.40	9.70	5.37	4496.05	0.30	0.002431
	0.95327	133.12	6.28	128.86	13.29		
832.78	14.00	4431.38	9.68	5.37	4468.92	0.30	0.002432
	0.95109	132.87	6.27	128.63	13.29		
832.80	15.00	4431.38	9.68	5.37	4469.01	0.30	0.002431
	0.95063	132.87	6.27	128.63	13.29		
832.80	16.00	4431.38	9.68	5.37	4469.01	0.30	0.002431
	0.95071	132.87	6.27	128.63	13.29		
832.79	17.00	4431.38	9.68	5.37	4468.98	0.30	0.002432
		132.87	6.27	128.63	13.29		

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0.95115	75889.46								
18.00	4431.39	9.69	5.37	4482.79	0.30				
834.67	132.99	6.28	128.74	13.29	0.002433				
0.95276	75957.08								
19.00	4431.48	9.78	5.41	4609.06	0.30				
851.95	134.11	6.35	129.81	13.27	0.002432				
0.96393	76587.83								
20.00	4431.59	9.89	5.45	4763.25	0.31				
873.23	135.45	6.45	131.10	13.26	0.002433				
0.97877	77347.11								
21.00	4431.68	9.98	5.49	4900.00	0.31				
892.27	136.62	6.53	132.21	13.24	0.002431				
0.99073	78006.01								
22.00	4431.70	10.00	5.50	4923.85	0.31				
895.60	136.82	6.55	132.41	13.24	0.002431				
0.99303	78123.61								
23.00	4431.71	10.01	5.50	4941.11	0.31				
898.03	136.96	6.56	132.55	13.24	0.002436				
0.99656	78201.77								
24.00	4431.81	10.11	5.55	5095.69	0.31				
918.53	138.22	6.65	133.75	13.22	0.002436				
1.01034	78910.69								
25.00	4432.00	10.30	5.63	5385.22	0.31				
955.80	140.52	6.80	135.95	13.19	0.002436				
1.03398	80210.45								
26.00	4432.20	10.50	5.72	5694.51	0.31				
996.27	142.90	6.97	138.23	13.17	0.002440				
1.06138	81557.49								
27.00	4432.36	10.66	5.78	5950.82	0.31				
1030.30	144.83	7.11	140.08	13.14	0.002437				
1.08169	82649.44								
28.00	4432.38	10.68	5.78	5985.10	0.31				
1034.88	145.10	7.13	140.34	13.14	0.002437				
1.08451	82798.74								
29.00	4432.40	10.70	5.79	6012.85	0.31				
1038.61	145.29	7.15	140.53	13.14	0.002442				
1.08914	82909.84								
30.00	4432.47	10.77	5.81	6134.00	0.31				
1054.94	146.18	7.22	141.37	13.13	0.002440				
1.09895	83409.92								
31.00	4432.48	10.78	5.82	6152.21	0.31				
1057.40	146.32	7.23	141.51	13.13	0.002441				
1.10085	83488.23								
32.00	4432.50	10.80	5.82	6182.04	0.31				
1061.45	146.52	7.24	141.70	13.12	0.002447				
1.10611	83605.07								
33.00	4432.57	10.87	5.85	6307.78	0.31				
1078.56	147.43	7.32	142.57	13.11	0.002446				
1.11640	84116.84								
34.00	4432.58	10.88	5.85	6326.02	0.31				
1081.05	147.57	7.33	142.70	13.11	0.002446				
1.11795	84193.04								
35.00	4432.57	10.87	5.85	6296.00	0.31				
1076.96	147.36	7.31	142.50	13.11	0.002440				
1.11273	84076.59								
36.00	4432.49	10.79	5.82	6170.20	0.31				
1059.84	146.45	7.24	141.64	13.12	0.002441				
1.10224	83565.27								
37.00	4432.46	10.76	5.81	6123.85	0.31				
1053.57	146.12	7.21	141.31	13.13	0.002436				
1.09603	83375.35								
38.00	4432.39	10.69	5.79	6003.18	0.31				
1037.31	145.24	7.14	140.47	13.14	0.002437				

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1.08619	82877.49						
39.00	4432.38	10.68	5.78	5984.84	0.31		
1034.84	145.10	7.13		140.34	13.14	0.002437	
1.08468	82798.05						
40.00	4432.38	10.68	5.78	5985.23	0.31		
1034.90	145.10	7.13		140.34	13.14	0.002436	
1.08430	82799.26						
41.00	4432.38	10.68	5.78	5984.77	0.31		
1034.83	145.09	7.13		140.33	13.14	0.002437	
1.08476	82797.17						
42.00	4432.38	10.68	5.78	5985.05	0.31		
1034.87	145.10	7.13		140.34	13.14	0.002437	
1.08443	82799.10						
43.00	4432.40	10.70	5.79	6013.00	0.31		
1038.63	145.29	7.15		140.53	13.14	0.002443	
1.08978	82910.64						
44.00	4432.47	10.77	5.81	6134.25	0.31		
1054.98	146.18	7.22		141.37	13.13	0.002442	
1.09975	83411.09						
45.00	4432.50	10.80	5.82	6182.17	0.31		
1061.47	146.53	7.24		141.71	13.12	0.002446	
1.10576	83606.25						
46.00	4432.59	10.89	5.85	6339.03	0.31		
1082.85	147.64	7.33		142.78	13.11	0.002451	
1.12185	84237.80						
47.00	4432.69	10.99	5.88	6513.29	0.31		
1106.79	148.88	7.43		143.95	13.10	0.002460	
1.14128	84933.23						
48.00	4432.79	11.09	5.91	6687.38	0.31		
1130.94	150.09	7.54		145.11	13.08	0.002465	
1.15909	85617.10						
49.00	4432.89	11.19	5.94	6855.14	0.31		
1154.41	151.24	7.63		146.22	13.07	0.002472	
1.17745	86267.01						
50.00	4432.99	11.29	5.96	7034.11	0.31		
1179.68	152.45	7.74		147.37	13.06	0.002481	
1.19802	86948.84						
51.00	4433.10	11.40	5.99	7237.29	0.31		
1208.67	153.79	7.86		148.66	13.04	0.002497	
1.22455	87708.66						
52.00	4433.24	11.54	6.02	7506.35	0.31		
1246.61	155.55	8.01		150.34	13.02	0.002498	
1.24906	88702.66						
53.00	4433.28	11.58	6.04	7577.50	0.31		
1255.04	156.00	8.05		150.77	13.02	0.002498	
1.25396	88956.55						
54.00	4433.40	11.70	6.10	7816.16	0.31		
1281.46	157.44	8.14		152.15	13.00	0.002501	
1.27001	89767.34						
55.00	4433.69	11.99	6.24	8397.55	0.32		
1346.75	160.86	8.37		155.42	12.97	0.002506	
1.30936	91696.45						
56.00	4434.09	12.39	6.40	9265.53	0.32		
1446.69	165.71	8.73		160.06	12.92	0.002524	
1.37515	94434.99						
57.00	4434.58	12.88	6.59	10370.12	0.32		
1573.37	171.52	9.17		165.61	12.86	0.002538	
1.45284	97712.12						
58.00	4435.08	13.38	6.78	11582.70	0.33		
1707.54	177.49	9.62		171.32	12.80	0.002547	
1.52888	101077.88						
59.00	4435.48	13.78	6.92	12605.47	0.33		
1822.44	182.23	10.00		175.85	12.76	0.002561	

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1.59838	103749.07						
60.00	4435.93	14.22	7.07	13818.57	0.33		
1953.56	187.48	10.42		180.86	12.71	0.002577	
1.67543	106706.23						
61.00	4436.35	14.65	7.20	15018.03	0.33		
2085.33	192.48	10.83		185.64	12.67	0.002584	
1.74709	109528.02						
62.00	4436.63	14.93	7.28	15846.42	0.33		
2176.54	195.81	11.12		188.82	12.64	0.002599	
1.80255	111401.97						
63.00	4436.91	15.21	7.35	16664.39	0.33		
2267.97	199.02	11.40		191.88	12.62	0.002624	
1.86614	113207.27						
64.00	4437.11	15.41	7.39	17278.74	0.33		
2337.93	201.43	11.61		194.18	12.60	0.002632	
1.90608	114566.26						
65.00	4437.31	15.61	7.30	17795.45	0.33		
2438.19	202.74	12.03		196.32	12.58	0.002814	
2.11150	115830.92						
66.00	4437.54	15.84	7.09	18386.31	0.31		
2592.38	203.21	12.76		198.94	12.56	0.002935	
2.33633	117375.51						
67.00	4437.63	15.93	7.02	18616.21	0.31		
2653.51	203.39	13.05		199.93	12.55	0.002953	
2.40396	117959.37						
68.00	4437.65	15.95	7.00	18658.62	0.31		
2664.84	203.42	13.10		200.11	12.55	0.002964	
2.42259	118062.45						
69.00	4437.65	15.95	7.00	18670.40	0.31		
2667.99	203.43	13.12		200.15	12.55	0.002966	
2.42764	118088.29						
70.00	4437.66	15.96	6.99	18688.05	0.31		
2672.71	203.44	13.14		200.21	12.55	0.002971	
2.43581	118123.04						
71.00	4437.66	15.96	6.99	18702.27	0.31		
2676.51	203.45	13.16		200.27	12.55	0.002973	
2.44060	118156.81						
72.00	4437.66	15.96	6.99	18695.96	0.31		
2674.83	203.45	13.15		200.24	12.55	0.002962	
2.42983	118141.95						
73.00	4437.66	15.96	6.99	18705.06	0.31		
2677.26	203.45	13.16		200.27	12.55	0.002986	
2.45231	118161.96						
74.00	4437.72	16.02	6.93	18874.38	0.31		
2722.73	203.58	13.37		200.97	12.54	0.003056	
2.55030	118570.85						
75.00	4437.79	16.09	6.88	19040.11	0.30		
2767.61	203.70	13.59		201.65	12.54	0.003076	
2.60762	118976.12						
76.00	4437.80	16.10	6.87	19079.05	0.30		
2778.20	203.73	13.64		201.82	12.53	0.003094	
2.63250	119071.40						
77.00	4438.66	16.96	2.16	19249.93	0.09		
8914.11	205.44	43.39		211.30	12.46	0.002814	
7.61851	124664.99						
78.00	4439.20	17.50	0.00	0.00	0.00		
0.00	206.52	0.00		217.24	12.41	0.002994	
0.00000	128169.94						
79.00	4439.37	17.66	0.00	0.00	0.00		
0.00	206.86	0.00		219.07	12.40	0.002989	
0.00000	129251.67						
80.00	4439.50	17.80	0.00	0.00	0.00		
0.00	207.12	0.00		220.51	12.39	0.002960	

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0.00000	130102.02						
81.00	4439.64	17.94	0.00	0.00	0.00	0.00	
0.00	207.40	0.00	222.04	12.38		0.002929	
0.00000	131004.20						
82.00	4439.71	18.01	0.00	0.00	0.00	0.00	
0.00	207.55	0.00	222.88	12.37		0.002925	
0.00000	131499.52						
83.00	4439.65	17.95	0.00	0.00	0.00	0.00	
0.00	207.43	0.00	222.24	12.38		0.002945	
0.00000	131120.80						
84.00	4439.58	17.88	0.00	0.00	0.00	0.00	
0.00	207.29	0.00	221.45	12.38		0.002954	
0.00000	130657.53						
85.00	4439.57	17.87	0.00	0.00	0.00	0.00	
0.00	207.26	0.00	221.31	12.39		0.002955	
0.00000	130572.09						
86.00	4439.59	17.89	0.00	0.00	0.00	0.00	
0.00	207.30	0.00	221.53	12.38		0.002947	
0.00000	130700.84						
87.00	4439.59	17.89	0.00	0.00	0.00	0.00	
0.00	207.30	0.00	221.51	12.38		0.002958	
0.00000	130691.80						
88.00	4439.41	17.71	0.00	0.00	0.00	0.00	
0.00	206.94	0.00	219.53	12.40		0.002923	
0.00000	129523.62						
89.00	4438.40	16.70	3.66	19080.92	0.16		
5219.52	204.93	25.47	208.46	12.48		0.002790	
4.43495	122990.51						
90.00	4437.09	15.39	7.33	17156.91	0.33		
2341.43	201.19	11.64	193.95	12.60		0.002590	
1.88070	114431.13						
91.00	4436.62	14.92	7.27	15769.32	0.33		
2168.13	195.59	11.09	188.61	12.65		0.002572	
1.77908	111277.00						
92.00	4436.27	14.57	7.18	14766.18	0.33		
2057.56	191.55	10.74	184.75	12.68		0.002553	
1.71137	109004.32						
93.00	4435.89	14.19	7.06	13689.28	0.33		
1939.25	187.04	10.37	180.44	12.72		0.002545	
1.64651	106461.46						
94.00	4435.59	13.89	6.95	12868.02	0.33		
1850.90	183.48	10.09	177.04	12.75		0.002538	
1.59785	104454.80						
95.00	4435.34	13.64	6.87	12208.81	0.33		
1778.35	180.51	9.85	174.21	12.78		0.002537	
1.55982	102782.95						
96.00	4435.13	13.43	6.80	11678.99	0.33		
1718.16	178.04	9.65	171.85	12.80		0.002524	
1.51999	101389.57						
97.00	4434.89	13.19	6.71	11101.75	0.33		
1653.48	175.26	9.43	169.19	12.82		0.002523	
1.48555	99822.09						
98.00	4434.71	13.01	6.65	10674.70	0.32		
1606.33	173.15	9.28	167.17	12.84		0.002518	
1.45776	98629.91						
99.00	4434.55	12.85	6.58	10289.28	0.32		
1564.26	171.21	9.14	165.32	12.86		0.002519	
1.43602	97537.70						
100.00	4434.42	12.72	6.52	9992.50	0.32		
1531.60	169.69	9.03	163.87	12.88		0.002512	
1.41484	96681.62						
101.00	4434.26	12.56	6.47	9617.23	0.32		
1487.55	167.71	8.87	161.97	12.90		0.002504	

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102.00	1.38572	95561.89	12.42	8.74	6.42	9316.05	0.32	0.002499
1452.16	4434.12	166.08				160.42	12.91	
103.00	1.36335	94645.09	12.30	8.63	6.37	9050.01	0.32	0.002495
1421.20	4434.00	164.62				159.02	12.93	
104.00	1.34403	93822.18	12.20	8.55	6.33	8842.49	0.32	0.002494
1397.25	4433.90	163.46				157.91	12.94	
105.00	1.33032	93168.12	12.09	8.45	6.28	8601.28	0.32	0.002489
1369.67	4433.79	162.10				156.61	12.95	
106.00	1.31244	92399.91	11.93	8.32	6.21	8268.02	0.32	0.002492
1331.88	4433.63	160.17				154.76	12.97	
107.00	1.29320	91310.26	11.83	8.24	6.16	8071.61	0.32	0.002492
1309.82	4433.53	159.01				153.65	12.99	
108.00	1.28100	90653.30	11.75	8.17	6.12	7897.73	0.31	0.002493
1290.43	4433.45	157.97				152.66	13.00	
109.00	1.27065	90068.02	11.67	8.11	6.09	7758.93	0.31	0.002495
1275.03	4433.38	157.12				151.85	13.01	
110.00	1.26345	89590.27	11.68	8.12	6.09	7779.07	0.31	0.002497
1277.26	4433.38	157.24				151.95	13.01	
111.00	1.26582	89652.98	11.78	8.20	6.14	7975.16	0.32	0.002497
1299.08	4433.48	158.40				153.07	12.99	
112.00	1.27803	90313.09	11.89	8.29	6.19	8201.37	0.32	0.002491
1324.36	4433.59	159.76				154.37	12.98	
113.00	1.28874	91079.58	11.83	8.24	6.16	8070.83	0.32	0.002492
1309.73	4433.53	159.00				153.65	12.99	
114.00	1.28082	90651.18	11.80	8.21	6.15	8006.46	0.32	0.002497
1302.54	4433.50	158.60				153.26	12.99	
115.00	1.27976	90424.05	11.95	8.34	6.22	8325.50	0.32	0.002499
1338.41	4433.65	160.47				155.05	12.97	
116.00	1.30061	91476.59	12.08	8.45	6.28	8592.46	0.32	0.002492
1368.62	4433.78	162.03				156.54	12.95	
117.00	1.31319	92360.10	12.03	8.40	6.26	8487.45	0.32	0.002494
1356.67	4433.73	161.43				155.97	12.96	
118.00	1.30798	92022.99	12.02	8.40	6.25	8469.55	0.32	0.002494
1354.64	4433.73	161.33				155.87	12.96	
119.00	1.30674	91962.42	12.05	8.42	6.26	8513.87	0.32	0.002496
1359.68	4433.75	161.58				156.11	12.96	
120.00	1.31087	92102.41	12.11	8.47	6.29	8653.56	0.32	0.002495
1375.59	4433.81	162.38				156.87	12.95	
121.00	1.31896	92555.37	12.12	8.48	6.29	8669.78	0.32	0.002495
1377.44	4433.82	162.48				156.97	12.95	
122.00	1.31973	92610.09	12.10	8.46	6.29	8625.93	0.32	0.002492
1372.44	4433.80	162.23				156.73	12.95	

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1356.63	1.31557	92473.20	12.03	8.40	6.26	8487.11	0.32	0.002493
	123.00	4433.73				155.97	12.96	
	1.30750	92022.59						
1349.81	124.00	4433.71	12.00	8.38	6.24	8426.92	0.32	0.002491
		161.09				155.64	12.96	
	1.30267	91827.45						
1334.02	125.00	4433.64	11.94	8.32	6.21	8287.20	0.32	0.002494
		160.27				154.86	12.97	
	1.29558	91367.24						
1332.06	126.00	4433.63	11.93	8.32	6.21	8269.91	0.32	0.002493
		160.17				154.76	12.97	
	1.29382	91307.62						
1327.89	127.00	4433.61	11.91	8.30	6.20	8232.74	0.32	0.002491
		159.96				154.56	12.98	
	1.29043	91188.88						
1313.73	128.00	4433.55	11.85	8.25	6.17	8106.63	0.32	0.002494
		159.21				153.84	12.98	
	1.28421	90767.87						
1312.01	129.00	4433.54	11.84	8.25	6.17	8091.31	0.32	0.002493
		159.11				153.75	12.99	
	1.28288	90713.45						
1307.94	130.00	4433.52	11.82	8.23	6.16	8054.93	0.32	0.002492
		158.91				153.55	12.99	
	1.27968	90596.11						
1294.28	131.00	4433.46	11.76	8.18	6.13	7932.49	0.32	0.002495
		158.17				152.85	13.00	
	1.27377	90181.55						
1300.81	132.00	4433.49	11.79	8.21	6.14	7990.82	0.32	0.002498
		158.50				153.17	12.99	
	1.27930	90367.89						
1328.60	133.00	4433.61	11.91	8.30	6.20	8239.04	0.32	0.002493
		159.98				154.58	12.98	
	1.29192	91200.74						
1332.02	134.00	4433.63	11.93	8.32	6.21	8269.53	0.32	0.002494
		160.16				154.76	12.97	
	1.29419	91305.98						
1332.10	135.00	4433.63	11.93	8.32	6.21	8270.19	0.32	0.002493
		160.17				154.76	12.97	
	1.29396	91309.04						
1332.06	136.00	4433.63	11.93	8.32	6.21	8269.87	0.32	0.002494
		160.17				154.76	12.97	
	1.29404	91307.53						
1332.07	137.00	4433.63	11.93	8.32	6.21	8269.98	0.32	0.002493
		160.17				154.76	12.97	
	1.29374	91307.87						
1332.10	138.00	4433.63	11.93	8.32	6.21	8270.22	0.32	0.002494
		160.17				154.76	12.97	
	1.29443	91308.79						
1332.05	139.00	4433.63	11.93	8.32	6.21	8269.82	0.32	0.002494
		160.17				154.76	12.97	
	1.29449	91307.41						
1327.90	140.00	4433.61	11.91	8.30	6.20	8232.82	0.32	0.002492
		159.96				154.56	12.98	
	1.29083	91189.04						
1313.77	141.00	4433.55	11.85	8.25	6.17	8107.06	0.32	0.002493
		159.21				153.85	12.98	
	1.28371	90768.88						
1311.95	142.00	4433.54	11.84	8.25	6.17	8090.77	0.32	0.002493
		159.11				153.75	12.99	
	1.28289	90712.56						
1311.97	143.00	4433.54	11.84	8.25	6.17	8091.00	0.32	0.002494
		159.11				153.75	12.99	

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1311.97	1.28309	90712.60	11.84	8.25	6.17	8090.97	0.32	0.002494
	144.00	4433.54				153.75	12.99	
		159.11						
1308.01	1.28329	90712.52	11.82	8.23	6.16	8055.50	0.32	0.002492
	145.00	4433.52				153.56	12.99	
		158.91						
1294.26	1.27988	90597.78	11.76	8.18	6.13	7932.30	0.32	0.002494
	146.00	4433.46				152.85	13.00	
		158.17						
1292.56	1.27357	90181.18	11.75	8.18	6.13	7917.03	0.31	0.002495
	147.00	4433.45				152.76	13.00	
		158.07						
1292.56	1.27291	90126.62	11.75	8.18	6.13	7917.04	0.31	0.002494
	148.00	4433.45				152.76	13.00	
		158.07						
1292.56	1.27240	90126.20	11.75	8.18	6.13	7917.00	0.31	0.002494
	149.00	4433.45				152.76	13.00	
		158.07						
1292.55	1.27261	90126.35	11.75	8.18	6.13	7916.93	0.31	0.002494
	150.00	4433.45				152.76	13.00	
		158.07						
1289.97	1.27267	90126.69	11.74	8.17	6.12	7893.67	0.31	0.002494
	151.00	4433.44				152.63	13.00	
		157.94						
1279.55	1.27084	90049.94	11.70	8.13	6.10	7799.78	0.31	0.002494
	152.00	4433.40				152.09	13.00	
		157.37						
1273.82	1.26522	89730.40	11.67	8.11	6.08	7748.04	0.31	0.002495
	153.00	4433.37				151.78	13.01	
		157.06						
1273.24	1.26290	89551.36	11.67	8.11	6.08	7742.79	0.31	0.002496
	154.00	4433.37				151.75	13.01	
		157.02						
1269.43	1.26317	89531.94	11.65	8.09	6.07	7708.23	0.31	0.002494
	155.00	4433.35				151.55	13.01	
		156.82						
1263.67	1.25964	89416.75	11.62	8.08	6.06	7655.87	0.31	0.002499
	156.00	4433.32				151.23	13.01	
		156.48						
1289.03	1.25934	89227.27	11.74	8.16	6.12	7885.16	0.31	0.002495
	157.00	4433.44				152.56	13.00	
		157.87						
1292.54	1.27099	90013.27	11.75	8.18	6.13	7916.82	0.31	0.002494
	158.00	4433.45				152.76	13.00	
		158.07						
1292.57	1.27277	90125.99	11.75	8.18	6.13	7917.17	0.31	0.002495
	159.00	4433.45				152.76	13.00	
		158.08						
1292.52	1.27288	90127.11	11.75	8.18	6.13	7916.71	0.31	0.002494
	160.00	4433.45				152.76	13.00	
		158.07						
1292.57	1.27268	90125.77	11.75	8.18	6.13	7917.11	0.31	0.002495
	161.00	4433.45				152.76	13.00	
		158.08						
1292.59	1.27280	90127.23	11.75	8.18	6.13	7917.29	0.31	0.002494
	162.00	4433.45				152.76	13.00	
		158.08						
1292.54	1.27254	90127.20	11.75	8.18	6.13	7916.82	0.31	0.002494
	163.00	4433.45				152.76	13.00	
		158.07						
1292.54	1.27262	90125.65	11.75	8.18	6.13	7916.87	0.31	0.002494
	164.00	4433.45				152.76	13.00	
		158.07						

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1288.64	1.27275	90126.55	11.74	8.16	6.12	7881.67	0.31	0.002493
	165.00	4433.44				152.56	13.00	
	157.87							
1274.96	1.26970	90010.77	11.67	8.11	6.09	7758.32	0.31	0.002497
	166.00	4433.38				151.84	13.01	
	157.12							
1273.25	1.26421	89588.20	11.67	8.11	6.08	7742.87	0.31	0.002496
	167.00	4433.37				151.75	13.01	
	157.02							
1273.30	1.26277	89532.42	11.67	8.11	6.08	7743.34	0.31	0.002495
	168.00	4433.37				151.75	13.01	
	157.03							
1273.22	1.26239	89534.39	11.67	8.11	6.08	7742.64	0.31	0.002494
	169.00	4433.37				151.75	13.01	
	157.02							
1273.30	1.26178	89531.84	11.67	8.11	6.08	7743.37	0.31	0.002496
	170.00	4433.37				151.75	13.01	
	157.02							
1273.26	1.26283	89533.74	11.67	8.11	6.08	7742.95	0.31	0.002495
	171.00	4433.37				151.75	13.01	
	157.02							
1273.25	1.26264	89532.97	11.67	8.11	6.08	7742.88	0.31	0.002494
	172.00	4433.37				151.75	13.01	
	157.02							
1269.40	1.26205	89532.53	11.65	8.09	6.07	7707.99	0.31	0.002494
	173.00	4433.35				151.55	13.01	
	156.82							
1255.80	1.25955	89416.25	11.59	8.05	6.04	7584.54	0.31	0.002498
	174.00	4433.29				150.83	13.02	
	156.06							
1254.10	1.25420	88987.70	11.58	8.04	6.04	7569.10	0.31	0.002497
	175.00	4433.28				150.73	13.02	
	155.96							
1254.09	1.25279	88931.08	11.58	8.04	6.04	7568.95	0.31	0.002497
	176.00	4433.28				150.73	13.02	
	155.96							
1254.08	1.25278	88930.61	11.58	8.04	6.04	7568.91	0.31	0.002498
	177.00	4433.28				150.73	13.02	
	155.95							
1254.11	1.25365	88930.02	11.58	8.04	6.04	7569.18	0.31	0.002497
	178.00	4433.28				150.73	13.02	
	155.96							
1254.08	1.25287	88931.32	11.58	8.04	6.04	7568.85	0.31	0.002498
	179.00	4433.28				150.73	13.02	
	155.96							
1261.99	1.25367	88930.44	11.61	8.07	6.05	7640.52	0.31	0.002498
	180.00	4433.31				151.14	13.01	
	156.38							
1289.02	1.25808	89171.51	11.74	8.16	6.12	7885.11	0.31	0.002494
	181.00	4433.44				152.56	13.00	
	157.87							
1296.61	1.27054	90013.05	11.77	8.19	6.13	7953.32	0.32	0.002496
	182.00	4433.47				152.96	12.99	
	158.29							
1310.18	1.27585	90245.88	11.83	8.24	6.16	8075.00	0.32	0.002495
	183.00	4433.53				153.65	12.99	
	159.01							
1311.96	1.28260	90656.30	11.84	8.25	6.17	8090.91	0.32	0.002494
	184.00	4433.54				153.75	12.99	
	159.11							
1311.94	1.28302	90712.54	11.84	8.25	6.17	8090.70	0.32	0.002494
	185.00	4433.54				153.75	12.99	
	159.11							

## HYCHAN.OUT

1311.99	1.28314	90712.03	11.84	8.25	6.17	8091.19	0.32	0.002494
	186.00	4433.54						
	1.28310	90713.07	11.84	8.25	6.17	8091.18	0.32	0.002493
	187.00	4433.54						
	1.28288	90713.21	11.84	8.25	6.17	8090.96	0.32	0.002494
	188.00	4433.54						
	1.28306	90712.56	11.84	8.25	6.17	8090.89	0.32	0.002494
	189.00	4433.54						
	1.28305	90712.65	11.84	8.25	6.17	8091.04	0.32	0.002493
	190.00	4433.54						
	1.28288	90712.88	11.82	8.23	6.16	8055.37	0.32	0.002492
	191.00	4433.52						
	1.27975	90597.23	11.76	8.18	6.13	7932.37	0.32	0.002495
	192.00	4433.46						
	1.27375	90181.54	11.75	8.18	6.13	7917.10	0.31	0.002494
	193.00	4433.45						
	1.27245	90126.97	11.75	8.18	6.13	7917.02	0.31	0.002495
	194.00	4433.45						
	1.27329	90126.33	11.75	8.18	6.13	7917.04	0.31	0.002493
	195.00	4433.45						
	1.27220	90126.72	11.75	8.18	6.13	7917.13	0.31	0.002495
	196.00	4433.45						
	1.27295	90126.46	11.75	8.18	6.13	7917.04	0.31	0.002494
	197.00	4433.45						
	1.27233	90126.66	11.75	8.18	6.13	7917.17	0.31	0.002493
	198.00	4433.45						
	1.27213	90126.92	11.75	8.18	6.12	7916.52	0.31	0.002495
	199.00	4433.45						
	1.27309	90124.47						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 1975

MAXIMUM DISCHARGE (CFS) = 20972.81 AT TIME = 88.49  
 MAXIMUM STAGE = 4434.81 AT TIME = 81.49

AREA	TIME WETTED	ELEV. PERIMETER	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR STRESS	(HRS)	(FT)	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(LB/FT^2)	(FT)	(FT)	(FPS)	(CFS)		
0.00	0.00	4419.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4419.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00	2.00	4419.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
711.05	3.00	4421.42	2.02	1.48	1054.96	0.18			0.003011
	4.07665	32.77	21.70	32.17	15.91				
921.80	4.00	4428.68	9.28	5.97	5505.45	0.35			0.002960
	1.33047	127.97	7.20	123.93	13.35				
911.55	5.00	4428.61	9.21	5.92	5399.68	0.34			0.002962
	1.32487	127.16	7.17	123.15	13.37				
907.41	6.00	4428.59	9.19	5.91	5358.52	0.34			0.002956
	1.31994	126.82	7.15	122.83	13.37				
894.51	7.00	4428.50	9.10	5.85	5229.95	0.34			0.002954
	1.31059	125.79	7.11	121.84	13.38				
879.15	8.00	4428.40	9.00	5.78	5079.82	0.34			0.002949
	1.29898	124.55	7.06	120.65	13.40				
864.08	9.00	4428.30	8.90	5.71	4934.67	0.34			0.002945
	1.28773	123.32	7.01	119.47	13.42				
849.84	10.00	4428.21	8.81	5.65	4799.79	0.34			0.002947
	1.27939	122.16	6.96	118.36	13.43				
845.04	11.00	4428.18	8.78	5.63	4759.03	0.34			0.002944
	1.27495	121.76	6.94	117.98	13.44				
831.71	12.00	4428.09	8.69	5.58	4637.12	0.33			0.002940
	1.26471	120.66	6.89	116.91	13.46				
816.63	13.00	4427.99	8.59	5.51	4499.01	0.33			0.002941
	1.25524	119.40	6.84	115.71	13.47				
813.19	14.00	4427.96	8.56	5.50	4468.91	0.33			0.002941
	1.25307	119.11	6.83	115.44	13.48				
813.21	15.00	4427.97	8.56	5.50	4469.04	0.33			0.002941
	1.25275	119.11	6.83	115.44	13.48				
813.20	16.00	4427.97	8.56	5.50	4468.96	0.33			0.002941
	1.25307	119.11	6.83	115.44	13.48				
813.20	17.00	4427.97	8.56	5.50	4469.01	0.33			0.002941
	1.25298	119.11	6.83	115.44	13.48				
814.51	18.00	4427.97	8.57	5.50	4480.86	0.33			0.002945
	1.25553	119.23	6.83	115.54	13.48				
828.15	19.00	4428.07	8.67	5.56	4604.04	0.33			0.002948
	1.26549	120.37	6.88	116.64	13.46				
845.03	20.00	4428.18	8.78	5.63	4758.36	0.34			0.002951
	1.27805	121.77	6.94	117.98	13.44				
859.80	21.00	4428.28	8.88	5.70	4897.25	0.34			0.002950
	1.28691	122.98	6.99	119.14	13.42				
862.73	22.00	4428.30	8.90	5.71	4923.86	0.34			0.002950
	1.28896	123.22	7.00	119.37	13.42				
		66848.60							

HYCHAN.OUT							
864.24	23.00	4428.31	8.91	5.71	4939.04	0.34	0.002955
	1.29213	123.34	7.01	119.49	13.42		
	24.00	4428.41	9.01	5.79	5088.55	0.34	
879.53	1.30530	124.59	7.06	120.69	13.40		0.002963
	25.00	4428.60	9.20	5.92	5375.85	0.34	
908.66	1.32678	126.93	7.16	122.93	13.37		0.002970
	26.00	4428.79	9.39	6.05	5685.27	0.35	
939.46	1.34883	129.37	7.26	125.27	13.34		0.002977
	27.00	4428.96	9.56	6.16	5946.52	0.35	
965.12	1.36400	131.37	7.35	127.19	13.31		0.002975
	28.00	4428.98	9.58	6.18	5985.14	0.35	
969.07	1.36607	131.67	7.36	127.48	13.31		0.002975
	29.00	4429.00	9.60	6.19	6010.22	0.35	
971.39	1.36957	131.85	7.37	127.65	13.30		0.002979
	30.00	4429.07	9.67	6.24	6131.67	0.35	
983.02	1.37638	132.75	7.40	128.51	13.29		0.002979
	31.00	4429.08	9.68	6.25	6152.28	0.35	
985.11	1.37725	132.91	7.41	128.66	13.29		0.002978
	32.00	4429.10	9.70	6.26	6179.22	0.35	
987.54	1.38158	133.10	7.42	128.85	13.29		0.002984
	33.00	4429.17	9.77	6.31	6305.47	0.36	
999.58	1.38800	134.02	7.46	129.73	13.28		0.002982
	34.00	4429.19	9.78	6.32	6326.03	0.36	
1001.60	1.38937	134.17	7.46	129.87	13.27		0.002983
	35.00	4429.17	9.77	6.30	6298.74	0.36	
999.16	1.38558	133.99	7.46	129.69	13.28		0.002978
	36.00	4429.09	9.69	6.25	6172.55	0.35	
987.17	1.37875	133.07	7.42	128.81	13.29		0.002978
	37.00	4429.07	9.67	6.23	6126.45	0.35	
982.73	1.37394	132.73	7.40	128.49	13.29		0.002974
	38.00	4428.99	9.59	6.18	6005.46	0.35	
971.16	1.36765	131.83	7.37	127.63	13.30		0.002975
	39.00	4428.98	9.58	6.18	5984.86	0.35	
969.04	1.36617	131.67	7.36	127.48	13.31		0.002975
	40.00	4428.98	9.58	6.18	5985.30	0.35	
969.06	1.36582	131.67	7.36	127.48	13.31		0.002974
	41.00	4428.98	9.58	6.18	5984.72	0.35	
969.00	1.36622	131.67	7.36	127.47	13.31		0.002975
	42.00	4428.98	9.58	6.18	5985.05	0.35	
969.05	1.36608	131.67	7.36	127.48	13.31		0.002975
	43.00	4429.00	9.60	6.19	6010.37	0.35	
971.40	1.37007	131.86	7.37	127.65	13.30		0.002980
		71485.95					

		HYCHAN.OUT					
983.06	44.00 4429.07 1.37649 132.76 71968.45	9.67	7.41	6.24	128.52	6131.96	13.29 0.35 0.002979
987.60	45.00 4429.10 1.38127 133.10 72155.75	9.70	7.42	6.26	128.85	6179.41	13.29 0.35 0.002983
1002.15	46.00 4429.19 1.39176 134.22 72753.12	9.79	7.47	6.32	129.92	6333.93	13.27 0.36 0.002987
1018.56	47.00 4429.29 1.40373 135.46 73421.55	9.89	7.52	6.39	131.11	6508.31	13.26 0.36 0.002992
1034.75	48.00 4429.39 1.41485 136.68 74076.27	9.99	7.57	6.46	132.28	6682.25	13.24 0.36 0.002995
1050.29	49.00 4429.48 1.42603 137.85 74699.84	10.08	7.62	6.52	133.39	6850.51	13.23 0.36 0.002999
1066.57	50.00 4429.58 1.43699 139.05 75348.46	10.18	7.67	6.59	134.55	7028.90	13.21 0.36 0.003002
1084.69	51.00 4429.69 1.45129 140.39 76064.72	10.29	7.73	6.67	135.83	7229.74	13.20 0.37 0.003010
1109.09	52.00 4429.84 1.46504 142.17 77020.62	10.44	7.80	6.76	137.54	7501.87	13.17 0.37 0.003010
1115.52	53.00 4429.88 1.47071 142.64 77270.41	10.48	7.82	6.79	137.98	7574.73	13.17 0.37 0.003014
1134.86	54.00 4429.99 1.48904 144.03 78018.40	10.59	7.88	6.88	139.32	7805.43	13.15 0.37 0.003029
1182.15	55.00 4430.27 1.52717 147.39 79819.91	10.87	8.02	7.09	142.54	8378.72	13.11 0.38 0.003051
1250.51	56.00 4430.66 1.57929 152.14 82364.31	11.26	8.22	7.39	147.08	9239.85	13.06 0.39 0.003079
1334.90	57.00 4431.13 1.63955 157.84 85417.80	11.73	8.46	7.75	152.53	10339.54	13.00 0.40 0.003107
1426.76	58.00 4431.64 1.68375 163.87 88646.26	12.24	8.71	8.10	158.30	11555.03	12.94 0.41 0.003099
1502.76	59.00 4432.04 1.71926 168.71 91239.94	12.64	8.91	8.37	162.93	12582.35	12.89 0.42 0.003093
1588.44	60.00 4432.49 1.75394 174.02 94081.91	13.09	9.13	8.68	168.00	13786.35	12.84 0.42 0.003079
1674.25	61.00 4432.93 1.78209 179.22 96862.58	13.53	9.34	8.96	172.97	14994.35	12.79 0.43 0.003057
1732.30	62.00 4433.22 1.80569 182.66 98704.69	13.82	9.48	9.14	176.26	15829.48	12.76 0.43 0.003051
1786.00	63.00 4433.48 1.83112 185.79 100379.49	14.08	9.61	9.32	179.25	16646.90	12.73 0.44 0.003053
1826.26	64.00 4433.68 1.85281 188.11 101619.66	14.28	9.71	9.45	181.46	17266.16	12.71 0.44 0.003058

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HYCHAN.OUT							
1858.75	65.00	4433.84	14.44	9.56	17777.11	0.44	0.003088
	1.88568	189.96	9.78	183.23	12.69		
		102611.33					
1894.56	66.00	4434.02	14.62	9.69	18350.59	0.45	0.003105
	1.92140	191.05	9.92	185.30	12.67		
		103769.27					
1908.79	67.00	4434.10	14.70	9.73	18568.42	0.45	0.003099
	1.93046	191.20	9.98	186.16	12.67		
		104248.38					
1911.53	68.00	4434.11	14.71	9.73	18605.88	0.45	0.003103
	1.93519	191.23	10.00	186.32	12.67		
		104340.16					
1912.34	69.00	4434.12	14.72	9.73	18614.13	0.45	0.003099
	1.93382	191.24	10.00	186.37	12.66		
		104367.27					
1912.99	70.00	4434.12	14.72	9.74	18626.41	0.45	0.003101
	1.93565	191.25	10.00	186.41	12.66		
		104389.03					
1913.54	71.00	4434.12	14.72	9.74	18639.35	0.45	0.003103
	1.93742	191.26	10.01	186.44	12.66		
		104407.39					
1913.18	72.00	4434.12	14.72	9.74	18634.03	0.45	0.003101
	1.93544	191.25	10.00	186.42	12.66		
		104395.23					
1913.53	73.00	4434.12	14.72	9.74	18640.46	0.45	0.003104
	1.93787	191.26	10.01	186.44	12.66		
		104407.48					
1922.47	74.00	4434.17	14.77	9.77	18786.97	0.45	0.003113
	1.95134	191.35	10.05	186.98	12.66		
		104711.12					
1931.96	75.00	4434.22	14.82	9.80	18935.55	0.45	0.003112
	1.95929	191.45	10.09	187.56	12.65		
		105031.63					
1934.51	76.00	4434.24	14.84	9.81	18970.09	0.45	0.003114
	1.96325	191.48	10.10	187.71	12.65		
		105117.49					
1940.03	77.00	4434.26	14.86	9.63	18673.19	0.44	0.003642
	2.30196	191.53	10.13	188.00	12.65		
		105277.92					
1966.08	78.00	4434.40	15.00	9.60	18866.81	0.44	0.003654
	2.33723	191.81	10.25	189.52	12.64		
		106132.75					
1990.39	79.00	4434.53	15.13	9.67	19251.77	0.44	0.003666
	2.37083	192.07	10.36	190.98	12.62		
		106949.99					
2009.14	80.00	4434.63	15.23	9.73	19554.56	0.44	0.003677
	2.39776	192.27	10.45	192.11	12.61		
		107579.98					
2028.35	81.00	4434.73	15.33	9.80	19875.35	0.44	0.003690
	2.42655	192.48	10.54	193.26	12.61		
		108225.60					
2039.62	82.00	4434.79	15.39	9.83	20055.35	0.44	0.003687
	2.43668	192.60	10.59	193.93	12.60		
		108600.95					
2032.01	83.00	4434.75	15.35	9.81	19925.33	0.44	0.003677
	2.42167	192.51	10.56	193.47	12.60		
		108342.30					
2021.97	84.00	4434.70	15.30	9.77	19757.46	0.44	0.003675
	2.40960	192.40	10.51	192.87	12.61		
		108006.54					
2019.80	85.00	4434.69	15.29	9.77	19726.35	0.44	0.003676
	2.40837	192.38	10.50	192.74	12.61		
		107934.77					

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HYCHAN.OUT							
2022.57	86.00	4434.70	15.30	9.77	19768.79	0.44	0.003678
	2.41224	192.41	10.51		192.91	12.61	
		108028.05					
2022.62	87.00	4434.70	15.30	9.77	19767.79	0.44	0.003670
	2.40730	192.41	10.51		192.90	12.61	
		108026.38					
1998.14	88.00	4434.57	15.17	9.69	19366.51	0.44	0.003642
	2.36312	192.14	10.40		191.42	12.62	
		107194.05					
1945.30	89.00	4434.29	14.89	9.66	18795.57	0.44	0.003047
	1.93058	191.58	10.15		188.28	12.65	
		105435.64					
1827.15	90.00	4433.68	14.28	9.42	17206.11	0.44	0.003033
	1.83809	188.11	9.71		181.46	12.71	
		101618.20					
1732.49	91.00	4433.22	13.82	9.12	15793.08	0.43	0.003046
	1.80319	182.65	9.49		176.25	12.76	
		98697.80					
1662.51	92.00	4432.86	13.46	8.90	14791.47	0.43	0.003063
	1.77998	178.49	9.31		172.28	12.79	
		96474.48					
1585.08	93.00	4432.47	13.07	8.65	13711.88	0.42	0.003075
	1.74995	173.80	9.12		167.80	12.84	
		93965.73					
1526.07	94.00	4432.16	12.76	8.44	12885.61	0.42	0.003082
	1.72470	170.16	8.97		164.31	12.87	
		92014.52					
1477.91	95.00	4431.91	12.51	8.27	12222.23	0.41	0.003091
	1.70536	167.13	8.84		161.42	12.90	
		90395.12					
1438.62	96.00	4431.70	12.30	8.13	11693.96	0.41	0.003088
	1.68402	164.62	8.74		159.02	12.93	
		89050.98					
1394.35	97.00	4431.46	12.06	7.97	11114.02	0.40	0.003094
	1.66439	161.76	8.62		156.28	12.96	
		87519.48					
1361.53	98.00	4431.28	11.88	7.85	10684.98	0.40	0.003083
	1.64123	159.61	8.53		154.23	12.98	
		86368.09					
1332.63	99.00	4431.12	11.72	7.73	10296.85	0.40	0.003078
	1.62307	157.70	8.45		152.40	13.00	
		85343.63					
1310.45	100.00	4431.00	11.60	7.63	10001.52	0.40	0.003067
	1.60563	156.22	8.39		150.98	13.02	
		84547.97					
1281.61	101.00	4430.84	11.44	7.51	9625.77	0.39	0.003058
	1.58528	154.27	8.31		149.12	13.04	
		83505.56					
1258.23	102.00	4430.71	11.31	7.41	9323.08	0.39	0.003051
	1.56891	152.68	8.24		147.59	13.05	
		82652.17					
1237.40	103.00	4430.59	11.19	7.32	9056.04	0.39	0.003045
	1.55441	151.25	8.18		146.22	13.07	
		81885.73					
1220.85	104.00	4430.49	11.09	7.25	8847.70	0.38	0.003040
	1.54267	150.10	8.13		145.13	13.08	
		81272.21					
1201.80	105.00	4430.38	10.98	7.16	8609.62	0.38	0.003029
	1.52682	148.77	8.08		143.85	13.10	
		80558.62					
1174.47	106.00	4430.22	10.82	7.05	8275.00	0.38	0.003024
	1.50938	146.85	8.00		142.02	13.12	
		79528.78					

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HYCHAN.OUT							
107.00	4430.13	10.73	6.97	8076.23	0.38		
1157.91	145.68	7.95	140.89	13.13	0.003020		
1.49786	78900.27						
108.00	4430.04	10.64	6.91	7902.40	0.37		
1143.48	144.65	7.91	139.91	13.15	0.003014		
1.48666	78347.61						
109.00	4429.97	10.57	6.86	7760.78	0.37		
1131.47	143.79	7.87	139.08	13.16	0.003015		
1.48049	77886.62						
110.00	4429.98	10.58	6.87	7776.26	0.37		
1132.62	143.87	7.87	139.17	13.15	0.003020		
1.48340	77932.45						
111.00	4430.07	10.67	6.94	7967.73	0.37		
1148.55	145.02	7.92	140.26	13.14	0.003029		
1.49689	78545.42						
112.00	4430.19	10.79	7.02	8200.46	0.38		
1168.02	146.40	7.98	141.58	13.13	0.003024		
1.50537	79287.46						
113.00	4430.13	10.73	6.97	8075.40	0.38		
1157.87	145.68	7.95	140.89	13.13	0.003020		
1.49764	78898.66						
114.00	4430.09	10.69	6.95	8002.75	0.37		
1151.60	145.23	7.93	140.47	13.14	0.003029		
1.49875	78661.85						
115.00	4430.24	10.84	7.06	8315.33	0.38		
1177.25	147.05	8.01	142.21	13.12	0.003040		
1.51842	79638.27						
116.00	4430.37	10.97	7.16	8591.57	0.38		
1200.01	148.65	8.07	143.74	13.10	0.003035		
1.52864	80495.71						
117.00	4430.33	10.93	7.12	8489.45	0.38		
1191.81	148.08	8.05	143.19	13.11	0.003034		
1.52385	80186.72						
118.00	4430.32	10.92	7.12	8469.58	0.38		
1190.12	147.96	8.04	143.08	13.11	0.003035		
1.52310	80123.89						
119.00	4430.34	10.93	7.13	8510.72	0.38		
1193.39	148.19	8.05	143.30	13.10	0.003039		
1.52731	80247.65						
120.00	4430.40	11.00	7.18	8651.53	0.38		
1204.83	148.99	8.09	144.07	13.10	0.003039		
1.53372	80676.72						
121.00	4430.41	11.01	7.19	8669.76	0.38		
1206.36	149.10	8.09	144.17	13.09	0.003040		
1.53475	80733.75						
122.00	4430.39	10.99	7.17	8629.10	0.38		
1203.18	148.87	8.08	143.95	13.10	0.003034		
1.53024	80613.25						
123.00	4430.33	10.93	7.12	8489.15	0.38		
1191.81	148.08	8.05	143.19	13.11	0.003034		
1.52391	80186.54						
124.00	4430.30	10.90	7.10	8430.12	0.38		
1187.01	147.74	8.03	142.87	13.11	0.003029		
1.51853	80005.05						
125.00	4430.23	10.83	7.05	8289.28	0.38		
1175.44	146.92	8.00	142.09	13.12	0.003029		
1.51232	79568.22						
126.00	4430.22	10.82	7.05	8269.88	0.38		
1173.76	146.81	8.00	141.97	13.12	0.003029		
1.51112	79505.52						
127.00	4430.21	10.80	7.03	8235.54	0.38		
1171.07	146.61	7.99	141.79	13.12	0.003024		
1.50727	79401.98						

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HYCHAN.OUT							
1160.55	128.00	4430.14	10.74	7.96	6.99	8108.59	0.38
	1.50129	145.87				141.08	13.13
		79002.28					0.003024
1159.00	129.00	4430.13	10.73	7.95	6.98	8091.29	0.38
	1.50039	145.76				140.97	13.13
		78943.78					0.003024
1156.35	130.00	4430.12	10.72	7.94	6.97	8057.68	0.38
	1.49667	145.57				140.79	13.13
		78841.70					0.003019
1146.01	131.00	4430.06	10.66	7.91	6.92	7934.37	0.37
	1.49096	144.83				140.08	13.14
		78446.30					0.003020
1150.03	132.00	4430.08	10.68	7.92	6.94	7985.18	0.37
	1.49778	145.12				140.36	13.14
		78601.87					0.003029
1170.82	133.00	4430.20	10.80	7.99	7.03	8235.34	0.38
	1.50942	146.60				141.78	13.12
		79394.52					0.003029
1173.73	134.00	4430.22	10.82	8.00	7.05	8269.49	0.38
	1.51102	146.80				141.97	13.12
		79504.42					0.003029
1173.83	135.00	4430.22	10.82	8.00	7.05	8270.18	0.38
	1.51129	146.81				141.98	13.12
		79507.80					0.003029
1173.77	136.00	4430.22	10.82	8.00	7.05	8269.91	0.38
	1.51130	146.81				141.97	13.12
		79505.57					0.003029
1173.77	137.00	4430.22	10.82	8.00	7.05	8269.96	0.38
	1.51112	146.81				141.97	13.12
		79505.63					0.003029
1173.79	138.00	4430.22	10.82	8.00	7.05	8270.20	0.38
	1.51139	146.81				141.98	13.12
		79506.59					0.003029
1173.77	139.00	4430.22	10.82	8.00	7.05	8269.86	0.38
	1.51129	146.81				141.97	13.12
		79505.66					0.003029
1171.06	140.00	4430.21	10.80	7.99	7.03	8235.62	0.38
	1.50713	146.61				141.79	13.12
		79401.73					0.003024
1160.54	141.00	4430.14	10.74	7.96	6.99	8108.92	0.38
	1.50129	145.87				141.08	13.13
		79002.11					0.003024
1159.01	142.00	4430.13	10.73	7.95	6.98	8090.82	0.38
	1.50039	145.76				140.97	13.13
		78944.31					0.003024
1158.98	143.00	4430.13	10.73	7.95	6.98	8091.00	0.38
	1.50038	145.76				140.97	13.13
		78943.05					0.003024
1158.98	144.00	4430.13	10.73	7.95	6.98	8090.97	0.38
	1.50042	145.76				140.97	13.13
		78943.01					0.003024
1156.39	145.00	4430.12	10.72	7.94	6.97	8058.20	0.38
	1.49669	145.57				140.79	13.13
		78843.15					0.003019
1146.02	146.00	4430.06	10.66	7.91	6.92	7934.22	0.37
	1.49078	144.83				140.08	13.14
		78446.48					0.003019
1144.50	147.00	4430.05	10.65	7.91	6.92	7917.03	0.37
	1.49019	144.72				139.98	13.14
		78388.96					0.003020
1144.47	148.00	4430.05	10.65	7.91	6.92	7916.99	0.37
	1.49027	144.72				139.98	13.14
		78387.67					0.003020

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1144.48	149.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003019	
	1.48988	144.72							
		78388.27							
1144.51	150.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003019	
	1.48984	144.73							
		78389.45							
1142.76	151.00	4430.04	10.64	7.90	6.91	139.86	13.15	0.003017	
	1.48759	144.60							
		78321.59							
1134.92	152.00	4429.99	10.59	7.88	6.87	139.32	13.15	0.003014	
	1.48200	144.04							
		78019.77							
1130.39	153.00	4429.97	10.57	7.87	6.85	139.01	13.16	0.003015	
	1.47968	143.71							
		77845.64							
1129.85	154.00	4429.96	10.56	7.86	6.85	138.97	13.16	0.003014	
	1.47910	143.67							
		77824.73							
1127.25	155.00	4429.95	10.55	7.86	6.84	138.79	13.16	0.003010	
	1.47539	143.48							
		77723.21							
1122.12	156.00	4429.92	10.52	7.84	6.82	138.44	13.16	0.003019	
	1.47717	143.12							
		77526.54							
1141.38	157.00	4430.03	10.63	7.90	6.91	139.77	13.15	0.003020	
	1.48832	144.50							
		78270.09							
1144.49	158.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003020	
	1.49011	144.72							
		78388.55							
1144.50	159.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003020	
	1.49014	144.72							
		78388.97							
1144.48	160.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003020	
	1.49010	144.72							
		78388.37							
1144.51	161.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003019	
	1.48998	144.72							
		78389.26							
1144.49	162.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003019	
	1.48996	144.72							
		78388.80							
1144.46	163.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003019	
	1.48986	144.72							
		78387.60							
1144.50	164.00	4430.05	10.65	7.91	6.92	139.98	13.14	0.003020	
	1.49019	144.72							
		78388.82							
1141.86	165.00	4430.03	10.63	7.90	6.90	139.80	13.15	0.003015	
	1.48623	144.53							
		78286.48							
1131.41	166.00	4429.97	10.57	7.87	6.86	139.08	13.16	0.003015	
	1.48056	143.78							
		77884.48							
1129.86	167.00	4429.96	10.56	7.86	6.85	138.97	13.16	0.003015	
	1.47933	143.67							
		77825.13							
1129.91	168.00	4429.96	10.56	7.86	6.85	138.98	13.16	0.003015	
	1.47944	143.68							
		77827.27							
1129.84	169.00	4429.96	10.56	7.86	6.85	138.97	13.16	0.003014	
	1.47879	143.67							
		77824.66							

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HYCHAN.OUT							
1129.88	170.00	4429.96	10.56	7.86	6.85	7743.29	0.37
		143.67				138.97	13.16
	1.47955	77825.95					0.003015
1129.89	171.00	4429.96	10.56	7.86	6.85	7742.99	0.37
		143.68				138.98	13.16
	1.47957	77826.62					0.003015
1129.87	172.00	4429.96	10.56	7.86	6.85	7742.83	0.37
		143.67				138.97	13.16
	1.47937	77825.77					0.003015
1127.25	173.00	4429.95	10.55	7.86	6.84	7710.78	0.37
		143.48				138.79	13.16
	1.47536	77723.34					0.003009
1116.69	174.00	4429.88	10.48	7.82	6.79	7586.44	0.37
		142.72				138.06	13.17
	1.46930	77314.34					0.003009
1115.11	175.00	4429.88	10.48	7.82	6.79	7569.07	0.37
		142.61				137.95	13.17
	1.46841	77253.91					0.003009
1115.09	176.00	4429.88	10.48	7.82	6.79	7568.95	0.37
		142.61				137.95	13.17
	1.46865	77252.98					0.003010
1115.07	177.00	4429.88	10.47	7.82	6.79	7568.96	0.37
		142.60				137.95	13.17
	1.46865	77252.38					0.003010
1115.12	178.00	4429.88	10.48	7.82	6.79	7569.20	0.37
		142.61				137.95	13.17
	1.46840	77254.09					0.003009
1115.10	179.00	4429.88	10.48	7.82	6.79	7568.79	0.37
		142.61				137.95	13.17
	1.46843	77253.39					0.003010
1120.59	180.00	4429.91	10.51	7.84	6.81	7635.04	0.37
		143.01				138.33	13.16
	1.47611	77467.56					0.003019
1141.37	181.00	4430.03	10.63	7.90	6.91	7881.30	0.37
		144.50				139.77	13.15
	1.48814	78269.66					0.003019
1147.24	182.00	4430.07	10.67	7.92	6.93	7950.53	0.37
		144.92				140.17	13.14
	1.49382	78494.77					0.003024
1157.45	183.00	4430.13	10.73	7.95	6.97	8073.18	0.38
		145.65				140.87	13.13
	1.49962	78885.23					0.003024
1158.99	184.00	4430.13	10.73	7.95	6.98	8090.90	0.38
		145.76				140.97	13.13
	1.50056	78943.41					0.003024
1158.99	185.00	4430.13	10.73	7.95	6.98	8090.68	0.38
		145.76				140.97	13.13
	1.50053	78943.61					0.003024
1158.99	186.00	4430.13	10.73	7.95	6.98	8091.17	0.38
		145.76				140.97	13.13
	1.50054	78943.45					0.003024
1159.00	187.00	4430.13	10.73	7.95	6.98	8091.20	0.38
		145.76				140.97	13.13
	1.50039	78943.95					0.003024
1158.98	188.00	4430.13	10.73	7.95	6.98	8090.95	0.38
		145.76				140.97	13.13
	1.50053	78943.20					0.003024
1159.00	189.00	4430.13	10.73	7.95	6.98	8090.92	0.38
		145.76				140.97	13.13
	1.50050	78943.87					0.003024
1158.99	190.00	4430.13	10.73	7.95	6.98	8091.04	0.38
		145.76				140.97	13.13
	1.50047	78943.45					0.003024

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HYCHAN.OUT							
1156.36	191.00	4430.12	10.72	6.97	8058.06	0.38	0.003020
	1.49674	145.57	7.94	140.79	13.13		
		78841.98					
1146.03	192.00	4430.06	10.66	6.92	7934.32	0.37	0.003019
	1.49073	144.83	7.91	140.08	13.14		
		78447.05					
1144.49	193.00	4430.05	10.65	6.92	7917.09	0.37	0.003018
	1.48947	144.72	7.91	139.98	13.14		
		78388.78					
1144.47	194.00	4430.05	10.65	6.92	7917.00	0.37	0.003020
	1.49026	144.72	7.91	139.98	13.14		
		78387.89					
1144.48	195.00	4430.05	10.65	6.92	7917.10	0.37	0.003019
	1.48993	144.72	7.91	139.98	13.14		
		78388.38					
1144.46	196.00	4430.05	10.65	6.92	7917.11	0.37	0.003019
	1.48990	144.72	7.91	139.98	13.14		
		78387.33					
1144.49	197.00	4430.05	10.65	6.92	7917.01	0.37	0.003019
	1.49000	144.72	7.91	139.98	13.14		
		78388.61					
1144.49	198.00	4430.05	10.65	6.92	7917.23	0.37	0.003019
	1.48984	144.72	7.91	139.98	13.14		
		78388.62					
1144.42	199.00	4430.05	10.65	6.92	7916.44	0.37	0.003020
	1.49005	144.72	7.91	139.97	13.14		
		78385.96					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2051

MAXIMUM DISCHARGE (CFS) = 20410.40 AT TIME = 88.50  
 MAXIMUM STAGE = 4432.90 AT TIME = 88.50

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE			
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4416.50	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
	1.00	4416.50	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
	2.00	4416.50	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
	3.00	4418.36	1.86	0.92	793.74	0.12			
859.71	0.71552	110.04	7.81	109.35	58.78		0.001468		
	4.00	4427.03	10.53	5.18	5503.21	0.28			
1061.72	0.53683	176.36	6.02	172.53	16.38		0.001429		
	5.00	4426.97	10.47	5.14	5401.54	0.28			
1050.79	0.53248	176.08	5.97	172.27	16.45		0.001430		
	6.00	4426.95	10.45	5.12	5360.03	0.28			
1046.08	0.52929	175.96	5.95	172.15	16.48		0.001427		
	7.00	4426.87	10.37	5.07	5233.28	0.28			

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		HYCHAN.OUT					
1031.86	175.59	5.88	171.80	16.57	0.001424		
0.52232	121465.15						
8.00	4426.77	10.27	5.01	5083.22	0.28		
1014.72	175.14	5.79	171.38	16.69	0.001421		
0.51378	121165.10						
9.00	4426.67	10.17	4.95	4938.05	0.27		
997.87	174.69	5.71	170.96	16.81	0.001418		
0.50552	120866.03						
10.00	4426.58	10.08	4.89	4801.98	0.27		
981.69	174.26	5.63	170.55	16.92	0.001419		
0.49891	120577.70						
11.00	4426.55	10.05	4.88	4760.45	0.27		
976.38	174.12	5.61	170.41	16.96	0.001414		
0.49492	120480.50						
12.00	4426.47	9.97	4.82	4640.77	0.27		
961.98	173.71	5.54	170.03	17.06	0.001411		
0.48741	120211.92						
13.00	4426.37	9.87	4.76	4501.41	0.27		
945.04	173.25	5.45	169.59	17.19	0.001411		
0.48019	119897.67						
14.00	4426.34	9.84	4.75	4468.91	0.27		
940.90	173.13	5.43	169.48	17.22	0.001411		
0.47836	119822.56						
15.00	4426.34	9.84	4.75	4469.04	0.27		
940.92	173.13	5.43	169.48	17.22	0.001410		
0.47829	119822.84						
16.00	4426.34	9.84	4.75	4468.95	0.27		
940.91	173.13	5.43	169.48	17.22	0.001411		
0.47840	119822.68						
17.00	4426.34	9.84	4.75	4469.04	0.27		
940.92	173.13	5.43	169.48	17.22	0.001411		
0.47834	119822.84						
18.00	4426.35	9.85	4.75	4479.49	0.27		
942.16	173.17	5.44	169.52	17.21	0.001415		
0.48029	119847.92						
19.00	4426.44	9.94	4.81	4600.21	0.27		
956.83	173.59	5.51	169.91	17.10	0.001419		
0.48821	120126.24						
20.00	4426.55	10.05	4.87	4754.67	0.27		
975.55	174.10	5.60	170.40	16.96	0.001422		
0.49725	120471.76						
21.00	4426.64	10.14	4.93	4895.03	0.27		
992.31	174.55	5.68	170.82	16.84	0.001421		
0.50419	120772.93						
22.00	4426.66	10.16	4.94	4923.88	0.27		
995.91	174.65	5.70	170.91	16.82	0.001421		
0.50581	120835.04						
23.00	4426.67	10.17	4.95	4937.64	0.27		
997.43	174.69	5.71	170.95	16.81	0.001425		
0.50761	120863.33						
24.00	4426.77	10.27	5.01	5083.36	0.28		
1014.09	175.13	5.79	171.37	16.69	0.001431		
0.51700	121161.27						
25.00	4426.95	10.45	5.13	5368.99	0.28		
1046.46	175.98	5.95	172.17	16.47	0.001436		
0.53283	121725.08						
26.00	4427.14	10.64	5.25	5678.60	0.28		
1081.17	176.85	6.11	173.00	16.26	0.001440		
0.54927	122309.46						
27.00	4427.30	10.80	5.35	5943.25	0.29		
1110.70	177.57	6.26	173.68	16.08	0.001439		
0.56147	122790.05						
28.00	4427.33	10.83	5.36	5985.14	0.29		

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				HYCHAN.OUT			
1115.60		177.68		6.28	173.79	16.05	0.001438
	0.56346	122866.43					
29.00	4427.34	10.84	5.37	6008.46	0.29		
1118.02		177.74	6.29	173.84	16.03	0.001441	
	0.56548	122906.70					
30.00	4427.41	10.91	5.42	6129.93	0.29		
1131.31		178.06	6.35	174.14	15.96	0.001440	
	0.57085	123118.23					
31.00	4427.43	10.93	5.43	6152.28	0.29		
1133.92		178.12	6.37	174.20	15.94	0.001440	
	0.57185	123157.97					
32.00	4427.44	10.94	5.44	6177.39	0.29		
1136.49		178.18	6.38	174.26	15.93	0.001443	
	0.57431	123199.84					
33.00	4427.51	11.01	5.48	6303.73	0.29		
1150.28		178.51	6.44	174.56	15.85	0.001441	
	0.57944	123415.95					
34.00	4427.53	11.03	5.49	6326.01	0.29		
1152.83		178.56	6.46	174.62	15.84	0.001442	
	0.58079	123454.02					
35.00	4427.51	11.01	5.48	6300.57	0.29		
1150.25		178.50	6.44	174.56	15.85	0.001439	
	0.57853	123412.40					
36.00	4427.44	10.94	5.43	6174.32	0.29		
1136.50		178.18	6.38	174.25	15.93	0.001440	
	0.57307	123197.02					
37.00	4427.41	10.91	5.42	6128.18	0.29		
1131.42		178.06	6.35	174.14	15.96	0.001437	
	0.56984	123116.78					
38.00	4427.34	10.84	5.37	6007.20	0.29		
1118.19		177.74	6.29	173.84	16.03	0.001438	
	0.56467	122906.37					
39.00	4427.33	10.83	5.36	5984.86	0.29		
1115.56		177.68	6.28	173.78	16.05	0.001438	
	0.56345	122865.74					
40.00	4427.33	10.83	5.37	5985.30	0.29		
1115.61		177.68	6.28	173.79	16.05	0.001438	
	0.56331	122866.38					
41.00	4427.33	10.83	5.36	5984.72	0.29		
1115.54		177.68	6.28	173.78	16.05	0.001438	
	0.56340	122865.30					
42.00	4427.33	10.83	5.36	5985.04	0.29		
1115.57		177.68	6.28	173.78	16.05	0.001438	
	0.56351	122865.84					
43.00	4427.34	10.84	5.37	6008.64	0.29		
1118.04		177.74	6.29	173.84	16.03	0.001440	
	0.56517	122906.89					
44.00	4427.41	10.91	5.42	6130.20	0.29		
1131.35		178.06	6.35	174.14	15.96	0.001439	
	0.57054	123118.88					
45.00	4427.44	10.94	5.44	6177.57	0.29		
1136.54		178.18	6.38	174.26	15.93	0.001442	
	0.57412	123200.83					
46.00	4427.53	11.03	5.49	6330.34	0.29		
1153.01		178.57	6.46	174.62	15.83	0.001444	
	0.58181	123459.62					
47.00	4427.63	11.13	5.55	6504.86	0.29		
1171.92		179.01	6.55	175.04	15.73	0.001445	
	0.59015	123750.77					
48.00	4427.72	11.22	5.61	6678.69	0.30		
1190.64		179.43	6.64	175.44	15.63	0.001447	
	0.59899	124034.47					
49.00	4427.82	11.32	5.66	6847.34	0.30		

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				HYCHAN.OUT			
1208.75		179.83		6.72	175.82	15.53	0.001448
	0.60725	124304.29					
50.00	4427.91	11.41		5.72	7025.30	0.30	
1227.70		180.25		6.81	176.21	15.44	0.001448
	0.61549	124582.75					
51.00	4428.02	11.52		5.79	7224.69	0.30	
1248.76		180.71		6.91	176.64	15.33	0.001450
	0.62540	124887.65					
52.00	4428.17	11.67		5.87	7498.67	0.30	
1277.64		181.32		7.05	177.22	15.19	0.001448
	0.63659	125296.48					
53.00	4428.20	11.70		5.89	7572.97	0.30	
1285.04		181.48		7.08	177.37	15.16	0.001452
	0.64151	125402.12					
54.00	4428.31	11.81		5.97	7798.68	0.31	
1305.58		181.93		7.18	177.80	15.06	0.001462
	0.65476	125703.02					
55.00	4428.57	12.07		6.17	8366.89	0.31	
1356.80		183.01		7.41	178.82	14.81	0.001476
	0.68263	126429.02					
56.00	4428.94	12.44		6.44	9224.03	0.32	
1432.02		184.53		7.76	180.26	14.49	0.001491
	0.72208	127444.04					
57.00	4429.39	12.89		6.77	10321.13	0.33	
1525.45		186.32		8.19	181.95	14.11	0.001510
	0.77134	128639.13					
58.00	4429.88	13.38		7.14	11537.65	0.34	
1615.71		188.22		8.58	183.74	13.73	0.001532
	0.82082	129905.99					
59.00	4430.29	13.79		7.47	12568.17	0.35	
1681.64		189.76		8.86	185.19	13.43	0.001549
	0.85669	130931.52					
60.00	4430.73	14.23		7.85	13766.89	0.37	
1754.33		191.41		9.17	186.75	13.12	0.001573
	0.89977	132030.97					
61.00	4431.18	14.68		8.18	14967.91	0.38	
1829.22		192.75		9.49	188.27	12.82	0.001565
	0.92678	133108.06					
62.00	4431.48	14.98		8.40	15785.56	0.38	
1879.78		193.35		9.72	189.27	12.64	0.001573
	0.95446	133812.64					
63.00	4431.75	15.25		8.61	16573.03	0.39	
1924.19		193.88		9.92	190.15	12.47	0.001584
	0.98092	134434.92					
64.00	4431.94	15.44		8.78	17177.72	0.39	
1957.04		194.28		10.07	190.80	12.35	0.001601
	1.00640	134893.81					
65.00	4432.10	15.60		8.91	17657.49	0.40	
1982.29		194.58		10.19	191.30	12.26	0.001616
	1.02718	135246.62					
66.00	4432.27	15.77		9.05	18204.47	0.40	
2010.69		194.93		10.32	191.85	12.17	0.001631
	1.05001	135636.61					
67.00	4432.34	15.84		9.11	18435.54	0.40	
2022.67		195.07		10.37	192.08	12.12	0.001631
	1.05538	135798.11					
68.00	4432.36	15.86		9.13	18481.45	0.40	
2025.06		195.10		10.38	192.12	12.12	0.001633
	1.05757	135830.80					
69.00	4432.36	15.86		9.13	18490.54	0.40	
2026.03		195.11		10.38	192.14	12.11	0.001631
	1.05712	135842.20					
70.00	4432.36	15.86		9.13	18507.53	0.40	

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				HYCHAN.OUT			
2026.13		195.12		10.38	192.15	12.11	0.001636
	1.06021	135847.78					
	71.00	4432.37	15.87	9.14	18520.84	0.40	
2026.18		195.12		10.38	192.15	12.11	0.001639
	1.06174	135851.62					
	72.00	4432.36	15.86	9.14	18516.10	0.40	
2025.76		195.11		10.38	192.15	12.11	0.001638
	1.06104	135846.69					
	73.00	4432.36	15.86	9.14	18520.58	0.40	
2026.04		195.12		10.38	192.15	12.11	0.001640
	1.06280	135850.44					
	74.00	4432.41	15.91	9.18	18654.04	0.41	
2032.71		195.21		10.41	192.29	12.09	0.001649
	1.07128	135949.25					
	75.00	4432.46	15.96	9.21	18797.21	0.41	
2040.16		195.30		10.45	192.44	12.06	0.001650
	1.07584	136056.97					
	76.00	4432.47	15.97	9.22	18831.77	0.41	
2042.58		195.33		10.46	192.49	12.05	0.001652
	1.07796	136088.58					
	77.00	4432.43	15.93	9.15	18612.89	0.40	
2035.14		195.24		10.42	192.35	12.08	0.001684
	1.09561	135990.88					
	78.00	4432.53	16.03	9.20	18861.74	0.41	
2049.84		195.44		10.49	192.66	12.02	0.001704
	1.11541	136210.70					
	79.00	4432.65	16.15	9.30	19244.40	0.41	
2068.47		195.68		10.57	193.05	11.95	0.001722
	1.13612	136484.61					
	80.00	4432.74	16.24	9.38	19544.41	0.41	
2082.72		195.87		10.63	193.34	11.90	0.001738
	1.15329	136694.30					
	81.00	4432.84	16.34	9.47	19859.49	0.41	
2097.05		196.06		10.70	193.64	11.85	0.001755
	1.17112	136905.31					
	82.00	4432.90	16.40	9.52	20040.46	0.41	
2105.72		196.18		10.73	193.82	11.82	0.001756
	1.17599	137031.70					
	83.00	4432.86	16.36	9.48	19916.51	0.41	
2100.00		196.10		10.71	193.70	11.84	0.001744
	1.16505	136947.97					
	84.00	4432.81	16.31	9.44	19749.36	0.41	
2092.72		196.00		10.68	193.55	11.87	0.001738
	1.15819	136838.59					
	85.00	4432.80	16.30	9.43	19717.61	0.41	
2090.79		195.98		10.67	193.51	11.87	0.001742
	1.15981	136812.95					
	86.00	4432.81	16.31	9.44	19757.67	0.41	
2093.27		196.01		10.68	193.56	11.87	0.001741
	1.16001	136846.00					
	87.00	4432.81	16.31	9.44	19760.26	0.41	
2093.34		196.01		10.68	193.56	11.87	0.001733
	1.15517	136846.75					
	88.00	4432.69	16.19	9.34	19371.45	0.41	
2074.67		195.76		10.60	193.17	11.93	0.001702
	1.12531	136572.44					
	89.00	4432.48	15.98	9.19	18788.00	0.41	
2044.20		195.35		10.46	192.52	12.05	0.001606
	1.04855	136112.09					
	90.00	4431.96	15.46	8.77	17207.87	0.39	
1961.10		194.30		10.09	190.84	12.35	0.001563
	0.98410	134922.98					
	91.00	4431.49	14.99	8.39	15799.50	0.38	

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1882.06		193.36		9.73	189.29	12.63	0.001556
	0.94512	133831.19					
92.00	4431.13	14.63		8.13	14812.44	0.37	
1821.23		192.64	9.45		188.09	12.86	0.001559
	0.91956	132981.36					
93.00	4430.73	14.23		7.83	13727.42	0.37	
1753.65		191.37	9.16		186.72	13.13	0.001543
	0.88234	132007.81					
94.00	4430.42	13.92		7.57	12896.84	0.36	
1703.25		190.24	8.95		185.64	13.34	0.001531
	0.85560	131250.69					
95.00	4430.16	13.66		7.36	12230.93	0.35	
1661.72		189.29	8.78		184.75	13.52	0.001524
	0.83485	130615.69					
96.00	4429.95	13.45		7.19	11703.15	0.35	
1627.79		188.49	8.64		184.00	13.68	0.001507
	0.81208	130085.89					
97.00	4429.72	13.22		7.00	11121.86	0.34	
1589.38		187.58	8.47		183.14	13.86	0.001497
	0.79137	129476.97					
98.00	4429.54	13.04		6.86	10691.08	0.34	
1557.40		186.90	8.33		182.50	13.99	0.001491
	0.77543	129025.18					
99.00	4429.39	12.89		6.75	10301.48	0.33	
1525.20		186.31	8.19		181.94	14.11	0.001489
	0.76047	128629.17					
100.00	4429.27	12.77		6.67	10006.92	0.33	
1500.72		185.85	8.07		181.50	14.21	0.001483
	0.74703	128321.15					
101.00	4429.12	12.62		6.56	9630.97	0.33	
1468.59		185.24	7.93		180.92	14.34	0.001478
	0.73113	127912.87					
102.00	4428.99	12.49		6.47	9327.46	0.32	
1442.41		184.73	7.81		180.45	14.44	0.001476
	0.71893	127575.20					
103.00	4428.88	12.38		6.38	9059.79	0.32	
1419.16		184.27	7.70		180.01	14.54	0.001473
	0.70766	127270.24					
104.00	4428.79	12.29		6.32	8850.98	0.32	
1400.81		183.91	7.62		179.67	14.62	0.001469
	0.69838	127025.38					
105.00	4428.69	12.19		6.24	8614.77	0.32	
1380.02		183.48	7.52		179.27	14.71	0.001462
	0.68636	126741.76					
106.00	4428.53	12.03		6.13	8279.54	0.31	
1349.97		182.86	7.38		178.68	14.85	0.001458
	0.67174	126327.02					
107.00	4428.44	11.94		6.07	8079.22	0.31	
1331.72		182.48	7.30		178.32	14.93	0.001455
	0.66262	126071.43					
108.00	4428.36	11.86		6.01	7905.39	0.31	
1315.93		182.14	7.22		178.00	15.01	0.001452
	0.65463	125846.79					
109.00	4428.29	11.79		5.96	7762.10	0.31	
1302.69		181.86	7.16		177.73	15.07	0.001452
	0.64919	125657.35					
110.00	4428.30	11.80		5.96	7774.50	0.31	
1303.63		181.88	7.17		177.76	15.07	0.001456
	0.65110	125672.88					
111.00	4428.39	11.89		6.03	7963.02	0.31	
1320.70		182.25	7.25		178.10	14.98	0.001462
	0.66125	125919.69					
112.00	4428.50	12.00		6.11	8199.64	0.31	

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1342.37		182.71		7.35	178.54	14.88	0.001459
	0.66897	126224.40					
113.00		4428.44	11.94	6.07	8078.36	0.31	
1331.65		182.48		7.30	178.32	14.93	0.001456
	0.66300	126070.64					
114.00		4428.41	11.91	6.04	8000.61	0.31	
1324.29		182.33		7.26	178.17	14.97	0.001462
	0.66279	125969.51					
115.00		4428.55	12.05	6.15	8308.87	0.31	
1351.91		182.91		7.39	178.73	14.84	0.001470
	0.67777	126360.62					
116.00		4428.67	12.17	6.24	8590.77	0.32	
1377.45		183.44		7.51	179.22	14.72	0.001466
	0.68700	126711.00					
117.00		4428.63	12.13	6.20	8490.79	0.31	
1368.67		183.25		7.47	179.05	14.76	0.001466
	0.68321	126589.04					
118.00		4428.62	12.12	6.20	8469.62	0.31	
1366.68		183.21		7.46	179.01	14.77	0.001466
	0.68247	126562.45					
119.00		4428.64	12.14	6.21	8508.80	0.31	
1370.07		183.29		7.48	179.08	14.75	0.001470
	0.68548	126610.34					
120.00		4428.70	12.20	6.26	8650.17	0.32	
1382.69		183.54		7.53	179.33	14.70	0.001469
	0.69062	126783.03					
121.00		4428.71	12.21	6.26	8669.75	0.32	
1384.52		183.58		7.54	179.36	14.69	0.001469
	0.69154	126807.09					
122.00		4428.69	12.19	6.25	8631.02	0.32	
1381.21		183.51		7.53	179.29	14.71	0.001466
	0.68847	126760.62					
123.00		4428.63	12.13	6.20	8490.52	0.31	
1368.66		183.25		7.47	179.05	14.76	0.001466
	0.68331	126588.84					
124.00		4428.60	12.10	6.18	8432.06	0.31	
1363.46		183.15		7.44	178.95	14.79	0.001462
	0.67936	126516.53					
125.00		4428.54	12.04	6.14	8290.69	0.31	
1350.72		182.88		7.39	178.70	14.84	0.001462
	0.67360	126339.94					
126.00		4428.53	12.03	6.13	8269.86	0.31	
1348.75		182.84		7.38	178.66	14.85	0.001463
	0.67327	126313.29					
127.00		4428.51	12.01	6.12	8237.26	0.31	
1345.95		182.78		7.36	178.60	14.87	0.001459
	0.67058	126273.08					
128.00		4428.46	11.96	6.08	8109.89	0.31	
1334.41		182.54		7.31	178.37	14.92	0.001458
	0.66529	126111.00					
129.00		4428.45	11.95	6.07	8091.31	0.31	
1332.60		182.50		7.30	178.34	14.93	0.001459
	0.66458	126086.14					
130.00		4428.43	11.93	6.06	8059.36	0.31	
1329.85		182.44		7.29	178.28	14.94	0.001456
	0.66226	126046.20					
131.00		4428.38	11.88	6.02	7935.66	0.31	
1318.55		182.20		7.24	178.06	14.99	0.001456
	0.65744	125885.37					
132.00		4428.40	11.90	6.04	7981.72	0.31	
1322.46		182.29		7.25	178.14	14.97	0.001462
	0.66197	125943.96					
133.00		4428.51	12.01	6.12	8232.82	0.31	

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1345.26	182.77	7.36	178.59	14.87	0.001462		
0.67167	126266.03						
134.00	4428.53	12.03	6.13	8269.46	0.31		
1348.71	182.84	7.38	178.66	14.85	0.001462		
0.67296	126312.90						
135.00	4428.53	12.03	6.13	8270.19	0.31		
1348.80	182.84	7.38	178.66	14.85	0.001463		
0.67323	126314.12						
136.00	4428.53	12.03	6.13	8269.94	0.31		
1348.75	182.84	7.38	178.66	14.85	0.001462		
0.67306	126313.32						
137.00	4428.53	12.03	6.13	8269.94	0.31		
1348.75	182.84	7.38	178.66	14.85	0.001462		
0.67314	126313.29						
138.00	4428.53	12.03	6.13	8270.21	0.31		
1348.78	182.84	7.38	178.66	14.85	0.001462		
0.67298	126313.70						
139.00	4428.53	12.03	6.13	8269.86	0.31		
1348.75	182.84	7.38	178.66	14.85	0.001462		
0.67280	126313.30						
140.00	4428.51	12.01	6.12	8237.32	0.31		
1345.94	182.78	7.36	178.60	14.87	0.001459		
0.67048	126272.90						
141.00	4428.46	11.96	6.08	8110.19	0.31		
1334.41	182.54	7.31	178.37	14.92	0.001459		
0.66559	126110.91						
142.00	4428.45	11.95	6.07	8090.85	0.31		
1332.59	182.50	7.30	178.34	14.93	0.001459		
0.66479	126086.18						
143.00	4428.45	11.95	6.07	8091.00	0.31		
1332.59	182.50	7.30	178.34	14.93	0.001459		
0.66478	126085.90						
144.00	4428.45	11.95	6.07	8090.94	0.31		
1332.57	182.50	7.30	178.34	14.93	0.001458		
0.66452	126085.77						
145.00	4428.43	11.93	6.06	8059.89	0.31		
1329.90	182.44	7.29	178.28	14.94	0.001456		
0.66218	126046.86						
146.00	4428.38	11.88	6.02	7935.53	0.31		
1318.55	182.20	7.24	178.06	14.99	0.001456		
0.65735	125885.48						
147.00	4428.37	11.87	6.01	7917.02	0.31		
1316.76	182.16	7.23	178.02	15.00	0.001456		
0.65663	125860.76						
148.00	4428.37	11.87	6.01	7916.98	0.31		
1316.74	182.16	7.23	178.02	15.00	0.001456		
0.65682	125860.34						
149.00	4428.37	11.87	6.01	7917.03	0.31		
1316.75	182.16	7.23	178.02	15.00	0.001456		
0.65655	125860.61						
150.00	4428.37	11.87	6.01	7917.05	0.31		
1316.78	182.16	7.23	178.02	15.00	0.001455		
0.65630	125860.97						
151.00	4428.36	11.86	6.01	7896.44	0.31		
1314.96	182.12	7.22	177.98	15.01	0.001454		
0.65489	125834.35						
152.00	4428.31	11.81	5.97	7803.47	0.31		
1306.47	181.94	7.18	177.81	15.05	0.001452		
0.65080	125711.80						
153.00	4428.29	11.79	5.95	7749.09	0.31		
1301.42	181.83	7.16	177.71	15.08	0.001452		
0.64857	125639.63						
154.00	4428.28	11.78	5.95	7742.87	0.31		

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1300.80	181.82		7.15	177.70	15.08	0.001452	
0.64818	125630.79						
155.00	4428.27	11.77	5.94	7712.65	0.31		
1298.14	181.76	7.14	177.64	15.09	0.001449		
0.64576	125590.98						
156.00	4428.24	11.74	5.92	7650.17	0.30		
1292.18	181.63	7.11	177.52	15.12	0.001455		
0.64598	125506.68						
157.00	4428.35	11.85	6.00	7878.79	0.31		
1313.10	182.09	7.21	177.95	15.02	0.001456		
0.65509	125809.83						
158.00	4428.37	11.87	6.01	7916.69	0.31		
1316.74	182.16	7.23	178.02	15.00	0.001456		
0.65668	125860.49						
159.00	4428.37	11.87	6.01	7917.15	0.31		
1316.76	182.16	7.23	178.02	15.00	0.001456		
0.65667	125860.77						
160.00	4428.37	11.87	6.01	7916.78	0.31		
1316.75	182.16	7.23	178.02	15.00	0.001456		
0.65665	125860.54						
161.00	4428.37	11.87	6.01	7917.15	0.31		
1316.77	182.16	7.23	178.02	15.00	0.001456		
0.65664	125860.88						
162.00	4428.37	11.87	6.01	7917.26	0.31		
1316.77	182.16	7.23	178.02	15.00	0.001456		
0.65659	125860.74						
163.00	4428.37	11.87	6.01	7916.84	0.31		
1316.73	182.16	7.23	178.02	15.00	0.001456		
0.65652	125860.30						
164.00	4428.37	11.87	6.01	7916.89	0.31		
1316.76	182.16	7.23	178.02	15.00	0.001455		
0.65645	125860.72						
165.00	4428.35	11.85	6.00	7886.04	0.31		
1314.04	182.10	7.22	177.96	15.02	0.001453		
0.65408	125820.55						
166.00	4428.29	11.79	5.96	7761.56	0.31		
1302.63	181.86	7.16	177.73	15.07	0.001452		
0.64909	125656.40						
167.00	4428.28	11.78	5.95	7742.89	0.31		
1300.81	181.82	7.15	177.70	15.08	0.001452		
0.64818	125630.88						
168.00	4428.28	11.78	5.95	7743.32	0.31		
1300.86	181.82	7.15	177.70	15.08	0.001452		
0.64840	125631.72						
169.00	4428.28	11.78	5.95	7742.66	0.31		
1300.78	181.82	7.15	177.70	15.08	0.001452		
0.64830	125630.58						
170.00	4428.28	11.78	5.95	7743.31	0.31		
1300.84	181.82	7.15	177.70	15.08	0.001452		
0.64826	125631.27						
171.00	4428.28	11.78	5.95	7743.03	0.31		
1300.84	181.82	7.15	177.70	15.08	0.001452		
0.64836	125631.45						
172.00	4428.28	11.78	5.95	7742.79	0.31		
1300.81	181.82	7.15	177.70	15.08	0.001452		
0.64841	125631.11						
173.00	4428.27	11.77	5.94	7712.50	0.31		
1298.13	181.76	7.14	177.64	15.09	0.001449		
0.64559	125591.02						
174.00	4428.21	11.71	5.90	7587.75	0.30		
1286.61	181.51	7.09	177.40	15.15	0.001448		
0.64062	125423.24						
175.00	4428.20	11.70	5.89	7569.07	0.30		

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1284.77	181.47	7.08	177.37	15.16	0.001449		
0.64000	125397.09						
176.00	4428.20	11.70	5.89	7568.95	0.30		
1284.75	181.47	7.08	177.36	15.16	0.001449		
0.63998	125396.73						
177.00	4428.20	11.70	5.89	7569.00	0.30		
1284.75	181.47	7.08	177.36	15.16	0.001449		
0.63994	125396.65						
178.00	4428.20	11.70	5.89	7569.20	0.30		
1284.78	181.47	7.08	177.37	15.16	0.001448		
0.63990	125397.20						
179.00	4428.20	11.70	5.89	7568.75	0.30		
1284.75	181.47	7.08	177.36	15.16	0.001448		
0.63978	125396.79						
180.00	4428.23	11.73	5.91	7631.62	0.30		
1290.39	181.60	7.11	177.48	15.13	0.001456		
0.64538	125481.21						
181.00	4428.35	11.85	6.00	7878.71	0.31		
1313.09	182.09	7.21	177.95	15.02	0.001455		
0.65493	125809.59						
182.00	4428.38	11.88	6.02	7948.79	0.31		
1319.57	182.23	7.24	178.08	14.99	0.001459		
0.65935	125902.07						
183.00	4428.44	11.94	6.07	8071.93	0.31		
1330.78	182.46	7.29	178.30	14.94	0.001458		
0.66356	126061.20						
184.00	4428.45	11.95	6.07	8090.93	0.31		
1332.58	182.50	7.30	178.34	14.93	0.001459		
0.66489	126085.87						
185.00	4428.45	11.95	6.07	8090.65	0.31		
1332.57	182.50	7.30	178.34	14.93	0.001459		
0.66480	126085.89						
186.00	4428.45	11.95	6.07	8091.16	0.31		
1332.59	182.50	7.30	178.34	14.93	0.001459		
0.66485	126085.95						
187.00	4428.45	11.95	6.07	8091.21	0.31		
1332.60	182.50	7.30	178.34	14.93	0.001458		
0.66446	126086.20						
188.00	4428.45	11.95	6.07	8090.92	0.31		
1332.57	182.50	7.30	178.34	14.93	0.001459		
0.66486	126085.80						
189.00	4428.45	11.95	6.07	8090.93	0.31		
1332.59	182.50	7.30	178.34	14.93	0.001459		
0.66478	126086.10						
190.00	4428.45	11.95	6.07	8091.03	0.31		
1332.59	182.50	7.30	178.34	14.93	0.001459		
0.66478	126085.98						
191.00	4428.43	11.93	6.06	8059.72	0.31		
1329.87	182.44	7.29	178.28	14.94	0.001456		
0.66227	126046.41						
192.00	4428.38	11.88	6.02	7935.63	0.31		
1318.56	182.20	7.24	178.06	14.99	0.001456		
0.65736	125885.67						
193.00	4428.37	11.87	6.01	7917.06	0.31		
1316.75	182.16	7.23	178.02	15.00	0.001455		
0.65638	125860.62						
194.00	4428.37	11.87	6.01	7917.03	0.31		
1316.73	182.16	7.23	178.02	15.00	0.001455		
0.65625	125860.26						
195.00	4428.37	11.87	6.01	7917.11	0.31		
1316.76	182.16	7.23	178.02	15.00	0.001456		
0.65656	125860.59						
196.00	4428.37	11.87	6.01	7917.11	0.31		

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HYCHAN.OUT							
1316.74	0.65664	182.16	125860.22	7.23	178.02	15.00	0.001456
197.00	4428.37	11.87	6.01	7916.99	0.31		
1316.75	0.65660	182.16	125860.57	7.23	178.02	15.00	0.001456
198.00	4428.37	11.87	6.01	7917.26	0.31		
1316.77	0.65646	182.16	125860.70	7.23	178.02	15.00	0.001455
199.00	4428.37	11.87	6.01	7916.41	0.31		
1316.69	0.65620	182.16	125859.59	7.23	178.02	15.00	0.001455

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2128

MAXIMUM DISCHARGE (CFS) = 19208.80 AT TIME = 88.51  
 MAXIMUM STAGE = 4431.08 AT TIME = 81.48

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4417.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4417.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4417.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4418.79	1.29	1.25	21.56	684.88	0.19		
548.92	21.87	25.10	1.25	21.56	16.76	0.002930		
4.58952	12934.63	8.19	7.48	5500.52	0.46			
735.36	114.44	6.43	7.48	110.95	13.55	0.002874		
1.15226	66570.78	8.13	7.44	5403.02	0.46			
726.27	113.71	6.39	7.44	110.25	13.56	0.002880		
1.14762	66152.68	8.11	7.42	5361.18	0.46			
722.26	113.40	6.37	7.42	109.95	13.56	0.002882		
1.14528	65969.04	8.03	7.37	5235.83	0.46			
710.33	112.44	6.32	7.37	109.03	13.58	0.002888		
1.13865	65416.91	7.94	7.31	5085.78	0.46			
695.94	111.27	6.25	7.31	107.91	13.60	0.002894		
1.12952	64746.83	7.84	7.25	4940.62	0.46			
681.81	110.12	6.19	7.25	106.80	13.61	0.002904		
1.12199	64081.66	7.76	7.19	4803.67	0.46			
668.18	109.00	6.13	7.19	105.72	13.63	0.002912		
1.11391	63434.42	7.73	7.17	4761.42	0.45			
663.80	108.63	6.11	7.17	105.38	13.64	0.002911		
1.11014	63225.91	7.65	7.12	4643.43	0.45			
651.97	107.64	6.06	7.12	104.42	13.65	0.002919		

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		HYCHAN.OUT						
	1.10337	62653.55						
637.89	13.00	4425.05	7.55	5.99	7.06	4503.20	13.67	0.002927
	1.09434	61969.14						
634.38	14.00	4425.03	7.53	5.98	7.04	4468.91	13.68	0.002926
	1.09120	61799.39						
634.39	15.00	4425.03	7.53	5.98	7.04	4469.03	13.68	0.002926
	1.09118	61800.02						
634.39	16.00	4425.03	7.53	5.98	7.04	4468.95	13.68	0.002927
	1.09133	61799.61						
634.40	17.00	4425.03	7.53	5.98	7.04	4469.04	13.68	0.002926
	1.09117	61800.04						
635.35	18.00	4425.04	7.54	5.98	7.05	4478.57	13.68	0.002927
	1.09222	61847.76						
647.33	19.00	4425.12	7.62	6.04	7.10	4597.46	13.66	0.002920
	1.09973	62433.16						
662.85	20.00	4425.22	7.72	6.11	7.17	4751.92	13.64	0.002910
	1.10888	63182.51						
676.94	21.00	4425.31	7.81	6.17	7.23	4893.31	13.62	0.002902
	1.11717	63855.09						
680.05	22.00	4425.33	7.83	6.18	7.24	4923.90	13.62	0.002902
	1.11981	64001.32						
681.28	23.00	4425.34	7.84	6.19	7.25	4936.61	13.62	0.002900
	1.12004	64060.03						
695.13	24.00	4425.43	7.93	6.25	7.31	5079.47	13.60	0.002892
	1.12784	64713.11						
722.31	25.00	4425.61	8.11	6.37	7.43	5363.69	13.56	0.002876
	1.14319	65973.55						
751.79	26.00	4425.79	8.29	6.50	7.55	5673.28	13.53	0.002857
	1.15826	67314.21						
777.22	27.00	4425.95	8.45	6.60	7.64	5940.53	13.50	0.002844
	1.17175	68449.09						
781.56	28.00	4425.98	8.48	6.62	7.66	5985.14	13.49	0.002844
	1.17488	68639.38						
783.58	29.00	4425.99	8.49	6.63	7.67	6007.05	13.49	0.002839
	1.17465	68729.50						
795.07	30.00	4426.06	8.56	6.68	7.71	6128.46	13.48	0.002831
	1.17982	69233.89						
797.39	31.00	4426.07	8.57	6.69	7.72	6152.29	13.48	0.002832
	1.18175	69334.30						
799.56	32.00	4426.09	8.59	6.70	7.72	6175.92	13.47	0.002827
	1.18141	69429.95						
811.52	33.00	4426.16	8.66	6.75	7.77	6302.22	13.46	0.002818
		120.31						

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		HYCHAN.OUT					
	1.18626	69949.68					
813.82	34.00	4426.17	8.67	7.77	6326.01	0.47	
		120.48	6.75		116.75	13.46	0.002819
	1.18818	70048.16					
811.63	35.00	4426.16	8.66	7.76	6302.04	0.47	
		120.31	6.75		116.59	13.46	0.002823
	1.18841	69952.16					
799.69	36.00	4426.09	8.59	7.72	6175.84	0.46	
		119.41	6.70		115.72	13.47	0.002832
	1.18329	69433.28					
795.29	37.00	4426.06	8.56	7.71	6129.57	0.46	
		119.08	6.68		115.40	13.48	0.002835
	1.18164	69241.33					
783.85	38.00	4425.99	8.49	7.67	6008.68	0.46	
		118.21	6.63		114.57	13.49	0.002844
	1.17675	68739.31					
781.53	39.00	4425.98	8.48	7.66	5984.85	0.46	
		118.03	6.62		114.40	13.49	0.002843
	1.17480	68638.02					
781.57	40.00	4425.98	8.48	7.66	5985.30	0.46	
		118.03	6.62		114.40	13.49	0.002843
	1.17480	68639.76					
781.51	41.00	4425.98	8.48	7.66	5984.74	0.46	
		118.03	6.62		114.40	13.49	0.002843
	1.17480	68637.43					
781.53	42.00	4425.98	8.48	7.66	5985.03	0.46	
		118.03	6.62		114.40	13.49	0.002844
	1.17502	68638.37					
783.60	43.00	4425.99	8.49	7.67	6007.21	0.46	
		118.19	6.63		114.55	13.49	0.002839
	1.17439	68730.05					
795.10	44.00	4426.06	8.56	7.71	6128.72	0.46	
		119.07	6.68		115.39	13.48	0.002831
	1.17972	69235.12					
799.60	45.00	4426.09	8.59	7.72	6176.12	0.46	
		119.41	6.70		115.72	13.47	0.002827
	1.18137	69431.40					
813.84	46.00	4426.17	8.68	7.77	6327.32	0.47	
		120.48	6.75		116.75	13.46	0.002813
	1.18587	70050.33					
830.35	47.00	4426.27	8.77	7.83	6501.90	0.47	
		121.72	6.82		117.93	13.44	0.002799
	1.19169	70760.40					
846.78	48.00	4426.37	8.87	7.88	6675.64	0.47	
		122.93	6.89		119.10	13.42	0.002785
	1.19690	71459.57					
862.77	49.00	4426.47	8.97	7.93	6844.57	0.47	
		124.10	6.95		120.22	13.41	0.002771
	1.20205	72133.14					
879.55	50.00	4426.57	9.07	7.98	7022.11	0.47	
		125.32	7.02		121.39	13.39	0.002754
	1.20596	72833.55					
898.25	51.00	4426.67	9.17	8.04	7220.17	0.47	
		126.66	7.09		122.68	13.37	0.002731
	1.20832	73606.23					
924.13	52.00	4426.82	9.32	8.11	7495.70	0.47	
		128.50	7.19		124.44	13.35	0.002714
	1.21807	74661.30					
930.64	53.00	4426.86	9.36	8.14	7571.56	0.47	
		128.96	7.22		124.87	13.34	0.002718
	1.22396	74923.85					
948.05	54.00	4426.96	9.46	8.22	7793.06	0.47	
		130.17	7.28		126.04	13.33	0.002725

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HYCHAN.OUT									
1.23843	75623.20								
992.05	55.00	4427.20	9.70	7.45	8.42	128.93	8356.62	13.29	0.002728
	1.26774	133.19							
	56.00	77358.20							
1057.67	4427.56	10.06	7.69	8.71	9209.76	133.12	13.23	0.48	0.002720
	1.30501	137.57							
	57.00	79874.70							
1140.23	4428.00	10.50	7.98	9.04	10304.07	138.22	13.17	0.49	0.002711
	1.34972	142.88							
	58.00	82931.19							
1228.51	4428.45	10.95	8.28	9.38	11522.41	143.47	13.10	0.50	0.002719
	1.40476	148.37							
	59.00	86082.98							
1301.34	4428.81	11.31	8.52	9.65	12555.35	147.66	13.05	0.51	0.002722
	1.44727	152.75							
	60.00	88595.17							
1382.97	4429.21	11.71	8.78	9.94	13749.06	152.20	13.00	0.51	0.002727
	1.49416	157.49							
	61.00	91319.98							
1462.01	4429.62	12.12	9.11	10.22	14940.04	157.00	12.95	0.52	0.002744
	1.55985	160.48							
	62.00	94202.05							
1509.61	4429.91	12.41	9.37	10.40	15705.47	160.30	12.92	0.52	0.002765
	1.61704	161.05							
	63.00	96180.79							
1550.50	4430.16	12.66	9.60	10.56	16380.21	163.17	12.89	0.52	0.002786
	1.66849	161.56							
	64.00	97903.89							
1580.43	4430.35	12.85	9.76	10.68	16879.56	165.29	12.86	0.53	0.002808
	1.71037	161.93							
	65.00	99171.83							
1603.34	4430.49	12.99	9.88	10.77	17264.62	166.91	12.85	0.53	0.002822
	1.74047	162.21							
	66.00	100143.54							
1629.31	4430.65	13.15	10.02	10.87	17711.03	168.73	12.83	0.53	0.002837
	1.77435	162.53							
	67.00	101237.89							
1640.18	4430.72	13.22	10.08	10.91	17898.63	169.49	12.82	0.53	0.002840
	1.78704	162.67							
	68.00	101695.93							
1642.29	4430.73	13.23	10.09	10.92	17934.96	169.64	12.82	0.53	0.002840
	1.78892	162.69							
	69.00	101785.12							
1643.36	4430.74	13.24	10.10	10.92	17951.00	169.71	12.82	0.53	0.002840
	1.79011	162.71							
	70.00	101824.25							
1643.09	4430.74	13.24	10.10	10.92	17949.95	169.71	12.82	0.53	0.002844
	1.79231	162.71							
	71.00	101824.55							
1642.89	4430.74	13.24	10.10	10.93	17949.79	169.71	12.82	0.53	0.002845
	1.79263	162.71							
	72.00	101824.98							
1642.42	4430.74	13.24	10.09	10.92	17942.51	169.68	12.82	0.53	0.002846
	1.79284	162.70							
	73.00	101807.02							
1642.71	4430.74	13.24	10.10	10.93	17947.45	169.70	12.82	0.53	0.002847
	1.79382	162.70							
	74.00	101817.71							
1648.71	4430.77	13.27	10.13	10.95	18052.57	170.12	12.82	0.53	0.002855
	1.80451	162.78							
	75.00	102071.68							
1655.50	4430.82	13.32	10.17	10.98	18171.03	170.59	12.81	0.53	0.002859
	162.86								

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HYCHAN.OUT									
1.81349	102354.93								
76.00	4430.83	13.33	10.99	18212.93	0.53				
1657.95	162.89	10.18		170.74	12.81	0.002861			
1.81723	102445.36								
77.00	4430.77	13.27	10.94	18052.31	0.53				
1649.52	162.78	10.13		170.12	12.82	0.002869			
1.81397	102070.62								
78.00	4430.85	13.35	10.99	18261.72	0.53				
1661.69	162.93	10.20		170.96	12.81	0.002889			
1.83867	102575.05								
79.00	4430.95	13.45	11.06	18552.19	0.53				
1678.10	163.13	10.29		172.12	12.80	0.003541			
2.27277	103273.82								
80.00	4431.03	13.53	11.11	18777.65	0.53				
1690.60	163.29	10.35		173.01	12.79	0.003562			
2.30114	103805.63								
81.00	4431.11	13.61	11.16	19006.59	0.53				
1703.13	163.45	10.42		173.91	12.78	0.003584			
2.33050	104347.56								
82.00	4431.16	13.66	11.19	19140.44	0.53				
1710.76	163.55	10.46		174.46	12.77	0.003585			
2.33994	104676.57								
83.00	4431.13	13.63	11.17	19046.68	0.53				
1705.68	163.48	10.43		174.10	12.78	0.003569			
2.32384	104460.66								
84.00	4431.09	13.59	11.14	18933.75	0.53				
1699.54	163.40	10.40		173.65	12.78	0.003562			
2.31208	104188.24								
85.00	4431.07	13.57	11.13	18902.51	0.53				
1697.65	163.38	10.39		173.52	12.78	0.003564			
2.31076	104114.38								
86.00	4431.09	13.59	11.14	18943.42	0.53				
1700.09	163.41	10.40		173.69	12.78	0.003568			
2.31637	104211.90								
87.00	4431.09	13.59	11.14	18943.28	0.53				
1700.14	163.41	10.40		173.70	12.78	0.003555			
2.30772	104221.45								
88.00	4430.99	13.49	11.08	18646.15	0.53				
1683.62	163.21	10.32		172.54	12.79	0.002884			
1.85648	103525.30								
89.00	4430.83	13.33	10.97	18193.99	0.53				
1657.81	162.89	10.18		170.73	12.81	0.002831			
1.79782	102437.59								
90.00	4430.37	12.87	10.68	16926.87	0.53				
1584.34	161.97	9.78		165.52	12.86	0.002761			
1.68533	99310.76								
91.00	4429.92	12.42	10.41	15732.05	0.52				
1511.97	161.08	9.39		160.45	12.91	0.002734			
1.60158	96267.09								
92.00	4429.58	12.08	10.18	14815.44	0.52				
1454.87	160.39	9.07		156.49	12.96	0.002716			
1.53715	93894.52								
93.00	4429.21	11.71	9.93	13740.11	0.51				
1383.15	157.49	8.78		152.20	13.00	0.002714			
1.48747	91319.25								
94.00	4428.93	11.43	9.73	12906.67	0.51				
1326.19	154.19	8.60		149.05	13.04	0.002711			
1.45511	89427.16								
95.00	4428.71	11.21	9.56	12238.62	0.50				
1279.83	151.46	8.45		146.43	13.07	0.002713			
1.43053	87856.60								
96.00	4428.52	11.02	9.43	11711.02	0.50				
1242.45	149.21	8.33		144.28	13.09	0.002704			

## HYCHAN.OUT

1200.77	1.40505	86565.36	10.81	9.27	11128.63	0.50	0.002699
	97.00	4428.31		8.19	141.84	13.12	
		146.67					
1169.39	1.37871	85104.84	10.65	9.15	10696.86	0.49	0.002704
	98.00	4428.15		8.08	139.98	13.14	
		144.72					
1140.72	1.36323	83987.58	10.50	9.03	10305.86	0.49	0.002707
	99.00	4428.00		7.98	138.26	13.17	
		142.92					
1119.05	1.34834	82953.64	10.39	8.95	10011.91	0.49	0.002710
	100.00	4427.89		7.91	136.94	13.18	
		141.54					
1090.56	1.33698	82161.36	10.24	8.84	9635.77	0.49	0.002715
	101.00	4427.74		7.81	135.18	13.20	
		139.71					
1067.36	1.32230	81109.18	10.11	8.74	9331.50	0.48	0.002719
	102.00	4427.61		7.72	133.74	13.22	
		138.21					
1046.85	1.31045	80242.56	10.00	8.66	9063.18	0.48	0.002722
	103.00	4427.50		7.65	132.45	13.24	
		136.86					
1030.75	1.29929	79467.77	9.92	8.59	8853.89	0.48	0.002723
	104.00	4427.42		7.59	131.42	13.25	
		135.79					
1012.68	1.28961	78854.42	9.82	8.51	8619.25	0.48	0.002721
	105.00	4427.32		7.52	130.26	13.27	
		134.58					
986.60	1.27783	78157.67	9.67	8.40	8283.46	0.48	0.002721
	106.00	4427.17		7.43	128.57	13.29	
		132.82					
970.81	1.26123	77143.95	9.59	8.32	8081.77	0.47	0.002719
	107.00	4427.09		7.37	127.54	13.30	
		131.74					
957.22	1.25038	76524.59	9.51	8.26	7907.94	0.47	0.002718
	108.00	4427.01		7.32	126.64	13.32	
		130.80					
945.81	1.24100	75985.91	9.45	8.21	7763.24	0.47	0.002718
	109.00	4426.95		7.27	125.89	13.33	
		130.01					
946.53	1.23366	75532.20	9.45	8.21	7773.05	0.47	0.002721
	110.00	4426.95		7.28	125.94	13.33	
		130.07					
961.10	1.23546	75562.23	9.53	8.28	7959.05	0.47	0.002724
	111.00	4427.03		7.33	126.91	13.31	
		131.08					
979.88	1.24653	76143.16	9.64	8.37	8198.85	0.48	0.002721
	112.00	4427.14		7.40	128.14	13.30	
		132.36					
970.75	1.25712	76884.02	9.59	8.32	8080.88	0.47	0.002720
	113.00	4427.09		7.37	127.54	13.30	
		131.73					
964.26	1.25066	76522.12	9.55	8.30	7998.87	0.47	0.002724
	114.00	4427.05		7.34	127.11	13.31	
		131.29					
987.96	1.24853	76267.90	9.68	8.40	8303.30	0.48	0.002726
	115.00	4427.18		7.43	128.67	13.29	
		132.92					
1010.27	1.26450	77201.27	9.81	8.50	8589.97	0.48	0.002723
	116.00	4427.31		7.52	130.11	13.27	
		134.42					
1002.72	1.27689	78068.80	9.76	8.47	8492.00	0.48	0.002724
	117.00	4427.26		7.49	129.63	13.28	
		133.91					

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1000.96	1.27267	77775.20	9.75	8.46	8469.65	0.48	0.002724
	118.00	4427.25	7.48		129.51	13.28	
	1.27164	77707.29					
1003.84	119.00	4427.27	9.77	8.47	8507.15	0.48	0.002725
		133.99	7.49		129.70	13.28	
	1.27402	77819.95					
1014.83	120.00	4427.33	9.83	8.52	8648.94	0.48	0.002724
		134.73	7.53		130.41	13.27	
	1.28013	78244.95					
1016.46	121.00	4427.34	9.84	8.53	8669.74	0.48	0.002724
		134.84	7.54		130.51	13.26	
	1.28139	78307.28					
1013.63	122.00	4427.32	9.82	8.52	8632.66	0.48	0.002723
		134.65	7.53		130.33	13.27	
	1.27902	78197.05					
1002.71	123.00	4427.26	9.76	8.47	8491.76	0.48	0.002724
		133.91	7.49		129.62	13.28	
	1.27276	77774.56					
998.21	124.00	4427.24	9.74	8.45	8433.71	0.48	0.002722
		133.61	7.47		129.33	13.28	
	1.26903	77599.39					
987.17	125.00	4427.18	9.68	8.40	8291.90	0.48	0.002722
		132.86	7.43		128.61	13.29	
	1.26223	77168.83					
985.43	126.00	4427.17	9.67	8.39	8269.88	0.48	0.002723
		132.74	7.42		128.50	13.29	
	1.26148	77101.41					
983.05	127.00	4427.15	9.65	8.38	8238.70	0.48	0.002721
		132.58	7.41		128.35	13.29	
	1.25902	77007.05					
973.07	128.00	4427.10	9.60	8.34	8111.02	0.47	0.002722
		131.90	7.38		127.69	13.30	
	1.25309	76615.07					
971.50	129.00	4427.09	9.59	8.33	8091.31	0.47	0.002721
		131.79	7.37		127.59	13.30	
	1.25170	76553.59					
969.16	130.00	4427.08	9.58	8.32	8060.78	0.47	0.002720
		131.63	7.36		127.43	13.31	
	1.24964	76460.13					
959.43	131.00	4427.02	9.52	8.27	7936.79	0.47	0.002721
		130.96	7.33		126.79	13.31	
	1.24375	76075.04					
962.65	132.00	4427.04	9.54	8.29	7978.82	0.47	0.002724
		131.18	7.34		127.01	13.31	
	1.24743	76204.64					
982.33	133.00	4427.15	9.65	8.38	8230.61	0.48	0.002723
		132.53	7.41		128.30	13.29	
	1.25953	76980.89					
985.39	134.00	4427.17	9.67	8.39	8269.41	0.48	0.002723
		132.74	7.42		128.50	13.29	
	1.26117	77100.05					
985.46	135.00	4427.17	9.67	8.39	8270.22	0.48	0.002723
		132.74	7.42		128.50	13.29	
	1.26136	77102.80					
985.43	136.00	4427.17	9.67	8.39	8269.96	0.48	0.002722
		132.74	7.42		128.50	13.29	
	1.26102	77101.58					
985.43	137.00	4427.17	9.67	8.39	8269.93	0.48	0.002723
		132.74	7.42		128.50	13.29	
	1.26147	77101.45					
985.45	138.00	4427.17	9.67	8.39	8270.19	0.48	0.002722
		132.74	7.42		128.50	13.29	

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1.26110	77102.30						
139.00	4427.17	9.67	8.39	8269.87	0.48		
985.43	132.74	7.42	128.50	13.29	0.002723		
1.26127	77101.26						
140.00	4427.15	9.65	8.38	8238.79	0.48		
983.05	132.58	7.41	128.34	13.29	0.002721		
1.25905	77006.96						
141.00	4427.10	9.60	8.34	8111.31	0.47		
973.09	131.90	7.38	127.69	13.30	0.002722		
1.25294	76615.62						
142.00	4427.09	9.59	8.33	8090.88	0.47		
971.47	131.79	7.37	127.59	13.30	0.002722		
1.25186	76552.64						
143.00	4427.09	9.59	8.33	8091.00	0.47		
971.48	131.79	7.37	127.59	13.30	0.002721		
1.25183	76552.82						
144.00	4427.09	9.59	8.33	8090.91	0.47		
971.47	131.79	7.37	127.59	13.30	0.002722		
1.25206	76552.33						
145.00	4427.08	9.58	8.32	8061.31	0.47		
969.20	131.63	7.36	127.44	13.31	0.002720		
1.24950	76461.82						
146.00	4427.02	9.52	8.27	7936.67	0.47		
959.43	130.96	7.33	126.79	13.31	0.002720		
1.24345	76075.05						
147.00	4427.01	9.51	8.27	7917.01	0.47		
957.85	130.85	7.32	126.69	13.32	0.002720		
1.24239	76013.23						
148.00	4427.01	9.51	8.27	7916.97	0.47		
957.85	130.85	7.32	126.69	13.32	0.002720		
1.24259	76012.90						
149.00	4427.01	9.51	8.27	7917.01	0.47		
957.85	130.85	7.32	126.69	13.32	0.002720		
1.24258	76013.20						
150.00	4427.01	9.51	8.27	7917.07	0.47		
957.86	130.85	7.32	126.69	13.32	0.002720		
1.24237	76013.66						
151.00	4427.01	9.51	8.26	7897.33	0.47		
956.34	130.74	7.31	126.59	13.32	0.002718		
1.24072	75952.25						
152.00	4426.96	9.46	8.22	7804.70	0.47		
949.06	130.24	7.29	126.10	13.32	0.002718		
1.23603	75662.03						
153.00	4426.94	9.44	8.20	7749.46	0.47		
944.71	129.94	7.27	125.81	13.33	0.002718		
1.23297	75488.38						
154.00	4426.94	9.44	8.20	7742.88	0.47		
944.17	129.90	7.27	125.78	13.33	0.002718		
1.23275	75467.14						
155.00	4426.92	9.42	8.19	7714.06	0.47		
941.93	129.74	7.26	125.63	13.33	0.002715		
1.23011	75376.48						
156.00	4426.89	9.39	8.17	7648.50	0.47		
936.72	129.38	7.24	125.28	13.34	0.002720		
1.22896	75168.76						
157.00	4427.00	9.50	8.25	7876.56	0.47		
954.64	130.63	7.31	126.48	13.32	0.002720		
1.24031	75886.28						
158.00	4427.01	9.51	8.27	7916.65	0.47		
957.83	130.85	7.32	126.69	13.32	0.002720		
1.24254	76012.23						
159.00	4427.01	9.51	8.27	7917.15	0.47		
957.86	130.85	7.32	126.69	13.32	0.002721		

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		HYCHAN.OUT					
1.24272	76013.45	9.51	8.27	7916.81	0.47		
160.00	4427.01	7.32	126.69	13.32	0.002720		
957.84	130.85						
1.24250	76012.74	9.51	8.27	7917.15	0.47		
161.00	4427.01	7.32	126.69	13.32	0.002720		
957.87	130.85						
1.24268	76013.81	9.51	8.27	7917.25	0.47		
162.00	4427.01	7.32	126.69	13.32	0.002720		
957.87	130.85						
1.24240	76013.77	9.51	8.27	7916.84	0.47		
163.00	4427.01	7.32	126.69	13.32	0.002720		
957.84	130.85						
1.24254	76012.56	9.51	8.27	7916.88	0.47		
164.00	4427.01	7.32	126.69	13.32	0.002720		
957.85	130.85						
1.24230	76013.09	9.50	8.25	7887.45	0.47		
165.00	4427.00	7.31	126.54	13.32	0.002718		
955.57	130.69						
1.24020	75921.18	9.45	8.21	7762.70	0.47		
166.00	4426.95	7.27	125.88	13.33	0.002717		
945.76	130.01						
1.23349	75530.09	9.44	8.20	7742.88	0.47		
167.00	4426.94	7.27	125.78	13.33	0.002718		
944.17	129.90						
1.23276	75467.21	9.44	8.20	7743.32	0.47		
168.00	4426.94	7.27	125.78	13.33	0.002718		
944.21	129.90						
1.23261	75468.93	9.44	8.20	7742.65	0.47		
169.00	4426.94	7.27	125.78	13.33	0.002718		
944.15	129.90						
1.23295	75466.41	9.44	8.20	7743.30	0.47		
170.00	4426.94	7.27	125.78	13.33	0.002718		
944.20	129.90						
1.23255	75468.42	9.44	8.20	7743.07	0.47		
171.00	4426.94	7.27	125.78	13.33	0.002718		
944.20	129.90						
1.23276	75468.22	9.44	8.20	7742.75	0.47		
172.00	4426.94	7.27	125.78	13.33	0.002718		
944.17	129.90						
1.23280	75467.13	9.42	8.19	7713.90	0.47		
173.00	4426.92	7.26	125.63	13.33	0.002715		
941.92	129.74						
1.23011	75376.17	9.37	8.14	7588.86	0.47		
174.00	4426.87	7.22	124.97	13.34	0.002715		
932.06	129.05						
1.22369	74979.84	9.36	8.13	7569.07	0.47		
175.00	4426.86	7.22	124.86	13.34	0.002715		
930.46	128.94						
1.22261	74915.94	9.36	8.13	7568.95	0.47		
176.00	4426.86	7.22	124.86	13.34	0.002715		
930.44	128.94						
1.22238	74915.44	9.36	8.13	7569.04	0.47		
177.00	4426.86	7.22	124.86	13.34	0.002715		
930.45	128.94						
1.22244	74915.65	9.36	8.13	7569.20	0.47		
178.00	4426.86	7.22	124.86	13.34	0.002715		
930.47	128.94						
1.22238	74916.36	9.36	8.13	7568.71	0.47		
179.00	4426.86	7.22	124.86	13.34	0.002715		
930.43	128.94						
1.22247	74915.02	9.39	8.16	7628.84	0.47		
180.00	4426.89	7.23	125.18	13.34	0.002721		
935.15	129.27						

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		HYCHAN.OUT					
	1.22807	75105.98					
954.62	181.00	4427.00	9.50	8.25	7876.45	0.47	
		130.63	7.31		126.48	13.32	0.002720
	1.24024	75885.62					
960.22	182.00	4427.03	9.53	8.28	7947.36	0.47	
		131.01	7.33		126.85	13.31	0.002723
	1.24511	76107.73					
969.88	183.00	4427.08	9.58	8.32	8070.81	0.47	
		131.68	7.37		127.48	13.31	0.002722
	1.25084	76490.16					
971.47	184.00	4427.09	9.59	8.33	8090.99	0.47	
		131.79	7.37		127.59	13.30	0.002722
	1.25193	76552.59					
971.45	185.00	4427.09	9.59	8.33	8090.62	0.47	
		131.79	7.37		127.59	13.30	0.002722
	1.25207	76551.85					
971.48	186.00	4427.09	9.59	8.33	8091.16	0.47	
		131.79	7.37		127.59	13.30	0.002721
	1.25179	76553.02					
971.49	187.00	4427.09	9.59	8.33	8091.22	0.47	
		131.79	7.37		127.59	13.30	0.002721
	1.25170	76553.33					
971.47	188.00	4427.09	9.59	8.33	8090.92	0.47	
		131.79	7.37		127.59	13.30	0.002722
	1.25216	76552.42					
971.48	189.00	4427.09	9.59	8.33	8090.94	0.47	
		131.79	7.37		127.59	13.30	0.002722
	1.25205	76552.77					
971.48	190.00	4427.09	9.59	8.33	8091.03	0.47	
		131.79	7.37		127.59	13.30	0.002722
	1.25208	76552.88					
969.18	191.00	4427.08	9.58	8.32	8061.11	0.47	
		131.63	7.36		127.44	13.31	0.002720
	1.24963	76461.03					
959.44	192.00	4427.02	9.52	8.27	7936.78	0.47	
		130.96	7.33		126.79	13.31	0.002720
	1.24357	76075.37					
957.85	193.00	4427.01	9.51	8.27	7917.02	0.47	
		130.85	7.32		126.69	13.32	0.002720
	1.24256	76013.00					
957.84	194.00	4427.01	9.51	8.27	7917.02	0.47	
		130.85	7.32		126.69	13.32	0.002719
	1.24218	76012.61					
957.86	195.00	4427.01	9.51	8.27	7917.16	0.47	
		130.85	7.32		126.69	13.32	0.002720
	1.24250	76013.51					
957.85	196.00	4427.01	9.51	8.27	7917.10	0.47	
		130.85	7.32		126.69	13.32	0.002720
	1.24247	76013.07					
957.85	197.00	4427.01	9.51	8.27	7916.96	0.47	
		130.85	7.32		126.69	13.32	0.002720
	1.24250	76012.94					
957.87	198.00	4427.01	9.51	8.27	7917.27	0.47	
		130.85	7.32		126.69	13.32	0.002719
	1.24216	76013.68					
957.80	199.00	4427.01	9.51	8.27	7916.37	0.47	
		130.85	7.32		126.68	13.32	0.002720
	1.24239	76010.93					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2208

MAXIMUM DISCHARGE (CFS) = 19250.42 AT TIME = 81.48  
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HYCHAN.OUT  
 MAXIMUM STAGE = 4427.47 AT TIME = 81.48

AREA BED SHEAR (FT <sup>2</sup> )	TIME WETTED PERIMETER (HRS)	ELEV. SURFACE AREA (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
(FT <sup>2</sup> )	(LB/FT <sup>2</sup> )	(FT)	(FT)	(FPS)	(CFS)		
0.00	0.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
771.97	3.00	4412.73	1.23	-0.68	-523.45	0.11	0.004513
	3.67710	59.12	13.06	59.03	48.11		
1051.10	4.00	4421.54	10.04	-5.23	-5496.18	0.29	0.004107
	1.60581	167.73	6.27	162.62	16.19		
1040.20	5.00	4421.48	9.98	-5.20	-5404.78	0.29	0.004100
	1.59186	167.17	6.22	162.10	16.25		
1035.16	6.00	4421.45	9.95	-5.18	-5362.46	0.29	0.004089
	1.58246	166.91	6.20	161.85	16.27		
1020.54	7.00	4421.35	9.85	-5.13	-5238.77	0.29	0.004072
	1.56073	166.15	6.14	161.14	16.35		
1002.87	8.00	4421.24	9.74	-5.07	-5088.69	0.29	0.004055
	1.53589	165.23	6.07	160.27	16.45		
985.20	9.00	4421.13	9.63	-5.02	-4943.71	0.29	0.004039
	1.51117	164.30	6.00	159.39	16.54		
967.45	10.00	4421.02	9.52	-4.97	-4805.76	0.28	0.004031
	1.48959	163.35	5.92	158.50	16.64		
961.90	11.00	4420.99	9.49	-4.95	-4762.49	0.28	0.004023
	1.48080	163.06	5.90	158.22	16.68		
947.13	12.00	4420.89	9.39	-4.91	-4646.60	0.28	0.004006
	1.45917	162.25	5.84	157.46	16.76		
929.22	13.00	4420.78	9.28	-4.85	-4505.37	0.28	0.003998
	1.43731	161.27	5.76	156.53	16.87		
924.60	14.00	4420.75	9.25	-4.83	-4468.89	0.28	0.003997
	1.43235	161.02	5.74	156.30	16.90		
924.61	15.00	4420.75	9.25	-4.83	-4469.02	0.28	0.003998
	1.43251	161.02	5.74	156.30	16.90		
924.60	16.00	4420.75	9.25	-4.83	-4468.96	0.28	0.003998
	1.43252	161.02	5.74	156.30	16.90		
924.61	17.00	4420.75	9.25	-4.83	-4469.04	0.28	0.003997
	1.43236	161.02	5.74	156.30	16.90		

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		HYCHAN.OUT			
925.69	18.00 4420.76	9.26	-4.84 -4477.55	0.28	
	1.43695 161.08	5.75	156.35	16.89	0.004007
	19.00 4420.85	9.35	-4.88 -4594.24	0.28	
940.48	1.45840 161.90	5.81	157.12	16.80	0.004023
	20.00 4420.98	9.48	-4.95 -4748.61	0.28	
960.15	1.48577 162.97	5.89	158.13	16.69	0.004041
	21.00 4421.09	9.59	-5.00 -4891.17	0.28	
978.42	1.50789 163.95	5.97	159.06	16.58	0.004049
	22.00 4421.12	9.62	-5.01 -4923.93	0.28	
982.63	1.51237 164.17	5.99	159.27	16.56	0.004049
	23.00 4421.13	9.63	-5.02 -4935.42	0.28	
984.12	1.51767 164.25	5.99	159.34	16.55	0.004059
	24.00 4421.24	9.74	-5.07 -5075.04	0.29	
1001.27	1.54617 165.16	6.06	160.20	16.46	0.004087
	25.00 4421.44	9.94	-5.18 -5357.56	0.29	
1034.67	1.59439 166.89	6.20	161.83	16.28	0.004121
	26.00 4421.67	10.17	-5.29 -5667.08	0.29	
1071.63	1.64637 168.76	6.35	163.60	16.09	0.004155
	27.00 4421.87	10.37	-5.38 -5937.24	0.29	
1104.21	1.68513 170.38	6.48	165.12	15.93	0.004167
	28.00 4421.90	10.40	-5.39 -5985.14	0.29	
1110.01	1.69092 170.66	6.50	165.39	15.90	0.004166
	29.00 4421.92	10.42	-5.40 -6005.42	0.29	
1112.49	1.69849 170.79	6.51	165.50	15.89	0.004179
	30.00 4422.00	10.50	-5.43 -6126.67	0.30	
1127.29	1.71667 171.51	6.57	166.18	15.82	0.004185
	31.00 4422.02	10.52	-5.44 -6152.30	0.30	
1130.43	1.72002 171.66	6.59	166.32	15.80	0.004186
	32.00 4422.04	10.54	-5.45 -6174.20	0.30	
1133.12	1.72775 171.79	6.60	166.45	15.79	0.004198
	33.00 4422.13	10.63	-5.49 -6300.37	0.30	
1148.62	1.74670 172.53	6.66	167.15	15.72	0.004205
	34.00 4422.15	10.65	-5.49 -6326.02	0.30	
1151.78	1.74998 172.68	6.67	167.29	15.71	0.004205
	35.00 4422.13	10.63	-5.49 -6303.76	0.30	
1149.04	1.74185 172.55	6.66	167.16	15.72	0.004192
	36.00 4422.04	10.54	-5.45 -6177.70	0.30	
1133.55	1.72293 171.81	6.60	166.46	15.79	0.004185
	37.00 4422.01	10.51	-5.44 -6131.17	0.30	
1127.84	1.71216 171.53	6.58	166.20	15.82	0.004173
	38.00 4421.92	10.42	-5.40 -6010.47	0.29	
1113.11	1.69444 170.81	6.52	165.53	15.89	0.004167
	99317.41				

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1109.98	39.00	4421.90	10.40	-5.39	-5984.84	0.29	0.004166
	1.69090	170.66	6.50		165.39	15.90	
		99232.11					
1110.03	40.00	4421.90	10.40	-5.39	-5985.28	0.29	0.004167
	1.69127	170.67	6.50		165.39	15.90	
		99233.58					
1109.97	41.00	4421.90	10.40	-5.39	-5984.77	0.29	0.004167
	1.69095	170.66	6.50		165.39	15.90	
		99231.80					
1110.00	42.00	4421.90	10.40	-5.39	-5985.03	0.29	0.004167
	1.69117	170.66	6.50		165.39	15.90	
		99232.69					
1112.51	43.00	4421.92	10.42	-5.40	-6005.56	0.29	0.004179
	1.69870	170.79	6.51		165.50	15.89	
		99302.61					
1127.32	44.00	4422.00	10.51	-5.43	-6126.91	0.30	0.004186
	1.71692	171.51	6.57		166.18	15.82	
		99709.99					
1133.14	45.00	4422.04	10.54	-5.45	-6174.44	0.30	0.004198
	1.72786	171.79	6.60		166.45	15.79	
		99868.91					
1151.52	46.00	4422.15	10.65	-5.49	-6323.70	0.30	0.004217
	1.75491	172.67	6.67		167.28	15.71	
		100367.51					
1173.12	47.00	4422.28	10.78	-5.54	-6498.34	0.30	0.004237
	1.78548	173.70	6.75		168.24	15.61	
		100946.40					
1194.75	48.00	4422.40	10.90	-5.58	-6671.98	0.30	0.004255
	1.81572	174.71	6.84		169.20	15.52	
		101518.51					
1215.96	49.00	4422.53	11.03	-5.63	-6841.22	0.30	0.004273
	1.84527	175.69	6.92		170.12	15.43	
		102072.64					
1238.30	50.00	4422.66	11.16	-5.67	-7018.23	0.30	0.004292
	1.87655	176.71	7.01		171.08	15.33	
		102649.13					
1263.27	51.00	4422.80	11.30	-5.71	-7214.70	0.30	0.004323
	1.91616	177.84	7.10		172.14	15.23	
		103285.43					
1297.74	52.00	4423.00	11.50	-5.77	-7492.18	0.30	0.004336
	1.95764	179.37	7.23		173.58	15.10	
		104148.73					
1305.19	53.00	4423.04	11.54	-5.80	-7570.35	0.30	0.004348
	1.97047	179.70	7.26		173.89	15.07	
		104332.92					
1322.04	54.00	4423.14	11.64	-5.89	-7788.13	0.30	0.004386
	2.00543	180.43	7.33		174.58	15.00	
		104747.27					
1365.61	55.00	4423.38	11.88	-6.11	-8347.34	0.31	0.004452
	2.08115	182.30	7.49		176.34	14.84	
		105801.06					
1432.68	56.00	4423.75	12.25	-6.42	-9196.60	0.32	0.004540
	2.19285	185.10	7.74		178.97	14.61	
		107379.05					
1518.27	57.00	4424.22	12.72	-6.78	-10288.60	0.34	0.004642
	2.33242	188.55	8.05		182.20	14.33	
		109322.69					
1610.03	58.00	4424.70	13.20	-7.15	-11508.13	0.35	0.004729
	2.47321	192.11	8.38		185.55	14.05	
		111329.27					
1688.60	59.00	4425.11	13.61	-7.43	-12543.30	0.35	0.004800
	2.59287	195.05	8.66		188.31	13.83	
		112984.48					

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1776.44	60.00	4425.56	14.06	8.96	-7.73	-13732.27	0.36	0.004901
	2.74054	198.22				191.28	13.60	
		114768.23						
1864.83	61.00	4426.01	14.51	9.26	-8.01	-14928.29	0.37	0.005001
	2.89089	201.31				194.18	13.38	
		116508.30						
1919.35	62.00	4426.28	14.78	9.45	-8.18	-15701.91	0.38	0.005069
	2.98811	203.17				195.92	13.25	
		117552.32						
1967.70	63.00	4426.52	15.02	9.61	-8.33	-16393.50	0.38	0.005129
	3.07560	204.78				197.43	13.15	
		118455.91						
2003.75	64.00	4426.69	15.19	9.73	-8.44	-16905.88	0.38	0.005171
	3.13896	205.96				198.53	13.07	
		119120.60						
2031.78	65.00	4426.83	15.33	9.82	-8.52	-17301.68	0.38	0.005277
	3.23395	206.87				199.39	13.01	
		119631.10						
2063.22	66.00	4426.98	15.48	9.93	-8.61	-17758.24	0.39	0.005307
	3.28690	207.88				200.33	12.94	
		120198.62						
2076.58	67.00	4427.04	15.54	9.97	-8.65	-17956.88	0.39	0.005314
	3.30597	208.30				200.73	12.91	
		120436.48						
2079.23	68.00	4427.06	15.56	9.98	-8.66	-17996.22	0.39	0.005314
	3.30840	208.38				200.81	12.91	
		120483.32						
2080.44	69.00	4427.06	15.56	9.98	-8.66	-18014.14	0.39	0.005315
	3.31053	208.42				200.84	12.91	
		120504.48						
2080.34	70.00	4427.06	15.56	9.98	-8.66	-18012.75	0.39	0.005314
	3.30977	208.42				200.84	12.91	
		120502.92						
2080.25	71.00	4427.06	15.56	9.98	-8.66	-18011.31	0.39	0.005313
	3.30905	208.41				200.84	12.91	
		120501.47						
2079.70	72.00	4427.06	15.56	9.98	-8.66	-18003.17	0.39	0.005313
	3.30863	208.40				200.82	12.91	
		120491.87						
2080.01	73.00	4427.06	15.56	9.98	-8.66	-18007.74	0.39	0.005317
	3.31114	208.41				200.83	12.91	
		120497.55						
2087.33	74.00	4427.10	15.60	10.00	-8.68	-18116.17	0.39	0.005333
	3.32945	208.64				201.05	12.89	
		120627.85						
2095.54	75.00	4427.13	15.63	10.03	-8.70	-18237.65	0.39	0.005339
	3.34200	208.90				201.29	12.87	
		120773.73						
2098.08	76.00	4427.15	15.65	10.04	-8.71	-18275.24	0.39	0.005344
	3.34814	208.98				201.37	12.87	
		120820.20						
2087.55	77.00	4427.10	15.60	10.01	-8.68	-18118.37	0.39	0.005335
	3.33096	208.64				201.05	12.89	
		120629.77						
2101.73	78.00	4427.16	15.66	10.05	-8.72	-18328.93	0.39	0.005362
	3.36306	209.10				201.47	12.86	
		120883.98						
5358.70	79.00	4427.26	15.76	25.55	-3.48	-18630.14	0.15	0.004732
	7.54443	209.73				202.07	12.82	
		121243.57						
0.00	80.00	4427.33	15.83	0.00	0.00	0.00	0.00	0.004744
	0.00000	209.88	0.00			202.53	12.79	
		121515.97						



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0.00	81.00	4427.41	15.91	0.00	0.00	0.00	0.00
	0.00000	210.03	0.00	202.99	12.76		0.004758
	82.00	121795.83					
0.00	0.00000	4427.46	15.96	0.00	0.00	0.00	
	83.00	210.12	0.00	203.28	12.74		0.004754
	0.00000	121965.02					
0.00	84.00	4427.43	15.93	0.00	0.00	0.00	
	0.00000	210.06	0.00	203.09	12.75		0.004744
	85.00	121854.85					
0.00	0.00000	4427.39	15.89	0.00	0.00	0.00	
	86.00	209.99	0.00	202.86	12.77		0.004742
	0.00000	121715.24					
0.00	87.00	4427.38	15.88	0.00	0.00	0.00	
	0.00000	209.96	0.00	202.79	12.77		0.004740
	88.00	121675.66					
0.00	0.00000	4427.39	15.89	0.00	0.00	0.00	
	89.00	209.99	0.00	202.88	12.77		0.004747
	0.00000	121725.23					
0.00	90.00	4427.39	15.89	0.00	0.00	0.00	
	0.00000	209.99	0.00	202.88	12.77		0.004737
	91.00	121728.77					
8764.18	88.00	4427.30	15.80	-2.14	-18741.69	0.09	
	89.00	209.80	41.77	202.29	12.81		0.005341
	90.00	121372.12					
2248.13	91.00	4427.15	15.65	-8.13	-18273.76	0.36	
	92.00	208.97	10.76	201.36	12.87		0.005283
	93.00	120813.10					
2009.84	94.00	4426.72	15.22	-8.45	-16987.34	0.38	
	95.00	206.12	9.75	198.69	13.06		0.005127
	96.00	119213.95					
1923.13	97.00	4426.30	14.80	-8.19	-15754.79	0.38	
	98.00	203.28	9.46	196.02	13.25		0.005035
	99.00	117614.54					
1857.74	100.00	4425.97	14.47	-7.98	-14830.57	0.37	
	101.00	201.05	9.24	193.94	13.40		0.004924
	102.00	116362.98					
1777.68	103.00	4425.57	14.07	-7.74	-13752.11	0.36	
	104.00	198.25	8.97	191.32	13.60		0.004800
	105.00	114789.03					
1716.11	106.00	4425.26	13.76	-7.53	-12915.86	0.36	
	107.00	196.05	8.75	189.24	13.76		0.004745
	108.00	113546.07					
1666.17	109.00	4425.00	13.50	-7.35	-12245.98	0.35	
	110.00	194.21	8.58	187.52	13.89		0.004706
	111.00	112514.91					
1625.81	112.00	4424.79	13.29	-7.21	-11718.34	0.35	
	113.00	192.70	8.44	186.11	14.01		0.004658
	114.00	111663.67					
1581.48	115.00	4424.55	13.05	-7.04	-11134.89	0.34	
	116.00	191.02	8.28	184.52	14.14		0.004622
	117.00	110714.28					
1548.91	118.00	4424.38	12.88	-6.91	-10702.10	0.34	
	119.00	189.76	8.16	183.34	14.23		0.004588
	120.00	110004.38					
1519.59	121.00	4424.22	12.72	-6.78	-10309.81	0.34	
	122.00	188.61	8.06	182.26	14.32		0.004564
	123.00	109356.79					
1497.57	124.00	4424.10	12.60	-6.69	-10016.45	0.33	
	125.00	187.73	7.98	181.44	14.39		0.004532
	126.00	108863.31					
1467.68	127.00	4423.94	12.44	-6.57	-9640.24	0.33	
	128.00	186.53	7.87	180.31	14.49		0.004504
	129.00	108186.67					

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1443.31	102.00	4423.81	12.31	-6.47	-9335.29	0.33	0.004479
	2.17390	185.54	7.78	179.38	14.57		
		107628.13					
1421.94	103.00	4423.69	12.19	-6.38	-9066.30	0.32	0.004459
	2.14267	184.66	7.70	178.55	14.64		
		107132.92					
1405.35	104.00	4423.60	12.10	-6.30	-8856.56	0.32	0.004441
	2.11684	183.97	7.64	177.91	14.70		
		106745.02					
1387.02	105.00	4423.50	12.00	-6.22	-8623.29	0.32	0.004411
	2.08409	183.20	7.57	177.19	14.77		
		106311.09					
1360.69	106.00	4423.35	11.85	-6.09	-8287.00	0.31	0.004391
	2.04741	182.09	7.47	176.14	14.86		
		105683.16					
1344.88	107.00	4423.26	11.76	-6.01	-8084.04	0.31	0.004375
	2.02388	181.42	7.41	175.50	14.92		
		105302.61					
1331.41	108.00	4423.19	11.69	-5.94	-7910.23	0.31	0.004358
	2.00239	180.83	7.36	174.96	14.97		
		104975.06					
1320.12	109.00	4423.12	11.63	-5.88	-7764.27	0.30	0.004354
	1.98867	180.35	7.32	174.50	15.01		
		104699.73					
1320.70	110.00	4423.13	11.63	-5.88	-7771.78	0.30	0.004366
	1.99465	180.37	7.32	174.52	15.01		
		104714.87					
1334.94	111.00	4423.21	11.71	-5.96	-7955.53	0.31	0.004392
	2.02141	180.99	7.38	175.10	14.95		
		105062.88					
1353.74	112.00	4423.31	11.81	-6.06	-8198.08	0.31	0.004390
	2.03987	181.80	7.45	175.86	14.89		
		105518.06					
1344.81	113.00	4423.26	11.76	-6.01	-8083.14	0.31	0.004375
	2.02354	181.41	7.41	175.50	14.92		
		105300.91					
1338.16	114.00	4423.23	11.73	-5.98	-7997.39	0.31	0.004391
	2.02443	181.13	7.39	175.23	14.94		
		105140.94					
1361.61	115.00	4423.36	11.86	-6.09	-8298.29	0.31	0.004426
	2.06468	182.13	7.48	176.18	14.86		
		105707.62					
1384.30	116.00	4423.48	11.98	-6.20	-8589.17	0.32	0.004424
	2.08711	183.09	7.56	177.08	14.78		
		106249.41					
1376.77	117.00	4423.44	11.94	-6.17	-8493.11	0.31	0.004418
	2.07682	182.78	7.53	176.78	14.80		
		106069.53					
1374.93	118.00	4423.43	11.93	-6.16	-8469.68	0.31	0.004419
	2.07497	182.70	7.53	176.71	14.81		
		106026.22					
1377.76	119.00	4423.45	11.95	-6.17	-8505.67	0.31	0.004431
	2.08385	182.82	7.54	176.82	14.80		
		106093.98					
1388.90	120.00	4423.51	12.01	-6.23	-8647.81	0.32	0.004436
	2.09759	183.29	7.58	177.26	14.76		
		106358.72					
1390.62	121.00	4423.52	12.02	-6.23	-8669.73	0.32	0.004436
	2.09950	183.36	7.58	177.33	14.75		
		106399.07					
1387.83	122.00	4423.50	12.00	-6.22	-8634.12	0.32	0.004424
	2.09075	183.24	7.57	177.22	14.76		
		106332.27					

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1376.75	123.00	4423.44	11.94	7.53	-6.17	-8492.91	0.31
	2.07683	182.77				176.78	14.80
		106069.16					0.004419
1372.24	124.00	4423.42	11.92	7.52	-6.15	-8435.17	0.31
	2.06621	182.58				176.60	14.82
		105961.20					0.004406
1361.13	125.00	4423.36	11.86	7.47	-6.09	-8293.01	0.31
	2.05283	182.11				176.16	14.86
		105695.34					0.004402
1359.33	126.00	4423.35	11.85	7.47	-6.08	-8269.90	0.31
	2.05082	182.04				176.09	14.87
		105652.47					0.004401
1357.00	127.00	4423.33	11.83	7.46	-6.07	-8239.98	0.31
	2.04298	181.94				175.99	14.87
		105595.87					0.004390
1347.04	128.00	4423.28	11.78	7.42	-6.02	-8112.04	0.31
	2.03112	181.51				175.59	14.91
		105355.73					0.004386
1345.43	129.00	4423.27	11.77	7.42	-6.01	-8091.33	0.31
	2.02897	181.44				175.53	14.92
		105317.20					0.004385
1343.16	130.00	4423.25	11.75	7.41	-6.00	-8062.04	0.31
	2.02175	181.34				175.44	14.92
		105261.61					0.004374
1333.53	131.00	4423.20	11.70	7.37	-5.95	-7937.82	0.31
	2.00983	180.93				175.05	14.96
		105027.64					0.004370
1336.53	132.00	4423.22	11.72	7.38	-5.97	-7976.28	0.31
	2.02295	181.06				175.17	14.95
		105101.58					0.004392
1356.12	133.00	4423.33	11.83	7.46	-6.07	-8228.59	0.31
	2.04737	181.90				175.96	14.88
		105575.82					0.004401
1359.28	134.00	4423.35	11.85	7.47	-6.08	-8269.35	0.31
	2.05082	182.03				176.09	14.87
		105651.48					0.004401
1359.35	135.00	4423.35	11.85	7.47	-6.08	-8270.25	0.31
	2.05057	182.04				176.09	14.87
		105653.13					0.004401
1359.33	136.00	4423.35	11.85	7.47	-6.08	-8269.96	0.31
	2.05037	182.04				176.09	14.87
		105652.60					0.004400
1359.33	137.00	4423.35	11.85	7.47	-6.08	-8269.93	0.31
	2.05074	182.04				176.09	14.87
		105652.54					0.004401
1359.35	138.00	4423.35	11.85	7.47	-6.08	-8270.15	0.31
	2.05078	182.04				176.09	14.87
		105652.99					0.004401
1359.33	139.00	4423.35	11.85	7.47	-6.08	-8269.88	0.31
	2.05102	182.04				176.09	14.87
		105652.45					0.004402
1357.01	140.00	4423.33	11.83	7.46	-6.07	-8240.09	0.31
	2.04299	181.94				175.99	14.87
		105596.08					0.004390
1347.07	141.00	4423.28	11.78	7.42	-6.02	-8112.33	0.31
	2.03063	181.51				175.59	14.91
		105356.29					0.004385
1345.40	142.00	4423.27	11.77	7.42	-6.01	-8090.90	0.31
	2.02876	181.44				175.53	14.92
		105316.41					0.004385
1345.41	143.00	4423.27	11.77	7.42	-6.01	-8091.00	0.31
	2.02882	181.44				175.53	14.92
		105316.56					0.004385

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				HYCHAN.OUT			
1345.40	144.00	4423.27	11.77	7.42	-6.01	-8090.87	0.31
	2.02936	181.44				175.53	14.92
		105316.38					0.004386
1343.20	145.00	4423.26	11.76	7.41	-6.00	-8062.57	0.31
	2.02155	181.34				175.44	14.92
		105262.59					0.004374
1333.52	146.00	4423.20	11.70	7.37	-5.95	-7937.70	0.31
	2.00954	180.93				175.05	14.96
		105027.45					0.004369
1331.92	147.00	4423.19	11.69	7.36	-5.94	-7916.99	0.31
	2.00810	180.86				174.98	14.97
		104988.77					0.004370
1331.92	148.00	4423.19	11.69	7.36	-5.94	-7916.99	0.31
	2.00801	180.86				174.98	14.97
		104988.74					0.004370
1331.92	149.00	4423.19	11.69	7.36	-5.94	-7916.99	0.31
	2.00817	180.86				174.98	14.97
		104988.76					0.004370
1331.93	150.00	4423.19	11.69	7.36	-5.94	-7917.10	0.31
	2.00803	180.86				174.98	14.97
		104988.97					0.004370
1330.46	151.00	4423.18	11.68	7.36	-5.94	-7898.12	0.31
	2.00323	180.80				174.92	14.97
		104952.83					0.004362
1323.33	152.00	4423.14	11.64	7.33	-5.90	-7805.80	0.30
	1.99300	180.49				174.63	15.00
		104778.25					0.004356
1319.00	153.00	4423.12	11.62	7.32	-5.88	-7749.80	0.30
	1.98754	180.30				174.45	15.01
		104672.59					0.004354
1318.47	154.00	4423.12	11.62	7.31	-5.87	-7742.88	0.30
	1.98734	180.28				174.43	15.02
		104659.65					0.004355
1316.35	155.00	4423.10	11.60	7.31	-5.86	-7715.28	0.30
	1.97997	180.18				174.34	15.02
		104606.86					0.004343
1311.10	156.00	4423.07	11.57	7.29	-5.83	-7647.08	0.30
	1.98236	179.96				174.13	15.04
		104478.67					0.004360
1328.65	157.00	4423.17	11.67	7.35	-5.93	-7874.55	0.31
	2.00438	180.72				174.85	14.98
		104909.45					0.004369
1331.89	158.00	4423.19	11.69	7.36	-5.94	-7916.62	0.31
	2.00801	180.86				174.98	14.97
		104988.12					0.004370
1331.93	159.00	4423.19	11.69	7.36	-5.94	-7917.13	0.31
	2.00826	180.86				174.98	14.97
		104989.02					0.004370
1331.90	160.00	4423.19	11.69	7.36	-5.94	-7916.83	0.31
	2.00788	180.86				174.98	14.97
		104988.47					0.004369
1331.93	161.00	4423.19	11.69	7.36	-5.94	-7917.15	0.31
	2.00816	180.86				174.98	14.97
		104989.08					0.004370
1331.94	162.00	4423.19	11.69	7.36	-5.94	-7917.24	0.31
	2.00776	180.86				174.98	14.97
		104989.25					0.004369
1331.91	163.00	4423.19	11.69	7.36	-5.94	-7916.84	0.31
	2.00809	180.86				174.98	14.97
		104988.47					0.004370
1331.91	164.00	4423.19	11.69	7.36	-5.94	-7916.86	0.31
	2.00822	180.86				174.98	14.97
		104988.50					0.004370

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				HYCHAN.OUT			
1329.73	165.00	4423.18	11.68	-5.93	-7888.68	0.31	0.004359
	2.00092	180.76		7.36	174.89	14.97	
		104934.82					
1320.08	166.00	4423.12	11.62	-5.88	-7763.71	0.30	0.004354
	1.98864	180.35		7.32	174.50	15.01	
		104698.69					
1318.47	167.00	4423.12	11.62	-5.87	-7742.89	0.30	0.004355
	1.98739	180.28		7.31	174.43	15.02	
		104659.66					
1318.50	168.00	4423.12	11.62	-5.87	-7743.33	0.30	0.004354
	1.98697	180.28		7.31	174.43	15.02	
		104660.50					
1318.45	169.00	4423.12	11.62	-5.87	-7742.64	0.30	0.004355
	1.98744	180.28		7.31	174.43	15.02	
		104659.19					
1318.50	170.00	4423.12	11.62	-5.87	-7743.28	0.30	0.004354
	1.98728	180.28		7.31	174.43	15.02	
		104660.41					
1318.49	171.00	4423.12	11.62	-5.87	-7743.12	0.30	0.004354
	1.98707	180.28		7.31	174.43	15.02	
		104660.05					
1318.46	172.00	4423.12	11.62	-5.87	-7742.72	0.30	0.004354
	1.98717	180.28		7.31	174.43	15.02	
		104659.37					
1316.33	173.00	4423.10	11.60	-5.86	-7715.12	0.30	0.004344
	1.98008	180.18		7.31	174.34	15.02	
		104606.56					
1306.69	174.00	4423.05	11.55	-5.81	-7589.86	0.30	0.004339
	1.96822	179.76		7.27	173.95	15.06	
		104369.05					
1305.09	175.00	4423.04	11.54	-5.80	-7569.08	0.30	0.004339
	1.96635	179.69		7.26	173.88	15.07	
		104330.00					
1305.08	176.00	4423.04	11.54	-5.80	-7568.93	0.30	0.004339
	1.96630	179.69		7.26	173.88	15.07	
		104329.73					
1305.09	177.00	4423.04	11.54	-5.80	-7569.09	0.30	0.004339
	1.96625	179.69		7.26	173.88	15.07	
		104329.99					
1305.10	178.00	4423.04	11.54	-5.80	-7569.19	0.30	0.004338
	1.96616	179.69		7.26	173.88	15.07	
		104330.21					
1305.06	179.00	4423.04	11.54	-5.80	-7568.67	0.30	0.004339
	1.96655	179.69		7.26	173.88	15.07	
		104329.24					
1309.52	180.00	4423.07	11.57	-5.82	-7626.44	0.30	0.004360
	1.98060	179.89		7.28	174.07	15.05	
		104439.91					
1328.64	181.00	4423.17	11.67	-5.93	-7874.38	0.31	0.004370
	2.00486	180.72		7.35	174.85	14.98	
		104909.18					
1334.18	182.00	4423.20	11.70	-5.96	-7946.12	0.31	0.004381
	2.01556	180.96		7.37	175.07	14.96	
		105044.19					
1343.76	183.00	4423.26	11.76	-6.01	-8069.78	0.31	0.004386
	2.02764	181.37		7.41	175.46	14.92	
		105277.06					
1345.41	184.00	4423.27	11.77	-6.01	-8091.05	0.31	0.004384
	2.02866	181.44		7.42	175.53	14.92	
		105316.69					
1345.37	185.00	4423.27	11.77	-6.01	-8090.58	0.31	0.004385
	2.02913	181.44		7.42	175.53	14.92	
		105315.82					

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HYCHAN.OUT									
1345.42	186.00	4423.27	11.77	7.42	-6.01	-8091.15	14.92	0.31	0.004385
	2.02886	181.44				175.53			
		105316.89							
1345.42	187.00	4423.27	11.77	7.42	-6.01	-8091.21	14.92	0.31	0.004385
	2.02920	181.44				175.53			
		105316.98							
1345.40	188.00	4423.27	11.77	7.42	-6.01	-8090.94	14.92	0.31	0.004385
	2.02913	181.44				175.53			
		105316.46							
1345.40	189.00	4423.27	11.77	7.42	-6.01	-8090.94	14.92	0.31	0.004385
	2.02912	181.44				175.53			
		105316.48							
1345.41	190.00	4423.27	11.77	7.42	-6.01	-8091.04	14.92	0.31	0.004385
	2.02916	181.44				175.53			
		105316.66							
1343.19	191.00	4423.25	11.76	7.41	-6.00	-8062.34	14.92	0.31	0.004374
	2.02172	181.34				175.44			
		105262.17							
1333.53	192.00	4423.20	11.70	7.37	-5.95	-7937.81	14.96	0.31	0.004370
	2.00963	180.93				175.05			
		105027.65							
1331.92	193.00	4423.19	11.69	7.36	-5.94	-7916.99	14.97	0.31	0.004370
	2.00821	180.86				174.98			
		104988.77							
1331.92	194.00	4423.19	11.69	7.36	-5.94	-7917.01	14.97	0.31	0.004370
	2.00827	180.86				174.98			
		104988.83							
1331.93	195.00	4423.19	11.69	7.36	-5.94	-7917.21	14.97	0.31	0.004369
	2.00796	180.86				174.98			
		104989.16							
1331.93	196.00	4423.19	11.69	7.36	-5.94	-7917.11	14.97	0.31	0.004369
	2.00784	180.86				174.98			
		104988.98							
1331.91	197.00	4423.19	11.69	7.36	-5.94	-7916.93	14.97	0.31	0.004370
	2.00830	180.86				174.98			
		104988.68							
1331.94	198.00	4423.19	11.69	7.36	-5.94	-7917.26	14.97	0.31	0.004369
	2.00791	180.86				174.98			
		104989.27							
1331.87	199.00	4423.19	11.69	7.36	-5.94	-7916.34	14.97	0.31	0.004371
	2.00859	180.86				174.98			
		104987.55							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2289

MAXIMUM DISCHARGE (CFS) = 25055.95 AT TIME = 87.77  
 MAXIMUM STAGE = 4424.11 AT TIME = 81.50

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR STRESS	WETTED PERIMETER	HYDRAULIC RADIUS	VELOCITY	DISCHARGE	FROUDE NO.	FLOW		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)	ENERGY	SLOPE
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4410.80	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4410.80	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4410.80	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
771.97	3.00	4411.52	0.72	0.68	523.45	0.14	0.002329
	5.00144	22.43	34.42	22.40	30.91		
1051.10	4.00	13440.51	8.09	5.23	5496.18	0.32	0.001774
	0.58035	200.46	5.24	197.81	24.46		
1040.20	5.00	118687.63	8.10	5.20	5404.78	0.32	0.001764
	0.57010	200.81	5.18	198.16	24.46		
1035.16	6.00	118894.84	8.08	5.18	5362.46	0.32	0.001750
	0.56430	200.33	5.17	197.69	24.46		
1020.54	7.00	118612.94	8.02	5.13	5238.77	0.32	0.001729
	0.55305	199.05	5.13	196.44	24.48		
1002.87	8.00	117861.41	7.95	5.07	5088.69	0.32	0.001708
	0.54146	197.41	5.08	194.82	24.50		
985.20	9.00	116890.24	7.88	5.02	4943.71	0.32	0.001683
	0.52838	195.77	5.03	193.21	24.52		
967.45	10.00	115926.39	7.81	4.97	4805.76	0.31	0.001670
	0.51913	194.16	4.98	191.63	24.54		
961.90	11.00	114977.82	7.78	4.95	4762.49	0.31	0.001660
	0.51460	193.57	4.97	191.05	24.55		
947.13	12.00	114632.47	7.72	4.91	4646.60	0.31	0.001636
	0.50309	192.22	4.93	189.73	24.57		
929.22	13.00	113835.87	7.64	4.85	4505.37	0.31	0.001623
	0.49405	190.48	4.88	188.02	24.59		
924.60	14.00	112810.81	7.62	4.83	4468.89	0.31	0.001623
	0.49301	189.95	4.87	187.50	24.60		
924.61	15.00	112500.99	7.62	4.83	4469.02	0.31	0.001624
	0.49314	189.95	4.87	187.50	24.60		
924.60	16.00	112502.07	7.62	4.83	4468.96	0.31	0.001623
	0.49305	189.95	4.87	187.50	24.60		
924.61	17.00	112501.45	7.62	4.83	4469.04	0.31	0.001623
	0.49310	189.95	4.87	187.50	24.60		
925.69	18.00	112501.88	7.63	4.84	4477.55	0.31	0.001634
	0.49665	190.04	4.87	187.59	24.60		
940.48	19.00	112553.45	7.69	4.88	4594.24	0.31	0.001657
	0.50796	191.42	4.91	188.94	24.58		
960.15	20.00	113365.53	7.77	4.95	4748.61	0.31	0.001683
	0.52158	193.30	4.97	190.78	24.56		
978.42	21.00	114469.90	7.84	5.00	4891.17	0.31	0.001696
	0.53102	195.00	5.02	192.45	24.53		
982.63	22.00	115471.97	7.86	5.01	4923.93	0.32	0.001696
	0.53206	195.45	5.03	192.90	24.53		
	23.00	115738.22	7.87	5.02	4935.42	0.32	
		4418.67					

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		HYCHAN.OUT					
984.12	0.53664	195.55	5.03	193.00	24.52	0.001709	
	24.00	115798.04					
		4418.73	7.93	5.07	5075.04	0.32	
1001.27	0.55327	197.02	5.08		194.44	24.51	0.001745
	25.00	116662.32					
		4418.87	8.07	5.18	5357.56	0.32	
1034.67	0.57768	200.05	5.17		197.41	24.47	0.001790
	26.00	118448.80					
		4419.01	8.21	5.29	5667.08	0.33	
1071.63	0.60475	203.32	5.27		200.62	24.42	0.001839
	27.00	120373.87					
		4419.14	8.34	5.38	5937.24	0.33	
1104.21	0.62150	206.15	5.36		203.39	24.39	0.001859
	28.00	122036.92					
		4419.17	8.37	5.39	5985.14	0.33	
1110.01	0.62297	206.73	5.37		203.97	24.38	0.001859
	29.00	122380.05					
		4419.17	8.37	5.40	6005.42	0.33	
1112.49	0.62947	206.89	5.38		204.13	24.38	0.001876
	30.00	122476.60					
		4419.23	8.43	5.43	6126.67	0.33	
1127.29	0.63820	208.07	5.42		205.28	24.36	0.001888
	31.00	123170.68					
		4419.24	8.44	5.44	6152.30	0.33	
1130.43	0.63896	208.37	5.42		205.58	24.36	0.001888
	32.00	123348.51					
		4419.25	8.45	5.45	6174.20	0.33	
1133.12	0.64577	208.55	5.43		205.75	24.36	0.001905
	33.00	123452.74					
		4419.30	8.50	5.49	6300.37	0.33	
1148.62	0.65521	209.76	5.48		206.94	24.34	0.001918
	34.00	124166.59					
		4419.31	8.51	5.49	6326.02	0.33	
1151.78	0.65601	210.06	5.48		207.24	24.34	0.001917
	35.00	124341.47					
		4419.31	8.51	5.49	6303.76	0.33	
1149.04	0.64897	209.89	5.47		207.06	24.34	0.001900
	36.00	124238.59					
		4419.25	8.45	5.45	6177.70	0.33	
1133.55	0.63978	208.68	5.43		205.88	24.36	0.001887
	37.00	123528.35					
		4419.23	8.43	5.44	6131.17	0.33	
1127.84	0.63248	208.21	5.42		205.42	24.36	0.001871
	38.00	123249.31					
		4419.18	8.38	5.40	6010.47	0.33	
1113.11	0.62372	207.03	5.38		204.27	24.38	0.001859
	39.00	122559.78					
		4419.17	8.37	5.39	5984.84	0.33	
1109.98	0.62298	206.73	5.37		203.96	24.38	0.001859
	40.00	122377.67					
		4419.17	8.37	5.39	5985.28	0.33	
1110.03	0.62307	206.73	5.37		203.97	24.38	0.001860
	41.00	122379.22					
		4419.17	8.37	5.39	5984.77	0.33	
1109.97	0.62293	206.72	5.37		203.96	24.38	0.001859
	42.00	122377.38					
		4419.17	8.37	5.39	5985.03	0.33	
1110.00	0.62296	206.73	5.37		203.96	24.38	0.001859
	43.00	122377.74					
		4419.17	8.37	5.40	6005.56	0.33	
1112.51	0.62966	206.90	5.38		204.13	24.38	0.001877
	44.00	122477.95					
		4419.23	8.43	5.43	6126.91	0.33	

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				HYCHAN.OUT			
1127.32		208.08		5.42	205.29	24.36	0.001888
	0.63843	123172.97					
45.00	4419.25	8.45	5.45	6174.44	0.33		
1133.14		208.56	5.43	205.76	24.36	0.001905	
	0.64583	123456.42					
46.00	4419.31	8.51	5.49	6323.70	0.33		
1151.52		209.95	5.48	207.13	24.34	0.001936	
	0.66246	124275.59					
47.00	4419.38	8.58	5.54	6498.34	0.33		
1173.12		211.62	5.54	208.76	24.32	0.001966	
	0.68011	125257.20					
48.00	4419.46	8.66	5.58	6671.98	0.33		
1194.75		213.24	5.60	210.35	24.30	0.001998	
	0.69854	126212.31					
49.00	4419.53	8.73	5.63	6841.22	0.34		
1215.96		214.81	5.66	211.89	24.28	0.002027	
	0.71613	127135.05					
50.00	4419.60	8.80	5.67	7018.23	0.34		
1238.30		216.40	5.72	213.45	24.26	0.002061	
	0.73604	128072.20					
51.00	4419.68	8.88	5.71	7214.70	0.34		
1263.27		218.12	5.79	215.15	24.24	0.002113	
	0.76380	129087.05					
52.00	4419.78	8.98	5.77	7492.18	0.34		
1297.74		220.56	5.88	217.53	24.21	0.002137	
	0.78460	130518.09					
53.00	4419.82	9.02	5.80	7570.35	0.34		
1305.19		221.26	5.90	218.22	24.20	0.002144	
	0.78933	130933.27					
54.00	4419.89	9.09	5.89	7788.13	0.34		
1322.04		222.88	5.93	219.81	24.18	0.002171	
	0.80337	131887.23					
55.00	4420.08	9.28	6.11	8347.34	0.35		
1365.61		227.05	6.01	223.90	24.14	0.002219	
	0.83282	134341.47					
56.00	4420.35	9.55	6.42	9196.60	0.37		
1432.68		233.10	6.15	229.83	24.07	0.002294	
	0.87988	137899.86					
57.00	4420.68	9.88	6.78	10288.60	0.38		
1518.27		240.46	6.31	237.05	23.99	0.002383	
	0.93877	142228.89					
58.00	4421.03	10.23	7.15	11508.13	0.39		
1610.03		248.18	6.49	244.62	23.91	0.002469	
	0.99955	146769.06					
59.00	4421.31	10.51	7.43	12543.30	0.40		
1688.60		254.38	6.64	250.69	23.85	0.002542	
	1.05314	150413.83					
60.00	4421.61	10.81	7.73	13732.27	0.41		
1776.44		260.88	6.81	257.07	23.78	0.002652	
	1.12669	154240.45					
61.00	4421.90	11.11	8.01	14928.29	0.42		
1864.83		267.35	6.98	263.40	23.72	0.002720	
	1.18393	158040.56					
62.00	4422.09	11.29	8.18	15701.91	0.43		
1919.35		271.38	7.07	267.35	23.68	0.002768	
	1.22152	160412.42					
63.00	4422.24	11.45	8.33	16393.50	0.43		
1967.70		274.77	7.16	270.67	23.65	0.002813	
	1.25688	162403.55					
64.00	4422.36	11.56	8.44	16905.88	0.44		
2003.75		277.37	7.22	273.22	23.63	0.002841	
	1.28081	163929.80					
65.00	4422.45	11.65	8.52	17301.68	0.44		

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2031.78		279.18		7.28	274.99	23.61	0.002848
	1.29344	164996.88					
66.00		4422.49	11.69	8.61	17758.24	0.44	
2063.22		280.04		7.37	275.84	23.60	0.002872
	1.32053	165504.48					
67.00		4422.53	11.73	8.65	17956.88	0.45	
2076.58		281.06		7.39	276.83	23.59	0.002877
	1.32644	166100.89					
68.00		4422.54	11.74	8.66	17996.22	0.45	
2079.23		281.26		7.39	277.03	23.59	0.002877
	1.32724	166219.97					
69.00		4422.55	11.75	8.66	18014.14	0.45	
2080.44		281.35		7.39	277.12	23.59	0.002877
	1.32767	166273.41					
70.00		4422.55	11.75	8.66	18012.75	0.45	
2080.34		281.40		7.39	277.17	23.59	0.002876
	1.32688	166300.36					
71.00		4422.55	11.75	8.66	18011.31	0.45	
2080.25		281.39		7.39	277.16	23.59	0.002876
	1.32653	166293.42					
72.00		4422.55	11.75	8.66	18003.17	0.45	
2079.70		281.36		7.39	277.12	23.59	0.002875
	1.32629	166274.83					
73.00		4422.55	11.75	8.66	18007.74	0.45	
2080.01		281.36		7.39	277.13	23.59	0.002879
	1.32819	166278.86					
74.00		4422.57	11.77	8.68	18116.17	0.45	
2087.33		281.84		7.41	277.59	23.59	0.002891
	1.33602	166556.86					
75.00		4422.60	11.80	8.70	18237.65	0.45	
2095.54		282.42		7.42	278.17	23.58	0.002894
	1.33981	166900.23					
76.00		4422.60	11.81	8.71	18275.24	0.45	
2098.08		282.61		7.42	278.35	23.58	0.002897
	1.34193	167010.38					
77.00		4422.57	11.77	8.68	18118.37	0.45	
2087.55		281.93		7.40	277.69	23.58	0.002891
	1.33554	166612.56					
78.00		4422.61	11.81	8.72	18328.93	0.45	
2101.73		282.78		7.43	278.52	23.58	0.002910
	1.34959	167113.52					
79.00		4423.40	12.60	3.48	18630.14	0.17	
5358.70		299.80		17.87	295.19	23.43	0.002173
	2.42418	177112.62					
80.00		4424.00	13.20	0.00	0.00	0.00	
0.00		312.80	0.00	307.92	23.32	0.00	0.002178
	0.00000	184750.67					
81.00		4424.06	13.26	0.00	0.00	0.00	
0.00		314.16	0.00	309.25	23.31	0.00	0.002183
	0.00000	185550.73					
82.00		4424.11	13.31	0.00	0.00	0.00	
0.00		315.11	0.00	310.18	23.31	0.00	0.002179
	0.00000	186108.62					
83.00		4424.09	13.29	0.00	0.00	0.00	
0.00		314.65	0.00	309.72	23.31	0.00	0.002175
	0.00000	185833.95					
84.00		4424.05	13.25	0.00	0.00	0.00	
0.00		313.92	0.00	309.01	23.32	0.00	0.002175
	0.00000	185407.69					
85.00		4424.04	13.24	0.00	0.00	0.00	
0.00		313.71	0.00	308.81	23.32	0.00	0.002175
	0.00000	185284.83					
86.00		4424.05	13.25	0.00	0.00	0.00	

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0.00		313.93	0.00	309.02	23.32		0.002176
	0.00000	185413.98					
	87.00	4424.06	13.26	0.00	0.00	0.00	
0.00		314.00	0.00	309.10	23.31		0.002172
	0.00000	185457.33					
	88.00	4423.71	12.91	2.14	18741.69	0.10	
8764.18		306.62	28.58	301.87	23.37		0.002888
	5.15086	181119.70					
	89.00	4422.70	11.90	8.13	18273.76	0.42	
2248.13		284.60	7.90	280.30	23.56		0.002849
	1.40440	168179.69					
	90.00	4422.35	11.55	8.45	16987.34	0.44	
2009.84		277.00	7.26	272.86	23.63		0.002738
	1.23962	163713.97					
	91.00	4422.06	11.26	8.19	15754.79	0.43	
1923.13		270.72	7.10	266.70	23.69		0.002677
	1.18669	160022.88					
	92.00	4421.84	11.04	7.98	14830.57	0.42	
1857.74		266.01	6.98	262.09	23.73		0.002597
	1.13152	157256.48					
	93.00	4421.63	10.83	7.74	13752.11	0.41	
1777.68		261.23	6.81	257.41	23.78		0.002543
	1.07970	154444.52					
	94.00	4421.43	10.63	7.53	12915.86	0.41	
1716.11		257.05	6.68	253.31	23.82		0.002486
	1.03587	151985.12					
	95.00	4421.26	10.46	7.35	12245.98	0.40	
1666.17		253.18	6.58	249.52	23.86		0.002443
	1.00332	149710.48					
	96.00	4421.11	10.31	7.21	11718.34	0.40	
1625.81		250.02	6.50	246.42	23.89		0.002397
	0.97247	147849.75					
	97.00	4420.95	10.15	7.04	11134.89	0.39	
1581.48		246.41	6.42	242.88	23.93		0.002363
	0.94625	145730.11					
	98.00	4420.83	10.03	6.91	10702.10	0.38	
1548.91		243.64	6.36	240.16	23.96		0.002333
	0.92534	144097.12					
	99.00	4420.71	9.91	6.78	10309.81	0.38	
1519.59		241.10	6.30	237.68	23.98		0.002313
	0.90975	142606.30					
	100.00	4420.62	9.82	6.69	10016.45	0.38	
1497.57		239.19	6.26	235.80	24.00		0.002285
	0.89278	141479.70					
	101.00	4420.51	9.71	6.57	9640.24	0.37	
1467.68		236.65	6.20	233.32	24.03		0.002260
	0.87446	139989.05					
	102.00	4420.41	9.61	6.47	9335.29	0.37	
1443.31		234.55	6.15	231.26	24.05		0.002237
	0.85898	138754.73					
	103.00	4420.33	9.53	6.38	9066.30	0.36	
1421.94		232.68	6.11	229.42	24.07		0.002221
	0.84686	137650.00					
	104.00	4420.26	9.46	6.30	8856.56	0.36	
1405.35		231.17	6.08	227.94	24.09		0.002207
	0.83711	136762.92					
	105.00	4420.19	9.39	6.22	8623.29	0.36	
1387.02		229.50	6.04	226.31	24.11		0.002183
	0.82330	135783.56					
	106.00	4420.07	9.27	6.09	8287.00	0.35	
1360.69		227.00	5.99	223.85	24.14		0.002170
	0.81152	134309.55					
	107.00	4420.00	9.20	6.01	8084.04	0.35	

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1344.88	225.41		5.97	222.29	24.16	0.002160
0.80413	133372.92					
108.00	4419.94	9.14	5.94	7910.23	0.35	
1331.41	224.06		5.94	220.97	24.17	0.002149
0.79689	132582.66					
109.00	4419.89	9.09	5.88	7764.27	0.34	
1320.12	222.88		5.92	219.81	24.18	0.002147
0.79360	131888.12					
110.00	4419.89	9.09	5.88	7771.78	0.34	
1320.70	222.87		5.93	219.80	24.18	0.002155
0.79692	131879.06					
111.00	4419.95	9.15	5.96	7955.53	0.35	
1334.94	224.24		5.95	221.14	24.17	0.002173
0.80719	132685.70					
112.00	4420.04	9.24	6.06	8198.08	0.35	
1353.74	226.17		5.99	223.04	24.15	0.002169
0.81007	133823.47					
113.00	4420.00	9.20	6.01	8083.14	0.35	
1344.81	225.40		5.97	222.28	24.16	0.002159
0.80378	133369.08					
114.00	4419.97	9.17	5.98	7997.39	0.35	
1338.16	224.64		5.96	221.54	24.16	0.002173
0.80771	132921.45					
115.00	4420.07	9.27	6.09	8298.29	0.35	
1361.61	226.82		6.00	223.67	24.14	0.002197
0.82300	134204.52					
116.00	4420.17	9.37	6.20	8589.17	0.36	
1384.30	229.10		6.04	225.91	24.11	0.002193
0.82690	135548.39					
117.00	4420.14	9.34	6.17	8493.11	0.36	
1376.77	228.47		6.03	225.29	24.12	0.002190
0.82354	135173.33					
118.00	4420.13	9.33	6.16	8469.68	0.36	
1374.93	228.26		6.02	225.08	24.12	0.002190
0.82316	135049.25					
119.00	4420.14	9.34	6.17	8505.67	0.36	
1377.76	228.48		6.03	225.31	24.12	0.002200
0.82775	135184.20					
120.00	4420.19	9.39	6.23	8647.81	0.36	
1388.90	229.53		6.05	226.34	24.11	0.002203
0.83194	135801.14					
121.00	4420.20	9.40	6.23	8669.73	0.36	
1390.62	229.73		6.05	226.53	24.11	0.002203
0.83216	135917.66					
122.00	4420.19	9.39	6.22	8634.12	0.36	
1387.83	229.51		6.05	226.31	24.11	0.002193
0.82759	135787.03					
123.00	4420.14	9.34	6.17	8492.91	0.36	
1376.75	228.47		6.03	225.29	24.12	0.002190
0.82344	135173.77					
124.00	4420.12	9.32	6.15	8435.17	0.35	
1372.24	228.03		6.02	224.87	24.13	0.002180
0.81872	134919.58					
125.00	4420.07	9.27	6.09	8293.01	0.35	
1361.13	226.97		6.00	223.82	24.14	0.002179
0.81526	134292.84					
126.00	4420.06	9.26	6.08	8269.90	0.35	
1359.33	226.75		5.99	223.61	24.14	0.002178
0.81455	134164.31					
127.00	4420.05	9.25	6.07	8239.98	0.35	
1357.00	226.56		5.99	223.42	24.14	0.002169
0.81063	134054.48					
128.00	4420.01	9.21	6.02	8112.04	0.35	

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1347.04		225.59		5.97	222.47	24.15	0.002167
	0.80753	133481.09					
129.00	4420.00		9.20	6.01	8091.33	0.35	
1345.43		225.39		5.97	222.27	24.16	0.002167
	0.80720	133363.69					
130.00	4419.99		9.19	6.00	8062.04	0.35	
1343.16		225.20		5.96	222.09	24.16	0.002159
	0.80343	133253.94					
131.00	4419.95		9.15	5.95	7937.82	0.35	
1333.53		224.24		5.95	221.15	24.17	0.002157
	0.80025	132687.97					
132.00	4419.96		9.16	5.97	7976.28	0.35	
1336.53		224.43		5.96	221.33	24.17	0.002173
	0.80755	132800.64					
133.00	4420.05		9.25	6.07	8228.59	0.35	
1356.12		226.37		5.99	223.23	24.14	0.002177
	0.81389	133939.89					
134.00	4420.06		9.26	6.08	8269.35	0.35	
1359.28		226.75		5.99	223.61	24.14	0.002178
	0.81480	134163.02					
135.00	4420.06		9.26	6.08	8270.25	0.35	
1359.35		226.76		5.99	223.61	24.14	0.002178
	0.81464	134167.47					
136.00	4420.06		9.26	6.08	8269.96	0.35	
1359.33		226.75		5.99	223.61	24.14	0.002177
	0.81451	134165.70					
137.00	4420.06		9.26	6.08	8269.93	0.35	
1359.33		226.75		5.99	223.61	24.14	0.002177
	0.81448	134165.14					
138.00	4420.06		9.26	6.08	8270.15	0.35	
1359.35		226.75		5.99	223.61	24.14	0.002178
	0.81487	134165.95					
139.00	4420.06		9.26	6.08	8269.88	0.35	
1359.33		226.75		5.99	223.61	24.14	0.002178
	0.81468	134166.05					
140.00	4420.05		9.25	6.07	8240.09	0.35	
1357.01		226.56		5.99	223.42	24.14	0.002169
	0.81060	134053.66					
141.00	4420.01		9.21	6.02	8112.33	0.35	
1347.07		225.59		5.97	222.47	24.15	0.002167
	0.80744	133480.28					
142.00	4420.00		9.20	6.01	8090.90	0.35	
1345.40		225.39		5.97	222.27	24.16	0.002167
	0.80703	133363.48					
143.00	4420.00		9.20	6.01	8091.00	0.35	
1345.41		225.39		5.97	222.27	24.16	0.002167
	0.80710	133363.22					
144.00	4420.00		9.20	6.01	8090.87	0.35	
1345.40		225.39		5.97	222.27	24.16	0.002167
	0.80722	133361.52					
145.00	4419.99		9.19	6.00	8062.57	0.35	
1343.20		225.21		5.96	222.09	24.16	0.002159
	0.80345	133255.31					
146.00	4419.95		9.15	5.95	7937.70	0.35	
1333.52		224.24		5.95	221.15	24.17	0.002157
	0.80038	132688.64					
147.00	4419.94		9.14	5.94	7916.99	0.35	
1331.92		224.04		5.94	220.95	24.17	0.002157
	0.80008	132569.50					
148.00	4419.94		9.14	5.94	7916.99	0.35	
1331.92		224.04		5.95	220.95	24.17	0.002157
	0.80001	132568.42					
149.00	4419.94		9.14	5.94	7916.99	0.35	

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		HYCHAN.OUT					
1331.92	224.04	5.94	220.95	24.17	0.002157		
0.80012	132569.38						
150.00	4419.94	9.14	5.94	7917.10	0.35		
1331.93	224.04	5.94	220.95	24.17	0.002157		
0.80003	132571.02						
151.00	4419.94	9.14	5.94	7898.12	0.35		
1330.46	223.92	5.94	220.83	24.17	0.002152		
0.79793	132497.89						
152.00	4419.90	9.10	5.90	7805.80	0.34		
1323.33	223.21	5.93	220.13	24.18	0.002148		
0.79470	132079.42						
153.00	4419.88	9.08	5.88	7749.80	0.34		
1319.00	222.74	5.92	219.68	24.19	0.002148		
0.79357	131805.16						
154.00	4419.88	9.08	5.87	7742.88	0.34		
1318.47	222.67	5.92	219.61	24.19	0.002147		
0.79338	131764.84						
155.00	4419.87	9.07	5.86	7715.28	0.34		
1316.35	222.49	5.92	219.43	24.19	0.002140		
0.78998	131655.80						
156.00	4419.84	9.04	5.83	7647.08	0.34		
1311.10	221.88	5.91	218.83	24.20	0.002153		
0.79387	131297.84						
157.00	4419.92	9.12	5.93	7874.55	0.35		
1328.65	223.64	5.94	220.55	24.18	0.002157		
0.79962	132330.67						
158.00	4419.94	9.14	5.94	7916.62	0.35		
1331.89	224.04	5.94	220.95	24.17	0.002157		
0.80026	132567.33						
159.00	4419.94	9.14	5.94	7917.13	0.35		
1331.93	224.04	5.94	220.95	24.17	0.002157		
0.80019	132570.61						
160.00	4419.94	9.14	5.94	7916.83	0.35		
1331.90	224.04	5.94	220.95	24.17	0.002157		
0.80013	132569.19						
161.00	4419.94	9.14	5.94	7917.15	0.35		
1331.93	224.04	5.94	220.95	24.17	0.002157		
0.80000	132571.47						
162.00	4419.94	9.14	5.94	7917.24	0.35		
1331.94	224.04	5.95	220.95	24.17	0.002157		
0.80002	132570.02						
163.00	4419.94	9.14	5.94	7916.84	0.35		
1331.91	224.04	5.94	220.95	24.17	0.002157		
0.80019	132567.92						
164.00	4419.94	9.14	5.94	7916.86	0.35		
1331.91	224.04	5.94	220.95	24.17	0.002157		
0.80028	132570.36						
165.00	4419.93	9.13	5.93	7888.68	0.35		
1329.73	223.85	5.94	220.77	24.17	0.002149		
0.79653	132459.67						
166.00	4419.89	9.09	5.88	7763.71	0.34		
1320.08	222.88	5.92	219.81	24.18	0.002148		
0.79374	131884.36						
167.00	4419.88	9.08	5.87	7742.89	0.34		
1318.47	222.67	5.92	219.61	24.19	0.002148		
0.79346	131764.41						
168.00	4419.88	9.08	5.87	7743.33	0.34		
1318.50	222.68	5.92	219.61	24.19	0.002147		
0.79335	131766.95						
169.00	4419.88	9.08	5.87	7742.64	0.34		
1318.45	222.67	5.92	219.61	24.19	0.002147		
0.79343	131763.47						
170.00	4419.88	9.08	5.87	7743.28	0.34		

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				HYCHAN.OUT			
1318.50		222.67		5.92	219.61	24.19	0.002148
	0.79355	131764.47					
171.00		4419.88	9.08	5.87	7743.12	0.34	
1318.49		222.68		5.92	219.61	24.19	0.002147
	0.79321	131767.03					
172.00		4419.88	9.08	5.87	7742.72	0.34	
1318.46		222.67		5.92	219.61	24.19	0.002147
	0.79331	131763.52					
173.00		4419.87	9.07	5.86	7715.12	0.34	
1316.33		222.49		5.92	219.43	24.19	0.002140
	0.79000	131656.53					
174.00		4419.83	9.03	5.81	7589.86	0.34	
1306.69		221.49		5.90	218.45	24.20	0.002139
	0.78737	131069.90					
175.00		4419.82	9.02	5.80	7569.08	0.34	
1305.09		221.28		5.90	218.24	24.20	0.002139
	0.78705	130946.23					
176.00		4419.82	9.02	5.80	7568.93	0.34	
1305.08		221.28		5.90	218.24	24.20	0.002139
	0.78727	130944.80					
177.00		4419.82	9.02	5.80	7569.09	0.34	
1305.09		221.28		5.90	218.24	24.20	0.002139
	0.78704	130945.88					
178.00		4419.82	9.02	5.80	7569.19	0.34	
1305.10		221.28		5.90	218.25	24.20	0.002138
	0.78697	130947.12					
179.00		4419.82	9.02	5.80	7568.67	0.34	
1305.06		221.28		5.90	218.24	24.20	0.002139
	0.78731	130944.72					
180.00		4419.83	9.03	5.82	7626.44	0.34	
1309.52		221.68		5.91	218.63	24.20	0.002153
	0.79362	131177.81					
181.00		4419.92	9.12	5.93	7874.38	0.35	
1328.64		223.63		5.94	220.55	24.18	0.002157
	0.79978	132329.30					
182.00		4419.95	9.15	5.96	7946.12	0.35	
1334.18		224.24		5.95	221.14	24.17	0.002165
	0.80366	132684.78					
183.00		4419.99	9.19	6.01	8069.78	0.35	
1343.76		225.19		5.97	222.08	24.16	0.002167
	0.80707	133245.97					
184.00		4420.00	9.20	6.01	8091.05	0.35	
1345.41		225.39		5.97	222.27	24.16	0.002166
	0.80696	133362.75					
185.00		4420.00	9.20	6.01	8090.58	0.35	
1345.37		225.39		5.97	222.27	24.16	0.002167
	0.80703	133361.72					
186.00		4420.00	9.20	6.01	8091.15	0.35	
1345.42		225.39		5.97	222.27	24.16	0.002167
	0.80720	133362.22					
187.00		4420.00	9.20	6.01	8091.21	0.35	
1345.42		225.39		5.97	222.27	24.16	0.002167
	0.80731	133363.25					
188.00		4420.00	9.20	6.01	8090.94	0.35	
1345.40		225.39		5.97	222.27	24.16	0.002167
	0.80708	133362.08					
189.00		4420.00	9.20	6.01	8090.94	0.35	
1345.40		225.39		5.97	222.27	24.16	0.002167
	0.80707	133363.05					
190.00		4420.00	9.20	6.01	8091.04	0.35	
1345.41		225.39		5.97	222.27	24.16	0.002167
	0.80711	133361.78					
191.00		4419.99	9.19	6.00	8062.34	0.35	

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		HYCHAN.OUT					
1343.19	225.20	5.96	222.09	24.16	0.002159		
0.80350	133253.94						
192.00	4419.95	9.15	5.95	7937.81	0.35		
1333.53	224.24	5.95	221.15	24.17	0.002157		
0.80039	132688.73						
193.00	4419.94	9.14	5.94	7916.99	0.35		
1331.92	224.04	5.94	220.95	24.17	0.002157		
0.80017	132569.66						
194.00	4419.94	9.14	5.94	7917.01	0.35		
1331.92	224.04	5.95	220.95	24.17	0.002158		
0.80053	132568.39						
195.00	4419.94	9.14	5.94	7917.21	0.35		
1331.93	224.04	5.95	220.95	24.17	0.002157		
0.80009	132569.70						
196.00	4419.94	9.14	5.94	7917.11	0.35		
1331.93	224.04	5.95	220.95	24.17	0.002157		
0.80003	132569.11						
197.00	4419.94	9.14	5.94	7916.93	0.35		
1331.91	224.04	5.94	220.95	24.17	0.002157		
0.80023	132569.47						
198.00	4419.94	9.14	5.94	7917.26	0.35		
1331.94	224.04	5.95	220.95	24.17	0.002157		
0.80014	132570.53						
199.00	4419.94	9.14	5.94	7916.34	0.35		
1331.87	224.04	5.94	220.95	24.17	0.002158		
0.80046	132567.58						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2373

MAXIMUM DISCHARGE (CFS) = 23480.10 AT TIME = 87.78  
 MAXIMUM STAGE = 4423.60 AT TIME = 87.78

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	4410.15	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4410.15	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4410.15	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4410.69	0.54	0.37	173.03	0.09	0.000737
473.46	17.21	27.51	17.21	31.80		
1.26554	8777.91					
4.00	4418.54	8.39	4.46	5384.10	0.27	0.000667
1207.34	207.34	5.82	204.57	24.37		
0.24237	104329.15					
5.00	4418.57	8.42	4.45	5410.46	0.27	0.000671
1217.02	207.93	5.85	205.14	24.36		
0.24499	104622.34					
6.00	4418.55	8.40	4.43	5365.58	0.27	0.000670
1210.18	207.42	5.83	204.65	24.37		
0.24395	104370.15					
7.00	4418.49	8.34	4.40	5247.56	0.27	0.000674
1192.70	206.10	5.79	203.35	24.39		

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		HYCHAN.OUT						
	0.24331	103708.49						
1169.88	8.00	4418.41	8.26	5.72	4.36	5097.55	0.27	0.000677
		204.38				201.66	24.41	
	0.24181	102845.76						
1147.52	9.00	4418.34	8.19	5.66	4.32	4952.42	0.27	0.000679
		202.67				199.98	24.43	
	0.23996	101991.56						
1125.78	10.00	4418.26	8.11	5.60	4.27	4812.29	0.26	0.000684
		201.00				198.34	24.45	
	0.23908	101153.38						
1117.70	11.00	4418.23	8.08	5.58	4.26	4765.39	0.26	0.000683
		200.37				197.73	24.46	
	0.23766	100842.09						
1099.91	12.00	4418.17	8.02	5.53	4.23	4655.97	0.26	0.000686
		198.97				196.35	24.48	
	0.23661	100140.48						
1076.89	13.00	4418.09	7.94	5.46	4.19	4512.33	0.26	0.000689
		197.16				194.57	24.50	
	0.23500	99231.26						
1069.65	14.00	4418.07	7.92	5.44	4.18	4468.87	0.26	0.000689
		196.59				194.02	24.51	
	0.23409	98950.02						
1069.67	15.00	4418.07	7.92	5.44	4.18	4469.04	0.26	0.000690
		196.60				194.02	24.51	
	0.23414	98951.02						
1069.66	16.00	4418.07	7.92	5.44	4.18	4468.96	0.26	0.000690
		196.59				194.02	24.51	
	0.23413	98950.43						
1069.67	17.00	4418.07	7.92	5.44	4.18	4469.01	0.26	0.000690
		196.59				194.02	24.51	
	0.23419	98950.84						
1070.72	18.00	4418.07	7.92	5.44	4.18	4475.03	0.26	0.000691
		196.68				194.11	24.51	
	0.23458	98994.77						
1088.51	19.00	4418.13	7.98	5.49	4.21	4584.43	0.26	0.000688
		198.11				195.51	24.49	
	0.23581	99708.82						
1113.27	20.00	4418.22	8.07	5.56	4.26	4739.09	0.26	0.000684
		200.06				197.42	24.47	
	0.23761	100686.38						
1136.28	21.00	4418.30	8.15	5.63	4.30	4884.49	0.27	0.000680
		201.84				199.17	24.44	
	0.23890	101575.03						
1142.73	22.00	4418.32	8.17	5.65	4.31	4924.03	0.27	0.000680
		202.32				199.64	24.44	
	0.23969	101816.87						
1143.95	23.00	4418.32	8.17	5.65	4.31	4932.64	0.27	0.000681
		202.42				199.74	24.43	
	0.23998	101866.66						
1163.40	24.00	4418.39	8.24	5.70	4.35	5062.30	0.27	0.000678
		203.93				201.22	24.42	
	0.24127	102621.67						
1205.24	25.00	4418.53	8.38	5.82	4.43	5339.41	0.27	0.000671
		207.09				204.32	24.38	
	0.24358	104203.73						
1251.48	26.00	4418.68	8.53	5.95	4.51	5649.26	0.27	0.000665
		210.50				207.67	24.33	
	0.24661	105911.82						
1292.44	27.00	4418.82	8.67	6.05	4.59	5926.92	0.27	0.000659
		213.46				210.57	24.30	
	0.24879	107390.94						
1301.38	28.00	4418.84	8.69	6.08	4.60	5985.09	0.27	0.000659
		214.09				211.18	24.29	

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	0.24982	107703.55							
1303.58	29.00	4418.85	8.70	6.08	4.60	6001.53	24.29	0.28	0.000659
	0.25004	107785.47							
1320.75	30.00	4418.91	8.76	6.13	4.63	6121.17	24.27	0.28	0.000655
	0.25068	108397.41							
1325.45	31.00	4418.92	8.77	6.14	4.64	6152.33	24.27	0.28	0.000655
	0.25102	108559.12							
1327.87	32.00	4418.93	8.78	6.15	4.65	6170.08	24.27	0.28	0.000655
	0.25123	108647.70							
1345.69	33.00	4418.99	8.84	6.19	4.68	6294.74	24.25	0.28	0.000652
	0.25212	109276.73							
1350.36	34.00	4419.00	8.85	6.21	4.68	6326.06	24.25	0.28	0.000651
	0.25233	109435.58							
1347.97	35.00	4418.99	8.84	6.20	4.68	6307.82	24.25	0.28	0.000652
	0.25236	109348.48							
1330.22	36.00	4418.94	8.79	6.15	4.65	6183.36	24.26	0.28	0.000655
	0.25169	108722.88							
1323.16	37.00	4418.91	8.76	6.14	4.64	6135.00	24.27	0.28	0.000656
	0.25103	108475.04							
1306.11	38.00	4418.86	8.71	6.09	4.61	6016.00	24.28	0.28	0.000658
	0.25015	107867.32							
1301.32	39.00	4418.84	8.69	6.08	4.60	5984.83	24.29	0.27	0.000659
	0.24986	107701.52							
1301.35	40.00	4418.84	8.69	6.08	4.60	5985.26	24.29	0.27	0.000658
	0.24957	107702.60							
1301.32	41.00	4418.84	8.69	6.08	4.60	5984.82	24.29	0.27	0.000659
	0.24984	107701.28							
1301.32	42.00	4418.84	8.69	6.08	4.60	5985.03	24.29	0.27	0.000658
	0.24971	107701.31							
1303.62	43.00	4418.85	8.70	6.08	4.60	6001.68	24.29	0.28	0.000659
	0.25014	107786.72							
1320.81	44.00	4418.91	8.76	6.13	4.63	6121.38	24.27	0.28	0.000655
	0.25062	108399.42							
1327.95	45.00	4418.93	8.78	6.15	4.65	6170.29	24.27	0.28	0.000655
	0.25129	108651.00							
1348.26	46.00	4418.99	8.84	6.20	4.68	6313.95	24.25	0.28	0.000652
	0.25217	109369.15							
1373.11	47.00	4419.07	8.92	6.27	4.73	6488.92	24.23	0.28	0.000648
	0.25351	110234.73							
1397.45	48.00	4419.15	9.00	6.33	4.77	6662.29	24.21	0.28	0.000646
	0.25504	111075.16							
1421.26	49.00	4419.22	9.07	6.39	4.81	6832.53	24.19	0.28	0.000643
		222.45							

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0.25626	111887.33						
50.00	4419.29	9.14	6.45	4.85	7008.14	0.28	
1445.57	224.09				221.00	24.17	0.000640
0.25746	112709.31						
51.00	4419.37	9.22	6.52	4.89	7201.57	0.28	
1472.04	225.87				222.74	24.15	0.000637
0.25902	113596.64						
52.00	4419.49	9.34	6.61	4.95	7481.55	0.29	
1510.23	228.38				225.21	24.12	0.000630
0.26008	114856.03						
53.00	4419.52	9.37	6.64	4.97	7566.09	0.29	
1522.00	229.14				225.95	24.11	0.000629
0.26057	115236.05						
54.00	4419.60	9.45	6.71	5.02	7769.92	0.29	
1548.68	230.89				227.66	24.09	0.000621
0.26010	116108.04						
55.00	4419.80	9.65	6.88	5.13	8313.27	0.29	
1619.57	235.40				232.09	24.04	0.000603
0.25904	118365.91						
56.00	4420.10	9.95	7.14	5.30	9149.62	0.30	
1726.50	241.97				238.53	23.97	0.000577
0.25677	121649.67						
57.00	4420.46	10.31	7.45	5.49	10232.47	0.30	
1863.15	250.00				246.40	23.89	0.000545
0.25346	125665.78						
58.00	4420.85	10.70	7.79	5.69	11457.36	0.31	
2014.25	258.50				254.73	23.80	0.000512
0.24889	129912.26						
59.00	4421.16	11.01	8.08	5.83	12500.18	0.31	
2143.11	265.36				261.45	23.74	0.000481
0.24234	133339.45						
60.00	4421.49	11.34	8.38	5.99	13673.88	0.31	
2283.95	272.57				268.52	23.67	0.000442
0.23118	136946.12						
61.00	4421.83	11.68	8.69	6.12	14885.16	0.32	
2430.31	279.78				275.58	23.60	0.000410
0.22204	140548.08						
62.00	4422.03	11.88	8.88	6.21	15675.17	0.32	
2525.72	284.33				280.04	23.56	0.000391
0.21680	142818.78						
63.00	4422.21	12.06	9.05	6.28	16365.70	0.32	
2607.31	288.14				283.77	23.53	0.000371
0.20959	144724.06						
64.00	4422.35	12.20	9.18	6.32	16896.41	0.32	
2671.38	291.08				286.65	23.50	0.000358
0.20478	146190.81						
65.00	4422.45	12.30	9.27	6.36	17297.48	0.32	
2720.15	293.32				288.84	23.49	0.000278
0.16112	147308.58						
66.00	4422.61	12.46	9.39	6.37	17754.79	0.32	
2785.79	296.71				292.16	23.46	0.000263
0.15438	149001.92						
67.00	4422.66	12.51	9.44	6.39	17967.58	0.32	
2812.41	297.88				293.31	23.45	0.000260
0.15331	149586.39						
68.00	4422.67	12.52	9.45	6.39	18010.38	0.32	
2817.77	298.11				293.54	23.44	0.000260
0.15327	149703.08						
69.00	4422.68	12.53	9.46	6.39	18028.65	0.32	
2820.25	298.22				293.64	23.44	0.000258
0.15199	149755.98						
70.00	4422.68	12.53	9.46	6.39	18029.04	0.32	
2822.07	298.28				293.70	23.44	0.000257

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0.15176	149786.03						
71.00	4422.68	12.53	9.46	6.39	18026.83	0.32	
2821.74	298.26				293.68	23.44	0.000257
0.15155	149779.06						
72.00	4422.68	12.53	9.46	6.39	18018.79	0.32	
2820.95	298.23				293.65	23.44	0.000257
0.15153	149761.14						
73.00	4422.68	12.53	9.46	6.39	18021.49	0.32	
2821.05	298.23				293.66	23.44	0.000257
0.15148	149764.47						
74.00	4422.70	12.55	9.48	6.40	18125.89	0.32	
2833.12	298.77				294.18	23.44	0.000252
0.14896	150033.59						
75.00	4422.73	12.58	9.51	6.41	18250.78	0.32	
2848.48	299.45				294.84	23.43	0.000249
0.14786	150368.95						
76.00	4422.74	12.59	9.52	6.41	18290.61	0.32	
2853.42	299.66				295.05	23.43	0.000248
0.14710	150476.55						
77.00	4422.71	12.56	9.49	6.40	18139.84	0.32	
2836.19	298.89				294.30	23.44	0.000253
0.14962	150091.48						
78.00	4422.75	12.60	9.53	6.42	18334.10	0.32	
2857.43	299.85				295.24	23.43	0.000244
0.14483	150573.27						
79.00	4422.84	12.69	9.56	6.41	18488.29	0.32	
2886.41	301.82				297.17	23.41	0.000939
0.56040	151554.31						
80.00	4422.98	12.83	9.64	6.43	18876.23	0.32	
2936.77	304.74				300.03	23.39	0.000939
0.56458	153015.30						
81.00	4423.04	12.89	9.68	6.45	19116.62	0.32	
2962.93	306.07				301.33	23.38	0.000937
0.56585	153677.34						
82.00	4423.08	12.93	9.71	6.46	19276.93	0.32	
2982.17	307.03				302.27	23.37	0.000935
0.56687	154156.30						
83.00	4423.06	12.91	9.70	6.45	19193.35	0.32	
2973.59	306.59				301.84	23.37	0.000936
0.56629	153936.27						
84.00	4423.03	12.88	9.68	6.44	19067.10	0.32	
2959.34	305.87				301.13	23.38	0.000936
0.56501	153577.83						
85.00	4423.02	12.87	9.67	6.44	19029.95	0.32	
2955.27	305.66				300.93	23.38	0.000937
0.56518	153474.70						
86.00	4423.03	12.88	9.67	6.44	19069.06	0.32	
2959.27	305.87				301.13	23.38	0.000936
0.56517	153578.53						
87.00	4423.03	12.88	9.68	6.44	19082.02	0.32	
2961.05	305.96				301.22	23.38	0.000936
0.56526	153620.42						
88.00	4422.98	12.83	9.66	6.44	18940.59	0.32	
2942.80	304.75				300.03	23.39	0.000234
0.14093	153017.33						
89.00	4422.76	12.61	9.54	6.40	18319.56	0.32	
2861.74	300.05				295.44	23.43	0.000253
0.15079	150672.77						
90.00	4422.45	12.30	9.25	6.29	17069.84	0.32	
2714.59	293.32				288.84	23.49	0.000305
0.17627	147307.89						
91.00	4422.12	11.97	8.94	6.18	15802.42	0.31	
2558.16	286.16				281.83	23.55	0.000337

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0.18822	143732.36						
92.00	4421.87	11.72	6.08	14875.95	0.31		
2446.62	280.82	8.71	276.60	23.59	0.000367		
0.19934	141068.03						
93.00	4421.55	11.40	5.97	13791.99	0.31		
2309.96	273.86	8.43	269.78	23.66	0.000462		
0.24299	137590.28						
94.00	4421.30	11.15	5.87	12948.85	0.31		
2204.26	268.41	8.21	264.44	23.71	0.000485		
0.24847	134864.34						
95.00	4421.11	10.96	5.79	12272.47	0.31		
2121.19	264.11	8.03	260.23	23.75	0.000504		
0.25248	132716.48						
96.00	4420.95	10.80	5.71	11743.86	0.31		
2055.18	260.61	7.89	256.80	23.78	0.000520		
0.25609	130968.27						
97.00	4420.77	10.62	5.63	11158.41	0.30		
1981.85	256.63	7.72	252.90	23.82	0.000535		
0.25792	128978.87						
98.00	4420.63	10.48	5.56	10721.14	0.30		
1926.64	253.57	7.60	249.90	23.85	0.000547		
0.25935	127446.61						
99.00	4420.50	10.35	5.50	10324.97	0.30		
1877.22	250.77	7.49	247.16	23.88	0.000558		
0.26042	126050.04						
100.00	4420.40	10.25	5.45	10032.42	0.30		
1840.62	248.67	7.40	245.09	23.90	0.000566		
0.26147	124998.13						
101.00	4420.28	10.13	5.38	9656.25	0.30		
1793.23	245.90	7.29	242.38	23.93	0.000576		
0.26202	123615.87						
102.00	4420.17	10.02	5.33	9348.56	0.30		
1754.72	243.62	7.20	240.15	23.96	0.000583		
0.26220	122474.26						
103.00	4420.08	9.93	5.28	9077.88	0.30		
1720.73	241.58	7.12	238.14	23.98	0.000590		
0.26221	121452.94						
104.00	4420.01	9.86	5.24	8866.33	0.29		
1693.65	239.93	7.06	236.53	23.99	0.000596		
0.26260	120631.80						
105.00	4419.93	9.78	5.19	8637.76	0.29		
1664.35	238.13	6.99	234.76	24.01	0.000603		
0.26279	119728.77						
106.00	4419.80	9.65	5.12	8301.18	0.29		
1620.52	235.40	6.88	232.09	24.04	0.000611		
0.26267	118365.91						
107.00	4419.72	9.57	5.08	8092.86	0.29		
1592.79	233.66	6.82	230.39	24.06	0.000616		
0.26221	117497.15						
108.00	4419.66	9.51	5.04	7918.87	0.29		
1569.83	232.21	6.76	228.96	24.08	0.000622		
0.26228	116767.19						
109.00	4419.60	9.45	5.01	7768.83	0.29		
1549.62	230.92	6.71	227.69	24.09	0.000626		
0.26195	116123.01						
110.00	4419.60	9.45	5.01	7767.42	0.29		
1548.96	230.89	6.71	227.66	24.09	0.000623		
0.26093	116109.05						
111.00	4419.67	9.52	5.05	7942.39	0.29		
1571.87	232.37	6.76	229.12	24.08	0.000617		
0.26035	116848.88						
112.00	4419.76	9.61	5.10	8193.56	0.29		
1605.34	234.48	6.85	231.19	24.05	0.000611		

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		HYCHAN.OUT						
	0.26118	117905.35						
1592.65	113.00	4419.72	9.57	6.82	5.08	8091.87	0.29	0.000617
	0.26227	117493.41						
1579.06	114.00	4419.69	9.54	6.78	5.06	7993.15	0.29	0.000617
	0.26130	117072.02						
1616.02	115.00	4419.79	9.64	6.87	5.12	8279.38	0.29	0.000607
	0.26030	118249.12						
1656.41	116.00	4419.91	9.76	6.97	5.18	8584.56	0.29	0.000601
	0.26147	119500.00						
1645.64	117.00	4419.87	9.72	6.94	5.16	8497.76	0.29	0.000605
	0.26208	119158.73						
1641.73	118.00	4419.86	9.71	6.93	5.16	8469.81	0.29	0.000605
	0.26167	119041.21						
1645.54	119.00	4419.87	9.72	6.94	5.17	8500.71	0.29	0.000603
	0.26116	119162.87						
1663.98	120.00	4419.93	9.78	6.99	5.19	8643.06	0.29	0.000600
	0.26151	119733.47						
1667.67	121.00	4419.94	9.79	7.00	5.20	8669.69	0.29	0.000599
	0.26157	119844.04						
1663.98	122.00	4419.93	9.78	6.99	5.19	8639.06	0.29	0.000601
	0.26206	119726.23						
1645.65	123.00	4419.87	9.72	6.94	5.16	8497.71	0.29	0.000605
	0.26207	119159.09						
1638.11	124.00	4419.85	9.70	6.93	5.15	8440.13	0.29	0.000607
	0.26227	118924.12						
1619.57	125.00	4419.80	9.65	6.88	5.12	8297.97	0.29	0.000610
	0.26210	118344.73						
1615.56	126.00	4419.79	9.64	6.87	5.12	8269.84	0.29	0.000610
	0.26174	118222.98						
1612.51	127.00	4419.78	9.63	6.86	5.11	8244.26	0.29	0.000612
	0.26220	118124.20						
1595.72	128.00	4419.73	9.58	6.82	5.09	8116.66	0.29	0.000615
	0.26181	117594.34						
1592.10	129.00	4419.72	9.57	6.81	5.08	8091.24	0.29	0.000616
	0.26172	117483.13						
1589.09	130.00	4419.71	9.56	6.81	5.08	8066.32	0.29	0.000616
	0.26185	117384.52						
1572.67	131.00	4419.67	9.52	6.77	5.05	7942.30	0.29	0.000620
	0.26165	116861.62						
1575.36	132.00	4419.68	9.53	6.77	5.06	7967.54	0.29	0.000617
	0.26090	116957.48						
1608.59	133.00	4419.77	9.62	6.85	5.11	8219.78	0.29	0.000610
		234.69						

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		HYCHAN.OUT						
	0.26094	118010.41						
1615.51	134.00	4419.79	9.64	6.87	5.12	8269.29	0.29	0.000610
	0.26163	118221.77						
1615.65	135.00	4419.79	9.64	6.87	5.12	8270.25	0.29	0.000611
	0.26188	118225.98						
1615.59	136.00	4419.79	9.64	6.87	5.12	8269.98	0.29	0.000611
	0.26177	118224.24						
1615.58	137.00	4419.79	9.64	6.87	5.12	8269.93	0.29	0.000610
	0.26173	118223.73						
1615.60	138.00	4419.79	9.64	6.87	5.12	8270.13	0.29	0.000611
	0.26187	118224.47						
1615.60	139.00	4419.79	9.64	6.87	5.12	8269.91	0.29	0.000610
	0.26153	118224.62						
1612.50	140.00	4419.78	9.63	6.86	5.11	8244.40	0.29	0.000612
	0.26206	118123.60						
1595.69	141.00	4419.73	9.58	6.82	5.09	8116.78	0.29	0.000616
	0.26207	117593.28						
1592.09	142.00	4419.72	9.57	6.81	5.08	8090.98	0.29	0.000616
	0.26176	117482.99						
1592.08	143.00	4419.72	9.57	6.81	5.08	8091.03	0.29	0.000616
	0.26177	117482.59						
1592.03	144.00	4419.72	9.57	6.81	5.08	8090.83	0.29	0.000615
	0.26133	117480.97						
1589.13	145.00	4419.71	9.56	6.81	5.08	8066.75	0.29	0.000617
	0.26205	117385.75						
1572.70	146.00	4419.67	9.52	6.77	5.05	7942.22	0.29	0.000620
	0.26194	116862.36						
1569.02	147.00	4419.66	9.51	6.76	5.05	7916.98	0.29	0.000620
	0.26133	116749.25						
1568.99	148.00	4419.66	9.51	6.76	5.05	7916.98	0.29	0.000620
	0.26142	116748.20						
1569.03	149.00	4419.66	9.51	6.76	5.05	7916.99	0.29	0.000620
	0.26155	116749.23						
1569.08	150.00	4419.66	9.51	6.76	5.05	7917.11	0.29	0.000620
	0.26141	116750.89						
1567.09	151.00	4419.65	9.50	6.75	5.04	7900.87	0.29	0.000621
	0.26180	116685.12						
1555.11	152.00	4419.62	9.47	6.72	5.02	7810.26	0.29	0.000623
	0.26160	116299.52						
1547.10	153.00	4419.59	9.44	6.70	5.01	7751.28	0.29	0.000625
	0.26157	116044.45						
1545.88	154.00	4419.59	9.44	6.70	5.01	7742.91	0.29	0.000624
		230.68						

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		HYCHAN.OUT							
	0.26110	116006.41							
1542.94	155.00	4419.58	9.43	6.69	5.00	7719.52	0.29		
		230.49				227.27	24.10	0.000626	
	0.26145	115908.25							
1532.38	156.00	4419.55	9.40	6.67	4.99	7643.05	0.29		
		229.82				226.61	24.11	0.000627	
	0.26074	115572.54							
1561.78	157.00	4419.64	9.49	6.74	5.04	7865.67	0.29		
		231.72				228.48	24.08	0.000620	
	0.26082	116523.44							
1568.97	158.00	4419.66	9.51	6.76	5.05	7916.55	0.29		
		232.17				228.92	24.08	0.000620	
	0.26164	116747.31							
1569.06	159.00	4419.66	9.51	6.76	5.05	7917.09	0.29		
		232.17				228.92	24.08	0.000620	
	0.26138	116750.35							
1569.03	160.00	4419.66	9.51	6.76	5.05	7916.86	0.29		
		232.17				228.92	24.08	0.000620	
	0.26166	116749.16							
1569.08	161.00	4419.66	9.51	6.76	5.05	7917.15	0.29		
		232.17				228.92	24.08	0.000620	
	0.26133	116751.16							
1569.04	162.00	4419.66	9.51	6.76	5.05	7917.16	0.29		
		232.17				228.92	24.08	0.000620	
	0.26155	116749.72							
1568.98	163.00	4419.66	9.51	6.76	5.05	7916.93	0.29		
		232.17				228.92	24.08	0.000620	
	0.26144	116747.76							
1569.06	164.00	4419.66	9.51	6.76	5.05	7916.86	0.29		
		232.17				228.92	24.08	0.000620	
	0.26140	116750.30							
1566.05	165.00	4419.65	9.50	6.75	5.04	7892.88	0.29		
		231.97				228.73	24.08	0.000621	
	0.26165	116650.65							
1549.51	166.00	4419.60	9.45	6.71	5.01	7768.25	0.29		
		230.91				227.69	24.09	0.000625	
	0.26162	116119.38							
1545.88	167.00	4419.59	9.44	6.70	5.01	7742.96	0.29		
		230.68				227.46	24.10	0.000624	
	0.26113	116005.99							
1545.95	168.00	4419.59	9.44	6.70	5.01	7743.24	0.29		
		230.69				227.47	24.10	0.000625	
	0.26142	116008.41							
1545.84	169.00	4419.59	9.44	6.70	5.01	7742.69	0.29		
		230.68				227.46	24.10	0.000625	
	0.26119	116004.98							
1545.86	170.00	4419.59	9.44	6.70	5.01	7743.21	0.29		
		230.68				227.46	24.10	0.000624	
	0.26105	116005.70							
1545.95	171.00	4419.59	9.44	6.70	5.01	7743.18	0.29		
		230.69				227.47	24.10	0.000625	
	0.26117	116008.61							
1545.83	172.00	4419.59	9.44	6.70	5.01	7742.64	0.29		
		230.68				227.46	24.10	0.000625	
	0.26135	116004.92							
1542.98	173.00	4419.58	9.43	6.69	5.00	7719.39	0.29		
		230.49				227.27	24.10	0.000626	
	0.26150	115909.10							
1526.27	174.00	4419.53	9.38	6.65	4.98	7594.43	0.29		
		229.41				226.21	24.11	0.000630	
	0.26141	115367.75							
1522.54	175.00	4419.52	9.37	6.64	4.97	7569.05	0.29		
		229.17				225.98	24.11	0.000630	

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	0.26119	115250.51						
1522.50	176.00	4419.52	9.37	6.64	4.97	7568.92	0.29	0.000630
		229.17				225.98	24.11	
	0.26121	115249.19						
1522.54	177.00	4419.52	9.37	6.64	4.97	7569.18	0.29	0.000630
		229.17				225.98	24.11	
	0.26109	115250.22						
1522.57	178.00	4419.52	9.37	6.64	4.97	7569.13	0.29	0.000630
		229.17				225.98	24.11	
	0.26107	115251.40						
1522.51	179.00	4419.52	9.37	6.64	4.97	7568.68	0.29	0.000630
		229.17				225.98	24.11	
	0.26107	115249.22						
1528.77	180.00	4419.54	9.39	6.66	4.98	7617.84	0.29	0.000627
		229.59				226.39	24.11	
	0.26055	115459.12						
1561.73	181.00	4419.64	9.49	6.74	5.04	7865.42	0.29	0.000620
		231.72				228.47	24.08	
	0.26079	116522.17						
1572.19	182.00	4419.67	9.52	6.77	5.05	7941.78	0.29	0.000618
		232.38				229.12	24.08	
	0.26106	116853.38						
1588.47	183.00	4419.71	9.56	6.81	5.08	8065.44	0.29	0.000615
		233.41				230.14	24.07	
	0.26121	117371.73						
1592.07	184.00	4419.72	9.57	6.81	5.08	8091.04	0.29	0.000615
		233.64				230.36	24.06	
	0.26169	117482.30						
1592.03	185.00	4419.72	9.57	6.81	5.08	8090.57	0.29	0.000615
		233.63				230.36	24.06	
	0.26136	117481.20						
1592.04	186.00	4419.72	9.57	6.81	5.08	8091.10	0.29	0.000615
		233.63				230.36	24.06	
	0.26163	117481.54						
1592.09	187.00	4419.72	9.57	6.81	5.08	8091.22	0.29	0.000615
		233.64				230.36	24.06	
	0.26168	117482.77						
1592.05	188.00	4419.72	9.57	6.81	5.08	8090.98	0.29	0.000615
		233.63				230.36	24.06	
	0.26154	117481.58						
1592.08	189.00	4419.72	9.57	6.81	5.08	8090.94	0.29	0.000615
		233.64				230.36	24.06	
	0.26161	117482.52						
1592.05	190.00	4419.72	9.57	6.81	5.08	8091.05	0.29	0.000615
		233.63				230.36	24.06	
	0.26158	117481.39						
1589.08	191.00	4419.71	9.56	6.81	5.08	8066.52	0.29	0.000617
		233.44				230.17	24.07	
	0.26215	117384.40						
1572.71	192.00	4419.67	9.52	6.77	5.05	7942.32	0.29	0.000620
		232.40				229.14	24.08	
	0.26189	116862.47						
1569.04	193.00	4419.66	9.51	6.76	5.05	7916.90	0.29	0.000620
		232.17				228.92	24.08	
	0.26154	116749.62						
1568.99	194.00	4419.66	9.51	6.76	5.05	7917.11	0.29	0.000621
		232.17				228.92	24.08	
	0.26171	116748.10						
1569.04	195.00	4419.66	9.51	6.76	5.05	7917.21	0.29	0.000620
		232.17				228.92	24.08	
	0.26135	116749.66						
1569.03	196.00	4419.66	9.51	6.76	5.05	7917.09	0.29	0.000620
		232.17				228.92	24.08	

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0.26144	116749.10						
197.00	4419.66	9.51	5.05	7916.92	0.29		
1569.02	232.17	6.76		228.92	24.08	0.000620	
0.26140	116749.31						
198.00	4419.66	9.51	5.05	7917.18	0.29		
1569.06	232.17	6.76		228.92	24.08	0.000620	
0.26150	116750.23						
199.00	4419.66	9.51	5.05	7916.42	0.29		
1568.99	232.17	6.76		228.92	24.08	0.000620	
0.26147	116747.72						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2459

MAXIMUM DISCHARGE (CFS) = 22873.52 AT TIME = 87.79  
 MAXIMUM STAGE = 4422.49 AT TIME = 87.78

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)							
0.00	0.00	4409.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	1.00	4409.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	2.00	4409.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
255.10	3.00	4409.73	0.33	0.24	60.08	0.07		
		11.03	23.13	11.06	33.34		0.003124	
	4.51021	6191.74						
1002.60	4.00	4417.51	8.11	5.33	5343.59	0.33		
		201.01	4.99	198.36	24.45		0.001677	
	0.52191	111080.72						
1015.75	5.00	4417.55	8.15	5.33	5412.42	0.33		
		201.92	5.03	199.24	24.44		0.001678	
	0.52665	111576.11						
1010.02	6.00	4417.53	8.13	5.31	5366.54	0.33		
		201.42	5.01	198.76	24.45		0.001674	
	0.52389	111304.61						
995.53	7.00	4417.47	8.07	5.27	5250.50	0.33		
		200.16	4.97	197.52	24.46		0.001672	
	0.51893	110608.94						
976.50	8.00	4417.40	8.00	5.22	5100.52	0.33		
		198.48	4.92	195.88	24.49		0.001670	
	0.51279	109690.24						
957.84	9.00	4417.33	7.93	5.17	4955.30	0.32		
		196.83	4.87	194.25	24.51		0.001666	
	0.50598	108780.02						
939.69	10.00	4417.25	7.85	5.12	4814.57	0.32		
		195.20	4.81	192.65	24.53		0.001666	
	0.50052	107885.45						
932.92	11.00	4417.23	7.83	5.11	4766.27	0.32		
		194.59	4.79	192.06	24.54		0.001664	
	0.49775	107551.07						
918.12	12.00	4417.17	7.77	5.07	4659.10	0.32		
		193.24	4.75	190.73	24.56		0.001661	
	0.49250	106806.55						

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HYCHAN.OUT							
898.89	13.00	4417.09	7.69	5.02	4514.69	0.32	0.001660
	0.48632	191.47	4.69		188.99	24.58	
		105835.35					
892.74	14.00	4417.06	7.66	5.01	4468.87	0.32	0.001660
	0.48442	190.91	4.68		188.44	24.59	
		105525.34					
892.76	15.00	4417.06	7.66	5.01	4469.05	0.32	0.001660
	0.48448	190.91	4.68		188.44	24.59	
		105526.65					
892.75	16.00	4417.06	7.66	5.01	4468.96	0.32	0.001660
	0.48435	190.91	4.68		188.44	24.59	
		105525.98					
892.75	17.00	4417.06	7.66	5.01	4469.00	0.32	0.001660
	0.48443	190.91	4.68		188.44	24.59	
		105526.25					
893.61	18.00	4417.07	7.67	5.01	4474.26	0.32	0.001660
	0.48457	190.99	4.68		188.52	24.59	
		105570.77					
908.33	19.00	4417.13	7.73	5.04	4581.15	0.32	0.001663
	0.49002	192.35	4.72		189.86	24.57	
		106319.95					
928.91	20.00	4417.21	7.81	5.10	4735.92	0.32	0.001668
	0.49783	194.23	4.78		191.70	24.54	
		107353.97					
948.22	21.00	4417.29	7.89	5.15	4882.19	0.32	0.001669
	0.50381	195.98	4.84		193.41	24.52	
		108312.08					
953.72	22.00	4417.31	7.91	5.16	4924.06	0.32	0.001669
	0.50545	196.47	4.85		193.90	24.51	
		108581.68					
954.69	23.00	4417.31	7.91	5.17	4931.79	0.32	0.001671
	0.50659	196.55	4.86		193.98	24.51	
		108629.91					
970.72	24.00	4417.38	7.98	5.21	5058.12	0.33	0.001677
	0.51295	197.98	4.90		195.38	24.49	
		109415.41					
1005.52	25.00	4417.51	8.11	5.30	5333.34	0.33	0.001681
	0.52480	201.04	5.00		198.38	24.45	
		111092.68					
1044.12	26.00	4417.66	8.26	5.40	5643.31	0.33	0.001685
	0.53731	204.35	5.11		201.63	24.41	
		112915.38					
1078.42	27.00	4417.79	8.39	5.49	5923.37	0.33	0.001686
	0.54753	207.24	5.20		204.47	24.37	
		114503.52					
1086.03	28.00	4417.82	8.42	5.51	5985.07	0.33	0.001687
	0.54985	207.87	5.22		205.09	24.37	
		114850.70					
1087.81	29.00	4417.82	8.42	5.52	6000.30	0.34	0.001689
	0.55097	208.02	5.23		205.24	24.36	
		114932.85					
1102.12	30.00	4417.88	8.48	5.55	6119.29	0.34	0.001689
	0.55534	209.21	5.27		206.40	24.35	
		115583.93					
1106.13	31.00	4417.89	8.49	5.56	6152.32	0.34	0.001689
	0.55622	209.54	5.28		206.72	24.34	
		115764.39					
1108.10	32.00	4417.90	8.50	5.57	6168.77	0.34	0.001691
	0.55770	209.70	5.28		206.88	24.34	
		115853.93					
1122.95	33.00	4417.95	8.55	5.60	6292.80	0.34	0.001692
	0.56199	210.92	5.32		208.08	24.33	
		116522.69					

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HYCHAN.OUT							
1126.94	34.00	4417.97	8.57	5.61	6326.07	0.34	0.001691
	0.56305	211.24	5.33		208.39	24.32	
		116700.07					
1124.99	35.00	4417.96	8.56	5.61	6309.11	0.34	0.001689
	0.56188	211.08	5.33		208.23	24.33	
		116611.41					
1110.19	36.00	4417.91	8.51	5.57	6185.30	0.34	0.001688
	0.55736	209.87	5.29		207.05	24.34	
		115945.28					
1104.27	37.00	4417.88	8.48	5.56	6136.23	0.34	0.001687
	0.55521	209.38	5.27		206.57	24.35	
		115678.98					
1090.05	38.00	4417.83	8.43	5.52	6017.90	0.34	0.001687
	0.55104	208.20	5.24		205.41	24.36	
		115032.02					
1085.99	39.00	4417.82	8.42	5.51	5984.83	0.33	0.001687
	0.54988	207.87	5.22		205.09	24.37	
		114848.55					
1086.00	40.00	4417.82	8.42	5.51	5985.24	0.33	0.001686
	0.54970	207.87	5.22		205.09	24.37	
		114849.30					
1085.99	41.00	4417.82	8.42	5.51	5984.82	0.33	0.001686
	0.54953	207.87	5.22		205.09	24.37	
		114848.59					
1085.98	42.00	4417.82	8.42	5.51	5985.04	0.33	0.001686
	0.54971	207.87	5.22		205.09	24.37	
		114848.48					
1087.85	43.00	4417.82	8.42	5.52	6000.45	0.34	0.001689
	0.55100	208.03	5.23		205.24	24.36	
		114934.65					
1102.17	44.00	4417.88	8.48	5.55	6119.47	0.34	0.001689
	0.55508	209.21	5.27		206.40	24.35	
		115586.36					
1108.16	45.00	4417.90	8.50	5.57	6168.97	0.34	0.001691
	0.55751	209.71	5.28		206.89	24.34	
		115856.94					
1125.04	46.00	4417.96	8.56	5.61	6310.70	0.34	0.001693
	0.56314	211.09	5.33		208.24	24.33	
		116616.74					
1145.79	47.00	4418.04	8.64	5.66	6485.79	0.34	0.001696
	0.56993	212.77	5.39		209.89	24.30	
		117541.16					
1166.11	48.00	4418.11	8.71	5.71	6659.06	0.34	0.001699
	0.57651	214.40	5.44		211.50	24.28	
		118437.22					
1186.01	49.00	4418.18	8.78	5.76	6829.64	0.34	0.001701
	0.58289	215.99	5.49		213.05	24.27	
		119306.50					
1206.32	50.00	4418.25	8.85	5.81	7004.77	0.34	0.001704
	0.58940	217.58	5.54		214.62	24.25	
		120184.80					
1228.40	51.00	4418.33	8.93	5.86	7197.26	0.35	0.001708
	0.59691	219.31	5.60		216.30	24.23	
		121130.41					
1260.38	52.00	4418.44	9.04	5.93	7477.86	0.35	0.001708
	0.60584	221.77	5.68		218.72	24.20	
		122482.55					
1270.35	53.00	4418.47	9.07	5.95	7564.68	0.35	0.001710
	0.60916	222.53	5.71		219.46	24.19	
		122899.66					
1292.53	54.00	4418.55	9.15	6.01	7763.72	0.35	0.001714
	0.61665	224.21	5.76		221.11	24.17	
		123822.74					

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				HYCHAN.OUT				
1351.84	55.00	4418.75	9.35	5.91	6.14	8301.53	0.35	0.001720
	0.63463	228.61				225.43	24.12	
1441.84	56.00	4419.04	9.64	6.13	6.33	9133.16	0.36	0.001723
	0.65930	235.10				231.79	24.05	
1557.48	57.00	4419.40	10.00	6.41	6.56	10212.62	0.37	0.001726
	0.68981	243.10				239.64	23.96	
1685.84	58.00	4419.79	10.39	6.70	6.79	11438.94	0.37	0.001715
	0.71688	251.62				247.99	23.87	
1797.01	59.00	4420.11	10.71	6.95	6.95	12484.00	0.37	0.001689
	0.73195	258.71				254.94	23.80	
1918.64	60.00	4420.45	11.05	7.21	7.12	13652.05	0.38	0.001659
	0.74643	266.17				262.25	23.73	
2046.02	61.00	4420.80	11.40	7.47	7.27	14868.55	0.38	0.001631
	0.76077	273.72				269.64	23.66	
2129.53	62.00	4421.02	11.62	7.65	7.36	15664.89	0.38	0.001615
	0.77045	278.52				274.35	23.62	
2200.83	63.00	4421.20	11.80	7.79	7.43	16354.77	0.38	0.001599
	0.77714	282.53				278.28	23.58	
2257.07	64.00	4421.35	11.95	7.90	7.48	16889.22	0.38	0.001585
	0.78140	285.65				281.33	23.55	
2299.40	65.00	4421.45	12.05	7.99	7.52	17290.53	0.38	0.001615
	0.80459	287.96				283.60	23.53	
2348.54	66.00	4421.57	12.17	8.08	7.56	17748.37	0.38	0.001589
	0.80134	290.62				286.20	23.51	
2372.02	67.00	4421.63	12.23	8.13	7.57	17966.06	0.38	0.001586
	0.80420	291.88				287.43	23.50	
2376.77	68.00	4421.64	12.24	8.14	7.58	18010.12	0.38	0.001586
	0.80527	292.13				287.68	23.50	
2379.00	69.00	4421.65	12.25	8.14	7.58	18031.92	0.38	0.001584
	0.80436	292.25				287.79	23.49	
2380.96	70.00	4421.65	12.25	8.14	7.58	18046.74	0.38	0.001583
	0.80435	292.34				287.88	23.49	
2380.67	71.00	4421.65	12.25	8.14	7.58	18044.85	0.38	0.001582
	0.80416	292.32				287.87	23.49	
2380.01	72.00	4421.65	12.25	8.14	7.58	18037.07	0.38	0.001583
	0.80415	292.29				287.83	23.49	
2380.05	73.00	4421.65	12.25	8.14	7.58	18039.17	0.38	0.001583
	0.80435	292.29				287.84	23.49	
2390.54	74.00	4421.68	12.28	8.16	7.59	18142.43	0.38	0.001580
	0.80459	292.85				288.38	23.49	
2404.06	75.00	4421.71	12.31	8.19	7.60	18269.55	0.38	0.001577
	0.80580	293.57				289.09	23.48	
		161888.27						

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				HYCHAN.OUT			
2408.42	76.00	4421.72	12.32	8.20	7.60	18310.61	0.38
	0.80578	293.80				289.31	23.48
		162014.69					0.001575
2393.47	77.00	4421.68	12.28	8.17	7.59	18162.43	0.38
	0.80541	293.00				288.53	23.49
		161576.27					0.001580
2411.77	78.00	4421.73	12.33	8.20	7.61	18350.99	0.38
	0.80521	293.98				289.49	23.48
		162112.83					0.001573
2429.54	79.00	4421.77	12.37	8.24	7.62	18508.16	0.38
	0.83215	294.89				290.38	23.47
		162610.98					0.001619
2470.52	80.00	4421.87	12.47	8.32	7.65	18900.26	0.38
	0.83888	297.07				292.51	23.45
		163806.09					0.001617
2493.55	81.00	4421.93	12.53	8.38	7.68	19139.63	0.38
	0.84474	297.54				293.82	23.44
		164537.83					0.001615
2509.86	82.00	4421.98	12.58	8.43	7.69	19297.70	0.38
	0.84913	297.64				294.79	23.43
		165084.09					0.001614
2502.75	83.00	4421.96	12.56	8.41	7.68	19217.61	0.38
	0.84688	297.59				294.36	23.44
		164844.34					0.001614
2490.78	84.00	4421.93	12.53	8.37	7.67	19097.04	0.38
	0.84313	297.53				293.64	23.44
		164441.11					0.001614
2487.40	85.00	4421.92	12.52	8.36	7.66	19063.14	0.38
	0.84220	297.51				293.44	23.45
		164326.17					0.001614
2490.66	86.00	4421.93	12.53	8.37	7.67	19097.91	0.38
	0.84321	297.53				293.64	23.44
		164438.17					0.001614
2492.23	87.00	4421.93	12.53	8.38	7.67	19110.92	0.38
	0.84307	297.53				293.73	23.44
		164490.36					0.001613
2479.68	88.00	4421.90	12.50	8.34	7.65	18979.88	0.38
	0.80973	297.47				293.01	23.45
		164088.27					0.001557
2415.73	89.00	4421.74	12.34	8.21	7.60	18358.06	0.38
	0.80587	294.15				289.66	23.48
		162207.16					0.001573
2288.70	90.00	4421.42	12.02	7.97	7.48	17119.30	0.38
	0.80400	287.30				282.95	23.54
		158449.64					0.001617
2151.94	91.00	4421.07	11.67	7.69	7.36	15829.53	0.38
	0.78789	279.75				275.55	23.60
		154309.03					0.001641
2055.32	92.00	4420.82	11.42	7.50	7.25	14900.66	0.38
	0.77673	274.22				270.13	23.65
		151275.33					0.001661
1941.08	93.00	4420.51	11.11	7.26	7.12	13812.99	0.38
	0.75499	267.49				263.54	23.72
		147584.27					0.001667
1851.41	94.00	4420.26	10.86	7.06	7.00	12963.07	0.37
	0.74328	262.06				258.22	23.77
		144604.50					0.001686
1779.44	95.00	4420.06	10.66	6.91	6.90	12283.78	0.37
	0.73300	257.59				253.84	23.81
		142151.73					0.001700
1722.39	96.00	4419.89	10.49	6.78	6.82	11754.31	0.37
	0.72443	253.97				250.29	23.85
		140163.66					0.001712

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HYCHAN.OUT							
1659.44	97.00	4419.71	10.31	6.64	6.73	11167.87	0.37
	0.71118	249.90				246.30	23.89
		137928.81					0.001716
1612.27	98.00	4419.57	10.17	6.53	6.65	10728.70	0.37
	0.70050	246.79				243.26	23.92
		136222.92					0.001718
1570.18	99.00	4419.44	10.04	6.44	6.58	10331.03	0.37
	0.69053	243.97				240.49	23.95
		134676.17					0.001719
1539.08	100.00	4419.34	9.94	6.36	6.52	10038.55	0.36
	0.68292	241.86				238.42	23.97
		133516.75					0.001720
1498.91	101.00	4419.22	9.82	6.27	6.45	9662.35	0.36
	0.67276	239.10				235.71	24.00
		131999.78					0.001720
1466.40	102.00	4419.12	9.72	6.19	6.38	9353.51	0.36
	0.66340	236.83				233.49	24.03
		130756.29					0.001717
1437.74	103.00	4419.03	9.63	6.12	6.32	9082.24	0.36
	0.65598	234.81				231.51	24.05
		129646.39					0.001717
1414.89	104.00	4418.95	9.55	6.07	6.27	8869.98	0.36
	0.64953	233.18				229.92	24.07
		128753.01					0.001716
1390.27	105.00	4418.87	9.47	6.01	6.22	8642.93	0.36
	0.64210	231.41				228.18	24.09
		127778.02					0.001713
1353.40	106.00	4418.75	9.35	5.92	6.14	8306.34	0.35
	0.63208	228.72				225.54	24.12
		126302.45					0.001712
1330.01	107.00	4418.67	9.27	5.86	6.09	8096.04	0.35
	0.62517	227.00				223.85	24.14
		125357.33					0.001710
1310.71	108.00	4418.61	9.21	5.81	6.04	7922.01	0.35
	0.61972	225.56				222.44	24.15
		124567.79					0.001709
1293.66	109.00	4418.55	9.15	5.77	6.01	7770.51	0.35
	0.61556	224.29				221.19	24.17
		123866.90					0.001710
1292.98	110.00	4418.55	9.15	5.77	6.01	7765.96	0.35
	0.61603	224.24				221.14	24.17
		123841.05					0.001712
1312.09	111.00	4418.61	9.21	5.81	6.05	7937.87	0.35
	0.62170	225.68				222.55	24.15
		124629.16					0.001714
1340.33	112.00	4418.71	9.31	5.88	6.11	8191.85	0.35
	0.62857	227.77				224.61	24.13
		125780.52					0.001712
1329.87	113.00	4418.67	9.27	5.86	6.09	8094.90	0.35
	0.62532	226.99				223.84	24.14
		125351.81					0.001710
1318.26	114.00	4418.64	9.24	5.83	6.06	7991.83	0.35
	0.62346	226.13				223.00	24.15
		124881.20					0.001714
1349.11	115.00	4418.74	9.34	5.91	6.13	8272.85	0.35
	0.63301	228.42				225.24	24.12
		126136.05					0.001718
1383.29	116.00	4418.85	9.45	5.99	6.20	8582.76	0.36
	0.64081	230.92				227.69	24.09
		127506.68					0.001714
1374.39	117.00	4418.82	9.42	5.97	6.18	8499.45	0.36
	0.63906	230.26				227.05	24.10
		127149.30					0.001716

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HYCHAN.OUT									
1371.02	118.00	4418.81	9.41	5.96	6.18	8469.84	24.10	0.36	0.001714
	0.63763	230.02				226.81			
		127015.72							
1374.15	119.00	4418.82	9.42	5.97	6.18	8499.04	24.10	0.36	0.001716
	0.63903	230.25				227.04			
		127142.09							
1389.68	120.00	4418.87	9.47	6.01	6.22	8641.37	24.09	0.36	0.001716
	0.64312	231.38				228.14			
		127760.70							
1392.85	121.00	4418.88	9.48	6.01	6.22	8669.67	24.09	0.36	0.001716
	0.64408	231.61				228.37			
		127885.69							
1389.82	122.00	4418.87	9.47	6.01	6.22	8640.71	24.09	0.36	0.001714
	0.64246	231.38				228.15			
		127764.09							
1374.39	123.00	4418.82	9.42	5.97	6.18	8499.41	24.10	0.36	0.001714
	0.63844	230.26				227.05			
		127149.30							
1368.05	124.00	4418.80	9.40	5.95	6.17	8441.80	24.11	0.35	0.001712
	0.63611	229.80				226.60			
		126895.45							
1352.45	125.00	4418.75	9.35	5.91	6.14	8299.75	24.12	0.35	0.001713
	0.63205	228.66				225.48			
		126268.21							
1349.02	126.00	4418.74	9.34	5.91	6.13	8269.85	24.12	0.35	0.001714
	0.63169	228.41				225.23			
		126131.15							
1346.50	127.00	4418.73	9.33	5.90	6.12	8245.69	24.12	0.35	0.001713
	0.63053	228.22				225.05			
		126028.26							
1332.40	128.00	4418.68	9.28	5.86	6.09	8118.31	24.14	0.35	0.001712
	0.62643	227.18				224.03			
		125455.93							
1329.29	129.00	4418.67	9.27	5.86	6.09	8091.20	24.14	0.35	0.001712
	0.62578	226.95				223.81			
		125331.00							
1326.82	130.00	4418.66	9.26	5.85	6.08	8067.75	24.14	0.35	0.001710
	0.62449	226.77				223.62			
		125229.05							
1313.03	131.00	4418.62	9.22	5.82	6.05	7943.90	24.15	0.35	0.001711
	0.62105	225.74				222.62			
		124664.69							
1315.09	132.00	4418.62	9.22	5.82	6.06	7964.63	24.15	0.35	0.001714
	0.62277	225.90				222.77			
		124751.83							
1343.01	133.00	4418.72	9.32	5.89	6.12	8216.61	24.13	0.35	0.001713
	0.62983	227.97				224.80			
		125889.48							
1348.96	134.00	4418.74	9.34	5.91	6.13	8269.26	24.12	0.35	0.001714
	0.63153	228.41				225.23			
		126129.03							
1349.08	135.00	4418.74	9.34	5.91	6.13	8270.27	24.12	0.35	0.001713
	0.63141	228.42				225.24			
		126133.86							
1349.03	136.00	4418.74	9.34	5.91	6.13	8269.97	24.12	0.35	0.001714
	0.63157	228.41				225.24			
		126131.81							
1349.02	137.00	4418.74	9.34	5.91	6.13	8269.95	24.12	0.35	0.001714
	0.63184	228.41				225.23			
		126131.53							
1349.03	138.00	4418.74	9.34	5.91	6.13	8270.13	24.12	0.35	0.001715
	0.63190	228.41				225.24			
		126131.86							

HYCHAN.OUT									
139.00	4418.74	9.34	5.91	6.13	8269.89	24.12	0.35	0.001712	
1349.04	228.41				225.24				
	0.63096								
140.00	4418.73	9.33	5.90	6.12	8245.86	24.12	0.35	0.001712	
1346.50	228.22				225.05				
	0.63025								
141.00	4418.68	9.28	5.86	6.09	8118.38	24.14	0.35	0.001712	
1332.37	227.18				224.03				
	0.62643								
142.00	4418.67	9.27	5.86	6.09	8091.02	24.14	0.35	0.001713	
1329.28	226.95				223.80				
	0.62601								
143.00	4418.67	9.27	5.86	6.09	8091.03	24.14	0.35	0.001712	
1329.26	226.95				223.80				
	0.62574								
144.00	4418.67	9.27	5.86	6.09	8090.82	24.14	0.35	0.001712	
1329.22	226.95				223.80				
	0.62556								
145.00	4418.66	9.26	5.85	6.08	8068.16	24.14	0.35	0.001711	
1326.85	226.77				223.63				
	0.62461								
146.00	4418.62	9.22	5.82	6.05	7943.82	24.15	0.35	0.001711	
1313.06	225.74				222.62				
	0.62086								
147.00	4418.61	9.21	5.81	6.04	7916.98	24.15	0.35	0.001711	
1309.89	225.51				222.39				
	0.62012								
148.00	4418.61	9.21	5.81	6.04	7916.98	24.15	0.35	0.001712	
1309.86	225.51				222.39				
	0.62048								
149.00	4418.61	9.21	5.81	6.04	7916.98	24.15	0.35	0.001711	
1309.90	225.51				222.39				
	0.62019								
150.00	4418.61	9.21	5.81	6.04	7917.10	24.15	0.35	0.001711	
1309.94	225.51				222.39				
	0.62015								
151.00	4418.60	9.20	5.80	6.04	7901.81	24.16	0.35	0.001711	
1308.30	225.39				222.27				
	0.61976								
152.00	4418.57	9.17	5.78	6.02	7811.81	24.16	0.35	0.001710	
1298.27	224.63				221.53				
	0.61656								
153.00	4418.54	9.14	5.76	6.00	7751.80	24.17	0.35	0.001710	
1291.50	224.13				221.03				
	0.61479								
154.00	4418.54	9.14	5.76	6.00	7742.92	24.17	0.35	0.001709	
1290.46	224.05				220.96				
	0.61439								
155.00	4418.53	9.13	5.75	5.99	7720.93	24.17	0.35	0.001708	
1288.05	223.86				220.78				
	0.61312								
156.00	4418.50	9.10	5.73	5.97	7641.82	24.18	0.35	0.001711	
1279.06	223.19				220.11				
	0.61198								
157.00	4418.59	9.19	5.79	6.03	7862.50	24.16	0.35	0.001711	
1303.68	225.05				221.93				
	0.61861								
158.00	4418.61	9.21	5.81	6.04	7916.53	24.15	0.35	0.001711	
1309.85	225.51				222.39				
	0.62020								
159.00	4418.61	9.21	5.81	6.04	7917.08	24.15	0.35	0.001711	
1309.93	225.51				222.39				
	0.62012								

HYCHAN.OUT									
1309.91	160.00	4418.61	9.21	5.81	6.04	222.39	7916.88	24.15	0.001711
	0.62032	225.51							
		124537.96							
1309.93	161.00	4418.61	9.21	5.81	6.04	222.39	7917.14	24.15	0.001711
	0.62022	225.51							
		124539.09							
1309.91	162.00	4418.61	9.21	5.81	6.04	222.39	7917.13	24.15	0.001711
	0.62006	225.51							
		124538.29							
1309.86	163.00	4418.61	9.21	5.81	6.04	222.39	7916.97	24.15	0.001711
	0.62012	225.51							
		124536.13							
1309.93	164.00	4418.61	9.21	5.81	6.04	222.39	7916.85	24.15	0.001711
	0.62003	225.51							
		124538.70							
1307.46	165.00	4418.60	9.20	5.80	6.04	222.21	7894.28	24.16	0.001709
	0.61890	225.32							
		124436.44							
1293.57	166.00	4418.55	9.15	5.77	6.01	221.18	7769.88	24.17	0.001710
	0.61534	224.28							
		123863.06							
1290.46	167.00	4418.54	9.14	5.76	6.00	220.96	7742.97	24.17	0.001709
	0.61439	224.05							
		123735.72							
1290.52	168.00	4418.54	9.14	5.76	6.00	220.96	7743.22	24.17	0.001709
	0.61442	224.05							
		123738.38							
1290.43	169.00	4418.54	9.14	5.76	6.00	220.95	7742.73	24.17	0.001710
	0.61446	224.05							
		123734.57							
1290.43	170.00	4418.54	9.14	5.76	6.00	220.96	7743.16	24.17	0.001709
	0.61437	224.05							
		123734.80							
1290.52	171.00	4418.54	9.14	5.76	6.00	220.96	7743.22	24.17	0.001709
	0.61438	224.05							
		123738.27							
1290.41	172.00	4418.54	9.14	5.76	6.00	220.95	7742.63	24.17	0.001710
	0.61469	224.05							
		123733.90							
1288.08	173.00	4418.53	9.13	5.75	5.99	220.78	7720.80	24.17	0.001708
	0.61318	223.87							
		123636.05							
1274.07	174.00	4418.49	9.09	5.72	5.96	219.74	7596.08	24.19	0.001709
	0.60967	222.81							
		123052.97							
1270.86	175.00	4418.47	9.07	5.71	5.96	219.50	7569.04	24.19	0.001709
	0.60910	222.56							
		122920.37							
1270.84	176.00	4418.47	9.07	5.71	5.96	219.50	7568.91	24.19	0.001708
	0.60869	222.56							
		122919.30							
1270.86	177.00	4418.47	9.07	5.71	5.96	219.50	7569.21	24.19	0.001708
	0.60868	222.56							
		122920.39							
1270.89	178.00	4418.47	9.07	5.71	5.96	219.50	7569.11	24.19	0.001709
	0.60902	222.57							
		122921.70							
1270.84	179.00	4418.47	9.07	5.71	5.96	219.50	7568.67	24.19	0.001708
	0.60864	222.56							
		122919.54							
1275.96	180.00	4418.49	9.09	5.72	5.97	219.88	7614.99	24.18	0.001712
	0.61124	222.95							
		123134.38							

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1303.64	181.00	4418.59	9.19	5.79	6.03	7862.20	0.35
	0.61838	225.04				221.93	24.16
		124281.76					0.001711
1312.49	182.00	4418.62	9.22	5.82	6.05	7940.35	0.35
	0.62150	225.70				222.58	24.15
		124645.08					0.001713
1326.17	183.00	4418.66	9.26	5.85	6.08	8063.88	0.35
	0.62487	226.72				223.58	24.14
		125204.73					0.001712
1329.25	184.00	4418.67	9.27	5.86	6.09	8091.02	0.35
	0.62577	226.95				223.80	24.14
		125329.38					0.001712
1329.22	185.00	4418.67	9.27	5.86	6.09	8090.57	0.35
	0.62560	226.95				223.80	24.14
		125328.06					0.001712
1329.23	186.00	4418.67	9.27	5.86	6.09	8091.09	0.35
	0.62591	226.95				223.80	24.14
		125328.51					0.001713
1329.28	187.00	4418.67	9.27	5.86	6.09	8091.23	0.35
	0.62600	226.95				223.80	24.14
		125330.27					0.001713
1329.24	188.00	4418.67	9.27	5.86	6.09	8090.98	0.35
	0.62594	226.95				223.80	24.14
		125328.91					0.001713
1329.26	189.00	4418.67	9.27	5.86	6.09	8090.94	0.35
	0.62560	226.95				223.80	24.14
		125329.88					0.001712
1329.25	190.00	4418.67	9.27	5.86	6.09	8091.05	0.35
	0.62583	226.95				223.80	24.14
		125329.34					0.001712
1326.81	191.00	4418.66	9.26	5.85	6.08	8067.93	0.35
	0.62483	226.77				223.62	24.14
		125228.41					0.001711
1313.07	192.00	4418.62	9.22	5.82	6.05	7943.93	0.35
	0.62105	225.74				222.62	24.15
		124666.48					0.001711
1309.91	193.00	4418.61	9.21	5.81	6.04	7916.88	0.35
	0.62032	225.51				222.39	24.15
		124538.09					0.001711
1309.87	194.00	4418.61	9.21	5.81	6.04	7917.14	0.35
	0.62005	225.51				222.39	24.15
		124536.33					0.001711
1309.92	195.00	4418.61	9.21	5.81	6.04	7917.18	0.35
	0.62014	225.51				222.39	24.15
		124538.51					0.001711
1309.91	196.00	4418.61	9.21	5.81	6.04	7917.09	0.35
	0.61997	225.51				222.39	24.15
		124538.24					0.001710
1309.89	197.00	4418.61	9.21	5.81	6.04	7916.94	0.35
	0.62016	225.51				222.39	24.15
		124537.20					0.001711
1309.93	198.00	4418.61	9.21	5.81	6.04	7917.16	0.35
	0.62019	225.51				222.39	24.15
		124538.84					0.001711
1309.87	199.00	4418.61	9.21	5.81	6.04	7916.48	0.35
	0.62052	225.51				222.39	24.15
		124536.39					0.001712

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2545

MAXIMUM DISCHARGE (CFS) = 22130.77 AT TIME = 87.79  
 MAXIMUM STAGE = 4420.63 AT TIME = 87.79

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## HYCHAN.OUT

AREA BED	TIME WETTED (HRS)	ELEV. PERIMETER SURFACE (FT)	THALWEG HYDRAULIC AREA (FT)	DEPTH RADIUS (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY	FLOW SLOPE
(FT^2)	(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)		
0.00	0.00	4407.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4407.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4407.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
59.64	3.00	4407.53	0.13	0.07	4.28	0.04		
	4.89512	4.72	12.65	4.75	36.51	0.006203		
913.55	4.00	4415.59	8.19	5.73	5237.76	0.35		
	0.80175	202.69	4.51	200.00	24.43	0.002851		
945.92	5.00	4415.65	8.25	5.72	5414.35	0.35		
	0.82657	204.15	4.63	201.43	24.41	0.002859		
939.62	6.00	4415.63	8.23	5.71	5367.42	0.35		
	0.82316	203.67	4.61	200.97	24.42	0.002859		
924.82	7.00	4415.58	8.18	5.68	5253.31	0.35		
	0.81764	202.47	4.57	199.79	24.43	0.002869		
904.99	8.00	4415.50	8.11	5.64	5103.36	0.35		
	0.80885	200.86	4.51	198.21	24.45	0.002877		
885.39	9.00	4415.43	8.03	5.60	4958.04	0.35		
	0.80078	199.27	4.44	196.65	24.48	0.002888		
865.69	10.00	4415.37	7.97	5.56	4816.75	0.35		
	0.79209	197.72	4.38	195.13	24.50	0.002899		
858.19	11.00	4415.34	7.94	5.55	4767.13	0.35		
	0.78769	197.14	4.35	194.56	24.50	0.002900		
842.98	12.00	4415.28	7.88	5.53	4662.17	0.35		
	0.78199	195.80	4.31	193.24	24.52	0.002911		
822.38	13.00	4415.21	7.81	5.49	4516.96	0.35		
	0.77285	194.11	4.24	191.58	24.54	0.002923		
815.33	14.00	4415.18	7.78	5.48	4468.87	0.35		
	0.76855	193.56	4.21	191.04	24.55	0.002924		
815.35	15.00	4415.18	7.78	5.48	4469.06	0.35		
	0.76848	193.56	4.21	191.05	24.55	0.002924		
815.34	16.00	4415.18	7.78	5.48	4468.94	0.35		
	0.76868	193.56	4.21	191.04	24.55	0.002924		
815.34	17.00	4415.18	7.78	5.48	4469.00	0.35		
	0.76868	193.56	4.21	191.04	24.55	0.002924		
	18.00	4415.19	7.79	5.48	4473.39	0.35		

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		HYCHAN.OUT				
816.17	193.67	4.21	191.15	24.55	0.002924	
0.76903	105130.18					
19.00	4415.25	7.85	5.51	4578.02	0.35	
831.34	195.03	4.26	192.48	24.53	0.002913	
0.77487	105865.02					
20.00	4415.32	7.93	5.55	4732.98	0.35	
853.21	196.80	4.34	194.23	24.51	0.002900	
0.78453	106825.07					
21.00	4415.40	8.00	5.58	4879.97	0.35	
873.87	198.44	4.40	195.83	24.49	0.002888	
0.79354	107708.02					
22.00	4415.42	8.02	5.59	4924.10	0.35	
880.34	198.92	4.43	196.30	24.48	0.002888	
0.79758	107964.13					
23.00	4415.42	8.02	5.60	4931.05	0.35	
881.19	198.99	4.43	196.37	24.48	0.002886	
0.79760	108004.90					
24.00	4415.48	8.08	5.63	5054.14	0.35	
897.59	200.33	4.48	197.69	24.46	0.002876	
0.80408	108729.26					
25.00	4415.61	8.21	5.71	5327.52	0.35	
933.49	203.25	4.59	200.56	24.42	0.002858	
0.81903	110305.59					
26.00	4415.75	8.35	5.79	5637.61	0.35	
974.25	206.45	4.72	203.69	24.38	0.002838	
0.83577	112031.10					
27.00	4415.88	8.48	5.85	5919.90	0.35	
1011.45	209.25	4.83	206.44	24.35	0.002819	
0.85040	113541.52					
28.00	4415.91	8.51	5.87	5985.06	0.35	
1020.42	209.87	4.86	207.05	24.34	0.002821	
0.85572	113879.09					
29.00	4415.91	8.51	5.87	5999.13	0.35	
1022.15	210.01	4.87	207.19	24.34	0.002819	
0.85617	113953.62					
30.00	4415.96	8.56	5.90	6117.49	0.36	
1037.52	211.16	4.91	208.31	24.32	0.002808	
0.86098	114571.31					
31.00	4415.98	8.58	5.90	6152.29	0.36	
1042.31	211.49	4.93	208.63	24.32	0.002809	
0.86374	114748.19					
32.00	4415.99	8.59	5.91	6167.50	0.36	
1044.21	211.64	4.93	208.78	24.32	0.002807	
0.86432	114831.46					
33.00	4416.04	8.64	5.93	6290.91	0.36	
1060.26	212.81	4.98	209.94	24.30	0.002797	
0.86956	115464.92					
34.00	4416.05	8.65	5.94	6326.08	0.36	
1065.11	213.14	5.00	210.25	24.30	0.002797	
0.87208	115639.54					
35.00	4416.05	8.65	5.94	6310.34	0.36	
1063.19	212.98	4.99	210.10	24.30	0.002799	
0.87186	115555.74					
36.00	4415.99	8.59	5.91	6187.17	0.36	
1047.13	211.81	4.94	208.95	24.32	0.002809	
0.86671	114921.82					
37.00	4415.97	8.57	5.90	6137.41	0.36	
1040.50	211.34	4.92	208.49	24.32	0.002811	
0.86364	114669.15					
38.00	4415.92	8.52	5.87	6019.73	0.35	
1025.17	210.20	4.88	207.37	24.34	0.002821	
0.85842	114053.16					
39.00	4415.91	8.51	5.87	5984.85	0.35	

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1020.38	0.85575	209.87	4.86	207.05	24.34	0.002821	
	40.00	4415.91	8.51	5.87	5985.22	0.35	
1020.39	0.85567	209.87	4.86	207.05	24.34	0.002820	
	41.00	4415.91	8.51	5.87	5984.84	0.35	
1020.40	0.85568	209.87	4.86	207.05	24.34	0.002820	
	42.00	4415.91	8.51	5.87	5985.07	0.35	
1020.41	0.85547	209.87	4.86	207.05	24.34	0.002820	
	43.00	4415.91	8.51	5.87	5999.29	0.35	
1022.16	0.85596	210.02	4.87	207.19	24.34	0.002818	
	44.00	4415.96	8.56	5.90	6117.55	0.36	
1037.56	0.86137	211.16	4.91	208.32	24.32	0.002809	
	45.00	4415.99	8.59	5.91	6167.78	0.36	
1044.25	0.86400	211.64	4.93	208.79	24.32	0.002806	
	46.00	4416.04	8.65	5.94	6307.54	0.36	
1062.34	0.86991	212.98	4.99	210.10	24.30	0.002795	
	47.00	4416.12	8.72	5.97	6482.78	0.36	
1085.25	0.87772	214.61	5.06	211.70	24.28	0.002782	
	48.00	4416.19	8.79	6.01	6656.00	0.36	
1107.85	0.88523	216.18	5.12	213.24	24.26	0.002768	
	49.00	4416.26	8.86	6.04	6826.83	0.36	
1130.22	0.89312	217.73	5.19	214.75	24.25	0.002757	
	50.00	4416.33	8.93	6.07	7001.50	0.36	
1153.03	0.90003	219.29	5.26	216.29	24.23	0.002743	
	51.00	4416.40	9.00	6.11	7193.13	0.36	
1177.96	0.90672	220.96	5.33	217.93	24.21	0.002726	
	52.00	4416.51	9.11	6.15	7474.21	0.36	
1214.83	0.91794	223.38	5.44	220.30	24.18	0.002705	
	53.00	4416.55	9.15	6.17	7563.31	0.36	
1226.69	0.92316	224.14	5.47	221.05	24.17	0.002703	
	54.00	4416.62	9.22	6.20	7757.72	0.36	
1250.37	0.92837	225.77	5.54	222.64	24.15	0.002686	
	55.00	4416.81	9.41	6.30	8290.04	0.36	
1315.99	0.94463	230.09	5.72	226.88	24.10	0.002647	
	56.00	4417.11	9.71	6.42	9116.69	0.36	
1419.06	0.96747	236.57	6.00	233.24	24.03	0.002585	
	57.00	4417.48	10.07	6.55	10192.65	0.36	
1555.78	0.99506	244.73	6.36	241.24	23.94	0.002508	
	58.00	4417.87	10.47	6.68	11419.73	0.36	
1710.15	1.02449	253.46	6.75	249.79	23.85	0.002433	
	59.00	4418.22	10.82	6.79	12466.13	0.36	
1836.55	1.04107	261.17	7.03	257.35	23.78	0.002373	
	60.00	4418.59	11.19	6.91	13628.35	0.36	

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1970.87		269.30		7.32	265.31	23.70	0.002301
	1.05080	145920.81					
61.00		4418.98	11.58	7.02	14849.99	0.36	
2114.08		277.64		7.61	273.48	23.62	0.002237
	1.06308	150416.03					
62.00		4419.22	11.82	7.09	15653.43	0.36	
2209.24		283.00		7.81	278.74	23.58	0.002202
	1.07267	153307.20					
63.00		4419.43	12.03	7.14	16342.56	0.36	
2290.21		287.46		7.97	283.11	23.54	0.002161
	1.07455	155709.66					
64.00		4419.59	12.19	7.17	16881.03	0.36	
2354.68		290.95		8.09	286.52	23.51	0.002134
	1.07763	157588.41					
65.00		4419.71	12.31	7.19	17283.21	0.36	
2403.20		293.54		8.19	289.06	23.48	0.002115
	1.08029	158982.86					
66.00		4419.84	12.44	7.22	17740.66	0.36	
2458.85		296.48		8.29	291.93	23.46	0.002089
	1.08086	160563.89					
67.00		4419.91	12.51	7.22	17964.30	0.36	
2486.68		297.93		8.35	293.35	23.45	0.002081
	1.08387	161344.75					
68.00		4419.93	12.53	7.23	18009.79	0.36	
2492.37		298.22		8.36	293.64	23.44	0.002080
	1.08463	161503.44					
69.00		4419.93	12.53	7.23	18031.39	0.36	
2494.85		298.35		8.36	293.77	23.44	0.002078
	1.08436	161573.00					
70.00		4419.94	12.54	7.23	18047.13	0.36	
2497.00		298.46		8.37	293.88	23.44	0.002079
	1.08511	161632.78					
71.00		4419.94	12.54	7.23	18044.94	0.36	
2496.62		298.44		8.37	293.86	23.44	0.002079
	1.08515	161622.27					
72.00		4419.93	12.53	7.23	18037.43	0.36	
2495.89		298.40		8.36	293.82	23.44	0.002079
	1.08489	161601.64					
73.00		4419.93	12.53	7.23	18038.61	0.36	
2495.84		298.40		8.36	293.82	23.44	0.002077
	1.08414	161600.64					
74.00		4419.96	12.56	7.23	18139.75	0.36	
2507.79		299.02		8.39	294.43	23.44	0.002069
	1.08261	161935.30					
75.00		4420.00	12.60	7.24	18268.19	0.36	
2523.66		299.84		8.42	295.23	23.43	0.002064
	1.08394	162376.75					
76.00		4420.01	12.61	7.24	18310.66	0.36	
2528.77		300.11		8.43	295.49	23.43	0.002061
	1.08376	162518.22					
77.00		4419.97	12.57	7.23	18165.44	0.36	
2511.68		299.22		8.39	294.62	23.44	0.002072
	1.08523	162039.94					
78.00		4420.02	12.62	7.25	18346.51	0.36	
2531.98		300.27		8.43	295.65	23.43	0.002053
	1.08045	162608.69					
79.00		4420.07	12.67	7.25	18504.03	0.36	
2551.30		301.25		8.47	296.60	23.42	0.002038
	1.07708	163132.73					
80.00		4420.18	12.78	7.27	18897.23	0.36	
2598.44		303.67		8.56	298.98	23.40	0.002025
	1.08110	164438.77					
81.00		4420.24	12.84	7.29	19136.72	0.36	

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2626.60		305.10		8.61	300.38	23.39	0.002014
	1.08170	165206.47					
	82.00	4420.29	12.89	7.29	19299.23	0.36	
2647.41		306.14		8.65	301.40	23.38	0.002010
	1.08435	165769.36					
	83.00	4420.27	12.87	7.28	19221.91	0.36	
2638.81		305.71		8.63	300.97	23.38	0.002016
	1.08605	165534.86					
	84.00	4420.24	12.84	7.28	19099.63	0.36	
2623.56		304.94		8.60	300.22	23.39	0.002020
	1.08434	165121.92					
	85.00	4420.23	12.83	7.28	19065.13	0.36	
2619.21		304.72		8.60	300.01	23.39	0.002020
	1.08349	165003.53					
	86.00	4420.24	12.84	7.28	19099.24	0.36	
2623.27		304.93		8.60	300.21	23.39	0.002017
	1.08287	165114.66					
	87.00	4420.24	12.84	7.28	19114.53	0.36	
2625.53		305.04		8.61	300.32	23.39	0.002018
	1.08411	165175.08					
	88.00	4420.21	12.81	7.27	18987.58	0.36	
2611.36		304.30		8.58	299.60	23.39	0.002024
	1.08387	164777.28					
	89.00	4420.03	12.63	7.24	18371.31	0.36	
2538.47		300.55		8.45	295.93	23.42	0.002068
	1.09010	162760.33					
	90.00	4419.68	12.28	7.16	17150.32	0.36	
2394.12		292.99		8.17	288.52	23.49	0.002168
	1.10534	158687.88					
	91.00	4419.29	11.89	7.09	15847.44	0.36	
2236.72		284.50		7.86	280.20	23.56	0.002225
	1.09141	154110.28					
	92.00	4419.01	11.61	7.01	14918.28	0.36	
2127.69		278.38		7.64	274.21	23.62	0.002278
	1.08642	150816.27					
	93.00	4418.67	11.27	6.91	13831.17	0.36	
2000.24		271.01		7.38	266.99	23.68	0.002335
	1.07549	146842.70					
	94.00	4418.40	11.00	6.83	12976.69	0.36	
1900.36		265.05		7.17	261.15	23.74	0.002377
	1.06328	143633.03					
	95.00	4418.18	10.78	6.75	12294.53	0.36	
1820.23		260.14		7.00	256.34	23.79	0.002414
	1.05402	140987.84					
	96.00	4418.00	10.60	6.70	11764.39	0.36	
1756.98		256.17		6.86	252.45	23.83	0.002446
	1.04661	138848.97					
	97.00	4417.80	10.40	6.63	11176.84	0.36	
1685.19		251.82		6.69	248.19	23.87	0.002481
	1.03615	136502.27					
	98.00	4417.65	10.25	6.60	10735.79	0.36	
1627.52		248.56		6.55	244.99	23.90	0.002508
	1.02471	134746.61					
	99.00	4417.52	10.12	6.56	10336.61	0.36	
1576.55		245.64		6.42	242.13	23.93	0.002531
	1.01371	133171.98					
	100.00	4417.42	10.02	6.52	10044.30	0.36	
1539.43		243.46		6.32	239.99	23.96	0.002551
	1.00670	131997.02					
	101.00	4417.29	9.89	6.48	9668.12	0.36	
1491.35		240.64		6.20	237.22	23.99	0.002576
	0.99610	130472.34					
	102.00	4417.19	9.79	6.44	9358.01	0.36	

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1452.45	238.37	6.09	235.00	24.01	0.002596		
0.98707	129248.41						
103.00	4417.10	9.70	6.41	9086.30	0.36		
1418.50	236.35	6.00	233.02	24.03	0.002614		
0.97881	128160.02						
104.00	4417.02	9.62	6.38	8873.28	0.36		
1391.64	234.72	5.93	231.42	24.05	0.002627		
0.97183	127282.47						
105.00	4416.94	9.54	6.34	8647.85	0.36		
1363.46	232.95	5.85	229.69	24.07	0.002643		
0.96522	126329.72						
106.00	4416.82	9.42	6.29	8311.20	0.36		
1321.27	230.29	5.74	227.08	24.10	0.002664		
0.95381	124891.33						
107.00	4416.75	9.35	6.26	8099.06	0.36		
1294.37	228.58	5.66	225.40	24.12	0.002675		
0.94526	123969.21						
108.00	4416.68	9.28	6.23	7924.94	0.36		
1272.55	227.15	5.60	224.00	24.14	0.002686		
0.93909	123200.92						
109.00	4416.62	9.22	6.20	7772.16	0.36		
1253.24	225.89	5.55	222.76	24.15	0.002694		
0.93253	122517.67						
110.00	4416.62	9.22	6.20	7764.56	0.36		
1251.86	225.83	5.54	222.70	24.15	0.002692		
0.93116	122484.50						
111.00	4416.68	9.28	6.23	7933.47	0.36		
1272.55	227.23	5.60	224.07	24.13	0.002678		
0.93569	123239.54						
112.00	4416.78	9.38	6.28	8190.13	0.36		
1304.96	229.31	5.69	226.12	24.11	0.002664		
0.94617	124364.45						
113.00	4416.74	9.34	6.26	8097.81	0.36		
1294.17	228.56	5.66	225.38	24.12	0.002676		
0.94540	123961.09						
114.00	4416.71	9.31	6.24	7990.67	0.36		
1280.18	227.70	5.62	224.53	24.13	0.002677		
0.93921	123492.93						
115.00	4416.81	9.41	6.29	8266.52	0.36		
1313.93	229.93	5.71	226.72	24.10	0.002654		
0.94633	124697.06						
116.00	4416.92	9.52	6.34	8580.78	0.36		
1353.95	232.43	5.83	229.18	24.08	0.002640		
0.95965	126046.58						
117.00	4416.89	9.49	6.32	8501.20	0.36		
1344.55	231.80	5.80	228.56	24.08	0.002649		
0.95879	125708.57						
118.00	4416.88	9.48	6.32	8469.82	0.36		
1340.35	231.55	5.79	228.31	24.09	0.002649		
0.95679	125572.25						
119.00	4416.89	9.49	6.32	8497.41	0.36		
1343.58	231.77	5.80	228.53	24.08	0.002646		
0.95698	125691.63						
120.00	4416.94	9.54	6.35	8639.67	0.36		
1361.36	232.89	5.85	229.63	24.07	0.002637		
0.96189	126296.05						
121.00	4416.95	9.55	6.35	8669.66	0.36		
1365.41	233.13	5.86	229.86	24.07	0.002637		
0.96372	126422.21						
122.00	4416.94	9.54	6.34	8642.29	0.36		
1362.24	232.92	5.85	229.65	24.07	0.002641		
0.96386	126308.53						
123.00	4416.89	9.49	6.32	8501.16	0.36		

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1344.54	231.80	5.80	228.56	24.08	0.002649		
0.95864	125707.16						
124.00	4416.87	9.47	6.31	8443.39	0.36		
1337.27	231.34	5.78	228.11	24.09	0.002653		
0.95694	125461.39						
125.00	4416.82	9.42	6.29	8301.55	0.36		
1319.54	230.21	5.73	227.00	24.10	0.002661		
0.95181	124849.73						
126.00	4416.81	9.41	6.29	8269.87	0.36		
1315.27	229.95	5.72	226.75	24.10	0.002662		
0.95008	124711.81						
127.00	4416.80	9.40	6.28	8247.07	0.36		
1312.64	229.77	5.71	226.57	24.11	0.002665		
0.94997	124614.39						
128.00	4416.75	9.35	6.26	8119.88	0.36		
1296.74	228.74	5.67	225.56	24.12	0.002673		
0.94553	124058.51						
129.00	4416.74	9.34	6.26	8091.26	0.36		
1292.91	228.51	5.66	225.33	24.12	0.002672		
0.94334	123934.23						
130.00	4416.73	9.33	6.25	8069.08	0.36		
1290.35	228.34	5.65	225.16	24.12	0.002676		
0.94358	123838.35						
131.00	4416.69	9.29	6.23	7945.55	0.36		
1274.89	227.32	5.61	224.17	24.13	0.002683		
0.93881	123291.50						
132.00	4416.69	9.29	6.24	7961.85	0.36		
1276.33	227.45	5.61	224.30	24.13	0.002677		
0.93723	123362.62						
133.00	4416.79	9.39	6.28	8213.42	0.36		
1307.70	229.50	5.70	226.30	24.11	0.002661		
0.94613	124466.87						
134.00	4416.81	9.41	6.29	8269.27	0.36		
1315.19	229.95	5.72	226.74	24.10	0.002662		
0.94995	124708.09						
135.00	4416.81	9.41	6.29	8270.20	0.36		
1315.32	229.96	5.72	226.75	24.10	0.002662		
0.95007	124713.70						
136.00	4416.81	9.41	6.29	8270.01	0.36		
1315.28	229.95	5.72	226.75	24.10	0.002661		
0.94972	124711.76						
137.00	4416.81	9.41	6.29	8269.95	0.36		
1315.25	229.95	5.72	226.75	24.10	0.002662		
0.94996	124711.34						
138.00	4416.81	9.41	6.29	8270.15	0.36		
1315.29	229.95	5.72	226.75	24.10	0.002660		
0.94953	124710.98						
139.00	4416.81	9.41	6.29	8269.75	0.36		
1315.26	229.96	5.72	226.75	24.10	0.002662		
0.94992	124712.03						
140.00	4416.80	9.40	6.28	8247.37	0.36		
1312.66	229.78	5.71	226.57	24.11	0.002664		
0.94978	124615.55						
141.00	4416.75	9.35	6.26	8119.92	0.36		
1296.75	228.74	5.67	225.56	24.12	0.002673		
0.94546	124058.41						
142.00	4416.74	9.34	6.26	8091.10	0.36		
1292.89	228.51	5.66	225.33	24.12	0.002673		
0.94371	123932.40						
143.00	4416.74	9.34	6.26	8091.06	0.36		
1292.86	228.51	5.66	225.33	24.12	0.002672		
0.94341	123932.34						
144.00	4416.74	9.34	6.26	8090.71	0.36		

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1292.83		228.51		5.66	225.33	24.12	0.002673
	0.94368	123931.04					
145.00	4416.73		9.33	6.25	8069.54	0.36	
1290.40		228.34		5.65	225.16	24.12	0.002676
	0.94356	123839.32					
146.00	4416.69		9.29	6.23	7945.46	0.36	
1274.91		227.33		5.61	224.17	24.13	0.002683
	0.93880	123293.70					
147.00	4416.68		9.28	6.23	7916.97	0.36	
1271.08		227.08		5.60	223.93	24.14	0.002683
	0.93706	123162.83					
148.00	4416.68		9.28	6.23	7916.99	0.36	
1271.05		227.08		5.60	223.93	24.14	0.002683
	0.93727	123160.80					
149.00	4416.68		9.28	6.23	7916.96	0.36	
1271.09		227.09		5.60	223.93	24.14	0.002683
	0.93716	123163.98					
150.00	4416.68		9.28	6.23	7917.15	0.36	
1271.13		227.09		5.60	223.94	24.14	0.002682
	0.93684	123165.73					
151.00	4416.67		9.27	6.23	7902.72	0.36	
1269.45		226.97		5.59	223.82	24.14	0.002685
	0.93696	123101.45					
152.00	4416.64		9.24	6.21	7813.33	0.36	
1258.36		226.23		5.56	223.10	24.15	0.002691
	0.93386	122703.38					
153.00	4416.62		9.22	6.20	7752.33	0.36	
1250.63		225.72		5.54	222.60	24.15	0.002693
	0.93092	122429.26					
154.00	4416.61		9.21	6.20	7742.88	0.36	
1249.30		225.65		5.54	222.52	24.15	0.002695
	0.93090	122387.50					
155.00	4416.60		9.21	6.19	7722.27	0.36	
1246.91		225.47		5.53	222.35	24.15	0.002696
	0.93046	122292.64					
156.00	4416.57		9.17	6.18	7640.70	0.36	
1236.44		224.79		5.50	221.68	24.16	0.002700
	0.92661	121926.12					
157.00	4416.66		9.26	6.22	7859.38	0.36	
1263.40		226.61		5.58	223.47	24.14	0.002683
	0.93337	122908.85					
158.00	4416.68		9.28	6.23	7916.56	0.36	
1271.03		227.08		5.60	223.93	24.14	0.002682
	0.93689	123160.95					
159.00	4416.68		9.28	6.23	7917.00	0.36	
1271.11		227.09		5.60	223.94	24.14	0.002684
	0.93730	123165.91					
160.00	4416.68		9.28	6.23	7916.92	0.36	
1271.09		227.09		5.60	223.94	24.14	0.002683
	0.93718	123165.25					
161.00	4416.68		9.28	6.23	7917.16	0.36	
1271.08		227.09		5.60	223.93	24.14	0.002683
	0.93702	123164.11					
162.00	4416.68		9.28	6.23	7917.10	0.36	
1271.09		227.09		5.60	223.94	24.14	0.002683
	0.93705	123164.40					
163.00	4416.68		9.28	6.23	7916.97	0.36	
1271.05		227.08		5.60	223.93	24.14	0.002683
	0.93710	123162.14					
164.00	4416.68		9.28	6.23	7916.85	0.36	
1271.08		227.09		5.60	223.94	24.14	0.002683
	0.93697	123164.33					
165.00	4416.67		9.27	6.22	7895.61	0.36	

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		HYCHAN.OUT					
1268.60	226.91	5.59	223.76	24.14	0.002687		
0.93723	123069.75						
166.00	4416.62	9.22	6.20	7771.50	0.36		
1253.10	225.88	5.55	222.75	24.15	0.002693		
0.93231	122514.09						
167.00	4416.61	9.21	6.20	7742.97	0.36		
1249.36	225.65	5.54	222.52	24.15	0.002694		
0.93065	122388.04						
168.00	4416.61	9.21	6.20	7743.21	0.36		
1249.33	225.65	5.54	222.53	24.15	0.002693		
0.93042	122390.21						
169.00	4416.61	9.21	6.20	7742.73	0.36		
1249.33	225.64	5.54	222.52	24.15	0.002693		
0.93058	122386.22						
170.00	4416.61	9.21	6.20	7743.16	0.36		
1249.33	225.64	5.54	222.52	24.15	0.002694		
0.93066	122385.96						
171.00	4416.61	9.21	6.20	7743.23	0.36		
1249.42	225.65	5.54	222.53	24.15	0.002693		
0.93048	122389.61						
172.00	4416.61	9.21	6.20	7742.61	0.36		
1249.31	225.64	5.54	222.52	24.15	0.002694		
0.93074	122384.88						
173.00	4416.61	9.21	6.19	7722.14	0.36		
1246.92	225.47	5.53	222.35	24.15	0.002696		
0.93045	122294.46						
174.00	4416.56	9.16	6.17	7597.69	0.36		
1231.43	224.43	5.49	221.33	24.17	0.002704		
0.92583	121732.36						
175.00	4416.55	9.15	6.17	7569.09	0.36		
1227.56	224.18	5.48	221.09	24.17	0.002703		
0.92365	121599.25						
176.00	4416.55	9.15	6.17	7568.86	0.36		
1227.53	224.18	5.48	221.09	24.17	0.002704		
0.92402	121598.96						
177.00	4416.55	9.15	6.17	7569.26	0.36		
1227.56	224.18	5.48	221.09	24.17	0.002703		
0.92365	121598.95						
178.00	4416.55	9.15	6.17	7569.10	0.36		
1227.56	224.19	5.48	221.09	24.17	0.002704		
0.92393	121600.88						
179.00	4416.55	9.15	6.17	7568.69	0.36		
1227.53	224.18	5.48	221.09	24.17	0.002704		
0.92386	121598.34						
180.00	4416.56	9.16	6.18	7612.21	0.36		
1232.61	224.55	5.49	221.45	24.17	0.002699		
0.92440	121796.42						
181.00	4416.66	9.26	6.22	7859.00	0.36		
1263.38	226.61	5.58	223.47	24.14	0.002684		
0.93373	122908.18						
182.00	4416.69	9.29	6.23	7938.96	0.36		
1273.66	227.27	5.60	224.12	24.13	0.002681		
0.93740	123263.48						
183.00	4416.73	9.33	6.25	8062.38	0.36		
1289.02	228.27	5.65	225.10	24.12	0.002672		
0.94156	123805.71						
184.00	4416.74	9.34	6.26	8091.02	0.36		
1292.84	228.51	5.66	225.33	24.12	0.002672		
0.94316	123931.77						
185.00	4416.74	9.34	6.26	8090.52	0.36		
1292.81	228.51	5.66	225.33	24.12	0.002672		
0.94341	123930.02						
186.00	4416.74	9.34	6.26	8091.08	0.36		

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1292.84	0.94388	228.51	5.66	225.33	24.12	0.002674			
187.00	4416.74	123930.52	9.34	6.26	8091.27	0.36			
1292.87	0.94376	228.51	5.66	225.33	24.12	0.002673			
188.00	4416.74	123933.23	9.34	6.26	8091.03	0.36			
1292.86	0.94328	228.51	5.66	225.33	24.12	0.002672			
189.00	4416.74	123931.31	9.34	6.26	8090.88	0.36			
1292.89	0.94335	228.51	5.66	225.33	24.12	0.002672			
190.00	4416.74	123932.29	9.34	6.26	8091.11	0.36			
1292.88	0.94345	228.51	5.66	225.33	24.12	0.002672			
191.00	4416.73	123932.97	9.33	6.25	8069.24	0.36			
1290.34	0.94350	228.33	5.65	225.16	24.12	0.002676			
192.00	4416.69	123836.80	9.29	6.23	7945.50	0.36			
1274.91	0.93939	227.33	5.61	224.17	24.13	0.002684			
193.00	4416.68	123294.98	9.28	6.23	7916.88	0.36			
1271.06	0.93736	227.09	5.60	223.93	24.14	0.002684			
194.00	4416.68	123164.03	9.28	6.23	7917.14	0.36			
1271.06	0.93734	227.08	5.60	223.93	24.14	0.002684			
195.00	4416.68	123162.58	9.28	6.23	7917.22	0.36			
1271.11	0.93703	227.09	5.60	223.94	24.14	0.002683			
196.00	4416.68	123165.34	9.28	6.23	7917.05	0.36			
1271.07	0.93728	227.09	5.60	223.94	24.14	0.002684			
197.00	4416.68	123165.46	9.28	6.23	7916.93	0.36			
1271.06	0.93739	227.08	5.60	223.93	24.14	0.002684			
198.00	4416.68	123162.48	9.28	6.23	7917.17	0.36			
1271.12	0.93724	227.09	5.60	223.94	24.14	0.002683			
199.00	4416.68	123165.25	9.28	6.23	7916.53	0.36			
1271.04	0.93724	227.08	5.60	223.93	24.14	0.002683			
		123163.23							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2630

MAXIMUM DISCHARGE (CFS) = 21130.67 AT TIME = 87.80  
 MAXIMUM STAGE = 4419.15 AT TIME = 87.80

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	VELOCITY	TOP WIDTH	DISCHARGE	FROUDE NO.	FLOW	
STRESS	SURFACE AREA	RADIUS	TOP WIDTH	DISCHARGE	FROUDE NO.	FLOW	FLOW	
(FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)	(FT)	(FT)	
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)	(FT)	(FT)	
0.00	0.00	4405.40	0.00	0.00	0.00	0.00	0.00	
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
1.00	4405.40	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
2.00	4405.40	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	

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	0.00000	0.00		0.02	0.03	0.41	0.00		
0.00	3.00	4405.42	0.00	0.00	0.00	0.00	0.00	0.005645	
	0.00000	0.00	0.00						
	4.00	4412.65	7.25	5.14	5108.91	0.34			
993.60		181.55	5.47	178.19	24.57		0.002728		
	0.93168	94440.34							
	5.00	4412.91	7.51	5.10	5416.51	0.33			
1061.19		187.34	5.66	183.82	24.49		0.002737		
	0.96742	97425.88							
	6.00	4412.88	7.48	5.09	5368.34	0.33			
1054.53		186.68	5.65	183.18	24.50		0.002740		
	0.96571	97087.23							
	7.00	4412.81	7.41	5.06	5256.39	0.33			
1039.64		185.19	5.61	181.73	24.52		0.002750		
	0.96323	96318.34							
	8.00	4412.72	7.32	5.01	5106.38	0.33			
1019.44		183.16	5.57	179.76	24.55		0.002760		
	0.95840	95270.95							
	9.00	4412.63	7.23	4.96	4961.21	0.33			
999.29		181.11	5.52	177.77	24.58		0.002777		
	0.95597	94215.70							
	10.00	4412.54	7.14	4.93	4819.32	0.33			
978.30		178.96	5.47	175.67	24.61		0.002794		
	0.95297	93106.21							
	11.00	4412.50	7.10	4.91	4767.96	0.33			
970.17		178.13	5.45	174.86	24.63		0.002793		
	0.94939	92675.93							
	12.00	4412.43	7.03	4.89	4665.47	0.32			
955.03		176.55	5.41	173.32	24.65		0.002811		
	0.94882	91859.87							
	13.00	4412.33	6.93	4.84	4519.64	0.32			
933.26		174.26	5.36	171.10	24.68		0.002828		
	0.94502	90682.26							
	14.00	4412.30	6.90	4.83	4468.92	0.32			
925.45		173.44	5.34	170.30	24.70		0.002828		
	0.94168	90260.55							
	15.00	4412.30	6.90	4.83	4469.05	0.32			
925.47		173.45	5.34	170.31	24.70		0.002828		
	0.94171	90261.70							
	16.00	4412.30	6.90	4.83	4468.96	0.32			
925.45		173.45	5.34	170.30	24.70		0.002829		
	0.94182	90260.88							
	17.00	4412.30	6.90	4.83	4468.97	0.32			
925.46		173.45	5.34	170.30	24.70		0.002829		
	0.94194	90261.17							
	18.00	4412.30	6.90	4.83	4472.77	0.32			
926.03		173.51	5.34	170.36	24.70		0.002832		
	0.94317	90293.23							
	19.00	4412.37	6.97	4.86	4574.59	0.32			
941.12		175.10	5.37	171.92	24.67		0.002816		
	0.94431	91116.15							
	20.00	4412.47	7.07	4.90	4729.51	0.33			
964.33		177.53	5.43	174.28	24.63		0.002793		
	0.94681	92366.95							
	21.00	4412.57	7.17	4.94	4877.30	0.33			
986.39		179.81	5.49	176.49	24.60		0.002775		
	0.95001	93541.66							
	22.00	4412.61	7.21	4.96	4924.14	0.33			
993.59		180.54	5.50	177.21	24.59		0.002775		
	0.95306	93919.94							
	23.00	4412.61	7.21	4.96	4930.22	0.33			
994.42		180.63	5.51	177.29	24.59		0.002772		

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1011.27	0.95213	93964.64	7.29	5.55	4.99	5049.89	0.33	0.002758	
	24.00	4412.69				178.96	24.56		
		182.35							
1047.67	0.95431	94851.20	7.45	5.63	5.08	5321.18	0.33	0.002735	
	25.00	4412.85				182.52	24.51		
		186.01							
1089.23	0.96136	96737.96	7.63	5.73	5.17	5631.18	0.33	0.002710	
	26.00	4413.03				186.52	24.45		
		190.11							
1127.53	0.96890	98853.07	7.79	5.82	5.25	5915.69	0.33	0.002686	
	27.00	4413.19				190.13	24.40		
		193.82							
1137.14	0.97511	100766.75	7.83	5.84	5.26	5985.07	0.33	0.002686	
	28.00	4413.23				191.02	24.38		
		194.74							
1138.84	0.97854	101239.94	7.84	5.84	5.27	5997.90	0.33	0.002683	
	29.00	4413.24				191.18	24.38		
		194.91							
1154.47	0.97831	101324.38	7.91	5.88	5.30	6115.19	0.33	0.002670	
	30.00	4413.31				192.63	24.36		
		196.40							
1159.62	0.97928	102092.93	7.93	5.89	5.31	6152.29	0.33	0.002670	
	31.00	4413.33				193.10	24.36		
		196.88							
1161.42	0.98138	102343.10	7.94	5.89	5.31	6166.25	0.33	0.002666	
	32.00	4413.34				193.27	24.35		
		197.05							
1177.80	0.98047	102431.76	8.00	5.93	5.34	6288.54	0.33	0.002652	
	33.00	4413.40				194.77	24.33		
		198.60							
1183.02	0.98139	103228.95	8.03	5.94	5.35	6326.08	0.33	0.002652	
	34.00	4413.43				195.25	24.33		
		199.09							
1181.21	0.98333	103480.17	8.02	5.94	5.34	6311.64	0.33	0.002656	
	35.00	4413.42				195.08	24.33		
		198.92							
1164.84	0.98433	103391.09	7.95	5.90	5.31	6189.55	0.33	0.002670	
	36.00	4413.35				193.57	24.35		
		197.37							
1157.89	0.98328	102594.75	7.92	5.89	5.30	6138.61	0.33	0.002673	
	37.00	4413.32				192.94	24.36		
		196.72							
1142.28	0.98175	102257.24	7.86	5.85	5.27	6022.04	0.33	0.002685	
	38.00	4413.25				191.49	24.38		
		195.23							
1137.11	0.98043	101490.47	7.83	5.84	5.26	5984.82	0.33	0.002686	
	39.00	4413.23				191.02	24.38		
		194.74							
1137.14	0.97864	101238.20	7.83	5.84	5.26	5985.22	0.33	0.002686	
	40.00	4413.23				191.02	24.38		
		194.74							
1137.14	0.97871	101239.73	7.83	5.84	5.26	5984.81	0.33	0.002687	
	41.00	4413.23				191.02	24.38		
		194.74							
1137.15	0.97896	101239.57	7.83	5.84	5.26	5985.07	0.33	0.002686	
	42.00	4413.23				191.02	24.38		
		194.74							
1138.79	0.97876	101240.43	7.84	5.84	5.27	5998.07	0.33	0.002682	
	43.00	4413.24				191.17	24.38		
		194.90							
1154.48	0.97789	101322.15	7.91	5.88	5.30	6115.30	0.33	0.002670	
	44.00	4413.31				192.63	24.36		
		196.40							

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0.97928	102093.33						
45.00	4413.34	7.94	5.31	6166.40	0.33		
1161.46	197.06		5.89	193.27	24.35	0.002667	
0.98075	102433.96						
46.00	4413.41	8.01	5.34	6303.91	0.33		
1179.79	198.79		5.93	194.95	24.33	0.002649	
0.98088	103325.87						
47.00	4413.51	8.11	5.38	6479.10	0.33		
1203.39	201.00		5.99	197.10	24.30	0.002628	
0.98199	104462.63						
48.00	4413.61	8.21	5.42	6652.24	0.33		
1226.76	203.16		6.04	199.20	24.27	0.002610	
0.98361	105577.52						
49.00	4413.70	8.30	5.46	6823.44	0.33		
1249.85	205.28		6.09	201.26	24.24	0.002591	
0.98452	106668.49						
50.00	4413.80	8.40	5.50	6997.42	0.33		
1273.27	207.41		6.14	203.33	24.22	0.002569	
0.98430	107764.52						
51.00	4413.90	8.50	5.53	7188.01	0.33		
1298.94	209.72		6.19	205.57	24.19	0.002543	
0.98285	108954.60						
52.00	4414.05	8.65	5.59	7469.34	0.33		
1337.09	213.11		6.27	208.87	24.14	0.002512	
0.98355	110700.66						
53.00	4414.10	8.70	5.60	7561.92	0.33		
1349.42	214.19		6.30	209.92	24.13	0.002508	
0.98589	111258.34						
54.00	4414.19	8.79	5.65	7750.81	0.34		
1372.65	216.23		6.35	211.90	24.11	0.002485	
0.98445	112305.69						
55.00	4414.44	9.04	5.76	8276.12	0.34		
1437.84	221.83		6.48	217.34	24.04	0.002426	
0.98104	115190.57						
56.00	4414.83	9.43	5.91	9096.32	0.34		
1540.25	230.38		6.69	225.65	23.94	0.002334	
0.97383	119592.08						
57.00	4415.32	9.92	6.07	10167.29	0.34		
1675.56	241.26		6.95	236.20	23.82	0.002220	
0.96207	125186.56						
58.00	4415.85	10.45	6.23	11395.29	0.34		
1829.17	253.09		7.23	247.68	23.69	0.002114	
0.95329	131271.36						
59.00	4416.30	10.90	6.35	12444.77	0.34		
1960.90	262.84		7.46	257.13	23.59	0.002035	
0.94724	136281.36						
60.00	4416.75	11.35	6.48	13600.01	0.34		
2099.37	272.71		7.70	266.71	23.50	0.001945	
0.93447	141354.16						
61.00	4417.22	11.82	6.60	14827.20	0.34		
2248.05	282.97		7.94	276.65	23.40	0.001865	
0.92454	146622.08						
62.00	4417.53	12.13	6.66	15639.48	0.34		
2347.25	289.61		8.10	283.09	23.34	0.001821	
0.92083	150035.64						
63.00	4417.78	12.38	6.72	16327.30	0.34		
2431.23	295.12		8.24	288.42	23.29	0.001768	
0.90877	152864.52						
64.00	4417.98	12.58	6.75	16870.84	0.34		
2498.86	299.49		8.34	292.65	23.26	0.001735	
0.90308	155105.39						
65.00	4418.13	12.73	6.78	17273.77	0.33		
2549.23	302.70		8.42	295.76	23.23	0.001691	

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0.88853	156753.89						
66.00	4418.30	12.90	8.51	6.80	17731.52	0.33	0.001675
2606.62	306.32				299.27	23.20	
0.88940	158611.75						
67.00	4418.38	12.99	8.55	6.81	17961.96	0.33	0.001666
2635.81	308.14				301.03	23.18	
0.88917	159546.45						
68.00	4418.40	13.00	8.56	6.82	18009.43	0.33	0.001664
2641.89	308.52				301.40	23.18	
0.88896	159740.11						
69.00	4418.41	13.01	8.57	6.82	18030.76	0.33	0.001661
2644.52	308.68				301.56	23.18	
0.88819	159824.31						
70.00	4418.42	13.02	8.57	6.82	18047.48	0.33	0.001662
2646.71	308.82				301.69	23.18	
0.88901	159894.05						
71.00	4418.42	13.02	8.57	6.82	18045.05	0.33	0.001663
2646.37	308.80				301.67	23.18	
0.88917	159883.30						
72.00	4418.41	13.01	8.57	6.82	18037.72	0.33	0.001663
2645.50	308.74				301.61	23.18	
0.88912	159855.38						
73.00	4418.41	13.01	8.57	6.82	18037.98	0.33	0.001660
2645.44	308.74				301.61	23.18	
0.88776	159853.73						
74.00	4418.45	13.05	8.59	6.82	18136.41	0.33	0.001649
2657.57	309.50				302.34	23.17	
0.88350	160241.48						
75.00	4418.50	13.10	8.61	6.83	18266.52	0.33	0.001643
2674.04	310.52				303.33	23.16	
0.88282	160764.98						
76.00	4418.51	13.11	8.62	6.83	18309.95	0.33	0.001642
2679.57	310.86				303.66	23.16	
0.88307	160940.08						
77.00	4418.46	13.06	8.59	6.82	18168.92	0.33	0.001654
2662.23	309.78				302.61	23.17	
0.88713	160385.70						
78.00	4418.52	13.12	8.62	6.84	18339.69	0.33	0.001631
2682.78	311.06				303.86	23.16	
0.87756	161043.48						
79.00	4418.58	13.18	8.66	6.84	18497.55	0.33	0.001608
2702.94	312.29				305.04	23.15	
0.86834	161673.39						
80.00	4418.72	13.32	8.73	6.86	18892.11	0.33	0.001589
2752.71	315.35				308.01	23.12	
0.86573	163244.75						
81.00	4418.81	13.41	8.77	6.87	19131.22	0.33	0.001946
2782.92	317.18				309.79	23.11	
1.06515	164187.00						
82.00	4418.87	13.47	8.81	6.88	19298.36	0.33	0.001941
2804.75	318.50				311.06	23.10	
1.06648	164863.11						
83.00	4418.84	13.44	8.79	6.88	19225.66	0.33	0.001951
2795.91	317.96				310.54	23.10	
1.07044	164587.05						
84.00	4418.80	13.40	8.77	6.87	19101.36	0.33	0.001956
2779.86	316.99				309.60	23.11	
1.07029	164089.38						
85.00	4418.78	13.38	8.76	6.87	19065.78	0.33	0.001956
2775.25	316.72				309.33	23.11	
1.06975	163946.41						
86.00	4418.80	13.40	8.77	6.87	19099.13	0.33	0.001952
2779.47	316.97				309.58	23.11	

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1.06829	164078.03						
87.00	4418.80	13.40	8.77	6.87	19117.40	0.33	
2782.01	317.12				309.73	23.11	0.001955
1.07012	164156.02						
88.00	4418.76	13.36	8.75	6.87	18995.62	0.33	
2766.85	316.19				308.82	23.12	0.001600
0.87371	163675.27						
89.00	4418.54	13.14	8.64	6.83	18387.40	0.33	
2691.07	311.53				304.31	23.16	0.001657
0.89300	161284.09						
90.00	4418.11	12.71	8.41	6.76	17188.44	0.33	
2542.77	302.21				295.29	23.23	0.001779
0.93425	156501.94						
91.00	4417.62	12.22	8.16	6.67	15869.25	0.34	
2378.19	291.61				285.02	23.32	0.001852
0.94264	151063.00						
92.00	4417.27	11.87	7.97	6.60	14939.77	0.34	
2265.22	284.09				277.73	23.39	0.001921
0.95576	147198.33						
93.00	4416.86	11.46	7.76	6.49	13853.03	0.34	
2133.43	275.06				268.98	23.47	0.001994
0.96491	142560.27						
94.00	4416.52	11.13	7.58	6.40	12992.73	0.34	
2030.01	267.78				261.93	23.54	0.002045
0.96727	138822.78						
95.00	4416.25	10.85	7.44	6.32	12307.59	0.34	
1946.92	261.80				256.13	23.60	0.002093
0.97144	135747.30						
96.00	4416.03	10.63	7.32	6.26	11776.36	0.34	
1880.05	256.88				251.36	23.65	0.002139
0.97679	133218.25						
97.00	4415.78	10.38	7.19	6.19	11188.22	0.34	
1806.27	251.35				245.99	23.71	0.002186
0.98039	130375.33						
98.00	4415.58	10.18	7.08	6.14	10744.68	0.34	
1749.77	247.04				241.81	23.75	0.002225
0.98327	128159.02						
99.00	4415.40	10.00	6.99	6.09	10343.81	0.34	
1699.73	243.16				238.05	23.80	0.002258
0.98505	126164.41						
100.00	4415.27	9.87	6.92	6.04	10051.34	0.34	
1663.39	240.30				235.27	23.83	0.002287
0.98787	124695.48						
101.00	4415.10	9.70	6.83	5.99	9675.50	0.34	
1615.69	236.51				231.59	23.87	0.002323
0.99035	122741.79						
102.00	4414.96	9.56	6.76	5.94	9364.00	0.34	
1576.34	233.33				228.51	23.90	0.002356
0.99310	121109.34						
103.00	4414.83	9.43	6.69	5.90	9091.57	0.34	
1542.00	230.53				225.79	23.94	0.002381
0.99399	119667.38						
104.00	4414.73	9.33	6.64	5.86	8877.51	0.34	
1514.92	228.30				223.62	23.96	0.002402
0.99451	118518.83						
105.00	4414.63	9.23	6.58	5.82	8653.70	0.34	
1486.88	225.96				221.35	23.99	0.002426
0.99628	117315.34						
106.00	4414.47	9.07	6.50	5.76	8317.43	0.34	
1444.64	222.40				217.89	24.03	0.002455
0.99524	115483.05						
107.00	4414.36	8.96	6.44	5.72	8102.72	0.34	
1417.50	220.09				215.65	24.06	0.002472

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	0.99341	114294.55						
108.00	4414.28	8.88	5.68	7928.50	0.34			
1395.65	218.21	6.40	213.83	24.08	0.002486			
	0.99235	113327.38						
109.00	4414.20	8.80	5.65	7774.15	0.34			
1376.27	216.53	6.36	212.20	24.10	0.002495			
	0.98971	112464.15						
110.00	4414.20	8.80	5.65	7763.11	0.34			
1374.59	216.39	6.35	212.06	24.10	0.002491			
	0.98728	112391.47						
111.00	4414.28	8.88	5.68	7928.26	0.34			
1394.91	218.16	6.39	213.77	24.08	0.002474			
	0.98696	113300.03						
112.00	4414.40	9.00	5.74	8187.63	0.34			
1427.60	220.96	6.46	216.50	24.05	0.002456			
	0.99011	114744.33						
113.00	4414.36	8.96	5.72	8101.44	0.34			
1417.31	220.07	6.44	215.63	24.06	0.002472			
	0.99333	114286.45						
114.00	4414.31	8.91	5.70	7989.49	0.34			
1402.87	218.84	6.41	214.44	24.07	0.002473			
	0.98930	113651.84						
115.00	4414.44	9.04	5.75	8258.68	0.34			
1436.14	221.69	6.48	217.21	24.04	0.002438			
	0.98547	115119.76						
116.00	4414.59	9.19	5.81	8578.14	0.34			
1476.63	225.11	6.56	220.53	24.00	0.002422			
	0.99126	116880.57						
117.00	4414.55	9.15	5.79	8503.40	0.34			
1467.59	224.35	6.54	219.79	24.01	0.002431			
	0.99221	116486.29						
118.00	4414.54	9.14	5.79	8469.91	0.34			
1463.27	223.99	6.53	219.44	24.01	0.002434			
	0.99241	116300.64						
119.00	4414.55	9.15	5.79	8495.54	0.34			
1466.30	224.25	6.54	219.69	24.01	0.002428			
	0.99067	116433.50						
120.00	4414.62	9.22	5.82	8637.44	0.34			
1484.07	225.74	6.57	221.13	23.99	0.002414			
	0.99021	117201.53						
121.00	4414.63	9.23	5.83	8669.64	0.34			
1488.33	226.09	6.58	221.48	23.99	0.002414			
	0.99170	117383.88						
122.00	4414.62	9.22	5.82	8644.16	0.34			
1485.28	225.83	6.58	221.23	23.99	0.002421			
	0.99357	117250.67						
123.00	4414.55	9.15	5.79	8503.37	0.34			
1467.60	224.35	6.54	219.79	24.01	0.002434			
	0.99352	116486.74						
124.00	4414.53	9.13	5.78	8445.24	0.34			
1460.27	223.73	6.53	219.19	24.01	0.002440			
	0.99369	116169.02						
125.00	4414.46	9.06	5.76	8303.86	0.34			
1442.58	222.23	6.49	217.73	24.03	0.002452			
	0.99324	115397.59						
126.00	4414.44	9.04	5.75	8269.87	0.34			
1438.12	221.86	6.48	217.37	24.04	0.002451			
	0.99149	115204.67						
127.00	4414.43	9.03	5.75	8248.63	0.34			
1435.61	221.64	6.48	217.16	24.04	0.002455			
	0.99239	115093.01						
128.00	4414.37	8.97	5.72	8122.01	0.34			
1419.75	220.29	6.45	215.84	24.06	0.002468			

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	0.99253	114395.38						
1415.73	129.00	4414.36	8.96	5.72	8091.19	0.34		
		219.95	6.44	215.51	24.06		0.002467	
	0.99102	114220.27						
1413.28	130.00	4414.35	8.95	5.71	8070.70	0.34		
		219.73	6.43	215.30	24.06		0.002472	
	0.99214	114110.56						
1397.86	131.00	4414.29	8.89	5.69	7947.50	0.34		
		218.40	6.40	214.01	24.08		0.002480	
	0.99059	113427.09						
1398.92	132.00	4414.29	8.89	5.69	7958.71	0.34		
		218.50	6.40	214.11	24.08		0.002472	
	0.98769	113477.69						
1430.20	133.00	4414.41	9.01	5.74	8209.36	0.34		
		221.19	6.47	216.72	24.05		0.002451	
	0.98892	114859.09						
1438.06	134.00	4414.44	9.04	5.75	8269.22	0.34		
		221.85	6.48	217.36	24.04		0.002451	
	0.99119	115201.84						
1438.18	135.00	4414.44	9.04	5.75	8270.23	0.34		
		221.86	6.48	217.37	24.04		0.002452	
	0.99178	115207.03						
1438.14	136.00	4414.44	9.04	5.75	8269.99	0.34		
		221.86	6.48	217.37	24.04		0.002452	
	0.99171	115205.54						
1438.11	137.00	4414.44	9.04	5.75	8270.02	0.34		
		221.86	6.48	217.37	24.04		0.002450	
	0.99085	115203.85						
1438.18	138.00	4414.44	9.04	5.75	8270.07	0.34		
		221.86	6.48	217.37	24.04		0.002449	
	0.99079	115207.20						
1438.11	139.00	4414.44	9.04	5.75	8269.75	0.34		
		221.86	6.48	217.37	24.04		0.002453	
	0.99220	115204.12						
1435.62	140.00	4414.43	9.03	5.75	8248.94	0.34		
		221.64	6.48	217.16	24.04		0.002456	
	0.99270	115093.50						
1419.77	141.00	4414.37	8.97	5.72	8122.05	0.34		
		220.29	6.45	215.84	24.06		0.002468	
	0.99237	114396.55						
1415.74	142.00	4414.36	8.96	5.72	8091.09	0.34		
		219.95	6.44	215.51	24.06		0.002467	
	0.99068	114220.59						
1415.69	143.00	4414.36	8.96	5.72	8091.07	0.34		
		219.94	6.44	215.51	24.06		0.002467	
	0.99084	114218.48						
1415.67	144.00	4414.36	8.96	5.72	8090.73	0.34		
		219.94	6.44	215.50	24.06		0.002467	
	0.99092	114217.31						
1413.35	145.00	4414.35	8.95	5.71	8071.02	0.34		
		219.74	6.43	215.31	24.06		0.002471	
	0.99192	114113.70						
1397.85	146.00	4414.29	8.89	5.69	7947.48	0.34		
		218.40	6.40	214.01	24.08		0.002482	
	0.99140	113426.36						
1393.94	147.00	4414.27	8.87	5.68	7916.98	0.34		
		218.07	6.39	213.69	24.08		0.002481	
	0.98957	113254.67						
1393.92	148.00	4414.27	8.87	5.68	7917.02	0.34		
		218.07	6.39	213.69	24.08		0.002481	
	0.98954	113253.87						
1393.93	149.00	4414.27	8.87	5.68	7916.97	0.34		
		218.07	6.39	213.69	24.08		0.002482	

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	0.98986	113254.09					
1393.96	150.00	4414.27	8.87	6.39	5.68	7917.07	0.34
		218.07				213.69	24.08
	0.98982	113255.41					0.002482
1392.38	151.00	4414.27	8.87	6.39	5.68	7903.75	0.34
		217.93				213.55	24.08
	0.99015	113184.11					0.002484
1381.34	152.00	4414.22	8.82	6.37	5.66	7815.15	0.34
		216.98				212.62	24.10
	0.99024	112691.14					0.002493
1373.57	153.00	4414.19	8.79	6.35	5.64	7753.01	0.34
		216.30				211.97	24.10
	0.98909	112344.20					0.002496
1372.11	154.00	4414.19	8.79	6.35	5.64	7742.98	0.34
		216.17				211.85	24.11
	0.98890	112279.27					0.002497
1369.89	155.00	4414.18	8.78	6.34	5.64	7723.72	0.34
		215.98				211.66	24.11
	0.98960	112178.49					0.002500
1359.22	156.00	4414.14	8.74	6.32	5.62	7639.72	0.34
		215.05				210.76	24.12
	0.98688	111700.23					0.002502
1385.89	157.00	4414.24	8.84	6.38	5.67	7855.33	0.34
		217.38				213.01	24.09
	0.98697	112897.91					0.002481
1393.89	158.00	4414.27	8.87	6.39	5.68	7916.51	0.34
		218.07				213.68	24.08
	0.98993	113252.44					0.002482
1393.93	159.00	4414.27	8.87	6.39	5.68	7917.03	0.34
		218.07				213.69	24.08
	0.99030	113254.14					0.002483
1393.91	160.00	4414.27	8.87	6.39	5.68	7916.95	0.34
		218.07				213.69	24.08
	0.98954	113253.09					0.002481
1393.92	161.00	4414.27	8.87	6.39	5.68	7917.12	0.34
		218.07				213.69	24.08
	0.98972	113253.50					0.002481
1393.93	162.00	4414.27	8.87	6.39	5.68	7917.10	0.34
		218.07				213.69	24.08
	0.99006	113254.04					0.002482
1393.91	163.00	4414.27	8.87	6.39	5.68	7916.97	0.34
		218.07				213.69	24.08
	0.99006	113253.21					0.002482
1393.90	164.00	4414.27	8.87	6.39	5.68	7916.81	0.34
		218.07				213.68	24.08
	0.99018	113253.01					0.002482
1391.54	165.00	4414.26	8.86	6.39	5.68	7897.23	0.34
		217.86				213.48	24.09
	0.99092	113146.27					0.002486
1376.10	166.00	4414.20	8.80	6.36	5.65	7773.45	0.34
		216.52				212.18	24.10
	0.98995	112456.36					0.002496
1372.20	167.00	4414.19	8.79	6.35	5.64	7743.03	0.34
		216.18				211.86	24.11
	0.98860	112283.59					0.002496
1372.12	168.00	4414.19	8.79	6.35	5.64	7743.16	0.34
		216.18				211.85	24.11
	0.98876	112279.69					0.002496
1372.20	169.00	4414.19	8.79	6.35	5.64	7742.76	0.34
		216.18				211.86	24.11
	0.98878	112283.40					0.002496
1372.20	170.00	4414.19	8.79	6.35	5.64	7743.11	0.34
		216.18				211.86	24.11

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	0.98857	112283.48						
1372.29	171.00	4414.19	8.79	6.35	5.64	7743.23	0.34	0.002496
	0.98881	112287.31						
1372.18	172.00	4414.19	8.79	6.35	5.64	7742.63	0.34	0.002496
	0.98854	112282.66						
1369.87	173.00	4414.18	8.78	6.34	5.64	7723.63	0.34	0.002501
	0.98982	112177.77						
1354.43	174.00	4414.12	8.72	6.31	5.61	7599.76	0.34	0.002510
	0.98827	111481.98						
1350.44	175.00	4414.10	8.70	6.30	5.60	7569.05	0.33	0.002509
	0.98652	111303.63						
1350.38	176.00	4414.10	8.70	6.30	5.61	7568.90	0.33	0.002510
	0.98710	111300.77						
1350.44	177.00	4414.10	8.70	6.30	5.61	7569.23	0.33	0.002510
	0.98705	111303.66						
1350.40	178.00	4414.10	8.70	6.30	5.61	7569.09	0.33	0.002509
	0.98675	111301.77						
1350.40	179.00	4414.10	8.70	6.30	5.60	7568.68	0.33	0.002510
	0.98707	111301.82						
1355.22	180.00	4414.12	8.72	6.31	5.61	7609.23	0.34	0.002502
	0.98552	111521.17						
1385.87	181.00	4414.24	8.84	6.38	5.67	7855.02	0.34	0.002483
	0.98773	112896.66						
1396.34	182.00	4414.28	8.88	6.40	5.68	7937.34	0.34	0.002478
	0.98898	113362.08						
1411.69	183.00	4414.34	8.94	6.43	5.71	8060.33	0.34	0.002466
	0.98939	114042.86						
1415.67	184.00	4414.36	8.96	6.44	5.72	8091.03	0.34	0.002466
	0.99057	114217.26						
1415.66	185.00	4414.36	8.96	6.44	5.72	8090.53	0.34	0.002467
	0.99090	114216.91						
1415.69	186.00	4414.36	8.96	6.44	5.72	8091.10	0.34	0.002467
	0.99078	114218.35						
1415.69	187.00	4414.36	8.96	6.44	5.72	8091.26	0.34	0.002466
	0.99046	114218.30						
1415.70	188.00	4414.36	8.96	6.44	5.72	8090.97	0.34	0.002467
	0.99070	114219.07						
1415.75	189.00	4414.36	8.96	6.44	5.71	8090.90	0.34	0.002468
	0.99118	114221.03						
1415.71	190.00	4414.36	8.96	6.44	5.72	8091.13	0.34	0.002467
	0.99069	114219.05						
1413.30	191.00	4414.35	8.95	6.43	5.71	8070.79	0.34	0.002471

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0.99166	114111.55							
192.00	4414.29	8.89	5.69	7947.59	0.34			
1397.82	218.40	6.40		214.01	24.08	0.002481		
0.99097	113425.34							
193.00	4414.27	8.87	5.68	7916.86	0.34			
1393.87	218.06	6.39		213.68	24.08	0.002482		
0.98981	113251.59							
194.00	4414.27	8.87	5.68	7917.09	0.34			
1393.91	218.07	6.39		213.69	24.08	0.002482		
0.99005	113253.16							
195.00	4414.27	8.87	5.68	7917.22	0.34			
1393.93	218.07	6.39		213.69	24.08	0.002482		
0.98999	113254.15							
196.00	4414.27	8.87	5.68	7917.05	0.34			
1393.87	218.06	6.39		213.68	24.08	0.002482		
0.99001	113251.34							
197.00	4414.27	8.87	5.68	7916.99	0.34			
1393.91	218.07	6.39		213.69	24.08	0.002481		
0.98974	113253.32							
198.00	4414.27	8.87	5.68	7917.13	0.34			
1393.95	218.07	6.39		213.69	24.08	0.002482		
0.98989	113255.09							
199.00	4414.27	8.87	5.68	7916.55	0.34			
1393.86	218.06	6.39		213.68	24.08	0.002481		
0.98954	113251.05							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2716

MAXIMUM DISCHARGE (CFS) = 20303.49 AT TIME = 87.81  
 MAXIMUM STAGE = 4418.27 AT TIME = 87.81

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	DEPTH	TOP	WIDTH/DEPTH	ENERGY		SLOPE
SHEAR	STRESS	SURFACE	HYDRAULIC	RADIUS				
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(FT)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4403.19	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4403.19	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4403.19	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4403.19	0.00	0.03	0.41	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
993.60	4.00	4410.73	7.54	5.14	5108.91	0.33		
		171.09	5.81		168.39	22.35		0.001670
	0.60517	101036.33						
1061.19	5.00	4411.34	8.15	5.10	5416.51	0.32		
		179.21	5.92		176.26	21.63		0.001671
	0.61750	105756.30						
1054.53	6.00	4411.31	8.12	5.09	5368.34	0.31		
		178.83	5.90		175.89	21.66		0.001669
	0.61424	105533.30						
1039.64	7.00	4411.24	8.05	5.06	5256.39	0.31		
		177.97	5.84		175.06	21.73		0.001667
	0.60768	105035.95						

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HYCHAN.OUT							
1019.44	8.00	4411.16	7.97	5.01	5106.38	0.31	
		176.80	5.77		173.92	21.84	0.001667
	0.59990	104354.79					
999.29	9.00	4411.06	7.87	4.96	4961.21	0.31	
		175.59	5.69		172.76	21.94	0.001664
	0.59103	103653.13					
978.30	10.00	4410.96	7.77	4.93	4819.32	0.31	
		174.23	5.62		171.43	22.06	0.001664
	0.58307	102858.14					
970.17	11.00	4410.92	7.73	4.91	4767.96	0.31	
		173.71	5.59		170.93	22.11	0.001662
	0.57925	102556.48					
955.03	12.00	4410.85	7.66	4.89	4665.47	0.31	
		172.74	5.53		169.99	22.20	0.001659
	0.57244	101992.73					
933.26	13.00	4410.74	7.55	4.84	4519.64	0.31	
		171.31	5.45		168.60	22.33	0.001660
	0.56419	101160.15					
925.45	14.00	4410.70	7.51	4.83	4468.92	0.31	
		170.78	5.42		168.09	22.38	0.001661
	0.56153	100854.25					
925.47	15.00	4410.70	7.51	4.83	4469.05	0.31	
		170.78	5.42		168.09	22.38	0.001661
	0.56154	100854.99					
925.45	16.00	4410.70	7.51	4.83	4468.96	0.31	
		170.78	5.42		168.09	22.38	0.001660
	0.56130	100854.35					
925.46	17.00	4410.70	7.51	4.83	4468.97	0.31	
		170.78	5.42		168.09	22.38	0.001660
	0.56142	100854.52					
926.03	18.00	4410.70	7.51	4.83	4472.77	0.31	
		170.81	5.42		168.12	22.37	0.001664
	0.56294	100872.65					
941.12	19.00	4410.78	7.59	4.86	4574.59	0.31	
		171.78	5.48		169.06	22.28	0.001666
	0.56945	101436.31					
964.33	20.00	4410.89	7.70	4.90	4729.51	0.31	
		173.29	5.56		170.52	22.15	0.001669
	0.57961	102314.38					
986.39	21.00	4411.00	7.81	4.94	4877.30	0.31	
		174.73	5.65		171.92	22.02	0.001670
	0.58822	103152.16					
993.59	22.00	4411.03	7.84	4.96	4924.14	0.31	
		175.21	5.67		172.39	21.98	0.001668
	0.59027	103431.68					
994.42	23.00	4411.04	7.85	4.96	4930.22	0.31	
		175.26	5.67		172.43	21.97	0.001673
	0.59242	103460.95					
1011.27	24.00	4411.12	7.93	4.99	5049.89	0.31	
		176.29	5.74		173.43	21.88	0.001678
	0.60054	104059.94					
1047.67	25.00	4411.28	8.09	5.08	5321.18	0.31	
		178.41	5.87		175.48	21.70	0.001679
	0.61520	105289.54					
1089.23	26.00	4411.46	8.27	5.17	5631.18	0.32	
		180.81	6.02		177.81	21.49	0.001681
	0.63184	106684.94					
1127.53	27.00	4411.63	8.44	5.25	5915.69	0.32	
		183.01	6.16		179.94	21.31	0.001678
	0.64498	107963.25					
1137.14	28.00	4411.68	8.49	5.26	5985.07	0.32	
		183.57	6.19		180.48	21.27	0.001675
	0.64760	108288.92					

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1138.84	29.00	4411.68	8.49	5.27	5997.90	0.32	
	0.64980	183.66	6.20		180.57	21.26	0.001679
	30.00	108341.14					
1154.47		4411.75	8.56	5.30	6115.19	0.32	
	0.65561	184.55	6.26		181.43	21.19	0.001680
	31.00	108855.16					
1159.62		4411.78	8.59	5.31	6152.29	0.32	
	0.65722	184.84	6.27		181.71	21.16	0.001679
	32.00	109028.56					
1161.42		4411.78	8.59	5.31	6166.25	0.32	
	0.65936	184.94	6.28		181.81	21.15	0.001683
	33.00	109084.79					
1177.80		4411.86	8.67	5.34	6288.54	0.32	
	0.66445	185.86	6.34		182.70	21.08	0.001680
	34.00	109618.66					
1183.02		4411.88	8.69	5.35	6326.08	0.32	
	0.66656	186.16	6.35		182.99	21.06	0.001681
	35.00	109793.32					
1181.21		4411.87	8.68	5.34	6311.64	0.32	
	0.66398	186.06	6.35		182.89	21.06	0.001676
	36.00	109735.45					
1164.84		4411.80	8.61	5.31	6189.55	0.32	
	0.65854	185.14	6.29		182.00	21.14	0.001677
	37.00	109202.69					
1157.89		4411.77	8.58	5.30	6138.61	0.32	
	0.65453	184.75	6.27		181.62	21.17	0.001674
	38.00	108973.23					
1142.28		4411.70	8.51	5.27	6022.04	0.32	
	0.64952	183.87	6.21		180.77	21.24	0.001675
	39.00	108462.20					
1137.11		4411.68	8.49	5.26	5984.82	0.32	
	0.64753	183.57	6.19		180.48	21.27	0.001675
	40.00	108288.17					
1137.14		4411.68	8.49	5.26	5985.22	0.32	
	0.64796	183.57	6.19		180.48	21.27	0.001676
	41.00	108289.52					
1137.14		4411.68	8.49	5.26	5984.81	0.32	
	0.64778	183.57	6.19		180.48	21.27	0.001676
	42.00	108288.05					
1137.15		4411.68	8.49	5.26	5985.07	0.32	
	0.64811	183.57	6.19		180.48	21.27	0.001677
	43.00	108288.97					
1138.79		4411.68	8.49	5.27	5998.07	0.32	
	0.64997	183.66	6.20		180.57	21.26	0.001680
	44.00	108341.63					
1154.48		4411.75	8.56	5.30	6115.30	0.32	
	0.65521	184.55	6.26		181.43	21.19	0.001678
	45.00	108855.65					
1161.46		4411.78	8.59	5.31	6166.40	0.32	
	0.65962	184.94	6.28		181.81	21.15	0.001683
	46.00	109085.65					
1179.79		4411.87	8.68	5.34	6303.91	0.32	
	0.66711	185.97	6.34		182.80	21.07	0.001685
	47.00	109680.80					
1203.39		4411.97	8.78	5.38	6479.10	0.32	
	0.67670	187.29	6.43		184.08	20.97	0.001688
	48.00	110448.36					
1226.76		4412.07	8.88	5.42	6652.24	0.32	
	0.68683	188.59	6.50		185.34	20.87	0.001692
	49.00	111203.70					
1249.85		4412.17	8.98	5.46	6823.44	0.32	
	0.69568	189.87	6.58		186.58	20.77	0.001694
		111947.41					

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				HYCHAN.OUT			
1273.27	50.00	4412.28	9.09	5.50	6997.42	0.32	0.001698
		191.16		6.66	187.83	20.67	
	0.70563	112696.66					
1298.94	51.00	4412.39	9.20	5.53	7188.01	0.32	0.001708
		192.56		6.75	189.19	20.56	
	0.71901	113511.40					
1337.09	52.00	4412.56	9.37	5.59	7469.34	0.32	0.001707
		194.62		6.87	191.17	20.41	
	0.73200	114704.83					
1349.42	53.00	4412.61	9.42	5.60	7561.92	0.32	0.001710
		195.27		6.91	191.81	20.36	
	0.73752	115083.01					
1372.65	54.00	4412.70	9.51	5.65	7750.81	0.32	0.001716
		196.42		6.99	192.91	20.28	
	0.74838	115748.74					
1437.84	55.00	4412.97	9.78	5.76	8276.12	0.32	0.001717
		199.62		7.20	196.01	20.05	
	0.77171	117608.70					
1540.25	56.00	4413.38	10.19	5.91	9096.32	0.33	0.001722
		204.58		7.53	200.81	19.70	
	0.80918	120486.45					
1675.56	57.00	4413.92	10.73	6.07	10167.29	0.33	0.001718
		210.88		7.95	206.89	19.29	
	0.85192	124134.89					
1829.17	58.00	4414.50	11.31	6.23	11395.29	0.33	0.001718
		217.64		8.40	213.42	18.86	
	0.90117	128054.69					
1960.90	59.00	4415.00	11.81	6.35	12444.77	0.33	0.001740
		223.24		8.78	218.83	18.53	
	0.95378	131300.81					
2099.37	60.00	4415.50	12.31	6.48	13600.01	0.33	0.001790
		228.75		9.18	224.15	18.21	
	1.02525	134490.05					
2248.05	61.00	4416.02	12.83	6.60	14827.20	0.32	0.001854
		234.44		9.59	229.64	17.90	
	1.10942	137782.88					
2347.25	62.00	4416.36	13.17	6.66	15639.48	0.32	0.001901
		238.10		9.86	233.17	17.71	
	1.16920	139902.48					
2431.23	63.00	4416.64	13.45	6.72	16327.30	0.32	0.001955
		241.12		10.08	236.08	17.55	
	1.23022	141647.59					
2498.86	64.00	4416.87	13.68	6.75	16870.84	0.32	0.001992
		243.50		10.26	238.38	17.43	
	1.27555	143026.67					
2549.23	65.00	4417.03	13.84	6.78	17273.77	0.32	0.002014
		245.25		10.39	240.06	17.34	
	1.30617	144036.64					
2606.62	66.00	4417.22	14.03	6.80	17731.52	0.32	0.002062
		247.20		10.54	241.95	17.24	
	1.35643	145168.88					
2635.81	67.00	4417.32	14.13	6.81	17961.96	0.32	0.002072
		248.19		10.62	242.90	17.20	
	1.37301	145739.89					
2641.89	68.00	4417.34	14.15	6.82	18009.43	0.32	0.002073
		248.40		10.64	243.10	17.19	
	1.37605	145858.55					
2644.52	69.00	4417.34	14.15	6.82	18030.76	0.32	0.002075
		248.49		10.64	243.18	17.18	
	1.37814	145909.98					
2646.71	70.00	4417.35	14.16	6.82	18047.48	0.32	0.002077
		248.56		10.65	243.25	17.18	
	1.38024	145952.22					

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2646.37	71.00	4417.35	14.16	6.82	18045.05	0.32	0.002078
	1.38054	248.55	10.65	243.24	17.18		
		145945.91					
2645.50	72.00	4417.35	14.16	6.82	18037.72	0.32	0.002077
	1.37949	248.52	10.65	243.21	17.18		
		145928.30					
2645.44	73.00	4417.35	14.16	6.82	18037.98	0.32	0.002079
	1.38104	248.52	10.64	243.21	17.18		
		145927.50					
2657.57	74.00	4417.39	14.20	6.82	18136.41	0.32	0.002095
	1.39583	248.92	10.68	243.60	17.16		
		146161.94					
2674.04	75.00	4417.44	14.25	6.83	18266.52	0.32	0.002100
	1.40444	249.47	10.72	244.13	17.13		
		146479.86					
2679.57	76.00	4417.46	14.27	6.83	18309.95	0.32	0.002106
	1.41062	249.66	10.73	244.31	17.12		
		146586.83					
2662.23	77.00	4417.40	14.21	6.82	18168.92	0.32	0.002090
	1.39406	249.08	10.69	243.75	17.15		
		146251.80					
2682.78	78.00	4417.47	14.28	6.84	18339.69	0.32	0.002121
	1.42188	249.76	10.74	244.41	17.12		
		146648.61					
2702.94	79.00	4417.53	14.34	6.84	18497.55	0.32	0.002149
	1.44766	250.42	10.79	245.05	17.09		
		147030.47					
2752.71	80.00	4417.69	14.50	6.86	18892.11	0.32	0.002174
	1.48118	252.07	10.92	246.64	17.01		
		147983.53					
2782.92	81.00	4417.79	14.60	6.87	19131.22	0.32	0.001812
	1.24475	252.84	11.01	247.60	16.96		
		148557.47					
2804.75	82.00	4417.86	14.67	6.88	19298.36	0.32	0.001816
	1.25654	252.97	11.09	248.27	16.93		
		148964.42					
2795.91	83.00	4417.83	14.64	6.88	19225.66	0.32	0.001803
	1.24396	252.92	11.05	248.00	16.94		
		148797.33					
2779.86	84.00	4417.78	14.59	6.87	19101.36	0.32	0.001796
	1.23243	252.82	11.00	247.49	16.97		
		148496.62					
2775.25	85.00	4417.76	14.57	6.87	19065.78	0.32	0.001793
	1.22857	252.79	10.98	247.35	16.97		
		148410.19					
2779.47	86.00	4417.78	14.59	6.87	19099.13	0.32	0.001803
	1.23696	252.81	10.99	247.48	16.97		
		148489.48					
2782.01	87.00	4417.78	14.59	6.87	19117.40	0.32	0.001796
	1.23313	252.83	11.00	247.56	16.96		
		148537.28					
2766.85	88.00	4417.74	14.55	6.87	18995.62	0.32	0.002128
	1.45523	252.53	10.96	247.08	16.99		
		148247.20					
2691.07	89.00	4417.49	14.30	6.83	18387.40	0.32	0.002078
	1.39573	250.03	10.76	244.67	17.11		
		146800.31					
2542.77	90.00	4417.01	13.82	6.76	17188.44	0.32	0.001930
	1.24978	245.01	10.38	239.83	17.35		
		143899.97					
2378.19	91.00	4416.46	13.27	6.67	15869.25	0.32	0.001855
	1.15060	239.22	9.94	234.25	17.65		
		140551.39					

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HYCHAN.OUT							
2265.22	92.00	4416.08	12.89	9.64	6.60	14939.77	0.32
	1.07392	235.09				230.27	17.86
		138162.17					0.001786
2133.43	93.00	4415.62	12.43	9.27	6.49	13853.03	0.32
	1.00550	230.10				225.45	18.14
		135270.83					0.001738
2030.01	94.00	4415.25	12.06	8.98	6.40	12992.73	0.32
	0.96220	226.06				221.55	18.36
		132931.09					0.001717
1946.92	95.00	4414.95	11.76	8.74	6.32	12307.59	0.32
	0.92553	222.70				218.31	18.56
		130984.74					0.001697
1880.05	96.00	4414.70	11.51	8.55	6.26	11776.36	0.33
	0.89880	219.86				215.56	18.73
		129338.47					0.001684
1806.27	97.00	4414.42	11.23	8.34	6.19	11188.22	0.33
	0.87542	216.67				212.49	18.92
		127492.57					0.001683
1749.77	98.00	4414.21	11.02	8.17	6.14	10744.68	0.33
	0.85978	214.24				210.14	19.07
		126083.96					0.001687
1699.73	99.00	4414.02	10.83	8.02	6.09	10343.81	0.33
	0.84836	212.03				208.00	19.21
		124802.23					0.001696
1663.39	100.00	4413.88	10.69	7.91	6.04	10051.34	0.33
	0.83531	210.40				206.43	19.32
		123859.29					0.001693
1615.69	101.00	4413.69	10.50	7.76	5.99	9675.50	0.33
	0.82158	208.20				204.30	19.46
		122582.91					0.001697
1576.34	102.00	4413.53	10.34	7.64	5.94	9364.00	0.33
	0.80918	206.33				202.50	19.58
		121498.63					0.001697
1542.00	103.00	4413.39	10.20	7.53	5.90	9091.57	0.33
	0.79852	204.69				200.91	19.70
		120545.27					0.001699
1514.92	104.00	4413.28	10.09	7.45	5.86	8877.51	0.33
	0.78922	203.39				199.65	19.78
		119791.67					0.001698
1486.88	105.00	4413.17	9.98	7.36	5.82	8653.70	0.32
	0.77871	202.03				198.35	19.88
		119007.74					0.001696
1444.64	106.00	4413.00	9.81	7.22	5.76	8317.43	0.32
	0.76633	199.98				196.36	20.02
		117816.65					0.001700
1417.50	107.00	4412.89	9.70	7.14	5.72	8102.72	0.32
	0.75800	198.65				195.07	20.12
		117043.41					0.001702
1395.65	108.00	4412.80	9.61	7.06	5.68	7928.50	0.32
	0.75031	197.57				194.03	20.19
		116419.17					0.001702
1376.27	109.00	4412.72	9.53	7.00	5.65	7774.15	0.32
	0.74503	196.61				193.10	20.26
		115859.77					0.001706
1374.59	110.00	4412.71	9.52	6.99	5.65	7763.11	0.32
	0.74597	196.52				193.02	20.27
		115809.11					0.001709
1394.91	111.00	4412.80	9.61	7.06	5.68	7928.26	0.32
	0.75426	197.53				193.99	20.20
		116392.09					0.001712
1427.60	112.00	4412.93	9.74	7.17	5.74	8187.63	0.32
	0.76093	199.14				195.55	20.08
		117327.62					0.001701

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		HYCHAN.OUT				
1417.31	113.00 4412.89 198.64	9.70	5.72	8101.44	0.32	0.001701
	0.75727 117038.83	7.14		195.06	20.12	
1402.87	114.00 4412.83 197.93	9.64	5.70	7989.49	0.32	0.001711
	0.75687 116624.02	7.09		194.37	20.17	
1436.14	115.00 4412.96 199.55	9.77	5.75	8258.68	0.32	0.001709
	0.76746 117565.16	7.20		195.94	20.05	
1476.63	116.00 4413.13 201.53	9.94	5.81	8578.14	0.32	0.001699
	0.77676 118715.13	7.33		197.86	19.91	
1467.59	117.00 4413.09 201.10	9.90	5.79	8503.40	0.32	0.001702
	0.77503 118464.88	7.30		197.44	19.94	
1463.27	118.00 4413.07 200.88	9.88	5.79	8469.91	0.32	0.001702
	0.77383 118340.20	7.28		197.23	19.96	
1466.30	119.00 4413.08 201.03	9.89	5.79	8495.54	0.32	0.001705
	0.77622 118425.01	7.29		197.38	19.95	
1484.07	120.00 4413.16 201.89	9.97	5.82	8637.44	0.33	0.001701
	0.78016 118925.73	7.35		198.21	19.89	
1488.33	121.00 4413.17 202.10	9.98	5.83	8669.64	0.33	0.001701
	0.78171 119046.55	7.36		198.41	19.87	
1485.28	122.00 4413.16 201.96	9.97	5.82	8644.16	0.32	0.001697
	0.77896 118962.06	7.35		198.27	19.88	
1467.60	123.00 4413.09 201.10	9.90	5.79	8503.37	0.32	0.001703
	0.77532 118465.28	7.30		197.44	19.94	
1460.27	124.00 4413.06 200.74	9.87	5.78	8445.24	0.32	0.001697
	0.77044 118257.60	7.27		197.10	19.97	
1442.58	125.00 4412.99 199.88	9.80	5.76	8303.86	0.32	0.001704
	0.76728 117756.81	7.22		196.26	20.03	
1438.12	126.00 4412.97 199.66	9.78	5.75	8269.87	0.32	0.001702
	0.76479 117628.80	7.20		196.05	20.04	
1435.61	127.00 4412.96 199.54	9.77	5.75	8248.63	0.32	0.001699
	0.76280 117557.66	7.19		195.93	20.05	
1419.75	128.00 4412.90 198.76	9.71	5.72	8122.01	0.32	0.001704
	0.75956 117107.72	7.14		195.18	20.11	
1415.73	129.00 4412.88 198.56	9.69	5.72	8091.19	0.32	0.001705
	0.75857 116991.12	7.13		194.99	20.12	
1413.28	130.00 4412.87 198.44	9.68	5.71	8070.70	0.32	0.001701
	0.75588 116922.38	7.12		194.87	20.13	
1397.86	131.00 4412.81 197.68	9.62	5.69	7947.50	0.32	0.001706
	0.75286 116482.48	7.07		194.14	20.18	
1398.92	132.00 4412.81 197.73	9.62	5.69	7958.71	0.32	0.001712
	0.75568 116507.59	7.08		194.18	20.18	
1430.20	133.00 4412.94 199.26	9.75	5.74	8209.36	0.32	0.001703
	0.76288 117400.62	7.18		195.67	20.07	

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		HYCHAN.OUT					
1438.06	134.00	4412.97	9.78	5.75	8269.22	0.32	
	0.76508	199.65	7.20		196.04	20.04	0.001702
		117626.41					
1438.18	135.00	4412.97	9.78	5.75	8270.23	0.32	
	0.76475	199.66	7.20		196.05	20.04	0.001701
		117630.30					
1438.14	136.00	4412.97	9.78	5.75	8269.99	0.32	
	0.76542	199.66	7.20		196.05	20.04	0.001703
		117629.23					
1438.11	137.00	4412.97	9.78	5.75	8270.02	0.32	
	0.76509	199.66	7.20		196.05	20.04	0.001702
		117629.05					
1438.18	138.00	4412.97	9.78	5.75	8270.07	0.32	
	0.76569	199.66	7.20		196.05	20.04	0.001704
		117629.51					
1438.11	139.00	4412.97	9.78	5.75	8269.75	0.32	
	0.76539	199.66	7.20		196.05	20.04	0.001703
		117628.55					
1435.62	140.00	4412.96	9.77	5.75	8248.94	0.32	
	0.76309	199.54	7.19		195.93	20.05	0.001700
		117558.85					
1419.77	141.00	4412.90	9.71	5.72	8122.05	0.32	
	0.75922	198.76	7.14		195.18	20.11	0.001703
		117107.82					
1415.74	142.00	4412.88	9.69	5.72	8091.09	0.32	
	0.75792	198.56	7.13		194.98	20.12	0.001704
		116990.82					
1415.69	143.00	4412.88	9.69	5.72	8091.07	0.32	
	0.75848	198.56	7.13		194.98	20.12	0.001705
		116990.70					
1415.67	144.00	4412.88	9.69	5.72	8090.73	0.32	
	0.75830	198.56	7.13		194.98	20.12	0.001704
		116989.29					
1413.35	145.00	4412.87	9.68	5.71	8071.02	0.32	
	0.75572	198.44	7.12		194.87	20.13	0.001700
		116923.71					
1397.85	146.00	4412.81	9.62	5.69	7947.48	0.32	
	0.75262	197.68	7.07		194.14	20.18	0.001706
		116482.72					
1393.94	147.00	4412.79	9.60	5.68	7916.98	0.32	
	0.75153	197.48	7.06		193.94	20.20	0.001706
		116366.81					
1393.92	148.00	4412.79	9.60	5.68	7917.02	0.32	
	0.75114	197.48	7.06		193.95	20.20	0.001705
		116367.31					
1393.93	149.00	4412.79	9.60	5.68	7916.97	0.32	
	0.75108	197.48	7.06		193.95	20.20	0.001705
		116367.05					
1393.96	150.00	4412.79	9.60	5.68	7917.07	0.32	
	0.75169	197.48	7.06		193.95	20.20	0.001707
		116367.31					
1392.38	151.00	4412.79	9.60	5.68	7903.75	0.32	
	0.75028	197.41	7.05		193.87	20.20	0.001705
		116322.59					
1381.34	152.00	4412.74	9.55	5.66	7815.15	0.32	
	0.74702	196.86	7.02		193.34	20.24	0.001706
		116006.77					
1373.57	153.00	4412.71	9.52	5.64	7753.01	0.32	
	0.74490	196.47	6.99		192.97	20.27	0.001708
		115779.55					
1372.11	154.00	4412.70	9.51	5.64	7742.98	0.32	
	0.74384	196.41	6.99		192.90	20.28	0.001706
		115741.29					

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		HYCHAN.OUT				
1369.89	155.00 4412.69	9.50	5.64	7723.72	0.32	
	0.74197 196.29	6.98		192.79	20.28	0.001704
	115676.30					
1359.22	156.00 4412.65	9.46	5.62	7639.72	0.32	
	0.74184 195.76	6.94		192.28	20.32	0.001712
	115366.00					
1385.89	157.00 4412.76	9.57	5.67	7855.33	0.32	
	0.74847 197.08	7.03		193.56	20.23	0.001706
	116133.23					
1393.89	158.00 4412.79	9.60	5.68	7916.51	0.32	
	0.75157 197.48	7.06		193.94	20.20	0.001706
	116365.48					
1393.93	159.00 4412.79	9.60	5.68	7917.03	0.32	
	0.75120 197.48	7.06		193.95	20.20	0.001706
	116367.32					
1393.91	160.00 4412.79	9.60	5.68	7916.95	0.32	
	0.75092 197.48	7.06		193.94	20.20	0.001705
	116366.77					
1393.92	161.00 4412.79	9.60	5.68	7917.12	0.32	
	0.75165 197.48	7.06		193.95	20.20	0.001707
	116367.51					
1393.93	162.00 4412.79	9.60	5.68	7917.10	0.32	
	0.75167 197.48	7.06		193.95	20.20	0.001707
	116367.53					
1393.91	163.00 4412.79	9.60	5.68	7916.97	0.32	
	0.75140 197.48	7.06		193.95	20.20	0.001706
	116367.09					
1393.90	164.00 4412.79	9.60	5.68	7916.81	0.32	
	0.75177 197.48	7.06		193.94	20.20	0.001707
	116366.42					
1391.54	165.00 4412.78	9.59	5.68	7897.23	0.32	
	0.74916 197.37	7.05		193.83	20.21	0.001703
	116300.59					
1376.10	166.00 4412.72	9.53	5.65	7773.45	0.32	
	0.74582 196.61	7.00		193.10	20.26	0.001708
	115857.38					
1372.20	167.00 4412.70	9.51	5.64	7743.03	0.32	
	0.74428 196.41	6.99		192.90	20.28	0.001707
	115741.42					
1372.12	168.00 4412.70	9.51	5.64	7743.16	0.32	
	0.74417 196.41	6.99		192.90	20.28	0.001707
	115742.08					
1372.20	169.00 4412.70	9.51	5.64	7742.76	0.32	
	0.74412 196.40	6.99		192.90	20.28	0.001707
	115740.52					
1372.20	170.00 4412.70	9.51	5.64	7743.11	0.32	
	0.74437 196.41	6.99		192.90	20.28	0.001707
	115741.57					
1372.29	171.00 4412.70	9.51	5.64	7743.23	0.32	
	0.74429 196.41	6.99		192.90	20.28	0.001707
	115742.38					
1372.18	172.00 4412.70	9.51	5.64	7742.63	0.32	
	0.74390 196.40	6.99		192.90	20.28	0.001706
	115739.95					
1369.87	173.00 4412.69	9.50	5.64	7723.63	0.32	
	0.74209 196.29	6.98		192.79	20.28	0.001704
	115676.16					
1354.43	174.00 4412.63	9.44	5.61	7599.76	0.32	
	0.73758 195.53	6.93		192.05	20.34	0.001706
	115230.54					
1350.44	175.00 4412.62	9.43	5.60	7569.05	0.32	
	0.73660 195.32	6.91		191.86	20.36	0.001707
	115113.39					

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HYCHAN.OUT									
1350.38	176.00	4412.61	9.43	5.61	7568.90	0.32	0.001707		
	0.73628	195.32	6.91	191.85	20.36				
1350.44	177.00	4412.62	9.43	5.61	7569.23	0.32	0.001707		
	0.73649	195.32	6.91	191.86	20.36				
1350.40	178.00	4412.62	9.43	5.61	7569.09	0.32	0.001707		
	0.73622	195.32	6.91	191.86	20.36				
1350.40	179.00	4412.61	9.42	5.60	7568.68	0.32	0.001707		
	0.73634	195.32	6.91	191.85	20.36				
1355.22	180.00	4412.63	9.44	5.61	7609.23	0.32	0.001713		
	0.74089	195.56	6.93	192.08	20.34				
1385.87	181.00	4412.76	9.57	5.67	7855.02	0.32	0.001706		
	0.74848	197.08	7.03	193.55	20.23				
1396.34	182.00	4412.80	9.61	5.68	7937.34	0.32	0.001708		
	0.75314	197.60	7.07	194.06	20.19				
1411.69	183.00	4412.86	9.67	5.71	8060.33	0.32	0.001705		
	0.75720	198.36	7.12	194.79	20.14				
1415.67	184.00	4412.88	9.69	5.72	8091.03	0.32	0.001705		
	0.75838	198.56	7.13	194.98	20.12				
1415.66	185.00	4412.88	9.69	5.72	8090.53	0.32	0.001705		
	0.75876	198.56	7.13	194.98	20.12				
1415.69	186.00	4412.88	9.69	5.72	8091.10	0.32	0.001704		
	0.75803	198.56	7.13	194.98	20.12				
1415.69	187.00	4412.88	9.69	5.72	8091.26	0.32	0.001704		
	0.75794	198.56	7.13	194.99	20.12				
1415.70	188.00	4412.88	9.69	5.72	8090.97	0.32	0.001705		
	0.75876	198.56	7.13	194.98	20.12				
1415.75	189.00	4412.88	9.69	5.71	8090.90	0.32	0.001705		
	0.75858	198.56	7.13	194.98	20.12				
1415.71	190.00	4412.88	9.69	5.72	8091.13	0.32	0.001704		
	0.75833	198.56	7.13	194.98	20.12				
1413.30	191.00	4412.87	9.68	5.71	8070.79	0.32	0.001700		
	0.75566	198.44	7.12	194.87	20.13				
1397.82	192.00	4412.81	9.62	5.69	7947.59	0.32	0.001704		
	0.75168	197.68	7.07	194.14	20.18				
1393.87	193.00	4412.79	9.60	5.68	7916.86	0.32	0.001705		
	0.75090	197.48	7.06	193.94	20.20				
1393.91	194.00	4412.79	9.60	5.68	7917.09	0.32	0.001705		
	0.75099	197.48	7.06	193.95	20.20				
1393.93	195.00	4412.79	9.60	5.68	7917.22	0.32	0.001706		
	0.75153	197.48	7.06	193.95	20.20				
1393.87	196.00	4412.79	9.60	5.68	7917.05	0.32	0.001705		
	0.75089	197.48	7.06	193.95	20.20				
		116367.30							

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		HYCHAN.OUT					
1393.91	197.00	4412.79	9.60	5.68	7916.99	0.32	
	0.75116	197.48	7.06		193.94	20.20	0.001705
		116367.00					
1393.95	198.00	4412.79	9.60	5.68	7917.13	0.32	
	0.75147	197.48	7.06		193.95	20.20	0.001706
		116367.58					
1393.86	199.00	4412.79	9.60	5.68	7916.55	0.32	
	0.75123	197.48	7.06		193.94	20.20	0.001706
		116365.57					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2803

MAXIMUM DISCHARGE (CFS) = 21165.80 AT TIME = 87.92  
 MAXIMUM STAGE = 4416.18 AT TIME = 87.86

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4401.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4401.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4401.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	3.00	4401.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	4.00	4409.33	8.03	3.56	4862.23	0.22		
1366.59	0.51027	234.71	5.82	231.30	28.82	0.001404		
	5.00	4410.22	8.92	3.84	5418.91	0.23		
1410.45	0.46590	267.25	5.28	263.37	29.54	0.001415		
	6.00	4410.18	8.88	3.82	5369.31	0.23		
1403.79	0.46529	266.05	5.28	262.20	29.51	0.001413		
	7.00	4410.12	8.82	3.79	5259.71	0.22		
1389.15	0.46822	263.71	5.27	259.88	29.46	0.001424		
	8.00	4410.03	8.73	3.73	5109.74	0.22		
1369.15	0.47102	260.29	5.26	256.51	29.39	0.001435		
	9.00	4409.94	8.64	3.68	4964.87	0.22		
1348.71	0.47124	256.93	5.25	253.20	29.32	0.001439		
	10.00	4409.84	8.54	3.64	4822.53	0.22		
1325.74	0.47133	253.55	5.23	249.87	29.25	0.001445		
	11.00	4409.80	8.50	3.62	4768.76	0.22		
1317.02	0.47138	252.06	5.23	248.40	29.21	0.001446		
	12.00	4409.74	8.44	3.59	4669.48	0.22		
1301.03	0.47146	249.71	5.21	246.09	29.16	0.001450		
	13.00	4409.64	8.34	3.54	4522.94	0.22		

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1277.45		246.08		5.19	242.51	29.08	0.001458
	0.47236	123679.93					
14.00	4409.60		8.30	3.52	4468.94	0.22	
1268.76		244.60		5.19	241.06	29.05	0.001460
	0.47262	122938.16					
15.00	4409.60		8.30	3.52	4469.07	0.22	
1268.78		244.60		5.19	241.05	29.05	0.001460
	0.47271	122936.95					
16.00	4409.60		8.30	3.52	4468.96	0.22	
1268.76		244.60		5.19	241.05	29.05	0.001461
	0.47273	122935.59					
17.00	4409.60		8.30	3.52	4468.99	0.22	
1268.77		244.60		5.19	241.05	29.05	0.001460
	0.47263	122935.91					
18.00	4409.60		8.30	3.52	4472.07	0.22	
1269.26		244.67		5.19	241.12	29.05	0.001462
	0.47325	122972.30					
19.00	4409.67		8.37	3.56	4570.53	0.22	
1285.10		247.03		5.20	243.45	29.10	0.001454
	0.47205	124159.85					
20.00	4409.77		8.47	3.61	4725.31	0.22	
1310.04		250.90		5.22	247.26	29.19	0.001451
	0.47261	126100.99					
21.00	4409.87		8.57	3.65	4874.00	0.22	
1334.08		254.48		5.24	250.78	29.27	0.001445
	0.47274	127900.09					
22.00	4409.91		8.61	3.67	4924.16	0.22	
1342.20		255.81		5.25	252.10	29.29	0.001443
	0.47252	128569.05					
23.00	4409.91		8.61	3.67	4929.26	0.22	
1343.03		255.90		5.25	252.19	29.30	0.001448
	0.47414	128616.64					
24.00	4409.98		8.68	3.71	5045.21	0.22	
1360.41		258.43		5.26	254.68	29.35	0.001441
	0.47319	129885.98					
25.00	4410.14		8.84	3.81	5314.27	0.23	
1396.53		264.44		5.28	260.60	29.48	0.001419
	0.46763	132906.20					
26.00	4410.33		9.03	3.91	5624.24	0.23	
1438.14		271.34		5.30	267.40	29.62	0.001402
	0.46363	136374.34					
27.00	4410.50		9.20	4.00	5911.04	0.23	
1476.83		277.70		5.32	273.67	29.76	0.001383
	0.45903	139571.42					
28.00	4410.55		9.25	4.03	5985.04	0.23	
1486.82		279.53		5.32	275.47	29.79	0.001383
	0.45901	140490.77					
29.00	4410.55		9.25	4.03	5996.66	0.23	
1488.40		279.73		5.32	275.67	29.80	0.001385
	0.45981	140591.45					
30.00	4410.62		9.32	4.06	6112.67	0.23	
1504.18		282.11		5.33	278.01	29.85	0.001377
	0.45812	141787.50					
31.00	4410.64		9.34	4.08	6152.29	0.24	
1509.56		283.06		5.33	278.95	29.86	0.001376
	0.45794	142266.25					
32.00	4410.65		9.35	4.08	6164.86	0.24	
1511.28		283.28		5.33	279.17	29.87	0.001379
	0.45916	142376.38					
33.00	4410.71		9.41	4.11	6285.96	0.24	
1527.81		285.76		5.35	281.61	29.92	0.001372
	0.45761	143623.48					
34.00	4410.74		9.44	4.13	6326.05	0.24	

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1533.27		286.73		5.35	282.57	29.94	0.001371
	0.45745	144113.02					
35.00		4410.73	9.43	4.12	6313.06	0.24	
1531.50		286.52		5.35	282.36	29.93	0.001367
	0.45611	144005.55					
36.00		4410.67	9.37	4.09	6192.11	0.24	
1515.00		284.06		5.33	279.94	29.88	0.001377
	0.45817	142768.00					
37.00		4410.64	9.34	4.07	6139.92	0.23	
1507.88		282.86		5.33	278.75	29.86	0.001374
	0.45714	142163.95					
38.00		4410.57	9.27	4.04	6024.48	0.23	
1492.19		280.50		5.32	276.43	29.81	0.001382
	0.45881	140978.88					
39.00		4410.55	9.25	4.03	5984.88	0.23	
1486.80		279.53		5.32	275.47	29.79	0.001382
	0.45883	140490.27					
40.00		4410.55	9.25	4.03	5985.18	0.23	
1486.84		279.53		5.32	275.48	29.79	0.001383
	0.45903	140492.25					
41.00		4410.55	9.25	4.03	5984.85	0.23	
1486.79		279.52		5.32	275.47	29.79	0.001382
	0.45886	140489.05					
42.00		4410.55	9.25	4.03	5985.05	0.23	
1486.82		279.53		5.32	275.47	29.79	0.001382
	0.45870	140490.53					
43.00		4410.55	9.25	4.03	5996.76	0.23	
1488.41		279.73		5.32	275.67	29.80	0.001386
	0.46026	140593.42					
44.00		4410.62	9.32	4.06	6112.79	0.23	
1504.20		282.11		5.33	278.02	29.85	0.001377
	0.45814	141789.09					
45.00		4410.65	9.35	4.08	6165.04	0.24	
1511.30		283.29		5.33	279.18	29.87	0.001379
	0.45906	142380.36					
46.00		4410.72	9.42	4.12	6299.93	0.24	
1529.73		286.00		5.35	281.85	29.92	0.001374
	0.45843	143743.27					
47.00		4410.82	9.52	4.17	6475.08	0.24	
1553.70		289.64		5.36	285.44	30.00	0.001370
	0.45853	145574.94					
48.00		4410.91	9.61	4.21	6648.31	0.24	
1577.50		293.21		5.38	288.95	30.07	0.001367
	0.45884	147365.59					
49.00		4411.00	9.70	4.26	6819.72	0.24	
1601.12		296.71		5.40	292.41	30.13	0.001364
	0.45932	149128.70					
50.00		4411.10	9.80	4.30	6993.14	0.24	
1625.11		300.17		5.41	295.82	30.20	0.001363
	0.46038	150867.94					
51.00		4411.19	9.89	4.35	7182.59	0.24	
1651.42		303.88		5.43	299.48	30.27	0.001368
	0.46380	152733.33					
52.00		4411.34	10.04	4.42	7464.18	0.25	
1690.40		309.34		5.46	304.85	30.37	0.001359
	0.46340	155473.39					
53.00		4411.39	10.09	4.44	7560.45	0.25	
1702.87		311.37		5.47	306.86	30.41	0.001360
	0.46423	156496.77					
54.00		4411.48	10.18	4.49	7744.13	0.25	
1724.90		314.70		5.48	310.13	30.47	0.001350
	0.46174	158167.73					
55.00		4411.74	10.44	4.62	8262.41	0.25	

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1787.42		324.69		5.51	319.98	30.65	0.001318
	0.45286	163189.56					
56.00	4412.14	10.84		4.81	9076.67	0.26	
1886.54		340.04		5.55	335.11	30.92	0.001283
	0.44418	170904.41					
57.00	4412.65	11.35		5.03	10143.65	0.26	
2016.37		360.08		5.60	354.86	31.26	0.001243
	0.43445	180978.47					
58.00	4413.24	11.94		5.26	11373.04	0.27	
2160.96		383.14		5.64	377.58	31.64	0.001228
	0.43205	192565.12					
59.00	4413.67	12.37		5.44	12425.68	0.27	
2284.90		400.31		5.71	394.51	31.90	0.001241
	0.44198	201197.77					
60.00	4414.07	12.77		5.63	13576.05	0.28	
2410.67		416.48		5.79	410.44	32.14	0.001276
	0.46091	209325.33					
61.00	4414.45	13.15		5.82	14808.19	0.28	
2544.08		420.70		6.05	425.66	32.37	0.001359
	0.51286	217087.52					
62.00	4414.67	13.37		5.94	15628.15	0.29	
2632.07		421.14		6.25	434.39	32.49	0.001418
	0.55301	221537.97					
63.00	4414.83	13.53		6.03	16315.00	0.29	
2705.85		421.47		6.42	440.97	32.58	0.001490
	0.59704	224894.59					
64.00	4414.96	13.66		6.10	16862.77	0.29	
2764.94		421.72		6.56	446.08	32.65	0.001539
	0.62970	227502.73					
65.00	4415.05	13.75		6.15	17265.96	0.29	
2808.67		421.90		6.66	449.79	32.71	0.001581
	0.65687	229394.58					
66.00	4415.15	13.85		6.20	17724.76	0.29	
2858.15		422.11		6.77	453.90	32.76	0.001636
	0.69114	231490.16					
67.00	4415.20	13.90		6.23	17960.10	0.29	
2883.32		422.19		6.83	455.61	32.79	0.001651
	0.70361	232359.89					
68.00	4415.20	13.90		6.23	18009.13	0.29	
2888.57		422.21		6.84	455.94	32.79	0.001655
	0.70639	232528.59					
69.00	4415.21	13.91		6.24	18030.29	0.29	
2890.84		422.22		6.85	456.18	32.79	0.001657
	0.70794	232649.48					
70.00	4415.21	13.91		6.24	18047.75	0.29	
2892.72		422.22		6.85	456.18	32.79	0.001660
	0.70952	232650.78					
71.00	4415.21	13.91		6.24	18045.16	0.29	
2892.44		422.22		6.85	456.13	32.79	0.001660
	0.70952	232624.27					
72.00	4415.21	13.91		6.24	18037.94	0.29	
2891.67		422.22		6.85	456.16	32.79	0.001657
	0.70821	232641.36					
73.00	4415.21	13.91		6.24	18037.50	0.29	
2891.62		422.22		6.85	456.11	32.79	0.001662
	0.71010	232618.59					
74.00	4415.23	13.93		6.25	18133.82	0.30	
2901.96		422.25		6.87	456.85	32.80	0.001685
	0.72281	232994.77					
75.00	4415.25	13.95		6.26	18265.21	0.30	
2916.07		422.30		6.91	457.85	32.82	0.001693
	0.72966	233505.58					
76.00	4415.26	13.96		6.27	18309.49	0.30	

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2920.83		422.32		6.92	458.26	32.82	0.001699
	0.73337	233713.84					
	77.00	4415.24	13.94	6.25	18171.58	0.30	
2906.06		422.27		6.88	457.28	32.81	0.001676
	0.71989	233211.75					
	78.00	4415.27	13.97	6.27	18334.41	0.30	
2923.53		422.33		6.92	458.45	32.83	0.001724
	0.74458	233807.61					
	79.00	4415.29	13.99	6.29	18492.55	0.30	
2940.75		422.38		6.96	459.43	32.84	0.001766
	0.76723	234307.67					
	80.00	4415.36	14.06	6.33	18888.21	0.30	
2983.21		422.52		7.06	462.26	32.88	0.001801
	0.79365	235754.02					
	81.00	4415.98	14.68	1.44	19127.27	0.07	
13260.88		423.76	31.29		487.63	33.21	
0.001486		2.90127	248692.27				
	82.00	4416.21	14.91	0.00	0.00	0.00	
0.00		424.21	0.00		496.82	33.33	0.001493
	0.00000	253378.16					
	83.00	4416.19	14.89	0.00	0.00	0.00	
0.00		424.18	0.00		496.22	33.32	0.001472
	0.00000	253072.66					
	84.00	4416.17	14.87	0.00	0.00	0.00	
0.00		424.13	0.00		495.27	33.31	0.001462
	0.00000	252586.62					
	85.00	4416.16	14.86	0.00	0.00	0.00	
0.00		424.12	0.00		495.00	33.31	0.001458
	0.00000	252449.52					
	86.00	4416.17	14.87	0.00	0.00	0.00	
0.00		424.13	0.00		495.21	33.31	0.001471
	0.00000	252557.31					
	87.00	4416.17	14.87	0.00	0.00	0.00	
0.00		424.14	0.00		495.37	33.31	0.001463
	0.00000	252637.92					
	88.00	4415.52	14.22	5.28	18998.71	0.25	
3595.67		422.83	8.50		468.67	32.96	0.001745
	0.92580	239021.56					
	89.00	4415.29	13.99	6.09	18399.77	0.29	
3020.96		422.38	7.15		459.39	32.84	0.001662
	0.74178	234289.41					
	90.00	4415.04	13.74	6.14	17218.40	0.29	
2803.93		421.88	6.65		449.23	32.70	0.001461
	0.60594	229106.52					
	91.00	4414.73	13.43	5.97	15886.93	0.29	
2659.94		421.26	6.31		436.90	32.53	0.001362
	0.53682	222821.38					
	92.00	4414.50	13.20	5.84	14957.50	0.28	
2560.22		420.79	6.08		427.50	32.39	0.001278
	0.48502	218024.94					
	93.00	4414.19	12.89	5.68	13871.50	0.28	
2442.37		420.17	5.81		415.11	32.21	0.001225
	0.44418	211707.95					
	94.00	4413.90	12.60	5.54	13006.52	0.27	
2349.01		409.67	5.73		403.73	32.04	0.001223
	0.43762	205900.23					
	95.00	4413.66	12.36	5.42	12319.25	0.27	
2272.91		399.84	5.68		394.04	31.89	0.001201
	0.42619	200962.09					
	96.00	4413.45	12.15	5.33	11787.40	0.27	
2209.72		391.58	5.64		385.90	31.77	0.001191
	0.41929	196810.25					
	97.00	4413.20	11.90	5.23	11198.38	0.27	

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2139.98		381.71		5.61	376.17	31.61	0.001196
	0.41856	191848.45					
98.00	4412.99		11.69	5.15	10752.82	0.27	
2087.56		373.42		5.59	368.00	31.48	0.001209
	0.42164	187682.31					
99.00	4412.79		11.49	5.07	10350.50	0.26	
2040.50		365.64		5.58	360.33	31.36	0.001227
	0.42736	183769.53					
100.00	4412.65		11.35	5.01	10057.90	0.26	
2006.28		360.05		5.57	354.83	31.26	0.001235
	0.42940	180962.34					
101.00	4412.47		11.17	4.94	9682.58	0.26	
1960.49		352.99		5.55	347.87	31.15	0.001251
	0.43350	177415.31					
102.00	4412.32		11.02	4.88	9369.89	0.26	
1922.00		347.00		5.54	341.97	31.04	0.001262
	0.43611	174404.95					
103.00	4412.18		10.88	4.82	9096.62	0.26	
1888.52		341.79		5.53	336.83	30.96	0.001274
	0.43921	171784.42					
104.00	4412.07		10.77	4.77	8881.67	0.26	
1862.27		337.62		5.52	332.73	30.88	0.001282
	0.44112	169689.86					
105.00	4411.97		10.67	4.72	8659.42	0.25	
1835.25		333.42		5.50	328.59	30.81	0.001293
	0.44401	167579.53					
106.00	4411.80		10.50	4.64	8323.46	0.25	
1794.56		326.96		5.49	322.22	30.70	0.001315
	0.45043	164331.44					
107.00	4411.68		10.38	4.58	8106.31	0.25	
1768.33		322.49		5.48	317.82	30.61	0.001327
	0.45413	162086.17					
108.00	4411.59		10.29	4.54	7932.00	0.25	
1747.37		318.99		5.48	314.37	30.55	0.001337
	0.45715	160326.61					
109.00	4411.51		10.21	4.50	7776.15	0.25	
1728.67		315.80		5.47	311.22	30.49	0.001349
	0.46066	158720.59					
110.00	4411.49		10.19	4.49	7761.59	0.25	
1726.92		315.31		5.48	310.73	30.48	0.001350
	0.46125	158473.48					
111.00	4411.57		10.27	4.54	7923.30	0.25	
1746.35		318.37		5.49	313.76	30.54	0.001337
	0.45758	160015.67					
112.00	4411.71		10.41	4.60	8185.05	0.25	
1777.82		323.74		5.49	319.04	30.64	0.001316
	0.45104	162710.25					
113.00	4411.68		10.38	4.58	8105.01	0.25	
1768.18		322.48		5.48	317.80	30.61	0.001326
	0.45361	162078.69					
114.00	4411.61		10.31	4.55	7988.49	0.25	
1754.15		319.92		5.48	315.28	30.57	0.001336
	0.45722	160793.05					
115.00	4411.74		10.44	4.62	8250.98	0.25	
1785.84		324.81		5.50	320.09	30.66	0.001316
	0.45158	163248.28					
116.00	4411.91		10.61	4.70	8575.53	0.25	
1825.04		331.37		5.51	326.57	30.77	0.001292
	0.44400	166549.69					
117.00	4411.88		10.58	4.68	8505.48	0.25	
1816.54		330.28		5.50	325.49	30.75	0.001306
	0.44807	165998.20					
118.00	4411.86		10.56	4.67	8470.07	0.25	

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				HYCHAN.OUT			
1812.24		329.49		5.50	324.71	30.74	0.001303
	0.44736	165603.30					
119.00	4411.87		10.57	5.50	4.68	8493.73	0.25
1815.11		329.86		5.50		325.07	30.75
	0.44729	165787.27					0.001303
120.00	4411.94		10.64	5.51	4.71	8635.13	0.25
1832.27		332.57		5.51		327.75	30.79
	0.44462	167151.05					0.001293
121.00	4411.96		10.66	5.51	4.72	8669.64	0.25
1836.44		333.34		5.51		328.50	30.81
	0.44427	167537.03					0.001292
122.00	4411.95		10.65	5.51	4.72	8645.96	0.25
1833.57		332.97		5.51		328.15	30.80
	0.44401	167353.98					0.001292
123.00	4411.88		10.58	5.50	4.68	8505.63	0.25
1816.56		330.30		5.50		325.51	30.75
	0.44681	166011.70					0.001302
124.00	4411.85		10.55	5.50	4.67	8447.00	0.25
1809.45		329.14		5.50		324.36	30.73
	0.44709	165424.77					0.001303
125.00	4411.78		10.48	5.49	4.63	8306.13	0.25
1792.42		326.43		5.49		321.69	30.69
	0.45113	164063.05					0.001317
126.00	4411.76		10.46	5.49	4.63	8269.88	0.25
1788.04		325.59		5.49		320.87	30.67
	0.45027	163641.69					0.001314
127.00	4411.75		10.45	5.49	4.62	8250.12	0.25
1785.65		325.28		5.49		320.56	30.66
	0.45060	163485.16					0.001315
128.00	4411.69		10.39	5.48	4.59	8124.10	0.25
1770.46		322.79		5.48		318.11	30.62
	0.45354	162235.80					0.001325
129.00	4411.67		10.37	5.49	4.58	8091.19	0.25
1766.49		322.01		5.49		317.34	30.61
	0.45397	161843.52					0.001326
130.00	4411.66		10.36	5.48	4.58	8072.17	0.25
1764.21		321.71		5.48		317.04	30.60
	0.45346	161690.98					0.001325
131.00	4411.60		10.30	5.48	4.54	7949.42	0.25
1749.45		319.27		5.48		314.64	30.56
	0.45759	160463.84					0.001338
132.00	4411.59		10.29	5.48	4.55	7955.75	0.25
1750.22		319.14		5.48		314.51	30.55
	0.45759	160398.94					0.001337
133.00	4411.72		10.42	5.49	4.61	8205.30	0.25
1780.27		324.06		5.49		319.36	30.64
	0.45099	162875.77					0.001316
134.00	4411.76		10.46	5.49	4.62	8269.19	0.25
1787.95		325.59		5.49		320.86	30.67
	0.45078	163641.06					0.001315
135.00	4411.76		10.46	5.49	4.63	8270.31	0.25
1788.09		325.61		5.49		320.88	30.67
	0.45026	163651.12					0.001314
136.00	4411.76		10.46	5.49	4.63	8270.00	0.25
1788.05		325.60		5.49		320.88	30.67
	0.45026	163647.80					0.001314
137.00	4411.76		10.46	5.49	4.63	8269.93	0.25
1788.04		325.60		5.49		320.88	30.67
	0.45079	163646.83					0.001316
138.00	4411.76		10.46	5.49	4.63	8270.08	0.25
1788.06		325.60		5.49		320.88	30.67
	0.45094	163647.78					0.001316
139.00	4411.76		10.46	5.49	4.63	8269.82	0.25

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				HYCHAN.OUT			
1788.03		325.59		5.49	320.87	30.67	0.001314
	0.45013	163644.80					
140.00	4411.75	10.45		4.62	8250.45	0.25	
1785.69		325.28		5.49	320.56	30.66	0.001314
	0.45021	163487.58					
141.00	4411.69	10.39		4.59	8124.11	0.25	
1770.47		322.79		5.48	318.11	30.62	0.001325
	0.45363	162234.50					
142.00	4411.67	10.37		4.58	8091.10	0.25	
1766.48		321.99		5.49	317.32	30.61	0.001327
	0.45415	161833.20					
143.00	4411.67	10.37		4.58	8091.08	0.25	
1766.48		321.98		5.49	317.31	30.61	0.001327
	0.45420	161828.86					
144.00	4411.67	10.37		4.58	8090.66	0.25	
1766.43		321.98		5.49	317.30	30.61	0.001327
	0.45428	161825.45					
145.00	4411.66	10.36		4.58	8072.54	0.25	
1764.25		321.69		5.48	317.02	30.60	0.001326
	0.45369	161681.28					
146.00	4411.60	10.30		4.54	7949.50	0.25	
1749.46		319.28		5.48	314.64	30.56	0.001337
	0.45701	160468.73					
147.00	4411.58	10.28		4.54	7916.90	0.25	
1745.54		318.49		5.48	313.87	30.54	0.001338
	0.45776	160073.84					
148.00	4411.58	10.28		4.54	7917.06	0.25	
1745.56		318.49		5.48	313.87	30.54	0.001338
	0.45753	160072.20					
149.00	4411.58	10.28		4.54	7916.98	0.25	
1745.55		318.49		5.48	313.87	30.54	0.001337
	0.45737	160074.72					
150.00	4411.58	10.28		4.54	7917.06	0.25	
1745.56		318.50		5.48	313.88	30.54	0.001337
	0.45738	160076.44					
151.00	4411.57	10.27		4.53	7904.73	0.25	
1744.08		318.30		5.48	313.69	30.54	0.001338
	0.45755	159980.03					
152.00	4411.53	10.23		4.51	7816.98	0.25	
1733.56		316.60		5.48	312.01	30.51	0.001345
	0.45940	159125.41					
153.00	4411.49	10.19		4.49	7753.69	0.25	
1725.97		315.26		5.47	310.69	30.48	0.001349
	0.46068	158449.91					
154.00	4411.49	10.19		4.49	7742.98	0.25	
1724.69		315.01		5.48	310.44	30.48	0.001348
	0.46057	158322.67					
155.00	4411.48	10.18		4.48	7725.14	0.25	
1722.56		314.71		5.47	310.15	30.47	0.001348
	0.46052	158174.78					
156.00	4411.43	10.13		4.46	7638.81	0.25	
1712.23		312.92		5.47	308.38	30.44	0.001359
	0.46413	157272.77					
157.00	4411.54	10.24		4.52	7851.32	0.25	
1737.70		316.94		5.48	312.34	30.51	0.001338
	0.45784	159295.48					
158.00	4411.58	10.28		4.54	7916.54	0.25	
1745.50		318.49		5.48	313.87	30.54	0.001337
	0.45741	160072.02					
159.00	4411.58	10.28		4.54	7917.04	0.25	
1745.56		318.50		5.48	313.88	30.54	0.001337
	0.45719	160076.84					
160.00	4411.58	10.28		4.54	7916.90	0.25	

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				HYCHAN.OUT			
1745.54		318.49		5.48	313.87	30.54	0.001338
	0.45757	160073.03					
	161.00	4411.58	10.28	4.54	7917.10	0.25	
1745.56		318.50		5.48	313.88	30.54	0.001338
	0.45745	160079.66					
	162.00	4411.58	10.28	4.54	7917.11	0.25	
1745.57		318.50		5.48	313.88	30.54	0.001338
	0.45752	160080.84					
	163.00	4411.58	10.28	4.54	7916.99	0.25	
1745.55		318.49		5.48	313.87	30.54	0.001337
	0.45719	160073.80					
	164.00	4411.58	10.28	4.54	7916.80	0.25	
1745.53		318.49		5.48	313.87	30.54	0.001338
	0.45742	160075.91					
	165.00	4411.57	10.27	4.53	7898.66	0.25	
1743.35		318.20		5.48	313.58	30.54	0.001338
	0.45728	159925.94					
	166.00	4411.51	10.21	4.50	7775.49	0.25	
1728.59		315.78		5.47	311.20	30.49	0.001349
	0.46077	158710.91					
	167.00	4411.49	10.19	4.49	7743.01	0.25	
1724.69		315.00		5.48	310.43	30.48	0.001349
	0.46081	158320.97					
	168.00	4411.49	10.19	4.49	7743.20	0.25	
1724.72		315.01		5.48	310.44	30.48	0.001348
	0.46057	158324.31					
	169.00	4411.49	10.19	4.49	7742.76	0.25	
1724.66		315.00		5.48	310.43	30.48	0.001348
	0.46042	158319.73					
	170.00	4411.49	10.19	4.49	7743.04	0.25	
1724.70		315.00		5.48	310.43	30.48	0.001349
	0.46101	158320.27					
	171.00	4411.49	10.19	4.49	7743.28	0.25	
1724.72		315.01		5.48	310.44	30.48	0.001348
	0.46056	158325.52					
	172.00	4411.49	10.19	4.49	7742.61	0.25	
1724.65		315.00		5.48	310.43	30.48	0.001348
	0.46064	158317.89					
	173.00	4411.48	10.18	4.48	7725.11	0.25	
1722.55		314.72		5.47	310.16	30.47	0.001348
	0.46031	158179.06					
	174.00	4411.42	10.12	4.45	7601.73	0.25	
1707.81		312.33		5.47	307.80	30.43	0.001358
	0.46327	156980.11					
	175.00	4411.40	10.10	4.44	7569.05	0.25	
1703.89		311.59		5.47	307.07	30.42	0.001359
	0.46358	156604.52					
	176.00	4411.40	10.10	4.44	7568.92	0.25	
1703.88		311.58		5.47	307.06	30.41	0.001359
	0.46360	156602.70					
	177.00	4411.40	10.10	4.44	7569.23	0.25	
1703.92		311.59		5.47	307.07	30.42	0.001358
	0.46343	156605.41					
	178.00	4411.40	10.10	4.44	7569.08	0.25	
1703.90		311.59		5.47	307.07	30.42	0.001358
	0.46348	156605.75					
	179.00	4411.40	10.10	4.44	7568.67	0.25	
1703.85		311.58		5.47	307.06	30.41	0.001358
	0.46353	156603.12					
	180.00	4411.41	10.11	4.45	7606.33	0.25	
1708.36		312.18		5.47	307.66	30.43	0.001359
	0.46416	156904.84					
	181.00	4411.54	10.24	4.52	7851.04	0.25	

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		HYCHAN.OUT					
1737.67	316.94	5.48	312.34	30.51	0.001338		
0.45773	159293.08						
182.00	4411.58	10.28	4.54	7935.81	0.25		
1747.81	318.81	5.48	314.18	30.55	0.001337		
0.45722	160232.84						
183.00	4411.65	10.35	4.57	8058.28	0.25		
1762.54	321.24	5.49	316.58	30.59	0.001328		
0.45453	161455.58						
184.00	4411.67	10.37	4.58	8091.06	0.25		
1766.48	322.00	5.49	317.33	30.61	0.001327		
0.45413	161839.69						
185.00	4411.67	10.37	4.58	8090.53	0.25		
1766.41	321.98	5.49	317.31	30.61	0.001327		
0.45421	161825.67						
186.00	4411.67	10.37	4.58	8091.12	0.25		
1766.49	321.98	5.49	317.31	30.61	0.001327		
0.45442	161827.41						
187.00	4411.67	10.37	4.58	8091.25	0.25		
1766.50	321.99	5.49	317.32	30.61	0.001327		
0.45433	161833.98						
188.00	4411.67	10.37	4.58	8090.99	0.25		
1766.47	321.98	5.49	317.31	30.61	0.001327		
0.45429	161829.67						
189.00	4411.67	10.37	4.58	8090.92	0.25		
1766.46	321.98	5.49	317.31	30.61	0.001326		
0.45398	161828.55						
190.00	4411.67	10.37	4.58	8091.10	0.25		
1766.48	321.98	5.49	317.31	30.61	0.001326		
0.45407	161826.25						
191.00	4411.66	10.36	4.58	8072.27	0.25		
1764.22	321.71	5.48	317.04	30.60	0.001326		
0.45387	161691.05						
192.00	4411.60	10.30	4.54	7949.59	0.25		
1749.47	319.27	5.48	314.64	30.56	0.001337		
0.45730	160467.30						
193.00	4411.58	10.28	4.54	7916.86	0.25		
1745.53	318.49	5.48	313.87	30.54	0.001337		
0.45731	160075.14						
194.00	4411.58	10.28	4.54	7917.13	0.25		
1745.57	318.49	5.48	313.87	30.54	0.001338		
0.45746	160075.36						
195.00	4411.58	10.28	4.54	7917.20	0.25		
1745.58	318.49	5.48	313.87	30.54	0.001337		
0.45733	160075.47						
196.00	4411.58	10.28	4.54	7917.04	0.25		
1745.56	318.49	5.48	313.87	30.54	0.001338		
0.45743	160073.17						
197.00	4411.58	10.28	4.54	7916.95	0.25		
1745.55	318.49	5.48	313.87	30.54	0.001338		
0.45755	160074.48						
198.00	4411.58	10.28	4.54	7917.13	0.25		
1745.57	318.49	5.48	313.87	30.54	0.001338		
0.45760	160074.91						
199.00	4411.58	10.28	4.54	7916.57	0.25		
1745.50	318.49	5.48	313.87	30.54	0.001338		
0.45754	160071.45						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2887

MAXIMUM DISCHARGE (CFS) = 19588.48 AT TIME = 87.93  
 MAXIMUM STAGE = 4415.01 AT TIME = 87.93

HYCHAN.OUT									
AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4399.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4399.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4399.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4399.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
940.86	4.00	4407.54	8.34	3.82	4.78	4494.79	0.29		0.001531
	0.36514	246.09			146.42	17.56			
1035.60	5.00	4408.87	9.67	3.51	5.24	5425.20	0.30		0.001551
	0.33945	295.30			175.70	18.18			
1026.94	6.00	4408.83	9.63	3.50	5.23	5371.38	0.30		0.001555
	0.33904	293.83			174.82	18.16			
1011.02	7.00	4408.75	9.55	3.47	5.21	5268.02	0.30		0.001580
	0.34236	291.07			173.18	18.13			
987.43	8.00	4408.65	9.45	3.44	5.18	5118.17	0.30		0.001604
	0.34438	286.97			170.74	18.08			
964.47	9.00	4408.54	9.34	3.41	5.16	4973.01	0.30		0.001626
	0.34581	282.95			168.35	18.03			
941.71	10.00	4408.43	9.23	3.38	5.13	4829.64	0.30		0.001650
	0.34764	278.92			165.95	17.98			
931.04	11.00	4408.38	9.18	3.36	5.12	4770.68	0.30		0.001654
	0.34683	277.03			164.82	17.96			
915.67	12.00	4408.30	9.10	3.34	5.11	4678.13	0.30		0.001678
	0.34964	274.25			163.17	17.92			
891.54	13.00	4408.19	8.99	3.30	5.08	4530.43	0.30		0.001702
	0.35091	269.88			160.57	17.87			
881.34	14.00	4408.14	8.94	3.29	5.07	4469.21	0.30		0.001704
	0.34966	268.04			159.48	17.84			
881.30	15.00	4408.14	8.94	3.29	5.07	4469.06	0.30		0.001704
	0.34970	268.03			159.47	17.84			
881.28	16.00	4408.14	8.94	3.29	5.07	4468.97	0.30		0.001704
	0.34969	268.03			159.47	17.84			
881.29	17.00	4408.14	8.94	3.29	5.07	4468.97	0.30		0.001705
	0.34976	268.03			159.47	17.84			
881.72	18.00	4408.14	8.94	3.29	5.07	4470.85	0.30		0.001702
		268.11			159.52	17.84			

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		HYCHAN.OUT					
	0.34931	80557.28					
896.97	19.00	4408.21	9.01	5.09	4561.39	0.30	
		270.90	3.31		161.18	17.88	0.001677
	0.34651	81394.97					
922.87	20.00	4408.34	9.14	5.11	4716.40	0.30	
		275.57	3.35		163.96	17.94	0.001651
	0.34492	82800.03					
946.85	21.00	4408.46	9.25	5.14	4866.70	0.30	
		279.85	3.38		166.51	17.99	0.001627
	0.34341	84086.05					
956.29	22.00	4408.50	9.30	5.15	4924.02	0.30	
		281.52	3.40		167.50	18.01	0.001625
	0.34452	84586.80					
956.84	23.00	4408.50	9.30	5.15	4927.77	0.30	
		281.62	3.40		167.56	18.01	0.001624
	0.34423	84616.51					
973.39	24.00	4408.58	9.38	5.17	5034.35	0.30	
		284.54	3.42		169.30	18.05	0.001595
	0.34044	85495.27					
1014.45	25.00	4408.77	9.57	5.22	5296.90	0.30	
		291.69	3.48		173.55	18.13	0.001545
	0.33537	87642.06					
1062.96	26.00	4408.99	9.79	5.27	5606.75	0.30	
		299.98	3.54		178.48	18.23	0.001499
	0.33135	90132.59					
1108.96	27.00	4409.19	9.99	5.32	5898.49	0.30	
		307.69	3.60		183.07	18.32	0.001459
	0.32806	92450.43					
1122.96	28.00	4409.25	10.05	5.33	5984.83	0.30	
		310.00	3.62		184.45	18.34	0.001459
	0.32980	93145.20					
1124.25	29.00	4409.26	10.06	5.33	5994.07	0.30	
		310.22	3.62		184.57	18.35	0.001455
	0.32893	93210.03					
1141.30	30.00	4409.33	10.13	5.35	6106.12	0.30	
		313.03	3.65		186.25	18.38	0.001434
	0.32627	94055.21					
1148.65	31.00	4409.37	10.17	5.36	6152.17	0.30	
		314.23	3.66		186.96	18.39	0.001434
	0.32713	94415.23					
1150.09	32.00	4409.37	10.17	5.36	6162.09	0.30	
		314.47	3.66		187.10	18.39	0.001429
	0.32617	94486.92					
1168.14	33.00	4409.45	10.25	5.38	6278.95	0.30	
		317.42	3.68		188.86	18.43	0.001411
	0.32404	95373.29					
1175.79	34.00	4409.48	10.28	5.38	6326.05	0.30	
		318.65	3.69		189.59	18.44	0.001410
	0.32463	95744.34					
1174.39	35.00	4409.48	10.27	5.38	6315.83	0.30	
		318.42	3.69		189.46	18.44	0.001415
	0.32560	95675.09					
1156.52	36.00	4409.40	10.20	5.36	6199.06	0.30	
		315.51	3.67		187.72	18.41	0.001434
	0.32807	94798.36					
1147.34	37.00	4409.36	10.16	5.35	6142.60	0.30	
		314.01	3.65		186.83	18.39	0.001440
	0.32827	94349.66					
1130.46	38.00	4409.29	10.09	5.34	6031.09	0.30	
		311.23	3.63		185.18	18.36	0.001457
	0.33033	93513.70					
1122.96	39.00	4409.25	10.05	5.33	5984.94	0.30	
		310.00	3.62		184.45	18.34	0.001459

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	0.32988	93145.20							
1122.99	40.00	4409.25	10.05	3.62	5.33	5985.22	0.30		
		310.01				184.45	18.34	0.001458	
	0.32958	93146.34							
1122.94	41.00	4409.25	10.05	3.62	5.33	5984.82	0.30		
		310.00				184.44	18.34	0.001459	
	0.32984	93144.04							
1122.96	42.00	4409.25	10.05	3.62	5.33	5985.07	0.30		
		310.00				184.45	18.34	0.001458	
	0.32965	93145.03							
1124.29	43.00	4409.26	10.06	3.62	5.33	5994.19	0.30		
		310.23				184.58	18.35	0.001454	
	0.32888	93211.81							
1141.32	44.00	4409.33	10.13	3.65	5.35	6106.07	0.30		
		313.04				186.25	18.38	0.001436	
	0.32659	94056.01							
1150.14	45.00	4409.37	10.17	3.66	5.36	6162.16	0.30		
		314.48				187.11	18.39	0.001429	
	0.32617	94489.71							
1169.74	46.00	4409.46	10.26	3.68	5.38	6290.15	0.30		
		317.68				189.01	18.43	0.001405	
	0.32286	95452.13							
1196.78	47.00	4409.57	10.37	3.72	5.40	6465.36	0.30		
		322.05				191.62	18.48	0.001380	
	0.32000	96765.97							
1223.44	48.00	4409.68	10.48	3.75	5.43	6638.61	0.30		
		326.33				194.16	18.52	0.001359	
	0.31783	98049.87							
1250.03	49.00	4409.79	10.59	3.78	5.45	6810.66	0.30		
		330.55				196.67	18.57	0.001336	
	0.31532	99318.16							
1276.28	50.00	4409.90	10.70	3.81	5.47	6982.79	0.29		
		334.68				199.13	18.61	0.001312	
	0.31213	100559.66							
1304.56	51.00	4410.01	10.81	3.85	5.50	7170.33	0.29		
		339.09				201.75	18.66	0.001285	
	0.30850	101885.22							
1346.60	52.00	4410.18	10.98	3.90	5.53	7450.57	0.29		
		345.57				205.61	18.73	0.001249	
	0.30381	103832.88							
1363.06	53.00	4410.24	11.04	3.92	5.54	7557.04	0.29		
		348.08				207.10	18.75	0.001243	
	0.30368	104586.97							
1389.11	54.00	4410.35	11.14	3.95	5.56	7725.62	0.29		
		352.05				209.46	18.79	0.001198	
	0.29497	105777.77							
1471.86	55.00	4410.66	11.46	4.04	5.59	8222.48	0.29		
		364.40				216.81	18.92	0.001095	
	0.27601	109490.01							
1605.15	56.00	4411.15	11.95	4.18	5.62	9018.75	0.29		
		383.70				228.29	19.10	0.000953	
	0.24870	115287.66							
1784.48	57.00	4411.77	12.57	4.37	5.64	10069.76	0.28		
		408.63				243.13	19.33	0.000804	
	0.21904	122778.18							
1991.12	58.00	4412.45	13.25	4.57	5.68	11304.22	0.27		
		436.07				259.46	19.58	0.000703	
	0.20034	131024.99							
2147.62	59.00	4412.95	13.75	4.71	5.76	12374.03	0.27		
		456.22				271.44	19.74	0.000651	
	0.19114	137078.73							
2261.51	60.00	4413.41	14.21	4.90	5.96	13486.92	0.28		
		461.53				282.85	19.90	0.000640	



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0.19575	142840.42						
61.00	4413.83	14.63	5.09	6.21	14606.45	0.29	
2351.76	462.36				293.03	20.03	0.000654
0.20743	147982.56						
62.00	4414.05	14.85	5.19	6.38	15325.23	0.29	
2402.58	462.81				298.59	20.11	0.000665
0.21539	150788.41						
63.00	4414.22	15.02	5.27	6.51	15886.89	0.30	
2439.64	463.14				302.69	20.16	0.000681
0.22386	152856.53						
64.00	4414.34	15.14	5.33	6.61	16323.68	0.30	
2468.08	463.39				305.86	20.20	0.000691
0.22951	154457.62						
65.00	4414.44	15.23	5.37	6.69	16638.67	0.30	
2488.52	463.58				308.15	20.23	0.000701
0.23485	155615.27						
66.00	4414.54	15.34	5.41	6.77	17000.17	0.30	
2510.93	463.78				310.67	20.26	0.000707
0.23881	156890.11						
67.00	4414.57	15.37	5.43	6.82	17189.18	0.31	
2518.75	463.85				311.56	20.27	0.000709
0.24021	157339.48						
68.00	4414.58	15.38	5.43	6.84	17231.21	0.31	
2520.11	463.86				311.72	20.27	0.000711
0.24117	157416.70						
69.00	4414.58	15.38	5.44	6.84	17247.01	0.31	
2521.47	463.87				311.87	20.27	0.000710
0.24076	157494.48						
70.00	4414.58	15.38	5.43	6.85	17262.87	0.31	
2521.00	463.87				311.82	20.27	0.000714
0.24229	157470.17						
71.00	4414.58	15.38	5.43	6.85	17257.19	0.31	
2520.66	463.87				311.79	20.27	0.000714
0.24202	157454.36						
72.00	4414.58	15.38	5.44	6.84	17249.91	0.31	
2521.14	463.87				311.84	20.27	0.000709
0.24036	157478.73						
73.00	4414.58	15.38	5.43	6.84	17248.62	0.31	
2520.79	463.87				311.80	20.27	0.000711
0.24107	157460.11						
74.00	4414.60	15.40	5.44	6.86	17321.22	0.31	
2524.18	463.90				312.19	20.28	0.000715
0.24264	157654.92						
75.00	4414.62	15.42	5.45	6.89	17427.57	0.31	
2528.80	463.94				312.71	20.28	0.000715
0.24315	157916.70						
76.00	4414.63	15.43	5.46	6.90	17471.25	0.31	
2530.90	463.96				312.93	20.29	0.000717
0.24408	158028.05						
77.00	4414.61	15.41	5.45	6.87	17363.77	0.31	
2526.68	463.92				312.43	20.28	0.000711
0.24160	157779.16						
78.00	4414.63	15.43	5.46	6.91	17487.15	0.31	
2531.77	463.96				313.01	20.29	0.000726
0.24706	158071.03						
79.00	4414.65	15.45	5.46	6.95	17617.48	0.31	
2535.53	464.00				313.43	20.29	0.000737
0.25117	158281.11						
80.00	4414.70	15.50	5.49	7.04	17929.08	0.32	
2547.95	464.11				314.84	20.31	0.000745
0.25533	158995.59						
81.00	4414.71	15.51	5.49	6.92	17651.98	0.31	
2550.10	464.12				315.01	20.31	0.001224

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0.41955	159078.70						
82.00	4414.74	15.54	5.51	6.91	17670.46	0.31	
2557.05	464.19				315.79	20.32	0.001224
0.42060	159475.70						
83.00	4414.73	15.53	5.50	6.90	17627.48	0.31	
2554.49	464.16				315.51	20.32	0.001218
0.41830	159331.56						
84.00	4414.71	15.51	5.50	6.87	17536.57	0.31	
2551.15	464.13				315.13	20.31	0.001216
0.41719	159142.78						
85.00	4414.71	15.51	5.49	6.87	17513.17	0.31	
2550.18	464.12				315.02	20.31	0.001216
0.41698	159087.59						
86.00	4414.71	15.51	5.50	6.87	17530.12	0.31	
2550.79	464.13				315.10	20.31	0.001218
0.41785	159126.75						
87.00	4414.71	15.51	5.50	6.88	17545.81	0.31	
2551.18	464.14				315.16	20.31	0.001218
0.41775	159156.00						
88.00	4414.72	15.52	5.50	7.04	17953.53	0.31	
2551.91	464.15				315.32	20.32	0.000731
0.25084	159237.81						
89.00	4414.62	15.42	5.45	6.93	17545.89	0.31	
2530.25	463.95				312.88	20.29	0.000717
0.24389	158003.80						
90.00	4414.42	15.22	5.36	6.70	16653.62	0.30	
2485.08	463.54				307.74	20.22	0.000676
0.22610	155409.52						
91.00	4414.11	14.91	5.22	6.45	15585.20	0.29	
2416.58	462.93				300.11	20.13	0.000657
0.21412	151556.59						
92.00	4413.87	14.67	5.11	6.27	14804.61	0.29	
2362.56	462.45				294.17	20.05	0.000641
0.20420	148553.92						
93.00	4413.55	14.35	4.96	6.04	13844.42	0.28	
2290.29	461.80				286.11	19.94	0.000633
0.19587	144485.33						
94.00	4413.22	14.02	4.82	5.87	13031.71	0.28	
2221.15	461.15				278.19	19.84	0.000652
0.19608	140485.66						
95.00	4412.94	13.74	4.71	5.75	12350.04	0.27	
2146.54	455.89				271.25	19.74	0.000682
0.20038	136979.33						
96.00	4412.70	13.50	4.64	5.71	11818.17	0.27	
2070.57	446.27				265.52	19.66	0.000722
0.20902	134087.12						
97.00	4412.42	13.22	4.56	5.67	11229.91	0.27	
1980.64	434.68				258.62	19.56	0.000763
0.21695	130605.29						
98.00	4412.18	12.98	4.49	5.65	10779.02	0.28	
1906.92	425.02				252.88	19.48	0.000805
0.22526	127702.91						
99.00	4411.95	12.75	4.42	5.64	10373.25	0.28	
1837.76	415.81				247.40	19.40	0.000848
0.23400	124935.02						
100.00	4411.78	12.58	4.37	5.64	10077.72	0.28	
1787.51	409.02				243.36	19.34	0.000890
0.24281	122896.09						
101.00	4411.57	12.37	4.31	5.63	9704.70	0.28	
1723.88	400.30				238.17	19.26	0.000940
0.25247	120276.27						
102.00	4411.38	12.18	4.25	5.62	9387.62	0.28	
1670.16	392.85				233.73	19.19	0.000981

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1623.56	0.26025	118035.95	12.01	4.20	5.61	9112.14	0.29	0.001022
	103.00	4411.22				229.83	19.13	
	0.26799	116066.48						
1586.67	104.00	4411.08	11.88	4.16	5.61	8893.80	0.29	0.001050
		381.05				226.72	19.08	
	0.27286	114491.23						
1550.05	105.00	4410.95	11.75	4.12	5.60	8676.17	0.29	0.001093
		375.78				223.58	19.03	
	0.28126	112908.40						
1493.79	106.00	4410.74	11.54	4.06	5.58	8342.49	0.29	0.001144
		367.59				218.71	18.95	
	0.29007	110447.45						
1455.43	107.00	4410.60	11.40	4.02	5.58	8117.32	0.29	0.001173
		361.95				215.35	18.89	
	0.29444	108752.58						
1426.07	108.00	4410.49	11.29	3.99	5.57	7942.34	0.29	0.001203
		357.58				212.75	18.85	
	0.29927	107439.50						
1399.40	109.00	4410.38	11.18	3.96	5.56	7782.76	0.29	0.001221
		353.58				210.37	18.81	
	0.30163	106237.86						
1394.77	110.00	4410.37	11.17	3.95	5.56	7757.97	0.29	0.001213
		352.89				209.96	18.80	
	0.29911	106031.98						
1419.73	111.00	4410.46	11.26	3.98	5.57	7908.77	0.29	0.001175
		356.65				212.20	18.84	
	0.29181	107161.96						
1465.04	112.00	4410.64	11.43	4.03	5.58	8175.45	0.29	0.001145
		363.39				216.21	18.91	
	0.28813	109187.09						
1455.34	113.00	4410.60	11.40	4.02	5.58	8115.56	0.29	0.001172
		361.94				215.34	18.89	
	0.29418	108748.92						
1433.24	114.00	4410.51	11.31	4.00	5.57	7987.38	0.29	0.001175
		358.66				213.40	18.86	
	0.29304	107765.49						
1473.47	115.00	4410.67	11.47	4.04	5.58	8228.08	0.29	0.001116
		364.65				216.96	18.92	
	0.28141	109562.88						
1530.88	116.00	4410.88	11.68	4.10	5.60	8565.32	0.29	0.001082
		373.04				221.95	19.00	
	0.27713	112084.45						
1521.97	117.00	4410.85	11.65	4.09	5.59	8512.76	0.29	0.001104
		371.73				221.17	18.99	
	0.28200	111690.22						
1514.83	118.00	4410.82	11.62	4.09	5.59	8470.33	0.29	0.001105
		370.70				220.56	18.98	
	0.28179	111380.69						
1517.77	119.00	4410.83	11.63	4.09	5.59	8488.89	0.29	0.001092
		371.13				220.81	18.98	
	0.27872	111510.80						
1541.44	120.00	4410.92	11.72	4.12	5.60	8627.72	0.29	0.001072
		374.57				222.86	19.02	
	0.27539	112543.84						
1548.44	121.00	4410.94	11.74	4.12	5.60	8669.54	0.29	0.001073
		375.57				223.46	19.03	
	0.27592	112845.69						
1545.47	122.00	4410.93	11.73	4.12	5.60	8650.65	0.29	0.001083
		375.14				223.20	19.02	
	0.27833	112715.25						
1522.31	123.00	4410.85	11.65	4.09	5.59	8512.97	0.29	0.001102
		371.77				221.20	18.99	

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0.28161	111704.95						
124.00	4410.81	11.61	5.59	8451.63	0.29		
1511.94	370.27		4.08	220.30	18.98	0.001115	
0.28420	111252.45						
125.00	4410.72	11.52	5.59	8314.04	0.29		
1488.50	366.83		4.06	218.26	18.94	0.001136	
0.28770	110219.90						
126.00	4410.70	11.50	5.58	8269.53	0.29		
1481.13	365.76		4.05	217.62	18.93	0.001136	
0.28694	109897.55						
127.00	4410.69	11.49	5.58	8254.14	0.29		
1478.70	365.40		4.05	217.40	18.93	0.001145	
0.28921	109788.58						
128.00	4410.61	11.41	5.58	8131.08	0.29		
1457.77	362.30		4.02	215.56	18.90	0.001163	
0.29199	108858.55						
129.00	4410.58	11.38	5.58	8091.21	0.29		
1450.89	361.29		4.02	214.96	18.89	0.001165	
0.29182	108554.89						
130.00	4410.57	11.37	5.58	8075.88	0.29		
1448.54	360.94		4.01	214.75	18.88	0.001173	
0.29363	108448.75						
131.00	4410.49	11.29	5.57	7956.24	0.29		
1428.13	357.89		3.99	212.94	18.85	0.001193	
0.29703	107533.32						
132.00	4410.49	11.29	5.57	7947.91	0.29		
1426.37	357.64		3.99	212.79	18.85	0.001175	
0.29234	107459.17						
133.00	4410.65	11.44	5.58	8191.72	0.29		
1467.63	363.78		4.03	216.44	18.91	0.001136	
0.28599	109302.78						
134.00	4410.70	11.50	5.58	8269.07	0.29		
1481.15	365.76		4.05	217.62	18.93	0.001136	
0.28701	109898.59						
135.00	4410.70	11.50	5.58	8270.24	0.29		
1481.32	365.79		4.05	217.64	18.93	0.001135	
0.28689	109906.00						
136.00	4410.70	11.50	5.58	8270.05	0.29		
1481.26	365.78		4.05	217.63	18.93	0.001136	
0.28697	109903.45						
137.00	4410.70	11.50	5.58	8269.95	0.29		
1481.24	365.78		4.05	217.63	18.93	0.001136	
0.28704	109902.61						
138.00	4410.70	11.50	5.58	8270.15	0.29		
1481.26	365.78		4.05	217.63	18.93	0.001136	
0.28701	109903.27						
139.00	4410.70	11.50	5.58	8269.75	0.29		
1481.20	365.77		4.05	217.63	18.93	0.001134	
0.28664	109900.87						
140.00	4410.69	11.49	5.58	8254.38	0.29		
1478.74	365.40		4.05	217.41	18.93	0.001145	
0.28910	109790.51						
141.00	4410.61	11.41	5.58	8131.02	0.29		
1457.75	362.30		4.02	215.56	18.90	0.001164	
0.29237	108857.54						
142.00	4410.58	11.38	5.58	8091.29	0.29		
1450.63	361.25		4.02	214.94	18.89	0.001166	
0.29223	108543.01						
143.00	4410.58	11.38	5.58	8091.15	0.29		
1450.52	361.23		4.02	214.93	18.89	0.001165	
0.29188	108538.27						
144.00	4410.58	11.38	5.58	8090.62	0.29		
1450.48	361.23		4.02	214.92	18.89	0.001164	

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1448.28	0.29154	108536.57	11.37	4.01	5.58	8076.12	0.29	0.001173
	145.00	4410.57				214.73	18.88	
		360.90						
1428.24	0.29378	108437.00	11.29	3.99	5.57	7956.35	0.29	0.001194
	146.00	4410.50				212.95	18.85	
		357.91						
1421.33	0.29725	107538.34	11.27	3.98	5.57	7916.98	0.29	0.001193
	147.00	4410.47				212.34	18.84	
		356.88						
1421.29	0.29647	107230.75	11.27	3.98	5.57	7917.06	0.29	0.001193
	148.00	4410.47				212.33	18.84	
		356.88						
1421.35	0.29654	107228.86	11.27	3.98	5.57	7916.94	0.29	0.001192
	149.00	4410.47				212.34	18.84	
		356.89						
1421.38	0.29635	107231.31	11.27	3.98	5.57	7917.05	0.29	0.001193
	150.00	4410.47				212.34	18.84	
		356.89						
1419.94	0.29638	107232.87	11.26	3.98	5.57	7907.33	0.29	0.001200
	151.00	4410.46				212.21	18.84	
		356.67						
1406.03	0.29807	107167.11	11.21	3.97	5.56	7822.56	0.29	0.001214
	152.00	4410.41				210.97	18.82	
		354.58						
1394.70	0.30030	106538.35	11.17	3.95	5.56	7755.92	0.29	0.001221
	153.00	4410.37				209.95	18.80	
		352.88						
1392.52	0.30116	106026.80	11.16	3.95	5.56	7743.02	0.29	0.001220
	154.00	4410.36				209.76	18.80	
		352.55						
1390.30	0.30081	105928.77	11.15	3.95	5.56	7728.73	0.29	0.001228
	155.00	4410.35				209.56	18.80	
		352.21						
1375.43	0.30255	105826.52	11.09	3.93	5.55	7638.06	0.29	0.001232
	156.00	4410.29				208.22	18.77	
		349.96						
1407.87	0.30215	105151.20	11.22	3.97	5.57	7838.11	0.29	0.001193
	157.00	4410.42				211.14	18.82	
		354.87						
1421.31	0.29533	106627.09	11.27	3.98	5.57	7916.51	0.29	0.001193
	158.00	4410.47				212.34	18.84	
		356.88						
1421.38	0.29655	107229.59	11.27	3.98	5.57	7917.03	0.29	0.001192
	159.00	4410.47				212.34	18.84	
		356.89						
1421.31	0.29632	107232.97	11.27	3.98	5.57	7916.88	0.29	0.001194
	160.00	4410.47				212.34	18.84	
		356.88						
1421.45	0.29663	107229.82	11.27	3.98	5.57	7917.14	0.29	0.001192
	161.00	4410.47				212.35	18.84	
		356.90						
1421.49	0.29631	107235.74	11.27	3.98	5.57	7917.08	0.29	0.001194
	162.00	4410.47				212.35	18.84	
		356.91						
1421.34	0.29671	107237.62	11.27	3.98	5.57	7917.00	0.29	0.001193
	163.00	4410.47				212.34	18.84	
		356.88						
1421.37	0.29651	107230.93	11.27	3.98	5.57	7916.88	0.29	0.001193
	164.00	4410.47				212.34	18.84	
		356.89						
1419.08	0.29653	107232.38	11.26	3.98	5.57	7902.34	0.29	0.001202
	165.00	4410.46				212.13	18.84	
		356.54						

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## HYCHAN.OUT

1399.22	0.29850	107127.98	11.18	3.96	5.56	7782.18	0.29	0.001221
	166.00	4410.38				210.36	18.81	
		353.55						
1392.49	0.30163	106229.79	11.16	3.95	5.56	7743.01	0.29	0.001220
	167.00	4410.36				209.76	18.80	
		352.55						
1392.55	0.30078	105927.44	11.16	3.95	5.56	7743.09	0.29	0.001221
	168.00	4410.36				209.76	18.80	
		352.55						
1392.47	0.30091	105930.01	11.16	3.95	5.56	7742.80	0.29	0.001221
	169.00	4410.36				209.76	18.80	
		352.54						
1392.48	0.30082	105926.77	11.16	3.95	5.56	7743.09	0.29	0.001221
	170.00	4410.36				209.76	18.80	
		352.54						
1392.56	0.30088	105927.10	11.16	3.95	5.56	7743.20	0.29	0.001220
	171.00	4410.36				209.76	18.80	
		352.56						
1392.44	0.30073	105930.73	11.16	3.95	5.56	7742.58	0.29	0.001221
	172.00	4410.36				209.75	18.80	
		352.54						
1390.38	0.30089	105924.99	11.15	3.95	5.56	7728.84	0.29	0.001229
	173.00	4410.35				209.57	18.80	
		352.22						
1371.20	0.30266	105830.44	11.07	3.93	5.55	7608.04	0.29	0.001246
	174.00	4410.27				207.83	18.77	
		349.31						
1364.91	0.30519	104955.58	11.05	3.92	5.55	7569.11	0.29	0.001247
	175.00	4410.25				207.27	18.76	
		348.36						
1364.88	0.30476	104670.42	11.05	3.92	5.55	7568.98	0.29	0.001247
	176.00	4410.25				207.27	18.76	
		348.36						
1364.92	0.30481	104669.03	11.05	3.92	5.55	7569.19	0.29	0.001246
	177.00	4410.25				207.27	18.76	
		348.36						
1364.94	0.30474	104671.02	11.05	3.92	5.55	7569.04	0.29	0.001246
	178.00	4410.25				207.27	18.76	
		348.37						
1364.89	0.30472	104671.99	11.05	3.92	5.55	7568.70	0.29	0.001247
	179.00	4410.25				207.27	18.76	
		348.36						
1369.29	0.30476	104669.75	11.07	3.92	5.55	7599.17	0.29	0.001232
	180.00	4410.27				207.67	18.76	
		349.04						
1407.84	0.30158	104872.67	11.22	3.97	5.57	7837.94	0.29	0.001194
	181.00	4410.42				211.14	18.82	
		354.87						
1423.78	0.29558	106625.55	11.28	3.99	5.57	7931.68	0.29	0.001184
	182.00	4410.48				212.56	18.85	
		357.25						
1444.11	0.29436	107342.27	11.36	4.01	5.58	8051.73	0.29	0.001165
	183.00	4410.56				214.36	18.88	
		360.29						
1450.82	0.29136	108254.14	11.38	4.02	5.58	8090.89	0.29	0.001164
	184.00	4410.58				214.95	18.89	
		361.28						
1450.49	0.29174	108551.77	11.38	4.02	5.58	8090.68	0.29	0.001165
	185.00	4410.58				214.92	18.89	
		361.23						
1450.50	0.29197	108536.76	11.38	4.02	5.58	8091.12	0.29	0.001166
	186.00	4410.58				214.93	18.89	
		361.23						

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## HYCHAN.OUT

0.29207	108537.15							
187.00	4410.58	11.38	4.02	5.58	8091.21	0.29		
1450.66	361.25				214.94	18.89	0.001166	
0.29209	108544.27							
188.00	4410.58	11.38	4.02	5.58	8091.04	0.29		
1450.56	361.24				214.93	18.89	0.001165	
0.29193	108539.97							
189.00	4410.58	11.38	4.02	5.58	8090.89	0.29		
1450.52	361.24				214.93	18.89	0.001164	
0.29177	108538.32							
190.00	4410.58	11.38	4.02	5.58	8091.04	0.29		
1450.47	361.23				214.92	18.89	0.001165	
0.29195	108536.14							
191.00	4410.57	11.37	4.01	5.58	8076.00	0.29		
1448.54	360.94				214.75	18.88	0.001174	
0.29396	108448.44							
192.00	4410.50	11.29	3.99	5.57	7956.35	0.29		
1428.20	357.90				212.94	18.85	0.001193	
0.29714	107536.56							
193.00	4410.47	11.27	3.98	5.57	7916.89	0.29		
1421.36	356.89				212.34	18.84	0.001194	
0.29665	107231.96							
194.00	4410.47	11.27	3.98	5.57	7917.25	0.29		
1421.36	356.89				212.34	18.84	0.001193	
0.29656	107231.72							
195.00	4410.47	11.27	3.98	5.57	7917.17	0.29		
1421.35	356.89				212.34	18.84	0.001192	
0.29630	107231.49							
196.00	4410.47	11.27	3.98	5.57	7917.00	0.29		
1421.32	356.88				212.34	18.84	0.001193	
0.29652	107229.88							
197.00	4410.47	11.27	3.98	5.57	7916.98	0.29		
1421.34	356.88				212.34	18.84	0.001193	
0.29645	107230.90							
198.00	4410.47	11.27	3.98	5.57	7917.13	0.29		
1421.34	356.88				212.34	18.84	0.001193	
0.29641	107230.85							
199.00	4410.47	11.27	3.98	5.57	7916.63	0.29		
1421.30	356.88				212.33	18.84	0.001193	
0.29644	107229.07							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2973

MAXIMUM DISCHARGE (CFS) = 17222.98 AT TIME = 87.94  
 MAXIMUM STAGE = 4413.72 AT TIME = 87.06

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)	
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4396.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4396.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4396.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT								
0.00	3.00	4396.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	4.00	4405.74	9.04	5.43	4357.49	0.32		
803.03		135.92	5.91	132.08	14.62	0.001643		
	0.60580	72642.32						
	5.00	4407.54	10.84	6.29	5427.06	0.34		
862.63		156.70	5.51	152.04	14.02	0.001653		
	0.56800	83623.77						
	6.00	4407.50	10.80	6.27	5371.95	0.34		
856.63		156.19	5.48	151.55	14.03	0.001657		
	0.56696	83355.24						
	7.00	4407.42	10.72	6.23	5270.44	0.34		
845.96		155.27	5.45	150.67	14.06	0.001665		
	0.56621	82869.66						
	8.00	4407.30	10.60	6.17	5120.62	0.33		
829.98		153.89	5.39	149.35	14.09	0.001677		
	0.56444	82140.04						
	9.00	4407.18	10.48	6.11	4975.35	0.33		
814.30		152.52	5.34	148.03	14.13	0.001687		
	0.56208	81416.77						
	10.00	4407.05	10.35	6.05	4831.81	0.33		
798.63		151.14	5.28	146.70	14.17	0.001699		
	0.56031	80687.12						
	11.00	4407.00	10.30	6.03	4771.19	0.33		
791.35		150.50	5.26	146.09	14.19	0.001699		
	0.55743	80347.48						
	12.00	4406.92	10.22	5.99	4680.68	0.33		
780.94		149.56	5.22	145.19	14.21	0.001710		
	0.55719	79852.56						
	13.00	4406.78	10.08	5.93	4532.67	0.33		
764.17		148.05	5.16	143.73	14.26	0.001722		
	0.55449	79053.02						
	14.00	4406.73	10.03	5.90	4469.32	0.33		
756.88		147.39	5.14	143.10	14.27	0.001723		
	0.55211	78705.86						
	15.00	4406.73	10.03	5.90	4469.07	0.33		
756.85		147.39	5.14	143.10	14.27	0.001723		
	0.55210	78704.25						
	16.00	4406.73	10.03	5.90	4468.97	0.33		
756.84		147.39	5.14	143.10	14.27	0.001723		
	0.55199	78703.76						
	17.00	4406.73	10.03	5.90	4468.99	0.33		
756.84		147.39	5.14	143.10	14.27	0.001723		
	0.55207	78703.90						
	18.00	4406.73	10.03	5.90	4470.49	0.33		
757.14		147.41	5.14	143.13	14.27	0.001722		
	0.55194	78718.77						
	19.00	4406.81	10.11	5.94	4558.73	0.33		
767.55		148.36	5.17	144.04	14.25	0.001713		
	0.55291	79219.77						
	20.00	4406.95	10.25	6.00	4713.77	0.33		
785.34		149.96	5.24	145.57	14.20	0.001701		
	0.55575	80065.91						
	21.00	4407.08	10.38	6.07	4864.50	0.33		
801.89		151.43	5.30	146.99	14.16	0.001689		
	0.55794	80843.77						
	22.00	4407.13	10.43	6.09	4923.97	0.33		
808.57		152.02	5.32	147.55	14.15	0.001688		
	0.56022	81153.96						
	23.00	4407.13	10.43	6.09	4927.37	0.33		
808.91		152.05	5.32	147.58	14.14	0.001687		
	0.55998	81170.02						

HYCHAN.OUT							
820.09	24.00	4407.22	10.52	6.13	5031.23	0.33	
	0.55981	153.04	5.36	148.53	14.12		0.001674
	25.00	81689.67					
847.85	0.56192	4407.43	10.73	6.24	5291.90	0.34	
		155.44	5.45	150.84	14.05		0.001651
	26.00	82960.02					
880.54	0.56605	4407.68	10.98	6.36	5601.83	0.34	
		158.22	5.57	153.50	13.98		0.001630
	27.00	84427.74					
910.97	0.56998	4407.91	11.21	6.47	5894.86	0.34	
		160.76	5.67	155.94	13.92		0.001612
	28.00	85768.69					
920.40	0.57299	4407.98	11.28	6.50	5984.80	0.34	
		161.53	5.70	156.69	13.90		0.001612
	29.00	86177.76					
921.23	0.57256	4407.98	11.28	6.51	5993.40	0.34	
		161.60	5.70	156.75	13.89		0.001610
	30.00	86214.06					
932.30	0.57305	4408.06	11.36	6.55	6104.23	0.34	
		162.51	5.74	157.63	13.87		0.001601
	31.00	86693.76					
937.18	0.57446	4408.10	11.40	6.56	6152.15	0.34	
		162.91	5.75	158.00	13.86		0.001600
	32.00	86902.73					
938.09	0.57416	4408.10	11.40	6.57	6161.37	0.34	
		162.98	5.76	158.08	13.86		0.001599
	33.00	86942.36					
949.65	0.57492	4408.19	11.49	6.61	6277.05	0.34	
		163.92	5.79	158.98	13.84		0.001590
	34.00	87438.03					
954.61	0.57641	4408.23	11.53	6.63	6326.02	0.34	
		164.32	5.81	159.36	13.83		0.001590
	35.00	87648.33					
953.74	0.57666	4408.22	11.52	6.62	6316.55	0.34	
		164.25	5.81	159.29	13.83		0.001592
	36.00	87610.41					
942.30	0.57602	4408.14	11.44	6.58	6200.98	0.34	
		163.32	5.77	158.40	13.85		0.001600
	37.00	87120.15					
936.38	0.57496	4408.09	11.39	6.56	6143.30	0.34	
		162.84	5.75	157.94	13.86		0.001602
	38.00	86867.39					
925.44	0.57427	4408.01	11.31	6.52	6032.93	0.34	
		161.94	5.71	157.08	13.89		0.001610
	39.00	86394.03					
920.40	0.57293	4407.98	11.28	6.50	5984.99	0.34	
		161.53	5.70	156.69	13.90		0.001611
	40.00	86177.81					
920.43	0.57266	4407.98	11.28	6.50	5985.20	0.34	
		161.54	5.70	156.69	13.90		0.001611
	41.00	86178.98					
920.39	0.57296	4407.98	11.28	6.50	5984.84	0.34	
		161.53	5.70	156.69	13.90		0.001611
	42.00	86177.15					
920.39	0.57282	4407.98	11.28	6.50	5985.05	0.34	
		161.53	5.70	156.69	13.90		0.001611
	43.00	86177.36					
921.24	0.57261	4407.98	11.28	6.51	5993.53	0.34	
		161.60	5.70	156.75	13.89		0.001610
	44.00	86214.73					
932.32	0.57330	4408.06	11.36	6.55	6104.22	0.34	
		162.51	5.74	157.63	13.87		0.001601
		86694.60					

HYCHAN.OUT							
938.15	45.00	4408.11	11.41	5.76	6.57	6161.37	0.34
	0.57421	162.99				158.08	13.86
	46.00	86944.83					0.001599
950.64		4408.20	11.50	5.80	6.61	6287.52	0.34
	0.57470	164.00				159.06	13.84
	47.00	87480.43					0.001589
968.01		4408.32	11.62	5.85	6.68	6462.72	0.35
	0.57660	165.40				160.40	13.80
	48.00	88217.95					0.001579
985.01		4408.44	11.74	5.91	6.74	6636.07	0.35
	0.57844	166.75				161.70	13.77
	49.00	88932.98					0.001569
1001.76		4408.56	11.86	5.96	6.80	6808.24	0.35
	0.58042	168.07				162.97	13.74
	50.00	89630.84					0.001561
1018.29		4408.68	11.98	6.01	6.85	6980.05	0.35
	0.58154	169.37				164.21	13.71
	51.00	90313.54					0.001550
1036.10		4408.81	12.11	6.07	6.92	7167.15	0.35
	0.58270	170.75				165.53	13.67
	52.00	91042.66					0.001539
1062.38		4408.99	12.29	6.15	7.01	7446.96	0.35
	0.58436	172.76				167.47	13.63
	53.00	92106.13					0.001523
1072.73		4409.06	12.36	6.18	7.04	7556.18	0.35
	0.58644	173.55				168.22	13.61
	54.00	92520.51					0.001520
1089.22		4409.18	12.48	6.23	7.09	7720.61	0.35
	0.58062	174.80				169.42	13.58
	55.00	93178.65					0.001493
1142.85		4409.54	12.84	6.39	7.19	8211.65	0.35
	0.56856	178.77				173.23	13.49
	56.00	95276.62					0.001425
1227.63		4410.10	13.40	6.64	7.33	9003.38	0.35
	0.55377	184.86				179.07	13.36
	57.00	98488.56					0.001336
1338.08		4410.82	14.12	6.95	7.51	10051.07	0.35
	0.53975	192.47				186.36	13.20
	58.00	102499.75					0.001244
1464.43		4411.57	14.87	7.44	7.68	11246.22	0.35
	0.54447	196.95				194.02	13.05
	59.00	106709.73					0.001173
1557.12		4412.11	15.41	7.86	7.81	12159.70	0.35
	0.56613	198.02				199.39	12.94
	60.00	109666.37					0.001154
1634.29		4412.56	15.86	8.22	7.96	13015.30	0.35
	0.61015	198.92				203.87	12.86
	61.00	112128.35					0.001190
1701.34		4412.93	16.23	8.52	8.15	13862.86	0.36
	0.65240	199.66				207.54	12.79
	62.00	114144.71					0.001227
1736.73		4413.12	16.42	8.68	8.28	14385.39	0.36
	0.68104	200.05				209.46	12.75
	63.00	115205.72					0.001257
1761.84		4413.26	16.56	8.79	8.38	14768.59	0.36
	0.70374	200.33				210.86	12.73
	64.00	115970.74					0.001282
1781.03		4413.37	16.67	8.88	8.46	15073.74	0.37
	0.72120	200.55				211.91	12.71
	65.00	116552.63					0.001301
1794.83		4413.45	16.75	8.94	8.52	15290.53	0.37
	0.73843	200.70				212.67	12.70
		116967.80					0.001323

HYCHAN.OUT							
1809.81	66.00	4413.53	16.83	9.01	8.61	15575.35	0.37
	0.75425	200.87			213.47	12.68	0.001342
		117410.73					
1813.58	67.00	4413.55	16.85	9.03	8.68	15743.06	0.37
	0.75696	200.91			213.68	12.68	0.001344
		117523.23					
1813.99	68.00	4413.55	16.85	9.03	8.70	15780.47	0.37
	0.75957	200.91			213.70	12.68	0.001348
		117536.01					
1815.13	69.00	4413.56	16.86	9.03	8.71	15806.89	0.37
	0.75823	200.92			213.75	12.68	0.001345
		117565.07					
1814.16	70.00	4413.56	16.86	9.03	8.71	15795.39	0.37
	0.75952	200.92			213.73	12.68	0.001348
		117550.02					
1814.01	71.00	4413.56	16.86	9.03	8.70	15787.59	0.37
	0.75638	200.92			213.72	12.68	0.001343
		117546.66					
1814.72	72.00	4413.56	16.86	9.03	8.71	15801.24	0.37
	0.75522	200.92			213.74	12.68	0.001340
		117555.23					
1814.38	73.00	4413.56	16.86	9.03	8.71	15795.05	0.37
	0.75688	200.92			213.72	12.68	0.001343
		117547.31					
1816.27	74.00	4413.57	16.87	9.04	8.73	15864.09	0.37
	0.76323	200.94			213.82	12.68	0.001353
		117599.44					
1818.64	75.00	4413.58	16.88	9.05	8.78	15969.44	0.38
	0.76856	200.96			213.94	12.68	0.001361
		117664.38					
1819.76	76.00	4413.58	16.88	9.05	8.80	16018.34	0.38
	0.76853	200.97			213.98	12.67	0.001360
		117690.32					
1817.86	77.00	4413.57	16.87	9.05	8.76	15929.95	0.38
	0.76367	200.95			213.86	12.68	0.001353
		117624.27					
1820.25	78.00	4413.58	16.88	9.06	8.80	16024.79	0.38
	0.77485	200.97			214.00	12.67	0.001371
		117697.86					
1820.98	79.00	4413.59	16.89	9.06	8.84	16100.94	0.38
	0.78075	200.99			214.07	12.67	0.001381
		117736.13					
1826.74	80.00	4413.62	16.92	9.09	8.95	16354.64	0.38
	0.78978	201.05			214.39	12.67	0.001393
		117914.23					
1821.08	81.00	4413.59	16.89	9.06	8.86	16132.63	0.38
	0.80369	200.99			214.06	12.67	0.001422
		117734.71					
1823.23	82.00	4413.60	16.90	9.07	8.86	16159.18	0.38
	0.80473	201.01			214.17	12.67	0.001422
		117794.66					
1821.50	83.00	4413.59	16.89	9.06	8.85	16111.58	0.38
	0.79942	200.99			214.09	12.67	0.001414
		117750.33					
1820.35	84.00	4413.59	16.89	9.06	8.81	16044.05	0.38
	0.79860	200.98			214.02	12.67	0.001413
		117709.12					
1819.93	85.00	4413.58	16.88	9.06	8.80	16020.82	0.38
	0.79728	200.97			214.00	12.67	0.001411
		117697.91					
1820.12	86.00	4413.59	16.89	9.06	8.81	16036.55	0.38
	0.79691	200.98			214.01	12.67	0.001410
		117707.00					

				HYCHAN.OUT			
1820.15	87.00	4413.59	16.89	9.06	8.81	16040.87	0.38
	0.79819	200.98				214.04	12.67
		117720.70					0.001412
1826.90	88.00	4413.63	16.93	9.09	8.95	16358.46	0.38
	0.78713	201.07				214.46	12.67
		117954.40					0.001388
1816.50	89.00	4413.58	16.88	9.04	8.82	16015.84	0.38
	0.75884	200.96				213.93	12.68
		117660.62					0.001345
1790.96	90.00	4413.43	16.73	8.92	8.55	15318.69	0.37
	0.71156	200.67				212.51	12.70
		116883.09					0.001278
1744.87	91.00	4413.17	16.47	8.72	8.35	14569.04	0.36
	0.67382	200.15				209.96	12.75
		115480.75					0.001239
1707.57	92.00	4412.96	16.26	8.55	8.21	14019.92	0.36
	0.64095	199.73				207.88	12.78
		114334.88					0.001201
1655.18	93.00	4412.67	15.97	8.31	8.05	13329.60	0.36
	0.60692	199.15				205.00	12.84
		112751.57					0.001170
1604.17	94.00	4412.38	15.68	8.08	7.92	12708.41	0.35
	0.58159	198.56				202.11	12.89
		111158.83					0.001154
1555.93	95.00	4412.10	15.40	7.86	7.83	12175.53	0.35
	0.57347	198.00				199.30	12.94
		109614.23					0.001170
1511.88	96.00	4411.84	15.14	7.66	7.76	11735.90	0.35
	0.56803	197.49				196.74	12.99
		108209.24					0.001189
1457.91	97.00	4411.53	14.83	7.41	7.69	11216.88	0.35
	0.56302	196.87				193.62	13.05
		106490.70					0.001218
1412.18	98.00	4411.27	14.57	7.19	7.64	10785.57	0.35
	0.56130	196.35				190.98	13.11
		105037.98					0.001251
1369.77	99.00	4411.02	14.32	7.04	7.58	10378.81	0.35
	0.56115	194.60				188.40	13.16
		103618.45					0.001278
1339.71	100.00	4410.83	14.13	6.96	7.53	10082.72	0.35
	0.56602	192.58				186.47	13.20
		102558.34					0.001304
1301.07	101.00	4410.58	13.88	6.85	7.46	9710.31	0.35
	0.56888	189.96				183.95	13.25
		101175.02					0.001331
1268.04	102.00	4410.37	13.67	6.76	7.41	9392.22	0.35
	0.57216	187.69				181.78	13.30
		99977.02					0.001357
1239.02	103.00	4410.18	13.48	6.67	7.36	9116.32	0.35
	0.57484	185.66				179.84	13.34
		98909.59					0.001380
1215.94	104.00	4410.03	13.33	6.61	7.32	8896.95	0.35
	0.57679	184.04				178.28	13.38
		98052.11					0.001399
1192.85	105.00	4409.87	13.17	6.54	7.28	8680.71	0.35
	0.58271	182.39				176.70	13.41
		97182.67					0.001428
1157.00	106.00	4409.64	12.94	6.44	7.21	8347.66	0.35
	0.58562	179.80				174.21	13.47
		95816.16					0.001458
1132.32	107.00	4409.47	12.77	6.36	7.17	8120.31	0.35
	0.58464	178.00				172.48	13.51
		94865.76					0.001473

HYCHAN.OUT									
1113.32	108.00	4409.34	12.64	6.30	7.14	171.13	7945.25	13.54	0.001498
	0.58939	176.59							
		94124.12							
1096.03	109.00	4409.22	12.52	6.25	7.10	169.90	7784.56	13.57	0.001508
	0.58829	175.30							
		93444.57							
1092.94	110.00	4409.20	12.50	6.24	7.10	169.68	7757.01	13.57	0.001504
	0.58581	175.07							
		93324.67							
1109.13	111.00	4409.31	12.61	6.29	7.13	170.84	7904.76	13.55	0.001474
	0.57850	176.29							
		93964.55							
1138.57	112.00	4409.51	12.81	6.38	7.18	172.93	8172.76	13.50	0.001454
	0.57879	178.46							
		95112.17							
1132.31	113.00	4409.47	12.77	6.36	7.17	172.48	8118.47	13.51	0.001480
	0.58742	177.99							
		94865.34							
1117.91	114.00	4409.37	12.67	6.32	7.14	171.47	7987.12	13.53	0.001474
	0.58098	176.94							
		94306.59							
1143.92	115.00	4409.55	12.85	6.40	7.19	173.31	8221.88	13.49	0.001440
	0.57477	178.86							
		95319.62							
1180.73	116.00	4409.79	13.09	6.50	7.25	175.87	8562.46	13.43	0.001423
	0.57746	181.53							
		96729.08							
1174.96	117.00	4409.76	13.06	6.49	7.25	175.47	8514.70	13.44	0.001429
	0.57861	181.11							
		96506.87							
1170.45	118.00	4409.73	13.03	6.47	7.24	175.16	8470.41	13.45	0.001426
	0.57607	180.78							
		96336.41							
1172.30	119.00	4409.74	13.04	6.48	7.24	175.29	8487.60	13.44	0.001424
	0.57583	180.92							
		96407.55							
1187.45	120.00	4409.84	13.14	6.52	7.26	176.33	8625.75	13.42	0.001415
	0.57592	182.01							
		96983.66							
1191.83	121.00	4409.87	13.17	6.54	7.27	176.63	8669.53	13.41	0.001414
	0.57695	182.32							
		97148.23							
1189.96	122.00	4409.86	13.16	6.53	7.27	176.50	8651.81	13.42	0.001415
	0.57674	182.19							
		97076.93							
1175.24	123.00	4409.76	13.06	6.49	7.25	175.49	8514.98	13.44	0.001432
	0.57998	181.13							
		96517.27							
1168.66	124.00	4409.71	13.01	6.47	7.23	175.03	8452.88	13.45	0.001435
	0.57923	180.65							
		96266.96							
1153.55	125.00	4409.61	12.91	6.42	7.21	173.98	8316.23	13.47	0.001455
	0.58325	179.55							
		95687.19							
1148.93	126.00	4409.58	12.88	6.41	7.20	173.66	8269.40	13.48	0.001452
	0.58077	179.22							
		95511.12							
1147.36	127.00	4409.57	12.87	6.41	7.19	173.55	8255.24	13.48	0.001461
	0.58399	179.10							
		95449.80							
1133.84	128.00	4409.48	12.78	6.37	7.17	172.59	8132.96	13.51	0.001470
	0.58390	178.11							
		94925.83							

HYCHAN.OUT									
1129.43	129.00	4409.45	12.75	7.16	8091.23	0.35	6.35	172.28	0.001469
	0.58240	177.79							
		94755.99							
1127.92	130.00	4409.44	12.74	7.16	8076.86	0.35	6.35	172.18	0.001473
	0.58364	177.67							
		94696.41							
1114.61	131.00	4409.35	12.65	7.14	7958.20	0.35	6.31	171.23	0.001492
	0.58742	176.69							
		94175.90							
1113.46	132.00	4409.34	12.64	7.14	7945.76	0.35	6.30	171.15	0.001477
	0.58096	176.61							
		94133.45							
1140.22	133.00	4409.52	12.82	7.18	8187.97	0.35	6.38	173.05	0.001449
	0.57730	178.58							
		95176.21							
1148.96	134.00	4409.58	12.88	7.20	8269.04	0.35	6.41	173.66	0.001450
	0.58017	179.22							
		95512.05							
1149.06	135.00	4409.58	12.88	7.20	8270.22	0.35	6.41	173.67	0.001453
	0.58113	179.23							
		95516.17							
1149.03	136.00	4409.58	12.88	7.20	8270.06	0.35	6.41	173.66	0.001451
	0.58042	179.23							
		95514.76							
1149.02	137.00	4409.58	12.88	7.20	8269.96	0.35	6.41	173.66	0.001449
	0.57965	179.22							
		95514.41							
1149.03	138.00	4409.58	12.88	7.20	8270.15	0.35	6.41	173.66	0.001448
	0.57929	179.23							
		95514.73							
1148.99	139.00	4409.58	12.88	7.20	8269.71	0.35	6.41	173.66	0.001449
	0.57968	179.22							
		95513.31							
1147.41	140.00	4409.57	12.87	7.19	8255.47	0.35	6.41	173.55	0.001456
	0.58217	179.11							
		95451.41							
1133.85	141.00	4409.48	12.78	7.17	8132.91	0.35	6.37	172.59	0.001469
	0.58369	178.11							
		94925.96							
1129.17	142.00	4409.45	12.75	7.17	8091.42	0.35	6.35	172.26	0.001474
	0.58418	177.77							
		94745.74							
1129.08	143.00	4409.45	12.75	7.17	8091.12	0.35	6.35	172.26	0.001473
	0.58393	177.76							
		94742.20							
1129.07	144.00	4409.45	12.75	7.17	8090.58	0.35	6.35	172.26	0.001470
	0.58278	177.76							
		94742.02							
1127.68	145.00	4409.44	12.74	7.16	8077.08	0.35	6.35	172.16	0.001473
	0.58358	177.66							
		94686.92							
1114.71	146.00	4409.35	12.65	7.14	7958.30	0.35	6.31	171.24	0.001487
	0.58538	176.69							
		94179.64							
1110.21	147.00	4409.32	12.62	7.13	7916.97	0.35	6.30	170.92	0.001487
	0.58419	176.36							
		94005.02							
1110.18	148.00	4409.32	12.62	7.13	7917.08	0.35	6.29	170.92	0.001491
	0.58578	176.36							
		94003.69							
1110.22	149.00	4409.32	12.62	7.13	7916.91	0.35	6.30	170.92	0.001490
	0.58525	176.36							
		94005.29							



HYCHAN.OUT							
1110.24	150.00	4409.32	12.62	6.30	7.13	7917.05	0.35
	0.58578	176.37				170.92	13.54
		94005.87					0.001491
1109.33	151.00	4409.31	12.61	6.29	7.13	7908.06	0.35
	0.58682	176.30				170.85	13.55
		93969.92					0.001495
1100.36	152.00	4409.25	12.55	6.27	7.11	7824.05	0.35
	0.58799	175.63				170.21	13.56
		93615.95					0.001504
1092.93	153.00	4409.20	12.50	6.24	7.10	7756.54	0.35
	0.58607	175.07				169.68	13.57
		93323.22					0.001504
1091.53	154.00	4409.19	12.49	6.24	7.09	7743.02	0.35
	0.58587	174.97				169.58	13.58
		93268.14					0.001505
1090.13	155.00	4409.18	12.48	6.23	7.09	7729.70	0.35
	0.58829	174.86				169.48	13.58
		93211.88					0.001512
1080.48	156.00	4409.12	12.42	6.20	7.07	7637.95	0.35
	0.58537	174.13				168.78	13.59
		92829.08					0.001512
1101.46	157.00	4409.26	12.56	6.27	7.11	7834.41	0.35
	0.58340	175.71				170.29	13.56
		93662.22					0.001491
1110.20	158.00	4409.32	12.62	6.29	7.13	7916.52	0.35
	0.58498	176.36				170.92	13.54
		94004.36					0.001489
1110.24	159.00	4409.32	12.62	6.30	7.13	7917.02	0.35
	0.58535	176.37				170.92	13.54
		94006.05					0.001490
1110.20	160.00	4409.32	12.62	6.29	7.13	7916.88	0.35
	0.58427	176.36				170.92	13.54
		94004.29					0.001487
1110.29	161.00	4409.32	12.62	6.30	7.13	7917.12	0.35
	0.58411	176.37				170.92	13.54
		94008.11					0.001487
1110.35	162.00	4409.32	12.62	6.30	7.13	7917.11	0.35
	0.58480	176.37				170.93	13.54
		94010.23					0.001489
1110.23	163.00	4409.32	12.62	6.30	7.13	7916.98	0.35
	0.58426	176.36				170.92	13.54
		94005.65					0.001487
1110.23	164.00	4409.32	12.62	6.30	7.13	7916.89	0.35
	0.58336	176.36				170.92	13.54
		94005.70					0.001485
1108.77	165.00	4409.31	12.61	6.29	7.13	7903.39	0.35
	0.58800	176.25				170.81	13.55
		93947.42					0.001498
1095.90	166.00	4409.22	12.52	6.25	7.10	7783.99	0.35
	0.58693	175.29				169.89	13.57
		93439.42					0.001505
1091.52	167.00	4409.19	12.49	6.24	7.09	7743.02	0.35
	0.58734	174.97				169.58	13.58
		93267.73					0.001509
1091.55	168.00	4409.19	12.49	6.24	7.09	7743.07	0.35
	0.58750	174.97				169.58	13.58
		93268.95					0.001509
1091.51	169.00	4409.19	12.49	6.24	7.09	7742.80	0.35
	0.58690	174.97				169.58	13.58
		93267.30					0.001508
1091.52	170.00	4409.19	12.49	6.24	7.09	7743.08	0.35
	0.58636	174.97				169.58	13.58
		93267.84					0.001506

HYCHAN.OUT							
1091.56	171.00	4409.19	12.49	6.24	7.09	7743.17	0.35
	0.58639	174.97				169.58	13.58
		93269.25					0.001506
1091.48	172.00	4409.19	12.49	6.24	7.09	7742.58	0.35
	0.58618	174.96				169.57	13.58
		93266.03					0.001506
1090.18	173.00	4409.18	12.48	6.23	7.09	7729.85	0.35
	0.58797	174.86				169.48	13.58
		93213.70					0.001511
1077.91	174.00	4409.10	12.40	6.20	7.06	7609.75	0.35
	0.58828	173.94				168.59	13.60
		92725.18					0.001521
1073.91	175.00	4409.07	12.37	6.18	7.05	7569.13	0.35
	0.58738	173.64				168.30	13.61
		92567.05					0.001522
1073.89	176.00	4409.07	12.37	6.18	7.05	7568.99	0.35
	0.58749	173.64				168.30	13.61
		92566.20					0.001522
1073.92	177.00	4409.07	12.37	6.18	7.05	7569.18	0.35
	0.58741	173.64				168.30	13.61
		92567.34					0.001522
1073.94	178.00	4409.07	12.37	6.18	7.05	7569.02	0.35
	0.58729	173.64				168.31	13.61
		92568.10					0.001522
1073.90	179.00	4409.07	12.37	6.18	7.05	7568.72	0.35
	0.58748	173.64				168.30	13.61
		92566.74					0.001522
1076.58	180.00	4409.09	12.39	6.19	7.06	7597.29	0.35
	0.58511	173.84				168.50	13.60
		92674.91					0.001514
1101.44	181.00	4409.26	12.56	6.27	7.11	7834.31	0.35
	0.58199	175.71				170.29	13.56
		93661.32					0.001488
1111.78	182.00	4409.33	12.63	6.30	7.13	7930.55	0.35
	0.58210	176.48				171.03	13.54
		94067.35					0.001481
1125.04	183.00	4409.42	12.72	6.34	7.16	8049.92	0.35
	0.58126	177.46				171.97	13.52
		94585.87					0.001469
1129.39	184.00	4409.45	12.75	6.35	7.16	8090.82	0.35
	0.58226	177.78				172.28	13.51
		94754.35					0.001469
1129.06	185.00	4409.45	12.75	6.35	7.17	8090.76	0.35
	0.58169	177.76				172.26	13.51
		94741.66					0.001468
1129.07	186.00	4409.45	12.75	6.35	7.17	8091.13	0.35
	0.58410	177.76				172.26	13.51
		94742.08					0.001474
1129.21	187.00	4409.45	12.75	6.35	7.17	8091.21	0.35
	0.58406	177.77				172.27	13.51
		94747.56					0.001474
1129.12	188.00	4409.45	12.75	6.35	7.17	8091.06	0.35
	0.58436	177.76				172.26	13.51
		94744.07					0.001474
1129.08	189.00	4409.45	12.75	6.35	7.17	8090.82	0.35
	0.58119	177.76				172.26	13.51
		94742.21					0.001466
1129.06	190.00	4409.45	12.75	6.35	7.17	8091.08	0.35
	0.58267	177.76				172.26	13.51
		94741.45					0.001470
1127.91	191.00	4409.44	12.74	6.35	7.16	8076.94	0.35
	0.58253	177.67				172.17	13.52
		94696.20					0.001471

HYCHAN.OUT							
1114.68	192.00	4409.35	12.65	6.31	7.14	7958.28	0.35
	0.58703	176.69				171.23	13.54
		94178.43					0.001491
1110.23	193.00	4409.32	12.62	6.30	7.13	7916.94	0.35
	0.58631	176.36				170.92	13.54
		94005.56					0.001493
1110.23	194.00	4409.32	12.62	6.30	7.13	7917.22	0.35
	0.58394	176.37				170.92	13.54
		94005.81					0.001487
1110.22	195.00	4409.32	12.62	6.30	7.13	7917.14	0.35
	0.58447	176.36				170.92	13.54
		94005.48					0.001488
1110.21	196.00	4409.32	12.62	6.30	7.13	7917.01	0.35
	0.58484	176.36				170.92	13.54
		94004.67					0.001489
1110.21	197.00	4409.32	12.62	6.30	7.13	7917.00	0.35
	0.58564	176.36				170.92	13.54
		94004.75					0.001491
1110.21	198.00	4409.32	12.62	6.30	7.13	7917.12	0.35
	0.58473	176.36				170.92	13.54
		94004.82					0.001489
1110.19	199.00	4409.32	12.62	6.29	7.13	7916.67	0.35
	0.58553	176.36				170.92	13.54
		94004.15					0.001491

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3059

MAXIMUM DISCHARGE (CFS) = 16575.24 AT TIME = 87.95  
 MAXIMUM STAGE = 4411.91 AT TIME = 87.07

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4394.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4394.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4394.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4394.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
735.72	4.00	4403.80	9.10	5.73	4215.35	0.33		
	0.78060	136.62	5.39	132.75	14.59			0.002323
781.30	5.00	4405.91	11.21	6.95	5428.82	0.37		
	0.70113	160.84	4.86	156.02	13.91			0.002313
776.20	6.00	4405.87	11.17	6.92	5372.55	0.37		
	0.69806	160.35	4.84	155.56	13.93			0.002311
767.06	7.00	4405.79	11.09	6.87	5272.66	0.36		
	0.68976	159.50	4.81	154.74	13.95			0.002299
	8.00	4405.68	10.98	6.80	5122.95	0.36		

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		HYCHAN.OUT				
753.43	158.21	4.76	153.50	13.98	0.002286	
0.67945	82889.16					
9.00	4405.57	10.87	6.73	4977.58	0.36	
740.04	156.93	4.72	152.27	14.01	0.002276	
0.66984	82225.33					
10.00	4405.45	10.75	6.65	4833.86	0.36	
726.67	155.63	4.67	151.02	14.05	0.002265	
0.65992	81551.97					
11.00	4405.40	10.70	6.62	4771.70	0.36	
720.55	155.03	4.65	150.44	14.06	0.002262	
0.65597	81237.66					
12.00	4405.32	10.62	6.58	4683.09	0.36	
711.70	154.16	4.62	149.61	14.09	0.002252	
0.64870	80788.17					
13.00	4405.19	10.49	6.51	4534.86	0.35	
697.02	152.73	4.56	148.23	14.13	0.002242	
0.63832	80046.84					
14.00	4405.14	10.44	6.47	4469.42	0.35	
690.91	152.10	4.54	147.63	14.14	0.002240	
0.63483	79720.77					
15.00	4405.14	10.44	6.47	4469.06	0.35	
690.91	152.10	4.54	147.63	14.14	0.002239	
0.63477	79719.14					
16.00	4405.14	10.44	6.47	4468.98	0.35	
690.90	152.10	4.54	147.63	14.14	0.002239	
0.63475	79718.68					
17.00	4405.14	10.44	6.47	4468.98	0.35	
690.90	152.10	4.54	147.63	14.14	0.002239	
0.63460	79718.73					
18.00	4405.14	10.44	6.47	4470.17	0.35	
691.24	152.13	4.54	147.65	14.14	0.002240	
0.63519	79732.77					
19.00	4405.22	10.52	6.51	4556.15	0.35	
700.15	153.01	4.58	148.50	14.12	0.002253	
0.64342	80190.71					
20.00	4405.35	10.65	6.59	4711.26	0.36	
715.36	154.51	4.63	149.95	14.08	0.002266	
0.65464	80971.10					
21.00	4405.47	10.77	6.67	4862.44	0.36	
729.51	155.89	4.68	151.27	14.04	0.002276	
0.66465	81685.36					
22.00	4405.52	10.82	6.70	4923.92	0.36	
735.20	156.46	4.70	151.81	14.03	0.002277	
0.66753	81979.12					
23.00	4405.53	10.83	6.70	4926.98	0.36	
735.49	156.48	4.70	151.84	14.03	0.002279	
0.66842	81992.27					
24.00	4405.61	10.91	6.75	5028.29	0.36	
744.97	157.40	4.73	152.71	14.00	0.002296	
0.67798	82465.40					
25.00	4405.81	11.11	6.88	5287.18	0.36	
768.26	159.63	4.81	154.86	13.94	0.002320	
0.69669	83623.88					
26.00	4406.04	11.34	7.03	5597.15	0.37	
795.95	162.23	4.91	157.36	13.88	0.002346	
0.71815	84973.25					
27.00	4406.25	11.55	7.17	5891.44	0.37	
821.74	164.61	4.99	159.64	13.82	0.002362	
0.73588	86207.32					
28.00	4406.32	11.62	7.21	5984.75	0.37	
830.01	165.35	5.02	160.35	13.80	0.002362	
0.73998	86589.58					
29.00	4406.32	11.62	7.21	5992.78	0.37	

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		HYCHAN.OUT					
830.65	165.41	5.02	160.41	13.80	0.002367		
0.74181	86621.62						
30.00	4406.40	11.70	7.27	6102.49	0.37		
839.86	166.25	5.05	161.21	13.78	0.002378		
0.74977	87055.23						
31.00	4406.43	11.73	7.29	6152.12	0.38		
844.10	166.62	5.07	161.57	13.77	0.002377		
0.75126	87248.76						
32.00	4406.44	11.74	7.29	6160.70	0.38		
844.83	166.69	5.07	161.64	13.77	0.002380		
0.75281	87283.56						
33.00	4406.52	11.82	7.34	6275.24	0.38		
854.41	167.55	5.10	162.47	13.75	0.002390		
0.76042	87731.14						
34.00	4406.55	11.85	7.37	6326.02	0.38		
858.76	167.93	5.11	162.83	13.74	0.002389		
0.76249	87925.80						
35.00	4406.54	11.84	7.36	6317.20	0.38		
858.07	167.86	5.11	162.76	13.74	0.002386		
0.76111	87892.59						
36.00	4406.47	11.77	7.31	6202.76	0.38		
848.61	167.01	5.08	161.95	13.76	0.002374		
0.75271	87450.39						
37.00	4406.43	11.73	7.28	6143.95	0.37		
843.51	166.56	5.06	161.52	13.77	0.002369		
0.74854	87218.47						
38.00	4406.35	11.65	7.23	6034.70	0.37		
834.57	165.74	5.04	160.73	13.79	0.002363		
0.74258	86791.73						
39.00	4406.32	11.62	7.21	5985.02	0.37		
830.02	165.35	5.02	160.35	13.80	0.002363		
0.74016	86589.94						
40.00	4406.32	11.62	7.21	5985.21	0.37		
830.08	165.35	5.02	160.35	13.80	0.002364		
0.74043	86591.15						
41.00	4406.32	11.62	7.21	5984.84	0.37		
830.00	165.35	5.02	160.35	13.80	0.002363		
0.74010	86589.20						
42.00	4406.32	11.62	7.21	5985.02	0.37		
830.02	165.35	5.02	160.35	13.80	0.002360		
0.73929	86589.33						
43.00	4406.32	11.62	7.21	5992.93	0.37		
830.67	165.41	5.02	160.41	13.80	0.002366		
0.74147	86622.05						
44.00	4406.40	11.70	7.27	6102.47	0.37		
839.88	166.25	5.05	161.22	13.78	0.002374		
0.74851	87056.23						
45.00	4406.44	11.74	7.29	6160.64	0.38		
844.87	166.69	5.07	161.64	13.77	0.002381		
0.75293	87285.88						
46.00	4406.52	11.82	7.35	6285.07	0.38		
855.21	167.62	5.10	162.53	13.75	0.002395		
0.76244	87768.25						
47.00	4406.64	11.94	7.43	6460.30	0.38		
869.77	168.92	5.15	163.77	13.72	0.002407		
0.77352	88437.22						
48.00	4406.75	12.05	7.50	6633.65	0.38		
884.04	170.17	5.20	164.97	13.69	0.002421		
0.78475	89085.41						
49.00	4406.86	12.16	7.58	6806.03	0.38		
898.05	171.38	5.24	166.14	13.66	0.002433		
0.79540	89716.27						
50.00	4406.97	12.27	7.65	6977.52	0.39		

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				HYCHAN.OUT			
911.82		172.57		5.28	167.28	13.63	0.002449
	0.80747	90332.34					
	51.00	4407.09	12.39		7.73	7164.23	0.39
926.67		173.84		5.33	168.50	13.60	0.002466
	0.82026	90990.04					
	52.00	4407.26	12.56		7.85	7443.62	0.39
948.54		175.69		5.40	170.27	13.56	0.002483
	0.83635	91948.01					
	53.00	4407.32	12.62		7.89	7555.41	0.39
957.43		176.42		5.43	170.97	13.54	0.002488
	0.84265	92326.23					
	54.00	4407.44	12.74		7.94	7715.50	0.39
971.54		177.64		5.47	172.14	13.52	0.002509
	0.85629	92956.95					
	55.00	4407.82	13.12		8.03	8200.24	0.39
1021.44		181.78		5.62	176.11	13.43	0.002550
	0.89414	95098.47					
	56.00	4408.40	13.70		8.16	8987.74	0.39
1100.92		188.08		5.85	182.15	13.29	0.002591
	0.94622	98362.08					
	57.00	4409.14	14.44		8.33	10032.16	0.39
1203.76		195.87		6.15	189.62	13.14	0.002659
	1.01985	102393.03					
	58.00	4409.91	15.21		8.53	11230.09	0.39
1316.86		203.98		6.46	197.39	12.98	0.002703
	1.08869	106591.03					
	59.00	4410.44	15.74		8.69	12156.58	0.39
1398.70		209.56		6.67	202.73	12.88	0.002736
	1.13966	109472.92					
	60.00	4410.89	16.18		8.84	12976.00	0.39
1468.14		211.43		6.94	207.12	12.80	0.002768
	1.19937	111845.42					
	61.00	4411.25	16.55		8.97	13728.62	0.39
1530.16		212.16		7.21	210.68	12.73	0.002783
	1.25228	113768.02					
	62.00	4411.42	16.72		9.07	14182.10	0.39
1563.36		212.51		7.36	212.42	12.70	0.002798
	1.28441	114707.58					
	63.00	4411.55	16.85		9.15	14523.84	0.39
1587.66		212.76		7.46	213.66	12.68	0.002804
	1.30554	115375.38					
	64.00	4411.64	16.94		9.21	14780.10	0.39
1605.10		212.95		7.54	214.58	12.66	0.002812
	1.32237	115871.13					
	65.00	4411.71	17.01		9.24	14952.84	0.40
1617.66		213.09		7.59	215.25	12.65	0.002822
	1.33663	116233.59					
	66.00	4411.77	17.07		9.33	15202.37	0.40
1629.71		213.21		7.64	215.84	12.64	0.002846
	1.35739	116553.95					
	67.00	4411.77	17.06		9.44	15379.53	0.40
1629.47		213.19		7.64	215.76	12.64	0.002833
	1.35111	116511.61					
	68.00	4411.76	17.06		9.47	15421.46	0.40
1628.79		213.18		7.64	215.71	12.64	0.002850
	1.35871	116482.09					
	69.00	4411.76	17.06		9.48	15447.72	0.40
1629.24		213.19		7.64	215.73	12.64	0.002835
	1.35187	116494.38					
	70.00	4411.76	17.06		9.48	15436.97	0.40
1628.90		213.18		7.64	215.70	12.64	0.002833
	1.35067	116479.59					
	71.00	4411.76	17.06		9.47	15425.52	0.40

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				HYCHAN.OUT			
1629.01	213.19	7.64	215.72	12.64	0.002832		
1.35055	116486.80						
72.00	4411.76	17.06	9.48	15443.43	0.40		
1629.00	213.18	7.64	215.71	12.64	0.002828		
1.34851	116485.55						
73.00	4411.76	17.06	9.48	15436.57	0.40		
1628.89	213.18	7.64	215.71	12.64	0.002831		
1.34976	116481.90						
74.00	4411.76	17.06	9.52	15507.70	0.41		
1628.80	213.18	7.64	215.69	12.64	0.002855		
1.36104	116474.17						
75.00	4411.75	17.05	9.60	15623.57	0.41		
1628.12	213.17	7.64	215.62	12.65	0.002860		
1.36325	116436.06						
76.00	4411.75	17.05	9.63	15673.41	0.41		
1627.80	213.16	7.64	215.59	12.65	0.002862		
1.36393	116420.31						
77.00	4411.75	17.05	9.57	15581.88	0.41		
1628.38	213.17	7.64	215.63	12.65	0.002858		
1.36220	116442.55						
78.00	4411.75	17.05	9.63	15679.68	0.41		
1628.15	213.16	7.64	215.61	12.65	0.002871		
1.36844	116431.70						
79.00	4411.74	17.04	9.69	15760.23	0.41		
1627.18	213.15	7.63	215.53	12.65	0.002863		
1.36403	116387.38						
80.00	4411.73	17.03	9.85	16022.71	0.42		
1626.43	213.13	7.63	215.43	12.65	0.002880		
1.37161	116332.67						
81.00	4411.73	17.03	9.73	15806.82	0.42		
1625.33	213.12	7.63	215.37	12.65	0.002873		
1.36708	116302.29						
82.00	4411.73	17.03	9.73	15831.85	0.42		
1626.59	213.13	7.63	215.43	12.65	0.002878		
1.37080	116334.58						
83.00	4411.73	17.03	9.71	15783.42	0.41		
1626.12	213.12	7.63	215.41	12.65	0.002868		
1.36554	116323.30						
84.00	4411.73	17.03	9.66	15713.40	0.41		
1626.63	213.13	7.63	215.46	12.65	0.002871		
1.36715	116350.04						
85.00	4411.74	17.04	9.64	15686.83	0.41		
1626.93	213.14	7.63	215.49	12.65	0.002854		
1.35921	116364.16						
86.00	4411.73	17.03	9.65	15703.50	0.41		
1626.58	213.13	7.63	215.47	12.65	0.002862		
1.36295	116352.82						
87.00	4411.74	17.04	9.66	15708.77	0.41		
1626.75	213.14	7.63	215.47	12.65	0.002865		
1.36452	116354.91						
88.00	4411.73	17.03	9.85	16027.84	0.42		
1626.48	213.13	7.63	215.43	12.65	0.002886		
1.37429	116330.96						
89.00	4411.73	17.03	9.65	15675.47	0.41		
1625.13	213.12	7.63	215.42	12.65	0.002828		
1.34570	116326.90						
90.00	4411.67	16.97	9.31	15017.84	0.40		
1613.57	213.01	7.57	214.88	12.66	0.002802		
1.32430	116036.59						
91.00	4411.45	16.75	9.15	14384.36	0.39		
1571.34	212.57	7.39	212.69	12.70	0.002784		
1.28420	114850.26						
92.00	4411.26	16.56	9.05	13904.18	0.39		

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				HYCHAN.OUT			
1535.57		212.19		7.24	210.82	12.73	0.002772
	1.25187	113843.42					
93.00		4410.98	16.28	8.95	13302.69	0.39	
1486.50		211.63		7.02	208.06	12.78	0.002749
	1.20486	112354.65					
94.00		4410.70	16.00	8.83	12723.17	0.39	
1440.55		211.06		6.83	205.25	12.83	0.002732
	1.16337	110836.99					
95.00		4410.42	15.72	8.73	12193.70	0.39	
1397.27		209.34		6.67	202.52	12.88	0.002708
	1.12780	109360.91					
96.00		4410.17	15.47	8.65	11751.48	0.39	
1358.13		206.71		6.57	200.00	12.93	0.002684
	1.10057	107999.73					
97.00		4409.86	15.16	8.56	11227.76	0.39	
1310.91		203.45		6.44	196.88	12.99	0.002669
	1.07304	106312.55					
98.00		4409.59	14.89	8.49	10793.20	0.39	
1271.49		200.67		6.34	194.21	13.04	0.002645
	1.04582	104875.88					
99.00		4409.33	14.63	8.42	10384.36	0.39	
1233.43		197.94		6.23	191.60	13.10	0.002627
	1.02156	103463.10					
100.00		4409.14	14.44	8.37	10087.89	0.39	
1205.58		195.91		6.15	189.66	13.13	0.002609
	1.00192	102415.21					
101.00		4408.89	14.19	8.31	9716.01	0.39	
1169.79		193.24		6.05	187.10	13.19	0.002589
	0.97793	101033.42					
102.00		4408.67	13.97	8.25	9397.05	0.39	
1138.88		190.92		5.97	184.87	13.23	0.002573
	0.95759	99832.01					
103.00		4408.47	13.77	8.20	9120.32	0.39	
1111.58		188.84		5.89	182.88	13.28	0.002569
	0.94358	98753.51					
104.00		4408.32	13.62	8.16	8900.21	0.39	
1090.07		187.17		5.82	181.28	13.31	0.002554
	0.92803	97892.25					
105.00		4408.16	13.46	8.13	8685.65	0.39	
1068.47		185.47		5.76	179.65	13.35	0.002534
	0.91104	97011.96					
106.00		4407.91	13.21	8.07	8352.84	0.39	
1035.02		182.80		5.66	177.09	13.40	0.002520
	0.89053	95626.91					
107.00		4407.74	13.04	8.03	8123.32	0.39	
1011.86		180.93		5.59	175.30	13.44	0.002512
	0.87678	94662.94					
108.00		4407.61	12.91	8.00	7948.27	0.39	
994.03		179.47		5.54	173.90	13.48	0.002510
	0.86736	93906.73					
109.00		4407.48	12.78	7.96	7786.55	0.39	
977.97		178.15		5.49	172.63	13.50	0.002496
	0.85498	93222.27					
110.00		4407.46	12.76	7.95	7756.01	0.39	
975.05		177.92		5.48	172.41	13.51	0.002502
	0.85554	93099.73					
111.00		4407.58	12.88	7.98	7900.49	0.39	
990.07		179.18		5.53	173.62	13.48	0.002514
	0.86680	93752.54					
112.00		4407.79	13.09	8.03	8169.88	0.39	
1017.76		181.45		5.61	175.79	13.43	0.002524
	0.88330	94927.94					
113.00		4407.74	13.04	8.03	8121.83	0.39	

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				HYCHAN.OUT			
1011.91		180.94		5.59	175.31	13.44	0.002511
	0.87640	94665.48					
	114.00	4407.64	12.94	8.00	7986.61	0.39	
998.30		179.84		5.55	174.25	13.47	0.002513
	0.87051	94094.82					
	115.00	4407.83	13.12	8.03	8215.49	0.39	
1022.57		181.85		5.62	176.18	13.42	0.002537
	0.89003	95138.05					
	116.00	4408.08	13.38	8.10	8559.62	0.39	
1057.14		184.62		5.73	178.83	13.36	0.002542
	0.90834	96569.08					
	117.00	4408.04	13.34	8.10	8516.78	0.39	
1051.70		184.15		5.71	178.39	13.37	0.002532
	0.90233	96329.03					
	118.00	4408.01	13.31	8.09	8470.28	0.39	
1047.52		183.83		5.70	178.08	13.38	0.002534
	0.90086	96162.91					
	119.00	4408.02	13.32	8.09	8486.36	0.39	
1049.18		183.97		5.70	178.21	13.38	0.002539
	0.90358	96234.30					
	120.00	4408.13	13.43	8.11	8623.62	0.39	
1063.49		185.11		5.75	179.31	13.35	0.002553
	0.91527	96826.06					
	121.00	4408.16	13.46	8.12	8669.51	0.39	
1067.50		185.42		5.76	179.60	13.35	0.002553
	0.91703	96984.98					
	122.00	4408.14	13.44	8.12	8653.03	0.39	
1065.79		185.28		5.75	179.47	13.35	0.002541
	0.91223	96912.77					
	123.00	4408.04	13.34	8.10	8517.08	0.39	
1052.08		184.18		5.71	178.41	13.37	0.002537
	0.90441	96343.95					
	124.00	4408.00	13.30	8.08	8454.17	0.39	
1046.00		183.70		5.69	177.95	13.38	0.002532
	0.89959	96094.65					
	125.00	4407.89	13.19	8.06	8318.73	0.39	
1031.65		182.54		5.65	176.85	13.41	0.002523
	0.88978	95496.54					
	126.00	4407.86	13.16	8.05	8269.13	0.39	
1027.60		182.22		5.64	176.54	13.42	0.002524
	0.88824	95330.78					
	127.00	4407.85	13.15	8.05	8256.53	0.39	
1026.07		182.10		5.63	176.42	13.42	0.002519
	0.88556	95265.20					
	128.00	4407.75	13.05	8.03	8134.76	0.39	
1013.32		181.06		5.60	175.42	13.44	0.002515
	0.87822	94727.12					
	129.00	4407.72	13.02	8.02	8091.24	0.39	
1009.30		180.73		5.58	175.11	13.45	0.002513
	0.87586	94559.12					
	130.00	4407.71	13.01	8.01	8077.83	0.39	
1007.85		180.62		5.58	175.00	13.45	0.002510
	0.87413	94497.68					
	131.00	4407.61	12.91	8.00	7960.24	0.39	
995.17		179.57		5.54	174.00	13.47	0.002509
	0.86770	93958.27					
	132.00	4407.61	12.91	7.99	7943.56	0.39	
994.13		179.50		5.54	173.93	13.47	0.002514
	0.86865	93921.93					
	133.00	4407.80	13.10	8.03	8184.03	0.39	
1019.27		181.57		5.61	175.91	13.43	0.002524
	0.88403	94993.09					
	134.00	4407.86	13.16	8.05	8269.04	0.39	

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				HYCHAN.OUT			
1027.65		182.23		5.64	176.54	13.42	0.002523
	0.88787	95332.11					
	135.00	4407.86	13.16	8.05	8270.18	0.39	
1027.76		182.23		5.64	176.55	13.42	0.002525
	0.88847	95336.06					
	136.00	4407.86	13.16	8.05	8269.99	0.39	
1027.75		182.23		5.64	176.55	13.42	0.002526
	0.88888	95335.09					
	137.00	4407.86	13.16	8.05	8270.01	0.39	
1027.72		182.23		5.64	176.55	13.42	0.002524
	0.88813	95334.52					
	138.00	4407.86	13.16	8.05	8270.14	0.39	
1027.72		182.23		5.64	176.55	13.42	0.002523
	0.88776	95334.86					
	139.00	4407.86	13.16	8.05	8269.76	0.39	
1027.68		182.23		5.64	176.54	13.42	0.002523
	0.88786	95333.36					
	140.00	4407.85	13.15	8.05	8256.41	0.39	
1026.16		182.10		5.64	176.42	13.42	0.002526
	0.88823	95268.41					
	141.00	4407.75	13.05	8.03	8135.00	0.39	
1013.36		181.06		5.60	175.42	13.44	0.002516
	0.87880	94728.16					
	142.00	4407.72	13.02	8.02	8091.50	0.39	
1008.80		180.70		5.58	175.08	13.45	0.002521
	0.87836	94541.09					
	143.00	4407.72	13.02	8.02	8091.34	0.39	
1008.67		180.69		5.58	175.07	13.45	0.002513
	0.87540	94535.96					
	144.00	4407.72	13.02	8.02	8090.53	0.39	
1008.71		180.69		5.58	175.07	13.45	0.002513
	0.87522	94537.79					
	145.00	4407.71	13.01	8.02	8077.85	0.39	
1007.39		180.58		5.58	174.97	13.45	0.002510
	0.87372	94481.89					
	146.00	4407.62	12.92	8.00	7960.34	0.39	
995.34		179.58		5.54	174.01	13.47	0.002510
	0.86813	93964.03					
	147.00	4407.58	12.88	7.99	7917.05	0.39	
991.13		179.25		5.53	173.68	13.48	0.002505
	0.86448	93788.68					
	148.00	4407.58	12.88	7.99	7917.05	0.39	
991.19		179.24		5.53	173.68	13.48	0.002508
	0.86539	93786.85					
	149.00	4407.58	12.88	7.99	7916.98	0.39	
991.18		179.25		5.53	173.68	13.48	0.002506
	0.86462	93789.32					
	150.00	4407.58	12.88	7.99	7917.11	0.39	
991.20		179.25		5.53	173.68	13.48	0.002504
	0.86415	93788.81					
	151.00	4407.58	12.88	7.99	7908.62	0.39	
990.30		179.18		5.53	173.62	13.48	0.002507
	0.86453	93754.18					
	152.00	4407.52	12.81	7.97	7825.75	0.39	
982.01		178.49		5.50	172.96	13.50	0.002499
	0.85781	93398.12					
	153.00	4407.46	12.76	7.96	7757.04	0.39	
975.11		177.91		5.48	172.40	13.51	0.002497
	0.85406	93098.53					
	154.00	4407.45	12.75	7.95	7743.10	0.39	
973.81		177.81		5.48	172.31	13.51	0.002497
	0.85347	93045.34					
	155.00	4407.44	12.74	7.95	7730.69	0.39	

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		HYCHAN.OUT				
972.58	177.70	5.47	172.20	13.51	0.002493	
0.85134	92990.15					
156.00	4407.38	12.67	7.92	7637.77	0.39	
963.98	176.97	5.45	171.50	13.53	0.002497	
0.84876	92608.97					
157.00	4407.52	12.82	7.97	7830.78	0.39	
982.95	178.58	5.50	173.05	13.49	0.002505	
0.86019	93446.33					
158.00	4407.58	12.88	7.99	7916.34	0.39	
991.13	179.25	5.53	173.68	13.48	0.002508	
0.86524	93788.85					
159.00	4407.58	12.88	7.99	7917.13	0.39	
991.24	179.25	5.53	173.68	13.48	0.002506	
0.86477	93789.46					
160.00	4407.58	12.88	7.99	7916.80	0.39	
991.20	179.24	5.53	173.68	13.48	0.002505	
0.86442	93788.01					
161.00	4407.58	12.88	7.99	7917.16	0.39	
991.21	179.25	5.53	173.69	13.48	0.002504	
0.86412	93792.41					
162.00	4407.59	12.89	7.99	7916.97	0.39	
991.30	179.26	5.53	173.70	13.48	0.002512	
0.86680	93797.21					
163.00	4407.58	12.88	7.99	7916.89	0.39	
991.13	179.25	5.53	173.69	13.48	0.002512	
0.86681	93790.83					
164.00	4407.58	12.88	7.99	7916.97	0.39	
991.08	179.25	5.53	173.68	13.48	0.002509	
0.86551	93789.35					
165.00	4407.57	12.87	7.99	7904.54	0.39	
989.75	179.13	5.53	173.57	13.48	0.002510	
0.86556	93729.63					
166.00	4407.48	12.78	7.96	7785.86	0.39	
977.84	178.14	5.49	172.62	13.50	0.002497	
0.85545	93215.97					
167.00	4407.45	12.75	7.95	7743.09	0.39	
973.80	177.81	5.48	172.31	13.51	0.002499	
0.85387	93045.05					
168.00	4407.45	12.75	7.95	7743.02	0.39	
973.82	177.81	5.48	172.31	13.51	0.002499	
0.85393	93046.10					
169.00	4407.45	12.75	7.95	7742.83	0.39	
973.80	177.81	5.48	172.31	13.51	0.002499	
0.85390	93044.92					
170.00	4407.45	12.75	7.95	7743.11	0.39	
973.83	177.81	5.48	172.31	13.51	0.002495	
0.85281	93045.93					
171.00	4407.45	12.75	7.95	7743.15	0.39	
973.83	177.81	5.48	172.31	13.51	0.002496	
0.85286	93046.47					
172.00	4407.45	12.75	7.95	7742.56	0.39	
973.76	177.81	5.48	172.30	13.51	0.002497	
0.85334	93043.25					
173.00	4407.44	12.74	7.95	7730.83	0.39	
972.60	177.71	5.47	172.21	13.51	0.002493	
0.85137	92991.00					
174.00	4407.36	12.66	7.91	7611.40	0.39	
961.99	176.79	5.44	171.33	13.53	0.002485	
0.84367	92516.14					
175.00	4407.33	12.63	7.90	7569.14	0.39	
958.47	176.51	5.43	171.05	13.54	0.002484	
0.84186	92369.38					
176.00	4407.33	12.63	7.90	7569.01	0.39	

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				HYCHAN.OUT			
958.46		176.50		5.43	171.05	13.54	0.002484
	0.84159	92368.48					
	177.00	4407.33	12.63		7.90	7569.16	0.39
958.48		176.51		5.43	171.05	13.54	0.002484
	0.84172	92369.58					
	178.00	4407.33	12.63		7.90	7569.01	0.39
958.50		176.51		5.43	171.06	13.54	0.002485
	0.84197	92370.45					
	179.00	4407.33	12.63		7.90	7568.74	0.39
958.49		176.51		5.43	171.05	13.54	0.002484
	0.84176	92369.45					
	180.00	4407.35	12.65		7.91	7595.48	0.39
960.59		176.69		5.44	171.23	13.54	0.002498
	0.84724	92466.75					
	181.00	4407.52	12.82		7.97	7830.56	0.39
982.94		178.58		5.50	173.05	13.49	0.002506
	0.86061	93445.70					
	182.00	4407.60	12.90		7.99	7929.41	0.39
992.62		179.37		5.53	173.80	13.48	0.002509
	0.86651	93852.73					
	183.00	4407.69	12.99		8.01	8047.93	0.39
1005.12		180.40		5.57	174.79	13.45	0.002516
	0.87476	94388.25					
	184.00	4407.72	13.02		8.02	8090.99	0.39
1009.26		180.73		5.58	175.11	13.45	0.002512
	0.87541	94557.88					
	185.00	4407.72	13.02		8.02	8090.60	0.39
1008.66		180.69		5.58	175.07	13.45	0.002519
	0.87748	94536.27					
	186.00	4407.72	13.02		8.02	8091.28	0.39
1008.67		180.69		5.58	175.07	13.45	0.002515
	0.87600	94536.62					
	187.00	4407.72	13.02		8.02	8091.20	0.39
1008.86		180.71		5.58	175.08	13.45	0.002515
	0.87616	94545.37					
	188.00	4407.72	13.02		8.02	8091.18	0.39
1008.72		180.70		5.58	175.07	13.45	0.002515
	0.87594	94539.76					
	189.00	4407.72	13.02		8.02	8090.68	0.39
1008.65		180.69		5.58	175.07	13.45	0.002512
	0.87504	94536.65					
	190.00	4407.72	13.02		8.02	8090.93	0.39
1008.63		180.69		5.58	175.07	13.45	0.002519
	0.87745	94536.18					
	191.00	4407.71	13.01		8.02	8077.98	0.39
1007.86		180.61		5.58	175.00	13.45	0.002509
	0.87376	94497.50					
	192.00	4407.62	12.92		8.00	7960.33	0.39
995.29		179.58		5.54	174.00	13.47	0.002508
	0.86736	93962.12					
	193.00	4407.58	12.88		7.99	7916.97	0.39
991.21		179.25		5.53	173.68	13.48	0.002514
	0.86734	93789.12					
	194.00	4407.58	12.88		7.99	7917.20	0.39
991.15		179.25		5.53	173.69	13.48	0.002504
	0.86397	93790.55					
	195.00	4407.58	12.88		7.99	7917.31	0.39
991.21		179.25		5.53	173.68	13.48	0.002504
	0.86397	93789.45					
	196.00	4407.58	12.88		7.99	7916.92	0.39
991.09		179.25		5.53	173.68	13.48	0.002505
	0.86437	93788.80					
	197.00	4407.58	12.88		7.99	7916.92	0.39

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				HYCHAN.OUT			
991.22		179.24		5.53	173.68	13.48	0.002509
	0.86563	93788.16					
198.00		4407.58	12.88	7.99	7917.20	0.39	
991.21		179.25		5.53	173.68	13.48	0.002505
	0.86443	93788.32					
199.00		4407.58	12.88	7.99	7916.54	0.39	
991.17		179.24		5.53	173.68	13.48	0.002512
	0.86671	93788.15					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3135

MAXIMUM DISCHARGE (CFS) = 16677.12 AT TIME = 87.96  
 MAXIMUM STAGE = 4408.73 AT TIME = 87.95

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE
SHEAR	STRESS	SURFACE	AREA					
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4392.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4392.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4392.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4392.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
723.92	4.00	4401.21	8.71	5.62	5.67	4102.70	0.34	0.002728
	0.95716	128.74	5.62	92.66	10.64			
786.04	5.00	4403.50	11.00	4.77	6.91	5430.31	0.37	0.002716
	0.80843	164.79	4.77	118.49	10.77			
780.37	6.00	4403.47	10.97	4.75	6.89	5373.02	0.37	0.002711
	0.80398	164.22	4.75	118.09	10.77			
770.67	7.00	4403.40	10.90	4.72	6.84	5274.63	0.37	0.002697
	0.79507	163.14	4.72	117.31	10.76			
755.83	8.00	4403.30	10.80	4.68	6.78	5124.94	0.36	0.002682
	0.78299	161.55	4.68	116.17	10.76			
741.23	9.00	4403.20	10.70	4.63	6.72	4979.48	0.36	0.002670
	0.77194	159.97	4.63	115.04	10.75			
726.77	10.00	4403.10	10.60	4.59	6.65	4835.60	0.36	0.002657
	0.76073	158.40	4.59	113.92	10.75			
719.92	11.00	4403.05	10.55	4.57	6.63	4772.07	0.36	0.002657
	0.75677	157.69	4.57	113.41	10.75			
710.56	12.00	4402.99	10.49	4.54	6.59	4685.28	0.36	0.002639
	0.74701	156.62	4.54	112.64	10.74			
694.71	13.00	4402.87	10.37	4.49	6.53	4536.68	0.36	0.002627
		154.81	4.49	111.35	10.74			

HYCHAN.OUT									
0.73567	66809.25								
14.00	4402.83	10.33	6.50	4469.46	0.36				
687.89	154.11	4.46	110.85	10.73	0.002627				
0.73172	66507.59								
15.00	4402.83	10.33	6.50	4469.07	0.36				
687.89	154.12	4.46	110.85	10.73	0.002627				
0.73161	66510.06								
16.00	4402.83	10.33	6.50	4468.97	0.36				
687.88	154.12	4.46	110.85	10.73	0.002627				
0.73169	66509.52								
17.00	4402.83	10.33	6.50	4468.98	0.36				
687.88	154.12	4.46	110.85	10.73	0.002627				
0.73156	66509.61								
18.00	4402.83	10.33	6.49	4469.84	0.36				
688.23	154.17	4.46	110.89	10.73	0.002631				
0.73281	66532.01								
19.00	4402.90	10.40	6.53	4554.02	0.36				
697.54	155.26	4.49	111.67	10.74	0.002648				
0.74225	67002.77								
20.00	4403.02	10.52	6.60	4709.11	0.36				
713.84	157.09	4.54	112.98	10.74	0.002663				
0.75497	67787.47								
21.00	4403.12	10.62	6.67	4860.64	0.36				
729.26	158.78	4.59	114.19	10.75	0.002674				
0.76645	68514.47								
22.00	4403.16	10.66	6.69	4923.89	0.36				
735.65	159.43	4.61	114.66	10.75	0.002673				
0.76974	68793.38								
23.00	4403.17	10.67	6.69	4926.67	0.36				
735.96	159.47	4.62	114.68	10.75	0.002679				
0.77137	68809.34								
24.00	4403.24	10.74	6.74	5025.85	0.36				
745.82	160.59	4.64	115.49	10.76	0.002698				
0.78199	69292.23								
25.00	4403.41	10.91	6.85	5283.07	0.37				
770.88	163.28	4.72	117.41	10.76	0.002731				
0.80459	70448.32								
26.00	4403.61	11.11	6.98	5593.29	0.37				
800.99	166.44	4.81	119.67	10.77	0.002757				
0.82790	71804.59								
27.00	4403.79	11.29	7.10	5888.41	0.37				
829.26	169.33	4.90	121.75	10.78	0.002776				
0.84818	73048.55								
28.00	4403.85	11.35	7.13	5984.74	0.37				
838.88	170.27	4.93	122.42	10.79	0.002775				
0.85306	73450.83								
29.00	4403.85	11.35	7.14	5992.30	0.37				
839.54	170.34	4.93	122.47	10.79	0.002781				
0.85535	73480.75								
30.00	4403.92	11.42	7.18	6101.03	0.37				
849.47	171.35	4.96	123.20	10.79	0.002789				
0.86284	73917.18								
31.00	4403.95	11.45	7.20	6152.01	0.38				
854.44	171.83	4.97	123.54	10.79	0.002790				
0.86563	74121.46								
32.00	4403.95	11.45	7.20	6160.15	0.38				
855.18	171.91	4.97	123.59	10.79	0.002795				
0.86765	74156.56								
33.00	4404.02	11.52	7.25	6273.72	0.38				
865.54	172.96	5.00	124.35	10.80	0.002803				
0.87545	74607.00								
34.00	4404.05	11.55	7.27	6325.92	0.38				
870.67	173.45	5.02	124.70	10.80	0.002805				

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HYCHAN.OUT									
0.87864	74817.32								
35.00	4404.04	11.54	7.26	6317.81	0.38				
870.00	173.37	5.02	124.64	10.80	0.002798				
0.87605	74784.43								
36.00	4403.98	11.48	7.22	6204.21	0.38				
859.77	172.34	4.99	123.90	10.79	0.002789				
0.86824	74340.90								
37.00	4403.94	11.44	7.20	6144.48	0.38				
853.90	171.77	4.97	123.49	10.79	0.002783				
0.86324	74096.36								
38.00	4403.88	11.38	7.15	6036.29	0.37				
844.25	170.79	4.94	122.80	10.79	0.002775				
0.85596	73678.20								
39.00	4403.85	11.35	7.13	5985.09	0.37				
838.95	170.27	4.93	122.42	10.79	0.002775				
0.85305	73452.12								
40.00	4403.85	11.35	7.13	5985.19	0.37				
838.99	170.28	4.93	122.43	10.79	0.002775				
0.85327	73456.65								
41.00	4403.85	11.35	7.13	5984.85	0.37				
838.89	170.26	4.93	122.42	10.79	0.002775				
0.85305	73450.35								
42.00	4403.85	11.35	7.13	5984.93	0.37				
838.92	170.27	4.93	122.42	10.79	0.002775				
0.85307	73452.59								
43.00	4403.85	11.35	7.14	5992.46	0.37				
839.57	170.34	4.93	122.47	10.79	0.002781				
0.85526	73482.01								
44.00	4403.92	11.42	7.18	6100.97	0.37				
849.50	171.35	4.96	123.20	10.79	0.002789				
0.86279	73918.84								
45.00	4403.95	11.45	7.20	6160.07	0.38				
855.22	171.91	4.97	123.60	10.79	0.002796				
0.86797	74158.05								
46.00	4404.02	11.52	7.25	6282.97	0.38				
866.33	173.04	5.01	124.41	10.80	0.002811				
0.87826	74644.46								
47.00	4404.12	11.62	7.32	6458.13	0.38				
882.46	174.64	5.05	125.55	10.80	0.002825				
0.89082	75328.86								
48.00	4404.22	11.72	7.38	6631.66	0.38				
898.34	176.19	5.10	126.66	10.81	0.002838				
0.90306	75995.86								
49.00	4404.32	11.82	7.44	6804.07	0.38				
913.98	177.70	5.14	127.74	10.81	0.002852				
0.91521	76645.71								
50.00	4404.41	11.91	7.51	6975.41	0.38				
929.35	179.17	5.19	128.80	10.81	0.002866				
0.92772	77278.37								
51.00	4404.51	12.01	7.57	7161.71	0.39				
945.95	180.75	5.23	129.93	10.82	0.002885				
0.94215	77956.70								
52.00	4404.65	12.15	7.67	7440.63	0.39				
970.44	183.05	5.30	131.57	10.83	0.002900				
0.95939	78944.95								
53.00	4404.71	12.21	7.70	7554.77	0.39				
981.04	184.00	5.33	132.25	10.83	0.002907				
0.96708	79351.89								
54.00	4404.80	12.30	7.75	7711.28	0.39				
995.09	185.41	5.37	133.26	10.83	0.002956				
0.99006	79958.45								
55.00	4405.12	12.62	7.85	8190.75	0.39				
1043.33	190.42	5.48	136.85	10.85	0.003062				

## HYCHAN.OUT

1121.80	1.04698	82111.88	13.11	5.66	8.00	8973.85	0.39	0.003201
	56.00	4405.61				142.46	10.87	
1224.31	1.13023	85476.50	13.72	5.89	8.18	10015.87	0.39	0.003360
	57.00	4406.22				149.44	10.89	
1340.85	1.23407	89666.97	14.36	6.14	8.36	11215.54	0.39	0.003471
	58.00	4406.86				156.85	10.92	
1429.92	1.32993	94112.77	14.82	6.34	8.49	12145.84	0.39	0.003536
	59.00	4407.32				162.10	10.94	
1507.26	1.39781	97257.36	15.20	6.50	8.60	12967.03	0.39	0.003593
	60.00	4407.70				166.45	10.95	
1580.33	1.45797	99868.66	15.53	6.66	8.69	13735.84	0.39	0.003583
	61.00	4408.03				170.27	10.96	
1624.73	1.49020	102159.15	15.71	6.77	8.74	14202.60	0.39	0.003558
	62.00	4408.21				172.30	10.97	
1659.04	1.50349	103378.50	15.84	6.85	8.78	14563.75	0.39	0.003540
	63.00	4408.34				173.81	10.98	
1684.00	1.51390	104283.95	15.93	6.91	8.80	14825.89	0.39	0.003531
	64.00	4408.43				174.88	10.98	
1701.12	1.52343	104926.95	15.99	6.95	8.82	15004.89	0.39	0.003528
	65.00	4408.49				175.64	10.98	
1722.32	1.53073	105385.09	16.06	7.01	8.86	15267.46	0.39	0.003476
	66.00	4408.56				176.42	10.98	
1731.43	1.52046	105853.54	16.07	7.04	8.92	15446.22	0.39	0.003452
	67.00	4408.57				176.48	10.98	
1733.31	1.51715	105886.47	16.07	7.05	8.94	15489.11	0.39	0.003461
	68.00	4408.56				176.45	10.98	
1734.47	1.52294	105872.65	16.07	7.06	8.94	15514.40	0.39	0.003455
	69.00	4408.57				176.48	10.98	
1734.52	1.52135	105890.40	16.07	7.06	8.94	15505.88	0.39	0.003448
	70.00	4408.57				176.47	10.98	
1733.96	1.51820	105883.43	16.07	7.05	8.94	15493.35	0.39	0.003480
	71.00	4408.57				176.47	10.98	
1734.33	1.53212	105884.60	16.07	7.06	8.94	15511.18	0.39	0.003466
	72.00	4408.57				176.47	10.98	
1734.18	1.52600	105883.00	16.07	7.06	8.94	15504.15	0.39	0.003460
	73.00	4408.57				176.47	10.98	
1736.48	1.52355	105880.08	16.07	7.06	8.97	15575.82	0.39	0.003465
	74.00	4408.57				176.47	10.98	
1741.09	1.52764	105882.34	16.07	7.08	9.01	15692.16	0.40	0.003413
	75.00	4408.57				176.46	10.98	
1743.32	1.50850	105876.75	16.07	7.09	9.03	15739.69	0.40	0.003443
	76.00	4408.57				176.46	10.98	

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## HYCHAN.OUT

1740.67	1.52391	105874.14	16.07	7.08	8.99	15648.54	0.40	0.003460
	77.00	4408.57				176.48	10.98	
		245.80						
1742.94	1.52898	105887.09	16.07	7.09	9.03	15747.26	0.40	0.003424
	78.00	4408.57				176.47	10.98	
		245.78						
1746.13	1.51525	105881.70	16.06	7.11	9.06	15828.27	0.40	0.003396
	79.00	4408.56				176.44	10.98	
		245.75						
1756.25	1.50592	105865.09	16.07	7.15	9.16	16093.66	0.40	0.003393
	80.00	4408.57				176.46	10.98	
		245.77						
1749.57	1.51285	105876.22	16.06	7.12	9.08	15882.73	0.40	0.003388
	81.00	4408.56				176.38	10.98	
		245.66						
1751.48	1.50563	105829.67	16.07	7.13	9.09	15915.51	0.40	0.003387
	82.00	4408.57				176.46	10.98	
		245.77						
1749.95	1.50596	105876.67	16.06	7.12	9.07	15865.59	0.40	0.003418
	83.00	4408.56				176.43	10.98	
		245.73						
1746.97	1.51898	105858.84	16.06	7.11	9.04	15794.88	0.40	0.003410
	84.00	4408.56				176.44	10.98	
		245.74						
1745.91	1.51269	105862.40	16.06	7.10	9.03	15767.38	0.40	0.003397
	85.00	4408.56				176.45	10.98	
		245.75						
1746.32	1.50572	105868.51	16.06	7.11	9.04	15784.97	0.40	0.003429
	86.00	4408.56				176.43	10.98	
		245.73						
1747.00	1.52077	105857.43	16.06	7.11	9.04	15792.03	0.40	0.003415
	87.00	4408.56				176.45	10.98	
		245.75						
1757.02	1.51475	105867.51	16.07	7.15	9.17	16103.91	0.40	0.003342
	88.00	4408.57				176.47	10.98	
		245.79						
1744.09	1.49091	105882.04	16.06	7.10	9.03	15745.16	0.40	0.003450
	89.00	4408.56				176.34	10.98	
		245.60						
1710.18	1.52897	105802.95	15.99	7.00	8.82	15084.68	0.39	0.003488
	90.00	4408.49				175.53	10.98	
		244.47						
1649.42	1.52257	105318.77	15.76	6.85	8.75	14433.48	0.39	0.003516
	91.00	4408.26				172.91	10.97	
		240.81						
1602.06	1.50295	103747.23	15.57	6.74	8.70	13936.40	0.39	0.003520
	92.00	4408.07				170.72	10.97	
		237.74						
1543.55	1.48029	102430.23	15.31	6.61	8.63	13318.64	0.39	0.003505
	93.00	4407.81				167.76	10.96	
		233.61						
1487.54	1.44523	100656.76	15.06	6.48	8.56	12735.64	0.39	0.003473
	94.00	4407.56				164.84	10.95	
		229.53						
1437.21	1.40460	98906.62	14.82	6.37	8.49	12202.44	0.39	0.003443
	95.00	4407.32				162.11	10.94	
		225.71						
1394.25	1.36795	97265.64	14.60	6.27	8.43	11759.10	0.39	0.003398
	96.00	4407.10				159.61	10.93	
		222.22						
1343.86	1.33042	95767.51	14.34	6.16	8.36	11234.42	0.39	0.003350
	97.00	4406.84				156.59	10.92	
		218.00						

## HYCHAN.OUT

1301.83	1.28882	93953.03	14.12	6.07	8.30	10798.67	0.39	0.003300
	98.00	4406.62				154.03	10.91	
	1.25009	92418.70						
1262.06	99.00	4406.40	13.90	5.98	8.23	10389.38	0.39	0.003261
		210.92				151.53	10.90	
	1.21740	90915.31						
1233.00	100.00	4406.24	13.74	5.92	8.19	10092.34	0.39	0.003214
		208.32				149.67	10.89	
	1.18705	89799.63						
1196.86	101.00	4406.03	13.53	5.84	8.12	9720.97	0.39	0.003175
		204.97				147.27	10.89	
	1.15678	88361.91						
1165.30	102.00	4405.84	13.34	5.77	8.07	9401.23	0.39	0.003133
		202.02				145.16	10.88	
	1.12765	87093.44						
1137.63	103.00	4405.68	13.18	5.71	8.02	9124.23	0.39	0.003104
		199.39				143.27	10.87	
	1.10522	85961.27						
1115.58	104.00	4405.55	13.05	5.65	7.98	8902.92	0.39	0.003076
		197.29				141.77	10.87	
	1.08533	85061.74						
1094.14	105.00	4405.42	12.92	5.61	7.94	8689.57	0.39	0.003027
		195.17				140.25	10.86	
	1.05881	84152.56						
1060.91	106.00	4405.21	12.71	5.53	7.88	8357.50	0.39	0.002987
		191.87				137.89	10.85	
	1.03065	82731.77						
1037.18	107.00	4405.06	12.56	5.47	7.83	8126.08	0.39	0.002967
		189.53				136.22	10.84	
	1.01299	81730.17						
1019.34	108.00	4404.95	12.45	5.43	7.80	7951.00	0.39	0.002931
		187.73				134.92	10.84	
	0.99325	80953.83						
1002.94	109.00	4404.84	12.34	5.39	7.77	7787.98	0.39	0.002921
		186.09				133.75	10.83	
	0.98228	80248.53						
999.52	110.00	4404.83	12.33	5.38	7.76	7755.20	0.39	0.002931
		185.79				133.53	10.83	
	0.98402	80120.51						
1013.82	111.00	4404.92	12.42	5.41	7.79	7896.99	0.39	0.002979
		187.31				134.62	10.84	
	1.00599	80773.14						
1041.33	112.00	4405.10	12.60	5.48	7.84	8167.46	0.39	0.002996
		190.10				136.62	10.85	
	1.02422	81974.35						
1037.04	113.00	4405.06	12.56	5.47	7.83	8124.38	0.39	0.002954
		189.54				136.22	10.84	
	1.00871	81731.55						
1023.00	114.00	4404.98	12.48	5.44	7.81	7986.43	0.39	0.002977
		188.16				135.23	10.84	
	1.01009	81139.02						
1045.50	115.00	4405.13	12.63	5.49	7.85	8210.07	0.39	0.003029
		190.57				136.96	10.85	
	1.03704	82173.88						
1080.54	116.00	4405.34	12.84	5.57	7.92	8556.87	0.39	0.003042
		194.02				139.43	10.86	
	1.05698	83657.52						
1076.82	117.00	4405.31	12.81	5.56	7.91	8518.54	0.39	0.003032
		193.51				139.07	10.86	
	1.05271	83439.16						
1071.93	118.00	4405.28	12.78	5.55	7.90	8470.37	0.39	0.003040
		193.09				138.76	10.85	

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1073.37	119.00	1.05293	4405.29	83256.35	12.79	5.55	7.91	8485.17	0.39	0.003047
			193.25	83326.08				138.88	10.85	
1087.22	120.00	1.05618	4405.38	83931.01	12.88	5.59	7.93	8622.05	0.39	0.003058
			194.66	84105.13				139.89	10.86	
1091.91	121.00	1.06564	4405.41	84033.98	12.91	5.60	7.94	8669.47	0.39	0.003059
			195.06	84105.13				140.18	10.86	
1090.45	122.00	1.06861	4405.40	84033.98	12.90	5.59	7.94	8653.91	0.39	0.003052
			194.90	84033.98				140.06	10.86	
1077.07	123.00	1.06540	4405.31	83456.13	12.81	5.56	7.91	8518.91	0.39	0.003032
			193.55	83456.13				139.09	10.86	
1070.64	124.00	1.05268	4405.28	83196.25	12.78	5.55	7.90	8455.31	0.39	0.003022
			192.95	83196.25				138.66	10.85	
1056.81	125.00	1.04625	4405.19	82582.07	12.69	5.52	7.87	8320.65	0.39	0.002994
			191.52	82582.07				137.64	10.85	
1051.96	126.00	1.03107	4405.16	82408.57	12.66	5.50	7.86	8268.97	0.39	0.003002
			191.11	82408.57				137.35	10.85	
1050.66	127.00	1.03126	4405.15	82341.41	12.65	5.50	7.86	8257.48	0.39	0.002985
			190.96	82341.41				137.24	10.85	
1038.32	128.00	1.02472	4405.07	81792.93	12.57	5.47	7.84	8136.45	0.39	0.002975
			189.68	81792.93				136.32	10.84	
1033.82	129.00	1.01622	4405.05	81619.75	12.55	5.46	7.83	8091.28	0.39	0.002975
			189.28	81619.75				136.03	10.84	
1032.51	130.00	1.01401	4405.04	81555.59	12.54	5.46	7.82	8078.69	0.39	0.002967
			189.13	81555.59				135.93	10.84	
1020.33	131.00	1.01060	4404.96	81002.86	12.46	5.43	7.80	7962.08	0.39	0.002945
			187.84	81002.86				135.00	10.84	
1018.36	132.00	0.99816	4404.95	80954.16	12.45	5.42	7.80	7941.64	0.39	0.002974
			187.73	80954.16				134.92	10.84	
1042.66	133.00	1.00673	4405.11	82038.35	12.61	5.48	7.85	8180.64	0.39	0.003006
			190.25	82038.35				136.73	10.85	
1051.98	134.00	1.02802	4405.16	82410.91	12.66	5.50	7.86	8268.98	0.39	0.003003
			191.12	82410.91				137.35	10.85	
1052.13	135.00	1.03156	4405.16	82416.66	12.66	5.50	7.86	8270.17	0.39	0.003001
			191.13	82416.66				137.36	10.85	
1052.12	136.00	1.03097	4405.16	82414.38	12.66	5.50	7.86	8270.02	0.39	0.003004
			191.13	82414.38				137.36	10.85	
1052.09	137.00	1.03187	4405.16	82413.96	12.66	5.50	7.86	8270.02	0.39	0.003006
			191.13	82413.96				137.36	10.85	
1052.08	138.00	1.03254	4405.16	8269.69	12.66	5.50	7.86	8270.11	0.39	0.003005
			191.13	8269.69				137.36	10.85	
1052.04	139.00	1.03229	4405.16		12.66	5.50	7.86	8269.69	0.39	0.003004
			191.12					137.35	10.85	

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1050.73	1.03197	82411.59	12.65	5.50	7.86	8257.53	0.39	0.002993
	140.00	4405.15						
		190.97				137.24	10.85	
1038.31	1.02758	82346.14	12.57	5.47	7.84	8136.61	0.39	0.002977
	141.00	4405.07						
		189.69				136.33	10.84	
1033.47	1.01694	81795.37	12.54	5.46	7.83	8091.75	0.39	0.002971
	142.00	4405.04						
		189.22				135.99	10.84	
1033.37	1.01257	81594.27	12.54	5.46	7.83	8091.14	0.39	0.002970
	143.00	4405.04						
		189.20				135.98	10.84	
1033.36	1.01213	81588.34	12.54	5.46	7.83	8090.51	0.39	0.002973
	144.00	4405.04						
		189.21				135.98	10.84	
1032.17	1.01330	81589.76	12.53	5.46	7.83	8078.70	0.39	0.002967
	145.00	4405.03						
		189.07				135.89	10.84	
1020.44	1.01059	81531.25	12.46	5.43	7.80	7962.24	0.39	0.002951
	146.00	4404.96						
		187.86				135.02	10.84	
1015.79	1.00031	81011.14	12.43	5.42	7.79	7916.89	0.39	0.002949
	147.00	4404.93						
		187.43				134.71	10.84	
1015.97	0.99734	80826.16	12.43	5.42	7.79	7917.08	0.39	0.002946
	148.00	4404.93						
		187.45				134.72	10.84	
1015.86	0.99631	80834.65	12.43	5.42	7.79	7916.93	0.39	0.002947
	149.00	4404.93						
		187.44				134.72	10.84	
1015.93	0.99659	80829.94	12.43	5.42	7.79	7917.09	0.39	0.002945
	150.00	4404.93						
		187.45				134.72	10.84	
1015.03	0.99588	80832.80	12.42	5.42	7.79	7909.37	0.39	0.002938
	151.00	4404.92						
		187.34				134.65	10.84	
1006.84	0.99332	80788.23	12.37	5.40	7.77	7827.00	0.39	0.002925
	152.00	4404.87						
		186.49				134.04	10.84	
999.86	0.98535	80424.07	12.33	5.38	7.76	7757.66	0.39	0.002926
	153.00	4404.83						
		185.80				133.54	10.83	
998.35	0.98247	80125.12	12.32	5.38	7.76	7743.07	0.39	0.002925
	154.00	4404.82						
		185.66				133.44	10.83	
997.23	0.98137	80065.62	12.31	5.37	7.75	7731.44	0.39	0.002911
	155.00	4404.81						
		185.54				133.35	10.83	
988.49	0.97634	80012.53	12.26	5.35	7.73	7637.86	0.39	0.002923
	156.00	4404.76						
		184.68				132.74	10.83	
1006.68	0.97630	79644.04	12.38	5.40	7.78	7827.41	0.39	0.002943
	157.00	4404.88						
		186.58				134.10	10.84	
1015.79	0.99070	80461.36	12.43	5.42	7.79	7916.34	0.39	0.002948
	158.00	4404.93						
		187.43				134.71	10.84	
1015.97	0.99691	80826.49	12.43	5.42	7.79	7917.07	0.39	0.002947
	159.00	4404.93						
		187.45				134.73	10.84	
1015.96	0.99653	80835.52	12.43	5.42	7.79	7916.85	0.39	0.002949
	160.00	4404.93						
		187.45				134.72	10.84	

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	0.99752	80834.25						
1015.87	161.00	4404.93	12.43	5.42	7.79	7917.11	0.39	0.002951
		187.44				134.72	10.84	
	0.99787	80829.59						
1015.88	162.00	4404.93	12.43	5.42	7.79	7917.14	0.39	0.002950
		187.44				134.72	10.84	
	0.99775	80832.03						
1015.74	163.00	4404.93	12.43	5.42	7.79	7916.83	0.39	0.002953
		187.42				134.71	10.84	
	0.99859	80823.73						
1015.71	164.00	4404.93	12.43	5.42	7.79	7916.99	0.39	0.002954
		187.42				134.70	10.84	
	0.99885	80821.12						
1014.57	165.00	4404.92	12.42	5.42	7.79	7905.53	0.39	0.002933
		187.29				134.61	10.84	
	0.99142	80764.38						
1002.84	166.00	4404.84	12.34	5.39	7.77	7787.37	0.39	0.002925
		186.07				133.74	10.83	
	0.98382	80243.47						
998.33	167.00	4404.82	12.32	5.38	7.76	7743.05	0.39	0.002921
		185.66				133.44	10.83	
	0.98013	80064.89						
998.34	168.00	4404.82	12.32	5.38	7.76	7743.04	0.39	0.002920
		185.66				133.44	10.83	
	0.97971	80065.83						
998.31	169.00	4404.82	12.32	5.38	7.76	7742.81	0.39	0.002923
		185.66				133.44	10.83	
	0.98063	80064.60						
998.35	170.00	4404.82	12.32	5.38	7.76	7743.08	0.39	0.002923
		185.66				133.44	10.83	
	0.98062	80066.46						
998.34	171.00	4404.82	12.32	5.38	7.76	7743.12	0.39	0.002923
		185.66				133.44	10.83	
	0.98090	80066.09						
998.28	172.00	4404.82	12.32	5.38	7.76	7742.58	0.39	0.002924
		185.65				133.44	10.83	
	0.98122	80063.31						
997.25	173.00	4404.81	12.31	5.37	7.75	7731.69	0.39	0.002912
		185.54				133.35	10.83	
	0.97669	80012.95						
986.55	174.00	4404.74	12.24	5.35	7.72	7612.74	0.39	0.002901
		184.48				132.60	10.83	
	0.96819	79560.26						
982.33	175.00	4404.72	12.22	5.34	7.71	7569.17	0.39	0.002901
		184.11				132.33	10.83	
	0.96583	79400.04						
982.33	176.00	4404.72	12.22	5.34	7.71	7569.02	0.39	0.002901
		184.11				132.33	10.83	
	0.96580	79400.32						
982.33	177.00	4404.72	12.22	5.34	7.71	7569.15	0.39	0.002900
		184.11				132.33	10.83	
	0.96562	79400.70						
982.38	178.00	4404.72	12.22	5.34	7.70	7569.00	0.39	0.002901
		184.11				132.34	10.83	
	0.96598	79401.55						
982.35	179.00	4404.72	12.22	5.34	7.70	7568.75	0.39	0.002901
		184.11				132.34	10.83	
	0.96570	79401.30						
984.39	180.00	4404.73	12.23	5.34	7.71	7594.10	0.39	0.002922
		184.32				132.48	10.83	
	0.97367	79489.55						
1006.70	181.00	4404.88	12.38	5.40	7.78	7827.28	0.39	0.002950
		186.58				134.10	10.84	



## HYCHAN.OUT

	0.99335	80461.86						
1017.09	182.00	4404.94	12.44	5.42	7.80	7928.39	0.39	0.002964
	1.00267	80892.88						
1029.14	183.00	4405.02	12.52	5.45	7.82	8046.26	0.39	0.002977
	1.01222	81433.22						
1033.74	184.00	4405.04	12.54	5.46	7.83	8091.00	0.39	0.002974
	1.01373	81617.09						
1033.35	185.00	4405.04	12.54	5.46	7.83	8090.74	0.39	0.002980
	1.01550	81587.13						
1033.36	186.00	4405.04	12.54	5.46	7.83	8091.17	0.39	0.002970
	1.01233	81587.18						
1033.43	187.00	4405.04	12.54	5.46	7.83	8091.19	0.39	0.002971
	1.01236	81595.00						
1033.37	188.00	4405.04	12.54	5.46	7.83	8091.17	0.39	0.002969
	1.01187	81588.53						
1033.32	189.00	4405.04	12.54	5.46	7.83	8090.66	0.39	0.002979
	1.01531	81585.08						
1033.31	190.00	4405.04	12.54	5.46	7.83	8091.03	0.39	0.002976
	1.01432	81583.88						
1032.52	191.00	4405.04	12.54	5.46	7.82	8078.75	0.39	0.002971
	1.01195	81556.34						
1020.42	192.00	4404.96	12.46	5.43	7.80	7962.07	0.39	0.002946
	0.99841	81008.81						
1015.95	193.00	4404.93	12.43	5.42	7.79	7917.16	0.39	0.002944
	0.99558	80833.30						
1015.80	194.00	4404.93	12.43	5.42	7.79	7916.98	0.39	0.002949
	0.99743	80826.26						
1015.94	195.00	4404.93	12.43	5.42	7.79	7917.35	0.39	0.002946
	0.99649	80832.95						
1015.72	196.00	4404.93	12.43	5.42	7.79	7916.88	0.39	0.002947
	0.99674	80822.36						
1015.96	197.00	4404.93	12.43	5.42	7.79	7916.96	0.39	0.002946
	0.99635	80835.20						
1015.97	198.00	4404.93	12.43	5.42	7.79	7917.14	0.39	0.002947
	0.99671	80834.54						
1015.87	199.00	4404.93	12.43	5.42	7.79	7916.69	0.39	0.002946
	0.99647	80830.40						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3212

MAXIMUM DISCHARGE (CFS) = 16674.79 AT TIME = 87.13  
 MAXIMUM STAGE = 4406.75 AT TIME = 87.13

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
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HYCHAN.OUT									
AREA	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED	SHEAR	STRESS	SURFACE	AREA					
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)		
	(LB/FT^2)	(FT^2)		(FT)					
0.00	0.00	4391.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4391.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4391.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4391.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
830.42	4.00	4399.02	8.02	9.74	4.78	3966.19	10.13	0.30	0.001777
	1.08023	85.26				81.27			
922.00	5.00	4401.60	10.60	7.82	5.89	5432.26	10.59	0.32	0.001776
	0.86654	117.90				112.20			
914.83	6.00	4401.56	10.56	7.79	5.87	5373.56	10.58	0.32	0.001773
	0.86194	117.40				111.72			
903.68	7.00	4401.50	10.50	7.75	5.84	5277.10	10.57	0.32	0.001768
	0.85514	116.61				110.98			
885.91	8.00	4401.40	10.40	7.68	5.79	5127.48	10.56	0.32	0.001765
	0.84567	115.35				109.78			
868.40	9.00	4401.30	10.30	7.61	5.74	4981.97	10.54	0.32	0.001761
	0.83653	114.10				108.59			
851.05	10.00	4401.20	10.20	7.54	5.68	4837.89	10.53	0.31	0.001761
	0.82860	112.84				107.41			
842.33	11.00	4401.15	10.15	7.51	5.67	4772.63	10.52	0.31	0.001760
	0.82446	112.21				106.81			
831.50	12.00	4401.09	10.09	7.46	5.64	4687.83	10.51	0.31	0.001752
	0.81584	111.41				106.05			
812.93	13.00	4400.99	9.99	7.39	5.58	4539.10	10.49	0.31	0.001751
	0.80732	110.05				104.76			
804.12	14.00	4400.94	9.94	7.35	5.56	4469.60	10.48	0.31	0.001754
	0.80451	109.40				104.14			
804.06	15.00	4400.93	9.93	7.35	5.56	4469.07	10.48	0.31	0.001754
	0.80434	109.39				104.14			
804.05	16.00	4400.93	9.93	7.35	5.56	4468.97	10.48	0.31	0.001754
	0.80449	109.39				104.14			
804.05	17.00	4400.93	9.93	7.35	5.56	4468.98	10.48	0.31	0.001754
	0.80463	109.39				104.14			
804.34	18.00	4400.94	9.94	7.35	5.56	4469.56	10.48	0.31	0.001758
	0.80630	109.41				104.16			
		54683.98							

HYCHAN.OUT							
814.96	19.00	4401.00	10.00	5.58	4551.35	0.31	
	0.81449	110.20	7.40	104.91	10.49	0.001765	
	20.00	4401.11	10.11	5.64	4706.35	0.31	
834.34		111.63	7.47	106.26	10.51	0.001769	
	0.82485	55786.53					
	21.00	4401.21	10.21	5.70	4858.27	0.31	
852.88		112.98	7.55	107.54	10.53	0.001769	
	0.83349	56458.15					
	22.00	4401.26	10.26	5.72	4923.76	0.31	
861.07		113.57	7.58	108.10	10.54	0.001767	
	0.83596	56751.96					
	23.00	4401.26	10.26	5.72	4926.38	0.31	
861.40		113.60	7.58	108.12	10.54	0.001770	
	0.83768	56763.76					
	24.00	4401.32	10.32	5.76	5022.74	0.32	
872.64		114.41	7.63	108.89	10.55	0.001778	
	0.84632	57167.15					
	25.00	4401.49	10.49	5.85	5277.93	0.32	
902.70		116.55	7.75	110.92	10.57	0.001787	
	0.86372	58230.91					
	26.00	4401.69	10.69	5.95	5588.05	0.32	
939.08		119.10	7.89	113.33	10.60	0.001789	
	0.88005	59497.93					
	27.00	4401.87	10.87	6.04	5884.44	0.32	
973.45		121.46	8.01	115.57	10.63	0.001790	
	0.89513	60674.26					
	28.00	4401.93	10.93	6.07	5984.64	0.32	
985.58		122.29	8.06	116.35	10.64	0.001788	
	0.89919	61084.04					
	29.00	4401.94	10.94	6.07	5991.71	0.32	
986.37		122.34	8.06	116.40	10.64	0.001790	
	0.90052	61110.80					
	30.00	4402.00	11.00	6.11	6098.94	0.32	
998.25		123.15	8.11	117.16	10.65	0.001787	
	0.90405	61511.33					
	31.00	4402.03	11.03	6.12	6151.96	0.33	
1004.56		123.57	8.13	117.57	10.66	0.001789	
	0.90745	61721.87					
	32.00	4402.04	11.04	6.13	6159.49	0.33	
1005.37		123.63	8.13	117.62	10.66	0.001793	
	0.90988	61749.36					
	33.00	4402.10	11.10	6.16	6271.58	0.33	
1017.82		124.46	8.18	118.41	10.67	0.001791	
	0.91391	62165.14					
	34.00	4402.13	11.13	6.18	6325.94	0.33	
1024.29		124.89	8.20	118.82	10.67	0.001793	
	0.91736	62379.07					
	35.00	4402.13	11.13	6.17	6318.40	0.33	
1023.57		124.85	8.20	118.77	10.67	0.001787	
	0.91402	62354.87					
	36.00	4402.07	11.07	6.14	6206.36	0.33	
1011.26		124.02	8.15	117.99	10.66	0.001791	
	0.91141	61943.75					
	37.00	4402.03	11.03	6.12	6145.12	0.32	
1003.94		123.53	8.13	117.53	10.66	0.001789	
	0.90726	61700.64					
	38.00	4401.97	10.97	6.09	6038.36	0.32	
992.20		122.73	8.08	116.77	10.65	0.001787	
	0.90133	61305.28					
	39.00	4401.93	10.93	6.07	5985.14	0.32	
985.70		122.30	8.06	116.36	10.64	0.001787	
	0.89868	61087.81					

HYCHAN.OUT							
985.69	40.00	4401.93	10.93	8.06	6.07	5985.20	0.32
	0.89858	122.30			116.36	10.64	0.001787
	41.00	61087.60					
985.62		4401.93	10.93	8.06	6.07	5984.86	0.32
	0.89837	122.29			116.35	10.64	0.001786
	42.00	61085.37					
985.62		4401.93	10.93	8.06	6.07	5984.89	0.32
	0.90043	122.29			116.35	10.64	0.001790
	43.00	61085.47					
986.38		4401.94	10.94	8.06	6.07	5991.91	0.32
	0.90168	122.34			116.40	10.64	0.001792
	44.00	61111.23					
998.27		4402.00	11.00	8.11	6.11	6098.85	0.32
	0.90541	123.15			117.17	10.65	0.001790
	45.00	61512.00					
1005.42		4402.04	11.04	8.13	6.13	6159.37	0.33
	0.91040	123.63			117.62	10.66	0.001794
	46.00	61751.11					
1018.67		4402.10	11.10	8.18	6.17	6280.20	0.33
	0.91608	124.52			118.46	10.67	0.001795
	47.00	62193.63					
1038.35		4402.20	11.20	8.25	6.22	6455.33	0.33
	0.92592	125.83			119.71	10.68	0.001798
	48.00	62845.20					
1057.74		4402.30	11.30	8.32	6.27	6628.87	0.33
	0.93392	127.11			120.92	10.70	0.001799
	49.00	63482.00					
1076.90		4402.40	11.40	8.39	6.32	6801.49	0.33
	0.94291	128.37			122.11	10.71	0.001801
	50.00	64105.74					
1095.75		4402.49	11.49	8.46	6.36	6972.49	0.33
	0.94953	129.60			123.27	10.73	0.001800
	51.00	64714.36					
1116.12		4402.59	11.59	8.53	6.41	7158.38	0.33
	0.95987	130.91			124.51	10.74	0.001804
	52.00	65367.01					
1146.20		4402.74	11.74	8.63	6.49	7436.45	0.33
	0.96996	132.83			126.33	10.76	0.001801
	53.00	66320.62					
1159.73		4402.80	11.80	8.68	6.51	7553.93	0.33
	0.97596	133.68			127.13	10.77	0.001803
	54.00	66745.32					
1175.59		4402.88	11.88	8.73	6.56	7706.94	0.34
	0.99800	134.68			128.08	10.78	0.001832
	55.00	67241.49					
1226.52		4403.12	12.12	8.90	6.67	8180.79	0.34
	1.04509	137.84			131.07	10.82	0.001882
	56.00	68811.02					
1310.35		4403.50	12.50	9.17	6.84	8959.51	0.34
	1.13031	142.92			135.87	10.87	0.001976
	57.00	71331.07					
1420.67		4403.98	12.98	9.51	7.04	9998.50	0.34
	1.21473	149.38			141.98	10.94	0.002047
	58.00	74540.48					
1549.87		4404.53	13.53	9.89	7.23	11198.33	0.35
	1.28621	156.68			148.88	11.01	0.002084
	59.00	78161.79					
1653.19		4404.94	13.94	10.18	7.34	12132.67	0.35
	1.32814	162.32			154.21	11.06	0.002090
	60.00	80962.50					
1744.31		4405.30	14.30	10.43	7.43	12953.20	0.35
	1.36666	167.16			158.79	11.10	0.002099
		83363.09					

HYCHAN.OUT							
1834.78	61.00	4405.65	14.64	7.48	13733.31	0.34	0.002065
	1.37598	171.85	10.68		163.22	11.15	
		85689.30					
1895.48	62.00	4405.87	14.87	7.50	14216.71	0.34	0.002016
	1.36317	174.93	10.84		166.13	11.17	
		87216.68					
1943.26	63.00	4406.04	15.04	7.51	14593.37	0.34	0.001978
	1.35246	177.32	10.96		168.38	11.19	
		88400.97					
1978.70	64.00	4406.17	15.17	7.51	14863.58	0.34	0.001961
	1.35217	179.07	11.05		170.04	11.21	
		89272.97					
2002.19	65.00	4406.26	15.26	7.51	15043.33	0.34	0.001946
	1.34898	180.24	11.11		171.14	11.22	
		89848.89					
2035.04	66.00	4406.37	15.37	7.52	15308.63	0.34	0.001856
	1.29642	181.85	11.19		172.66	11.23	
		90647.47					
2056.11	67.00	4406.45	15.45	7.53	15490.37	0.34	0.001848
	1.29670	182.87	11.24		173.63	11.24	
		91156.79					
2061.30	68.00	4406.47	15.47	7.54	15536.61	0.34	0.001833
	1.28780	183.12	11.26		173.87	11.24	
		91280.75					
2063.45	69.00	4406.47	15.47	7.54	15560.72	0.34	0.001848
	1.29833	183.23	11.26		173.97	11.24	
		91333.13					
2063.80	70.00	4406.48	15.48	7.54	15554.16	0.34	0.001843
	1.29511	183.24	11.26		173.98	11.24	
		91340.89					
2062.41	71.00	4406.47	15.47	7.54	15542.95	0.34	0.001874
	1.31678	183.18	11.26		173.92	11.24	
		91306.85					
2063.39	72.00	4406.47	15.47	7.54	15557.70	0.34	0.001868
	1.31266	183.23	11.26		173.96	11.24	
		91331.55					
2063.15	73.00	4406.47	15.47	7.54	15551.31	0.34	0.001859
	1.30645	183.21	11.26		173.95	11.24	
		91325.62					
2068.71	74.00	4406.49	15.49	7.55	15623.75	0.34	0.001835
	1.29122	183.48	11.27		174.21	11.24	
		91459.34					
2080.33	75.00	4406.53	15.53	7.56	15737.58	0.34	0.001773
	1.25077	184.05	11.30		174.74	11.25	
		91740.00					
2086.00	76.00	4406.55	15.55	7.57	15789.73	0.34	0.001802
	1.27226	184.32	11.32		175.00	11.25	
		91874.48					
2078.91	77.00	4406.53	15.53	7.55	15697.99	0.34	0.001827
	1.28844	183.98	11.30		174.67	11.25	
		91703.80					
2084.77	78.00	4406.55	15.55	7.58	15792.62	0.34	0.001772
	1.25105	184.26	11.31		174.95	11.25	
		91846.69					
2093.30	79.00	4406.58	15.58	7.58	15874.78	0.34	0.001755
	1.24110	184.67	11.34		175.33	11.25	
		92049.55					
2117.95	80.00	4406.67	15.66	7.62	16144.20	0.34	0.001729
	1.22978	185.86	11.40		176.45	11.26	
		92638.81					
2103.11	81.00	4406.61	15.61	7.58	15939.76	0.34	0.001732
	1.22783	185.14	11.36		175.77	11.26	
		92279.68					

HYCHAN.OUT							
2105.80	82.00	4406.62	15.62	7.59	15976.72	0.34	0.001721
	1.22096	185.27	11.37		175.89	11.26	
		92344.79					
2102.78	83.00	4406.61	15.61	7.58	15929.13	0.34	0.001770
	1.25428	185.12	11.36		175.76	11.26	
		92271.55					
2095.24	84.00	4406.58	15.59	7.57	15854.96	0.34	0.001757
	1.24317	184.76	11.34		175.41	11.26	
		92092.52					
2092.38	85.00	4406.58	15.58	7.56	15826.50	0.34	0.001765
	1.24855	184.62	11.33		175.28	11.25	
		92024.41					
2093.84	86.00	4406.58	15.58	7.57	15846.95	0.34	0.001787
	1.26408	184.69	11.34		175.35	11.25	
		92058.17					
2095.04	87.00	4406.58	15.58	7.57	15852.82	0.34	0.001768
	1.25108	184.75	11.34		175.40	11.26	
		92087.09					
2119.36	88.00	4406.67	15.67	7.62	16154.46	0.34	0.001661
	1.18126	185.92	11.40		176.51	11.26	
		92668.70					
2090.61	89.00	4406.57	15.57	7.56	15805.39	0.34	0.001841
	1.30130	184.53	11.33		175.19	11.25	
		91976.54					
2026.54	90.00	4406.34	15.34	7.47	15143.03	0.34	0.001914
	1.33431	181.41	11.17		172.25	11.23	
		90429.61					
1940.64	91.00	4406.03	15.03	7.46	14482.36	0.34	0.001978
	1.35213	177.17	10.95		168.24	11.19	
		88326.40					
1876.77	92.00	4405.80	14.80	7.45	13975.17	0.34	0.002003
	1.34841	173.96	10.79		165.21	11.16	
		86734.77					
1802.45	93.00	4405.52	14.52	7.40	13345.55	0.34	0.002032
	1.34319	170.16	10.59		161.62	11.13	
		84850.26					
1732.00	94.00	4405.25	14.25	7.36	12750.03	0.34	0.002029
	1.31723	166.49	10.40		158.16	11.10	
		83032.70					
1670.30	95.00	4405.01	14.01	7.31	12210.64	0.34	0.002037
	1.30090	163.23	10.23		155.07	11.07	
		81411.48					
1620.33	96.00	4404.81	13.81	7.26	11766.52	0.34	0.002024
	1.27470	160.53	10.09		152.52	11.04	
		80075.60					
1562.71	97.00	4404.58	13.58	7.19	11242.28	0.34	0.002004
	1.24171	157.38	9.93		149.55	11.01	
		78511.19					
1514.50	98.00	4404.38	13.38	7.13	10805.03	0.34	0.001994
	1.21833	154.71	9.79		147.02	10.99	
		77183.59					
1469.85	99.00	4404.19	13.19	7.07	10395.16	0.34	0.001976
	1.19100	152.19	9.66		144.64	10.96	
		75936.26					
1437.30	100.00	4404.06	13.06	7.02	10096.95	0.34	0.001953
	1.16496	150.34	9.56		142.89	10.94	
		75016.59					
1397.82	101.00	4403.89	12.89	6.96	9726.71	0.34	0.001938
	1.14144	148.06	9.44		140.73	10.92	
		73885.70					
1363.23	102.00	4403.73	12.73	6.90	9405.63	0.34	0.001920
	1.11858	146.05	9.33		138.83	10.90	
		72885.16					

				HYCHAN.OUT			
1333.04	103.00	4403.60	12.60	9.24	6.85	9128.50	0.34
		144.27				137.15	10.88
	1.08904	72001.88					0.001889
1308.62	104.00	4403.49	12.49	9.16	6.81	8906.03	0.34
		142.82				135.77	10.87
	1.07787	71281.36					0.001885
1285.59	105.00	4403.39	12.39	9.09	6.76	8693.46	0.34
		141.43				134.47	10.85
	1.05680	70594.34					0.001863
1249.73	106.00	4403.22	12.22	8.97	6.69	8362.77	0.34
		139.26				132.41	10.83
	1.03053	69513.30					0.001840
1223.38	107.00	4403.10	12.10	8.89	6.64	8129.02	0.34
		137.65				130.88	10.81
	1.01168	68713.47					0.001824
1203.98	108.00	4403.01	12.01	8.82	6.61	7953.68	0.34
		136.45				129.75	10.80
	0.99026	68118.00					0.001798
1185.75	109.00	4402.93	11.93	8.76	6.57	7789.94	0.34
		135.31				128.68	10.79
	0.98822	67554.74					0.001807
1181.39	110.00	4402.91	11.91	8.75	6.56	7754.43	0.34
		135.04				128.42	10.79
	0.98997	67421.21					0.001814
1196.25	111.00	4402.98	11.98	8.80	6.60	7893.50	0.34
		135.97				129.30	10.80
	1.01005	67882.71					0.001840
1225.99	112.00	4403.12	12.12	8.90	6.66	8164.44	0.34
		137.81				131.04	10.82
	1.02063	68796.44					0.001839
1223.00	113.00	4403.10	12.10	8.89	6.64	8126.79	0.34
		137.62				130.86	10.81
	1.01187	68702.30					0.001825
1207.27	114.00	4403.03	12.03	8.83	6.62	7986.96	0.34
		136.65				129.94	10.80
	1.01399	68220.81					0.001839
1229.93	115.00	4403.13	12.13	8.91	6.67	8204.25	0.34
		138.06				131.27	10.82
	1.03836	68917.07					0.001868
1268.43	116.00	4403.31	12.31	9.03	6.74	8553.38	0.34
		140.41				133.49	10.84
	1.05376	70083.67					0.001869
1266.23	117.00	4403.30	12.30	9.03	6.73	8520.63	0.34
		140.27				133.36	10.84
	1.05417	70014.98					0.001871
1260.16	118.00	4403.27	12.27	9.01	6.72	8470.60	0.34
		139.90				133.02	10.84
	1.05002	69833.19					0.001868
1261.49	119.00	4403.28	12.28	9.01	6.73	8484.08	0.34
		139.98				133.09	10.84
	1.05632	69874.21					0.001878
1275.98	120.00	4403.35	12.35	9.06	6.76	8619.89	0.34
		140.86				133.92	10.85
	1.05641	70310.54					0.001869
1281.80	121.00	4403.37	12.37	9.08	6.76	8669.50	0.34
		141.21				134.26	10.85
	1.05979	70484.07					0.001871
1280.51	122.00	4403.37	12.37	9.07	6.76	8654.87	0.34
		141.13				134.18	10.85
	1.05992	70444.81					0.001872
1266.29	123.00	4403.30	12.30	9.03	6.73	8521.00	0.34
		140.27				133.37	10.84
	1.05010	70016.66					0.001864



HYCHAN.OUT							
124.00	4403.27	12.27	6.72	8456.34	0.34		
1258.90	139.82	9.00	132.94	10.84	0.001854		
1.04149	69794.68						
125.00	4403.20	12.20	6.69	8322.70	0.34		
1244.58	138.95	8.96	132.11	10.83	0.001850		
1.03377	69360.23						
126.00	4403.17	12.17	6.68	8269.07	0.34		
1238.25	138.56	8.94	131.75	10.82	0.001852		
1.03254	69169.43						
127.00	4403.17	12.17	6.68	8258.25	0.34		
1237.16	138.50	8.93	131.69	10.82	0.001844		
1.02794	69135.72						
128.00	4403.11	12.11	6.65	8138.47	0.34		
1224.22	137.70	8.89	130.93	10.81	0.001837		
1.01906	68740.03						
129.00	4403.08	12.08	6.64	8091.32	0.34		
1218.72	137.36	8.87	130.62	10.81	0.001837		
1.01693	68573.04						
130.00	4403.08	12.08	6.64	8079.52	0.34		
1217.49	137.29	8.87	130.54	10.81	0.001830		
1.01258	68534.82						
131.00	4403.02	12.02	6.61	7963.98	0.34		
1204.91	136.51	8.83	129.80	10.80	0.001816		
1.00038	68147.38						
132.00	4403.00	12.00	6.61	7940.05	0.34		
1201.70	136.31	8.82	129.62	10.80	0.001841		
1.01252	68050.39						
133.00	4403.12	12.12	6.66	8176.76	0.34		
1227.24	137.89	8.90	131.11	10.82	0.001853		
1.02922	68834.79						
134.00	4403.17	12.17	6.68	8268.88	0.34		
1238.23	138.56	8.94	131.75	10.82	0.001852		
1.03270	69168.84						
135.00	4403.17	12.17	6.68	8270.16	0.34		
1238.40	138.57	8.94	131.76	10.82	0.001851		
1.03208	69174.19						
136.00	4403.17	12.17	6.68	8270.08	0.34		
1238.42	138.57	8.94	131.76	10.82	0.001849		
1.03092	69174.41						
137.00	4403.17	12.17	6.68	8270.02	0.34		
1238.40	138.57	8.94	131.76	10.82	0.001851		
1.03242	69174.07						
138.00	4403.17	12.17	6.68	8270.08	0.34		
1238.37	138.57	8.94	131.76	10.82	0.001852		
1.03271	69173.10						
139.00	4403.17	12.17	6.68	8269.65	0.34		
1238.35	138.57	8.94	131.76	10.82	0.001853		
1.03352	69172.57						
140.00	4403.17	12.17	6.68	8258.48	0.34		
1237.20	138.50	8.93	131.69	10.82	0.001833		
1.02179	69136.78						
141.00	4403.11	12.11	6.65	8138.58	0.34		
1224.13	137.69	8.89	130.93	10.81	0.001835		
1.01802	68737.28						
142.00	4403.08	12.08	6.64	8091.71	0.34		
1218.64	137.36	8.87	130.61	10.81	0.001824		
1.00968	68570.52						
143.00	4403.08	12.08	6.64	8091.07	0.34		
1218.60	137.36	8.87	130.61	10.81	0.001838		
1.01731	68569.48						
144.00	4403.08	12.08	6.64	8090.49	0.34		
1218.51	137.35	8.87	130.60	10.81	0.001841		
1.01907	68566.67						

HYCHAN.OUT							
1217.42	145.00	4403.08	12.08	8.87	6.64	8079.59	0.34
		137.28				130.54	10.81
	1.01196	68532.51					0.001829
1204.93	146.00	4403.02	12.02	8.83	6.61	7964.21	0.34
		136.51				129.81	10.80
	0.99832	68147.88					0.001813
1199.37	147.00	4402.99	11.99	8.81	6.60	7916.81	0.34
		136.17				129.48	10.80
	1.00077	67977.99					0.001821
1199.54	148.00	4402.99	11.99	8.81	6.60	7917.12	0.34
		136.18				129.49	10.80
	0.99941	67983.10					0.001818
1199.40	149.00	4402.99	11.99	8.81	6.60	7916.90	0.34
		136.17				129.48	10.80
	1.00096	67978.91					0.001821
1199.50	150.00	4402.99	11.99	8.81	6.60	7917.07	0.34
		136.17				129.49	10.80
	1.00189	67981.98					0.001823
1198.65	151.00	4402.99	11.99	8.81	6.60	7909.97	0.34
		136.12				129.44	10.80
	0.99325	67955.12					0.001808
1189.87	152.00	4402.95	11.95	8.78	6.58	7828.47	0.34
		135.57				128.92	10.79
	0.99022	67682.93					0.001808
1182.05	153.00	4402.91	11.91	8.75	6.56	7758.43	0.34
		135.08				128.46	10.79
	0.98630	67440.83					0.001806
1180.19	154.00	4402.90	11.90	8.74	6.56	7743.03	0.34
		134.97				128.35	10.79
	0.98564	67383.55					0.001806
1179.06	155.00	4402.89	11.89	8.74	6.56	7732.21	0.34
		134.90				128.28	10.78
	0.98148	67348.05					0.001800
1169.02	156.00	4402.85	11.85	8.71	6.53	7638.25	0.33
		134.27				127.69	10.78
	0.98185	67034.92					0.001807
1188.43	157.00	4402.94	11.94	8.77	6.58	7823.44	0.34
		135.49				128.84	10.79
	0.99743	67640.73					0.001822
1199.36	158.00	4402.99	11.99	8.81	6.60	7916.43	0.34
		136.16				129.48	10.80
	0.99896	67977.38					0.001818
1199.50	159.00	4402.99	11.99	8.81	6.60	7917.01	0.34
		136.17				129.49	10.80
	1.00092	67981.88					0.001821
1199.51	160.00	4402.99	11.99	8.81	6.60	7916.88	0.34
		136.17				129.49	10.80
	1.00067	67982.05					0.001821
1199.45	161.00	4402.99	11.99	8.81	6.60	7917.13	0.34
		136.17				129.49	10.80
	1.00242	67980.37					0.001824
1199.39	162.00	4402.99	11.99	8.81	6.60	7917.23	0.34
		136.17				129.48	10.80
	0.99554	67978.44					0.001811
1199.31	163.00	4402.99	11.99	8.81	6.60	7916.85	0.34
		136.16				129.48	10.80
	0.99644	67976.06					0.001813
1199.31	164.00	4402.99	11.99	8.81	6.60	7916.95	0.34
		136.16				129.48	10.80
	0.99895	67975.88					0.001818
1198.26	165.00	4402.99	11.99	8.80	6.60	7906.24	0.34
		136.10				129.42	10.80
	0.98844	67943.15					0.001799

HYCHAN.OUT									
1185.65	166.00	4402.93	11.93	8.76	6.57	128.67	7789.37	10.79	0.001806
	0.98726	135.31							
		67551.61							
1180.17	167.00	4402.90	11.90	8.74	6.56	128.35	7743.02	10.79	0.001806
	0.98518	134.97							
		67383.06							
1180.16	168.00	4402.90	11.90	8.74	6.56	128.35	7743.01	10.79	0.001804
	0.98416	134.97							
		67382.60							
1180.14	169.00	4402.90	11.90	8.74	6.56	128.35	7742.87	10.79	0.001805
	0.98473	134.97							
		67381.98							
1180.18	170.00	4402.90	11.90	8.74	6.56	128.35	7743.03	10.79	0.001809
	0.98712	134.97							
		67383.36							
1180.17	171.00	4402.90	11.90	8.74	6.56	128.35	7743.12	10.79	0.001810
	0.98750	134.97							
		67382.91							
1180.09	172.00	4402.90	11.90	8.74	6.56	128.34	7742.61	10.79	0.001808
	0.98648	134.96							
		67380.32							
1179.09	173.00	4402.90	11.89	8.74	6.56	128.28	7732.46	10.78	0.001799
	0.98101	134.90							
		67348.99							
1166.78	174.00	4402.84	11.84	8.70	6.53	127.55	7614.62	10.78	0.001799
	0.97682	134.12							
		66964.12							
1161.41	175.00	4402.81	11.81	8.68	6.52	127.23	7569.20	10.77	0.001800
	0.97497	133.79							
		66797.51							
1161.39	176.00	4402.81	11.81	8.68	6.52	127.23	7569.05	10.77	0.001801
	0.97559	133.79							
		66796.72							
1161.39	177.00	4402.81	11.81	8.68	6.52	127.23	7569.11	10.77	0.001800
	0.97523	133.79							
		66796.90							
1161.48	178.00	4402.81	11.81	8.68	6.52	127.24	7569.01	10.77	0.001799
	0.97466	133.79							
		66799.44							
1161.42	179.00	4402.81	11.81	8.68	6.52	127.23	7568.76	10.77	0.001799
	0.97456	133.79							
		66797.79							
1163.74	180.00	4402.82	11.82	8.69	6.52	127.37	7592.61	10.77	0.001809
	0.98073	133.94							
		66871.04							
1188.44	181.00	4402.94	11.94	8.77	6.58	128.84	7823.44	10.79	0.001821
	0.99678	135.49							
		67641.05							
1200.49	182.00	4403.00	12.00	8.81	6.60	129.55	7927.46	10.80	0.001832
	1.00715	136.24							
		68012.97							
1213.12	183.00	4403.06	12.06	8.85	6.63	130.29	8044.39	10.81	0.001835
	1.01364	137.02							
		68402.23							
1218.59	184.00	4403.08	12.08	8.87	6.64	130.61	8090.86	10.81	0.001840
	1.01879	137.36							
		68569.15							
1218.57	185.00	4403.08	12.08	8.87	6.64	130.61	8090.91	10.81	0.001829
	1.01257	137.35							
		68568.39							
1218.60	186.00	4403.08	12.08	8.87	6.64	130.61	8091.07	10.81	0.001834
	1.01557	137.36							
		68569.41							

HYCHAN.OUT									
1218.52	187.00	4403.08	12.08	8.87	6.64	130.60	10.81	0.34	0.001834
	1.01541	137.35							
		68566.94							
1218.57	188.00	4403.08	12.08	8.87	6.64	130.61	10.81	0.34	0.001836
	1.01614	137.35							
		68568.55							
1218.57	189.00	4403.08	12.08	8.87	6.64	130.61	10.81	0.34	0.001841
	1.01909	137.35							
		68568.48							
1218.58	190.00	4403.08	12.08	8.87	6.64	130.61	10.81	0.34	0.001830
	1.01295	137.36							
		68568.81							
1217.50	191.00	4403.08	12.08	8.87	6.64	130.54	10.81	0.34	0.001830
	1.01258	137.29							
		68534.99							
1204.95	192.00	4403.02	12.02	8.83	6.61	129.81	10.80	0.34	0.001817
	1.00091	136.51							
		68148.53							
1199.52	193.00	4402.99	11.99	8.81	6.60	129.49	10.80	0.34	0.001808
	0.99379	136.18							
		67982.62							
1199.37	194.00	4402.99	11.99	8.81	6.60	129.48	10.80	0.34	0.001822
	1.00121	136.17							
		67977.88							
1199.52	195.00	4402.99	11.99	8.81	6.60	129.49	10.80	0.34	0.001824
	1.00257	136.17							
		67982.41							
1199.31	196.00	4402.99	11.99	8.81	6.60	129.48	10.80	0.34	0.001821
	1.00078	136.16							
		67975.83							
1199.50	197.00	4402.99	11.99	8.81	6.60	129.49	10.80	0.34	0.001817
	0.99888	136.17							
		67981.85							
1199.54	198.00	4402.99	11.99	8.81	6.60	129.49	10.80	0.34	0.001821
	1.00088	136.18							
		67983.13							
1199.43	199.00	4402.99	11.99	8.81	6.60	129.48	10.80	0.34	0.001812
	0.99595	136.17							
		67979.52							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3292

MAXIMUM DISCHARGE (CFS) = 16636.70 AT TIME = 87.14  
 MAXIMUM STAGE = 4406.49 AT TIME = 87.13

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4390.25	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4390.25	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4390.25	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	3.00	4390.25	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	4.00	4398.12	7.87	4.43	3842.66	0.28	
868.09		83.42	10.41		79.53	10.10	0.000946
	0.61457	35786.71					
	5.00	4400.96	10.71	5.59	5434.07	0.30	
972.68		119.43	8.14		113.65	10.61	0.000950
	0.48262	51140.75					
	6.00	4400.92	10.67	5.57	5374.05	0.30	
964.53		118.90	8.11		113.15	10.60	0.000949
	0.48053	50916.27					
	7.00	4400.86	10.61	5.54	5279.40	0.30	
952.40		118.10	8.06		112.38	10.59	0.000953
	0.47939	50572.99					
	8.00	4400.76	10.51	5.50	5129.83	0.30	
932.75		116.80	7.99		111.15	10.58	0.000956
	0.47640	50017.63					
	9.00	4400.66	10.41	5.46	4984.25	0.30	
913.39		115.50	7.91		109.92	10.56	0.000959
	0.47310	49465.65					
	10.00	4400.56	10.31	5.41	4840.03	0.30	
894.26		114.21	7.83		108.70	10.54	0.000963
	0.47047	48914.12					
	11.00	4400.51	10.26	5.40	4773.09	0.30	
884.62		113.55	7.79		108.08	10.54	0.000960
	0.46690	48635.25					
	12.00	4400.45	10.20	5.37	4690.20	0.30	
872.95		112.74	7.74		107.31	10.53	0.000964
	0.46597	48290.62					
	13.00	4400.34	10.09	5.33	4541.34	0.30	
852.67		111.34	7.66		105.98	10.51	0.000968
	0.46260	47692.41					
	14.00	4400.28	10.03	5.30	4469.75	0.30	
842.82		110.66	7.62		105.34	10.50	0.000969
	0.46042	47402.23					
	15.00	4400.28	10.03	5.30	4469.07	0.30	
842.76		110.65	7.62		105.33	10.50	0.000969
	0.46040	47400.53					
	16.00	4400.28	10.03	5.30	4468.97	0.30	
842.74		110.65	7.62		105.33	10.50	0.000969
	0.46042	47399.96					
	17.00	4400.28	10.03	5.30	4468.98	0.30	
842.74		110.65	7.62		105.33	10.50	0.000969
	0.46041	47399.90					
	18.00	4400.28	10.03	5.30	4469.30	0.30	
842.98		110.67	7.62		105.35	10.50	0.000971
	0.46132	47409.46					
	19.00	4400.35	10.10	5.33	4548.96	0.30	
854.21		111.47	7.66		106.11	10.51	0.000969
	0.46311	47749.35					
	20.00	4400.46	10.21	5.37	4703.80	0.30	
875.36		112.93	7.75		107.49	10.53	0.000965
	0.46683	48369.95					
	21.00	4400.57	10.32	5.42	4856.07	0.30	
895.75		114.32	7.84		108.81	10.55	0.000961
	0.46997	48963.83					
	22.00	4400.62	10.37	5.44	4923.64	0.30	
905.04		114.95	7.87		109.40	10.55	0.000960
	0.47185	49229.55					
	23.00	4400.62	10.37	5.44	4926.13	0.30	
905.39		114.97	7.88		109.42	10.55	0.000961
	0.47217	49239.59					
	24.00	4400.68	10.43	5.47	5019.92	0.30	

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				HYCHAN.OUT			
917.46		115.79		7.92	110.20	10.56	0.000961
	0.47520	49589.61					
	25.00	4400.85	10.60	5.55	5273.13	0.30	
950.50		117.99		8.06	112.29	10.59	0.000952
	0.47844	50528.66					
	26.00	4401.06	10.81	5.63	5583.19	0.30	
990.93		120.64		8.21	114.79	10.62	0.000946
	0.48481	51654.66					
	27.00	4401.25	11.00	5.71	5880.70	0.30	
1029.45		123.10		8.36	117.12	10.65	0.000936
	0.48854	52705.21					
	28.00	4401.31	11.06	5.74	5984.53	0.30	
1043.45		123.98		8.42	117.95	10.66	0.000935
	0.49088	53078.52					
	29.00	4401.32	11.07	5.74	5991.18	0.30	
1044.30		124.04		8.42	118.00	10.66	0.000935
	0.49114	53101.95					
	30.00	4401.38	11.13	5.77	6096.97	0.30	
1057.50		124.87		8.47	118.79	10.67	0.000931
	0.49209	53457.05					
	31.00	4401.42	11.17	5.78	6151.92	0.30	
1064.82		125.32		8.50	119.22	10.68	0.000930
	0.49321	53649.38					
	32.00	4401.42	11.17	5.78	6158.91	0.30	
1065.68		125.38		8.50	119.27	10.68	0.000932
	0.49458	53672.83					
	33.00	4401.49	11.24	5.81	6269.55	0.31	
1079.52		126.24		8.55	120.09	10.69	0.000928
	0.49493	54041.72					
	34.00	4401.52	11.27	5.82	6325.93	0.31	
1087.05		126.70		8.58	120.53	10.69	0.000925
	0.49534	54237.42					
	35.00	4401.52	11.27	5.82	6318.94	0.31	
1086.29		126.65		8.58	120.48	10.69	0.000925
	0.49514	54216.79					
	36.00	4401.45	11.20	5.79	6208.40	0.30	
1072.58		125.80		8.53	119.67	10.68	0.000931
	0.49521	53851.80					
	37.00	4401.41	11.16	5.78	6145.72	0.30	
1064.18		125.28		8.49	119.18	10.68	0.000931
	0.49327	53631.35					
	38.00	4401.35	11.10	5.75	6040.29	0.30	
1051.07		124.45		8.45	118.40	10.67	0.000934
	0.49227	53279.57					
	39.00	4401.31	11.06	5.74	5985.21	0.30	
1043.61		123.99		8.42	117.96	10.66	0.000935
	0.49094	53082.60					
	40.00	4401.31	11.06	5.74	5985.18	0.30	
1043.58		123.99		8.42	117.96	10.66	0.000935
	0.49081	53081.77					
	41.00	4401.31	11.06	5.74	5984.87	0.30	
1043.53		123.99		8.42	117.96	10.66	0.000934
	0.49033	53080.29					
	42.00	4401.31	11.06	5.74	5984.90	0.30	
1043.51		123.98		8.42	117.96	10.66	0.000936
	0.49153	53079.98					
	43.00	4401.32	11.07	5.74	5991.40	0.30	
1044.31		124.04		8.42	118.00	10.66	0.000935
	0.49127	53102.07					
	44.00	4401.38	11.13	5.77	6096.84	0.30	
1057.51		124.87		8.47	118.79	10.67	0.000931
	0.49181	53457.28					
	45.00	4401.42	11.17	5.78	6158.77	0.30	

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				HYCHAN.OUT			
1065.71		125.38		8.50	119.28	10.68	0.000932
	0.49450	53673.98					
46.00		4401.49	11.24	5.81	6277.57	0.31	
1080.40		126.30		8.55	120.15	10.69	0.000926
	0.49440	54065.76					
47.00		4401.60	11.35	5.85	6452.70	0.31	
1102.63		127.67		8.64	121.44	10.70	0.000921
	0.49650	54649.69					
48.00		4401.70	11.45	5.89	6626.28	0.31	
1124.63		129.01		8.72	122.71	10.72	0.000918
	0.49941	55221.33					
49.00		4401.80	11.55	5.93	6799.04	0.31	
1146.45		130.33		8.80	123.96	10.73	0.000912
	0.50051	55782.89					
50.00		4401.90	11.65	5.97	6969.71	0.31	
1167.94		131.62		8.87	125.18	10.75	0.000906
	0.50188	56330.91					
51.00		4402.00	11.75	6.01	7155.27	0.31	
1191.26		133.00		8.96	126.49	10.76	0.000902
	0.50394	56919.66					
52.00		4402.15	11.90	6.06	7432.45	0.31	
1225.77		135.02		9.08	128.40	10.79	0.000890
	0.50442	57780.93					
53.00		4402.22	11.97	6.08	7553.13	0.31	
1241.81		135.95		9.13	129.27	10.80	0.000889
	0.50661	58172.96					
54.00		4402.30	12.05	6.12	7702.97	0.31	
1259.43		136.97		9.19	130.24	10.81	0.000888
	0.50950	58609.88					
55.00		4402.54	12.29	6.21	8171.47	0.31	
1315.66		140.19		9.38	133.29	10.84	0.000873
	0.51115	59979.52					
56.00		4402.94	12.69	6.35	8946.50	0.31	
1409.62		145.40		9.69	138.22	10.90	0.000861
	0.52102	62198.88					
57.00		4403.44	13.19	6.50	9982.07	0.32	
1535.39		152.11		10.09	144.56	10.96	0.000823
	0.51867	65053.42					
58.00		4404.01	13.76	6.63	11181.85	0.32	
1686.30		159.80		10.55	151.83	11.04	0.000776
	0.51081	68323.79					
59.00		4404.46	14.21	6.69	12119.72	0.31	
1810.69		165.87		10.92	157.57	11.09	0.000736
	0.50137	70905.34					
60.00		4404.84	14.59	6.73	12939.62	0.31	
1921.60		171.11		11.23	162.52	11.14	0.000699
	0.48969	73133.73					
61.00		4405.22	14.97	6.76	13730.25	0.31	
2032.28		176.28		11.53	167.40	11.18	0.000660
	0.47504	75330.56					
62.00		4405.47	15.22	6.76	14223.47	0.31	
2103.88		179.76		11.70	170.69	11.21	0.000631
	0.46054	76810.73					
63.00		4405.67	15.42	6.79	14605.85	0.31	
2149.65		182.46		11.78	173.24	11.24	0.000608
	0.44706	77960.01					
64.00		4405.81	15.56	6.82	14881.77	0.30	
2183.00		184.46		11.83	175.13	11.25	0.000603
	0.44563	78810.45					
65.00		4405.91	15.66	6.83	15063.47	0.30	
2205.04		185.78		11.87	176.38	11.26	0.000590
	0.43663	79370.59					
66.00		4406.04	15.79	6.86	15326.80	0.30	

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				HYCHAN.OUT			
2234.38		187.48		11.92	178.12	11.28	0.000560
	0.41626	80152.87					
67.00	4406.13	15.88		6.88	15496.88	0.30	
2250.82		187.66		11.99	179.30	11.29	0.000578
	0.43292	80685.88					
68.00	4406.16	15.91		6.89	15541.21	0.30	
2254.75		187.70		12.01	179.60	11.29	0.000554
	0.41555	80819.63					
69.00	4406.16	15.91		6.90	15563.83	0.30	
2256.25		187.72		12.02	179.71	11.29	0.000575
	0.43127	80871.30					
70.00	4406.17	15.92		6.89	15557.58	0.30	
2256.56		187.72		12.02	179.74	11.29	0.000577
	0.43253	80881.84					
71.00	4406.16	15.91		6.89	15547.69	0.30	
2255.54		187.71		12.02	179.66	11.29	0.000566
	0.42410	80846.60					
72.00	4406.16	15.91		6.90	15560.70	0.30	
2256.23		187.72		12.02	179.71	11.29	0.000578
	0.43359	80870.84					
73.00	4406.16	15.91		6.89	15554.62	0.30	
2256.10		187.72		12.02	179.70	11.29	0.000579
	0.43441	80866.26					
74.00	4406.19	15.94		6.91	15625.00	0.31	
2260.12		187.77		12.04	180.01	11.29	0.000551
	0.41398	81003.34					
75.00	4406.24	15.99		6.94	15735.44	0.31	
2268.77		187.87		12.08	180.66	11.30	0.000560
	0.42186	81297.96					
76.00	4406.26	16.01		6.95	15789.74	0.31	
2273.06		187.91		12.10	180.98	11.30	0.000547
	0.41271	81441.54					
77.00	4406.23	15.98		6.92	15699.02	0.31	
2267.83		187.85		12.07	180.59	11.30	0.000552
	0.41612	81263.44					
78.00	4406.26	16.01		6.95	15789.67	0.31	
2272.04		187.90		12.09	180.91	11.30	0.000546
	0.41192	81408.41					
79.00	4406.29	16.04		6.97	15869.88	0.31	
2278.39		187.98		12.12	181.38	11.31	0.000564
	0.42624	81623.00					
80.00	4406.40	16.15		7.02	16128.19	0.31	
2296.46		188.19		12.20	182.76	11.32	0.000544
	0.41453	82242.88					
81.00	4406.33	16.08		6.97	15934.02	0.31	
2285.83		188.06		12.15	181.94	11.31	0.000546
	0.41391	81874.46					
82.00	4406.34	16.09		6.98	15971.97	0.31	
2287.44		188.08		12.16	182.07	11.31	0.000537
	0.40765	81931.10					
83.00	4406.33	16.08		6.97	15927.39	0.31	
2285.37		188.06		12.15	181.91	11.31	0.000541
	0.41000	81859.05					
84.00	4406.30	16.05		6.95	15853.65	0.31	
2279.78		187.99		12.13	181.49	11.31	0.000540
	0.40828	81669.45					
85.00	4406.29	16.04		6.95	15825.57	0.31	
2277.65		187.97		12.12	181.33	11.31	0.000564
	0.42623	81597.27					
86.00	4406.29	16.04		6.95	15846.98	0.31	
2278.76		187.98		12.12	181.41	11.31	0.000542
	0.41016	81634.51					
87.00	4406.30	16.05		6.95	15851.84	0.31	

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2279.59		187.99		12.13	181.47	11.31	0.000542
	0.40997	81663.23					
88.00		4406.40	16.15	7.02	16135.17	0.31	
2297.20		188.20		12.21	182.82	11.32	0.000536
	0.40829	82270.84					
89.00		4406.28	16.03	6.94	15809.25	0.31	
2276.85		187.96		12.11	181.25	11.31	0.000559
	0.42281	81564.60					
90.00		4406.02	15.77	6.81	15173.76	0.30	
2227.74		187.26		11.90	177.77	11.28	0.000589
	0.43751	79997.80					
91.00		4405.67	15.42	6.75	14512.01	0.30	
2149.51		182.43		11.78	173.22	11.24	0.000626
	0.46014	77948.26					
92.00		4405.40	15.15	6.71	14003.24	0.30	
2086.04		178.82		11.67	169.81	11.21	0.000655
	0.47645	76413.36					
93.00		4405.10	14.85	6.69	13369.16	0.31	
1998.20		174.63		11.44	165.84	11.17	0.000697
	0.49758	74630.16					
94.00		4404.80	14.55	6.68	12766.50	0.31	
1912.04		170.59		11.21	162.03	11.13	0.000723
	0.50596	72914.48					
95.00		4404.54	14.29	6.66	12221.44	0.31	
1836.22		167.03		10.99	158.66	11.10	0.000746
	0.51147	71396.75					
96.00		4404.33	14.08	6.63	11774.80	0.31	
1775.84		164.13		10.82	155.92	11.08	0.000762
	0.51434	70163.57					
97.00		4404.08	13.83	6.59	11250.08	0.31	
1707.04		160.76		10.62	152.74	11.04	0.000782
	0.51817	68731.18					
98.00		4403.87	13.62	6.55	10811.24	0.31	
1649.67		157.90		10.45	150.04	11.02	0.000802
	0.52264	67516.96					
99.00		4403.67	13.42	6.51	10400.64	0.31	
1597.22		155.25		10.29	147.53	10.99	0.000815
	0.52353	66386.41					
100.00		4403.53	13.28	6.48	10101.28	0.31	
1559.17		153.29		10.17	145.68	10.97	0.000823
	0.52254	65554.81					
101.00		4403.35	13.10	6.43	9732.18	0.31	
1513.64		150.91		10.03	143.43	10.95	0.000833
	0.52155	64542.50					
102.00		4403.19	12.94	6.39	9409.87	0.31	
1473.54		148.80		9.90	141.43	10.93	0.000846
	0.52295	63643.07					
103.00		4403.05	12.80	6.35	9132.19	0.31	
1438.93		146.94		9.79	139.68	10.91	0.000846
	0.51676	62854.59					
104.00		4402.94	12.69	6.31	8909.11	0.31	
1410.89		145.43		9.70	138.24	10.90	0.000857
	0.51866	62209.60					
105.00		4402.83	12.58	6.28	8697.12	0.31	
1384.87		144.00		9.62	136.89	10.88	0.000863
	0.51767	61602.05					
106.00		4402.66	12.41	6.22	8367.63	0.31	
1344.47		141.76		9.48	134.77	10.86	0.000869
	0.51456	60647.14					
107.00		4402.54	12.29	6.19	8131.73	0.31	
1314.25		140.08		9.38	133.18	10.84	0.000872
	0.51024	59931.24					
108.00		4402.44	12.19	6.16	7956.06	0.31	

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				HYCHAN.OUT			
1292.36		138.84		9.31	132.01	10.83	0.000878
	0.51022	59403.96					
109.00		4402.35	12.10	6.13	7791.95	0.31	
1271.74		137.66		9.24	130.90	10.81	0.000884
	0.50955	58903.51					
110.00		4402.33	12.08	6.12	7753.74	0.31	
1266.49		137.37		9.22	130.62	10.81	0.000885
	0.50937	58778.81					
111.00		4402.40	12.15	6.15	7890.29	0.31	
1282.71		138.31		9.27	131.51	10.82	0.000881
	0.50975	59178.28					
112.00		4402.55	12.30	6.20	8161.49	0.31	
1316.06		140.20		9.39	133.30	10.84	0.000869
	0.50875	59984.53					
113.00		4402.53	12.28	6.19	8129.14	0.31	
1313.73		140.05		9.38	133.15	10.84	0.000879
	0.51468	59919.25					
114.00		4402.46	12.21	6.16	7987.48	0.31	
1295.70		139.03		9.32	132.20	10.83	0.000880
	0.51202	59488.14					
115.00		4402.56	12.31	6.21	8198.87	0.31	
1320.16		140.44		9.40	133.52	10.84	0.000878
	0.51490	60084.84					
116.00		4402.75	12.50	6.27	8550.02	0.31	
1363.88		142.88		9.55	135.83	10.87	0.000865
	0.51505	61122.71					
117.00		4402.74	12.49	6.26	8522.76	0.31	
1362.52		142.78		9.54	135.74	10.87	0.000869
	0.51734	61081.40					
118.00		4402.71	12.46	6.25	8470.68	0.31	
1355.17		142.38		9.52	135.36	10.86	0.000863
	0.51229	60912.19					
119.00		4402.72	12.47	6.25	8483.13	0.31	
1356.51		142.46		9.52	135.43	10.86	0.000868
	0.51596	60945.34					
120.00		4402.78	12.53	6.28	8617.68	0.31	
1372.63		143.36		9.58	136.28	10.87	0.000862
	0.51502	61327.35					
121.00		4402.81	12.56	6.28	8669.55	0.31	
1379.63		143.73		9.60	136.64	10.88	0.000863
	0.51675	61488.52					
122.00		4402.81	12.56	6.28	8655.83	0.31	
1378.42		143.66		9.59	136.57	10.88	0.000860
	0.51470	61457.72					
123.00		4402.74	12.49	6.26	8522.98	0.31	
1362.52		142.78		9.54	135.74	10.87	0.000867
	0.51614	61081.52					
124.00		4402.70	12.45	6.25	8457.24	0.31	
1353.87		142.30		9.51	135.29	10.86	0.000863
	0.51243	60880.02					
125.00		4402.64	12.39	6.22	8324.74	0.31	
1338.13		141.42		9.46	134.45	10.85	0.000876
	0.51726	60502.58					
126.00		4402.61	12.36	6.22	8269.11	0.31	
1330.37		141.00		9.44	134.05	10.85	0.000872
	0.51361	60322.92					
127.00		4402.60	12.35	6.21	8258.98	0.31	
1329.31		140.93		9.43	133.99	10.85	0.000874
	0.51423	60296.07					
128.00		4402.54	12.29	6.19	8140.31	0.31	
1314.95		140.12		9.38	133.22	10.84	0.000876
	0.51318	59950.38					
129.00		4402.51	12.26	6.18	8091.36	0.31	

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				HYCHAN.OUT			
1308.39		139.76		9.36	132.88	10.84	0.000876
	0.51199	59796.08					
	130.00	4402.51	12.26	6.18	8080.27	0.31	
1307.14		139.68		9.36	132.81	10.84	0.000876
	0.51128	59764.59					
	131.00	4402.45	12.20	6.16	7965.70	0.31	
1293.29		138.89		9.31	132.06	10.83	0.000881
	0.51176	59427.77					
	132.00	4402.43	12.18	6.16	7938.71	0.31	
1289.12		138.67		9.30	131.85	10.83	0.000881
	0.51133	59331.77					
	133.00	4402.55	12.30	6.20	8173.12	0.31	
1317.37		140.28		9.39	133.37	10.84	0.000872
	0.51109	60016.50					
	134.00	4402.60	12.36	6.22	8268.78	0.31	
1330.32		140.99		9.44	134.05	10.85	0.000872
	0.51342	60321.84					
	135.00	4402.61	12.36	6.22	8270.13	0.31	
1330.53		141.00		9.44	134.06	10.85	0.000872
	0.51368	60326.66					
	136.00	4402.61	12.36	6.22	8270.09	0.31	
1330.54		141.01		9.44	134.06	10.85	0.000871
	0.51283	60327.06					
	137.00	4402.61	12.36	6.22	8270.05	0.31	
1330.54		141.01		9.44	134.06	10.85	0.000871
	0.51282	60326.94					
	138.00	4402.61	12.36	6.22	8270.06	0.31	
1330.49		141.00		9.44	134.06	10.85	0.000871
	0.51283	60325.82					
	139.00	4402.61	12.36	6.22	8269.64	0.31	
1330.48		141.00		9.44	134.06	10.85	0.000872
	0.51372	60325.59					
	140.00	4402.60	12.35	6.21	8259.15	0.31	
1329.32		140.93		9.43	133.99	10.85	0.000868
	0.51089	60296.63					
	141.00	4402.54	12.29	6.19	8140.55	0.31	
1314.86		140.11		9.38	133.22	10.84	0.000874
	0.51185	59947.87					
	142.00	4402.51	12.26	6.18	8091.59	0.31	
1308.40		139.76		9.36	132.88	10.84	0.000876
	0.51195	59795.96					
	143.00	4402.51	12.26	6.18	8091.20	0.31	
1308.39		139.76		9.36	132.88	10.84	0.000878
	0.51303	59795.39					
	144.00	4402.51	12.26	6.18	8090.53	0.31	
1308.26		139.75		9.36	132.87	10.84	0.000878
	0.51271	59792.54					
	145.00	4402.51	12.26	6.18	8080.28	0.31	
1307.14		139.68		9.36	132.81	10.84	0.000875
	0.51119	59764.55					
	146.00	4402.45	12.20	6.16	7965.93	0.31	
1293.29		138.89		9.31	132.06	10.83	0.000874
	0.50781	59427.89					
	147.00	4402.42	12.17	6.15	7916.87	0.31	
1286.76		138.53		9.29	131.72	10.82	0.000880
	0.50998	59272.36					
	148.00	4402.42	12.17	6.15	7917.13	0.31	
1286.92		138.54		9.29	131.73	10.82	0.000880
	0.51006	59276.49					
	149.00	4402.42	12.17	6.15	7916.90	0.31	
1286.76		138.53		9.29	131.72	10.82	0.000880
	0.51029	59272.68					
	150.00	4402.42	12.17	6.15	7917.09	0.31	

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				HYCHAN.OUT			
1286.89		138.54		9.29	131.72	10.82	0.000883
	0.51194	59275.60					
151.00		4402.42	12.17	6.15	7910.37	0.31	
1286.00		138.48		9.29	131.67	10.82	0.000879
	0.50930	59253.42					
152.00		4402.37	12.12	6.14	7829.96	0.31	
1276.27		137.92		9.25	131.14	10.82	0.000882
	0.50955	59015.09					
153.00		4402.34	12.09	6.12	7759.11	0.31	
1267.41		137.42		9.22	130.67	10.81	0.000882
	0.50767	58799.56					
154.00		4402.33	12.08	6.12	7743.01	0.31	
1265.21		137.29		9.22	130.55	10.81	0.000884
	0.50811	58746.88					
155.00		4402.32	12.07	6.12	7732.89	0.31	
1264.03		137.22		9.21	130.48	10.81	0.000883
	0.50761	58716.98					
156.00		4402.27	12.02	6.10	7638.67	0.31	
1252.63		136.57		9.17	129.86	10.80	0.000886
	0.50722	58437.38					
157.00		4402.36	12.11	6.14	7819.83	0.31	
1273.89		137.80		9.24	131.03	10.82	0.000886
	0.51124	58963.70					
158.00		4402.42	12.17	6.15	7916.39	0.31	
1286.73		138.53		9.29	131.71	10.82	0.000879
	0.50936	59271.74					
159.00		4402.42	12.17	6.15	7917.01	0.31	
1286.85		138.53		9.29	131.72	10.82	0.000881
	0.51037	59274.98					
160.00		4402.42	12.17	6.15	7916.89	0.31	
1286.88		138.54		9.29	131.72	10.82	0.000879
	0.50953	59275.49					
161.00		4402.42	12.17	6.15	7917.19	0.31	
1286.84		138.53		9.29	131.72	10.82	0.000880
	0.51010	59274.33					
162.00		4402.42	12.17	6.15	7917.14	0.31	
1286.74		138.53		9.29	131.72	10.82	0.000877
	0.50812	59272.21					
163.00		4402.42	12.17	6.15	7916.87	0.31	
1286.69		138.52		9.29	131.71	10.82	0.000875
	0.50687	59270.75					
164.00		4402.42	12.17	6.15	7916.98	0.31	
1286.69		138.52		9.29	131.71	10.82	0.000877
	0.50818	59270.68					
165.00		4402.41	12.16	6.15	7906.79	0.31	
1285.60		138.46		9.28	131.65	10.82	0.000878
	0.50880	59243.47					
166.00		4402.35	12.10	6.13	7791.37	0.31	
1271.64		137.66		9.24	130.89	10.81	0.000882
	0.50839	58900.93					
167.00		4402.33	12.08	6.12	7743.02	0.31	
1265.18		137.29		9.22	130.55	10.81	0.000883
	0.50802	58746.26					
168.00		4402.33	12.08	6.12	7742.96	0.31	
1265.15		137.29		9.22	130.55	10.81	0.000885
	0.50917	58745.55					
169.00		4402.33	12.08	6.12	7742.90	0.31	
1265.14		137.29		9.22	130.54	10.81	0.000883
	0.50778	58745.20					
170.00		4402.33	12.08	6.12	7743.05	0.31	
1265.18		137.29		9.22	130.55	10.81	0.000884
	0.50834	58746.35					
171.00		4402.33	12.08	6.12	7743.11	0.31	

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				HYCHAN.OUT			
1265.17		137.29		9.22	130.55	10.81	0.000884
	0.50852	58745.97					
172.00		4402.33	12.08	6.12	7742.63	0.31	
1265.09		137.29		9.21	130.54	10.81	0.000883
	0.50789	58743.80					
173.00		4402.32	12.07	6.12	7733.12	0.31	
1264.05		137.22		9.21	130.48	10.81	0.000882
	0.50722	58717.65					
174.00		4402.26	12.01	6.09	7616.42	0.31	
1250.21		136.42		9.16	129.72	10.80	0.000888
	0.50779	58375.80					
175.00		4402.23	11.98	6.09	7569.24	0.31	
1243.83		136.06		9.14	129.38	10.80	0.000888
	0.50668	58221.63					
176.00		4402.23	11.98	6.09	7569.08	0.31	
1243.80		136.06		9.14	129.38	10.80	0.000887
	0.50627	58221.01					
177.00		4402.23	11.98	6.09	7569.08	0.31	
1243.80		136.06		9.14	129.38	10.80	0.000889
	0.50719	58221.02					
178.00		4402.23	11.98	6.08	7568.99	0.31	
1243.91		136.06		9.14	129.39	10.80	0.000888
	0.50683	58223.57					
179.00		4402.23	11.98	6.09	7568.76	0.31	
1243.83		136.06		9.14	129.38	10.80	0.000888
	0.50635	58221.77					
180.00		4402.24	11.99	6.09	7591.26	0.31	
1246.34		136.21		9.15	129.52	10.80	0.000887
	0.50655	58285.30					
181.00		4402.36	12.11	6.14	7819.84	0.31	
1273.91		137.80		9.24	131.03	10.82	0.000879
	0.50731	58964.04					
182.00		4402.42	12.17	6.15	7926.66	0.31	
1287.85		138.59		9.29	131.78	10.82	0.000881
	0.51089	59300.20					
183.00		4402.48	12.23	6.18	8042.58	0.31	
1301.80		139.39		9.34	132.53	10.83	0.000876
	0.51044	59639.72					
184.00		4402.51	12.26	6.18	8090.89	0.31	
1308.23		139.75		9.36	132.87	10.84	0.000877
	0.51252	59792.31					
185.00		4402.51	12.26	6.18	8090.83	0.31	
1308.35		139.75		9.36	132.88	10.84	0.000871
	0.50867	59794.64					
186.00		4402.51	12.26	6.18	8091.10	0.31	
1308.38		139.76		9.36	132.88	10.84	0.000879
	0.51322	59795.27					
187.00		4402.51	12.26	6.18	8091.17	0.31	
1308.27		139.75		9.36	132.87	10.84	0.000879
	0.51321	59792.60					
188.00		4402.51	12.26	6.18	8091.12	0.31	
1308.35		139.75		9.36	132.88	10.84	0.000879
	0.51358	59794.55					
189.00		4402.51	12.26	6.18	8090.81	0.31	
1308.36		139.76		9.36	132.88	10.84	0.000874
	0.51075	59794.83					
190.00		4402.51	12.26	6.18	8090.99	0.31	
1308.37		139.76		9.36	132.88	10.84	0.000875
	0.51122	59795.07					
191.00		4402.51	12.26	6.18	8080.37	0.31	
1307.14		139.68		9.36	132.81	10.84	0.000871
	0.50845	59764.60					
192.00		4402.45	12.20	6.16	7965.60	0.31	

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HYCHAN.OUT							
1293.31	0.51071	138.89	9.31	132.06	10.83	0.000879	
193.00	4402.42	59428.40	12.17	6.15	7917.10	0.31	
1286.91	0.51018	138.54	9.29	131.72	10.82	0.000880	
194.00	4402.42	59276.13	12.17	6.15	7917.14	0.31	
1286.76	0.50984	138.53	9.29	131.72	10.82	0.000880	
195.00	4402.42	59272.38	12.17	6.15	7917.32	0.31	
1286.90	0.51054	138.54	9.29	131.72	10.82	0.000881	
196.00	4402.42	59275.88	12.17	6.15	7916.89	0.31	
1286.68	0.51009	138.52	9.29	131.71	10.82	0.000880	
197.00	4402.42	59270.64	12.17	6.15	7916.94	0.31	
1286.86	0.50972	138.53	9.29	131.72	10.82	0.000879	
198.00	4402.42	59275.06	12.17	6.15	7917.12	0.31	
1286.92	0.51036	138.54	9.29	131.73	10.82	0.000880	
199.00	4402.42	59276.50	12.17	6.15	7916.73	0.31	
1286.80	0.51046	138.53	9.29	131.72	10.82	0.000881	
		59273.42					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3293

MAXIMUM DISCHARGE (CFS) = 16484.83 AT TIME = 87.14  
 MAXIMUM STAGE = 4406.14 AT TIME = 87.14

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	SURFACE AREA	AREA					
(FT^2)	(FT)	(FT^2)	(FT)	(FPS)	(CFS)		
(HRS)	(FT)		(FT)				
(LB/FT^2)	(FT)						
0.00	0.00	4389.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	0.00	4389.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	0.00	4389.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	0.00	4389.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	0.00	4397.35	7.45	4.01	3716.17	0.26	0.000963
925.91	78.30	33602.64	11.82	74.67	10.02	0.29	0.000966
0.71050	4400.35	116.08	8.90	5.26	5436.04	0.29	0.000967
1033.19	0.53671	49711.88	10.41	5.24	5374.57	0.29	0.000970
6.00	4400.31	115.53	8.87	5.21	5281.89	0.28	0.000974
1025.00	0.53525	49477.67	10.35	5.17	5132.39	0.28	0.000974
7.00	4400.25	114.71	8.83	109.17	10.55	0.28	0.000974
1012.98	0.53441	49127.30	10.24	8.76	107.90	0.28	0.000974
8.00	4400.14	113.37	8.76	107.90	10.53	0.28	0.000974
993.41							

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HYCHAN.OUT									
	0.53247	48556.51							
974.12	9.00	4400.04	10.14	5.12	4986.72	0.28			
		112.04	8.69	106.64	10.52		0.000977		
	0.53025	47989.46							
955.07	10.00	4399.94	10.04	5.07	4842.34	0.28			
		110.71	8.63	105.39	10.50		0.000980		
	0.52766	47424.18							
945.57	11.00	4399.89	9.99	5.05	4773.55	0.28			
		110.04	8.59	104.75	10.49		0.000979		
	0.52520	47139.56							
933.95	12.00	4399.82	9.92	5.02	4692.76	0.28			
		109.22	8.55	103.98	10.48		0.000983		
	0.52476	46789.35							
913.75	13.00	4399.71	9.81	4.97	4543.76	0.28			
		107.79	8.48	102.62	10.46		0.000986		
	0.52184	46178.37							
903.96	14.00	4399.65	9.75	4.94	4469.90	0.28			
		107.09	8.44	101.96	10.45		0.000986		
	0.51955	45880.96							
903.92	15.00	4399.65	9.75	4.94	4469.07	0.28			
		107.08	8.44	101.95	10.45		0.000986		
	0.51955	45879.19							
903.91	16.00	4399.65	9.75	4.94	4468.98	0.28			
		107.08	8.44	101.95	10.45		0.000986		
	0.51958	45878.95							
903.91	17.00	4399.65	9.75	4.94	4468.98	0.28			
		107.08	8.44	101.95	10.45		0.000986		
	0.51957	45878.96							
904.06	18.00	4399.66	9.76	4.94	4469.08	0.28			
		107.09	8.44	101.96	10.45		0.000988		
	0.52059	45883.84							
915.04	19.00	4399.72	9.82	4.97	4546.37	0.28			
		107.89	8.48	102.71	10.46		0.000985		
	0.52146	46220.85							
936.17	20.00	4399.83	9.93	5.02	4701.06	0.28			
		109.39	8.56	104.13	10.48		0.000981		
	0.52400	46860.69							
956.45	21.00	4399.95	10.05	5.07	4853.69	0.28			
		110.81	8.63	105.49	10.50		0.000978		
	0.52688	47468.39							
965.78	22.00	4400.00	10.10	5.10	4923.50	0.28			
		111.46	8.66	106.10	10.51		0.000977		
	0.52842	47744.37							
966.13	23.00	4400.00	10.10	5.10	4925.85	0.28			
		111.48	8.67	106.12	10.51		0.000978		
	0.52877	47754.68							
978.04	24.00	4400.06	10.16	5.13	5016.94	0.28			
		112.32	8.71	106.91	10.52		0.000977		
	0.53061	48108.76							
1010.85	25.00	4400.24	10.34	5.21	5267.88	0.29			
		114.57	8.82	109.04	10.55		0.000967		
	0.53216	49069.73							
1051.08	26.00	4400.45	10.55	5.31	5577.93	0.29			
		117.29	8.96	111.62	10.58		0.000959		
	0.53632	50229.75							
1089.44	27.00	4400.65	10.75	5.39	5876.57	0.29			
		119.85	9.09	114.04	10.61		0.000950		
	0.53899	51317.34							
1103.53	28.00	4400.72	10.82	5.42	5984.38	0.29			
		120.77	9.14	114.91	10.62		0.000948		
	0.54056	51710.43							
1104.38	29.00	4400.72	10.82	5.42	5990.61	0.29			
		120.82	9.14	114.96	10.62		0.000947		

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0.54039	51734.12						
30.00	4400.79	10.89	5.45	6094.81	0.29		
1117.46	121.68	9.18	115.78	10.63	0.000945		
0.54174	52099.96						
31.00	4400.82	10.92	5.47	6151.84	0.29		
1124.81	122.16	9.21	116.23	10.64	0.000942		
0.54138	52302.76						
32.00	4400.83	10.93	5.47	6158.32	0.29		
1125.67	122.22	9.21	116.28	10.64	0.000944		
0.54268	52326.59						
33.00	4400.90	11.00	5.50	6267.31	0.29		
1139.35	123.11	9.25	117.13	10.65	0.000940		
0.54277	52706.49						
34.00	4400.93	11.03	5.52	6325.87	0.29		
1146.95	123.59	9.28	117.59	10.66	0.000938		
0.54307	52913.82						
35.00	4400.93	11.03	5.51	6319.53	0.29		
1146.21	123.55	9.28	117.54	10.66	0.000938		
0.54287	52893.00						
36.00	4400.86	10.96	5.48	6210.69	0.29		
1132.64	122.66	9.23	116.70	10.65	0.000944		
0.54378	52516.57						
37.00	4400.82	10.92	5.47	6146.34	0.29		
1124.20	122.12	9.21	116.19	10.64	0.000944		
0.54214	52285.15						
38.00	4400.75	10.85	5.44	6042.40	0.29		
1111.21	121.27	9.16	115.38	10.63	0.000948		
0.54196	51922.05						
39.00	4400.72	10.82	5.42	5985.28	0.29		
1103.71	120.78	9.14	114.92	10.62	0.000947		
0.54017	51715.04						
40.00	4400.72	10.82	5.42	5985.17	0.29		
1103.68	120.78	9.14	114.92	10.62	0.000949		
0.54089	51714.09						
41.00	4400.72	10.82	5.42	5984.85	0.29		
1103.63	120.77	9.14	114.92	10.62	0.000947		
0.54018	51712.79						
42.00	4400.72	10.82	5.42	5984.95	0.29		
1103.60	120.77	9.14	114.92	10.62	0.000949		
0.54121	51712.00						
43.00	4400.72	10.82	5.42	5990.81	0.29		
1104.39	120.83	9.14	114.97	10.62	0.000946		
0.53952	51734.27						
44.00	4400.79	10.89	5.45	6094.65	0.29		
1117.45	121.68	9.18	115.78	10.63	0.000944		
0.54095	52099.86						
45.00	4400.83	10.93	5.47	6158.14	0.29		
1125.69	122.22	9.21	116.28	10.64	0.000944		
0.54247	52327.40						
46.00	4400.90	11.00	5.50	6274.65	0.29		
1140.20	123.16	9.26	117.18	10.65	0.000939		
0.54215	52730.41						
47.00	4401.01	11.11	5.55	6449.80	0.29		
1162.34	124.59	9.33	118.53	10.67	0.000933		
0.54288	53337.76						
48.00	4401.12	11.22	5.59	6623.44	0.29		
1184.25	125.99	9.40	119.85	10.69	0.000926		
0.54301	53933.88						
49.00	4401.22	11.32	5.64	6796.30	0.30		
1206.02	127.37	9.47	121.16	10.70	0.000919		
0.54303	54521.07						
50.00	4401.32	11.42	5.68	6966.65	0.30		
1227.46	128.71	9.54	122.43	10.72	0.000914		

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HYCHAN.OUT									
	0.54390	55094.38							
1250.74	51.00	4401.44	11.54	9.61	5.72	7151.80	0.30	0.000906	
	0.54345	55711.85				123.80	10.73		
1285.18	52.00	4401.60	11.70	9.71	5.78	7427.95	0.30	0.000894	
	0.54187	56616.26				125.81	10.76		
1301.42	53.00	4401.67	11.77	9.76	5.80	7552.23	0.30	0.000892	
	0.54374	57035.73				126.75	10.77		
1318.73	54.00	4401.75	11.85	9.82	5.84	7698.63	0.30	0.000884	
	0.54148	57487.60				127.75	10.78		
1374.09	55.00	4402.00	12.10	9.98	5.94	8161.12	0.30	0.000868	
	0.54044	58910.06				130.91	10.81		
1467.04	56.00	4402.42	12.52	10.25	6.09	8931.96	0.30	0.000834	
	0.53363	61237.55				136.08	10.87		
1592.14	57.00	4402.95	13.05	10.60	6.26	9963.26	0.31	0.000785	
	0.51915	64263.20				142.81	10.94		
1743.07	58.00	4403.56	13.66	11.00	6.40	11162.60	0.31	0.000719	
	0.49327	67771.64				150.60	11.02		
1868.33	59.00	4404.05	14.15	11.32	6.48	12104.53	0.30	0.000673	
	0.47536	70576.66				156.84	11.08		
1979.85	60.00	4404.47	14.57	11.59	6.53	12923.71	0.30	0.000625	
	0.45206	73004.41				162.23	11.14		
2091.67	61.00	4404.88	14.98	11.86	6.56	13717.27	0.30	0.000583	
	0.43111	75397.84				167.55	11.19		
2160.87	62.00	4405.15	15.25	12.03	6.58	14218.04	0.30	0.000576	
	0.43276	76990.63				171.09	11.22		
2199.21	63.00	4405.35	15.45	12.22	6.64	14594.64	0.30	0.000574	
	0.43752	78167.08				173.70	11.24		
2226.62	64.00	4405.50	15.60	12.35	6.67	14857.16	0.30	0.000579	
	0.44599	79041.42				175.65	11.26		
2244.04	65.00	4405.60	15.70	12.44	6.70	15026.76	0.30	0.000590	
	0.45806	79619.76				176.93	11.27		
2268.01	66.00	4405.74	15.84	12.55	6.73	15267.90	0.30	0.000574	
	0.44978	80414.44				178.70	11.28		
2284.81	67.00	4405.83	15.93	12.63	6.75	15427.29	0.30	0.000603	
	0.47550	80935.90				179.86	11.29		
2289.02	68.00	4405.85	15.95	12.65	6.76	15468.61	0.30	0.000574	
	0.45323	81065.31				180.15	11.30		
2290.56	69.00	4405.86	15.96	12.66	6.76	15489.70	0.30	0.000604	
	0.47715	81113.57				180.25	11.30		
2290.95	70.00	4405.86	15.96	12.66	6.76	15485.01	0.30	0.000606	
	0.47848	81124.73				180.28	11.30		
2289.90	71.00	4405.85	15.95	12.65	6.76	15476.92	0.30	0.000586	
		180.96				180.20	11.30		

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HYCHAN.OUT									
	0.46307	81091.75							
2290.55	72.00	4405.86	15.96	12.66	6.76	15486.97	0.30	0.000598	
	0.47211	81113.15				180.25	11.30		
2290.47	73.00	4405.85	15.96	12.66	6.76	15481.38	0.30	0.000603	
	0.47616	81109.92				180.24	11.30		
2294.39	74.00	4405.88	15.98	12.68	6.78	15546.99	0.30	0.000588	
	0.46535	81236.63				180.53	11.30		
2302.96	75.00	4405.92	16.02	12.72	6.80	15657.24	0.30	0.000605	
	0.48007	81511.74				181.14	11.30		
2307.50	76.00	4405.95	16.05	12.74	6.81	15708.47	0.30	0.000589	
	0.46837	81652.66				181.45	11.31		
2302.32	77.00	4405.92	16.02	12.71	6.79	15624.67	0.30	0.000586	
	0.46473	81484.87				181.08	11.30		
2306.24	78.00	4405.94	16.04	12.73	6.81	15705.88	0.30	0.000591	
	0.46964	81615.81				181.37	11.31		
2313.03	79.00	4405.98	16.08	12.76	6.82	15781.66	0.30	0.000620	
	0.49376	81819.70				181.82	11.31		
2331.46	80.00	4406.08	16.18	12.85	6.87	16018.95	0.30	0.000599	
	0.48065	82409.52				183.13	11.32		
2320.89	81.00	4406.02	16.12	12.80	6.83	15845.97	0.30	0.000605	
	0.48320	82066.39				182.37	11.32		
2322.08	82.00	4406.02	16.13	12.81	6.84	15883.80	0.30	0.000596	
	0.47623	82112.77				182.47	11.32		
2320.10	83.00	4406.01	16.11	12.80	6.83	15844.59	0.30	0.000593	
	0.47329	82048.98				182.33	11.31		
2314.22	84.00	4405.98	16.08	12.77	6.82	15774.84	0.30	0.000582	
	0.46412	81866.13				181.92	11.31		
2312.03	85.00	4405.97	16.07	12.76	6.81	15749.59	0.30	0.000611	
	0.48667	81797.04				181.77	11.31		
2313.24	86.00	4405.98	16.08	12.77	6.82	15770.02	0.30	0.000593	
	0.47222	81833.45				181.85	11.31		
2314.08	87.00	4405.98	16.08	12.77	6.82	15774.72	0.30	0.000583	
	0.46478	81859.97				181.91	11.31		
2331.96	88.00	4406.08	16.18	12.85	6.87	16026.59	0.30	0.000619	
	0.49666	82431.04				183.18	11.32		
2312.04	89.00	4405.97	16.07	12.76	6.81	15735.54	0.30	0.000587	
	0.46745	81781.02				181.74	11.31		
2264.54	90.00	4405.71	15.81	12.53	6.69	15141.04	0.30	0.000578	
	0.45176	80269.65				178.38	11.28		
2200.05	91.00	4405.35	15.46	12.22	6.60	14513.89	0.30	0.000568	
	0.43341	78174.03				173.72	11.24		
2145.40	92.00	4405.08	15.18	11.97	6.53	14019.09	0.30	0.000585	
		179.23				170.19	11.21		

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	0.43664	76586.96							
2059.30	93.00	4404.76	14.86	11.79	6.50	13387.54	0.30	0.000626	
		174.73				165.94	11.17		
	0.46061	74673.45							
1971.90	94.00	4404.43	14.53	11.58	6.48	12778.15	0.30	0.000665	
		170.35				161.80	11.13		
	0.48001	72808.60							
1895.67	95.00	4404.15	14.25	11.39	6.45	12230.64	0.30	0.000687	
		166.45				158.12	11.10		
	0.48855	71154.03							
1834.99	96.00	4403.92	14.02	11.24	6.42	11783.02	0.30	0.000713	
		163.31				155.14	11.07		
	0.49974	69815.14							
1765.97	97.00	4403.65	13.75	11.06	6.38	11258.85	0.30	0.000741	
		159.66				151.70	11.03		
	0.51138	68266.32							
1708.39	98.00	4403.42	13.52	10.91	6.33	10818.49	0.30	0.000759	
		156.58				148.79	11.01		
	0.51644	66955.62							
1655.88	99.00	4403.21	13.31	10.77	6.28	10407.01	0.30	0.000782	
		153.73				146.09	10.98		
	0.52545	65741.12							
1617.85	100.00	4403.05	13.15	10.67	6.25	10106.18	0.30	0.000792	
		151.64				144.11	10.96		
	0.52737	64850.64							
1572.45	101.00	4402.86	12.96	10.55	6.19	9738.36	0.30	0.000808	
		149.10				141.72	10.93		
	0.53154	63772.45							
1532.25	102.00	4402.69	12.79	10.43	6.14	9414.73	0.30	0.000818	
		146.84				139.58	10.91		
	0.53284	62810.80							
1497.73	103.00	4402.55	12.65	10.34	6.10	9136.36	0.30	0.000835	
		144.87				137.72	10.89		
	0.53892	61973.40							
1469.74	104.00	4402.43	12.53	10.26	6.06	8912.67	0.30	0.000844	
		143.27				136.20	10.87		
	0.54041	61288.85							
1443.93	105.00	4402.31	12.41	10.19	6.03	8701.17	0.30	0.000846	
		141.76				134.78	10.86		
	0.53793	60649.22							
1403.88	106.00	4402.14	12.24	10.07	5.96	8373.04	0.30	0.000864	
		139.41				132.55	10.83		
	0.54262	59645.98							
1373.54	107.00	4402.00	12.10	9.98	5.92	8134.75	0.30	0.000874	
		137.62				130.86	10.81		
	0.54415	58885.70							
1351.77	108.00	4401.90	12.00	9.92	5.89	7958.88	0.30	0.000883	
		136.32				129.63	10.80		
	0.54656	58331.43							
1331.25	109.00	4401.81	11.91	9.86	5.85	7794.09	0.30	0.000883	
		135.08				128.46	10.79		
	0.54317	57805.82							
1325.92	110.00	4401.78	11.88	9.84	5.85	7753.04	0.30	0.000886	
		134.77				128.16	10.78		
	0.54419	57670.99							
1341.83	111.00	4401.86	11.96	9.89	5.88	7886.70	0.30	0.000880	
		135.73				129.07	10.79		
	0.54285	58083.28							
1374.88	112.00	4402.01	12.11	9.98	5.93	8158.08	0.30	0.000869	
		137.72				130.95	10.82		
	0.54134	58927.72							
1372.99	113.00	4402.00	12.10	9.98	5.92	8131.88	0.30	0.000873	
		137.59				130.83	10.81		

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1354.95	0.54348	58872.32	12.02	5.90	7988.06	0.30	0.000879
	114.00	4401.92		9.93	129.81	10.80	
	0.54446	58415.49	12.13	5.94	8193.02	0.30	0.000870
1378.82	115.00	4402.03		9.99	131.18	10.82	
	0.54247	59028.98	12.32	6.01	8546.13	0.30	0.000854
1422.34	116.00	4402.22		10.12	133.61	10.84	
	0.53905	60123.80	12.31	6.00	8525.02	0.30	0.000857
1421.47	117.00	4402.21		10.12	133.54	10.84	
	0.54096	60094.16	12.28	5.99	8470.68	0.30	0.000858
1413.94	118.00	4402.18		10.10	133.13	10.84	
	0.54039	59909.70	12.29	5.99	8482.22	0.30	0.000858
1415.19	119.00	4402.19		10.10	133.21	10.84	
	0.54110	59942.29	12.36	6.02	8615.24	0.30	0.000853
1431.12	120.00	4402.26		10.15	134.09	10.85	
	0.54015	60341.89	12.39	6.03	8669.62	0.30	0.000854
1438.22	121.00	4402.29		10.17	134.48	10.85	
	0.54203	60516.26	12.38	6.02	8656.71	0.30	0.000851
1437.18	122.00	4402.28		10.17	134.42	10.85	
	0.53981	60487.87	12.31	6.00	8525.31	0.30	0.000859
1421.46	123.00	4402.21		10.12	133.54	10.84	
	0.54250	60093.91	12.28	5.99	8458.13	0.30	0.000858
1412.72	124.00	4402.18		10.09	133.06	10.84	
	0.54046	59877.88	12.21	5.96	8327.20	0.30	0.000865
1397.30	125.00	4402.11		10.05	132.19	10.83	
	0.54220	59486.45	12.17	5.95	8269.11	0.30	0.000867
1389.29	126.00	4402.07		10.03	131.75	10.82	
	0.54218	59289.40	12.17	5.95	8259.78	0.30	0.000864
1388.32	127.00	4402.07		10.02	131.70	10.82	
	0.54056	59263.63	12.10	5.93	8142.38	0.30	0.000873
1374.12	128.00	4402.00		9.98	130.89	10.81	
	0.54368	58902.50	12.07	5.92	8091.40	0.30	0.000873
1367.45	129.00	4401.97		9.96	130.52	10.81	
	0.54297	58736.04	12.07	5.91	8081.08	0.30	0.000874
1366.26	130.00	4401.97		9.96	130.45	10.81	
	0.54295	58704.64	12.01	5.89	7967.69	0.30	0.000878
1352.62	131.00	4401.91		9.92	129.68	10.80	
	0.54361	58354.61	11.99	5.89	7937.22	0.30	0.000879
1348.29	132.00	4401.89		9.91	129.44	10.80	
	0.54336	58247.62	12.11	5.94	8169.00	0.30	0.000866
1376.15	133.00	4402.01		9.99	131.02	10.82	
	0.53964	58960.30	12.17	5.95	8268.66	0.30	0.000866
1389.25	134.00	4402.07		10.03	131.75	10.82	
	138.57						

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1389.45	0.54185	59288.43	12.17	10.03	5.95	8270.13	0.30	0.000867
1389.47	0.54244	59293.42	12.17	10.03	5.95	8270.10	0.30	0.000867
1389.47	0.54252	59293.89	12.17	10.03	5.95	8270.05	0.30	0.000866
1389.40	0.54209	59293.91	12.17	10.03	5.95	8270.03	0.30	0.000866
1389.42	0.54194	59292.32	12.17	10.03	5.95	8269.65	0.30	0.000866
1388.30	0.54202	59292.51	12.17	10.02	5.95	8259.89	0.30	0.000871
1374.05	0.54501	59263.44	12.10	9.98	5.93	8142.75	0.30	0.000871
1367.50	0.54272	58900.49	12.07	9.96	5.92	8091.57	0.30	0.000878
1367.47	0.54553	58736.72	12.07	9.96	5.92	8091.27	0.30	0.000870
1367.35	0.54099	58736.35	12.07	9.96	5.92	8090.50	0.30	0.000870
1366.28	0.54084	58733.09	12.07	9.96	5.91	8081.07	0.30	0.000875
1352.62	0.54373	58704.98	12.01	9.92	5.89	7967.80	0.30	0.000880
1346.03	0.54492	58354.51	11.98	9.90	5.88	7917.01	0.30	0.000880
1346.19	0.54350	58188.21	11.98	9.90	5.88	7917.17	0.30	0.000881
1346.02	0.54415	58192.21	11.98	9.90	5.88	7916.88	0.30	0.000880
1346.16	0.54329	58188.21	11.98	9.90	5.88	7917.16	0.30	0.000881
1345.29	0.54423	58191.45	11.97	9.90	5.88	7910.79	0.30	0.000882
1335.69	0.54465	58168.97	11.93	9.87	5.86	7831.56	0.30	0.000885
1326.91	0.54471	57921.20	11.89	9.84	5.85	7759.83	0.30	0.000885
1324.68	0.54347	57694.96	11.88	9.84	5.85	7743.05	0.30	0.000888
1323.55	0.54472	57638.39	11.87	9.83	5.84	7733.59	0.30	0.000886



## HYCHAN.OUT

1312.25	0.54363	57608.36	11.82	9.80	5.82	7639.17	0.30	0.000890
	156.00	4401.72						
		133.93				127.37	10.77	
1333.06	0.54399	57315.54	11.92	9.86	5.86	7815.92	0.30	0.000880
	157.00	4401.82						
		135.21				128.57	10.79	
1346.00	0.54130	57858.07	11.98	9.90	5.88	7916.23	0.30	0.000880
	158.00	4401.88						
		135.98				129.31	10.80	
1346.10	0.54348	58187.43	11.98	9.90	5.88	7917.00	0.30	0.000879
	159.00	4401.88						
		135.99				129.31	10.80	
1346.15	0.54315	58190.27	11.98	9.90	5.88	7916.89	0.30	0.000880
	160.00	4401.88						
		135.99				129.31	10.80	
1346.10	0.54348	58191.15	11.98	9.90	5.88	7917.27	0.30	0.000880
	161.00	4401.88						
		135.99				129.31	10.80	
1346.00	0.54370	58190.14	11.98	9.90	5.88	7917.05	0.30	0.000884
	162.00	4401.88						
		135.98				129.31	10.80	
1345.95	0.54610	58187.54	11.98	9.90	5.88	7916.85	0.30	0.000881
	163.00	4401.88						
		135.98				129.30	10.80	
1345.96	0.54428	58186.44	11.98	9.90	5.88	7917.00	0.30	0.000881
	164.00	4401.88						
		135.98				129.30	10.80	
1344.89	0.54393	58186.44	11.97	9.90	5.88	7907.51	0.30	0.000883
	165.00	4401.87						
		135.91				129.24	10.80	
1331.16	0.54550	58158.66	11.91	9.85	5.85	7793.50	0.30	0.000885
	166.00	4401.81						
		135.08				128.45	10.79	
1324.63	0.54428	57803.30	11.88	9.83	5.85	7743.04	0.30	0.000884
	167.00	4401.78						
		134.69				128.08	10.78	
1324.59	0.54274	57637.44	11.88	9.83	5.85	7742.99	0.30	0.000889
	168.00	4401.78						
		134.69				128.08	10.78	
1324.60	0.54565	57636.61	11.88	9.83	5.85	7742.85	0.30	0.000885
	169.00	4401.78						
		134.68				128.08	10.78	
1324.63	0.54318	57636.38	11.88	9.83	5.85	7743.08	0.30	0.000886
	170.00	4401.78						
		134.69				128.08	10.78	
1324.62	0.54357	57637.47	11.88	9.83	5.85	7743.11	0.30	0.000885
	171.00	4401.78						
		134.69				128.08	10.78	
1324.54	0.54326	57637.18	11.88	9.83	5.85	7742.63	0.30	0.000885
	172.00	4401.78						
		134.68				128.08	10.78	
1323.55	0.54309	57635.05	11.87	9.83	5.84	7733.83	0.30	0.000886
	173.00	4401.77						
		134.62				128.02	10.78	
1309.91	0.54342	57608.71	11.81	9.79	5.82	7618.47	0.30	0.000891
	174.00	4401.71						
		133.78				127.23	10.77	
1303.44	0.54439	57253.16	11.78	9.77	5.81	7569.28	0.30	0.000891
	175.00	4401.68						
		133.40				126.86	10.77	
1303.43	0.54329	57087.91	11.78	9.77	5.81	7569.07	0.30	0.000890
	176.00	4401.68						
		133.40				126.86	10.77	

## HYCHAN.OUT

1303.42	0.54280	57087.39	11.78	9.77	5.81	7569.11	0.30	0.000892
	177.00	4401.68				126.86	10.77	
		133.39						
1303.54	0.54403	57087.26	11.78	9.77	5.81	7568.96	0.30	0.000893
	178.00	4401.68				126.87	10.77	
		133.40						
1303.46	0.54424	57090.17	11.78	9.77	5.81	7568.72	0.30	0.000892
	179.00	4401.68				126.86	10.77	
		133.40						
1305.88	0.54370	57088.08	11.79	9.78	5.81	7589.77	0.30	0.000888
	180.00	4401.69				127.01	10.77	
		133.55						
1333.07	0.54193	57152.55	11.92	9.86	5.86	7815.83	0.30	0.000880
	181.00	4401.82				128.57	10.79	
		135.21						
1347.04	0.54132	57858.33	11.98	9.90	5.88	7925.81	0.30	0.000880
	182.00	4401.88				129.37	10.80	
		136.04						
1360.80	0.54377	58215.30	12.04	9.94	5.91	8040.54	0.30	0.000874
	183.00	4401.94				130.15	10.81	
		136.87						
1367.28	0.54234	58568.39	12.07	9.96	5.92	8090.83	0.30	0.000871
	184.00	4401.97				130.52	10.81	
		137.26						
1367.45	0.54144	58731.93	12.07	9.96	5.92	8090.75	0.30	0.000876
	185.00	4401.97				130.52	10.81	
		137.27						
1367.48	0.54455	58735.42	12.07	9.96	5.92	8091.25	0.30	0.000873
	186.00	4401.97				130.52	10.81	
		137.27						
1367.37	0.54240	58736.21	12.07	9.96	5.92	8091.16	0.30	0.000872
	187.00	4401.97				130.52	10.81	
		137.26						
1367.44	0.54230	58733.39	12.07	9.96	5.92	8091.11	0.30	0.000873
	188.00	4401.97				130.52	10.81	
		137.27						
1367.45	0.54294	58735.40	12.07	9.96	5.92	8090.73	0.30	0.000870
	189.00	4401.97				130.52	10.81	
		137.27						
1367.46	0.54099	58735.74	12.07	9.96	5.92	8091.03	0.30	0.000876
	190.00	4401.97				130.52	10.81	
		137.27						
1366.25	0.54470	58735.85	12.07	9.96	5.91	8081.06	0.30	0.000870
	191.00	4401.97				130.45	10.81	
		137.19						
1352.65	0.54060	58704.64	12.01	9.92	5.89	7967.64	0.30	0.000879
	192.00	4401.91				129.68	10.80	
		136.37						
1346.17	0.54410	58355.29	11.98	9.90	5.88	7917.12	0.30	0.000883
	193.00	4401.88				129.32	10.80	
		135.99						
1346.02	0.54545	58191.89	11.98	9.90	5.88	7917.19	0.30	0.000880
	194.00	4401.88				129.31	10.80	
		135.98						
1346.18	0.54352	58188.11	11.98	9.90	5.88	7917.31	0.30	0.000877
	195.00	4401.88				129.32	10.80	
		135.99						
1345.95	0.54193	58191.87	11.98	9.90	5.88	7916.90	0.30	0.000879
	196.00	4401.88				129.30	10.80	
		135.98						
1346.12	0.54321	58186.20	11.98	9.90	5.88	7916.90	0.30	0.000879
	197.00	4401.88				129.31	10.80	
		135.99						

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0.54317	58190.59							
198.00	4401.88	11.98	5.88	7917.14	0.30			
1346.19	135.99	9.90		129.32	10.80	0.000880		
0.54364	58192.34							
199.00	4401.88	11.98	5.88	7916.77	0.30			
1346.07	135.98	9.90		129.31	10.80	0.000885		
0.54642	58189.19							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3373

MAXIMUM DISCHARGE (CFS) = 16269.99 AT TIME = 87.15  
 MAXIMUM STAGE = 4405.66 AT TIME = 80.21

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY		SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)			(FT)				
0.00	0.00	4389.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4389.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4389.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4389.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4396.49	6.99	3.78	3561.79	0.25			
941.03		129.94	7.24	126.28	18.06				0.001063
	0.48033	63142.07							
1036.69	5.00	4399.67	10.17	5.25	5438.06	0.29			
	0.41905	164.37	6.31	159.33	15.66				0.001065
	6.00	4399.63	10.13	5.23	5375.08	0.29			
1028.60		163.94	6.27	158.91	15.69				0.001064
	0.41663	79452.70							
1017.62	7.00	4399.56	10.06	5.19	5284.44	0.29			
	0.41358	163.28	6.23	158.28	15.73				0.001063
	8.00	4399.46	9.96	5.14	5135.01	0.29			
999.09		162.21	6.16	157.25	15.79				0.001065
	0.40939	78626.75							
980.84	9.00	4399.35	9.85	5.09	4989.22	0.29			
	0.40497	161.15	6.09	156.23	15.85				0.001066
	10.00	4399.25	9.75	5.03	4844.72	0.28			
962.83		160.08	6.01	155.21	15.92				0.001068
	0.40098	77603.80							
953.67	11.00	4399.20	9.70	5.01	4774.02	0.28			
	0.39741	159.55	5.98	154.70	15.95				0.001066
	12.00	4399.13	9.63	4.98	4695.40	0.28			
943.19		158.88	5.94	154.06	15.99				0.001065
	0.39451	77030.00							
924.18	13.00	4399.02	9.52	4.92	4546.26	0.28			
	0.38986	157.72	5.86	152.94	16.06				0.001066
		76471.91							

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		HYCHAN.OUT					
914.60	14.00	4398.97	9.47	4.89	4470.04	0.28	
		157.16	5.82	152.41	16.10	0.001068	
	0.38786	76202.91					
914.52	15.00	4398.97	9.47	4.89	4469.07	0.28	
		157.16	5.82	152.40	16.10	0.001068	
	0.38799	76202.31					
914.51	16.00	4398.97	9.47	4.89	4468.98	0.28	
		157.15	5.82	152.40	16.10	0.001068	
	0.38789	76201.89					
914.51	17.00	4398.97	9.47	4.89	4468.97	0.28	
		157.15	5.82	152.40	16.10	0.001068	
	0.38798	76201.80					
914.59	18.00	4398.97	9.47	4.89	4468.86	0.28	
		157.16	5.82	152.41	16.10	0.001071	
	0.38887	76205.84					
924.38	19.00	4399.03	9.53	4.92	4543.72	0.28	
		157.80	5.86	153.02	16.06	0.001074	
	0.39249	76512.09					
944.17	20.00	4399.15	9.65	4.98	4698.22	0.28	
		159.01	5.94	154.19	15.98	0.001074	
	0.39785	77093.49					
963.31	21.00	4399.26	9.76	5.04	4851.25	0.28	
		160.16	6.01	155.29	15.91	0.001071	
	0.40181	77644.54					
972.56	22.00	4399.31	9.81	5.06	4923.34	0.28	
		160.69	6.05	155.79	15.88	0.001070	
	0.40401	77895.04					
972.90	23.00	4399.31	9.81	5.06	4925.58	0.28	
		160.71	6.05	155.81	15.88	0.001070	
	0.40431	77904.84					
983.62	24.00	4399.38	9.88	5.10	5013.91	0.29	
		161.37	6.10	156.45	15.84	0.001073	
	0.40819	78223.28					
1014.30	25.00	4399.55	10.05	5.19	5262.50	0.29	
		163.17	6.22	158.17	15.73	0.001072	
	0.41566	79085.88					
1052.36	26.00	4399.77	10.27	5.30	5572.60	0.29	
		165.33	6.37	160.24	15.61	0.001068	
	0.42436	80120.30					
1088.87	27.00	4399.97	10.47	5.39	5872.39	0.29	
		167.34	6.51	162.17	15.50	0.001058	
	0.42958	81083.20					
1102.87	28.00	4400.04	10.54	5.43	5984.20	0.29	
		168.07	6.56	162.86	15.45	0.001058	
	0.43311	81431.61					
1103.62	29.00	4400.04	10.54	5.43	5990.00	0.29	
		168.11	6.56	162.91	15.45	0.001061	
	0.43470	81452.64					
1115.75	30.00	4400.11	10.61	5.46	6092.70	0.30	
		168.78	6.61	163.55	15.42	0.001056	
	0.43565	81772.98					
1123.07	31.00	4400.15	10.65	5.48	6151.68	0.30	
		169.15	6.64	163.90	15.39	0.001057	
	0.43771	81951.96					
1123.81	32.00	4400.15	10.65	5.48	6157.78	0.30	
		169.20	6.64	163.95	15.39	0.001058	
	0.43870	81973.14					
1136.49	33.00	4400.22	10.72	5.51	6265.08	0.30	
		169.89	6.69	164.61	15.35	0.001055	
	0.44049	82303.54					
1144.08	34.00	4400.26	10.76	5.53	6325.78	0.30	
		170.27	6.72	164.97	15.33	0.001053	
	0.44132	82486.63					

HYCHAN.OUT							
1143.47	35.00	4400.26	10.76	5.53	6320.08	0.30	0.001052
	0.44095	170.23	6.72		164.94	15.34	
		82468.22					
1130.85	36.00	4400.19	10.69	5.49	6213.02	0.30	0.001055
	0.43908	169.55	6.67		164.28	15.37	
		82140.56					
1122.60	37.00	4400.14	10.64	5.48	6146.97	0.30	0.001054
	0.43658	169.12	6.64		163.87	15.40	
		81936.98					
1110.52	38.00	4400.08	10.58	5.44	6044.53	0.30	0.001057
	0.43469	168.46	6.59		163.24	15.43	
		81619.00					
1103.06	39.00	4400.04	10.54	5.43	5985.35	0.29	0.001059
	0.43367	168.07	6.56		162.87	15.45	
		81435.91					
1103.04	40.00	4400.04	10.54	5.43	5985.18	0.29	0.001058
	0.43342	168.07	6.56		162.87	15.45	
		81435.34					
1102.98	41.00	4400.04	10.54	5.43	5984.83	0.29	0.001059
	0.43379	168.07	6.56		162.87	15.45	
		81434.18					
1102.98	42.00	4400.04	10.54	5.43	5985.01	0.29	0.001058
	0.43328	168.07	6.56		162.87	15.45	
		81433.30					
1103.62	43.00	4400.04	10.54	5.43	5990.16	0.29	0.001061
	0.43475	168.11	6.56		162.91	15.45	
		81453.05					
1115.74	44.00	4400.11	10.61	5.46	6092.49	0.30	0.001058
	0.43651	168.78	6.61		163.55	15.42	
		81772.85					
1123.80	45.00	4400.15	10.65	5.48	6157.54	0.30	0.001057
	0.43799	169.20	6.64		163.95	15.39	
		81973.48					
1137.21	46.00	4400.23	10.73	5.52	6271.73	0.30	0.001057
	0.44161	169.93	6.69		164.65	15.35	
		82324.18					
1158.22	47.00	4400.34	10.84	5.57	6446.88	0.30	0.001054
	0.44544	171.03	6.77		165.71	15.29	
		82853.80					
1179.07	48.00	4400.45	10.95	5.62	6620.57	0.30	0.001049
	0.44845	172.12	6.85		166.74	15.23	
		83371.95					
1199.84	49.00	4400.55	11.05	5.66	6793.56	0.30	0.001044
	0.45128	173.18	6.93		167.76	15.18	
		83881.00					
1220.25	50.00	4400.66	11.16	5.71	6963.62	0.30	0.001040
	0.45464	174.21	7.00		168.75	15.12	
		84376.23					
1242.46	51.00	4400.77	11.27	5.75	7148.34	0.30	0.001037
	0.45871	175.32	7.09		169.82	15.06	
		84908.38					
1275.25	52.00	4400.94	11.44	5.82	7423.45	0.30	0.001025
	0.46116	176.94	7.21		171.37	14.98	
		85682.81					
1291.32	53.00	4401.02	11.52	5.85	7551.34	0.30	0.001025
	0.46480	177.70	7.27		172.09	14.94	
		86044.95					
1307.14	54.00	4401.10	11.60	5.89	7694.34	0.30	0.001025
	0.46850	178.49	7.32		172.85	14.90	
		86424.01					
1358.80	55.00	4401.36	11.86	6.00	8151.15	0.31	0.001015
	0.47533	180.97	7.51		175.23	14.78	
		87613.05					

HYCHAN.OUT							
1446.58	56.00	4401.78	12.28	7.82	6.16	8917.78	0.31
	0.48286	185.01				179.09	14.58
		89544.97					0.000990
1565.62	57.00	4402.34	12.84	8.23	6.35	9945.18	0.31
	0.48754	190.20				184.06	14.34
		92030.24					0.000949
1710.09	58.00	4402.98	13.48	8.72	6.52	11143.96	0.31
	0.48791	196.14				189.74	14.07
		94870.91					0.000897
1830.28	59.00	4403.50	14.00	9.11	6.61	12090.09	0.31
	0.48589	200.83				194.23	13.87
		97115.19					0.000854
1936.89	60.00	4403.95	14.45	9.46	6.66	12908.66	0.31
	0.47702	204.83				198.05	13.71
		99025.80					0.000808
2044.78	61.00	4404.39	14.89	9.80	6.70	13704.26	0.31
	0.46901	208.72				201.78	13.55
		100887.62					0.000767
2113.65	62.00	4404.68	15.18	10.09	6.72	14198.88	0.30
	0.48171	209.52				204.19	13.45
		102097.17					0.000765
2157.67	63.00	4404.88	15.38	10.28	6.75	14555.06	0.30
	0.48674	209.92				205.86	13.39
		102927.66					0.000759
2188.71	64.00	4405.02	15.52	10.41	6.76	14803.73	0.30
	0.49327	210.22				207.08	13.34
		103541.27					0.000759
2207.67	65.00	4405.12	15.62	10.49	6.78	14961.11	0.30
	0.50170	210.40				207.83	13.31
		103916.41					0.000766
2233.05	66.00	4405.24	15.74	10.60	6.80	15184.74	0.30
	0.51244	210.65				208.87	13.27
		104435.34					0.000775
2252.38	67.00	4405.33	15.84	10.68	6.81	15337.47	0.30
	0.52244	210.84				209.64	13.24
		104820.20					0.000784
2257.21	68.00	4405.36	15.86	10.70	6.81	15375.11	0.30
	0.51174	210.88				209.84	13.23
		104918.09					0.000766
2259.11	69.00	4405.37	15.87	10.71	6.82	15396.10	0.30
	0.51673	210.90				209.91	13.23
		104953.32					0.000773
2259.51	70.00	4405.37	15.87	10.71	6.81	15391.55	0.30
	0.52201	210.91				209.92	13.23
		104961.70					0.000781
2258.24	71.00	4405.36	15.86	10.71	6.81	15384.58	0.30
	0.50622	210.89				209.87	13.23
		104937.41					0.000758
2259.06	72.00	4405.37	15.87	10.71	6.81	15392.67	0.30
	0.50758	210.90				209.91	13.23
		104952.75					0.000759
2258.96	73.00	4405.37	15.87	10.71	6.81	15387.52	0.30
	0.51382	210.90				209.90	13.23
		104951.10					0.000769
2263.16	74.00	4405.39	15.89	10.73	6.83	15446.79	0.30
	0.51007	210.94				210.08	13.22
		105039.66					0.000762
2272.70	75.00	4405.44	15.93	10.77	6.84	15545.00	0.30
	0.53148	211.04				210.46	13.21
		105229.59					0.000791
2277.94	76.00	4405.46	15.96	10.79	6.85	15597.61	0.30
	0.50965	211.09				210.66	13.20
		105331.83					0.000757

HYCHAN.OUT							
2272.24	77.00	4405.43	15.93	10.77	6.83	15520.19	0.30
	0.50866	211.03				210.43	13.21
		105214.19					0.000757
2276.33	78.00	4405.45	15.95	10.78	6.85	15589.67	0.30
	0.50844	211.07				210.61	13.20
		105303.38					0.000756
2284.48	79.00	4405.49	15.99	10.82	6.86	15661.02	0.30
	0.52548	211.15				210.92	13.19
		105462.11					0.000778
2305.01	80.00	4405.59	16.09	10.91	6.89	15874.50	0.30
	0.51308	211.35				211.76	13.16
		105880.13					0.000754
2293.36	81.00	4405.53	16.03	10.86	6.86	15724.33	0.30
	0.53625	211.23				211.27	13.18
		105634.81					0.000792
2294.30	82.00	4405.54	16.04	10.86	6.87	15756.49	0.30
	0.52997	211.25				211.32	13.17
		105659.96					0.000782
2292.11	83.00	4405.53	16.03	10.85	6.86	15724.52	0.30
	0.51293	211.22				211.22	13.18
		105612.35					0.000758
2285.37	84.00	4405.50	16.00	10.82	6.85	15658.70	0.30
	0.51786	211.16				210.96	13.19
		105477.81					0.000767
2282.89	85.00	4405.48	15.98	10.81	6.85	15637.18	0.30
	0.53268	211.13				210.85	13.19
		105427.12					0.000790
2284.24	86.00	4405.49	15.99	10.82	6.85	15655.70	0.30
	0.51216	211.15				210.91	13.19
		105456.82					0.000759
2285.25	87.00	4405.50	16.00	10.82	6.85	15658.90	0.30
	0.51219	211.16				210.95	13.19
		105476.98					0.000758
2305.22	88.00	4405.60	16.10	10.91	6.89	15879.62	0.30
	0.53882	211.36				211.78	13.16
		105889.09					0.000792
2283.82	89.00	4405.49	15.99	10.82	6.84	15629.84	0.30
	0.50898	211.14				210.87	13.19
		105436.38					0.000754
2230.52	90.00	4405.22	15.72	10.59	6.76	15089.13	0.30
	0.50185	210.61				208.72	13.27
		104358.27					0.000759
2159.28	91.00	4404.88	15.38	10.29	6.71	14497.91	0.30
	0.48369	209.93				205.89	13.39
		102945.11					0.000754
2098.71	92.00	4404.61	15.11	10.02	6.68	14025.54	0.30
	0.48194	209.38				203.62	13.48
		101811.02					0.000771
2014.72	93.00	4404.26	14.76	9.70	6.65	13400.05	0.31
	0.48831	207.60				200.70	13.60
		100350.21					0.000806
1931.16	94.00	4403.92	14.42	9.44	6.62	12788.54	0.31
	0.49363	204.56				197.80	13.72
		98897.73					0.000838
1858.21	95.00	4403.61	14.11	9.21	6.59	12239.31	0.31
	0.49762	201.84				195.19	13.83
		97597.18					0.000866
1800.04	96.00	4403.37	13.87	9.02	6.55	11790.97	0.31
	0.50027	199.62				193.07	13.92
		96536.42					0.000889
1734.13	97.00	4403.08	13.58	8.80	6.50	11267.30	0.31
	0.50057	197.04				190.60	14.03
		95301.21					0.000911



HYCHAN.OUT							
1678.91	98.00	4402.84	13.34	8.62	6.45	10825.30	0.31
	0.49855	194.84				188.49	14.13
		94247.05					0.000927
1628.82	99.00	4402.62	13.12	8.45	6.39	10413.17	0.31
	0.49578	192.78				186.53	14.22
		93265.50					0.000940
1592.54	100.00	4402.45	12.95	8.33	6.35	10110.88	0.31
	0.49440	191.27				185.09	14.29
		92542.89					0.000952
1549.25	101.00	4402.25	12.75	8.18	6.29	9744.38	0.31
	0.49369	189.44				183.33	14.37
		91664.00					0.000967
1510.70	102.00	4402.08	12.58	8.05	6.24	9419.31	0.31
	0.49027	187.78				181.74	14.45
		90871.55					0.000977
1477.88	103.00	4401.92	12.42	7.93	6.18	9140.64	0.31
	0.48866	186.34				180.36	14.52
		90180.99					0.000987
1451.17	104.00	4401.80	12.30	7.84	6.14	8916.04	0.31
	0.48420	185.15				179.23	14.57
		89613.30					0.000990
1426.69	105.00	4401.68	12.18	7.75	6.10	8704.96	0.31
	0.48173	184.05				178.17	14.63
		89084.34					0.000996
1388.95	106.00	4401.50	12.00	7.62	6.03	8378.50	0.31
	0.47975	182.30				176.50	14.71
		88250.34					0.001009
1360.02	107.00	4401.36	11.86	7.52	5.98	8137.86	0.31
	0.47422	180.96				175.21	14.78
		87607.16					0.001011
1339.41	108.00	4401.26	11.76	7.44	5.94	7961.62	0.31
	0.47064	179.99				174.28	14.83
		87140.80					0.001014
1319.91	109.00	4401.16	11.66	7.37	5.91	7796.09	0.30
	0.46954	179.06				173.39	14.87
		86697.05					0.001021
1314.49	110.00	4401.13	11.63	7.35	5.90	7752.44	0.30
	0.46809	178.82				173.16	14.88
		86581.59					0.001020
1329.12	111.00	4401.21	11.71	7.40	5.93	7883.22	0.31
	0.47080	179.54				173.85	14.85
		86926.05					0.001019
1360.47	112.00	4401.36	11.86	7.52	5.99	8154.74	0.31
	0.47217	181.02				175.27	14.77
		87634.23					0.001007
1359.50	113.00	4401.35	11.85	7.51	5.98	8134.40	0.31
	0.47419	180.94				175.19	14.78
		87595.53					0.001011
1342.16	114.00	4401.27	11.77	7.45	5.95	7988.76	0.31
	0.47319	180.13				174.42	14.82
		87209.41					0.001018
1363.87	115.00	4401.38	11.88	7.53	6.00	8187.27	0.31
	0.47491	181.19				175.43	14.77
		87717.37					0.001011
1405.39	116.00	4401.58	12.08	7.68	6.08	8542.24	0.31
	0.47688	183.10				177.27	14.67
		88633.16					0.000996
1405.33	117.00	4401.58	12.08	7.68	6.07	8527.24	0.31
	0.48009	183.07				177.23	14.67
		88617.43					0.001002
1397.99	118.00	4401.54	12.04	7.65	6.06	8470.78	0.31
	0.47924	182.74				176.92	14.69
		88459.16					0.001004

HYCHAN.OUT							
1399.07	119.00	4401.55	12.05	7.65	6.06	8481.31	0.31
	0.47926	182.79				176.97	14.69
		88484.90					0.001003
1413.99	120.00	4401.62	12.12	7.71	6.09	8612.84	0.31
	0.48054	183.49				177.63	14.65
		88816.55					0.000999
1421.04	121.00	4401.65	12.15	7.73	6.10	8669.69	0.31
	0.48107	183.79				177.93	14.64
		88963.61					0.000997
1420.06	122.00	4401.65	12.15	7.73	6.10	8657.59	0.31
	0.48043	183.75				177.89	14.64
		88943.34					0.000996
1405.35	123.00	4401.58	12.08	7.68	6.07	8527.57	0.31
	0.47996	183.07				177.23	14.67
		88617.23					0.001002
1396.95	124.00	4401.54	12.04	7.65	6.06	8458.97	0.31
	0.47976	182.69				176.87	14.69
		88434.19					0.001005
1382.33	125.00	4401.47	11.97	7.59	6.03	8329.50	0.31
	0.47733	182.01				176.22	14.73
		88111.66					0.001007
1374.64	126.00	4401.43	11.93	7.57	6.02	8269.23	0.31
	0.47576	181.66				175.88	14.74
		87940.90					0.001008
1373.81	127.00	4401.43	11.93	7.56	6.01	8260.46	0.31
	0.47497	181.62				175.84	14.75
		87920.88					0.001006
1360.54	128.00	4401.36	11.86	7.52	5.99	8144.52	0.31
	0.47500	180.99				175.24	14.78
		87619.06					0.001013
1353.87	129.00	4401.33	11.83	7.49	5.98	8091.45	0.31
	0.47367	180.69				174.95	14.79
		87476.68					0.001013
1352.86	130.00	4401.32	11.82	7.49	5.97	8081.86	0.31
	0.47252	180.63				174.90	14.79
		87451.12					0.001011
1340.13	131.00	4401.26	11.76	7.44	5.95	7969.59	0.31
	0.47056	180.02				174.32	14.82
		87159.04					0.001013
1335.52	132.00	4401.24	11.74	7.43	5.94	7935.86	0.31
	0.47289	179.83				174.13	14.83
		87065.82					0.001020
1361.58	133.00	4401.37	11.87	7.52	6.00	8164.87	0.31
	0.47349	181.07				175.32	14.77
		87661.20					0.001009
1374.60	134.00	4401.43	11.93	7.57	6.02	8268.55	0.31
	0.47614	181.66				175.88	14.74
		87940.21					0.001008
1374.79	135.00	4401.43	11.93	7.57	6.02	8270.14	0.31
	0.47562	181.67				175.89	14.74
		87944.39					0.001007
1374.82	136.00	4401.43	11.93	7.57	6.02	8270.11	0.31
	0.47602	181.67				175.89	14.74
		87944.83					0.001008
1374.83	137.00	4401.43	11.93	7.57	6.02	8270.05	0.31
	0.47594	181.67				175.89	14.74
		87945.07					0.001008
1374.73	138.00	4401.43	11.93	7.57	6.02	8269.99	0.31
	0.47576	181.66				175.89	14.74
		87943.26					0.001008
1374.77	139.00	4401.43	11.93	7.57	6.02	8269.65	0.31
	0.47596	181.66				175.89	14.74
		87943.82					0.001008

HYCHAN.OUT							
1373.83	140.00	4401.43	11.93	7.56	6.01	8260.74	0.31
	0.47579	181.61				175.84	14.75
		87920.18					0.001008
1360.48	141.00	4401.36	11.86	7.52	5.99	8144.73	0.31
	0.47479	180.98				175.24	14.78
		87617.70					0.001012
1353.96	142.00	4401.33	11.83	7.49	5.98	8091.66	0.31
	0.47372	180.69				174.96	14.79
		87477.95					0.001013
1353.91	143.00	4401.33	11.83	7.49	5.98	8091.18	0.31
	0.47227	180.69				174.95	14.79
		87477.24					0.001010
1353.79	144.00	4401.33	11.83	7.49	5.98	8090.50	0.31
	0.47321	180.68				174.95	14.79
		87474.59					0.001012
1352.90	145.00	4401.32	11.82	7.49	5.97	8081.92	0.31
	0.47216	180.64				174.90	14.79
		87451.63					0.001010
1340.13	146.00	4401.26	11.76	7.44	5.95	7969.69	0.31
	0.47299	180.02				174.32	14.82
		87159.03					0.001018
1333.60	147.00	4401.23	11.73	7.42	5.94	7917.10	0.31
	0.47073	179.73				174.03	14.84
		87017.09					0.001017
1333.74	148.00	4401.23	11.73	7.42	5.94	7917.23	0.31
	0.47082	179.74				174.04	14.84
		87020.53					0.001017
1333.59	149.00	4401.23	11.73	7.42	5.94	7916.84	0.31
	0.47112	179.73				174.03	14.84
		87016.98					0.001018
1333.72	150.00	4401.23	11.73	7.42	5.94	7917.22	0.31
	0.47061	179.73				174.04	14.84
		87019.98					0.001016
1332.96	151.00	4401.22	11.72	7.42	5.94	7911.20	0.31
	0.46903	179.69				174.00	14.84
		87001.20					0.001013
1324.01	152.00	4401.18	11.68	7.39	5.92	7833.15	0.31
	0.46964	179.26				173.59	14.86
		86793.14					0.001019
1315.62	153.00	4401.14	11.64	7.36	5.90	7760.54	0.30
	0.46822	178.86				173.21	14.88
		86603.06					0.001020
1313.38	154.00	4401.13	11.63	7.35	5.90	7743.11	0.30
	0.46867	178.76				173.11	14.89
		86554.30					0.001022
1312.43	155.00	4401.12	11.62	7.34	5.89	7734.25	0.30
	0.46688	178.71				173.06	14.89
		86529.69					0.001019
1301.75	156.00	4401.07	11.57	7.31	5.87	7639.68	0.30
	0.46782	178.19				172.57	14.92
		86282.95					0.001026
1320.76	157.00	4401.17	11.67	7.37	5.91	7811.96	0.31
	0.46733	179.14				173.47	14.87
		86735.88					0.001016
1333.51	158.00	4401.23	11.73	7.42	5.94	7916.19	0.31
	0.47079	179.73				174.03	14.84
		87016.62					0.001017
1333.64	159.00	4401.23	11.73	7.42	5.94	7916.98	0.31
	0.47151	179.73				174.04	14.84
		87018.46					0.001018
1333.71	160.00	4401.23	11.73	7.42	5.94	7916.90	0.31
	0.47079	179.73				174.04	14.84
		87019.67					0.001017

HYCHAN.OUT									
1333.66	161.00	4401.23	11.73	7.42	5.94	7917.34	14.84	0.31	0.001016
	0.47045	179.73				174.04			
		87018.67							
1333.57	162.00	4401.23	11.73	7.42	5.94	7917.09	14.84	0.31	0.001017
	0.47091	179.73				174.03			
		87016.45							
1333.51	163.00	4401.23	11.73	7.42	5.94	7916.77	14.84	0.31	0.001018
	0.47116	179.72				174.03			
		87015.35							
1333.51	164.00	4401.23	11.73	7.42	5.94	7917.02	14.84	0.31	0.001016
	0.47049	179.73				174.03			
		87015.70							
1332.60	165.00	4401.22	11.72	7.42	5.93	7908.17	14.84	0.31	0.001015
	0.46994	179.68				173.98			
		86992.35							
1319.82	166.00	4401.16	11.66	7.37	5.91	7795.57	14.87	0.30	0.001019
	0.46875	179.06				173.39			
		86695.07							
1313.33	167.00	4401.13	11.63	7.35	5.90	7743.02	14.89	0.30	0.001021
	0.46797	178.76				173.11			
		86553.38							
1313.29	168.00	4401.13	11.63	7.35	5.90	7743.11	14.89	0.30	0.001018
	0.46679	178.76				173.10			
		86552.28							
1313.29	169.00	4401.13	11.63	7.35	5.90	7742.73	14.89	0.30	0.001021
	0.46809	178.76				173.11			
		86552.66							
1313.33	170.00	4401.13	11.63	7.35	5.90	7743.14	14.89	0.30	0.001019
	0.46716	178.76				173.11			
		86553.05							
1313.30	171.00	4401.13	11.63	7.35	5.90	7743.10	14.89	0.30	0.001020
	0.46783	178.76				173.11			
		86553.11							
1313.26	172.00	4401.13	11.63	7.35	5.90	7742.60	14.89	0.30	0.001020
	0.46758	178.76				173.10			
		86551.33							
1312.40	173.00	4401.12	11.62	7.34	5.89	7734.53	14.89	0.30	0.001020
	0.46730	178.71				173.06			
		86529.61							
1299.77	174.00	4401.06	11.56	7.30	5.86	7620.48	14.92	0.30	0.001024
	0.46617	178.09				172.46			
		86231.28							
1293.31	175.00	4401.03	11.53	7.27	5.85	7569.33	14.94	0.30	0.001025
	0.46510	177.79				172.18			
		86089.26							
1293.29	176.00	4401.03	11.53	7.27	5.85	7569.08	14.94	0.30	0.001025
	0.46513	177.79				172.18			
		86088.93							
1293.31	177.00	4401.03	11.53	7.27	5.85	7569.14	14.94	0.30	0.001024
	0.46473	177.79				172.18			
		86088.94							
1293.43	178.00	4401.03	11.53	7.27	5.85	7568.94	14.94	0.30	0.001024
	0.46500	177.79				172.18			
		86091.48							
1293.32	179.00	4401.03	11.53	7.27	5.85	7568.70	14.94	0.30	0.001026
	0.46558	177.79				172.18			
		86089.73							
1295.43	180.00	4401.04	11.54	7.28	5.86	7588.26	14.93	0.30	0.001028
	0.46695	177.90				172.29			
		86143.09							
1320.77	181.00	4401.17	11.67	7.37	5.91	7811.91	14.87	0.31	0.001017
	0.46804	179.14				173.47			
		86735.94							

HYCHAN.OUT									
1334.41	182.00	4401.23	11.73	7.42	5.94	7925.01	14.84	0.31	0.001018
	0.47149	179.77				174.08			
		87038.88							
1347.27	183.00	4401.30	11.80	7.47	5.97	8038.52	14.81	0.31	0.001013
	0.47203	180.39				174.67			
		87334.04							
1353.70	184.00	4401.33	11.83	7.49	5.98	8090.73	14.79	0.31	0.001014
	0.47419	180.68				174.95			
		87472.97							
1353.91	185.00	4401.33	11.83	7.49	5.98	8090.82	14.79	0.31	0.001014
	0.47433	180.69				174.95			
		87476.87							
1353.92	186.00	4401.33	11.83	7.49	5.98	8091.19	14.79	0.31	0.001009
	0.47198	180.69				174.95			
		87477.42							
1353.82	187.00	4401.33	11.83	7.49	5.98	8091.14	14.79	0.31	0.001010
	0.47215	180.68				174.95			
		87475.16							
1353.90	188.00	4401.33	11.83	7.49	5.98	8091.15	14.79	0.31	0.001010
	0.47232	180.69				174.95			
		87476.73							
1353.91	189.00	4401.33	11.83	7.49	5.98	8090.71	14.79	0.31	0.001013
	0.47357	180.69				174.95			
		87476.98							
1353.92	190.00	4401.33	11.83	7.49	5.98	8091.12	14.79	0.31	0.001012
	0.47334	180.69				174.95			
		87477.08							
1352.85	191.00	4401.32	11.82	7.49	5.97	8081.65	14.79	0.31	0.001013
	0.47331	180.63				174.90			
		87451.11							
1340.17	192.00	4401.26	11.76	7.44	5.95	7969.69	14.82	0.31	0.001016
	0.47217	180.03				174.32			
		87159.54							
1333.73	193.00	4401.23	11.73	7.42	5.94	7917.16	14.84	0.31	0.001017
	0.47108	179.73				174.04			
		87020.36							
1333.58	194.00	4401.23	11.73	7.42	5.94	7917.22	14.84	0.31	0.001017
	0.47091	179.73				174.03			
		87016.87							
1333.75	195.00	4401.23	11.73	7.42	5.94	7917.26	14.84	0.31	0.001019
	0.47181	179.74				174.04			
		87020.41							
1333.50	196.00	4401.23	11.73	7.42	5.94	7916.95	14.84	0.31	0.001016
	0.47043	179.72				174.03			
		87015.41							
1333.68	197.00	4401.23	11.73	7.42	5.94	7916.86	14.84	0.31	0.001018
	0.47130	179.73				174.04			
		87019.06							
1333.76	198.00	4401.23	11.73	7.42	5.94	7917.17	14.84	0.31	0.001017
	0.47100	179.74				174.04			
		87020.73							
1333.65	199.00	4401.23	11.73	7.42	5.94	7916.89	14.84	0.31	0.001016
	0.47049	179.73				174.04			
		87018.23							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3453

MAXIMUM DISCHARGE (CFS) =	16012.89	AT TIME =	87.15
MAXIMUM STAGE =	4404.98	AT TIME =	87.16

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE

HYCHAN.OUT									
BED SHEAR STRESS	SURFACE AREA								
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)	
(LB/FT^2)	(FT^2)								
0.00	0.00	4389.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4389.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4389.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4389.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
873.81	4.00	4395.35	6.36	3.88	3393.13	0.27			
	0.61062	122.40	7.14	119.03	18.73	0.001371			
962.34	5.00	4398.64	9.64	5.65	5440.47	0.32			
	0.52041	158.94	6.05	154.12	15.99	0.001377			
953.38	6.00	4398.59	9.59	5.64	5375.61	0.32			
	0.51565	158.45	6.02	153.65	16.02	0.001373			
942.69	7.00	4398.53	9.53	5.61	5287.31	0.32			
	0.51342	157.83	5.97	153.05	16.05	0.001378			
923.61	8.00	4398.43	9.43	5.56	5138.07	0.32			
	0.50849	156.73	5.89	152.00	16.12	0.001383			
904.94	9.00	4398.32	9.32	5.52	4992.17	0.32			
	0.50287	155.64	5.81	150.95	16.19	0.001386			
886.76	10.00	4398.22	9.22	5.47	4847.50	0.32			
	0.49755	154.55	5.74	149.91	16.26	0.001390			
877.51	11.00	4398.17	9.16	5.44	4774.47	0.32			
	0.49312	153.98	5.70	149.36	16.30	0.001387			
867.52	12.00	4398.11	9.11	5.42	4698.36	0.32			
	0.48959	153.36	5.66	148.77	16.34	0.001387			
848.65	13.00	4398.00	9.00	5.36	4549.16	0.32			
	0.48353	152.20	5.58	147.65	16.41	0.001390			
838.87	14.00	4397.94	8.94	5.33	4470.30	0.31			
	0.48029	151.58	5.53	147.06	16.45	0.001391			
838.78	15.00	4397.94	8.94	5.33	4469.05	0.31			
	0.48040	151.57	5.53	147.05	16.45	0.001391			
838.77	16.00	4397.94	8.94	5.33	4468.98	0.31			
	0.48038	151.57	5.53	147.05	16.45	0.001391			
838.76	17.00	4397.94	8.94	5.33	4468.99	0.31			
	0.48026	151.57	5.53	147.05	16.45	0.001391			
838.79	18.00	4397.94	8.94	5.33	4468.70	0.31			
	0.48089	151.57	5.53	147.05	16.45	0.001393			
	19.00	4397.99	8.99	5.36	4540.78	0.31			

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		HYCHAN.OUT				
847.65	152.15	5.57	147.60	16.42	0.001396	
0.48532	88561.99					
20.00	4398.11	9.11	5.41	4695.02	0.32	
867.14	153.36	5.65	148.77	16.34	0.001396	
0.49254	89261.57					
21.00	4398.22	9.22	5.47	4848.36	0.32	
886.28	154.53	5.74	149.89	16.26	0.001388	
0.49679	89934.79					
22.00	4398.27	9.27	5.49	4923.12	0.32	
896.24	155.12	5.78	150.45	16.22	0.001387	
0.50016	90270.99					
23.00	4398.28	9.28	5.49	4925.27	0.32	
896.62	155.14	5.78	150.47	16.22	0.001389	
0.50089	90282.74					
24.00	4398.33	9.33	5.53	5010.55	0.32	
906.61	155.76	5.82	151.06	16.18	0.001392	
0.50549	90637.88					
25.00	4398.51	9.51	5.61	5256.36	0.32	
937.51	157.56	5.95	152.80	16.07	0.001385	
0.51405	91678.27					
26.00	4398.72	9.72	5.70	5566.32	0.32	
976.85	159.79	6.11	154.93	15.93	0.001374	
0.52422	92958.66					
27.00	4398.93	9.93	5.78	5867.20	0.32	
1015.24	161.89	6.27	156.95	15.81	0.001358	
0.53134	94168.16					
28.00	4399.01	10.01	5.80	5983.98	0.32	
1030.83	162.72	6.34	157.74	15.76	0.001356	
0.53624	94641.94					
29.00	4399.01	10.01	5.81	5989.48	0.32	
1031.55	162.76	6.34	157.77	15.76	0.001359	
0.53754	94664.57					
30.00	4399.08	10.08	5.83	6090.00	0.32	
1044.02	163.42	6.39	158.42	15.72	0.001348	
0.53739	95049.20					
31.00	4399.12	10.12	5.85	6151.62	0.32	
1052.26	163.85	6.42	158.82	15.69	0.001351	
0.54134	95293.75					
32.00	4399.12	10.12	5.85	6157.21	0.32	
1053.00	163.89	6.43	158.86	15.69	0.001350	
0.54132	95315.34					
33.00	4399.19	10.19	5.87	6262.32	0.32	
1066.05	164.58	6.48	159.52	15.65	0.001342	
0.54223	95713.54					
34.00	4399.23	10.23	5.89	6325.67	0.32	
1074.66	165.02	6.51	159.94	15.63	0.001340	
0.54451	95964.73					
35.00	4399.23	10.23	5.88	6320.66	0.32	
1074.12	164.99	6.51	159.91	15.63	0.001340	
0.54454	95948.06					
36.00	4399.16	10.16	5.86	6215.81	0.32	
1061.02	164.30	6.46	159.25	15.67	0.001347	
0.54274	95551.22					
37.00	4399.12	10.12	5.84	6147.61	0.32	
1051.91	163.83	6.42	158.80	15.70	0.001347	
0.53970	95281.39					
38.00	4399.05	10.05	5.82	6047.17	0.32	
1039.39	163.16	6.37	158.16	15.73	0.001355	
0.53865	94898.12					
39.00	4399.01	10.01	5.81	5985.45	0.32	
1031.07	162.73	6.34	157.75	15.76	0.001357	
0.53669	94648.80					
40.00	4399.01	10.01	5.80	5985.16	0.32	

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1031.04		162.73		6.34	157.75	15.76	0.001354
	0.53537	94647.97					
	41.00	4399.01	10.01	5.81	5984.83	0.32	
1030.97		162.72		6.34	157.74	15.76	0.001358
	0.53690	94645.66					
	42.00	4399.01	10.01	5.81	5985.06	0.32	
1031.00		162.72		6.34	157.74	15.76	0.001356
	0.53613	94646.67					
	43.00	4399.01	10.01	5.81	5989.60	0.32	
1031.52		162.76		6.34	157.77	15.76	0.001358
	0.53709	94664.39					
	44.00	4399.08	10.08	5.83	6089.85	0.32	
1044.03		163.42		6.39	158.42	15.72	0.001351
	0.53847	95049.33					
	45.00	4399.12	10.12	5.85	6156.81	0.32	
1052.90		163.89		6.42	158.86	15.69	0.001350
	0.54114	95314.88					
	46.00	4399.20	10.20	5.88	6268.37	0.32	
1066.77		164.62		6.48	159.56	15.65	0.001343
	0.54304	95734.16					
	47.00	4399.31	10.31	5.92	6443.36	0.32	
1089.19		165.77		6.57	160.67	15.58	0.001334
	0.54703	96400.56					
	48.00	4399.42	10.42	5.95	6617.08	0.33	
1111.65		166.91		6.66	161.76	15.52	0.001326
	0.55101	97056.05					
	49.00	4399.54	10.54	5.99	6790.21	0.33	
1134.13		168.04		6.75	162.84	15.46	0.001316
	0.55441	97703.50					
	50.00	4399.65	10.65	6.02	6959.89	0.33	
1156.24		169.13		6.84	163.89	15.40	0.001306
	0.55695	98332.47					
	51.00	4399.76	10.76	6.05	7144.26	0.33	
1180.39		170.31		6.93	165.02	15.33	0.001297
	0.56083	99010.32					
	52.00	4399.94	10.94	6.10	7417.77	0.33	
1216.14		172.03		7.07	166.66	15.24	0.001273
	0.56137	99997.05					
	53.00	4400.02	11.02	6.12	7550.35	0.32	
1234.48		172.89		7.14	167.48	15.19	0.001274
	0.56750	100488.89					
	54.00	4400.10	11.10	6.15	7689.43	0.33	
1251.05		173.67		7.20	168.24	15.15	0.001269
	0.57064	100941.13					
	55.00	4400.37	11.37	6.23	8139.05	0.33	
1306.42		176.25		7.41	170.70	15.02	0.001239
	0.57321	102422.08					
	56.00	4400.81	11.81	6.35	8900.31	0.33	
1402.62		180.54		7.77	174.81	14.80	0.001189
	0.57649	104887.56					
	57.00	4401.40	12.40	6.46	9922.26	0.32	
1535.59		186.15		8.25	180.19	14.53	0.001119
	0.57584	108112.09					
	58.00	4402.10	13.10	6.55	11120.08	0.32	
1697.80		192.67		8.81	186.42	14.23	0.001043
	0.57337	111850.41					
	59.00	4402.67	13.67	6.59	12071.52	0.31	
1830.48		197.84		9.25	191.37	14.00	0.000989
	0.57114	114820.22					
	60.00	4403.16	14.16	6.63	12889.14	0.31	
1944.37		202.25		9.61	195.58	13.81	0.000937
	0.56231	117350.00					
	61.00	4403.64	14.64	6.64	13688.16	0.31	

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2060.32	0.55375	206.57	9.97	199.72	13.64	0.000890	
	62.00	4403.96	14.96	6.64	14190.08	0.30	
2136.86	0.55550	209.34	10.21	202.36	13.53	0.000872	
	63.00	4404.17	15.17	6.65	14547.00	0.30	
2189.04	0.55172	211.20	10.36	204.14	13.46	0.000853	
	64.00	4404.33	15.33	6.65	14799.06	0.30	
2226.25	0.55333	211.71	10.52	205.46	13.40	0.000843	
	65.00	4404.43	15.43	6.65	14951.62	0.30	
2248.61	0.55241	211.91	10.61	206.26	13.37	0.000834	
	66.00	4404.55	15.55	6.65	15151.83	0.30	
2277.39	0.56723	212.16	10.73	207.31	13.33	0.000847	
	67.00	4404.65	15.65	6.65	15281.98	0.30	
2297.33	0.56749	212.36	10.82	208.13	13.30	0.000841	
	68.00	4404.68	15.68	6.65	15313.22	0.30	
2301.86	0.56608	212.41	10.84	208.33	13.29	0.000837	
	69.00	4404.69	15.69	6.66	15332.98	0.30	
2303.78	0.55976	212.43	10.84	208.41	13.29	0.000827	
	70.00	4404.69	15.69	6.65	15329.00	0.30	
2304.13	0.56443	212.43	10.85	208.43	13.29	0.000834	
	71.00	4404.68	15.68	6.65	15322.30	0.30	
2302.89	0.55020	212.42	10.84	208.37	13.29	0.000813	
	72.00	4404.69	15.69	6.65	15329.21	0.30	
2303.73	0.55176	212.43	10.84	208.41	13.29	0.000815	
	73.00	4404.69	15.68	6.65	15324.85	0.30	
2303.61	0.55696	212.43	10.84	208.41	13.29	0.000823	
	74.00	4404.71	15.71	6.66	15376.23	0.30	
2307.44	0.54428	212.47	10.86	208.58	13.28	0.000803	
	75.00	4404.76	15.76	6.67	15458.79	0.30	
2316.63	0.57285	212.57	10.90	208.98	13.26	0.000842	
	76.00	4404.78	15.78	6.68	15501.26	0.30	
2321.63	0.54425	212.62	10.92	209.21	13.26	0.000799	
	77.00	4404.75	15.75	6.66	15438.16	0.30	
2316.32	0.54934	212.56	10.90	208.97	13.27	0.000808	
	78.00	4404.77	15.77	6.68	15494.13	0.30	
2319.99	0.54874	212.60	10.91	209.13	13.26	0.000806	
	79.00	4404.82	15.82	6.68	15552.74	0.30	
2327.86	0.55709	212.69	10.94	209.48	13.25	0.000816	
	80.00	4404.92	15.92	6.70	15724.58	0.30	
2347.11	0.54919	212.90	11.02	210.34	13.21	0.000798	
	81.00	4404.86	15.86	6.68	15606.66	0.30	
2336.38	0.57584	212.78	10.98	209.86	13.23	0.000840	
	82.00	4404.87	15.87	6.69	15631.18	0.30	

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2337.12		212.79		10.98	209.89	13.23	0.000832
	0.57053	125936.48					
83.00	4404.85	15.86		6.68	15606.55	0.30	
2335.14		212.77		10.98	209.80	13.23	0.000798
	0.54618	125882.42					
84.00	4404.82	15.82		6.68	15552.05	0.30	
2328.75		212.70		10.95	209.52	13.24	0.000828
	0.56559	125712.38					
85.00	4404.81	15.81		6.68	15535.37	0.30	
2326.41		212.67		10.94	209.42	13.25	0.000835
	0.56982	125650.12					
86.00	4404.81	15.81		6.68	15549.45	0.30	
2327.61		212.69		10.94	209.47	13.25	0.000797
	0.54440	125682.86					
87.00	4404.82	15.82		6.68	15552.19	0.30	
2328.60		212.70		10.95	209.52	13.24	0.000816
	0.55734	125709.53					
88.00	4404.92	15.92		6.70	15726.94	0.30	
2347.18		212.90		11.02	210.35	13.21	0.000833
	0.57295	126208.09					
89.00	4404.81	15.81		6.67	15531.62	0.30	
2327.66		212.69		10.94	209.47	13.25	0.000804
	0.54929	125682.32					
90.00	4404.54	15.54		6.63	15075.72	0.30	
2274.20		212.14		10.72	207.23	13.33	0.000841
	0.56255	124335.80					
91.00	4404.18	15.18		6.62	14512.34	0.30	
2191.33		211.28		10.37	204.21	13.45	0.000867
	0.56095	122528.25					
92.00	4403.89	14.89		6.62	14039.34	0.30	
2120.20		208.73		10.16	201.78	13.55	0.000895
	0.56702	121067.77					
93.00	4403.51	14.51		6.61	13416.21	0.31	
2028.90		205.40		9.88	198.59	13.69	0.000937
	0.57744	119156.84					
94.00	4403.14	14.14		6.60	12801.91	0.31	
1939.40		202.04		9.60	195.39	13.82	0.000972
	0.58237	117232.83					
95.00	4402.80	13.80		6.58	12250.74	0.31	
1861.39		199.04		9.35	192.51	13.95	0.001006
	0.58715	115508.55					
96.00	4402.53	13.53		6.56	11801.09	0.31	
1799.23		196.59		9.15	190.17	14.05	0.001030
	0.58838	114101.23					
97.00	4402.22	13.22		6.53	11278.07	0.32	
1727.68		193.76		8.92	187.46	14.18	0.001063
	0.59149	112477.91					
98.00	4401.96	12.96		6.50	10834.08	0.32	
1665.61		191.33		8.71	185.14	14.29	0.001089
	0.59137	111085.98					
99.00	4401.72	12.72		6.47	10420.85	0.32	
1609.45		189.10		8.51	183.01	14.39	0.001113
	0.59122	109803.50					
100.00	4401.54	12.54		6.45	10116.86	0.32	
1568.57		187.46		8.37	181.43	14.46	0.001131
	0.59055	108860.67					
101.00	4401.33	12.33		6.42	9752.09	0.32	
1520.01		185.46		8.20	179.52	14.56	0.001159
	0.59257	107714.91					
102.00	4401.14	12.14		6.38	9425.14	0.32	
1476.36		183.66		8.04	177.80	14.65	0.001177
	0.59064	106678.33					
103.00	4400.98	11.98		6.35	9145.86	0.32	

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1439.85		182.11		7.91		176.31	14.72	0.001193
	0.58879	105787.56						
104.00		4400.84	11.84		6.33	8920.07	0.32	
1410.09		180.83		7.80		175.09	14.78	0.001201
	0.58439	105053.08						
105.00		4400.72	11.72		6.30	8709.77	0.32	
1383.03		179.64		7.70		173.95	14.84	0.001217
	0.58488	104372.60						
106.00		4400.53	11.53		6.25	8385.25	0.32	
1341.75		177.81		7.55		172.19	14.94	0.001238
	0.58290	103315.98						
107.00		4400.38	11.38		6.22	8141.37	0.32	
1309.84		176.38		7.43		170.82	15.01	0.001241
	0.57501	102494.26						
108.00		4400.28	11.28		6.19	7964.92	0.32	
1287.41		175.34		7.34		169.84	15.06	0.001251
	0.57318	101901.84						
109.00		4400.17	11.17		6.16	7798.84	0.32	
1266.17		174.36		7.26		168.89	15.11	0.001263
	0.57254	101334.62						
110.00		4400.15	11.14		6.15	7751.62	0.32	
1259.69		174.07		7.24		168.62	15.13	0.001263
	0.57027	101169.04						
111.00		4400.22	11.22		6.18	7879.21	0.33	
1275.09		174.80		7.29		169.31	15.09	0.001255
	0.57132	101586.17						
112.00		4400.38	11.38		6.22	8150.29	0.33	
1309.35		176.37		7.42		170.82	15.01	0.001233
	0.57121	102492.48						
113.00		4400.38	11.38		6.22	8137.64	0.32	
1309.32		176.35		7.42		170.80	15.01	0.001246
	0.57728	102479.52						
114.00		4400.29	11.29		6.19	7989.79	0.32	
1290.07		175.47		7.35		169.96	15.06	0.001253
	0.57473	101976.36						
115.00		4400.40	11.40		6.23	8180.33	0.33	
1312.68		176.53		7.44		170.97	15.00	0.001238
	0.57439	102582.16						
116.00		4400.61	11.61		6.28	8537.15	0.33	
1358.58		178.59		7.61		172.94	14.90	0.001216
	0.57706	103766.78						
117.00		4400.61	11.61		6.27	8530.00	0.32	
1359.47		178.61		7.61		172.96	14.90	0.001224
	0.58150	103777.17						
118.00		4400.57	11.57		6.27	8470.91	0.32	
1351.20		178.25		7.58		172.62	14.91	0.001224
	0.57912	103569.40						
119.00		4400.58	11.58		6.27	8480.29	0.32	
1352.25		178.30		7.58		172.66	14.91	0.001225
	0.57997	103598.63						
120.00		4400.65	11.65		6.29	8609.96	0.32	
1368.43		179.02		7.64		173.36	14.87	0.001218
	0.58085	104014.20						
121.00		4400.69	11.69		6.30	8669.63	0.32	
1376.65		179.38		7.67		173.70	14.86	0.001214
	0.58134	104217.98						
122.00		4400.69	11.69		6.29	8658.54	0.32	
1375.51		179.32		7.67		173.65	14.86	0.001214
	0.58109	104188.14						
123.00		4400.61	11.61		6.27	8530.41	0.32	
1359.51		178.61		7.61		172.96	14.90	0.001225
	0.58172	103778.61						
124.00		4400.57	11.57		6.27	8460.15	0.32	

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1350.07		178.20		7.58	172.57	14.92	0.001228
	0.58055	103541.71					
	125.00	4400.49	11.49	6.25	8332.32	0.32	
1334.06		177.47		7.52	171.87	14.95	0.001237
	0.58026	103124.45					
	126.00	4400.46	11.46	6.24	8269.29	0.32	
1325.51		177.10		7.48	171.51	14.97	0.001236
	0.57727	102908.13					
	127.00	4400.45	11.45	6.24	8261.25	0.32	
1324.69		177.06		7.48	171.48	14.97	0.001236
	0.57705	102885.48					
	128.00	4400.38	11.38	6.22	8147.16	0.32	
1310.44		176.40		7.43	170.85	15.01	0.001245
	0.57733	102509.95					
	129.00	4400.35	11.35	6.21	8091.56	0.33	
1302.79		176.06		7.40	170.52	15.03	0.001245
	0.57501	102312.27					
	130.00	4400.34	11.34	6.21	8082.62	0.32	
1301.82		176.01		7.40	170.48	15.03	0.001245
	0.57475	102285.70					
	131.00	4400.28	11.28	6.19	7972.04	0.32	
1288.10		175.38		7.34	169.87	15.06	0.001255
	0.57519	101921.39					
	132.00	4400.25	11.25	6.19	7934.44	0.33	
1282.50		175.13		7.32	169.63	15.07	0.001256
	0.57376	101778.17					
	133.00	4400.39	11.39	6.23	8159.70	0.33	
1310.46		176.42		7.43	170.87	15.01	0.001237
	0.57331	102522.45					
	134.00	4400.46	11.46	6.24	8268.41	0.32	
1325.47		177.09		7.48	171.51	14.97	0.001236
	0.57741	102906.94					
	135.00	4400.46	11.46	6.24	8270.11	0.32	
1325.69		177.10		7.49	171.52	14.97	0.001234
	0.57651	102912.38					
	136.00	4400.46	11.46	6.24	8270.12	0.32	
1325.74		177.11		7.49	171.52	14.97	0.001235
	0.57670	102913.61					
	137.00	4400.46	11.46	6.24	8270.09	0.32	
1325.75		177.11		7.49	171.52	14.97	0.001235
	0.57685	102913.80					
	138.00	4400.46	11.46	6.24	8269.93	0.32	
1325.63		177.10		7.49	171.52	14.97	0.001236
	0.57713	102910.59					
	139.00	4400.46	11.46	6.24	8269.65	0.32	
1325.69		177.10		7.49	171.52	14.97	0.001236
	0.57752	102912.21					
	140.00	4400.45	11.45	6.24	8261.59	0.32	
1324.77		177.06		7.48	171.48	14.97	0.001234
	0.57616	102887.49					
	141.00	4400.38	11.38	6.22	8147.38	0.32	
1310.41		176.40		7.43	170.85	15.01	0.001245
	0.57695	102508.33					
	142.00	4400.35	11.35	6.21	8091.71	0.33	
1302.87		176.06		7.40	170.53	15.03	0.001245
	0.57507	102315.64					
	143.00	4400.35	11.35	6.21	8091.11	0.33	
1302.77		176.06		7.40	170.52	15.03	0.001247
	0.57568	102313.62					
	144.00	4400.35	11.35	6.21	8090.53	0.33	
1302.68		176.06		7.40	170.52	15.03	0.001247
	0.57595	102310.36					
	145.00	4400.34	11.34	6.21	8082.77	0.32	

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1301.83		176.02		7.40	170.48	15.03	0.001244
	0.57419	102287.18					
146.00		4400.28	11.28	6.19	7972.19	0.32	
1288.13		175.38		7.34	169.87	15.06	0.001255
	0.57523	101921.67					
147.00		4400.24	11.24	6.18	7917.12	0.33	
1280.65		175.04		7.32	169.55	15.08	0.001255
	0.57293	101727.09					
148.00		4400.24	11.24	6.18	7917.27	0.33	
1280.73		175.05		7.32	169.55	15.08	0.001255
	0.57296	101730.82					
149.00		4400.24	11.24	6.18	7916.86	0.33	
1280.62		175.04		7.32	169.54	15.08	0.001256
	0.57324	101726.69					
150.00		4400.24	11.24	6.18	7917.22	0.33	
1280.71		175.05		7.32	169.55	15.08	0.001253
	0.57220	101730.52					
151.00		4400.24	11.24	6.18	7911.66	0.33	
1280.02		175.01		7.31	169.52	15.08	0.001251
	0.57079	101710.00					
152.00		4400.20	11.20	6.17	7835.10	0.32	
1270.56		174.56		7.28	169.09	15.10	0.001259
	0.57186	101452.81					
153.00		4400.15	11.15	6.15	7761.47	0.32	
1261.20		174.13		7.24	168.68	15.13	0.001263
	0.57081	101206.07					
154.00		4400.14	11.14	6.15	7743.24	0.32	
1258.63		174.02		7.23	168.56	15.13	0.001261
	0.56907	101138.23					
155.00		4400.13	11.13	6.15	7734.95	0.32	
1257.76		173.97		7.23	168.52	15.13	0.001262
	0.56934	101112.81					
156.00		4400.08	11.08	6.13	7640.59	0.32	
1246.10		173.43		7.19	168.00	15.16	0.001272
	0.57044	100799.38					
157.00		4400.18	11.18	6.17	7806.99	0.33	
1265.85		174.37		7.26	168.90	15.11	0.001258
	0.57009	101341.12					
158.00		4400.24	11.24	6.18	7916.11	0.33	
1280.46		175.03		7.32	169.54	15.08	0.001254
	0.57250	101723.02					
159.00		4400.24	11.24	6.18	7916.98	0.33	
1280.64		175.04		7.32	169.55	15.08	0.001256
	0.57324	101727.68					
160.00		4400.24	11.24	6.18	7916.84	0.32	
1280.69		175.05		7.32	169.55	15.08	0.001255
	0.57288	101730.34					
161.00		4400.24	11.24	6.18	7917.41	0.33	
1280.69		175.04		7.32	169.55	15.08	0.001253
	0.57192	101728.52					
162.00		4400.24	11.24	6.18	7917.06	0.33	
1280.63		175.04		7.32	169.54	15.08	0.001252
	0.57157	101726.16					
163.00		4400.24	11.24	6.18	7916.76	0.33	
1280.56		175.04		7.32	169.54	15.08	0.001254
	0.57260	101724.27					
164.00		4400.24	11.24	6.18	7917.06	0.33	
1280.54		175.03		7.32	169.54	15.08	0.001251
	0.57126	101723.61					
165.00		4400.24	11.24	6.18	7908.85	0.33	
1279.69		174.99		7.31	169.50	15.08	0.001253
	0.57189	101700.09					
166.00		4400.17	11.17	6.16	7798.15	0.32	

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				HYCHAN.OUT			
1266.06		174.35		7.26	168.89	15.11	0.001263
	0.57220	101331.93					
167.00		4400.14	11.14	6.15	7743.09	0.32	
1258.61		174.01		7.23	168.56	15.13	0.001264
	0.57028	101136.19					
168.00		4400.14	11.14	6.15	7743.07	0.32	
1258.57		174.01		7.23	168.56	15.13	0.001260
	0.56854	101135.68					
169.00		4400.14	11.14	6.15	7742.79	0.32	
1258.57		174.01		7.23	168.56	15.13	0.001264
	0.57044	101134.94					
170.00		4400.14	11.14	6.15	7743.04	0.32	
1258.60		174.01		7.23	168.56	15.13	0.001263
	0.57003	101136.62					
171.00		4400.14	11.14	6.15	7743.18	0.32	
1258.59		174.01		7.23	168.56	15.13	0.001263
	0.57008	101135.20					
172.00		4400.14	11.14	6.15	7742.59	0.32	
1258.55		174.01		7.23	168.56	15.13	0.001263
	0.56980	101134.68					
173.00		4400.13	11.13	6.15	7735.33	0.32	
1257.73		173.97		7.23	168.52	15.13	0.001262
	0.56938	101111.42					
174.00		4400.07	11.07	6.13	7622.97	0.32	
1244.24		173.33		7.18	167.91	15.17	0.001271
	0.56924	100746.53					
175.00		4400.03	11.03	6.12	7569.40	0.32	
1236.87		172.99		7.15	167.58	15.19	0.001272
	0.56758	100548.77					
176.00		4400.03	11.03	6.12	7569.07	0.32	
1236.82		172.99		7.15	167.58	15.19	0.001273
	0.56802	100548.49					
177.00		4400.04	11.03	6.12	7569.14	0.32	
1236.83		172.99		7.15	167.58	15.19	0.001272
	0.56769	100549.25					
178.00		4400.04	11.04	6.12	7568.92	0.32	
1236.93		173.00		7.15	167.59	15.19	0.001272
	0.56744	100553.28					
179.00		4400.03	11.03	6.12	7568.73	0.32	
1236.83		172.99		7.15	167.58	15.19	0.001273
	0.56798	100548.81					
180.00		4400.05	11.05	6.12	7586.69	0.32	
1238.85		173.09		7.16	167.68	15.18	0.001273
	0.56875	100607.06					
181.00		4400.18	11.18	6.17	7806.92	0.33	
1265.86		174.37		7.26	168.90	15.11	0.001255
	0.56837	101341.98					
182.00		4400.25	11.25	6.18	7924.03	0.33	
1281.33		175.08		7.32	169.58	15.08	0.001254
	0.57257	101747.80					
183.00		4400.31	11.31	6.20	8036.04	0.33	
1295.18		175.72		7.37	170.19	15.04	0.001245
	0.57285	102116.18					
184.00		4400.35	11.35	6.21	8090.67	0.33	
1302.59		176.05		7.40	170.51	15.03	0.001246
	0.57505	102307.32					
185.00		4400.35	11.35	6.21	8090.77	0.33	
1302.75		176.06		7.40	170.52	15.03	0.001245
	0.57463	102313.91					
186.00		4400.35	11.35	6.21	8091.17	0.33	
1302.77		176.06		7.40	170.52	15.03	0.001246
	0.57547	102314.08					
187.00		4400.35	11.35	6.21	8091.15	0.33	

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		HYCHAN.OUT							
1302.72	176.06	7.40	170.52	15.03	0.001246				
0.57521	102311.31								
188.00	4400.35	11.35	6.21	8091.12	0.33				
1302.76	176.06	7.40	170.52	15.03	0.001244				
0.57437	102314.03								
189.00	4400.35	11.35	6.21	8090.70	0.33				
1302.74	176.06	7.40	170.52	15.03	0.001245				
0.57490	102313.94								
190.00	4400.35	11.35	6.21	8091.19	0.33				
1302.77	176.06	7.40	170.52	15.03	0.001243				
0.57412	102314.12								
191.00	4400.34	11.34	6.21	8082.44	0.32				
1301.78	176.01	7.40	170.48	15.03	0.001246				
0.57509	102285.21								
192.00	4400.28	11.28	6.19	7972.16	0.32				
1288.15	175.38	7.34	169.87	15.06	0.001254				
0.57487	101923.11								
193.00	4400.24	11.24	6.18	7917.23	0.33				
1280.74	175.05	7.32	169.55	15.08	0.001256				
0.57336	101730.82								
194.00	4400.24	11.24	6.18	7917.30	0.33				
1280.63	175.04	7.32	169.54	15.08	0.001253				
0.57183	101726.61								
195.00	4400.25	11.24	6.18	7917.27	0.32				
1280.75	175.05	7.32	169.55	15.08	0.001255				
0.57284	101731.56								
196.00	4400.24	11.24	6.18	7916.82	0.33				
1280.55	175.03	7.32	169.54	15.08	0.001254				
0.57240	101723.84								
197.00	4400.24	11.24	6.18	7916.89	0.33				
1280.68	175.04	7.32	169.55	15.08	0.001256				
0.57326	101729.40								
198.00	4400.25	11.25	6.18	7917.19	0.32				
1280.76	175.05	7.32	169.55	15.08	0.001254				
0.57272	101732.11								
199.00	4400.24	11.24	6.18	7916.90	0.33				
1280.66	175.04	7.32	169.55	15.08	0.001253				
0.57216	101728.60								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3534

MAXIMUM DISCHARGE (CFS) = 15850.56 AT TIME = 87.16  
 MAXIMUM STAGE = 4404.43 AT TIME = 87.17

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4388.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	1.00	4388.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	2.00	4388.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	3.00	4388.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

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		HYCHAN.OUT					
	0.00000	0.00					
890.41	4.00	4393.98	5.78	3.65	3247.58	0.27	
		93.43	9.53		91.02	15.75	0.001616
	0.96109	50059.73					
980.82	5.00	4397.36	9.16	5.55	5443.01	0.32	
		127.04	7.72		123.01	13.43	0.001624
	0.78252	67657.27					
971.08	6.00	4397.30	9.10	5.54	5375.98	0.32	
		126.53	7.67		122.54	13.46	0.001628
	0.77975	67394.38					
959.67	7.00	4397.24	9.04	5.51	5290.26	0.32	
		125.95	7.62		121.98	13.49	0.001641
	0.78034	67090.48					
939.13	8.00	4397.13	8.93	5.47	5141.15	0.32	
		124.88	7.52		120.97	13.55	0.001655
	0.77642	66533.84					
919.19	9.00	4397.01	8.81	5.43	4995.01	0.32	
		123.83	7.42		119.97	13.61	0.001665
	0.77115	65984.54					
900.33	10.00	4396.90	8.71	5.39	4850.20	0.32	
		122.81	7.33		119.00	13.67	0.001673
	0.76512	65448.55					
890.64	11.00	4396.85	8.65	5.36	4774.82	0.32	
		122.30	7.28		118.51	13.70	0.001673
	0.76027	65181.97					
880.94	12.00	4396.79	8.59	5.34	4701.18	0.32	
		121.72	7.24		117.97	13.73	0.001676
	0.75680	64881.04					
861.73	13.00	4396.67	8.48	5.28	4551.92	0.32	
		120.63	7.14		116.93	13.80	0.001682
	0.74983	64313.07					
851.43	14.00	4396.62	8.42	5.25	4470.49	0.32	
		120.08	7.09		116.40	13.83	0.001685
	0.74544	64022.59					
851.30	15.00	4396.62	8.42	5.25	4469.07	0.32	
		120.08	7.09		116.40	13.83	0.001684
	0.74510	64021.25					
851.28	16.00	4396.62	8.42	5.25	4468.98	0.32	
		120.08	7.09		116.40	13.83	0.001685
	0.74523	64020.88					
851.28	17.00	4396.62	8.42	5.25	4468.98	0.32	
		120.08	7.09		116.40	13.83	0.001685
	0.74521	64020.77					
851.26	18.00	4396.62	8.42	5.25	4468.55	0.32	
		120.08	7.09		116.40	13.83	0.001686
	0.74581	64021.27					
859.91	19.00	4396.67	8.47	5.28	4538.14	0.32	
		120.58	7.13		116.88	13.80	0.001682
	0.74872	64282.33					
879.64	20.00	4396.79	8.59	5.33	4691.99	0.32	
		121.69	7.23		117.94	13.73	0.001674
	0.75505	64865.72					
899.36	21.00	4396.90	8.70	5.39	4845.40	0.32	
		122.78	7.32		118.97	13.67	0.001670
	0.76312	65434.54					
909.75	22.00	4396.96	8.76	5.41	4922.93	0.32	
		123.35	7.38		119.52	13.64	0.001667
	0.76696	65734.00					
910.11	23.00	4396.97	8.77	5.41	4925.05	0.32	
		123.38	7.38		119.54	13.64	0.001668
	0.76783	65746.00					
920.38	24.00	4397.02	8.82	5.44	5007.40	0.32	
		123.92	7.43		120.06	13.61	0.001658

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		HYCHAN.OUT					
	0.76830	66031.56					
953.25	25.00	4397.21	9.01	5.51	5250.18	0.32	
		125.65	7.59		121.69	13.51	0.001633
	0.77287	66931.06					
995.96	26.00	4397.44	9.24	5.58	5560.06	0.32	
		127.81	7.79		123.75	13.39	0.001598
	0.77701	68060.52					
1038.14	27.00	4397.67	9.47	5.65	5861.83	0.32	
		129.88	7.99		125.71	13.28	0.001568
	0.78206	69142.83					
1055.80	28.00	4397.76	9.56	5.67	5983.75	0.32	
		130.72	8.08		126.51	13.23	0.001565
	0.78858	69580.65					
1056.54	29.00	4397.76	9.56	5.67	5988.90	0.32	
		130.76	8.08		126.55	13.23	0.001564
	0.78878	69600.52					
1070.14	30.00	4397.83	9.64	5.69	6087.13	0.32	
		131.41	8.14		127.17	13.20	0.001550
	0.78744	69942.65					
1079.55	31.00	4397.88	9.68	5.70	6151.60	0.32	
		131.85	8.19		127.58	13.18	0.001545
	0.78934	70171.72					
1080.29	32.00	4397.89	9.69	5.70	6156.54	0.32	
		131.89	8.19		127.62	13.17	0.001545
	0.78948	70192.71					
1094.59	33.00	4397.96	9.76	5.72	6259.44	0.32	
		132.57	8.26		128.27	13.14	0.001525
	0.78555	70545.99					
1104.38	34.00	4398.01	9.81	5.73	6325.50	0.32	
		133.02	8.30		128.70	13.11	0.001525
	0.79021	70782.65					
1103.84	35.00	4398.01	9.81	5.73	6321.30	0.32	
		132.99	8.30		128.67	13.12	0.001527
	0.79111	70767.62					
1089.49	36.00	4397.93	9.73	5.71	6218.71	0.32	
		132.31	8.23		128.02	13.15	0.001544
	0.79314	70412.86					
1079.21	37.00	4397.88	9.68	5.70	6148.29	0.32	
		131.83	8.19		127.57	13.18	0.001549
	0.79106	70162.38					
1065.50	38.00	4397.81	9.61	5.68	6049.93	0.32	
		131.18	8.12		126.94	13.21	0.001565
	0.79321	69818.21					
1056.10	39.00	4397.76	9.56	5.67	5985.62	0.32	
		130.73	8.08		126.52	13.23	0.001564
	0.78854	69587.08					
1056.03	40.00	4397.76	9.56	5.67	5985.05	0.32	
		130.73	8.08		126.52	13.23	0.001567
	0.78961	69586.38					
1055.98	41.00	4397.76	9.56	5.67	5984.93	0.32	
		130.73	8.08		126.52	13.23	0.001565
	0.78906	69584.46					
1056.01	42.00	4397.76	9.56	5.67	5985.06	0.32	
		130.73	8.08		126.52	13.23	0.001565
	0.78876	69585.57					
1056.51	43.00	4397.76	9.56	5.67	5988.99	0.32	
		130.75	8.08		126.54	13.23	0.001563
	0.78815	69598.77					
1070.15	44.00	4397.84	9.64	5.69	6087.09	0.32	
		131.41	8.14		127.17	13.20	0.001547
	0.78585	69943.37					
1080.16	45.00	4397.89	9.69	5.70	6156.09	0.32	
		131.88	8.19		127.62	13.17	0.001544

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HYCHAN.OUT

	0.78929	70188.43						
1095.34	46.00	4397.97	9.77	8.26	5.72	6264.79	0.32	0.001524
		132.61				128.30	13.14	
	0.78529	70566.51						
1120.30	47.00	4398.10	9.90	8.37	5.75	6439.65	0.32	0.001503
		133.77				129.41	13.08	
	0.78552	71172.86						
1145.36	48.00	4398.22	10.02	8.49	5.77	6613.48	0.32	0.001481
		134.93				130.50	13.02	
	0.78453	71774.87						
1170.49	49.00	4398.35	10.15	8.60	5.80	6786.66	0.32	0.001461
		136.07				131.58	12.96	
	0.78443	72369.78						
1195.19	50.00	4398.48	10.28	8.71	5.82	6955.96	0.32	0.001439
		137.17				132.63	12.91	
	0.78239	72948.05						
1222.20	51.00	4398.61	10.41	8.83	5.84	7139.84	0.32	0.001414
		138.37				133.77	12.85	
	0.77946	73572.58						
1262.22	52.00	4398.81	10.61	9.01	5.87	7411.50	0.32	0.001374
		140.12				135.42	12.77	
	0.77249	74482.70						
1282.95	53.00	4398.91	10.71	9.10	5.88	7549.39	0.32	0.001372
		141.01				136.27	12.72	
	0.77867	74947.18						
1300.89	54.00	4399.00	10.80	9.17	5.91	7684.26	0.32	0.001348
		141.80				137.01	12.69	
	0.77172	75357.20						
1360.93	55.00	4399.29	11.09	9.43	5.97	8126.14	0.32	0.001288
		144.37				139.45	12.57	
	0.75786	76697.55						
1466.17	56.00	4399.80	11.60	9.86	6.06	8881.25	0.31	0.001191
		148.71				143.56	12.38	
	0.73275	78956.80						
1611.89	57.00	4400.47	12.27	10.44	6.14	9897.30	0.31	0.001078
		154.44				148.98	12.14	
	0.70210	81939.81						
1785.02	58.00	4401.26	13.06	11.09	6.22	11093.98	0.30	0.000971
		160.98				155.17	11.88	
	0.67157	85340.98						
1927.76	59.00	4401.89	13.69	11.60	6.25	12051.44	0.30	0.000899
		166.13				160.03	11.69	
	0.65065	88016.48						
2052.53	60.00	4402.43	14.23	12.04	6.27	12868.18	0.29	0.000831
		170.46				164.12	11.53	
	0.62442	90266.68						
2179.15	61.00	4402.97	14.77	12.47	6.27	13670.71	0.29	0.000774
		174.72				168.14	11.39	
	0.60268	92477.96						
2262.09	62.00	4403.31	15.11	12.75	6.27	14180.58	0.28	0.001099
		177.44				170.71	11.29	
	0.87386	93890.57						
2319.18	63.00	4403.55	15.35	12.94	6.27	14537.87	0.28	0.001076
		179.28				172.44	11.23	
	0.86828	94841.48						
2360.38	64.00	4403.72	15.52	13.07	6.27	14794.34	0.28	0.001060
		180.60				173.69	11.19	
	0.86461	95528.88						
2382.81	65.00	4403.82	15.62	13.15	6.27	14948.28	0.28	0.001060
		181.15				174.45	11.17	
	0.86996	95944.87						
2409.29	66.00	4403.96	15.76	13.28	6.28	15139.57	0.28	0.001055
		181.43				175.46	11.13	

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0.87418	96501.32						
67.00	4404.07	15.87	6.28	15269.59	0.28		
2429.82	181.65	13.38		176.24	11.11	0.001044	
0.87133	96929.32						
68.00	4404.10	15.90	6.28	15299.00	0.28		
2434.91	181.70	13.40		176.43	11.10	0.001048	
0.87643	97035.94						
69.00	4404.11	15.91	6.28	15316.19	0.28		
2437.49	181.73	13.41		176.53	11.10	0.001039	
0.86991	97090.45						
70.00	4404.11	15.91	6.28	15312.81	0.28		
2437.36	181.73	13.41		176.52	11.10	0.001043	
0.87305	97087.72						
71.00	4404.10	15.90	6.28	15307.07	0.28		
2436.14	181.71	13.41		176.48	11.10	0.001034	
0.86504	97062.01						
72.00	4404.11	15.91	6.28	15312.80	0.28		
2437.06	181.72	13.41		176.51	11.10	0.001037	
0.86775	97081.44						
73.00	4404.10	15.91	6.28	15309.37	0.28		
2436.71	181.72	13.41		176.50	11.10	0.001039	
0.86939	97073.95						
74.00	4404.13	15.93	6.29	15351.09	0.28		
2442.02	181.78	13.43		176.70	11.09	0.001018	
0.85321	97187.65						
75.00	4404.19	15.99	6.29	15425.31	0.28		
2453.07	181.89	13.49		177.13	11.08	0.001036	
0.87157	97420.17						
76.00	4404.22	16.02	6.29	15463.42	0.28		
2458.54	181.95	13.51		177.34	11.07	0.001015	
0.85577	97535.16						
77.00	4404.19	15.99	6.28	15410.64	0.28		
2452.05	181.88	13.48		177.08	11.08	0.001029	
0.86553	97396.68						
78.00	4404.21	16.01	6.29	15454.44	0.28		
2456.66	181.93	13.50		177.27	11.07	0.001023	
0.86169	97496.61						
79.00	4404.25	16.06	6.29	15508.25	0.28		
2464.98	182.02	13.54		177.58	11.06	0.001021	
0.86260	97670.56						
80.00	4404.37	16.17	6.30	15656.99	0.28		
2485.74	182.24	13.64		178.38	11.03	0.001010	
0.85986	98108.66						
81.00	4404.30	16.10	6.29	15562.22	0.28		
2474.37	182.12	13.59		177.94	11.05	0.001033	
0.87543	97865.19						
82.00	4404.31	16.11	6.29	15578.14	0.28		
2475.13	182.13	13.59		177.97	11.05	0.001026	
0.86985	97884.13						
83.00	4404.30	16.10	6.29	15559.31	0.28		
2473.06	182.10	13.58		177.89	11.05	0.001012	
0.85785	97839.17						
84.00	4404.26	16.06	6.29	15511.12	0.28		
2466.21	182.03	13.55		177.63	11.06	0.001036	
0.87578	97695.18						
85.00	4404.25	16.05	6.29	15495.96	0.28		
2463.75	182.00	13.54		177.53	11.06	0.001027	
0.86770	97643.70						
86.00	4404.25	16.05	6.29	15506.78	0.28		
2464.94	182.02	13.54		177.58	11.06	0.001014	
0.85681	97669.66						
87.00	4404.26	16.06	6.29	15510.83	0.28		
2466.05	182.03	13.55		177.62	11.06	0.001030	

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0.87067	97692.12						
88.00	4404.37	16.17	6.30	15657.86	0.28		
2485.71	182.24	13.64		178.38	11.03	0.001024	
0.87180	98109.17						
89.00	4404.25	16.05	6.29	15496.54	0.28		
2464.98	182.02	13.54		177.58	11.06	0.001022	
0.86372	97667.94						
90.00	4403.95	15.75	6.27	15086.76	0.28		
2407.80	181.41	13.27		175.39	11.13	0.001063	
0.88067	96464.25						
91.00	4403.56	15.36	6.26	14525.86	0.28		
2322.04	179.36	12.95		172.52	11.23	0.000747	
0.60339	94884.51						
92.00	4403.24	15.04	6.26	14052.50	0.28		
2244.60	176.87	12.69		170.16	11.31	0.000784	
0.62048	93590.45						
93.00	4402.83	14.63	6.26	13433.62	0.29		
2146.30	173.61	12.36		167.09	11.42	0.000838	
0.64667	91901.99						
94.00	4402.41	14.21	6.25	12816.31	0.29		
2049.09	170.33	12.03		163.99	11.54	0.000886	
0.66514	90195.76						
95.00	4402.05	13.85	6.24	12262.92	0.30		
1963.80	167.38	11.73		161.21	11.64	0.000926	
0.67779	88664.31						
96.00	4401.75	13.55	6.23	11811.86	0.30		
1895.66	164.97	11.49		158.94	11.73	0.000962	
0.68989	87415.27						
97.00	4401.41	13.21	6.21	11289.81	0.30		
1818.30	162.18	11.21		156.30	11.83	0.001008	
0.70539	85965.72						
98.00	4401.11	12.91	6.19	10843.48	0.30		
1752.64	159.76	10.97		154.02	11.93	0.001043	
0.71399	84708.88						
99.00	4400.84	12.64	6.16	10429.51	0.31		
1692.83	157.52	10.75		151.89	12.01	0.001085	
0.72754	83541.51						
100.00	4400.64	12.44	6.14	10123.26	0.31		
1648.86	155.84	10.58		150.31	12.08	0.001109	
0.73235	82670.38						
101.00	4400.40	12.20	6.11	9760.66	0.31		
1596.38	153.82	10.38		148.39	12.16	0.001153	
0.74661	81616.54						
102.00	4400.18	11.98	6.09	9431.47	0.31		
1548.16	151.95	10.19		146.63	12.24	0.001183	
0.75242	80644.80						
103.00	4399.99	11.79	6.07	9151.71	0.31		
1507.94	150.37	10.03		145.13	12.31	0.001217	
0.76159	79823.58						
104.00	4399.84	11.64	6.05	8924.41	0.31		
1475.22	149.07	9.90		143.90	12.36	0.001237	
0.76360	79143.82						
105.00	4399.70	11.50	6.03	8714.98	0.31		
1445.62	147.87	9.78		142.76	12.41	0.001261	
0.76919	78519.07						
106.00	4399.48	11.28	5.99	8392.55	0.31		
1400.52	146.01	9.59		141.00	12.50	0.001300	
0.77791	77551.12						
107.00	4399.31	11.11	5.97	8145.06	0.32		
1365.46	144.55	9.45		139.62	12.56	0.001316	
0.77568	76789.39						
108.00	4399.19	11.00	5.94	7968.52	0.32		
1341.01	143.51	9.34		138.64	12.61	0.001337	

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1317.91	0.77932	76249.63	10.88	9.25	5.92	7801.72	0.32	0.001350
1310.53	0.77903	75733.98	10.85	9.22	5.91	7750.94	0.32	0.001351
1327.12	0.77715	75571.88	10.93	9.29	5.93	7874.84	0.32	0.001331
1364.49	0.77104	75946.27	11.11	9.44	5.97	8145.43	0.32	0.001303
1364.92	0.76756	76774.59	11.11	9.44	5.96	8141.15	0.32	0.001320
1343.79	0.77799	76777.93	11.01	9.36	5.95	7990.95	0.32	0.001329
1368.03	0.77581	76313.41	11.13	9.46	5.97	8172.97	0.32	0.001294
1418.34	0.76336	76852.74	11.37	9.66	6.02	8531.52	0.31	0.001263
1419.68	0.76176	77942.83	11.38	9.67	6.01	8533.00	0.31	0.001276
1410.56	0.77005	77968.76	11.33	9.63	6.01	8471.00	0.31	0.001278
1411.61	0.76825	77773.39	11.34	9.64	6.01	8479.27	0.31	0.001276
1429.25	0.76750	77797.23	11.42	9.71	6.02	8606.85	0.31	0.001260
1438.46	0.76346	78175.92	11.47	9.75	6.03	8669.53	0.31	0.001259
1437.21	0.76556	78369.99	11.46	9.74	6.03	8659.55	0.31	0.001261
1419.74	0.76626	78343.20	11.38	9.67	6.01	8533.54	0.31	0.001276
1409.31	0.77019	77969.01	11.33	9.63	6.00	8461.31	0.31	0.001281
1391.93	0.76943	77745.09	11.24	9.56	5.99	8335.38	0.31	0.001296
1382.37	0.77278	77368.45	11.20	9.52	5.98	8269.35	0.32	0.001300
1381.47	0.77205	77163.23	11.19	9.51	5.98	8262.08	0.32	0.001303
1366.08	0.77338	77144.43	11.12	9.45	5.97	8150.06	0.32	0.001315
1357.63	0.77538	76804.54	11.08	9.41	5.96	8091.60	0.32	0.001317

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1356.60	0.77367	76621.17	11.07	9.41	5.96	8083.50	0.32	0.001321
	130.00	4399.27				139.27	12.58	
	0.77562	76597.91						
1341.74	131.00	4399.20	11.00	9.35	5.94	7974.73	0.32	0.001337
		143.54				138.67	12.61	
	0.77998	76266.53						
1335.44	132.00	4399.17	10.97	9.32	5.94	7932.89	0.32	0.001329
		143.28				138.42	12.62	
	0.77290	76129.78						
1365.64	133.00	4399.32	11.12	9.45	5.97	8154.10	0.32	0.001300
		144.57				139.64	12.56	
	0.76614	76800.62						
1382.24	134.00	4399.40	11.20	9.52	5.98	8268.23	0.32	0.001299
		145.26				140.30	12.53	
	0.77114	77162.70						
1382.50	135.00	4399.40	11.20	9.52	5.98	8270.02	0.32	0.001300
		145.27				140.31	12.53	
	0.77198	77167.89						
1382.55	136.00	4399.40	11.20	9.52	5.98	8270.18	0.32	0.001299
		145.28				140.31	12.53	
	0.77144	77169.48						
1382.54	137.00	4399.40	11.20	9.52	5.98	8270.12	0.32	0.001300
		145.28				140.31	12.53	
	0.77173	77169.41						
1382.47	138.00	4399.40	11.20	9.52	5.98	8269.88	0.32	0.001299
		145.27				140.30	12.53	
	0.77162	77166.99						
1382.48	139.00	4399.40	11.20	9.52	5.98	8269.66	0.32	0.001300
		145.27				140.31	12.53	
	0.77171	77168.10						
1381.55	140.00	4399.39	11.19	9.51	5.98	8262.50	0.32	0.001302
		145.23				140.27	12.53	
	0.77315	77146.41						
1366.09	141.00	4399.32	11.12	9.45	5.97	8150.16	0.32	0.001316
		144.58				139.65	12.56	
	0.77587	76804.86						
1357.66	142.00	4399.28	11.08	9.41	5.96	8091.82	0.32	0.001317
		144.22				139.31	12.58	
	0.77387	76621.73						
1357.54	143.00	4399.28	11.08	9.41	5.96	8091.08	0.32	0.001320
		144.22				139.31	12.58	
	0.77513	76618.88						
1357.47	144.00	4399.28	11.08	9.41	5.96	8090.58	0.32	0.001319
		144.22				139.30	12.58	
	0.77463	76617.70						
1356.59	145.00	4399.27	11.07	9.41	5.96	8083.58	0.32	0.001321
		144.18				139.27	12.58	
	0.77568	76597.28						
1341.78	146.00	4399.20	11.00	9.35	5.94	7974.93	0.32	0.001336
		143.54				138.67	12.61	
	0.77928	76267.34						
1333.48	147.00	4399.16	10.96	9.31	5.94	7917.17	0.32	0.001337
		143.19				138.34	12.62	
	0.77704	76085.13						
1333.49	148.00	4399.16	10.96	9.31	5.94	7917.31	0.32	0.001334
		143.20				138.34	12.62	
	0.77508	76085.79						
1333.43	149.00	4399.16	10.96	9.31	5.94	7916.87	0.32	0.001335
		143.19				138.33	12.62	
	0.77585	76084.21						
1333.47	150.00	4399.16	10.96	9.31	5.94	7917.16	0.32	0.001335
		143.19				138.34	12.62	

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1332.81	0.77553	76085.26	10.96	9.31	5.94	7912.11	0.32	0.001337
	151.00	4399.16				138.31	12.62	
		143.16						
1322.70	0.77691	76069.81	10.91	9.27	5.93	7837.25	0.32	0.001347
	152.00	4399.10				137.89	12.64	
		142.73						
1312.31	0.77921	75841.75	10.85	9.22	5.92	7762.49	0.32	0.001354
	153.00	4399.05				137.47	12.67	
		142.28						
1309.50	0.77933	75610.16	10.84	9.21	5.91	7743.23	0.32	0.001349
	154.00	4399.04				137.36	12.67	
		142.16						
1308.61	0.77537	75546.98	10.84	9.21	5.91	7735.73	0.32	0.001355
	155.00	4399.04				137.32	12.67	
		142.12						
1295.80	0.77858	75526.80	10.77	9.15	5.90	7641.70	0.32	0.001364
	156.00	4398.97				136.80	12.70	
		141.57						
1316.97	0.77931	75237.61	10.88	9.24	5.92	7801.75	0.32	0.001337
	157.00	4399.08				137.67	12.66	
		142.49						
1333.25	0.77104	75719.08	10.96	9.31	5.94	7915.89	0.32	0.001336
	158.00	4399.16				138.33	12.62	
		143.18						
1333.43	0.77614	76079.89	10.96	9.31	5.94	7917.03	0.32	0.001333
	159.00	4399.16				138.33	12.62	
		143.19						
1333.44	0.77448	76084.11	10.96	9.31	5.94	7916.83	0.32	0.001336
	160.00	4399.16				138.34	12.62	
		143.19						
1333.49	0.77636	76084.61	10.96	9.31	5.94	7917.39	0.32	0.001335
	161.00	4399.16				138.34	12.62	
		143.19						
1333.47	0.77556	76085.74	10.96	9.31	5.94	7917.07	0.32	0.001336
	162.00	4399.16				138.34	12.62	
		143.19						
1333.40	0.77649	76085.11	10.96	9.31	5.94	7916.79	0.32	0.001336
	163.00	4399.16				138.33	12.62	
		143.19						
1333.40	0.77639	76083.34	10.96	9.31	5.94	7916.96	0.32	0.001335
	164.00	4399.16				138.33	12.62	
		143.19						
1332.50	0.77568	76083.03	10.95	9.31	5.94	7909.58	0.32	0.001339
	165.00	4399.15				138.30	12.63	
		143.15						
1317.80	0.77751	76062.30	10.88	9.25	5.92	7801.05	0.32	0.001353
	166.00	4399.08				137.69	12.65	
		142.51						
1309.51	0.78064	75731.35	10.84	9.21	5.91	7743.10	0.32	0.001352
	167.00	4399.04				137.36	12.67	
		142.16						
1309.48	0.77728	75547.52	10.84	9.21	5.91	7743.05	0.32	0.001355
	168.00	4399.04				137.36	12.67	
		142.16						
1309.48	0.77862	75546.43	10.84	9.21	5.91	7742.84	0.32	0.001353
	169.00	4399.04				137.36	12.67	
		142.16						
1309.49	0.77762	75546.95	10.84	9.21	5.91	7743.04	0.32	0.001355
	170.00	4399.04				137.36	12.67	
		142.16						
1309.51	0.77880	75547.10	10.84	9.21	5.91	7743.16	0.32	0.001353
	171.00	4399.04				137.36	12.67	
		142.16						

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1309.44	0.77754	75547.41	10.84	9.21	5.91	7742.58	0.32	0.001353
	172.00	4399.04				137.36	12.67	
		142.16						
1308.61	0.77767	75546.24	10.84	9.21	5.91	7736.11	0.32	0.001354
	173.00	4399.04				137.32	12.67	
		142.12						
1293.83	0.77815	75526.26	10.76	9.15	5.89	7625.70	0.32	0.001370
	174.00	4398.96				136.71	12.70	
		141.48						
1285.79	0.78176	75191.88	10.72	9.11	5.89	7569.47	0.32	0.001371
	175.00	4398.92				136.38	12.72	
		141.13						
1285.71	0.77921	75010.23	10.72	9.11	5.89	7569.11	0.32	0.001372
	176.00	4398.92				136.38	12.72	
		141.13						
1285.70	0.77987	75008.15	10.72	9.11	5.89	7569.17	0.32	0.001370
	177.00	4398.92				136.38	12.72	
		141.13						
1285.72	0.77879	75007.96	10.72	9.11	5.89	7568.85	0.32	0.001371
	178.00	4398.92				136.38	12.72	
		141.13						
1285.69	0.77919	75009.50	10.72	9.11	5.89	7568.72	0.32	0.001370
	179.00	4398.92				136.38	12.72	
		141.13						
1287.74	0.77893	75008.45	10.73	9.12	5.89	7585.08	0.32	0.001363
	180.00	4398.93				136.47	12.71	
		141.22						
1316.95	0.77560	75056.70	10.88	9.24	5.92	7801.55	0.32	0.001336
	181.00	4399.08				137.67	12.66	
		142.49						
1334.14	0.77065	75719.05	10.96	9.32	5.94	7922.99	0.32	0.001332
	182.00	4399.16				138.36	12.62	
		143.22						
1349.19	0.77422	76100.55	11.04	9.38	5.95	8033.36	0.32	0.001319
	183.00	4399.24				138.97	12.59	
		143.87						
1357.43	0.77210	76435.59	11.08	9.41	5.96	8090.58	0.32	0.001316
	184.00	4399.28				139.30	12.58	
		144.21						
1357.49	0.77275	76616.23	11.08	9.41	5.96	8090.78	0.32	0.001318
	185.00	4399.28				139.31	12.58	
		144.22						
1357.54	0.77394	76617.80	11.08	9.41	5.96	8091.16	0.32	0.001319
	186.00	4399.28				139.31	12.58	
		144.22						
1357.53	0.77494	76618.83	11.08	9.41	5.96	8091.11	0.32	0.001318
	187.00	4399.28				139.31	12.58	
		144.22						
1357.53	0.77444	76618.45	11.08	9.41	5.96	8091.09	0.32	0.001319
	188.00	4399.28				139.31	12.58	
		144.22						
1357.48	0.77466	76618.37	11.08	9.41	5.96	8090.72	0.32	0.001318
	189.00	4399.28				139.30	12.58	
		144.22						
1357.54	0.77407	76617.56	11.08	9.41	5.96	8091.24	0.32	0.001317
	190.00	4399.28				139.31	12.58	
		144.22						
1356.55	0.77381	76618.48	11.07	9.41	5.96	8083.24	0.32	0.001321
	191.00	4399.27				139.27	12.58	
		144.18						
1341.77	0.77556	76596.49	11.00	9.35	5.94	7974.91	0.32	0.001335
	192.00	4399.20				138.67	12.61	
		143.54						

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## HYCHAN.OUT

1333.51	0.77841	76267.12	10.96	9.31	5.94	7917.32	0.32	0.001335
	193.00	4399.16				138.34	12.62	
	0.77600	76086.16	10.96	9.31	5.94	7917.25	0.32	0.001335
	194.00	4399.16				138.34	12.62	
	0.77589	76084.65	10.96	9.31	5.94	7917.27	0.32	0.001333
	195.00	4399.16				138.34	12.62	
	0.77452	76086.24	10.96	9.31	5.94	7916.84	0.32	0.001336
	196.00	4399.16				138.33	12.62	
	0.77621	76083.35	10.96	9.31	5.94	7916.87	0.32	0.001335
	197.00	4399.16				138.34	12.62	
	0.77591	76084.67	10.96	9.31	5.94	7917.21	0.32	0.001334
	198.00	4399.16				138.34	12.62	
	0.77523	76086.13	10.96	9.31	5.94	7916.95	0.32	0.001337
	199.00	4399.16				138.34	12.62	
	0.77689	76084.65						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3613

MAXIMUM DISCHARGE (CFS) = 15696.40 AT TIME = 87.17  
 MAXIMUM STAGE = 4403.99 AT TIME = 87.17

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4387.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4387.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4387.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4387.70	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
890.41	4.00	4392.65	4.95	3.65	3247.58	0.29		
	0.29987	137.37	6.48	134.89	27.26	0.000741		
980.82	5.00	4395.99	8.29	5.55	5443.01	0.34		
	0.25377	169.80	5.78	165.19	19.93	0.000704		
971.08	6.00	4395.93	8.23	5.54	5375.98	0.34		
	0.25158	169.29	5.74	164.72	20.02	0.000703		
959.67	7.00	4395.86	8.16	5.51	5290.26	0.34		
	0.24604	168.68	5.69	164.15	20.13	0.000693		
939.13	8.00	4395.73	8.03	5.47	5141.15	0.34		
	0.24033	167.57	5.60	163.11	20.32	0.000687		
		85635.04						

HYCHAN.OUT							
919.19	9.00	4395.60	7.90	5.43	4995.01	0.34	0.000684
	0.23572	166.48	5.52	162.10	20.52		
	10.00	85102.19					
900.33		4395.48	7.78	5.39	4850.20	0.34	
	0.23190	165.44	5.44	161.14	20.71		0.000683
	11.00	84598.31					
890.64		4395.42	7.72	5.36	4774.82	0.34	
	0.23138	164.90	5.40	160.63	20.81		0.000687
	12.00	84329.98					
880.94		4395.36	7.66	5.34	4701.18	0.34	
	0.22792	164.38	5.36	160.15	20.91		0.000682
	13.00	84079.91					
861.73		4395.24	7.54	5.28	4551.92	0.34	
	0.22440	163.31	5.28	159.15	21.11		0.000682
	14.00	83556.07					
851.43		4395.17	7.47	5.25	4470.49	0.34	
	0.22431	162.71	5.23	158.59	21.23		0.000687
	15.00	83260.89					
851.30		4395.17	7.47	5.25	4469.07	0.34	
	0.22433	162.70	5.23	158.58	21.23		0.000687
	16.00	83254.91					
851.28		4395.17	7.47	5.25	4468.98	0.34	
	0.22435	162.70	5.23	158.58	21.23		0.000687
	17.00	83254.59					
851.28		4395.17	7.47	5.25	4468.98	0.34	
	0.22447	162.70	5.23	158.58	21.23		0.000688
	18.00	83254.57					
851.26		4395.17	7.47	5.25	4468.55	0.34	
	0.22483	162.69	5.23	158.58	21.23		0.000689
	19.00	83252.87					
859.91		4395.22	7.52	5.28	4538.14	0.34	
	0.22731	163.18	5.27	159.03	21.14		0.000691
	20.00	83491.70					
879.64		4395.35	7.65	5.33	4691.99	0.34	
	0.23069	164.29	5.35	160.06	20.93		0.000690
	21.00	84031.14					
899.36		4395.47	7.77	5.39	4845.40	0.34	
	0.23622	165.38	5.44	161.08	20.72		0.000696
	22.00	84566.20					
909.75		4395.54	7.84	5.41	4922.93	0.34	
	0.23663	165.94	5.48	161.60	20.62		0.000692
	23.00	84840.88					
910.11		4395.54	7.84	5.41	4925.05	0.34	
	0.23712	165.96	5.48	161.62	20.62		0.000693
	24.00	84848.49					
920.38		4395.61	7.91	5.44	5007.40	0.34	
	0.24091	166.53	5.53	162.15	20.51		0.000699
	25.00	85128.48					
953.25		4395.81	8.11	5.51	5250.18	0.34	
	0.25129	168.32	5.66	163.82	20.19		0.000711
	26.00	86003.09					
995.96		4396.08	8.38	5.58	5560.06	0.34	
	0.26229	170.60	5.84	165.94	19.79		0.000720
	27.00	87116.19					
1038.14		4396.35	8.65	5.65	5861.83	0.34	
	0.27136	172.79	6.01	167.97	19.42		0.000724
	28.00	88183.88					
1055.80		4396.46	8.76	5.67	5983.75	0.34	
	0.27303	173.69	6.08	168.81	19.28		0.000720
	29.00	88624.52					
1056.54		4396.46	8.76	5.67	5988.90	0.34	
	0.27432	173.72	6.08	168.84	19.27		0.000723
		88641.78					

		HYCHAN.OUT				
1070.14	30.00 4396.55 174.40	8.85	5.69	6087.13	0.34	
	0.27964 88974.09	6.14		169.47	19.16	0.000730
1079.55	31.00 4396.60 174.88	8.90	5.70	6151.60	0.34	
	0.27940 89203.83	6.17		169.91	19.08	0.000725
1080.29	32.00 4396.61 174.91	8.91	5.70	6156.54	0.34	
	0.28145 89219.95	6.18		169.94	19.08	0.000730
1094.59	33.00 4396.70 175.61	9.00	5.72	6259.44	0.34	
	0.28587 89564.36	6.23		170.60	18.96	0.000735
1104.38	34.00 4396.76 176.09	9.06	5.73	6325.50	0.34	
	0.28753 89798.08	6.27		171.04	18.89	0.000735
1103.84	35.00 4396.75 176.07	9.05	5.73	6321.30	0.34	
	0.28532 89786.12	6.27		171.02	18.89	0.000729
1089.49	36.00 4396.67 175.37	8.96	5.71	6218.71	0.34	
	0.28040 89443.38	6.21		170.37	19.00	0.000723
1079.21	37.00 4396.60 174.86	8.90	5.70	6148.29	0.34	
	0.27790 89195.47	6.17		169.90	19.09	0.000722
1065.50	38.00 4396.52 174.18	8.82	5.68	6049.93	0.34	
	0.27352 88862.83	6.12		169.26	19.20	0.000717
1056.10	39.00 4396.46 173.70	8.76	5.67	5985.62	0.34	
	0.27221 88632.30	6.08		168.82	19.27	0.000717
1056.03	40.00 4396.46 173.70	8.76	5.67	5985.05	0.34	
	0.27376 88629.95	6.08		168.82	19.27	0.000722
1055.98	41.00 4396.46 173.70	8.76	5.67	5984.93	0.34	
	0.27255 88629.41	6.08		168.82	19.27	0.000718
1056.01	42.00 4396.46 173.70	8.76	5.67	5985.06	0.34	
	0.27227 88629.77	6.08		168.82	19.27	0.000718
1056.51	43.00 4396.46 173.72	8.76	5.67	5988.99	0.34	
	0.27493 88642.01	6.08		168.84	19.27	0.000724
1070.15	44.00 4396.55 174.40	8.85	5.69	6087.09	0.34	
	0.27881 88973.77	6.14		169.47	19.16	0.000728
1080.16	45.00 4396.61 174.90	8.91	5.70	6156.09	0.34	
	0.28105 89217.73	6.18		169.94	19.08	0.000729
1095.34	46.00 4396.70 175.65	9.00	5.72	6264.79	0.34	
	0.28795 89580.90	6.24		170.63	18.96	0.000740
1120.30	47.00 4396.85 176.87	9.15	5.75	6439.65	0.33	
	0.29625 90173.99	6.33		171.76	18.77	0.000750
1145.36	48.00 4397.00 178.06	9.30	5.77	6613.48	0.33	
	0.30361 90757.79	6.43		172.87	18.58	0.000756
1170.49	49.00 4397.16 179.25	9.46	5.80	6786.66	0.33	
	0.31200 91334.39	6.53		173.97	18.40	0.000766
1195.19	50.00 4397.30 180.39	9.60	5.82	6955.96	0.33	
	0.32161 91891.14	6.63		175.03	18.23	0.000778

HYCHAN.OUT							
1222.20	51.00	4397.46	9.76	5.84	7139.84	0.33	0.000791
	0.33208	181.62	6.73		176.17	18.05	
		92489.77					
1262.22	52.00	4397.70	10.00	5.87	7411.50	0.33	0.000805
	0.34562	183.40	6.88		177.83	17.79	
		93358.36					
1282.95	53.00	4397.82	10.12	5.88	7549.39	0.33	0.000804
	0.34914	184.31	6.96		178.66	17.66	
		93797.83					
1300.89	54.00	4397.92	10.22	5.91	7684.26	0.33	0.000818
	0.35874	185.07	7.03		179.37	17.55	
		94168.03					
1360.93	55.00	4398.26	10.56	5.97	8126.14	0.32	0.000859
	0.38894	187.56	7.26		181.67	17.21	
		95379.17					
1466.17	56.00	4398.84	11.14	6.06	8881.25	0.32	0.000922
	0.43971	191.74	7.65		185.55	16.66	
		97411.33					
1611.89	57.00	4399.62	11.92	6.14	9897.30	0.31	0.001020
	0.52039	197.16	8.18		190.56	15.99	
		100042.35					
1785.02	58.00	4400.51	12.81	6.22	11093.98	0.31	0.001122
	0.61538	203.04	8.79		195.99	15.31	
		102897.23					
1927.76	59.00	4401.21	13.51	6.25	12051.44	0.30	0.001189
	0.68888	207.56	9.29		200.16	14.82	
		105086.13					
2052.53	60.00	4401.81	14.11	6.27	12868.18	0.29	0.001289
	0.78154	211.30	9.71		203.61	14.43	
		106893.23					
2179.15	61.00	4402.40	14.70	6.27	13670.71	0.29	0.001379
	0.87230	214.90	10.14		206.93	14.07	
		108636.09					
2262.09	62.00	4402.78	15.08	6.27	14180.58	0.28	0.000872
	0.56654	217.17	10.42		209.01	13.86	
		109730.38					
2319.18	63.00	4403.04	15.34	6.27	14537.87	0.28	0.000902
	0.59845	218.11	10.63		210.41	13.72	
		110464.55					
2360.38	64.00	4403.23	15.53	6.27	14794.34	0.28	0.000925
	0.62327	218.48	10.80		211.41	13.62	
		110992.22					
2382.81	65.00	4403.34	15.64	6.27	14948.28	0.28	0.000950
	0.64594	218.70	10.90		212.00	13.56	
		111299.39					
2409.29	66.00	4403.48	15.78	6.28	15139.57	0.28	0.001002
	0.68773	218.98	11.00		212.76	13.48	
		111697.90					
2429.82	67.00	4403.59	15.89	6.28	15269.59	0.28	0.000997
	0.68944	219.21	11.08		213.35	13.43	
		112009.05					
2434.91	68.00	4403.62	15.92	6.28	15299.00	0.28	0.001017
	0.70484	219.26	11.10		213.50	13.41	
		112085.80					
2437.49	69.00	4403.63	15.93	6.28	15316.19	0.28	0.001003
	0.69552	219.29	11.12		213.58	13.40	
		112127.03					
2437.36	70.00	4403.63	15.93	6.28	15312.81	0.28	0.001001
	0.69393	219.29	11.11		213.57	13.40	
		112123.74					
2436.14	71.00	4403.63	15.93	6.28	15307.07	0.28	0.001001
	0.69417	219.28	11.11		213.53	13.41	
		112105.42					



HYCHAN.OUT							
2437.06	72.00	4403.63	15.93	11.11	6.28	15312.80	0.28
	0.69274	219.29			213.56	13.41	0.000999
		112119.56					
2436.71	73.00	4403.63	15.93	11.11	6.28	15309.37	0.28
	0.68845	219.28			213.55	13.41	0.000993
		112113.71					
2442.02	74.00	4403.66	15.96	11.13	6.29	15351.09	0.28
	0.70139	219.35			213.71	13.39	0.001010
		112197.96					
2453.07	75.00	4403.72	16.02	11.18	6.29	15425.31	0.28
	0.70590	219.47			214.04	13.36	0.001012
		112368.66					
2458.54	76.00	4403.75	16.05	11.20	6.29	15463.42	0.28
	0.71016	219.53			214.19	13.34	0.001016
		112452.13					
2452.05	77.00	4403.71	16.01	11.17	6.28	15410.64	0.28
	0.69401	219.46			214.00	13.36	0.000995
		112350.20					
2456.66	78.00	4403.74	16.04	11.19	6.29	15454.44	0.28
	0.69492	219.51			214.14	13.35	0.000995
		112424.17					
2464.98	79.00	4403.79	16.09	11.22	6.29	15508.25	0.28
	0.67430	219.60			214.38	13.33	0.000963
		112550.52					
2485.74	80.00	4403.90	16.20	11.31	6.30	15656.99	0.28
	0.68340	219.83			214.99	13.27	0.000969
		112867.58					
2474.37	81.00	4403.84	16.14	11.26	6.29	15562.22	0.28
	0.61193	219.70			214.65	13.30	0.000871
		112691.65					
2475.13	82.00	4403.84	16.14	11.27	6.29	15578.14	0.28
	0.56895	219.71			214.68	13.30	0.000809
		112705.30					
2473.06	83.00	4403.83	16.13	11.26	6.29	15559.31	0.28
	0.51856	219.69			214.61	13.30	0.000738
		112672.55					
2466.21	84.00	4403.79	16.09	11.23	6.29	15511.12	0.28
	0.47087	219.61			214.42	13.32	0.000672
		112568.03					
2463.75	85.00	4403.78	16.08	11.22	6.29	15495.96	0.28
	0.42687	219.59			214.35	13.33	0.000610
		112531.50					
2464.94	86.00	4403.79	16.09	11.22	6.29	15506.78	0.28
	0.39386	219.60			214.38	13.33	0.000562
		112549.82					
2466.05	87.00	4403.79	16.09	11.23	6.29	15510.83	0.28
	0.34965	219.61			214.41	13.32	0.000499
		112565.67					
2485.71	88.00	4403.90	16.20	11.31	6.30	15657.86	0.28
	0.37920	219.83			214.99	13.27	0.000537
		112867.34					
2464.98	89.00	4403.79	16.09	11.22	6.29	15496.54	0.28
	0.30143	219.60			214.38	13.33	0.000430
		112549.56					
2407.80	90.00	4403.47	15.77	11.00	6.27	15086.76	0.28
	0.18264	218.97			212.71	13.49	0.000266
		111672.48					
2322.04	91.00	4403.05	15.35	10.65	6.26	14525.86	0.28
	0.45400	218.13			210.47	13.71	0.000683
		110494.24					
2244.60	92.00	4402.70	15.00	10.36	6.26	14052.50	0.28
	0.36457	216.68			208.56	13.90	0.000564
		109496.23					

HYCHAN.OUT							
93.00	4402.25	14.55	6.26	13433.62	0.29		
2146.30	213.97	10.03	206.07	14.17	0.000410		
0.25658	108184.39						
94.00	4401.79	14.09	6.25	12816.31	0.29		
2049.09	211.19	9.70	203.50	14.44	0.000287		
0.17394	106839.06						
95.00	4401.38	13.68	6.24	12262.92	0.30		
1963.80	208.65	9.41	201.17	14.70	0.000193		
0.11362	105613.70						
96.00	4401.05	13.35	6.23	11811.86	0.30		
1895.66	206.56	9.18	199.24	14.92	0.000117		
0.06679	104602.45						
97.00	4400.67	12.97	6.21	11289.81	0.30		
1818.30	204.12	8.91	196.99	15.19	0.000065		
0.03602	103417.38						
98.00	4400.34	12.64	6.19	10843.48	0.31		
1752.64	201.98	8.68	195.01	15.42	0.000089		
0.04822	102381.52						
99.00	4400.04	12.34	6.16	10429.51	0.31		
1692.83	199.97	8.47	193.16	15.65	0.000101		
0.05332	101408.90						
100.00	4399.81	12.11	6.14	10123.26	0.31		
1648.86	198.46	8.31	191.76	15.83	0.000136		
0.07046	100676.33						
101.00	4399.54	11.84	6.11	9760.66	0.31		
1596.38	196.60	8.12	190.05	16.05	0.000112		
0.05692	99774.73						
102.00	4399.28	11.58	6.09	9431.47	0.32		
1548.16	194.84	7.95	188.42	16.27	0.000175		
0.08700	98918.48						
103.00	4399.07	11.37	6.07	9151.71	0.32		
1507.94	193.33	7.80	187.02	16.45	0.000302		
0.14690	98184.66						
104.00	4398.89	11.19	6.05	8924.41	0.32		
1475.22	192.08	7.68	185.87	16.61	0.000448		
0.21471	97579.44						
105.00	4398.73	11.03	6.03	8714.98	0.32		
1445.62	190.94	7.57	184.80	16.76	0.000586		
0.27694	97021.93						
106.00	4398.48	10.78	5.99	8392.55	0.32		
1400.52	189.15	7.40	183.15	16.99	0.000605		
0.27933	96155.70						
107.00	4398.28	10.58	5.97	8145.06	0.32		
1365.46	187.74	7.27	181.85	17.18	0.000607		
0.27537	95469.94						
108.00	4398.15	10.45	5.94	7968.52	0.32		
1341.01	186.74	7.18	180.92	17.32	0.000618		
0.27687	94982.49						
109.00	4398.02	10.32	5.92	7801.72	0.32		
1317.91	185.78	7.09	180.03	17.45	0.000652		
0.28855	94516.30						
110.00	4397.97	10.27	5.91	7750.94	0.33		
1310.53	185.47	7.07	179.74	17.49	0.000702		
0.30942	94365.87						
111.00	4398.07	10.37	5.93	7874.84	0.32		
1327.12	186.17	7.13	180.39	17.40	0.000739		
0.32864	94703.10						
112.00	4398.28	10.58	5.97	8145.43	0.32		
1364.49	187.70	7.27	181.81	17.19	0.000762		
0.34552	95450.97						
113.00	4398.28	10.58	5.96	8141.15	0.32		
1364.92	187.72	7.27	181.83	17.19	0.000754		
0.34227	95459.00						

HYCHAN.OUT									
1343.79	114.00	4398.16	10.46	5.95	7990.95	0.32	0.000764		
	0.34296	186.86		7.19	181.03	17.30			
		95038.68							
1368.03	115.00	4398.30	10.60	5.97	8172.97	0.32	0.000799		
	0.36322	187.85		7.28	181.94	17.17			
		95521.01							
1418.34	116.00	4398.58	10.88	6.02	8531.52	0.32	0.000811		
	0.37782	189.87		7.47	183.82	16.90			
		96502.97							
1419.68	117.00	4398.58	10.88	6.01	8533.00	0.32	0.000802		
	0.37396	189.92		7.48	183.86	16.89			
		96526.50							
1410.56	118.00	4398.53	10.83	6.01	8471.00	0.32	0.000807		
	0.37459	189.56		7.44	183.53	16.94			
		96352.27							
1411.61	119.00	4398.54	10.84	6.01	8479.27	0.32	0.000815		
	0.37840	189.60		7.45	183.57	16.94			
		96372.18							
1429.25	120.00	4398.64	10.94	6.02	8606.85	0.32	0.000824		
	0.38609	190.30		7.51	184.21	16.84			
		96712.08							
1438.46	121.00	4398.69	10.99	6.03	8669.53	0.32	0.000824		
	0.38799	190.66		7.54	184.55	16.80			
		96887.79							
1437.21	122.00	4398.68	10.98	6.03	8659.55	0.32	0.000818		
	0.38474	190.61		7.54	184.50	16.80			
		96863.30							
1419.74	123.00	4398.58	10.88	6.01	8533.54	0.32	0.000813		
	0.37905	189.92		7.48	183.86	16.89			
		96528.36							
1409.31	124.00	4398.53	10.83	6.00	8461.31	0.32	0.000810		
	0.37599	189.51		7.44	183.48	16.95			
		96328.34							
1391.93	125.00	4398.43	10.73	5.99	8335.38	0.32	0.000802		
	0.36905	188.81		7.37	182.84	17.04			
		95989.96							
1382.37	126.00	4398.38	10.68	5.98	8269.35	0.32	0.000807		
	0.36951	188.43		7.34	182.48	17.09			
		95803.01							
1381.47	127.00	4398.37	10.67	5.98	8262.08	0.32	0.000806		
	0.36870	188.39		7.33	182.45	17.10			
		95784.53							
1366.08	128.00	4398.29	10.59	5.97	8150.06	0.32	0.000797		
	0.36182	187.77		7.28	181.87	17.18			
		95481.67							
1357.63	129.00	4398.24	10.54	5.96	8091.60	0.32	0.000801		
	0.36204	187.42		7.24	181.55	17.23			
		95314.48							
1356.60	130.00	4398.23	10.53	5.96	8083.50	0.32	0.000798		
	0.36035	187.38		7.24	181.51	17.23			
		95293.90							
1341.74	131.00	4398.15	10.45	5.94	7974.73	0.32	0.000794		
	0.35609	186.77		7.18	180.95	17.32			
		94997.36							
1335.44	132.00	4398.12	10.41	5.94	7932.89	0.32	0.000803		
	0.35868	186.51		7.16	180.71	17.35			
		94871.23							
1365.64	133.00	4398.28	10.58	5.97	8154.10	0.32	0.000817		
	0.37065	187.75		7.27	181.85	17.18			
		95473.21							
1382.24	134.00	4398.38	10.68	5.98	8268.23	0.32	0.000814		
	0.37260	188.42		7.34	182.47	17.09			
		95799.05							

HYCHAN.OUT									
135.00	4398.38	10.68	5.98	8270.02	0.32				
1382.50	188.43	7.34	182.48	17.09	0.000815				
0.37299	95804.35								
136.00	4398.38	10.68	5.98	8270.18	0.32				
1382.55	188.43	7.34	182.49	17.09	0.000815				
0.37336	95804.76								
137.00	4398.38	10.68	5.98	8270.12	0.32				
1382.54	188.43	7.34	182.49	17.09	0.000814				
0.37272	95804.66								
138.00	4398.38	10.68	5.98	8269.88	0.32				
1382.47	188.43	7.34	182.48	17.09	0.000816				
0.37346	95803.88								
139.00	4398.38	10.68	5.98	8269.66	0.32				
1382.48	188.43	7.34	182.48	17.09	0.000815				
0.37315	95803.45								
140.00	4398.37	10.67	5.98	8262.50	0.32				
1381.55	188.39	7.33	182.45	17.10	0.000811				
0.37129	95785.73								
141.00	4398.29	10.59	5.97	8150.16	0.32				
1366.09	187.77	7.28	181.87	17.18	0.000806				
0.36586	95482.03								
142.00	4398.24	10.54	5.96	8091.82	0.32				
1357.66	187.42	7.24	181.55	17.23	0.000806				
0.36425	95315.12								
143.00	4398.24	10.54	5.96	8091.08	0.32				
1357.54	187.42	7.24	181.55	17.23	0.000807				
0.36479	95312.79								
144.00	4398.24	10.54	5.96	8090.58	0.32				
1357.47	187.42	7.24	181.55	17.23	0.000806				
0.36448	95311.38								
145.00	4398.23	10.53	5.96	8083.58	0.32				
1356.59	187.38	7.24	181.51	17.23	0.000803				
0.36281	95293.89								
146.00	4398.15	10.45	5.94	7974.93	0.32				
1341.78	186.77	7.18	180.95	17.32	0.000799				
0.35828	94998.02								
147.00	4398.10	10.40	5.94	7917.17	0.32				
1333.48	186.43	7.15	180.63	17.36	0.000801				
0.35749	94831.53								
148.00	4398.10	10.40	5.94	7917.31	0.32				
1333.49	186.43	7.15	180.63	17.36	0.000799				
0.35678	94831.40								
149.00	4398.10	10.40	5.94	7916.87	0.32				
1333.43	186.43	7.15	180.63	17.36	0.000801				
0.35770	94830.52								
150.00	4398.10	10.40	5.94	7917.16	0.32				
1333.47	186.43	7.15	180.63	17.36	0.000801				
0.35755	94831.20								
151.00	4398.10	10.40	5.94	7912.11	0.32				
1332.81	186.40	7.15	180.61	17.37	0.000801				
0.35740	94818.13								
152.00	4398.04	10.34	5.93	7837.25	0.32				
1322.70	185.98	7.11	180.22	17.42	0.000795				
0.35282	94613.80								
153.00	4397.98	10.28	5.92	7762.49	0.33				
1312.31	185.55	7.07	179.81	17.48	0.000794				
0.35043	94402.13								
154.00	4397.97	10.27	5.91	7743.23	0.33				
1309.50	185.43	7.06	179.71	17.50	0.000797				
0.35110	94345.51								
155.00	4397.96	10.26	5.91	7735.73	0.33				
1308.61	185.39	7.06	179.67	17.51	0.000792				
0.34878	94326.70								

HYCHAN.OUT							
1295.80	156.00	4397.89	10.19	7.01	5.90	7641.70	0.33
	0.34778	184.85				179.17	17.58
		94063.34					0.000795
1316.97	157.00	4398.01	10.31	7.09	5.92	7801.75	0.33
	0.35608	185.74				179.99	17.46
		94497.00					0.000805
1333.25	158.00	4398.10	10.40	7.15	5.94	7915.89	0.32
	0.35910	186.42				180.62	17.36
		94827.29					0.000805
1333.43	159.00	4398.10	10.40	7.15	5.94	7917.03	0.32
	0.35834	186.43				180.63	17.36
		94830.66					0.000803
1333.44	160.00	4398.10	10.40	7.15	5.94	7916.83	0.32
	0.35814	186.43				180.63	17.36
		94830.37					0.000802
1333.49	161.00	4398.10	10.40	7.15	5.94	7917.39	0.32
	0.35870	186.43				180.63	17.36
		94831.74					0.000804
1333.47	162.00	4398.10	10.40	7.15	5.94	7917.07	0.32
	0.35869	186.43				180.63	17.36
		94831.07					0.000804
1333.40	163.00	4398.10	10.40	7.15	5.94	7916.79	0.32
	0.35881	186.43				180.63	17.36
		94830.13					0.000804
1333.40	164.00	4398.10	10.40	7.15	5.94	7916.96	0.32
	0.35998	186.43				180.63	17.36
		94830.43					0.000807
1332.50	165.00	4398.10	10.40	7.15	5.94	7909.58	0.32
	0.35670	186.39				180.59	17.37
		94812.09					0.000800
1317.80	166.00	4398.02	10.32	7.09	5.92	7801.05	0.32
	0.35126	185.78				180.03	17.45
		94514.15					0.000794
1309.51	167.00	4397.97	10.27	7.06	5.91	7743.10	0.33
	0.35083	185.43				179.71	17.50
		94345.56					0.000796
1309.48	168.00	4397.97	10.27	7.06	5.91	7743.05	0.33
	0.35171	185.43				179.71	17.50
		94345.34					0.000798
1309.48	169.00	4397.97	10.27	7.06	5.91	7742.84	0.33
	0.35115	185.43				179.70	17.50
		94344.69					0.000797
1309.49	170.00	4397.97	10.27	7.06	5.91	7743.04	0.33
	0.35090	185.43				179.71	17.50
		94345.28					0.000796
1309.51	171.00	4397.97	10.27	7.06	5.91	7743.16	0.33
	0.35079	185.43				179.71	17.50
		94345.51					0.000796
1309.44	172.00	4397.97	10.27	7.06	5.91	7742.58	0.33
	0.35155	185.43				179.70	17.50
		94343.93					0.000798
1308.61	173.00	4397.96	10.26	7.06	5.91	7736.11	0.33
	0.34943	185.39				179.67	17.51
		94327.55					0.000793
1293.83	174.00	4397.88	10.18	7.00	5.89	7625.70	0.33
	0.34541	184.77				179.09	17.59
		94022.22					0.000790
1285.79	175.00	4397.83	10.13	6.97	5.89	7569.47	0.33
	0.34375	184.43				178.78	17.64
		93857.26					0.000790
1285.71	176.00	4397.83	10.13	6.97	5.89	7569.11	0.33
	0.34354	184.42				178.77	17.64
		93856.02					0.000790

HYCHAN.OUT									
1285.70	177.00	4397.83	10.13	6.97	5.89	178.77	17.64	0.33	0.000790
	0.34357	184.42							
		93855.91							
1285.72	178.00	4397.83	10.13	6.97	5.89	178.77	17.64	0.33	0.000791
	0.34411	184.42							
		93855.29							
1285.69	179.00	4397.83	10.13	6.97	5.89	178.77	17.64	0.33	0.000790
	0.34374	184.42							
		93854.84							
1287.74	180.00	4397.85	10.14	6.98	5.89	178.85	17.63	0.33	0.000799
	0.34802	184.51							
		93897.02							
1316.95	181.00	4398.01	10.31	7.09	5.92	179.99	17.46	0.33	0.000810
	0.35832	185.74							
		94496.20							
1334.14	182.00	4398.11	10.41	7.16	5.94	180.66	17.36	0.32	0.000810
	0.36144	186.46							
		94845.06							
1349.19	183.00	4398.19	10.49	7.21	5.95	181.23	17.27	0.32	0.000814
	0.36631	187.08							
		95147.08							
1357.43	184.00	4398.24	10.54	7.24	5.96	181.54	17.23	0.32	0.000814
	0.36776	187.42							
		95310.98							
1357.49	185.00	4398.24	10.54	7.24	5.96	181.55	17.23	0.32	0.000812
	0.36705	187.42							
		95312.02							
1357.54	186.00	4398.24	10.54	7.24	5.96	181.55	17.23	0.32	0.000813
	0.36735	187.42							
		95313.09							
1357.53	187.00	4398.24	10.54	7.24	5.96	181.55	17.23	0.32	0.000813
	0.36751	187.42							
		95312.77							
1357.53	188.00	4398.24	10.54	7.24	5.96	181.55	17.23	0.32	0.000814
	0.36808	187.42							
		95312.81							
1357.48	189.00	4398.24	10.54	7.24	5.96	181.55	17.23	0.32	0.000813
	0.36760	187.42							
		95311.74							
1357.54	190.00	4398.24	10.54	7.24	5.96	181.55	17.23	0.32	0.000813
	0.36728	187.42							
		95313.21							
1356.55	191.00	4398.23	10.53	7.24	5.96	181.51	17.23	0.32	0.000810
	0.36583	187.38							
		95293.03							
1341.77	192.00	4398.15	10.45	7.18	5.94	180.95	17.32	0.32	0.000803
	0.36019	186.77							
		94997.91							
1333.51	193.00	4398.10	10.40	7.15	5.94	180.63	17.36	0.32	0.000803
	0.35845	186.43							
		94831.85							
1333.46	194.00	4398.10	10.40	7.15	5.94	180.63	17.36	0.32	0.000806
	0.35965	186.43							
		94831.45							
1333.49	195.00	4398.10	10.40	7.15	5.94	180.63	17.36	0.32	0.000806
	0.35958	186.43							
		94831.32							
1333.41	196.00	4398.10	10.40	7.15	5.94	180.63	17.36	0.32	0.000805
	0.35928	186.43							
		94830.43							
1333.44	197.00	4398.10	10.40	7.15	5.94	180.63	17.36	0.32	0.000804
	0.35882	186.43							
		94830.50							

	198.00	4398.10	10.40	HYCHAN.OUT		7917.21	0.32	
1333.49		186.43		7.15	5.94	180.63	17.36	0.000805
	0.35910	94831.16						
1333.45	199.00	4398.10	10.40	7.15	5.94	7916.95	0.32	0.000805
	0.35933	94830.91						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3693

MAXIMUM DISCHARGE (CFS) = 16782.30 AT TIME = 90.97  
 MAXIMUM STAGE = 4403.62 AT TIME = 88.05

AREA BED SHEAR (FT^2)	TIME WETTED PERIMETER (HRS)	ELEV. SURFACE AREA (FT)	THALWEG HYDRAULIC AREA (FT)	DEPTH RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4387.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00						
0.00	1.00	4387.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00						
0.00	2.00	4387.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00						
0.00	3.00	4387.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00						
1020.70	4.00	4392.17	5.17	7.30	-2.83	-2893.30	0.22	0.000398
	0.18138	139.88				137.24	26.54	
1166.11	5.00	4396.30	9.30	6.55	-4.67	-5446.00	0.27	0.000337
	0.13796	178.00				172.81	18.59	
1162.23	6.00	4396.27	9.27	6.54	-4.63	-5376.94	0.27	0.000324
	0.13212	177.77				172.60	18.63	
1153.88	7.00	4396.22	9.22	6.51	-4.59	-5295.91	0.27	0.000302
	0.12247	177.38				172.24	18.69	
1135.74	8.00	4396.12	9.12	6.43	-4.53	-5147.33	0.26	0.000283
	0.11346	176.58				171.49	18.81	
1116.86	9.00	4396.01	9.01	6.35	-4.48	-5000.86	0.26	0.000270
	0.10690	175.75				170.72	18.94	
1097.88	10.00	4395.91	8.91	6.28	-4.42	-4855.81	0.26	0.000260
	0.10202	174.91				169.94	19.08	
1086.42	11.00	4395.85	8.85	6.23	-4.40	-4775.76	0.26	0.000265
	0.10306	174.40				169.47	19.16	
1076.59	12.00	4395.79	8.79	6.19	-4.37	-4706.75	0.26	0.000257
	0.09922	173.96				169.06	19.23	
1056.41	13.00	4395.68	8.68	6.10	-4.31	-4557.75	0.26	0.000250
	0.09528	173.05				168.21	19.38	
	14.00	4395.61	8.61		-4.28	-4471.28	0.26	

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		HYCHAN.OUT					
1044.07	172.49	6.05	167.70	19.47	0.000253		
0.09574	100617.90						
15.00	4395.61	8.61	-4.28	-4469.09	0.26		
1043.39	172.47	6.05	167.67	19.48	0.000254		
0.09584	100603.43						
16.00	4395.61	8.61	-4.28	-4468.98	0.26		
1043.26	172.46	6.05	167.67	19.48	0.000254		
0.09599	100601.04						
17.00	4395.61	8.61	-4.28	-4468.99	0.26		
1043.22	172.46	6.05	167.67	19.48	0.000255		
0.09634	100600.28						
18.00	4395.61	8.61	-4.28	-4468.36	0.26		
1043.43	172.47	6.05	167.67	19.48	0.000253		
0.09546	100604.05						
19.00	4395.66	8.66	-4.31	-4532.62	0.26		
1052.32	172.88	6.09	168.06	19.41	0.000263		
0.09991	100834.54						
20.00	4395.77	8.77	-4.37	-4685.54	0.26		
1073.06	173.83	6.17	168.94	19.25	0.000272		
0.10493	101362.18						
21.00	4395.89	8.89	-4.43	-4839.75	0.26		
1093.64	174.75	6.26	169.80	19.10	0.000277		
0.10832	101877.20						
22.00	4395.95	8.95	-4.45	-4922.22	0.26		
1105.23	175.25	6.31	170.26	19.02	0.000276		
0.10846	102158.13						
23.00	4395.95	8.95	-4.45	-4924.67	0.26		
1105.91	175.28	6.31	170.29	19.02	0.000277		
0.10895	102172.31						
24.00	4396.01	9.01	-4.48	-5000.94	0.26		
1115.17	175.70	6.35	170.68	18.95	0.000298		
0.11788	102407.32						
25.00	4396.17	9.17	-4.57	-5237.88	0.27		
1144.90	177.02	6.47	171.90	18.74	0.000334		
0.13486	103140.72						
26.00	4396.39	9.39	-4.68	-5547.09	0.27		
1184.32	178.71	6.63	173.47	18.48	0.000374		
0.15457	104082.85						
27.00	4396.59	9.59	-4.78	-5850.78	0.27		
1222.77	180.31	6.78	174.96	18.24	0.000404		
0.17106	104977.06						
28.00	4396.69	9.69	-4.82	-5983.00	0.27		
1241.11	181.04	6.86	175.64	18.13	0.000398		
0.17034	105383.09						
29.00	4396.69	9.69	-4.82	-5988.01	0.27		
1242.44	181.09	6.86	175.68	18.12	0.000401		
0.17165	105408.89						
30.00	4396.75	9.75	-4.85	-6081.64	0.27		
1253.22	181.54	6.90	176.10	18.06	0.000420		
0.18087	105659.61						
31.00	4396.80	9.80	-4.87	-6151.10	0.27		
1262.53	181.91	6.94	176.44	18.00	0.000419		
0.18162	105863.73						
32.00	4396.80	9.80	-4.87	-6155.58	0.27		
1263.34	181.94	6.94	176.47	18.00	0.000424		
0.18381	105880.50						
33.00	4396.87	9.87	-4.91	-6253.62	0.28		
1274.58	182.40	6.99	176.90	17.93	0.000448		
0.19539	106138.63						
34.00	4396.91	9.91	-4.93	-6325.15	0.28		
1284.07	182.77	7.03	177.24	17.88	0.000445		
0.19520	106344.32						
35.00	4396.91	9.91	-4.92	-6322.36	0.28		

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				HYCHAN.OUT			
1284.17	0.19100	182.77	7.03	177.24	17.88	0.000436	
36.00	4396.85	106343.47	9.85	-4.89	-6224.36	0.27	
1273.35	0.18067	182.32	6.98	176.82	17.94	0.000415	
37.00	4396.80	106093.09	9.80	-4.87	-6149.73	0.27	
1263.60	0.17725	181.94	6.95	176.47	18.00	0.000409	
38.00	4396.75	105879.29	9.75	-4.83	-6055.32	0.27	
1252.79	0.16872	181.49	6.90	176.05	18.07	0.000392	
39.00	4396.70	105628.88	9.70	-4.81	-5986.01	0.27	
1243.45	0.16893	181.12	6.87	175.71	18.12	0.000394	
40.00	4396.70	105423.40	9.70	-4.82	-5985.14	0.27	
1242.99	0.16844	181.10	6.86	175.69	18.12	0.000393	
41.00	4396.69	105415.20	9.69	-4.82	-5984.93	0.27	
1242.88	0.16861	181.10	6.86	175.69	18.12	0.000394	
42.00	4396.69	105413.15	9.69	-4.82	-5984.98	0.27	
1242.84	0.16920	181.10	6.86	175.69	18.12	0.000395	
43.00	4396.70	105412.59	9.70	-4.82	-5988.13	0.27	
1243.18	0.17145	181.11	6.86	175.70	18.12	0.000400	
44.00	4396.75	105420.90	9.75	-4.85	-6081.49	0.27	
1253.83	0.18091	181.56	6.91	176.12	18.05	0.000420	
45.00	4396.80	105669.37	9.80	-4.87	-6154.67	0.27	
1263.40	0.18384	181.94	6.94	176.47	18.00	0.000424	
46.00	4396.87	105881.14	9.87	-4.91	-6257.97	0.28	
1275.28	0.19728	182.43	6.99	176.92	17.93	0.000452	
47.00	4396.98	106153.41	9.98	-4.96	-6432.60	0.28	
1296.32	0.21159	183.27	7.07	177.70	17.81	0.000479	
48.00	4397.09	106622.23	10.09	-5.01	-6606.33	0.28	
1317.32	0.22584	184.10	7.16	178.47	17.69	0.000506	
49.00	4397.20	107083.33	10.20	-5.07	-6779.94	0.28	
1337.56	0.24067	184.90	7.23	179.21	17.58	0.000533	
50.00	4397.30	107526.01	10.30	-5.12	-6948.61	0.28	
1357.49	0.25639	185.67	7.31	179.92	17.47	0.000562	
51.00	4397.41	107954.66	10.41	-5.17	-7131.69	0.28	
1379.36	0.27488	186.50	7.40	180.70	17.35	0.000596	
52.00	4397.58	108417.59	10.58	-5.25	-7399.61	0.28	
1410.63	0.30087	187.70	7.52	181.80	17.19	0.000642	
53.00	4397.67	109082.93	10.67	-5.28	-7547.40	0.28	
1429.63	0.30424	188.39	7.59	182.45	17.10	0.000642	
54.00	4397.75	109469.02	10.75	-5.31	-7674.96	0.29	
1444.23	0.32497	188.93	7.64	182.95	17.02	0.000681	
55.00	4397.99	109769.69	10.99	-5.43	-8103.27	0.29	
1491.01	0.37727	190.65	7.82	184.54	16.80	0.000773	
56.00	4398.39	110723.41	11.39	-5.63	-8848.14	0.29	

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				HYCHAN.OUT			
1571.48		193.49		8.12	187.17	16.43	0.000915
	0.46387	112302.21					
57.00	4398.90	11.90		-5.88	-9856.62	0.30	
1677.28		197.04		8.51	190.45	16.00	0.001090
	0.57922	114270.48					
58.00	4399.47	12.47		-6.15	-11053.05	0.31	
1798.39		200.85		8.95	193.97	15.55	0.001261
	0.70445	116380.10					
59.00	4399.94	12.94		-6.33	-12020.12	0.31	
1899.74		203.94		9.32	196.82	15.21	0.001389
	0.80747	118094.95					
60.00	4400.32	13.32		-6.48	-12838.23	0.31	
1981.26		206.37		9.60	199.06	14.94	0.001553
	0.93026	119438.59					
61.00	4400.65	13.65		-6.65	-13646.72	0.32	
2052.47		208.47		9.85	201.00	14.72	0.001695
	1.04102	120602.30					
62.00	4400.91	13.91		-6.73	-14133.70	0.32	
2100.79		210.05		10.00	202.46	14.56	0.001417
	0.88416	121474.58					
63.00	4402.04	15.04		-6.45	-14516.69	0.29	
2251.07		216.91		10.38	208.78	13.88	0.001469
	0.95150	125265.89					
64.00	4402.14	15.14		-6.50	-14774.04	0.29	
2273.39		217.54		10.45	209.35	13.82	0.001511
	0.98549	125611.85					
65.00	4402.20	15.20		-6.53	-14922.96	0.30	
2285.79		217.89		10.49	209.68	13.79	0.001542
	1.00928	125805.44					
66.00	4402.28	15.28		-6.56	-15098.22	0.30	
2301.10		218.32		10.54	210.07	13.75	0.001602
	1.05392	126040.49					
67.00	4402.33	15.33		-6.59	-15230.94	0.30	
2312.95		218.64		10.58	210.37	13.72	0.001606
	1.05986	126219.59					
68.00	4402.35	15.35		-6.59	-15264.39	0.30	
2315.95		218.72		10.59	210.44	13.71	0.001625
	1.07366	126264.40					
69.00	4402.35	15.35		-6.59	-15281.69	0.30	
2318.00		218.77		10.60	210.49	13.71	0.001614
	1.06733	126292.89					
70.00	4402.36	15.36		-6.59	-15281.31	0.30	
2318.43		218.78		10.60	210.49	13.71	0.001607
	1.06258	126296.64					
71.00	4402.35	15.36		-6.59	-15272.64	0.30	
2318.58		218.78		10.60	210.49	13.71	0.001614
	1.06730	126294.59					
72.00	4402.36	15.36		-6.58	-15278.59	0.30	
2320.39		218.81		10.60	210.53	13.70	0.001608
	1.06373	126315.16					
73.00	4402.37	15.37		-6.57	-15276.40	0.30	
2323.48		218.87		10.62	210.58	13.70	0.001596
	1.05700	126345.17					
74.00	4402.39	15.39		-6.57	-15310.13	0.30	
2329.65		219.01		10.64	210.70	13.69	0.001625
	1.07876	126422.51					
75.00	4402.43	15.43		-6.58	-15383.05	0.30	
2338.11		219.22		10.67	210.90	13.67	0.001615
	1.07485	126539.04					
76.00	4402.46	15.46		-6.57	-15417.47	0.29	
2345.48		219.38		10.69	211.05	13.65	0.001626
	1.08482	126627.99					
77.00	4402.46	15.46		-6.55	-15377.22	0.29	

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				HYCHAN.OUT			
2349.08		219.41		10.71	211.08	13.65	0.001588
	1.06062	126645.84					
78.00		4402.49	15.49	-6.53	-15403.22	0.29	
2357.13		219.58		10.73	211.23	13.63	0.001577
	1.05617	126739.02					
79.00		4402.60	15.60	-6.47	-15457.38	0.29	
2388.38		220.19		10.85	211.79	13.58	0.001521
	1.02917	127075.98					
80.00		4402.70	15.70	-6.45	-15591.00	0.29	
2416.22		220.80		10.94	212.35	13.52	0.001524
	1.04087	127411.52					
81.00		4402.76	15.76	-6.37	-15519.22	0.28	
2435.64		221.10		11.02	212.63	13.50	0.001363
	0.93691	127577.82					
82.00		4402.89	15.89	-6.27	-15520.23	0.28	
2476.56		221.86		11.16	213.33	13.43	0.001263
	0.87975	127995.53					
83.00		4403.02	16.02	-6.16	-15508.40	0.27	
2519.63		222.65		11.32	214.05	13.36	0.001162
	0.82069	128430.33					
84.00		4403.13	16.13	-6.06	-15464.72	0.27	
2553.44		223.25		11.44	214.60	13.30	0.001044
	0.74533	128761.05					
85.00		4403.21	16.21	-5.99	-15450.05	0.26	
2579.42		223.72		11.53	215.04	13.26	0.000957
	0.68853	129023.12					
86.00		4403.33	16.33	-5.91	-15456.88	0.26	
2613.86		224.37		11.65	215.63	13.21	0.000898
	0.65311	129380.59					
87.00		4403.44	16.44	-5.84	-15464.00	0.25	
2648.50		225.02		11.77	216.23	13.15	0.000793
	0.58226	129739.49					
88.00		4403.56	16.56	-5.82	-15591.12	0.25	
2678.46		225.65		11.87	216.81	13.10	0.000842
	0.62341	130087.05					
89.00		4403.56	16.56	-5.76	-15462.68	0.25	
2682.92		225.66		11.89	216.82	13.10	0.000707
	0.52482	130092.20					
90.00		4403.48	16.48	-5.65	-15094.14	0.25	
2671.67		225.24		11.86	216.44	13.13	0.000480
	0.35503	129862.78					
91.00		4403.31	16.31	-5.52	-14576.61	0.24	
2641.50		224.29		11.78	215.56	13.21	0.000694
	0.50985	129336.60					
92.00		4402.27	15.27	-5.70	-14067.25	0.26	
2467.22		218.27		11.30	210.02	13.76	0.000514
	0.36244	126014.45					
93.00		4402.15	15.15	-5.52	-13454.25	0.25	
2439.35		217.58		11.21	209.39	13.82	0.000300
	0.20980	125636.65					
94.00		4401.98	14.98	-5.35	-12834.17	0.24	
2398.65		216.58		11.08	208.47	13.91	0.000122
	0.08399	125082.62					
95.00		4401.83	14.83	-5.20	-12278.86	0.24	
2361.51		215.65		10.95	207.62	14.00	0.000000
	0.00000	124571.09					
96.00		4401.68	14.68	-5.08	-11826.82	0.23	
2327.60		214.80		10.84	206.83	14.08	0.000000
	0.00000	124098.16					
97.00		4401.48	14.48	-4.96	-11308.38	0.23	
2278.23		213.53		10.67	205.67	14.21	0.000000
	0.00000	123399.42					
98.00		4401.22	14.22	-4.90	-10862.34	0.23	

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				HYCHAN.OUT			
2217.47	0.00000	211.95	10.46	204.21	14.37	0.000000	
99.00	4400.94	122524.95	13.94	-4.85	-10446.55	0.23	
2153.45	0.00000	210.25	10.24	202.64	14.54	0.000000	
100.00	4400.68	121584.77	13.68	-4.84	-10137.59	0.23	
2094.47	0.00000	208.65	10.04	201.17	14.70	0.000000	
101.00	4400.43	120700.09	13.43	-4.80	-9775.69	0.23	
2036.64	0.00000	207.05	9.84	199.69	14.87	0.000000	
102.00	4400.16	119813.13	13.16	-4.78	-9447.53	0.23	
1975.10	0.00000	205.31	9.62	198.08	15.06	0.000000	
103.00	4399.82	118848.99	12.82	-4.83	-9170.53	0.24	
1899.72	0.00000	203.12	9.35	196.06	15.30	0.000000	
104.00	4399.41	117637.57	12.41	-4.94	-8941.51	0.25	
1810.79	0.09618	200.45	9.03	193.60	15.60	0.000171	
105.00	4398.99	116162.01	11.99	-5.08	-8733.28	0.26	
1720.35	0.18967	197.64	8.70	191.01	15.93	0.000349	
106.00	4398.63	114603.00	11.63	-5.12	-8407.97	0.26	
1643.35	0.18574	195.16	8.42	188.71	16.23	0.000353	
107.00	4398.45	113225.09	11.45	-5.08	-8152.37	0.26	
1606.28	0.17977	193.94	8.28	187.58	16.38	0.000348	
108.00	4398.33	112547.88	11.33	-5.05	-7976.44	0.26	
1580.78	0.18087	193.08	8.19	186.79	16.49	0.000354	
109.00	4398.18	112073.41	11.18	-5.04	-7809.40	0.27	
1548.77	0.19919	191.99	8.07	185.78	16.62	0.000396	
110.00	4398.05	111470.01	11.05	-5.09	-7752.48	0.27	
1522.66	0.23316	191.11	7.97	184.96	16.74	0.000469	
111.00	4398.06	110977.02	11.06	-5.17	-7868.40	0.27	
1520.83	0.26731	191.14	7.96	184.99	16.73	0.000538	
112.00	4398.17	110995.98	11.17	-5.28	-8137.18	0.28	
1541.64	0.29449	191.96	8.03	185.75	16.63	0.000588	
113.00	4398.16	111449.04	11.16	-5.29	-8147.72	0.28	
1539.71	0.28538	191.91	8.02	185.71	16.63	0.000570	
114.00	4398.06	111423.83	11.06	-5.26	-7993.75	0.28	
1518.90	0.28851	191.21	7.94	185.06	16.72	0.000582	
115.00	4398.13	111035.19	11.13	-5.33	-8160.62	0.28	
1530.28	0.32654	191.68	7.98	185.50	16.66	0.000655	
116.00	4398.32	111297.25	11.32	-5.44	-8521.43	0.29	
1566.19	0.35224	192.99	8.12	186.71	16.50	0.000696	
117.00	4398.33	112024.23	11.33	-5.44	-8538.20	0.28	
1569.11	0.34165	193.08	8.13	186.79	16.49	0.000674	
118.00	4398.29	112073.85	11.29	-5.43	-8471.55	0.29	
1559.79	0.34347	192.78	8.09	186.51	16.52	0.000680	
119.00	4398.28	111905.64	11.28	-5.44	-8477.82	0.29	

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		HYCHAN.OUT					
1558.57	192.76	8.09	186.49	16.53	0.000694		
0.35035	111895.26						
120.00	4398.35	11.35	-5.48	-8601.34	0.29		
1570.03	193.19	8.13	186.89	16.47	0.000719		
0.36485	112132.41						
121.00	4398.38	11.38	-5.50	-8669.33	0.29		
1577.58	193.45	8.15	187.13	16.44	0.000719		
0.36611	112278.32						
122.00	4398.38	11.38	-5.49	-8661.09	0.29		
1576.47	193.41	8.15	187.10	16.44	0.000713		
0.36261	112258.46						
123.00	4398.31	11.31	-5.46	-8539.24	0.29		
1563.01	192.94	8.10	186.66	16.50	0.000696		
0.35171	111995.22						
124.00	4398.26	11.26	-5.45	-8463.50	0.29		
1552.93	192.60	8.06	186.35	16.55	0.000689		
0.34685	111808.83						
125.00	4398.19	11.19	-5.42	-8340.91	0.29		
1539.16	192.12	8.01	185.90	16.61	0.000671		
0.33553	111540.39						
126.00	4398.15	11.15	-5.41	-8269.88	0.29		
1529.56	191.80	7.97	185.61	16.65	0.000675		
0.33596	111363.21						
127.00	4398.14	11.14	-5.41	-8263.59	0.29		
1528.01	191.76	7.97	185.56	16.65	0.000669		
0.33276	111338.41						
128.00	4398.08	11.08	-5.38	-8155.14	0.28		
1516.02	191.32	7.92	185.16	16.71	0.000654		
0.32333	111097.49						
129.00	4398.04	11.04	-5.37	-8091.99	0.28		
1507.61	191.04	7.89	184.90	16.75	0.000658		
0.32395	110940.18						
130.00	4398.03	11.03	-5.37	-8085.05	0.28		
1506.06	190.99	7.89	184.85	16.75	0.000650		
0.32001	110912.87						
131.00	4397.97	10.97	-5.34	-7979.80	0.28		
1494.34	190.56	7.84	184.46	16.81	0.000635		
0.31070	110674.91						
132.00	4397.94	10.94	-5.33	-7930.34	0.28		
1487.21	190.32	7.81	184.24	16.84	0.000655		
0.31933	110542.98						
133.00	4398.06	11.06	-5.40	-8143.90	0.29		
1509.30	191.15	7.90	185.00	16.73	0.000693		
0.34120	111002.33						
134.00	4398.13	11.13	-5.42	-8267.75	0.29		
1524.71	191.68	7.95	185.50	16.66	0.000689		
0.34192	111297.89						
135.00	4398.13	11.13	-5.42	-8269.98	0.29		
1525.31	191.70	7.96	185.51	16.66	0.000689		
0.34214	111305.25						
136.00	4398.13	11.13	-5.42	-8270.25	0.29		
1525.19	191.70	7.96	185.51	16.66	0.000689		
0.34208	111304.41						
137.00	4398.13	11.13	-5.42	-8270.12	0.29		
1525.04	191.69	7.96	185.51	16.66	0.000690		
0.34235	111303.38						
138.00	4398.13	11.13	-5.42	-8269.90	0.29		
1524.79	191.69	7.95	185.50	16.66	0.000691		
0.34305	111300.48						
139.00	4398.13	11.13	-5.42	-8269.69	0.29		
1524.65	191.69	7.95	185.50	16.66	0.000691		
0.34305	111300.03						
140.00	4398.13	11.13	-5.42	-8263.97	0.29		

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				HYCHAN.OUT			
1523.83		191.66		7.95	185.47	16.67	0.000685
	0.33963	111282.75					
141.00	4398.07	11.07		-5.39	-8155.30	0.29	
1512.08	191.23		7.91		185.08	16.72	0.000666
	0.32878	111045.58					
142.00	4398.03	11.03		-5.38	-8092.10	0.29	
1503.96	190.95		7.88		184.82	16.76	0.000668
	0.32811	110891.23					
143.00	4398.03	11.03		-5.38	-8091.09	0.29	
1503.41	190.94		7.87		184.81	16.76	0.000669
	0.32893	110883.67					
144.00	4398.03	11.03		-5.38	-8090.61	0.29	
1503.11	190.93		7.87		184.80	16.76	0.000670
	0.32935	110878.98					
145.00	4398.02	11.02		-5.38	-8084.98	0.29	
1502.35	190.90		7.87		184.77	16.76	0.000664
	0.32602	110864.43					
146.00	4397.96	10.96		-5.35	-7980.02	0.28	
1490.95	190.48		7.83		184.39	16.82	0.000646
	0.31546	110631.09					
147.00	4397.92	10.92		-5.34	-7917.44	0.28	
1482.89	190.21		7.80		184.13	16.86	0.000649
	0.31561	110476.66					
148.00	4397.92	10.92		-5.34	-7917.20	0.28	
1482.40	190.19		7.79		184.12	16.86	0.000651
	0.31683	110469.83					
149.00	4397.92	10.92		-5.34	-7917.01	0.28	
1482.12	190.19		7.79		184.11	16.86	0.000652
	0.31723	110466.12					
150.00	4397.92	10.92		-5.34	-7917.11	0.29	
1481.93	190.18		7.79		184.11	16.86	0.000651
	0.31657	110463.17					
151.00	4397.92	10.92		-5.34	-7912.93	0.29	
1481.34	190.16		7.79		184.09	16.86	0.000648
	0.31491	110453.02					
152.00	4397.88	10.88		-5.32	-7841.20	0.28	
1473.45	189.87		7.76		183.82	16.90	0.000634
	0.30697	110289.59					
153.00	4397.83	10.83		-5.30	-7764.41	0.28	
1464.23	189.54		7.73		183.51	16.94	0.000630
	0.30387	110105.65					
154.00	4397.82	10.82		-5.30	-7743.21	0.28	
1461.00	189.43		7.71		183.41	16.96	0.000635
	0.30572	110045.78					
155.00	4397.81	10.81		-5.30	-7737.11	0.28	
1460.01	189.40		7.71		183.38	16.96	0.000627
	0.30148	110027.27					
156.00	4397.76	10.76		-5.27	-7644.03	0.28	
1449.74	189.01		7.67		183.02	17.01	0.000626
	0.29985	109812.85					
157.00	4397.84	10.84		-5.32	-7792.03	0.28	
1464.47	189.59		7.72		183.56	16.94	0.000662
	0.31911	110133.77					
158.00	4397.91	10.91		-5.35	-7915.47	0.29	
1479.72	190.13		7.78		184.06	16.87	0.000657
	0.31892	110434.36					
159.00	4397.92	10.92		-5.35	-7916.87	0.29	
1480.56	190.15		7.79		184.08	16.86	0.000657
	0.31932	110446.30					
160.00	4397.92	10.92		-5.35	-7916.87	0.29	
1480.63	190.15		7.79		184.08	16.86	0.000656
	0.31881	110447.22					
161.00	4397.92	10.92		-5.35	-7917.38	0.29	

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				HYCHAN.OUT			
1480.62	190.15	7.79	184.08	16.86	0.000656		
0.31896	110447.48						
162.00	4397.92	10.92	-5.35	-7917.12	0.29		
1480.53	190.15	7.79	184.08	16.86	0.000656		
0.31871	110445.98						
163.00	4397.92	10.92	-5.35	-7916.84	0.29		
1480.42	190.15	7.79	184.07	16.86	0.000656		
0.31893	110444.05						
164.00	4397.92	10.92	-5.35	-7916.88	0.29		
1480.38	190.15	7.79	184.07	16.86	0.000658		
0.31972	110443.69						
165.00	4397.91	10.91	-5.35	-7910.86	0.29		
1479.73	190.12	7.78	184.05	16.87	0.000648		
0.31492	110429.74						
166.00	4397.85	10.85	-5.32	-7806.21	0.28		
1468.42	189.70	7.74	183.66	16.92	0.000633		
0.30590	110194.49						
167.00	4397.81	10.81	-5.30	-7743.32	0.28		
1460.35	189.42	7.71	183.40	16.96	0.000635		
0.30551	110037.84						
168.00	4397.81	10.81	-5.30	-7743.13	0.28		
1459.92	189.41	7.71	183.39	16.96	0.000636		
0.30580	110032.20						
169.00	4397.81	10.81	-5.30	-7742.86	0.28		
1459.76	189.40	7.71	183.38	16.96	0.000635		
0.30525	110029.62						
170.00	4397.81	10.81	-5.30	-7743.04	0.28		
1459.73	189.40	7.71	183.38	16.96	0.000636		
0.30572	110029.63						
171.00	4397.81	10.81	-5.30	-7743.10	0.28		
1459.72	189.40	7.71	183.38	16.96	0.000636		
0.30590	110029.92						
172.00	4397.81	10.81	-5.30	-7742.58	0.28		
1459.60	189.40	7.71	183.38	16.96	0.000638		
0.30694	110027.60						
173.00	4397.81	10.81	-5.30	-7737.42	0.28		
1459.01	189.37	7.70	183.36	16.96	0.000630		
0.30269	110015.04						
174.00	4397.75	10.75	-5.27	-7630.92	0.28		
1447.46	188.94	7.66	182.95	17.02	0.000613		
0.29312	109771.52						
175.00	4397.71	10.71	-5.26	-7569.69	0.28		
1439.50	188.65	7.63	182.69	17.06	0.000616		
0.29312	109614.70						
176.00	4397.71	10.71	-5.26	-7569.17	0.28		
1439.12	188.65	7.63	182.69	17.06	0.000616		
0.29302	109612.29						
177.00	4397.71	10.71	-5.26	-7569.06	0.28		
1438.96	188.64	7.63	182.68	17.06	0.000617		
0.29375	109609.87						
178.00	4397.71	10.71	-5.26	-7568.89	0.28		
1438.94	188.64	7.63	182.68	17.06	0.000617		
0.29354	109609.74						
179.00	4397.71	10.71	-5.26	-7568.70	0.28		
1438.89	188.64	7.63	182.68	17.06	0.000617		
0.29345	109608.80						
180.00	4397.71	10.71	-5.26	-7582.26	0.28		
1440.23	188.70	7.63	182.73	17.05	0.000633		
0.30165	109638.31						
181.00	4397.83	10.83	-5.33	-7791.63	0.29		
1462.82	189.55	7.72	183.52	16.94	0.000667		
0.32099	110111.05						
182.00	4397.91	10.91	-5.36	-7921.00	0.29		

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		HYCHAN.OUT					
1479.13	190.12	7.78	184.05	16.87	0.000668		
0.32427	110430.49						
183.00	4397.97	10.97	-5.38	-8028.38	0.29		
1491.38	190.57	7.83	184.46	16.81	0.000684		
0.33403	110676.72						
184.00	4398.01	11.01	-5.40	-8090.27	0.29		
1499.34	190.84	7.86	184.72	16.77	0.000683		
0.33471	110829.48						
185.00	4398.01	11.01	-5.39	-8090.78	0.29		
1499.87	190.85	7.86	184.73	16.77	0.000681		
0.33382	110836.54						
186.00	4398.02	11.02	-5.39	-8091.22	0.29		
1500.05	190.86	7.86	184.73	16.77	0.000680		
0.33351	110839.43						
187.00	4398.02	11.02	-5.39	-8091.07	0.29		
1500.00	190.86	7.86	184.73	16.77	0.000680		
0.33355	110837.84						
188.00	4398.02	11.02	-5.39	-8091.10	0.29		
1500.09	190.86	7.86	184.73	16.77	0.000680		
0.33336	110839.19						
189.00	4398.02	11.02	-5.39	-8090.67	0.29		
1500.10	190.86	7.86	184.73	16.77	0.000680		
0.33348	110839.68						
190.00	4398.02	11.02	-5.39	-8091.22	0.29		
1500.15	190.86	7.86	184.73	16.77	0.000680		
0.33362	110840.33						
191.00	4398.01	11.01	-5.39	-8084.69	0.29		
1499.43	190.83	7.86	184.71	16.77	0.000673		
0.32983	110824.55						
192.00	4397.95	10.95	-5.36	-7979.85	0.29		
1488.34	190.42	7.82	184.33	16.83	0.000656		
0.31998	110597.80						
193.00	4397.92	10.92	-5.35	-7917.55	0.29		
1480.49	190.15	7.79	184.08	16.86	0.000658		
0.31957	110446.73						
194.00	4397.91	10.91	-5.35	-7917.31	0.29		
1479.94	190.14	7.78	184.06	16.86	0.000659		
0.31998	110438.16						
195.00	4397.91	10.91	-5.35	-7917.20	0.29		
1479.91	190.14	7.78	184.07	16.86	0.000661		
0.32091	110439.21						
196.00	4397.91	10.91	-5.35	-7916.88	0.29		
1479.70	190.13	7.78	184.06	16.87	0.000660		
0.32047	110434.40						
197.00	4397.91	10.91	-5.35	-7916.88	0.29		
1479.80	190.14	7.78	184.06	16.86	0.000659		
0.31984	110437.64						
198.00	4397.91	10.91	-5.35	-7917.17	0.29		
1479.81	190.14	7.78	184.06	16.86	0.000660		
0.32061	110437.88						
199.00	4397.91	10.91	-5.35	-7917.14	0.29		
1479.76	190.13	7.78	184.06	16.86	0.000658		
0.31960	110436.66						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3774

MAXIMUM DISCHARGE (CFS) = 16420.31 AT TIME = 90.98  
 MAXIMUM STAGE = 4402.24 AT TIME = 90.97

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					

(FT^2)	(HRS) (LB/FT^2)	(FT) (FT) (FT^2)	(FT)	HYCHAN.OUT (FT)	(FPS)	(FT)	(CFS)	
0.00	0.00	4386.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4386.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4386.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4386.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
962.24	4.00	4391.12	4.82	2.84	2730.85	0.23		
	0.50478	121.59	7.91	118.55	24.57			0.001022
1122.46	5.00	61647.12	9.17	4.85	5445.42	0.28		
	0.43833	154.82	7.25	149.50	16.30			0.000969
1121.74	6.00	77739.48	9.16	4.79	5377.02	0.28		
	0.43427	154.74	7.25	149.43	16.31			0.000960
1114.21	7.00	77701.16	9.12	4.76	5298.33	0.28		
	0.42822	154.48	7.21	149.18	16.36			0.000951
1095.65	8.00	77575.91	9.03	4.70	5150.15	0.28		
	0.42148	153.88	7.12	148.63	16.47			0.000949
1075.70	9.00	77286.85	8.93	4.65	5003.73	0.27		
	0.41441	153.24	7.02	148.03	16.58			0.000946
1055.56	10.00	76977.85	8.82	4.60	4858.59	0.27		
	0.40845	152.58	6.92	147.43	16.71			0.000946
1043.07	11.00	76661.13	8.76	4.58	4776.41	0.27		
	0.40635	152.18	6.85	147.05	16.78			0.000950
1032.57	12.00	76465.48	8.71	4.56	4709.59	0.27		
	0.40162	151.82	6.80	146.72	16.85			0.000946
1011.21	13.00	76295.31	8.60	4.51	4560.71	0.27		
	0.39566	151.10	6.69	146.05	16.99			0.000947
997.76	14.00	75947.30	8.53	4.48	4471.80	0.27		
	0.39301	150.65	6.62	145.64	17.07			0.000951
996.78	15.00	75730.20	8.53	4.48	4469.12	0.27		
	0.39286	150.63	6.62	145.61	17.08			0.000951
996.57	16.00	75716.40	8.53	4.48	4469.02	0.27		
	0.39271	150.62	6.62	145.60	17.08			0.000951
996.49	17.00	75713.59	8.53	4.48	4469.00	0.27		
	0.39278	150.62	6.62	145.60	17.08			0.000951
996.67	18.00	75712.62	8.53	4.48	4468.17	0.27		
	0.39292	150.63	6.62	145.61	17.08			0.000952
1005.80	19.00	75717.63	8.58	4.50	4529.92	0.27		
		150.95	6.66	145.91	17.01			0.000955

		HYCHAN.OUT					
	0.39727	75872.45					
1027.73	20.00	4394.99	8.69	4.56	4682.29	0.27	
		151.69	6.78		146.60	16.87	0.000957
	0.40451	76229.98					
1049.72	21.00	4395.10	8.80	4.61	4836.81	0.27	
		152.42	6.89		147.27	16.74	0.000955
	0.41033	76580.65					
1062.54	22.00	4395.16	8.86	4.63	4921.80	0.27	
		152.83	6.95		147.65	16.66	0.000950
	0.41203	76778.88					
1063.52	23.00	4395.17	8.87	4.63	4924.45	0.27	
		152.85	6.96		147.68	16.66	0.000952
	0.41341	76791.98					
1072.97	24.00	4395.21	8.91	4.66	4998.02	0.28	
		153.17	7.01		147.97	16.60	0.000957
	0.41851	76942.57					
1103.89	25.00	4395.37	9.07	4.74	5232.20	0.28	
		154.16	7.16		148.89	16.42	0.000960
	0.42886	77423.65					
1145.89	26.00	4395.58	9.28	4.84	5541.02	0.28	
		155.47	7.37		150.10	16.18	0.000963
	0.44298	78053.90					
1187.25	27.00	4395.77	9.48	4.92	5845.56	0.28	
		156.72	7.58		151.26	15.96	0.000961
	0.45449	78655.34					
1208.16	28.00	4395.87	9.57	4.95	5982.33	0.28	
		157.32	7.68		151.82	15.86	0.000954
	0.45730	78945.23					
1210.03	29.00	4395.88	9.58	4.95	5987.60	0.28	
		157.37	7.69		151.86	15.85	0.000956
	0.45864	78968.66					
1221.11	30.00	4395.93	9.63	4.98	6079.10	0.28	
		157.70	7.74		152.17	15.80	0.000958
	0.46284	79128.49					
1231.63	31.00	4395.98	9.68	4.99	6150.77	0.28	
		158.00	7.80		152.45	15.74	0.000956
	0.46497	79272.24					
1232.67	32.00	4395.99	9.69	4.99	6155.24	0.28	
		158.03	7.80		152.47	15.74	0.000955
	0.46501	79285.48					
1244.29	33.00	4396.04	9.74	5.02	6251.06	0.28	
		158.37	7.86		152.79	15.68	0.000958
	0.46992	79450.03					
1254.97	34.00	4396.09	9.79	5.04	6324.87	0.28	
		158.67	7.91		153.07	15.63	0.000955
	0.47144	79594.68					
1255.35	35.00	4396.09	9.79	5.04	6322.60	0.28	
		158.68	7.91		153.07	15.63	0.000953
	0.47067	79597.86					
1244.41	36.00	4396.04	9.74	5.00	6226.89	0.28	
		158.35	7.86		152.77	15.69	0.000950
	0.46586	79441.29					
1233.57	37.00	4395.99	9.69	4.99	6150.44	0.28	
		158.04	7.81		152.49	15.74	0.000949
	0.46224	79293.52					
1222.44	38.00	4395.94	9.64	4.96	6057.75	0.28	
		157.71	7.75		152.18	15.79	0.000948
	0.45875	79133.77					
1211.93	39.00	4395.89	9.59	4.94	5986.39	0.28	
		157.41	7.70		151.90	15.84	0.000950
	0.45626	78989.61					
1211.23	40.00	4395.88	9.58	4.94	5985.11	0.28	
		157.40	7.70		151.89	15.85	0.000950

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HYCHAN.OUT									
	0.45641	78981.22							
1211.08	41.00	4395.88	9.58	7.69	4.94	5984.94	0.28	0.000951	
	0.45668	78978.98							
1211.00	42.00	4395.88	9.58	7.69	4.94	5985.00	0.28	0.000952	
	0.45725	78978.30							
1211.31	43.00	4395.88	9.59	7.70	4.94	5987.79	0.28	0.000953	
	0.45741	78983.17							
1222.19	44.00	4395.94	9.64	7.75	4.97	6078.98	0.28	0.000956	
	0.46220	79140.51							
1232.86	45.00	4395.99	9.69	7.80	4.99	6153.96	0.28	0.000956	
	0.46560	79287.14							
1245.19	46.00	4396.05	9.75	7.86	5.02	6254.99	0.28	0.000960	
	0.47086	79461.40							
1267.70	47.00	4396.15	9.85	7.97	5.07	6429.51	0.28	0.000958	
	0.47661	79771.82							
1290.36	48.00	4396.26	9.96	8.08	5.12	6603.09	0.29	0.000960	
	0.48392	80078.92							
1311.96	49.00	4396.36	10.06	8.19	5.17	6776.98	0.29	0.000963	
	0.49172	80368.78							
1333.06	50.00	4396.46	10.16	8.29	5.21	6945.32	0.29	0.000964	
	0.49863	80652.59							
1356.34	51.00	4396.56	10.27	8.40	5.26	7128.09	0.29	0.000968	
	0.50717	80961.98							
1388.99	52.00	4396.72	10.42	8.55	5.32	7394.36	0.29	0.000972	
	0.51902	81388.70							
1409.52	53.00	4396.81	10.51	8.65	5.35	7546.23	0.29	0.000969	
	0.52308	81652.97							
1424.99	54.00	4396.88	10.58	8.72	5.38	7670.97	0.29	0.000979	
	0.53316	81850.52							
1474.19	55.00	4397.10	10.80	8.95	5.49	8093.11	0.29	0.000993	
	0.55479	82466.20							
1559.70	56.00	4397.48	11.18	9.35	5.66	8833.71	0.30	0.001007	
	0.58776	83499.28							
1673.78	57.00	4397.97	11.67	9.87	5.88	9838.39	0.30	0.001011	
	0.62270	84811.79							
1807.35	58.00	4398.54	12.24	10.47	6.11	11034.43	0.31	0.001008	
	0.65875	86263.55							
1917.98	59.00	4398.99	12.69	10.96	6.26	12006.10	0.31	0.001016	
	0.69482	87406.20							
2006.12	60.00	4399.34	13.05	11.35	6.39	12826.32	0.31	0.001032	
	0.73103	88278.57							
2081.67	61.00	4399.64	13.34	11.68	6.55	13637.63	0.32	0.001054	
		178.25							

HYCHAN.OUT									
	0.76774	89003.41							
2126.74	62.00	4399.82	13.52	11.87	6.64	14128.95	0.32		0.001696
	1.25644	89425.62				171.97	12.72		
2168.59	63.00	4399.98	13.68	12.05	6.69	14511.00	0.32		0.001705
	1.28240	89812.25				172.72	12.62		
2190.44	64.00	4400.07	13.77	12.15	6.74	14771.97	0.32		0.001718
	1.30175	90011.23				173.10	12.57		
2202.39	65.00	4400.11	13.81	12.20	6.78	14921.34	0.32		0.001725
	1.31316	90119.48				173.31	12.55		
2217.41	66.00	4400.17	13.87	12.26	6.81	15095.88	0.32		0.001736
	1.32824	90255.05				173.57	12.51		
2229.15	67.00	4400.21	13.92	12.31	6.83	15229.93	0.32		0.001736
	1.33378	90360.32				173.77	12.49		
2232.15	68.00	4400.23	13.93	12.32	6.84	15264.34	0.32		0.001740
	1.33778	90387.09				173.82	12.48		
2234.40	69.00	4400.23	13.94	12.33	6.84	15281.15	0.32		0.001737
	1.33639	90407.34				173.86	12.48		
2235.02	70.00	4400.24	13.94	12.34	6.84	15281.66	0.32		0.001734
	1.33430	90412.69				173.87	12.48		
2235.55	71.00	4400.24	13.94	12.34	6.83	15272.36	0.32		0.001735
	1.33544	90417.52				173.88	12.47		
2237.87	72.00	4400.25	13.95	12.35	6.83	15278.04	0.32		0.001729
	1.33225	90438.34				173.92	12.47		
2242.29	73.00	4400.27	13.97	12.37	6.81	15275.93	0.32		0.001722
	1.32886	90477.79				174.00	12.46		
2249.70	74.00	4400.29	13.99	12.40	6.80	15308.70	0.32		0.001725
	1.33435	90543.88				174.12	12.44		
2258.94	75.00	4400.33	14.03	12.44	6.81	15382.17	0.32		0.001717
	1.33228	90625.95				174.28	12.42		
2268.02	76.00	4400.36	14.06	12.48	6.80	15415.78	0.32		0.001711
	1.33204	90706.48				174.44	12.40		
2274.49	77.00	4400.39	14.09	12.50	6.76	15377.29	0.32		0.001695
	1.32268	90763.32				174.54	12.39		
2284.79	78.00	4400.43	14.13	12.55	6.74	15398.20	0.32		0.001666
	1.30405	90854.94				174.72	12.37		
2326.42	79.00	4400.58	14.28	12.72	6.64	15452.33	0.31		0.001624
	1.28937	91218.23				175.42	12.28		
2360.44	80.00	4400.71	14.41	12.86	6.60	15586.91	0.31		0.001607
	1.29026	91511.24				175.98	12.21		
2389.75	81.00	4400.82	14.52	12.99	6.49	15513.60	0.30		0.001516
	1.22838	91761.92				176.47	12.15		
2445.90	82.00	4401.03	14.73	13.22	6.34	15510.87	0.29		0.001452
		185.00				177.38	12.04		

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HYCHAN.OUT									
1.19797	92235.16								
83.00	4401.25	14.95	6.19	15501.43	0.28				
2505.07	186.02	13.47	178.31	11.93	0.001398				
1.17508	92723.34								
84.00	4401.42	15.12	6.06	15457.90	0.27				
2552.30	186.82	13.66	179.05	11.84	0.001341				
1.14286	93106.66								
85.00	4401.55	15.25	5.97	15444.83	0.27				
2587.81	187.41	13.81	179.60	11.78	0.001297				
1.11770	93391.05								
86.00	4401.71	15.41	5.87	15450.90	0.26				
2633.87	188.18	14.00	180.30	11.70	0.001268				
1.10783	93756.39								
87.00	4401.88	15.58	5.77	15456.98	0.26				
2680.10	188.93	14.19	181.00	11.62	0.001225				
1.08395	94117.93								
88.00	4402.01	15.71	5.74	15587.95	0.26				
2716.45	189.52	14.33	181.53	11.56	0.001224				
1.09444	94397.60								
89.00	4402.04	15.74	5.67	15463.30	0.25				
2726.02	189.67	14.37	181.67	11.54	0.001192				
1.06941	94470.43								
90.00	4402.02	15.72	5.55	15096.66	0.25				
2721.26	189.59	14.35	181.60	11.55	0.001131				
1.01295	94433.34								
91.00	4401.96	15.66	5.39	14581.01	0.24				
2702.85	189.29	14.28	181.33	11.58	0.000510				
0.45432	94290.91								
92.00	4401.83	15.53	5.27	14068.79	0.24				
2667.17	188.72	14.13	180.80	11.64	0.000451				
0.39799	94015.76								
93.00	4401.77	15.47	5.08	13459.50	0.23				
2649.40	188.42	14.06	180.53	11.67	0.000419				
0.36749	93875.23								
94.00	4401.64	15.34	4.91	12838.72	0.22				
2612.87	187.82	13.91	179.98	11.74	0.000380				
0.33017	93587.79								
95.00	4401.51	15.21	4.76	12283.32	0.22				
2578.93	187.26	13.77	179.46	11.80	0.000348				
0.29908	93317.96								
96.00	4401.39	15.09	4.65	11832.49	0.21				
2545.88	186.70	13.64	178.95	11.86	0.000328				
0.27867	93052.01								
97.00	4401.20	14.90	4.54	11317.96	0.21				
2493.11	185.80	13.42	178.12	11.95	0.000332				
0.27776	92621.32								
98.00	4400.94	14.64	4.49	10874.89	0.21				
2421.97	184.57	13.12	176.98	12.09	0.000343				
0.28095	92030.41								
99.00	4400.65	14.35	4.46	10457.48	0.21				
2345.41	183.21	12.80	175.73	12.24	0.000357				
0.28510	91379.63								
100.00	4400.38	14.08	4.47	10148.09	0.21				
2272.37	181.88	12.49	174.51	12.39	0.000373				
0.29109	90743.14								
101.00	4400.11	13.82	4.44	9783.95	0.21				
2203.27	180.59	12.20	173.32	12.55	0.000391				
0.29778	90125.31								
102.00	4399.82	13.52	4.45	9459.69	0.21				
2127.53	179.14	11.88	171.98	12.72	0.000414				
0.30678	89430.98								
103.00	4399.44	13.14	4.53	9187.79	0.22				
2029.61	177.21	11.45	170.20	12.95	0.000483				

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HYCHAN.OUT							
1909.00	0.34499	88505.31	12.65	10.93	4.69	8959.20	0.23
1783.11	0.39662	87315.95	12.14	10.37	4.91	8751.18	0.25
1682.48	0.44912	86008.84	11.71	9.91	5.00	8417.55	0.26
1639.15	0.44410	84908.55	11.53	9.72	4.98	8156.58	0.26
1609.36	0.44037	84421.86	11.40	9.58	4.96	7981.52	0.26
1568.92	0.44323	84080.13	11.22	9.39	4.98	7815.58	0.26
1531.30	0.45471	83608.29	11.06	9.22	5.07	7756.14	0.27
1524.25	0.47197	83161.86	11.03	9.19	5.16	7867.14	0.27
1544.01	0.48692	83077.59	11.11	9.28	5.27	8134.15	0.28
1541.11	0.50040	83314.52	11.10	9.27	5.29	8151.07	0.28
1517.71	0.50122	83278.80	11.00	9.16	5.27	7995.86	0.28
1527.76	0.50338	82997.93	11.04	9.20	5.34	8156.02	0.28
1564.60	0.51883	83119.86	11.20	9.37	5.44	8517.06	0.29
1568.01	0.53381	83559.02	11.22	9.39	5.45	8540.46	0.29
1557.40	0.53203	83598.29	11.17	9.34	5.44	8472.17	0.29
1555.34	0.53296	83473.39	11.16	9.33	5.45	8477.53	0.29
1566.70	0.53641	83449.20	11.21	9.38	5.49	8599.05	0.29
1574.70	0.54322	83583.77	11.25	9.42	5.51	8669.21	0.29
1573.42	0.54503	83677.60	11.24	9.41	5.51	8661.82	0.29
1559.19	0.54402	83662.36	11.18	9.35	5.48	8541.95	0.29
1547.93	0.53991	83493.95	11.13	9.30	5.47	8464.61	0.29

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1533.18	0.53718	83360.82	11.06	9.23	5.44	8343.51	0.29	0.000927
	125.00	4397.36				159.97	14.46	
		166.13						
1522.36	0.53365	83184.02	11.02	9.18	5.43	8270.37	0.29	0.000931
	126.00	4397.32				159.72	14.50	
		165.86						
1520.38	0.53308	83054.57	11.01	9.17	5.44	8264.26	0.29	0.000929
	127.00	4397.31				159.67	14.51	
		165.81						
1507.80	0.53156	83030.59	10.95	9.11	5.41	8157.57	0.29	0.000929
	128.00	4397.25				159.38	14.55	
		165.49						
1498.35	0.52824	82877.62	10.91	9.07	5.40	8092.39	0.29	0.000932
	129.00	4397.21				159.16	14.59	
		165.25						
1496.49	0.52752	82763.13	10.90	9.06	5.40	8085.69	0.29	0.000930
	130.00	4397.20				159.12	14.60	
		165.21						
1484.19	0.52568	82740.41	10.85	9.00	5.38	7982.18	0.29	0.000929
	131.00	4397.15				158.83	14.64	
		164.89						
1476.07	0.52201	82589.03	10.81	8.96	5.37	7929.61	0.29	0.000940
	132.00	4397.11				158.63	14.67	
		164.69						
1498.56	0.52576	82489.80	10.91	9.07	5.43	8139.30	0.29	0.000945
	133.00	4397.21				159.17	14.59	
		165.26						
1515.48	0.53473	82766.33	10.99	9.15	5.46	8267.32	0.29	0.000940
	134.00	4397.29				159.56	14.52	
		165.69						
1516.36	0.53660	82971.62	10.99	9.15	5.45	8270.00	0.29	0.000941
	135.00	4397.29				159.58	14.52	
		165.71						
1516.16	0.53752	82982.12	10.99	9.15	5.45	8270.25	0.29	0.000941
	136.00	4397.29				159.58	14.52	
		165.70						
1515.87	0.53706	82979.70	10.99	9.15	5.46	8270.18	0.29	0.000944
	137.00	4397.29				159.57	14.52	
		165.70						
1515.49	0.53869	82976.20	10.99	9.15	5.46	8269.93	0.29	0.000943
	138.00	4397.29				159.56	14.52	
		165.69						
1515.22	0.53805	82971.72	10.99	9.15	5.46	8269.73	0.29	0.000943
	139.00	4397.29				159.55	14.52	
		165.68						
1514.38	0.53831	82968.41	10.98	9.14	5.46	8264.63	0.29	0.000942
	140.00	4397.28				159.53	14.53	
		165.66						
1502.10	0.53737	82958.04	10.93	9.08	5.43	8157.62	0.29	0.000940
	141.00	4397.23				159.25	14.57	
		165.35						
1493.12	0.53261	82808.30	10.89	9.04	5.42	8092.34	0.29	0.000942
	142.00	4397.19				159.04	14.61	
		165.12						
1492.34	0.53174	82699.34	10.88	9.04	5.42	8091.22	0.29	0.000942
	143.00	4397.18				159.02	14.61	
		165.10						
1491.95	0.53137	82689.76	10.88	9.04	5.42	8090.67	0.29	0.000944
	144.00	4397.18				159.01	14.61	
		165.09						
1491.11	0.53243	82685.02	10.88	9.03	5.42	8085.56	0.29	0.000942
	145.00	4397.18				158.99	14.62	
		165.07						

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1479.23	0.53091	82674.55	10.82	8.98	5.40	7982.29	0.29	0.000939
	146.00	4397.12				158.71	14.66	
		164.76						
1470.31	0.52602	82527.97	10.78	8.94	5.39	7917.77	0.29	0.000942
	147.00	4397.08				158.50	14.70	
		164.54						
1469.63	0.52521	82418.30	10.78	8.93	5.39	7917.22	0.29	0.000944
	148.00	4397.08				158.48	14.70	
		164.52						
1469.23	0.52604	82409.98	10.78	8.93	5.39	7917.15	0.29	0.000943
	149.00	4397.08				158.47	14.70	
		164.51						
1468.98	0.52573	82404.95	10.78	8.93	5.39	7917.05	0.29	0.000944
	150.00	4397.08				158.47	14.70	
		164.50						
1468.24	0.52612	82401.88	10.78	8.93	5.39	7913.25	0.29	0.000944
	151.00	4397.08				158.45	14.70	
		164.48						
1460.05	0.52575	82392.65	10.74	8.89	5.37	7843.02	0.29	0.000941
	152.00	4397.04				158.25	14.74	
		164.27						
1450.12	0.52179	82290.30	10.69	8.84	5.36	7765.44	0.29	0.000943
	153.00	4396.99				158.01	14.78	
		164.01						
1446.39	0.52029	82166.60	10.68	8.82	5.35	7743.34	0.29	0.000945
	154.00	4396.98				157.92	14.79	
		163.92						
1445.25	0.52024	82120.03	10.67	8.82	5.35	7737.65	0.29	0.000943
	155.00	4396.97				157.90	14.80	
		163.89						
1434.59	0.51885	82105.66	10.62	8.77	5.33	7645.35	0.29	0.000948
	156.00	4396.92				157.64	14.84	
		163.61						
1449.14	0.51857	81971.03	10.69	8.84	5.37	7787.71	0.29	0.000954
	157.00	4396.99				157.99	14.78	
		163.99						
1465.76	0.52589	82154.96	10.76	8.91	5.40	7914.96	0.29	0.000949
	158.00	4397.06				158.39	14.71	
		164.42						
1466.91	0.52783	82361.99	10.77	8.92	5.40	7916.81	0.29	0.000948
	159.00	4397.07				158.42	14.71	
		164.45						
1467.01	0.52760	82376.18	10.77	8.92	5.40	7916.88	0.29	0.000949
	160.00	4397.07				158.42	14.71	
		164.45						
1466.97	0.52833	82377.39	10.77	8.92	5.40	7917.36	0.29	0.000948
	161.00	4397.07				158.42	14.71	
		164.45						
1466.87	0.52796	82376.98	10.77	8.92	5.40	7917.18	0.29	0.000949
	162.00	4397.07				158.41	14.71	
		164.45						
1466.73	0.52822	82375.66	10.77	8.92	5.40	7916.85	0.29	0.000948
	163.00	4397.07				158.41	14.71	
		164.44						
1466.66	0.52784	82374.01	10.77	8.92	5.40	7916.88	0.29	0.000949
	164.00	4397.07				158.41	14.71	
		164.44						
1466.01	0.52818	82373.07	10.77	8.92	5.40	7911.32	0.29	0.000946
	165.00	4397.07				158.39	14.71	
		164.43						
1454.32	0.52636	82364.88	10.71	8.86	5.37	7808.69	0.29	0.000945
	166.00	4397.01				158.11	14.76	
		164.12						

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1445.42	0.52253	82218.67	10.67	8.82	5.36	7743.49	0.29	0.000948
167.00	4396.97	163.89				157.90	14.79	
1444.78	0.52152	82107.84	10.67	8.82	5.36	7743.21	0.29	0.000947
168.00	4396.97	163.87				157.88	14.80	
1444.57	0.52126	82099.85	10.67	8.82	5.36	7742.83	0.29	0.000948
169.00	4396.97	163.87				157.88	14.80	
1444.52	0.52125	82097.27	10.67	8.82	5.36	7743.10	0.29	0.000948
170.00	4396.97	163.87				157.88	14.80	
1444.48	0.52155	82096.52	10.67	8.81	5.36	7743.09	0.29	0.000949
171.00	4396.97	163.87				157.88	14.80	
1444.33	0.52180	82096.06	10.67	8.81	5.36	7742.67	0.29	0.000949
172.00	4396.97	163.86				157.87	14.80	
1443.72	0.52172	82094.21	10.66	8.81	5.36	7737.83	0.29	0.000946
173.00	4396.96	163.85				157.86	14.80	
1431.84	0.52000	82086.46	10.61	8.76	5.33	7633.33	0.29	0.000943
174.00	4396.91	163.53				157.57	14.85	
1423.10	0.51498	81935.99	10.57	8.71	5.32	7570.00	0.29	0.000946
175.00	4396.87	163.30				157.36	14.89	
1422.40	0.51468	81825.87	10.57	8.71	5.32	7569.21	0.29	0.000947
176.00	4396.87	163.29				157.34	14.89	
1422.20	0.51465	81817.05	10.57	8.71	5.32	7569.04	0.29	0.000947
177.00	4396.87	163.28				157.34	14.89	
1422.17	0.51489	81814.44	10.57	8.71	5.32	7568.90	0.29	0.000947
178.00	4396.87	163.28				157.33	14.89	
1422.10	0.51456	81814.02	10.57	8.71	5.32	7568.69	0.29	0.000947
179.00	4396.87	163.28				157.33	14.89	
1423.44	0.51494	81813.16	10.57	8.72	5.33	7581.19	0.29	0.000953
180.00	4396.87	163.31				157.37	14.88	
1446.81	0.51837	81830.44	10.68	8.83	5.38	7787.05	0.29	0.000957
181.00	4396.98	163.93				157.93	14.79	
1464.68	0.52708	82125.80	10.76	8.91	5.41	7919.88	0.29	0.000955
182.00	4397.06	164.39				158.36	14.72	
1477.71	0.53072	82348.74	10.82	8.97	5.43	8026.09	0.29	0.000957
183.00	4397.12	164.73				158.67	14.67	
1486.49	0.53586	82510.24	10.86	9.01	5.44	8089.96	0.29	0.000953
184.00	4397.16	164.95				158.88	14.63	
1487.26	0.53611	82618.15	10.86	9.02	5.44	8090.70	0.29	0.000954
185.00	4397.16	164.97				158.90	14.63	
1487.49	0.53648	82627.45	10.86	9.02	5.44	8091.23	0.29	0.000952
186.00	4397.16	164.98				158.90	14.63	
1487.46	0.53558	82630.27	10.86	9.02	5.44	8091.04	0.29	0.000952
187.00	4397.16	164.98				158.90	14.63	

## HYCHAN.OUT

1487.59	0.53553	82629.98	10.86	9.02	5.44	8091.09	0.29	0.000951
	188.00	4397.16				158.91	14.63	
		164.98						
1487.59	0.53507	82631.58	10.86	9.02	5.44	8090.66	0.29	0.000951
	189.00	4397.16				158.91	14.63	
		164.98						
1487.65	0.53518	82631.56	10.86	9.02	5.44	8091.24	0.29	0.000952
	190.00	4397.16				158.91	14.63	
		164.98						
1486.95	0.53561	82632.25	10.86	9.01	5.44	8085.24	0.29	0.000949
	191.00	4397.16				158.89	14.63	
		164.96						
1475.40	0.53387	82623.57	10.81	8.96	5.41	7982.16	0.29	0.000947
	192.00	4397.11				158.62	14.68	
		164.67						
1466.72	0.52942	82480.70	10.77	8.92	5.40	7917.77	0.29	0.000950
	193.00	4397.07				158.41	14.71	
		164.44						
1466.01	0.52886	82373.85	10.77	8.92	5.40	7917.37	0.29	0.000952
	194.00	4397.07				158.39	14.71	
		164.43						
1465.89	0.52977	82365.03	10.76	8.92	5.40	7917.22	0.29	0.000951
	195.00	4397.06				158.39	14.71	
		164.42						
1465.69	0.52900	82363.51	10.76	8.91	5.40	7916.90	0.29	0.000951
	196.00	4397.06				158.39	14.71	
		164.42						
1465.74	0.52923	82361.07	10.76	8.91	5.40	7916.87	0.29	0.000952
	197.00	4397.06				158.39	14.71	
		164.42						
1465.74	0.52932	82361.72	10.76	8.91	5.40	7917.16	0.29	0.000952
	198.00	4397.06				158.39	14.71	
		164.42						
1465.69	0.52935	82361.73	10.76	8.91	5.40	7917.19	0.29	0.000951
	199.00	4397.06				158.39	14.71	
		164.42						
	0.52878	82361.07						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3773

MAXIMUM DISCHARGE (CFS) = 16164.61 AT TIME = 90.99  
 MAXIMUM STAGE = 4402.01 AT TIME = 90.98

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	SURFACE AREA	AREA					
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(LB/FT^2)	(FT^2)	(FT)	(FT)			
0.00	0.00	4385.63	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4385.63	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4385.63	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4385.63	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					

				HYCHAN.OUT			
935.33	4.00	4390.14	4.51	2.78	2599.25	0.23	
		118.59	7.89		115.74	25.64	0.000991
	0.48762	49766.27					
1116.21	5.00	4394.74	9.11	4.88	5443.74	0.28	
		154.42	7.23		149.13	16.37	0.000929
	0.41923	64126.97					
1117.28	6.00	4394.75	9.12	4.81	5376.94	0.28	
		154.46	7.23		149.16	16.36	0.000922
	0.41613	64139.81					
1110.31	7.00	4394.71	9.08	4.77	5300.21	0.28	
		154.23	7.20		148.95	16.40	0.000915
	0.41102	64050.28					
1091.91	8.00	4394.62	8.99	4.72	5152.55	0.28	
		153.64	7.11		148.40	16.51	0.000917
	0.40650	63813.76					
1071.75	9.00	4394.52	8.89	4.67	5006.08	0.28	
		152.98	7.01		147.79	16.63	0.000921
	0.40244	63551.46					
1051.43	10.00	4394.41	8.78	4.62	4861.00	0.28	
		152.31	6.90		147.17	16.76	0.000924
	0.39783	63283.08					
1038.70	11.00	4394.35	8.72	4.60	4777.03	0.27	
		151.88	6.84		146.78	16.84	0.000928
	0.39597	63113.79					
1028.13	12.00	4394.29	8.66	4.58	4711.85	0.27	
		151.52	6.79		146.44	16.90	0.000926
	0.39215	62970.41					
1006.62	13.00	4394.18	8.55	4.53	4563.27	0.27	
		150.79	6.68		145.76	17.05	0.000932
	0.38822	62676.56					
992.87	14.00	4394.11	8.48	4.50	4472.31	0.27	
		150.31	6.61		145.32	17.14	0.000937
	0.38632	62487.37					
991.74	15.00	4394.10	8.47	4.51	4469.16	0.27	
		150.28	6.60		145.28	17.14	0.000938
	0.38639	62471.90					
991.49	16.00	4394.10	8.47	4.51	4469.01	0.27	
		150.27	6.60		145.28	17.15	0.000938
	0.38638	62468.39					
991.40	17.00	4394.10	8.47	4.51	4469.01	0.27	
		150.26	6.60		145.27	17.15	0.000938
	0.38601	62467.12					
991.47	18.00	4394.10	8.47	4.51	4468.07	0.27	
		150.27	6.60		145.27	17.15	0.000939
	0.38677	62468.17					
1000.45	19.00	4394.15	8.52	4.53	4527.70	0.27	
		150.58	6.64		145.57	17.09	0.000940
	0.38991	62593.24					
1022.59	20.00	4394.26	8.63	4.58	4679.55	0.27	
		151.34	6.76		146.27	16.94	0.000938
	0.39535	62896.90					
1044.89	21.00	4394.38	8.75	4.63	4834.29	0.28	
		152.09	6.87		146.97	16.80	0.000931
	0.39923	63197.62					
1058.10	22.00	4394.45	8.82	4.65	4921.26	0.28	
		152.53	6.94		147.38	16.72	0.000925
	0.40058	63372.96					
1059.22	23.00	4394.45	8.82	4.65	4924.38	0.28	
		152.57	6.94		147.41	16.71	0.000926
	0.40125	63387.66					
1068.66	24.00	4394.50	8.87	4.67	4995.60	0.28	
		152.88	6.99		147.70	16.65	0.000929
	0.40516	63512.53					

		HYCHAN.OUT				
1099.67	25.00 4394.66 0.41185 153.89 63915.32	9.03	4.75	5227.31	0.28	0.000924
1142.28	26.00 4394.87 155.25	9.24	4.85	5535.93	0.28	0.000915
1184.39	27.00 4395.08 156.55	9.45	4.93	5840.97	0.28	0.000902
1206.22	28.00 4395.18 157.20	9.55	4.96	5981.63	0.28	0.000893
1208.33	29.00 4395.19 157.27	9.56	4.96	5987.30	0.28	0.000897
1219.38	30.00 4395.25 157.60	9.62	4.98	6077.01	0.28	0.000892
1230.31	31.00 4395.30 157.92	9.67	5.00	6150.44	0.28	0.000890
1231.47	32.00 4395.31 157.96	9.68	5.00	6154.85	0.28	0.000890
1243.09	33.00 4395.36 158.30	9.73	5.03	6248.89	0.28	0.000883
1254.14	34.00 4395.41 158.62	9.78	5.04	6324.56	0.28	0.000882
1254.66	35.00 4395.42 158.64	9.79	5.04	6322.88	0.28	0.000879
1243.85	36.00 4395.36 158.32	9.73	5.01	6228.99	0.28	0.000881
1232.66	37.00 4395.31 157.99	9.68	4.99	6150.97	0.28	0.000882
1221.56	38.00 4395.26 157.66	9.63	4.96	6059.87	0.28	0.000884
1210.66	39.00 4395.20 157.34	9.57	4.94	5986.63	0.28	0.000887
1209.85	40.00 4395.20 157.31	9.57	4.95	5985.19	0.28	0.000888
1209.69	41.00 4395.20 157.31	9.57	4.95	5984.99	0.28	0.000890
1209.59	42.00 4395.20 157.31	9.57	4.95	5984.99	0.28	0.000888
1209.88	43.00 4395.20 157.31	9.57	4.95	5987.51	0.28	0.000890
1220.69	44.00 4395.25 157.64	9.62	4.98	6076.90	0.28	0.000889
1231.73	45.00 4395.31 157.96	9.68	5.00	6153.40	0.28	0.000888
	0.43215 65537.73					



HYCHAN.OUT							
1244.09	46.00	4395.37	9.74	5.03	6252.46	0.28	0.000887
	0.43494	158.33	7.86		152.75	15.69	
		65682.93					
1266.94	47.00	4395.48	9.85	5.07	6426.64	0.29	0.000878
	0.43661	158.99	7.97		153.37	15.58	
		65947.79					
1290.10	48.00	4395.58	9.96	5.12	6600.33	0.29	0.000875
	0.44104	159.66	8.08		153.98	15.47	
		66212.37					
1312.83	49.00	4395.69	10.06	5.16	6774.47	0.29	0.000871
	0.44486	160.30	8.19		154.58	15.36	
		66468.44					
1334.50	50.00	4395.79	10.16	5.20	6942.52	0.29	0.000867
	0.44844	160.91	8.29		155.14	15.26	
		66709.43					
1358.51	51.00	4395.91	10.28	5.24	7125.07	0.29	0.000864
	0.45330	161.57	8.41		155.75	15.16	
		66973.01					
1391.74	52.00	4396.06	10.43	5.31	7389.85	0.29	0.000855
	0.45690	162.47	8.57		156.59	15.02	
		67331.66					
1414.05	53.00	4396.16	10.53	5.34	7545.19	0.29	0.000851
	0.46042	163.07	8.67		157.14	14.92	
		67568.62					
1429.54	54.00	4396.23	10.60	5.36	7667.66	0.29	0.000852
	0.46470	163.48	8.74		157.52	14.86	
		67731.78					
1478.95	55.00	4396.45	10.82	5.47	8084.62	0.29	0.000848
	0.47505	164.76	8.98		158.70	14.66	
		68241.87					
1566.13	56.00	4396.84	11.21	5.63	8821.46	0.30	0.000836
	0.48923	166.94	9.38		160.72	14.34	
		69110.38					
1683.50	57.00	4397.35	11.72	5.83	9822.88	0.30	0.000818
	0.50602	169.74	9.92		163.31	13.94	
		70222.73					
1821.68	58.00	4397.93	12.30	6.05	11018.35	0.30	0.000791
	0.51992	172.85	10.54		166.18	13.51	
		71458.10					
1937.78	59.00	4398.40	12.77	6.19	11993.87	0.31	0.000766
	0.52798	175.33	11.05		168.47	13.19	
		72442.61					
2030.45	60.00	4398.77	13.14	6.31	12816.07	0.31	0.000756
	0.54053	177.23	11.46		170.22	12.95	
		73194.36					
2107.72	61.00	4399.08	13.45	6.47	13630.14	0.31	0.000756
	0.55654	178.76	11.79		171.63	12.76	
		73801.55					
2152.89	62.00	4399.25	13.62	6.56	14126.41	0.31	0.000788
	0.58908	179.64	11.98		172.44	12.66	
		74147.85					
2182.80	63.00	4399.37	13.74	6.65	14506.34	0.32	0.000785
	0.59341	180.21	12.11		172.97	12.59	
		74375.12					
2204.27	64.00	4399.45	13.82	6.70	14770.32	0.32	0.000788
	0.60010	180.62	12.20		173.34	12.54	
		74535.96					
2215.88	65.00	4399.49	13.86	6.73	14920.04	0.32	0.000789
	0.60322	180.83	12.25		173.54	12.52	
		74622.57					
2230.63	66.00	4399.55	13.92	6.77	15094.00	0.32	0.000788
	0.60563	181.11	12.32		173.80	12.48	
		74732.14					

HYCHAN.OUT							
2242.17	67.00	4399.59	13.96	6.79	15229.08	0.32	0.000788
	0.60819	181.33	12.37	173.99	12.46		
		74817.35					
2245.18	68.00	4399.61	13.98	6.80	15264.29	0.32	0.000787
	0.60826	181.38	12.38	174.05	12.45		
		74839.41					
2247.66	69.00	4399.62	13.99	6.80	15280.67	0.32	0.000787
	0.60866	181.43	12.39	174.09	12.45		
		74857.73					
2248.45	70.00	4399.62	13.99	6.80	15281.88	0.32	0.000786
	0.60800	181.44	12.39	174.10	12.45		
		74863.42					
2249.37	71.00	4399.62	13.99	6.79	15272.08	0.32	0.000787
	0.60868	181.46	12.40	174.12	12.44		
		74870.33					
2252.26	72.00	4399.63	14.00	6.78	15277.47	0.32	0.000783
	0.60647	181.51	12.41	174.17	12.44		
		74891.60					
2258.01	73.00	4399.66	14.03	6.76	15275.43	0.32	0.000776
	0.60222	181.62	12.43	174.26	12.43		
		74933.82					
2266.72	74.00	4399.69	14.06	6.75	15307.37	0.32	0.000773
	0.60149	181.78	12.47	174.41	12.41		
		74997.77					
2276.80	75.00	4399.73	14.10	6.76	15381.33	0.32	0.000765
	0.59759	181.97	12.51	174.58	12.38		
		75071.26					
2287.67	76.00	4399.77	14.14	6.74	15414.05	0.32	0.000758
	0.59371	182.17	12.56	174.77	12.36		
		75150.49					
2296.87	77.00	4399.80	14.17	6.69	15377.13	0.31	0.000747
	0.58691	182.33	12.60	174.92	12.34		
		75216.88					
2309.60	78.00	4399.85	14.22	6.66	15393.18	0.31	0.000718
	0.56652	182.57	12.65	175.14	12.32		
		75309.88					
2361.08	79.00	4400.04	14.41	6.54	15447.24	0.30	0.000684
	0.54913	183.50	12.87	175.99	12.21		
		75677.69					
2400.72	80.00	4400.19	14.56	6.49	15582.97	0.30	0.000665
	0.54108	184.20	13.03	176.64	12.13		
		75956.47					
2442.90	81.00	4400.35	14.72	6.35	15506.86	0.29	0.000588
	0.48444	184.94	13.21	177.33	12.05		
		76250.56					
2511.81	82.00	4400.60	14.97	6.17	15501.96	0.28	0.000541
	0.45565	186.13	13.49	178.42	11.92		
		76721.49					
2581.25	83.00	4400.85	15.22	6.00	15494.57	0.27	0.000500
	0.42966	187.31	13.78	179.50	11.79		
		77184.76					
2636.32	84.00	4401.05	15.42	5.86	15451.31	0.26	0.000460
	0.40195	188.22	14.01	180.34	11.69		
		77545.49					
2677.25	85.00	4401.20	15.57	5.77	15439.80	0.26	0.000437
	0.38620	188.89	14.17	180.95	11.62		
		77809.65					
2729.44	86.00	4401.38	15.75	5.66	15445.17	0.25	0.000406
	0.36430	189.73	14.39	181.73	11.54		
		78142.78					
2782.00	87.00	4401.57	15.94	5.55	15450.77	0.25	0.000389
	0.35454	190.56	14.60	182.50	11.45		
		78473.16					

HYCHAN.OUT							
88.00	4401.71	16.07	5.52	15584.89	0.24		
2821.11	191.18	14.76		183.06	11.39	0.000383	
0.35264	78716.18						
89.00	4401.75	16.12	5.46	15463.72	0.24		
2832.83	191.37	14.80		183.24	11.37	0.000371	
0.34265	78793.08						
90.00	4401.75	16.12	5.33	15098.05	0.23		
2832.76	191.37	14.80		183.24	11.37	0.000347	
0.32096	78792.14						
91.00	4401.70	16.07	5.17	14582.91	0.23		
2819.31	191.15	14.75		183.03	11.39	0.000271	
0.24958	78703.90						
92.00	4401.64	16.01	5.02	14068.61	0.22		
2803.45	190.90	14.69		182.80	11.42	0.000270	
0.24766	78605.41						
93.00	4401.59	15.96	4.83	13463.70	0.21		
2789.70	190.68	14.63		182.60	11.44	0.000250	
0.22865	78518.40						
94.00	4401.47	15.84	4.66	12842.02	0.21		
2755.06	190.13	14.49		182.10	11.49	0.000241	
0.21760	78301.91						
95.00	4401.36	15.73	4.51	12286.99	0.20		
2722.59	189.61	14.36		181.62	11.55	0.000240	
0.21472	78097.23						
96.00	4401.24	15.61	4.40	11836.76	0.20		
2690.06	189.09	14.23		181.14	11.60	0.000221	
0.19620	77889.82						
97.00	4401.05	15.42	4.30	11326.43	0.19		
2636.28	188.21	14.01		180.33	11.69	0.000226	
0.19748	77542.03						
98.00	4400.78	15.15	4.25	10885.63	0.19		
2561.59	186.97	13.70		179.19	11.83	0.000230	
0.19656	77050.98						
99.00	4400.49	14.86	4.22	10467.27	0.19		
2480.62	185.59	13.37		177.92	11.98	0.000256	
0.21339	76506.10						
100.00	4400.20	14.57	4.23	10157.12	0.20		
2402.23	184.22	13.04		176.66	12.13	0.000255	
0.20755	75965.34						
101.00	4399.92	14.29	4.20	9791.85	0.20		
2328.97	182.91	12.73		175.46	12.28	0.000284	
0.22588	75446.38						
102.00	4399.61	13.98	4.21	9470.28	0.20		
2247.18	181.41	12.39		174.08	12.45	0.000299	
0.23101	74852.56						
103.00	4399.20	13.57	4.30	9203.79	0.21		
2138.63	179.36	11.92		172.18	12.69	0.000354	
0.26330	74038.81						
104.00	4398.66	13.03	4.48	8976.33	0.22		
2001.50	176.65	11.33		169.68	13.03	0.000446	
0.31518	72963.52						
105.00	4398.06	12.43	4.73	8768.90	0.24		
1852.76	173.54	10.68		166.81	13.42	0.000561	
0.37396	71728.92						
106.00	4397.57	11.94	4.85	8426.24	0.25		
1735.95	170.94	10.16		164.42	13.77	0.000591	
0.37432	70700.00						
107.00	4397.37	11.74	4.83	8160.43	0.25		
1689.00	169.87	9.94		163.43	13.92	0.000600	
0.37197	70274.17						
108.00	4397.23	11.60	4.82	7986.14	0.25		
1656.45	169.11	9.79		162.73	14.03	0.000617	
0.37726	69972.42						

HYCHAN.OUT							
109.00	4397.03	11.40	4.86	7821.60	0.25		
1610.34	168.02	9.58		161.71	14.18	0.000659	
0.39427	69537.10						
110.00	4396.83	11.20	4.96	7760.11	0.26		
1564.43	166.90	9.37		160.69	14.34	0.000702	
0.41035	69094.59						
111.00	4396.78	11.15	5.07	7866.48	0.27		
1552.05	166.60	9.32		160.40	14.39	0.000727	
0.42268	68973.75						
112.00	4396.85	11.22	5.18	8131.78	0.27		
1569.01	167.02	9.39		160.79	14.33	0.000734	
0.43035	69139.76						
113.00	4396.84	11.21	5.21	8153.99	0.27		
1565.62	166.93	9.38		160.71	14.34	0.000740	
0.43323	69105.75						
114.00	4396.73	11.10	5.19	7997.97	0.27		
1540.21	166.30	9.26		160.13	14.43	0.000758	
0.43815	68856.54						
115.00	4396.76	11.13	5.27	8152.43	0.28		
1547.18	166.48	9.29		160.29	14.41	0.000770	
0.44669	68925.88						
116.00	4396.92	11.29	5.38	8513.32	0.28		
1583.54	167.37	9.46		161.12	14.28	0.000764	
0.45095	69280.89						
117.00	4396.94	11.31	5.38	8542.40	0.28		
1588.02	167.48	9.48		161.22	14.26	0.000768	
0.45439	69323.38						
118.00	4396.88	11.25	5.38	8472.80	0.28		
1576.13	167.19	9.43		160.95	14.30	0.000774	
0.45502	69208.71						
119.00	4396.87	11.24	5.39	8477.39	0.28		
1573.22	167.12	9.41		160.89	14.31	0.000779	
0.45784	69180.59						
120.00	4396.92	11.29	5.43	8597.13	0.28		
1583.90	167.38	9.46		161.13	14.27	0.000778	
0.45911	69284.34						
121.00	4396.95	11.32	5.44	8669.11	0.29		
1592.34	167.59	9.50		161.32	14.24	0.000778	
0.46110	69365.63						
122.00	4396.95	11.32	5.44	8662.39	0.29		
1591.00	167.55	9.50		161.29	14.25	0.000777	
0.46047	69352.56						
123.00	4396.89	11.26	5.42	8544.32	0.28		
1576.57	167.20	9.43		160.96	14.30	0.000783	
0.46063	69212.49						
124.00	4396.83	11.20	5.41	8465.57	0.29		
1564.24	166.90	9.37		160.68	14.34	0.000783	
0.45778	69092.89						
125.00	4396.77	11.14	5.39	8345.80	0.28		
1549.26	166.53	9.30		160.34	14.40	0.000789	
0.45792	68945.63						
126.00	4396.71	11.08	5.38	8270.85	0.28		
1537.25	166.23	9.25		160.06	14.44	0.000793	
0.45771	68827.66						
127.00	4396.70	11.07	5.38	8264.81	0.29		
1534.99	166.18	9.24		160.01	14.45	0.000792	
0.45658	68805.19						
128.00	4396.65	11.02	5.36	8159.67	0.28		
1522.32	165.86	9.18		159.72	14.50	0.000797	
0.45622	68678.78						
129.00	4396.60	10.97	5.35	8092.78	0.28		
1511.86	165.60	9.13		159.48	14.54	0.000799	
0.45523	68574.71						

HYCHAN.OUT							
1509.77	130.00	4396.59	10.96	9.12	5.36	8086.22	0.29
	0.45458	165.54				159.43	14.54
		68553.72					0.000799
1497.42	131.00	4396.54	10.91	9.06	5.33	7984.27	0.28
	0.45461	165.23				159.14	14.59
		68428.90					0.000804
1488.12	132.00	4396.49	10.86	9.02	5.33	7929.15	0.28
	0.45714	164.99				158.92	14.63
		68335.38					0.000812
1510.06	133.00	4396.59	10.96	9.12	5.39	8135.38	0.29
	0.45911	165.55				159.44	14.54
		68557.09					0.000807
1528.44	134.00	4396.67	11.04	9.21	5.41	8266.84	0.29
	0.46064	166.01				159.86	14.47
		68740.47					0.000802
1529.47	135.00	4396.68	11.05	9.21	5.41	8270.00	0.29
	0.46068	166.04				159.89	14.47
		68750.58					0.000801
1529.19	136.00	4396.68	11.05	9.21	5.41	8270.29	0.29
	0.46106	166.03				159.88	14.47
		68747.80					0.000802
1528.81	137.00	4396.68	11.05	9.21	5.41	8270.26	0.29
	0.46153	166.02				159.87	14.47
		68744.06					0.000803
1528.34	138.00	4396.67	11.04	9.21	5.41	8269.96	0.29
	0.46155	166.01				159.86	14.48
		68739.36					0.000803
1527.98	139.00	4396.67	11.04	9.20	5.41	8269.78	0.29
	0.46223	166.00				159.85	14.48
		68735.79					0.000805
1527.15	140.00	4396.67	11.04	9.20	5.41	8265.12	0.29
	0.46046	165.98				159.83	14.48
		68727.44					0.000802
1514.92	141.00	4396.61	10.98	9.14	5.39	8159.64	0.29
	0.46027	165.67				159.55	14.53
		68604.84					0.000807
1505.06	142.00	4396.57	10.94	9.10	5.38	8092.62	0.29
	0.45965	165.42				159.32	14.56
		68506.40					0.000810
1504.06	143.00	4396.57	10.94	9.09	5.38	8091.26	0.29
	0.45899	165.40				159.29	14.57
		68496.39					0.000809
1503.58	144.00	4396.56	10.93	9.09	5.38	8090.75	0.29
	0.45934	165.39				159.28	14.57
		68491.64					0.000810
1502.73	145.00	4396.56	10.93	9.09	5.38	8086.01	0.29
	0.45774	165.36				159.26	14.57
		68482.98					0.000807
1490.94	146.00	4396.51	10.88	9.03	5.36	7984.28	0.29
	0.45785	165.06				158.98	14.62
		68363.30					0.000812
1481.14	147.00	4396.46	10.83	8.99	5.35	7918.07	0.29
	0.45692	164.81				158.75	14.65
		68264.30					0.000815
1480.25	148.00	4396.46	10.83	8.98	5.35	7917.28	0.29
	0.45705	164.79				158.73	14.66
		68255.23					0.000815
1479.75	149.00	4396.46	10.83	8.98	5.35	7917.22	0.29
	0.45640	164.78				158.72	14.66
		68250.10					0.000814
1479.39	150.00	4396.46	10.83	8.98	5.35	7917.05	0.29
	0.45768	164.77				158.71	14.66
		68246.52					0.000817

HYCHAN.OUT							
1478.66	151.00	4396.45	10.82	8.98	5.35	7913.54	0.29
	0.45756	164.75				158.70	14.66
		68238.90					0.000817
1470.52	152.00	4396.42	10.79	8.94	5.33	7844.52	0.29
	0.45584	164.54				158.50	14.70
		68155.38					0.000817
1460.05	153.00	4396.37	10.74	8.89	5.32	7766.34	0.29
	0.45501	164.27				158.25	14.74
		68047.95					0.000820
1455.80	154.00	4396.35	10.72	8.87	5.32	7743.53	0.29
	0.45537	164.16				158.15	14.75
		68004.40					0.000823
1454.63	155.00	4396.34	10.71	8.86	5.32	7738.05	0.29
	0.45415	164.13				158.12	14.76
		67992.18					0.000821
1443.87	156.00	4396.30	10.67	8.81	5.30	7646.62	0.29
	0.45566	163.85				157.86	14.80
		67880.41					0.000829
1457.25	157.00	4396.36	10.73	8.87	5.34	7784.02	0.29
	0.45664	164.20				158.19	14.75
		68019.73					0.000825
1475.31	158.00	4396.44	10.81	8.96	5.36	7914.48	0.29
	0.45786	164.67				158.62	14.68
		68204.95					0.000819
1476.70	159.00	4396.44	10.81	8.97	5.36	7916.75	0.29
	0.45906	164.70				158.65	14.67
		68219.03					0.000821
1476.83	160.00	4396.44	10.81	8.97	5.36	7916.89	0.29
	0.45881	164.70				158.65	14.67
		68220.31					0.000820
1476.77	161.00	4396.44	10.81	8.97	5.36	7917.36	0.29
	0.45898	164.70				158.65	14.67
		68219.72					0.000820
1476.65	162.00	4396.44	10.81	8.97	5.36	7917.20	0.29
	0.45803	164.70				158.65	14.67
		68218.56					0.000819
1476.49	163.00	4396.44	10.81	8.96	5.36	7916.87	0.29
	0.45899	164.70				158.64	14.67
		68216.91					0.000820
1476.40	164.00	4396.44	10.81	8.96	5.36	7916.91	0.29
	0.45923	164.69				158.64	14.67
		68215.89					0.000821
1475.80	165.00	4396.44	10.81	8.96	5.36	7911.64	0.29
	0.45786	164.68				158.63	14.67
		68209.78					0.000819
1464.28	166.00	4396.39	10.76	8.91	5.33	7810.77	0.29
	0.45629	164.38				158.35	14.72
		68091.09					0.000821
1454.53	167.00	4396.34	10.71	8.86	5.32	7743.73	0.29
	0.45647	164.13				158.12	14.76
		67991.18					0.000825
1453.70	168.00	4396.34	10.71	8.86	5.33	7743.25	0.29
	0.45607	164.11				158.10	14.76
		67982.73					0.000825
1453.45	169.00	4396.34	10.71	8.86	5.33	7742.84	0.29
	0.45670	164.10				158.09	14.76
		67980.12					0.000826
1453.37	170.00	4396.34	10.71	8.86	5.33	7743.13	0.29
	0.45623	164.10				158.09	14.76
		67979.25					0.000826
1453.31	171.00	4396.34	10.71	8.86	5.33	7743.09	0.29
	0.45615	164.10				158.09	14.76
		67978.71					0.000825

HYCHAN.OUT									
1453.15	172.00	4396.34	10.71	5.33	7742.71	0.29	8.86	158.09	0.000825
	0.45589	164.09						14.76	
		67977.01							
1452.60	173.00	4396.33	10.71	5.33	7738.19	0.29	8.85	158.07	0.000824
	0.45521	164.08						14.77	
		67971.20							
1440.87	174.00	4396.28	10.65	5.30	7635.38	0.29	8.80	157.79	0.000826
	0.45326	163.77						14.81	
		67848.93							
1431.27	175.00	4396.24	10.61	5.29	7570.28	0.29	8.75	157.56	0.000829
	0.45282	163.52						14.85	
		67749.32							
1430.38	176.00	4396.23	10.60	5.29	7569.26	0.29	8.75	157.54	0.000830
	0.45300	163.50						14.86	
		67740.12							
1430.13	177.00	4396.23	10.60	5.29	7569.04	0.29	8.75	157.53	0.000830
	0.45317	163.49						14.86	
		67737.42							
1430.07	178.00	4396.23	10.60	5.29	7568.89	0.29	8.75	157.53	0.000830
	0.45313	163.49						14.86	
		67736.89							
1429.99	179.00	4396.23	10.60	5.29	7568.71	0.29	8.75	157.53	0.000831
	0.45343	163.49						14.86	
		67735.98							
1431.12	180.00	4396.24	10.61	5.30	7580.37	0.29	8.75	157.55	0.000835
	0.45596	163.52						14.85	
		67748.06							
1454.23	181.00	4396.34	10.71	5.35	7783.12	0.29	8.86	158.11	0.000828
	0.45763	164.12						14.76	
		67988.53							
1473.61	182.00	4396.43	10.80	5.37	7918.91	0.29	8.95	158.58	0.000826
	0.46153	164.62						14.68	
		68187.67							
1486.84	183.00	4396.49	10.86	5.40	8024.10	0.29	9.01	158.89	0.000821
	0.46172	164.96						14.63	
		68322.66							
1496.47	184.00	4396.53	10.90	5.41	8089.67	0.29	9.06	159.12	0.000818
	0.46249	165.21						14.60	
		68420.00							
1497.43	185.00	4396.54	10.91	5.40	8090.65	0.29	9.06	159.14	0.000819
	0.46306	165.23						14.59	
		68429.63							
1497.71	186.00	4396.54	10.91	5.40	8091.21	0.29	9.06	159.15	0.000818
	0.46290	165.24						14.59	
		68432.42							
1497.70	187.00	4396.54	10.91	5.40	8091.01	0.29	9.06	159.14	0.000818
	0.46268	165.24						14.59	
		68432.34							
1497.85	188.00	4396.54	10.91	5.40	8091.06	0.29	9.06	159.15	0.000818
	0.46273	165.24						14.59	
		68433.81							
1497.86	189.00	4396.54	10.91	5.40	8090.67	0.29	9.06	159.15	0.000819
	0.46304	165.24						14.59	
		68433.90							
1497.91	190.00	4396.54	10.91	5.40	8091.25	0.29	9.06	159.15	0.000817
	0.46221	165.24						14.59	
		68434.45							
1497.31	191.00	4396.54	10.91	5.40	8085.69	0.29	9.06	159.14	0.000815
	0.46111	165.23						14.59	
		68428.29							
1485.89	192.00	4396.48	10.85	5.37	7984.10	0.29	9.01	158.87	0.000819
	0.46036	164.93						14.64	
		68312.10							



HYCHAN.OUT							
1476.39	193.00	4396.44	10.81	5.36	7918.03	0.29	0.000822
	0.45957	164.69	8.96	158.64	14.67		
1475.52	194.00	4396.44	10.81	5.37	7917.44	0.29	0.000822
	0.45943	164.67	8.96	158.62	14.68		
1475.33	195.00	4396.44	10.81	5.37	7917.21	0.29	0.000822
	0.45963	164.67	8.96	158.62	14.68		
1475.12	196.00	4396.44	10.81	5.37	7916.91	0.29	0.000823
	0.45993	164.66	8.96	158.61	14.68		
1475.16	197.00	4396.44	10.81	5.37	7916.86	0.29	0.000822
	0.45969	164.66	8.96	158.61	14.68		
1475.15	198.00	4396.44	10.81	5.37	7917.17	0.29	0.000823
	0.45981	164.66	8.96	158.61	14.68		
1475.09	199.00	4396.44	10.81	5.37	7917.23	0.29	0.000822
	0.45945	164.66	8.96	158.61	14.68		
		68202.59					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3858

MAXIMUM DISCHARGE (CFS) = 15783.79 AT TIME = 90.99  
 MAXIMUM STAGE = 4401.77 AT TIME = 90.99

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4384.80	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4384.80	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4384.80	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4384.80	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
924.01	4.00	4389.04	4.24	2.61	2413.95	0.22
	0.47458	115.78	7.98	113.11	26.70	0.000953
1137.67	5.00	4394.02	9.22	4.78	5439.71	0.28
	0.40701	155.10	7.33	149.76	16.25	0.000889
1141.81	6.00	4394.04	9.24	4.71	5376.56	0.27
	0.40367	155.23	7.36	149.88	16.22	0.000879
1136.36	7.00	4394.01	9.21	4.67	5302.70	0.27
	0.39913	155.06	7.33	149.72	16.26	0.000873
1117.93	8.00	4393.92	9.12	4.61	5155.94	0.27
	0.39445	154.47	7.24	149.18	16.36	0.000873
	9.00	4393.81	9.01	4.57	5009.59	0.27

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		HYCHAN.OUT				
1097.05	153.80	7.13	148.56	16.48	0.000879	
	0.39125 89135.03					
10.00	4393.71	8.91	4.52	4864.42	0.27	
1075.97	153.12	7.03	147.92	16.61	0.000881	
	0.38615 88753.53					
11.00	4393.64	8.84	4.50	4778.04	0.27	
1062.07	152.66	6.96	147.50	16.69	0.000886	
	0.38463 88500.09					
12.00	4393.58	8.78	4.48	4715.05	0.27	
1051.65	152.32	6.90	147.18	16.76	0.000885	
	0.38140 88306.05					
13.00	4393.47	8.67	4.44	4567.01	0.27	
1029.45	151.57	6.79	146.48	16.90	0.000891	
	0.37767 87890.27					
14.00	4393.39	8.59	4.41	4473.20	0.27	
1014.20	151.05	6.71	146.00	17.00	0.000899	
	0.37652 87602.38					
15.00	4393.38	8.58	4.41	4469.25	0.27	
1012.65	151.00	6.71	145.95	17.01	0.000900	
	0.37643 87572.95					
16.00	4393.38	8.58	4.41	4469.04	0.27	
1012.31	150.99	6.70	145.94	17.01	0.000901	
	0.37676 87566.49					
17.00	4393.38	8.58	4.42	4469.03	0.27	
1012.18	150.98	6.70	145.94	17.01	0.000900	
	0.37633 87564.13					
18.00	4393.38	8.58	4.41	4467.92	0.27	
1012.30	150.99	6.70	145.94	17.01	0.000901	
	0.37682 87566.33					
19.00	4393.43	8.63	4.43	4524.62	0.27	
1020.81	151.28	6.75	146.22	16.95	0.000902	
	0.37975 87729.23					
20.00	4393.54	8.74	4.48	4675.62	0.27	
1043.63	152.05	6.86	146.93	16.81	0.000899	
	0.38487 88159.27					
21.00	4393.66	8.86	4.53	4830.53	0.27	
1066.98	152.83	6.98	147.65	16.66	0.000891	
	0.38805 88591.58					
22.00	4393.74	8.94	4.55	4920.44	0.27	
1081.60	153.31	7.06	148.10	16.57	0.000886	
	0.39015 88857.90					
23.00	4393.74	8.94	4.55	4924.20	0.27	
1083.05	153.35	7.06	148.14	16.56	0.000885	
	0.38991 88883.95					
24.00	4393.79	8.99	4.57	4992.33	0.27	
1092.01	153.65	7.11	148.41	16.51	0.000889	
	0.39419 89046.57					
25.00	4393.95	9.15	4.65	5220.37	0.27	
1123.39	154.65	7.26	149.34	16.33	0.000883	
	0.40004 89605.90					
26.00	4394.17	9.37	4.73	5528.37	0.27	
1167.90	156.04	7.48	150.63	16.08	0.000871	
	0.40680 90379.16					
27.00	4394.38	9.58	4.81	5834.10	0.27	
1212.29	157.39	7.70	151.88	15.85	0.000859	
	0.41268 91127.64					
28.00	4394.50	9.70	4.83	5980.38	0.27	
1236.94	158.12	7.82	152.56	15.72	0.000850	
	0.41516 91533.55					
29.00	4394.51	9.71	4.83	5987.03	0.27	
1239.48	158.19	7.84	152.62	15.71	0.000850	
	0.41537 91574.80					
30.00	4394.57	9.77	4.86	6073.77	0.27	

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		HYCHAN.OUT				
1250.34	158.51	7.89	152.92	15.66	0.000846	
0.41627	91752.12					
31.00	4394.62	9.82	4.87	6149.97	0.27	
1262.64	158.87	7.95	153.25	15.60	0.000840	
0.41661	91950.42					
32.00	4394.63	9.83	4.87	6154.41	0.27	
1263.90	158.90	7.95	153.28	15.59	0.000844	
0.41890	91970.76					
33.00	4394.69	9.89	4.90	6245.53	0.27	
1275.41	159.24	8.01	153.59	15.54	0.000840	
0.41992	92155.66					
34.00	4394.74	9.94	4.91	6324.17	0.27	
1287.73	159.59	8.07	153.92	15.48	0.000835	
0.42052	92351.25					
35.00	4394.75	9.95	4.91	6322.98	0.27	
1288.60	159.61	8.07	153.94	15.47	0.000833	
0.41942	92364.80					
36.00	4394.70	9.90	4.88	6232.07	0.27	
1278.17	159.31	8.02	153.66	15.52	0.000835	
0.41807	92197.94					
37.00	4394.64	9.84	4.86	6151.81	0.27	
1265.86	158.96	7.96	153.34	15.58	0.000837	
0.41577	92001.75					
38.00	4394.59	9.79	4.83	6062.89	0.27	
1254.98	158.64	7.91	153.04	15.64	0.000839	
0.41416	91825.55					
39.00	4394.53	9.73	4.82	5987.21	0.27	
1242.81	158.29	7.85	152.71	15.70	0.000845	
0.41397	91628.86					
40.00	4394.52	9.72	4.82	5985.26	0.27	
1241.75	158.26	7.85	152.69	15.70	0.000843	
0.41272	91611.75					
41.00	4394.52	9.72	4.82	5985.06	0.27	
1241.53	158.25	7.85	152.68	15.70	0.000844	
0.41329	91608.11					
42.00	4394.52	9.72	4.82	5984.94	0.27	
1241.45	158.25	7.84	152.68	15.70	0.000844	
0.41337	91606.86					
43.00	4394.52	9.72	4.82	5987.25	0.27	
1241.61	158.25	7.85	152.68	15.70	0.000846	
0.41422	91609.62					
44.00	4394.57	9.77	4.85	6073.81	0.27	
1252.16	158.56	7.90	152.97	15.65	0.000844	
0.41571	91781.66					
45.00	4394.63	9.83	4.87	6152.55	0.27	
1264.32	158.92	7.96	153.30	15.59	0.000842	
0.41780	91977.55					
46.00	4394.69	9.89	4.90	6248.90	0.27	
1276.58	159.27	8.02	153.62	15.53	0.000840	
0.42000	92174.35					
47.00	4394.80	10.00	4.94	6422.52	0.28	
1300.43	159.95	8.13	154.25	15.42	0.000836	
0.42412	92552.41					
48.00	4394.92	10.12	4.98	6596.32	0.28	
1324.79	160.64	8.25	154.89	15.31	0.000830	
0.42689	92932.83					
49.00	4395.03	10.23	5.02	6770.76	0.28	
1348.58	161.30	8.36	155.50	15.20	0.000824	
0.43010	93299.20					
50.00	4395.13	10.33	5.06	6938.41	0.28	
1371.25	161.92	8.47	156.07	15.10	0.000819	
0.43303	93643.62					
51.00	4395.25	10.45	5.10	7120.68	0.28	

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				HYCHAN.OUT			
1396.53		162.60		8.59	156.70	15.00	0.000816
	0.43718	94022.62					
52.00	4395.41	10.61	5.16	7383.11	0.28		
1430.99	163.51	8.75	157.55	14.85	0.000805		
	0.43981	94530.61					
53.00	4395.52	10.72	5.18	7543.57	0.28		
1455.75	164.16	8.87	158.15	14.75	0.000801		
	0.44333	94889.52					
54.00	4395.59	10.79	5.21	7662.99	0.28		
1471.52	164.57	8.94	158.53	14.69	0.000801		
	0.44680	95116.09					
55.00	4395.81	11.02	5.30	8072.44	0.28		
1521.96	165.85	9.18	159.71	14.50	0.000793		
	0.45437	95826.51					
56.00	4396.21	11.41	5.46	8803.66	0.28		
1612.32	168.06	9.59	161.76	14.18	0.000780		
	0.46714	97054.75					
57.00	4396.73	11.94	5.65	9800.19	0.29		
1735.15	170.93	10.15	164.40	13.77	0.000756		
	0.47879	98642.18					
58.00	4397.34	12.54	5.85	10994.54	0.29		
1880.43	174.12	10.80	167.35	13.35	0.000716		
	0.48277	100411.05					
59.00	4397.84	13.04	5.98	11975.54	0.29		
2004.16	176.70	11.34	169.73	13.02	0.000689		
	0.48744	101838.32					
60.00	4398.23	13.43	6.09	12801.28	0.29		
2102.65	178.66	11.77	171.54	12.78	0.000681		
	0.50036	102923.70					
61.00	4398.53	13.73	6.24	13619.42	0.30		
2181.79	180.19	12.11	172.95	12.59	0.000681		
	0.51462	103768.17					
62.00	4398.71	13.91	6.34	14123.46	0.30		
2227.83	181.06	12.30	173.75	12.49	0.000723		
	0.55482	104247.73					
63.00	4398.82	14.02	6.43	14499.39	0.30		
2256.49	181.59	12.43	174.24	12.43	0.000690		
	0.53509	104543.75					
64.00	4398.90	14.10	6.48	14768.08	0.30		
2278.08	181.99	12.52	174.61	12.38	0.000693		
	0.54117	104763.66					
65.00	4398.94	14.15	6.52	14918.21	0.31		
2289.62	182.20	12.57	174.80	12.36	0.000694		
	0.54423	104880.77					
66.00	4399.00	14.20	6.55	15091.21	0.31		
2304.31	182.47	12.63	175.05	12.33	0.000692		
	0.54557	105029.23					
67.00	4399.04	14.24	6.58	15227.95	0.31		
2315.99	182.68	12.68	175.24	12.30	0.000694		
	0.54915	105146.48					
68.00	4399.06	14.26	6.58	15264.13	0.31		
2319.16	182.74	12.69	175.30	12.30	0.000692		
	0.54797	105178.25					
69.00	4399.07	14.27	6.58	15280.04	0.31		
2321.85	182.79	12.70	175.34	12.29	0.000693		
	0.54968	105205.22					
70.00	4399.07	14.27	6.58	15282.19	0.31		
2322.88	182.81	12.71	175.36	12.29	0.000693		
	0.54932	105215.48					
71.00	4399.08	14.28	6.57	15271.73	0.31		
2324.20	182.83	12.71	175.38	12.29	0.000693		
	0.54964	105228.71					
72.00	4399.09	14.29	6.56	15276.55	0.31		

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2327.71		182.90		12.73	175.44	12.28	0.000689
	0.54732	105263.93					
	73.00	4399.12	14.32	6.54	15274.37	0.30	
2334.84		183.02		12.76	175.56	12.26	0.000681
	0.54235	105335.16					
	74.00	4399.15	14.35	6.53	15305.33	0.30	
2344.92		183.21		12.80	175.73	12.24	0.000676
	0.53956	105435.71					
	75.00	4399.19	14.39	6.53	15379.80	0.30	
2355.84		183.40		12.85	175.91	12.22	0.000667
	0.53492	105543.86					
	76.00	4399.24	14.44	6.51	15411.30	0.30	
2368.82		183.63		12.90	176.12	12.19	0.000656
	0.52818	105672.42					
	77.00	4399.29	14.49	6.46	15376.44	0.30	
2380.73		183.85		12.95	176.32	12.17	0.000644
	0.52022	105789.22					
	78.00	4399.34	14.54	6.42	15384.95	0.30	
2396.05		184.12		13.01	176.57	12.14	0.000610
	0.49534	105941.11					
	79.00	4399.57	14.77	6.28	15438.65	0.29	
2458.24		185.21		13.27	177.57	12.02	0.000572
	0.47340	106542.58					
	80.00	4399.74	14.94	6.22	15576.63	0.28	
2503.66		185.99		13.46	178.29	11.93	0.000547
	0.45975	106974.22					
	81.00	4399.95	15.15	6.05	15494.28	0.27	
2560.12		186.95		13.69	179.18	11.83	0.000476
	0.40699	107505.28					
	82.00	4400.25	15.45	5.86	15487.44	0.26	
2643.10		188.35		14.03	180.46	11.68	0.000427
	0.37429	108275.31					
	83.00	4400.54	15.74	5.71	15483.27	0.25	
2713.47		189.66		14.31	181.67	11.54	0.000401
	0.35802	109001.94					
	84.00	4400.76	15.96	5.58	15440.25	0.25	
2765.93		190.68		14.51	182.61	11.44	0.000361
	0.32704	109563.50					
	85.00	4400.93	16.13	5.51	15434.72	0.24	
2802.43		191.35		14.65	183.28	11.36	0.000363
	0.33181	109967.27					
	86.00	4401.13	16.33	5.43	15425.50	0.24	
2840.06		191.76		14.81	184.12	11.27	0.000344
	0.31747	110473.12					
	87.00	4401.34	16.54	5.35	15384.84	0.23	
2877.17		192.17		14.97	184.96	11.18	0.000341
	0.31865	110978.21					
	88.00	4401.49	16.69	5.33	15473.50	0.23	
2903.64		192.47		15.09	185.56	11.12	0.000346
	0.32601	111337.49					
	89.00	4401.54	16.74	5.26	15335.48	0.23	
2912.95		192.58		15.13	185.77	11.10	0.000330
	0.31119	111464.29					
	90.00	4401.56	16.76	5.13	14966.07	0.22	
2915.19		192.60		15.14	185.82	11.09	0.000306
	0.28887	111494.73					
	91.00	4401.52	16.72	4.97	14465.01	0.21	
2908.21		192.52		15.11	185.67	11.11	0.000197
	0.18597	111399.55					
	92.00	4401.48	16.68	4.81	13968.57	0.21	
2901.08		192.44		15.08	185.50	11.12	0.000272
	0.25558	111302.41					
	93.00	4401.44	16.64	4.62	13380.43	0.20	

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		HYCHAN.OUT					
2894.60	192.37	15.05	185.35	11.14	0.000228		
0.21412	111211.24						
94.00	4401.32	16.52	4.45	12794.71	0.19		
2874.01	192.13	14.96	184.89	11.19	0.000220		
0.20514	110931.02						
95.00	4401.21	16.41	4.30	12268.02	0.19		
2854.45	191.92	14.87	184.44	11.24	0.000238		
0.22050	110664.85						
96.00	4401.10	16.30	4.18	11833.48	0.18		
2834.32	191.69	14.79	183.99	11.29	0.000213		
0.19688	110391.55						
97.00	4400.91	16.11	4.05	11335.39	0.18		
2798.39	191.31	14.63	183.20	11.37	0.000193		
0.17594	109921.27						
98.00	4400.64	15.84	3.98	10900.81	0.18		
2736.52	190.10	14.39	182.07	11.50	0.000186		
0.16720	109244.67						
99.00	4400.33	15.53	3.93	10482.75	0.18		
2665.11	188.73	14.12	180.81	11.64	0.000211		
0.18602	108488.62						
100.00	4400.04	15.24	3.93	10169.40	0.18		
2585.03	187.36	13.80	179.55	11.78	0.000204		
0.17566	107730.98						
101.00	4399.75	14.95	3.91	9804.17	0.18		
2507.74	186.05	13.48	178.35	11.93	0.000202		
0.17003	107009.24						
102.00	4399.43	14.63	3.92	9486.01	0.18		
2420.21	184.54	13.11	176.95	12.09	0.000236		
0.19336	106172.30						
103.00	4398.99	14.19	4.01	9228.43	0.19		
2301.30	182.41	12.62	175.00	12.33	0.000281		
0.22100	104998.03						
104.00	4398.40	13.60	4.19	9004.08	0.20		
2147.93	179.54	11.96	172.35	12.67	0.000366		
0.27320	103411.74						
105.00	4397.73	12.93	4.45	8798.05	0.22		
1975.82	176.13	11.22	169.20	13.09	0.000465		
0.32547	101521.65						
106.00	4397.17	12.38	4.58	8439.58	0.23		
1840.86	173.27	10.62	166.57	13.46	0.000491		
0.32543	99939.14						
107.00	4396.96	12.16	4.56	8166.06	0.23		
1789.90	172.16	10.40	165.54	13.61	0.000499		
0.32387	99322.82						
108.00	4396.81	12.02	4.56	7993.34	0.23		
1754.14	171.36	10.24	164.80	13.72	0.000518		
0.33106	98880.67						
109.00	4396.59	11.79	4.60	7831.70	0.24		
1701.17	170.15	10.00	163.69	13.88	0.000563		
0.35097	98212.54						
110.00	4396.35	11.55	4.72	7767.14	0.24		
1644.89	168.84	9.74	162.48	14.07	0.000607		
0.36903	97486.02						
111.00	4396.27	11.47	4.84	7866.59	0.25		
1625.30	168.38	9.65	162.05	14.13	0.000638		
0.38414	97228.45						
112.00	4396.32	11.52	4.96	8128.66	0.26		
1638.63	168.69	9.71	162.34	14.09	0.000656		
0.39745	97404.37						
113.00	4396.31	11.51	4.99	8158.34	0.26		
1634.18	168.59	9.69	162.24	14.10	0.000665		
0.40228	97344.60						
114.00	4396.18	11.38	4.98	8001.61	0.26		

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				HYCHAN.OUT			
1606.08		167.92		9.56	161.62	14.20	0.000683
	0.40777	96972.38					
	115.00	4396.20	11.40	5.06	8147.71	0.26	
1609.46		168.00		9.58	161.70	14.19	0.000698
	0.41703	97018.34					
	116.00	4396.35	11.55	5.17	8507.80	0.27	
1645.56		168.86		9.75	162.49	14.06	0.000694
	0.42202	97495.54					
	117.00	4396.38	11.58	5.18	8545.33	0.27	
1651.23		168.99		9.77	162.61	14.04	0.000698
	0.42535	97568.53					
	118.00	4396.32	11.52	5.17	8473.85	0.27	
1637.67		168.67		9.71	162.32	14.09	0.000705
	0.42689	97391.48					
	119.00	4396.30	11.50	5.19	8477.41	0.27	
1633.69		168.58		9.69	162.23	14.10	0.000711
	0.43011	97339.29					
	120.00	4396.35	11.55	5.23	8594.30	0.27	
1643.68		168.81		9.74	162.45	14.07	0.000710
	0.43146	97470.99					
	121.00	4396.39	11.59	5.25	8669.03	0.27	
1652.71		169.03		9.78	162.65	14.04	0.000710
	0.43330	97588.65					
	122.00	4396.38	11.58	5.25	8663.20	0.27	
1651.25		168.99		9.77	162.62	14.04	0.000712
	0.43395	97569.38					
	123.00	4396.31	11.51	5.22	8547.88	0.27	
1636.36		168.64		9.70	162.29	14.09	0.000717
	0.43400	97373.49					
	124.00	4396.26	11.46	5.22	8466.87	0.27	
1622.62		168.31		9.64	161.99	14.14	0.000718
	0.43207	97192.77					
	125.00	4396.19	11.39	5.20	8349.34	0.27	
1607.16		167.94		9.57	161.64	14.19	0.000725
	0.43280	96986.60					
	126.00	4396.13	11.33	5.19	8271.67	0.27	
1593.60		167.62		9.51	161.34	14.24	0.000729
	0.43278	96805.95					
	127.00	4396.12	11.32	5.20	8265.56	0.27	
1590.95		167.55		9.50	161.28	14.25	0.000729
	0.43218	96770.27					
	128.00	4396.06	11.26	5.17	8162.80	0.27	
1577.99		167.23		9.44	160.99	14.30	0.000734
	0.43216	96594.82					
	129.00	4396.01	11.21	5.17	8093.43	0.27	
1566.21		166.95		9.38	160.73	14.34	0.000738
	0.43187	96435.72					
	130.00	4396.00	11.20	5.17	8086.93	0.27	
1563.80		166.89		9.37	160.67	14.35	0.000737
	0.43069	96402.85					
	131.00	4395.94	11.14	5.15	7987.41	0.27	
1551.20		166.58		9.31	160.38	14.39	0.000741
	0.43084	96229.84					
	132.00	4395.90	11.10	5.15	7928.76	0.27	
1540.39		166.31		9.26	160.14	14.43	0.000751
	0.43396	96082.14					
	133.00	4395.99	11.19	5.20	8129.63	0.27	
1561.97		166.84		9.36	160.63	14.35	0.000744
	0.43479	96378.62					
	134.00	4396.08	11.28	5.22	8266.06	0.27	
1582.29		167.34		9.46	161.09	14.28	0.000740
	0.43657	96653.89					
	135.00	4396.09	11.29	5.22	8269.98	0.27	

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HYCHAN.OUT									
1583.49		167.37		9.46		161.12	14.28	0.000741	
	0.43728	96670.05							
136.00		4396.08	11.28		5.22	8270.38	0.27		
1583.12		167.36		9.46		161.11	14.28	0.000742	
	0.43772	96664.92							
137.00		4396.08	11.28		5.23	8270.38	0.27		
1582.61		167.35		9.46		161.10	14.28	0.000741	
	0.43732	96658.09							
138.00		4396.08	11.28		5.23	8270.03	0.27		
1582.01		167.33		9.45		161.08	14.28	0.000742	
	0.43778	96649.98							
139.00		4396.08	11.28		5.23	8269.88	0.27		
1581.54		167.32		9.45		161.07	14.28	0.000743	
	0.43811	96643.60							
140.00		4396.07	11.27		5.23	8265.74	0.27		
1580.70		167.30		9.45		161.05	14.29	0.000741	
	0.43695	96632.21							
141.00		4396.02	11.22		5.20	8162.64	0.27		
1568.33		167.00		9.39		160.77	14.33	0.000746	
	0.43732	96463.80							
142.00		4395.97	11.17		5.20	8093.10	0.27		
1557.31		166.73		9.34		160.52	14.37	0.000750	
	0.43698	96314.27							
143.00		4395.97	11.17		5.20	8091.40	0.27		
1556.04		166.70		9.33		160.50	14.37	0.000750	
	0.43690	96297.01							
144.00		4395.96	11.16		5.20	8090.83	0.27		
1555.45		166.68		9.33		160.48	14.38	0.000751	
	0.43727	96288.94							
145.00		4395.96	11.16		5.20	8086.57	0.27		
1554.58		166.66		9.33		160.46	14.38	0.000748	
	0.43557	96276.88							
146.00		4395.91	11.11		5.18	7987.28	0.27		
1542.70		166.37		9.27		160.19	14.42	0.000753	
	0.43594	96112.95							
147.00		4395.86	11.06		5.17	7918.60	0.27		
1531.75		166.09		9.22		159.94	14.46	0.000756	
	0.43485	95962.54							
148.00		4395.85	11.05		5.17	7917.38	0.27		
1530.58		166.07		9.22		159.91	14.47	0.000757	
	0.43513	95946.46							
149.00		4395.85	11.05		5.17	7917.31	0.27		
1529.95		166.05		9.21		159.90	14.47	0.000757	
	0.43541	95937.62							
150.00		4395.85	11.05		5.18	7917.11	0.27		
1529.46		166.04		9.21		159.88	14.47	0.000759	
	0.43599	95930.91							
151.00		4395.84	11.05		5.18	7913.94	0.27		
1528.70		166.02		9.21		159.87	14.47	0.000758	
	0.43537	95920.31							
152.00		4395.81	11.01		5.16	7846.67	0.27		
1520.52		165.81		9.17		159.68	14.50	0.000760	
	0.43508	95806.02							
153.00		4395.76	10.96		5.15	7767.77	0.27		
1509.24		165.53		9.12		159.41	14.55	0.000763	
	0.43408	95648.68							
154.00		4395.74	10.94		5.15	7743.83	0.27		
1504.32		165.40		9.09		159.30	14.57	0.000765	
	0.43407	95579.97							
155.00		4395.73	10.93		5.15	7738.59	0.27		
1503.07		165.37		9.09		159.27	14.57	0.000764	
	0.43316	95562.45							
156.00		4395.68	10.88		5.13	7648.60	0.27		

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				HYCHAN.OUT		
1492.03	0.43486	165.09	9.04	159.01	14.61	0.000771
		95406.30				
157.00	4395.74	10.94	5.17	7778.67	0.28	
1504.26	165.40	9.09	159.30	14.57	0.000768	
	0.43566	95579.67				
158.00	4395.83	11.03	5.19	7913.59	0.28	
1524.25	165.91	9.19	159.76	14.49	0.000763	
	0.43731	95858.73				
159.00	4395.83	11.03	5.19	7916.72	0.28	
1525.93	165.95	9.20	159.80	14.48	0.000763	
	0.43772	95881.90				
160.00	4395.83	11.03	5.19	7916.90	0.28	
1526.09	165.95	9.20	159.81	14.48	0.000762	
	0.43740	95884.12				
161.00	4395.83	11.03	5.19	7917.31	0.28	
1526.00	165.95	9.20	159.80	14.48	0.000763	
	0.43797	95882.92				
162.00	4395.83	11.03	5.19	7917.23	0.28	
1525.87	165.95	9.19	159.80	14.48	0.000763	
	0.43765	95881.05				
163.00	4395.83	11.03	5.19	7916.94	0.28	
1525.68	165.94	9.19	159.80	14.49	0.000762	
	0.43742	95878.45				
164.00	4395.83	11.03	5.19	7916.91	0.28	
1525.55	165.94	9.19	159.79	14.49	0.000763	
	0.43794	95876.65				
165.00	4395.83	11.03	5.19	7912.09	0.28	
1525.01	165.93	9.19	159.78	14.49	0.000762	
	0.43694	95869.06				
166.00	4395.78	10.98	5.16	7813.81	0.27	
1513.50	165.64	9.14	159.51	14.53	0.000764	
	0.43575	95707.77				
167.00	4395.73	10.93	5.15	7744.19	0.27	
1502.62	165.36	9.09	159.26	14.57	0.000768	
	0.43561	95556.09				
168.00	4395.72	10.92	5.16	7743.32	0.28	
1501.56	165.34	9.08	159.24	14.58	0.000768	
	0.43545	95541.27				
169.00	4395.72	10.92	5.16	7742.88	0.28	
1501.25	165.33	9.08	159.23	14.58	0.000769	
	0.43591	95536.91				
170.00	4395.72	10.92	5.16	7743.16	0.28	
1501.13	165.32	9.08	159.23	14.58	0.000769	
	0.43560	95535.20				
171.00	4395.72	10.92	5.16	7743.09	0.28	
1501.05	165.32	9.08	159.22	14.58	0.000769	
	0.43568	95534.12				
172.00	4395.72	10.92	5.16	7742.77	0.28	
1500.87	165.32	9.08	159.22	14.58	0.000769	
	0.43584	95531.50				
173.00	4395.72	10.92	5.16	7738.65	0.28	
1500.37	165.30	9.08	159.21	14.58	0.000768	
	0.43471	95524.47				
174.00	4395.67	10.87	5.13	7638.33	0.27	
1488.64	165.00	9.02	158.93	14.63	0.000771	
	0.43418	95358.02				
175.00	4395.62	10.82	5.12	7570.82	0.27	
1477.89	164.73	8.97	158.68	14.67	0.000774	
	0.43325	95206.20				
176.00	4395.61	10.81	5.13	7569.33	0.27	
1476.77	164.70	8.97	158.65	14.67	0.000775	
	0.43341	95190.32				
177.00	4395.61	10.81	5.13	7569.06	0.27	

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				HYCHAN.OUT			
1476.45		164.69		8.96	158.64	14.67	0.000775
	0.43332	95185.77					
178.00		4395.61	10.81	5.13	7568.87	0.27	
1476.36		164.69		8.96	158.64	14.67	0.000776
	0.43380	95184.54					
179.00		4395.61	10.81	5.13	7568.72	0.27	
1476.26		164.69		8.96	158.64	14.67	0.000776
	0.43428	95183.05					
180.00		4395.62	10.82	5.13	7579.37	0.28	
1477.17		164.71		8.97	158.66	14.67	0.000780
	0.43637	95196.22					
181.00		4395.72	10.92	5.18	7777.30	0.28	
1500.30		165.30		9.08	159.21	14.58	0.000772
	0.43727	95524.18					
182.00		4395.81	11.01	5.20	7917.46	0.28	
1521.73		165.84		9.18	159.71	14.50	0.000769
	0.44038	95823.80					
183.00		4395.87	11.07	5.22	8021.12	0.28	
1535.40		166.19		9.24	160.02	14.45	0.000764
	0.44030	96013.66					
184.00		4395.92	11.12	5.23	8089.11	0.28	
1546.15		166.45		9.29	160.27	14.41	0.000761
	0.44137	96161.54					
185.00		4395.93	11.13	5.23	8090.59	0.28	
1547.36		166.48		9.29	160.30	14.41	0.000760
	0.44102	96178.04					
186.00		4395.93	11.13	5.23	8091.20	0.28	
1547.71		166.49		9.30	160.30	14.40	0.000760
	0.44099	96182.78					
187.00		4395.93	11.13	5.23	8090.97	0.28	
1547.72		166.49		9.30	160.30	14.40	0.000760
	0.44097	96182.90					
188.00		4395.93	11.13	5.23	8091.06	0.28	
1547.89		166.50		9.30	160.31	14.40	0.000761
	0.44128	96185.23					
189.00		4395.93	11.13	5.23	8090.67	0.28	
1547.90		166.50		9.30	160.31	14.40	0.000761
	0.44121	96185.41					
190.00		4395.93	11.13	5.23	8091.22	0.28	
1547.96		166.50		9.30	160.31	14.40	0.000760
	0.44111	96186.29					
191.00		4395.93	11.13	5.23	8086.21	0.28	
1547.46		166.49		9.29	160.30	14.41	0.000757
	0.43901	96179.21					
192.00		4395.88	11.08	5.20	7987.00	0.28	
1536.02		166.20		9.24	160.03	14.45	0.000762
	0.43938	96020.95					
193.00		4395.83	11.03	5.19	7918.49	0.28	
1525.44		165.94		9.19	159.79	14.49	0.000765
	0.43869	95875.01					
194.00		4395.83	11.03	5.19	7917.53	0.28	
1524.37		165.91		9.19	159.77	14.49	0.000765
	0.43846	95860.21					
195.00		4395.82	11.02	5.19	7917.23	0.28	
1524.09		165.90		9.19	159.76	14.49	0.000765
	0.43848	95856.35					
196.00		4395.82	11.02	5.20	7916.96	0.28	
1523.86		165.90		9.19	159.76	14.49	0.000766
	0.43878	95853.16					
197.00		4395.82	11.02	5.20	7916.82	0.28	
1523.88		165.90		9.19	159.76	14.49	0.000766
	0.43885	95853.49					
198.00		4395.82	11.02	5.20	7917.15	0.28	

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1523.86		165.90		HYCHAN.OUT		159.76	14.49	0.000766
	0.43902	95853.09		9.19				
199.00		4395.82	11.02	5.20		7917.28	0.28	
1523.79		165.90		9.19		159.75	14.49	0.000765
	0.43862	95852.20						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3944

MAXIMUM DISCHARGE (CFS) = 15635.12 AT TIME = 80.27  
 MAXIMUM STAGE = 4401.46 AT TIME = 90.99

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
947.82	4.00	4387.66	4.01	2.31	2186.25	0.20		
	0.41217	113.45	8.35	110.92	27.64		0.000791	
		77644.18						
1211.86	5.00	4393.23	9.58	4.48	5432.36	0.26		
	0.34549	157.38	7.70	151.87	15.85		0.000719	
		106309.84						
1220.62	6.00	4393.27	9.62	4.40	5375.68	0.25		
	0.34164	157.64	7.74	152.11	15.81		0.000707	
		106475.98						
1217.25	7.00	4393.26	9.61	4.36	5305.40	0.25		
	0.33763	157.53	7.73	152.01	15.82		0.000700	
		106409.33						
1198.53	8.00	4393.17	9.52	4.31	5160.08	0.25		
	0.33465	156.97	7.64	151.49	15.92		0.000702	
		106044.79						
1176.28	9.00	4393.06	9.41	4.26	5014.00	0.25		
	0.33139	156.29	7.53	150.87	16.04		0.000706	
		105606.20						
1153.82	10.00	4392.95	9.30	4.22	4868.59	0.24		
	0.33043	155.60	7.42	150.22	16.16		0.000714	
		105157.27						
1138.06	11.00	4392.87	9.22	4.20	4779.51	0.24		
	0.32853	155.11	7.34	149.77	16.25		0.000718	
		104839.38						
1127.66	12.00	4392.82	9.17	4.18	4718.80	0.24		
	0.32662	154.78	7.29	149.47	16.30		0.000718	
		104625.59						
1104.08	13.00	4392.70	9.05	4.14	4571.83	0.24		
	0.32505	154.03	7.17	148.77	16.44		0.000727	
		104137.38						
1086.42	14.00	4392.61	8.96	4.12	4474.55	0.24		
		153.46	7.08	148.24	16.54		0.000733	

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			HYCHAN.OUT				
	0.32390	103768.73					
1084.23	15.00	4392.60	8.95	4.12	4469.39	0.24	
		153.39	7.07		148.18	16.56	0.000734
	0.32391	103722.81					
1083.76	16.00	4392.60	8.95	4.12	4469.13	0.24	
		153.38	7.07		148.16	16.56	0.000735
	0.32407	103712.95					
1083.60	17.00	4392.60	8.95	4.12	4469.00	0.24	
		153.37	7.07		148.16	16.56	0.000734
	0.32380	103709.52					
1083.77	18.00	4392.60	8.95	4.12	4467.81	0.24	
		153.38	7.07		148.16	16.56	0.000736
	0.32431	103713.10					
1091.81	19.00	4392.64	8.99	4.14	4520.92	0.24	
		153.64	7.11		148.41	16.51	0.000736
	0.32640	103883.59					
1116.07	20.00	4392.76	9.11	4.18	4670.68	0.24	
		154.42	7.23		149.13	16.37	0.000729
	0.32889	104389.66					
1141.31	21.00	4392.89	9.24	4.23	4825.73	0.25	
		155.22	7.35		149.87	16.23	0.000722
	0.33123	104907.01					
1158.16	22.00	4392.97	9.32	4.25	4919.24	0.25	
		155.74	7.44		150.35	16.13	0.000714
	0.33126	105246.76					
1160.09	23.00	4392.98	9.33	4.24	4923.94	0.25	
		155.80	7.45		150.41	16.12	0.000714
	0.33195	105285.19					
1168.70	24.00	4393.02	9.37	4.27	4988.44	0.25	
		156.07	7.49		150.65	16.08	0.000713
	0.33301	105458.11					
1202.20	25.00	4393.18	9.53	4.34	5211.60	0.25	
		157.08	7.65		151.60	15.90	0.000704
	0.33609	106119.10					
1250.33	26.00	4393.42	9.77	4.41	5518.82	0.25	
		158.51	7.89		152.92	15.66	0.000693
	0.34100	107044.13					
1298.63	27.00	4393.65	10.00	4.49	5825.35	0.25	
		159.90	8.12		154.21	15.43	0.000681
	0.34489	107944.78					
1326.40	28.00	4393.78	10.13	4.51	5978.62	0.25	
		160.68	8.25		154.93	15.30	0.000674
	0.34722	108450.46					
1329.78	29.00	4393.79	10.14	4.50	5986.47	0.25	
		160.77	8.27		155.02	15.29	0.000670
	0.34576	108511.23					
1341.45	30.00	4393.85	10.20	4.52	6069.87	0.25	
		161.10	8.33		155.32	15.23	0.000668
	0.34714	108721.50					
1355.11	31.00	4393.91	10.26	4.54	6149.05	0.25	
		161.47	8.39		155.66	15.17	0.000663
	0.34712	108964.85					
1356.87	32.00	4393.92	10.27	4.54	6154.00	0.25	
		161.52	8.40		155.71	15.17	0.000664
	0.34782	108996.06					
1368.89	33.00	4393.97	10.32	4.56	6241.48	0.25	
		161.85	8.46		156.01	15.11	0.000662
	0.34944	109209.34					
1382.74	34.00	4394.04	10.39	4.57	6323.32	0.25	
		162.23	8.52		156.36	15.05	0.000656
	0.34894	109452.14					
1383.88	35.00	4394.04	10.39	4.57	6323.27	0.25	
		162.26	8.53		156.39	15.05	0.000657

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0.34959	109471.80						
36.00	4393.99	10.34	8.48	4.54	6235.87	0.25	0.000659
1373.03	161.96				156.11	15.10	
0.34863	109280.10						
37.00	4393.93	10.28	8.41	4.52	6152.84	0.25	0.000660
1359.89	161.60				155.78	15.15	
0.34668	109049.19						
38.00	4393.88	10.23	8.36	4.50	6066.71	0.25	0.000664
1348.27	161.28				155.49	15.20	
0.34627	108841.36						
39.00	4393.82	10.17	8.30	4.49	5988.06	0.25	0.000667
1334.94	160.92				155.15	15.26	
0.34528	108603.65						
40.00	4393.81	10.16	8.29	4.49	5985.28	0.25	0.000667
1333.56	160.88				155.11	15.27	
0.34522	108579.16						
41.00	4393.81	10.16	8.29	4.49	5985.19	0.25	0.000667
1333.20	160.87				155.10	15.27	
0.34491	108572.70						
42.00	4393.81	10.16	8.29	4.49	5984.96	0.25	0.000668
1332.96	160.86				155.10	15.27	
0.34540	108568.41						
43.00	4393.81	10.16	8.29	4.49	5986.89	0.25	0.000670
1333.07	160.87				155.10	15.27	
0.34625	108570.41						
44.00	4393.86	10.21	8.34	4.52	6070.04	0.25	0.000665
1344.02	161.17				155.38	15.22	
0.34619	108767.55						
45.00	4393.92	10.27	8.40	4.53	6151.44	0.25	0.000663
1357.50	161.54				155.72	15.16	
0.34792	109007.29						
46.00	4393.98	10.33	8.47	4.56	6244.45	0.25	0.000661
1370.45	161.89				156.05	15.11	
0.34891	109236.89						
47.00	4394.10	10.45	8.59	4.60	6417.32	0.25	0.000656
1396.19	162.59				156.70	15.00	
0.35142	109687.16						
48.00	4394.22	10.57	8.71	4.63	6591.11	0.25	0.000649
1422.60	163.29				157.35	14.89	
0.35306	110142.62						
49.00	4394.34	10.69	8.83	4.67	6766.08	0.25	0.000645
1448.29	163.97				157.97	14.78	
0.35529	110579.08						
50.00	4394.45	10.80	8.95	4.71	6933.21	0.25	0.000638
1472.73	164.60				158.56	14.69	
0.35644	110989.03						
51.00	4394.57	10.92	9.08	4.74	7115.23	0.25	0.000634
1500.21	165.30				159.21	14.58	
0.35878	111443.58						
52.00	4394.73	11.08	9.25	4.80	7374.58	0.25	0.000624
1537.19	166.23				160.06	14.44	
0.35998	112045.02						
53.00	4394.86	11.21	9.38	4.82	7541.44	0.25	0.000619
1565.09	166.92				160.70	14.34	
0.36209	112491.13						
54.00	4394.93	11.28	9.45	4.84	7657.25	0.25	0.000617
1581.99	167.33				161.08	14.28	
0.36401	112758.88						
55.00	4395.16	11.51	9.70	4.93	8057.26	0.26	0.000608
1635.29	168.61				162.27	14.10	
0.36794	113586.92						
56.00	4395.57	11.92	10.14	5.07	8781.53	0.26	0.000593
1731.76	170.85				164.33	13.78	

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0.37495	115033.77								
57.00	4396.12	12.47	5.24	9771.47	0.26				
1864.10	173.77	10.73	167.03	13.39	0.000567				
0.37934	116920.77								
58.00	4396.76	13.11	5.42	10963.43	0.26				
2022.85	177.07	11.42	170.07	12.97	0.000527				
0.37540	119052.41								
59.00	4397.30	13.65	5.53	11952.05	0.26				
2161.38	179.80	12.02	172.59	12.64	0.000501				
0.37582	120811.58								
60.00	4397.71	14.06	5.64	12782.98	0.26				
2268.03	181.80	12.48	174.43	12.40	0.000494				
0.38475	122104.30								
61.00	4398.02	14.37	5.79	13606.51	0.27				
2350.52	183.31	12.82	175.82	12.23	0.000494				
0.39512	123072.88								
62.00	4398.20	14.55	5.89	14121.96	0.27				
2397.95	184.15	13.02	176.60	12.14	0.000563				
0.45732	123616.94								
63.00	4398.31	14.66	5.97	14489.38	0.27				
2426.34	184.65	13.14	177.06	12.08	0.000496				
0.40646	123940.37								
64.00	4398.39	14.74	6.03	14765.49	0.28				
2447.99	185.03	13.23	177.40	12.04	0.000497				
0.41052	124183.44								
65.00	4398.43	14.78	6.06	14916.08	0.28				
2459.49	185.23	13.28	177.59	12.02	0.000498				
0.41247	124312.19								
66.00	4398.48	14.83	6.10	15087.86	0.28				
2474.28	185.49	13.34	177.82	11.99	0.000497				
0.41357	124477.09								
67.00	4398.53	14.88	6.12	15226.67	0.28				
2486.01	185.69	13.39	178.01	11.97	0.000498				
0.41589	124607.12								
68.00	4398.54	14.89	6.13	15263.86	0.28				
2489.32	185.74	13.40	178.06	11.96	0.000496				
0.41462	124643.71								
69.00	4398.55	14.90	6.13	15279.33	0.28				
2492.38	185.80	13.41	178.11	11.95	0.000496				
0.41560	124677.55								
70.00	4398.55	14.90	6.13	15282.49	0.28				
2493.68	185.82	13.42	178.13	11.95	0.000495				
0.41490	124691.84								
71.00	4398.56	14.91	6.12	15271.25	0.28				
2495.58	185.85	13.43	178.16	11.95	0.000493				
0.41335	124712.94								
72.00	4398.58	14.93	6.11	15275.20	0.28				
2499.99	185.93	13.45	178.23	11.94	0.000488				
0.40985	124761.80								
73.00	4398.61	14.96	6.09	15272.74	0.28				
2509.09	186.08	13.48	178.37	11.92	0.000482				
0.40582	124862.05								
74.00	4398.65	15.00	6.07	15302.51	0.28				
2520.85	186.29	13.53	178.56	11.90	0.000475				
0.40118	124995.38								
75.00	4398.70	15.05	6.08	15377.63	0.28				
2531.07	186.50	13.57	178.76	11.88	0.000470				
0.39774	125128.98								
76.00	4398.76	15.11	6.06	15407.35	0.27				
2544.16	186.77	13.62	179.00	11.85	0.000458				
0.38939	125302.30								
77.00	4398.81	15.16	6.01	15375.06	0.27				
2556.99	187.03	13.67	179.24	11.82	0.000449				



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	0.38284	125470.61							
2572.78	78.00	4398.88	15.23	13.73	5.98	15373.29	0.27	0.000422	
	0.36199	125679.96							
2634.01	79.00	4399.16	15.51	13.97	5.86	15428.66	0.26	0.000403	
	0.35106	126487.81							
2668.74	80.00	4399.35	15.70	14.12	5.83	15561.71	0.26	0.000391	
	0.34450	127041.87							
2713.26	81.00	4399.60	15.95	14.32	5.69	15427.29	0.25	0.000365	
	0.32574	127774.94							
2775.59	82.00	4399.95	16.30	14.59	5.52	15315.23	0.24	0.000349	
	0.31742	128791.44							
2832.79	83.00	4400.28	16.63	14.84	5.36	15177.39	0.23	0.000358	
	0.33188	129717.95							
2876.95	84.00	4400.53	16.88	15.04	5.21	14986.28	0.22	0.000340	
	0.31941	130433.70							
2908.12	85.00	4400.72	17.07	15.17	5.10	14832.22	0.22	0.000349	
	0.33056	130942.67							
2946.03	86.00	4400.94	17.29	15.33	4.95	14576.96	0.21	0.000344	
	0.32884	131570.77							
2984.23	87.00	4401.18	17.53	15.49	4.77	14239.56	0.20	0.000335	
	0.32357	132208.95							
3012.19	88.00	4401.34	17.69	15.61	4.68	14096.92	0.20	0.000324	
	0.31593	132654.55							
3022.26	89.00	4401.41	17.76	15.65	4.58	13853.18	0.19	0.000330	
	0.32182	132838.70							
3029.44	90.00	4401.44	17.79	15.68	4.43	13432.85	0.19	0.000315	
	0.30810	132922.22							
3025.50	91.00	4401.41	17.76	15.67	4.29	12972.60	0.18	0.000265	
	0.25860	132846.16							
3025.21	92.00	4401.38	17.74	15.67	4.14	12532.74	0.17	0.000258	
	0.25249	132770.59							
3021.96	93.00	4401.36	17.71	15.66	3.97	11993.44	0.17	0.000256	
	0.24970	132691.77							
2998.39	94.00	4401.25	17.60	15.55	3.86	11574.12	0.16	0.000212	
	0.20587	132393.39							
2986.70	95.00	4401.14	17.49	15.51	3.75	11195.75	0.16	0.000233	
	0.22546	132105.75							
2960.92	96.00	4401.03	17.38	15.39	3.68	10901.47	0.16	0.000231	
	0.22225	131805.36							
2928.45	97.00	4400.83	17.18	15.26	3.63	10639.10	0.15	0.000192	
	0.18294	131260.75							
2879.26	98.00	4400.54	16.89	15.05	3.64	10475.47	0.16	0.000183	
		191.36							

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HYCHAN.OUT									
	0.17186	130456.07							
99.00	4400.23	16.58	3.63	10241.14	0.16				
2823.72	190.73	14.80		185.10	11.17	0.000173			
	0.15936	129568.53							
100.00	4399.91	16.26	3.63	10050.14	0.16				
2768.90	190.10	14.57		183.82	11.30	0.000171			
	0.15570	128676.77							
101.00	4399.62	15.97	3.59	9763.15	0.16				
2717.42	189.51	14.34		182.62	11.44	0.000139			
	0.12408	127834.88							
102.00	4399.28	15.63	3.57	9497.96	0.16				
2658.16	188.84	14.08		181.22	11.59	0.000159			
	0.13981	126856.48							
103.00	4398.81	15.16	3.62	9260.10	0.16				
2556.31	187.03	13.67		179.24	11.82	0.000186			
	0.15890	125470.49							
104.00	4398.18	14.53	3.78	9041.49	0.17				
2393.09	184.07	13.00		176.52	12.15	0.000242			
	0.19615	123564.71							
105.00	4397.44	13.79	4.03	8837.26	0.19				
2195.32	180.45	12.17		173.19	12.56	0.000312			
	0.23718	121233.84							
106.00	4396.83	13.18	4.14	8456.80	0.20				
2041.19	177.44	11.50		170.41	12.93	0.000330			
	0.23709	119288.62							
107.00	4396.61	12.96	4.12	8173.42	0.20				
1985.21	176.31	11.26		169.37	13.07	0.000338			
	0.23760	118560.17							
108.00	4396.45	12.80	4.11	8002.99	0.20				
1945.18	175.49	11.08		168.61	13.17	0.000355			
	0.24576	118027.52							
109.00	4396.20	12.55	4.17	7845.80	0.21				
1883.19	174.18	10.81		167.41	13.34	0.000390			
	0.26279	117185.39							
110.00	4395.91	12.26	4.29	7777.63	0.22				
1813.65	172.68	10.50		166.02	13.54	0.000431			
	0.28274	116215.98							
111.00	4395.80	12.15	4.41	7867.93	0.22				
1785.45	172.06	10.38		165.45	13.62	0.000455			
	0.29493	115814.51							
112.00	4395.83	12.18	4.53	8126.06	0.23				
1792.40	172.21	10.41		165.59	13.60	0.000475			
	0.30879	115914.01							
113.00	4395.79	12.14	4.58	8164.20	0.23				
1784.22	172.03	10.37		165.42	13.62	0.000485			
	0.31392	115795.55							
114.00	4395.66	12.01	4.57	8006.72	0.23				
1752.04	171.31	10.23		164.76	13.72	0.000499			
	0.31853	115330.81							
115.00	4395.65	12.00	4.65	8142.63	0.24				
1751.50	171.30	10.22		164.75	13.72	0.000512			
	0.32693	115324.12							
116.00	4395.81	12.16	4.76	8501.06	0.24				
1787.54	172.11	10.39		165.49	13.61	0.000512			
	0.33197	115844.90							
117.00	4395.83	12.18	4.77	8549.03	0.24				
1793.70	172.24	10.41		165.62	13.60	0.000515			
	0.33464	115931.71							
118.00	4395.77	12.12	4.77	8475.52	0.24				
1777.96	171.89	10.34		165.30	13.64	0.000522			
	0.33698	115706.62							
119.00	4395.74	12.09	4.78	8477.71	0.24				
1772.52	171.77	10.32		165.18	13.66	0.000527			

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1781.93	0.33915	115628.62	12.13	10.36	4.82	8590.90	0.24	0.000528	
	120.00	4395.78				165.38	13.63		
	0.34144	115764.52							
1791.44	121.00	4395.82	12.17	10.40	4.84	8668.85	0.24	0.000528	
	172.19					165.57	13.60		
	0.34273	115900.43							
1789.74	122.00	4395.81	12.16	10.40	4.84	8664.34	0.24	0.000530	
	172.16					165.54	13.61		
	0.34378	115875.73							
1773.69	123.00	4395.75	12.10	10.32	4.82	8552.39	0.24	0.000534	
	171.80					165.21	13.66		
	0.34377	115644.36							
1758.07	124.00	4395.68	12.03	10.25	4.82	8468.63	0.24	0.000537	
	171.45					164.88	13.70		
	0.34332	115419.28							
1741.38	125.00	4395.61	11.96	10.18	4.80	8353.83	0.24	0.000542	
	171.07					164.54	13.76		
	0.34454	115175.27							
1725.78	126.00	4395.55	11.90	10.11	4.79	8272.89	0.25	0.000547	
	170.72					164.21	13.80		
	0.34514	114947.23							
1722.50	127.00	4395.53	11.88	10.09	4.80	8266.50	0.25	0.000548	
	170.64					164.14	13.81		
	0.34511	114898.97							
1708.73	128.00	4395.47	11.82	10.03	4.78	8166.79	0.25	0.000551	
	170.33					163.85	13.86		
	0.34517	114694.54							
1695.38	129.00	4395.42	11.77	9.97	4.77	8094.40	0.25	0.000555	
	170.02					163.57	13.90		
	0.34540	114496.62							
1692.40	130.00	4395.40	11.76	9.96	4.78	8087.78	0.25	0.000556	
	169.95					163.50	13.91		
	0.34525	114452.11							
1678.93	131.00	4395.35	11.70	9.90	4.76	7991.40	0.25	0.000559	
	169.64					163.21	13.95		
	0.34542	114249.21							
1666.34	132.00	4395.29	11.64	9.84	4.76	7928.68	0.25	0.000565	
	169.35					162.94	13.99		
	0.34700	114060.36							
1688.23	133.00	4395.39	11.74	9.94	4.81	8122.35	0.25	0.000561	
	169.86					163.42	13.92		
	0.34772	114390.51							
1710.86	134.00	4395.48	11.83	10.04	4.83	8264.92	0.25	0.000557	
	170.38					163.90	13.85		
	0.34905	114727.39							
1712.34	135.00	4395.49	11.84	10.05	4.83	8270.04	0.25	0.000558	
	170.41					163.93	13.85		
	0.34956	114749.09							
1711.82	136.00	4395.49	11.84	10.05	4.83	8270.52	0.25	0.000559	
	170.40					163.92	13.85		
	0.35036	114741.38							
1711.14	137.00	4395.48	11.83	10.04	4.83	8270.49	0.25	0.000559	
	170.38					163.90	13.85		
	0.35034	114731.17							
1710.35	138.00	4395.48	11.83	10.04	4.84	8270.16	0.25	0.000560	
	170.37					163.88	13.85		
	0.35073	114719.50							
1709.72	139.00	4395.48	11.83	10.04	4.84	8270.03	0.25	0.000560	
	170.35					163.87	13.85		
	0.35074	114710.18							
1708.74	140.00	4395.47	11.82	10.03	4.84	8266.48	0.25	0.000560	
	170.33					163.85	13.86		

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1695.70	0.35030	114695.53	11.77	9.97	4.82	8166.53	0.25	0.000563
	141.00	4395.42				163.57	13.90	
		170.03						
1683.25	0.35053	114500.58	11.72	9.92	4.81	8093.81	0.25	0.000566
	142.00	4395.37				163.31	13.94	
		169.74						
1681.59	0.35051	114315.02	11.71	9.91	4.81	8091.51	0.25	0.000567
	143.00	4395.36				163.27	13.94	
		169.70						
1680.82	0.35089	114290.20	11.71	9.91	4.81	8091.04	0.25	0.000568
	144.00	4395.36				163.26	13.95	
		169.68						
1679.82	0.35107	114278.72	11.70	9.90	4.81	8087.15	0.25	0.000567
	145.00	4395.35				163.23	13.95	
		169.66						
1667.34	0.35048	114263.50	11.65	9.84	4.79	7991.13	0.25	0.000571
	146.00	4395.30				162.96	13.99	
		169.37						
1654.98	0.35078	114074.41	11.60	9.79	4.79	7919.28	0.25	0.000573
	147.00	4395.25				162.70	14.03	
		169.08						
1653.45	0.35014	113887.80	11.59	9.78	4.79	7917.55	0.25	0.000575
	148.00	4395.24				162.66	14.04	
		169.04						
1652.60	0.35066	113864.67	11.58	9.78	4.79	7917.48	0.25	0.000576
	149.00	4395.23				162.65	14.04	
		169.02						
1651.94	0.35121	113851.69	11.58	9.77	4.79	7917.22	0.25	0.000575
	150.00	4395.23				162.63	14.04	
		169.01						
1651.09	0.35100	113841.71	11.58	9.77	4.79	7914.38	0.25	0.000576
	151.00	4395.23				162.61	14.04	
		168.99						
1642.49	0.35093	113828.59	11.54	9.73	4.78	7849.46	0.25	0.000578
	152.00	4395.19				162.42	14.07	
		168.78						
1630.07	0.35092	113696.77	11.49	9.67	4.77	7769.55	0.25	0.000581
	153.00	4395.14				162.15	14.12	
		168.49						
1624.26	0.35086	113506.36	11.46	9.65	4.77	7744.28	0.25	0.000583
	154.00	4395.11				162.02	14.13	
		168.35						
1622.77	0.35108	113417.13	11.46	9.64	4.77	7739.21	0.25	0.000583
	155.00	4395.11				161.99	14.14	
		168.32						
1611.13	0.35047	113394.03	11.41	9.59	4.75	7651.36	0.25	0.000588
	156.00	4395.06				161.73	14.18	
		168.04						
1622.73	0.35185	113213.12	11.46	9.64	4.79	7772.02	0.25	0.000584
	157.00	4395.11				161.99	14.14	
		168.32						
1644.97	0.35162	113394.20	11.55	9.74	4.81	7912.38	0.25	0.000582
	158.00	4395.20				162.48	14.06	
		168.84						
1647.15	0.35375	113735.59	11.56	9.75	4.81	7916.62	0.25	0.000580
	159.00	4395.21				162.53	14.06	
		168.90						
1647.35	0.35292	113768.65	11.56	9.75	4.81	7916.87	0.25	0.000580
	160.00	4395.21				162.53	14.06	
		168.90						
1647.21	0.35313	113771.73	11.56	9.75	4.81	7917.41	0.25	0.000581
	161.00	4395.21				162.53	14.06	
		168.90						

## HYCHAN.OUT

162.00	0.35347	113769.55	11.56	9.75	4.81	7917.20	0.25	0.000581
1647.02	4395.21	168.89				162.52	14.06	
163.00	0.35384	113766.70	11.56	9.75	4.81	7916.98	0.25	0.000581
1646.81	4395.21	168.89				162.52	14.06	
164.00	0.35340	113763.52	11.56	9.75	4.81	7917.04	0.25	0.000581
1646.64	4395.21	168.88				162.52	14.06	
165.00	0.35326	113760.79	11.56	9.75	4.81	7912.51	0.25	0.000581
1646.10	4395.21	168.87				162.50	14.06	
166.00	0.35335	113752.49	11.51	9.69	4.78	7817.58	0.25	0.000583
1634.13	4395.16	168.59				162.24	14.10	
167.00	0.35285	113568.14	11.45	9.64	4.78	7744.93	0.25	0.000586
1621.88	4395.10	168.30				161.97	14.14	
168.00	0.35247	113380.30	11.45	9.63	4.78	7743.40	0.25	0.000586
1620.47	4395.10	168.26				161.94	14.15	
169.00	0.35219	113358.62	11.44	9.63	4.78	7742.99	0.25	0.000587
1620.07	4395.09	168.25				161.93	14.15	
170.00	0.35257	113352.45	11.44	9.63	4.78	7743.14	0.25	0.000587
1619.91	4395.09	168.25				161.93	14.15	
171.00	0.35257	113350.07	11.44	9.63	4.78	7743.09	0.25	0.000587
1619.76	4395.09	168.25				161.93	14.15	
172.00	0.35287	113347.77	11.44	9.63	4.78	7742.89	0.25	0.000587
1619.54	4395.09	168.24				161.92	14.15	
173.00	0.35274	113344.27	11.44	9.62	4.78	7739.13	0.25	0.000587
1619.04	4395.09	168.23				161.91	14.15	
174.00	0.35250	113336.50	11.39	9.57	4.76	7642.12	0.25	0.000590
1606.91	4395.04	167.94				161.64	14.19	
175.00	0.35249	113147.16	11.34	9.51	4.75	7571.52	0.25	0.000592
1594.80	4394.98	167.64				161.37	14.24	
176.00	0.35134	112959.05	11.33	9.51	4.75	7569.46	0.25	0.000592
1593.31	4394.98	167.61				161.34	14.24	
177.00	0.35136	112935.82	11.33	9.50	4.75	7569.08	0.25	0.000594
1592.87	4394.98	167.60				161.33	14.24	
178.00	0.35211	112928.97	11.33	9.50	4.75	7568.94	0.25	0.000593
1592.76	4394.98	167.60				161.32	14.24	
179.00	0.35168	112927.27	11.33	9.50	4.75	7568.81	0.25	0.000594
1592.61	4394.98	167.59				161.32	14.24	
180.00	0.35213	112924.95	11.33	9.51	4.76	7578.21	0.25	0.000596
1593.37	4394.98	167.61				161.34	14.24	
181.00	0.35330	112937.00	11.43	9.62	4.80	7769.94	0.25	0.000591
1617.36	4395.08	168.19				161.87	14.16	
182.00	0.35438	113311.18	11.54	9.73	4.82	7915.56	0.25	0.000586
1641.34	4395.19	168.76				162.40	14.08	

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1656.05	0.35543	113680.27	11.60	9.79	4.84	8017.26	0.25	0.000582
	183.00	4395.25				162.72	14.03	
	0.35541	113904.89						
1668.22	184.00	4395.30	11.65	9.85	4.85	8088.42	0.25	0.000579
		169.39				162.98	13.99	
	0.35586	114088.91						
1669.78	185.00	4395.31	11.66	9.86	4.85	8090.44	0.25	0.000578
		169.43				163.02	13.98	
	0.35544	114112.34						
1670.22	186.00	4395.31	11.66	9.86	4.84	8091.14	0.25	0.000578
		169.44				163.03	13.98	
	0.35531	114119.04						
1670.25	187.00	4395.31	11.66	9.86	4.84	8090.92	0.25	0.000578
		169.44				163.03	13.98	
	0.35579	114119.54						
1670.47	188.00	4395.31	11.66	9.86	4.84	8091.06	0.25	0.000578
		169.44				163.03	13.98	
	0.35578	114122.85						
1670.50	189.00	4395.31	11.66	9.86	4.84	8090.66	0.25	0.000578
		169.44				163.03	13.98	
	0.35540	114123.21						
1670.57	190.00	4395.31	11.66	9.86	4.84	8091.22	0.25	0.000579
		169.45				163.03	13.98	
	0.35594	114124.20						
1670.10	191.00	4395.31	11.66	9.86	4.84	8086.73	0.25	0.000576
		169.43				163.02	13.98	
	0.35428	114117.12						
1658.27	192.00	4395.26	11.61	9.80	4.82	7990.72	0.25	0.000579
		169.16				162.77	14.02	
	0.35443	113936.98						
1646.37	193.00	4395.21	11.56	9.75	4.81	7919.14	0.25	0.000583
		168.88				162.51	14.06	
	0.35471	113756.52						
1644.95	194.00	4395.20	11.55	9.74	4.81	7917.69	0.25	0.000584
		168.84				162.48	14.06	
	0.35501	113734.95						
1644.59	195.00	4395.20	11.55	9.74	4.81	7917.23	0.25	0.000583
		168.84				162.47	14.07	
	0.35441	113729.64						
1644.32	196.00	4395.20	11.55	9.74	4.81	7917.03	0.25	0.000583
		168.83				162.46	14.07	
	0.35435	113725.45						
1644.29	197.00	4395.20	11.55	9.74	4.81	7916.81	0.25	0.000583
		168.83				162.46	14.07	
	0.35459	113725.02						
1644.24	198.00	4395.20	11.55	9.74	4.82	7917.20	0.25	0.000583
		168.83				162.46	14.07	
	0.35457	113724.25						
1644.17	199.00	4395.20	11.55	9.74	4.82	7917.28	0.25	0.000584
		168.83				162.46	14.07	
	0.35479	113723.07						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4004

MAXIMUM DISCHARGE (CFS) = 15377.26 AT TIME = 76.23  
 MAXIMUM STAGE = 4401.37 AT TIME = 88.79

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(HRS)	(FT)	(FT)	(FPS)	(CFS)			

(FT^2)	(LB/FT^2)	(FT)	(FT^2)	HYCHAN.OUT (FT)	(FT)				
0.00	0.00	4382.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4382.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4382.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4382.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4386.52	3.82	2.06	1979.97	0.19			
960.43		111.42	8.62	109.01	28.51				0.000596
	0.32058	65405.91							
1251.86	5.00	4392.68	9.98	4.33	5423.33	0.24			0.000522
	0.25535	159.79	7.83	154.11	15.45				
1266.25	6.00	4392.75	10.05	4.24	5374.43	0.24			0.000510
	0.25153	160.21	7.90	154.49	15.38				
1264.92	7.00	4392.74	10.04	4.20	5307.59	0.23			0.000503
	0.24789	160.17	7.90	154.45	15.38				
1246.59	8.00	4392.65	9.95	4.14	5163.81	0.23			0.000506
	0.24679	159.63	7.81	153.95	15.47				
1223.73	9.00	4392.54	9.84	4.10	5018.00	0.23			0.000510
	0.24491	158.95	7.70	153.33	15.58				
1199.83	10.00	4392.42	9.72	4.06	4872.79	0.23			0.000518
	0.24516	158.23	7.58	152.66	15.71				
1182.42	11.00	4392.33	9.63	4.04	4780.81	0.23			0.000522
	0.24446	157.70	7.50	152.17	15.80				
1171.76	12.00	4392.28	9.58	4.03	4722.26	0.23			0.000526
	0.24418	157.37	7.45	151.86	15.85				
1146.99	13.00	4392.16	9.46	3.99	4576.38	0.23			0.000533
	0.24354	156.60	7.32	151.15	15.99				
1127.85	14.00	4392.06	9.36	3.97	4475.91	0.23			0.000539
	0.24315	155.99	7.23	150.59	16.09				
1125.10	15.00	4392.05	9.35	3.97	4469.55	0.23			0.000540
	0.24326	155.91	7.22	150.51	16.11				
1124.50	16.00	4392.04	9.34	3.97	4469.21	0.23			0.000539
	0.24281	155.89	7.21	150.49	16.11				
1124.28	17.00	4392.04	9.34	3.97	4468.98	0.23			0.000542
	0.24371	155.88	7.21	150.48	16.11				
1124.49	18.00	4392.04	9.34	3.97	4467.74	0.23			0.000539
	0.24239	155.89	7.21	150.49	16.11				
1132.41	19.00	4392.08	9.38	3.99	4517.63	0.23			0.000538
	0.24327	156.14	7.25	150.72	16.06				
		90434.14							



HYCHAN.OUT							
20.00	4392.21	9.51	4.03	4666.07	0.23		
1157.61	156.93	7.38		151.46	15.93	0.000531	
0.24437	90875.24						
21.00	4392.34	9.64	4.07	4821.20	0.23		
1184.28	157.76	7.51		152.22	15.79	0.000523	
0.24510	91334.02						
22.00	4392.44	9.74	4.09	4917.87	0.23		
1202.91	158.33	7.60		152.75	15.69	0.000518	
0.24541	91649.27						
23.00	4392.45	9.75	4.08	4923.77	0.23		
1205.43	158.40	7.61		152.82	15.68	0.000517	
0.24559	91691.33						
24.00	4392.49	9.79	4.10	4984.75	0.23		
1214.58	158.68	7.65		153.08	15.63	0.000514	
0.24559	91845.44						
25.00	4392.66	9.96	4.17	5203.58	0.23		
1249.14	159.71	7.82		154.03	15.46	0.000506	
0.24703	92416.79						
26.00	4392.91	10.21	4.24	5510.01	0.23		
1299.26	161.16	8.06		155.37	15.22	0.000494	
0.24849	93224.02						
27.00	4393.15	10.45	4.31	5817.14	0.24		
1349.80	162.58	8.30		156.69	15.00	0.000482	
0.24966	94013.90						
28.00	4393.29	10.59	4.33	5976.90	0.23		
1379.73	163.41	8.44		157.45	14.87	0.000476	
0.25081	94470.54						
29.00	4393.31	10.61	4.33	5985.89	0.23		
1383.77	163.52	8.46		157.55	14.85	0.000474	
0.25037	94531.22						
30.00	4393.36	10.66	4.35	6066.28	0.23		
1395.71	163.84	8.52		157.85	14.80	0.000470	
0.24975	94711.40						
31.00	4393.43	10.73	4.36	6148.17	0.23		
1410.31	164.23	8.59		158.22	14.74	0.000469	
0.25121	94929.13						
32.00	4393.44	10.74	4.36	6153.54	0.23		
1412.39	164.29	8.60		158.27	14.73	0.000467	
0.25043	94959.91						
33.00	4393.50	10.80	4.38	6237.81	0.23		
1424.59	164.61	8.65		158.57	14.68	0.000464	
0.25040	95141.17						
34.00	4393.57	10.87	4.39	6322.49	0.23		
1439.35	165.00	8.72		158.93	14.63	0.000460	
0.25048	95357.80						
35.00	4393.57	10.87	4.39	6323.48	0.23		
1440.77	165.04	8.73		158.96	14.62	0.000460	
0.25042	95378.38						
36.00	4393.52	10.82	4.36	6239.28	0.23		
1429.99	164.75	8.68		158.70	14.66	0.000461	
0.24989	95218.98						
37.00	4393.46	10.76	4.35	6153.80	0.23		
1416.29	164.39	8.62		158.36	14.72	0.000464	
0.24951	95017.49						
38.00	4393.40	10.70	4.32	6070.20	0.23		
1404.49	164.07	8.56		158.07	14.77	0.000466	
0.24915	94841.02						
39.00	4393.34	10.64	4.31	5988.93	0.23		
1390.37	163.69	8.49		157.72	14.83	0.000468	
0.24817	94630.29						
40.00	4393.33	10.63	4.31	5985.33	0.23		
1388.73	163.65	8.49		157.68	14.83	0.000470	
0.24890	94605.88						

HYCHAN.OUT							
1388.28	41.00	4393.33	10.63	8.48	4.31	5985.26	0.23
	0.24820	163.64				157.67	14.83
		94599.03					0.000469
1387.97	42.00	4393.33	10.63	8.48	4.31	5984.96	0.23
	0.24906	163.63				157.66	14.84
		94594.39					0.000471
1388.01	43.00	4393.33	10.63	8.48	4.31	5986.66	0.23
	0.24979	163.63				157.66	14.83
		94595.12					0.000472
1399.00	44.00	4393.38	10.68	8.53	4.34	6066.51	0.23
	0.24856	163.93				157.93	14.79
		94760.77					0.000467
1413.25	45.00	4393.45	10.75	8.60	4.35	6150.40	0.23
	0.24958	164.31				158.29	14.73
		94972.92					0.000465
1426.48	46.00	4393.51	10.81	8.66	4.37	6240.38	0.23
	0.24995	164.66				158.62	14.68
		95169.11					0.000462
1453.18	47.00	4393.63	10.93	8.79	4.41	6412.57	0.24
	0.25029	165.37				159.27	14.57
		95560.20					0.000456
1480.72	48.00	4393.76	11.06	8.92	4.45	6586.37	0.24
	0.25168	166.09				159.93	14.46
		95957.60					0.000452
1507.34	49.00	4393.88	11.18	9.04	4.49	6761.74	0.24
	0.24951	166.77				160.56	14.36
		96336.23					0.000442
1532.71	50.00	4393.99	11.29	9.16	4.52	6928.39	0.24
	0.24941	167.41				161.15	14.27
		96692.38					0.000437
1561.42	51.00	4394.12	11.42	9.29	4.55	7110.16	0.24
	0.24950	168.13				161.82	14.17
		97090.00					0.000431
1599.71	52.00	4394.29	11.59	9.46	4.61	7366.69	0.24
	0.24875	169.07				162.69	14.03
		97611.25					0.000421
1629.44	53.00	4394.42	11.72	9.60	4.63	7539.36	0.24
	0.24882	169.79				163.35	13.93
		98009.10					0.000416
1647.04	54.00	4394.50	11.80	9.68	4.65	7652.05	0.24
	0.24890	170.21				163.74	13.87
		98242.49					0.000412
1701.68	55.00	4394.74	12.04	9.92	4.73	8043.46	0.24
	0.24982	171.49				164.92	13.70
		98952.97					0.000403
1800.95	56.00	4395.16	12.46	10.37	4.86	8761.29	0.24
	0.25023	173.74				167.00	13.40
		100199.62					0.000387
1938.07	57.00	4395.74	13.04	10.97	5.03	9745.05	0.25
	0.24797	176.70				169.73	13.02
		101837.45					0.000362
2102.91	58.00	4396.41	13.71	11.68	5.20	10934.61	0.25
	0.24186	180.05				172.82	12.61
		103691.75					0.000332
2247.93	59.00	4396.98	14.28	12.29	5.31	11930.31	0.25
	0.23613	182.84				175.39	12.28
		105234.46					0.000308
2358.02	60.00	4397.40	14.70	12.76	5.41	12766.55	0.25
	0.23480	184.86				177.25	12.06
		106352.08					0.000295
2438.79	61.00	4397.72	15.02	13.09	5.57	13595.52	0.25
	0.23936	186.30				178.61	11.89
		107167.12					0.000293

HYCHAN.OUT							
2474.05	62.00	4397.89	15.19	5.71	14115.32	0.26	0.000359
	0.29702	186.65	13.25		179.37	11.81	
		107621.87					
2491.38	63.00	4398.00	15.30	5.81	14468.56	0.26	0.000300
	0.24928	186.86	13.33		179.81	11.76	
		107885.14					
2504.65	64.00	4398.08	15.38	5.88	14736.78	0.26	0.000302
	0.25219	187.02	13.39		180.14	11.72	
		108086.28					
2511.65	65.00	4398.12	15.42	5.92	14876.83	0.27	0.000304
	0.25428	187.10	13.42		180.32	11.70	
		108193.19					
2520.71	66.00	4398.17	15.47	5.97	15039.76	0.27	0.000306
	0.25674	187.21	13.46		180.55	11.67	
		108330.12					
2527.83	67.00	4398.21	15.51	6.00	15175.65	0.27	0.000307
	0.25882	187.29	13.50		180.73	11.65	
		108436.89					
2529.90	68.00	4398.23	15.53	6.01	15215.27	0.27	0.000306
	0.25818	187.32	13.51		180.78	11.64	
		108467.28					
2531.95	69.00	4398.24	15.54	6.02	15232.46	0.27	0.000308
	0.25937	187.34	13.52		180.83	11.64	
		108497.53					
2532.86	70.00	4398.24	15.54	6.02	15237.76	0.27	0.000306
	0.25855	187.35	13.52		180.85	11.64	
		108510.70					
2534.34	71.00	4398.25	15.55	6.01	15225.20	0.27	0.000304
	0.25683	187.37	13.53		180.89	11.63	
		108532.80					
2537.49	72.00	4398.27	15.57	6.00	15228.02	0.27	0.000302
	0.25521	187.41	13.54		180.97	11.62	
		108579.96					
2544.02	73.00	4398.31	15.61	5.98	15223.03	0.27	0.000299
	0.25334	187.49	13.57		181.13	11.60	
		108677.34					
2552.35	74.00	4398.36	15.66	5.97	15248.48	0.27	0.000305
	0.25907	187.58	13.61		181.34	11.58	
		108801.62					
2560.09	75.00	4398.40	15.70	5.99	15324.16	0.27	0.000305
	0.25953	187.68	13.64		181.53	11.56	
		108915.97					
2570.74	76.00	4398.47	15.77	5.97	15350.79	0.27	0.000297
	0.25389	187.80	13.69		181.79	11.53	
		109073.90					
2581.51	77.00	4398.53	15.83	5.93	15315.15	0.26	0.000294
	0.25199	187.93	13.74		182.05	11.50	
		109232.77					
2594.58	78.00	4398.61	15.91	5.89	15272.06	0.26	0.000284
	0.24467	188.09	13.79		182.39	11.46	
		109434.02					
2644.49	79.00	4398.92	16.22	5.73	15140.70	0.25	0.000271
	0.23716	188.71	14.01		183.66	11.32	
		110195.38					
2676.69	80.00	4399.12	16.42	5.64	15093.94	0.25	0.000268
	0.23700	189.12	14.15		184.49	11.23	
		110692.66					
2721.38	81.00	4399.42	16.72	5.37	14615.50	0.23	0.000258
	0.23085	189.70	14.35		185.66	11.11	
		111398.59					
2783.16	82.00	4399.83	17.13	4.99	13875.37	0.21	0.000264
	0.24104	190.53	14.61		187.31	10.93	
		112387.32					

HYCHAN.OUT							
83.00	4400.23	17.53	4.54	12986.99	0.19		
2858.57	191.32	14.94	188.87	10.78	0.000237		
0.22120	113321.37						
84.00	4400.55	17.85	4.13	12138.38	0.17		
2936.36	191.96	15.30	190.10	10.65	0.000261		
0.24884	114059.02						
85.00	4400.78	18.08	3.80	11387.38	0.16		
2993.77	192.43	15.56	191.00	10.56	0.000221		
0.21461	114600.81						
86.00	4401.07	18.37	3.44	10473.26	0.14		
3041.06	193.01	15.76	192.10	10.46	0.000226		
0.22266	115262.38						
87.00	4401.39	18.69	3.00	9239.90	0.12		
3084.66	193.64	15.93	193.29	10.34	0.000159		
0.15800	115975.78						
88.00	4401.63	18.93	2.66	8284.21	0.11		
3113.93	194.12	16.04	194.18	10.26	0.000163		
0.16352	116505.93						
89.00	4401.74	19.04	2.43	7603.93	0.10		
3126.10	194.36	16.08	194.61	10.22	0.000146		
0.14661	116768.18						
90.00	4401.81	19.11	2.21	6919.00	0.09		
3131.72	194.49	16.10	194.87	10.20	0.000170		
0.17106	116921.59						
91.00	4401.79	19.09	2.09	6544.85	0.08		
3127.04	194.45	16.08	194.78	10.20	0.000147		
0.14769	116869.16						
92.00	4401.76	19.06	1.98	6173.67	0.08		
3125.38	194.38	16.08	194.66	10.21	0.000063		
0.06343	116797.55						
93.00	4401.71	19.01	1.86	5810.40	0.08		
3119.82	194.29	16.06	194.49	10.23	0.000076		
0.07585	116695.02						
94.00	4401.58	18.88	1.87	5792.59	0.08		
3101.73	194.03	15.99	194.02	10.27	0.000075		
0.07463	116409.09						
95.00	4401.46	18.76	1.88	5794.72	0.08		
3084.12	193.78	15.92	193.55	10.32	0.000103		
0.10180	116130.66						
96.00	4401.32	18.62	1.96	6014.96	0.08		
3065.46	193.50	15.84	193.03	10.37	0.000112		
0.11066	115815.67						
97.00	4401.07	18.37	2.12	6429.46	0.09		
3028.32	193.01	15.69	192.11	10.46	0.000164		
0.16027	115266.07						
98.00	4400.71	18.01	2.43	7213.91	0.10		
2969.55	192.30	15.44	190.74	10.59	0.000123		
0.11896	114446.91						
99.00	4400.33	17.63	2.69	7828.26	0.11		
2909.74	191.53	15.19	189.28	10.73	0.000115		
0.10914	113565.59						
100.00	4399.96	17.26	2.97	8422.03	0.13		
2835.70	190.78	14.86	187.82	10.88	0.000093		
0.08623	112689.93						
101.00	4399.63	16.93	3.13	8669.87	0.13		
2770.69	190.12	14.57	186.50	11.02	0.000131		
0.11889	111902.87						
102.00	4399.25	16.55	3.30	8904.45	0.14		
2700.33	189.37	14.26	185.00	11.18	0.000111		
0.09872	111000.83						
103.00	4398.74	16.04	3.49	9114.45	0.15		
2614.47	188.34	13.88	182.91	11.41	0.000121		
0.10478	109743.37						

HYCHAN.OUT							
2503.54	104.00	4398.07	15.37	3.62	9073.00	0.16	0.000125
	0.10458	187.00	13.39		180.12	11.72	
	105.00	108069.07					
2325.71	4397.28	184.28	14.58	3.82	8888.36	0.18	0.000180
	0.14211	106031.24	12.62		176.72	12.12	
	106.00	4396.64	13.94	3.92	8480.29	0.19	
2163.19	181.22	104338.84	11.94		173.90	12.47	0.000192
	0.14326	4396.42					
	107.00	180.10	13.72	3.89	8184.35	0.19	
2105.36	103718.79		11.69		172.86	12.60	0.000197
	0.14343	4396.25					
	108.00	179.27	13.55	3.88	8014.53	0.19	
2063.28	103257.19		11.51		172.10	12.70	0.000209
	0.15006	4395.98					
	109.00	177.91	13.28	3.94	7861.56	0.19	
1996.25	102506.06		11.22		170.84	12.87	0.000234
	0.16378	4395.66					
	110.00	176.29	12.96	4.06	7790.19	0.20	
1918.75	101613.73		10.88		169.36	13.07	0.000266
	0.18057	4395.52					
	111.00	175.57	12.82	4.18	7871.50	0.21	
1884.92	101215.34		10.74		168.69	13.16	0.000283
	0.18949	4395.53					
	112.00	175.64	12.83	4.30	8125.76	0.21	
1887.81	101249.73		10.75		168.75	13.15	0.000294
	0.19748	4395.49					
	113.00	175.41	12.79	4.35	8171.03	0.21	
1877.43	101125.21		10.70		168.54	13.18	0.000302
	0.20175	4395.34					
	114.00	174.67	12.64	4.35	8012.90	0.22	
1843.01	100712.63		10.55		167.85	13.28	0.000313
	0.20629	4395.33					
	115.00	174.59	12.63	4.42	8139.59	0.22	
1839.47	100670.85		10.54		167.78	13.29	0.000323
	0.21231	4395.47					
	116.00	175.35	12.77	4.53	8496.06	0.22	
1874.32	101089.70		10.69		168.48	13.19	0.000323
	0.21557	4395.50					
	117.00	175.48	12.80	4.55	8553.35	0.22	
1880.48	101162.02		10.72		168.60	13.17	0.000327
	0.21846	4395.43					
	118.00	175.11	12.73	4.55	8478.05	0.22	
1863.45	100959.34		10.64		168.27	13.22	0.000331
	0.22005	4395.40					
	119.00	174.97	12.70	4.57	8478.80	0.23	
1856.97	100881.77		10.61		168.14	13.24	0.000334
	0.22130	4395.44					
	120.00	175.16	12.74	4.60	8588.65	0.23	
1865.69	100986.73		10.65		168.31	13.21	0.000335
	0.22247	4395.48					
	121.00	175.37	12.78	4.62	8669.34	0.23	
1875.26	101100.69		10.69		168.50	13.19	0.000336
	0.22432	4395.47					
	122.00	175.33	12.77	4.63	8665.99	0.23	
1873.32	101077.37		10.68		168.46	13.19	0.000337
	0.22453	4395.40					
	123.00	174.96	12.70	4.61	8557.07	0.23	
1856.69	100877.52		10.61		168.13	13.24	0.000341
	0.22611	4395.33					
	124.00	174.60	12.63	4.60	8470.76	0.23	
1840.01	100677.23		10.54		167.80	13.29	0.000344

HYCHAN.OUT							
1822.72	125.00	4395.26	12.56	4.59	8358.47	0.23	0.000349
	0.22771	174.22	10.46		167.44	13.33	
		100466.59					
1805.95	126.00	4395.19	12.49	4.58	8274.51	0.23	0.000352
	0.22801	173.85	10.39		167.10	13.38	
		100262.32					
1802.21	127.00	4395.17	12.47	4.59	8267.78	0.23	0.000353
	0.22821	173.77	10.37		167.03	13.39	
		100216.36					
1788.04	128.00	4395.11	12.41	4.57	8170.77	0.23	0.000356
	0.22922	173.45	10.31		166.74	13.44	
		100041.00					
1773.76	129.00	4395.05	12.35	4.56	8095.68	0.23	0.000359
	0.22976	173.13	10.24		166.44	13.48	
		99864.61					
1770.36	130.00	4395.04	12.33	4.57	8088.89	0.23	0.000360
	0.22981	173.06	10.23		166.37	13.49	
		99822.23					
1756.49	131.00	4394.98	12.28	4.55	7995.36	0.23	0.000364
	0.23120	172.74	10.17		166.08	13.53	
		99648.05					
1742.88	132.00	4394.92	12.22	4.55	7928.93	0.23	0.000366
	0.23101	172.44	10.11		165.80	13.57	
		99477.71					
1764.54	133.00	4395.01	12.31	4.60	8116.02	0.23	0.000364
	0.23149	172.93	10.20		166.25	13.50	
		99750.23					
1788.29	134.00	4395.11	12.41	4.62	8264.04	0.23	0.000361
	0.23224	173.46	10.31		166.74	13.43	
		100045.24					
1789.92	135.00	4395.12	12.42	4.62	8270.26	0.23	0.000362
	0.23298	173.50	10.32		166.78	13.43	
		100065.21					
1789.29	136.00	4395.12	12.42	4.62	8270.84	0.23	0.000362
	0.23316	173.48	10.31		166.76	13.43	
		100057.36					
1788.45	137.00	4395.11	12.41	4.62	8270.76	0.23	0.000362
	0.23292	173.46	10.31		166.74	13.43	
		100046.99					
1787.52	138.00	4395.11	12.41	4.63	8270.45	0.23	0.000363
	0.23336	173.44	10.31		166.73	13.44	
		100035.45					
1786.76	139.00	4395.10	12.40	4.63	8270.30	0.23	0.000364
	0.23408	173.43	10.30		166.71	13.44	
		100026.01					
1785.68	140.00	4395.10	12.40	4.63	8267.27	0.23	0.000364
	0.23379	173.40	10.30		166.69	13.44	
		100012.55					
1772.41	141.00	4395.04	12.34	4.61	8170.18	0.23	0.000367
	0.23417	173.10	10.24		166.41	13.48	
		99847.06					
1759.16	142.00	4394.99	12.29	4.60	8094.56	0.23	0.000368
	0.23391	172.81	10.18		166.14	13.52	
		99682.31					
1757.21	143.00	4394.98	12.28	4.60	8091.72	0.23	0.000370
	0.23507	172.76	10.17		166.10	13.53	
		99657.98					
1756.31	144.00	4394.98	12.27	4.61	8091.19	0.23	0.000369
	0.23433	172.74	10.17		166.08	13.53	
		99646.70					
1755.19	145.00	4394.97	12.27	4.61	8087.71	0.23	0.000370
	0.23476	172.72	10.16		166.05	13.53	
		99632.59					

HYCHAN.OUT									
1742.50	146.00	4394.92	12.22	10.11	4.59	7994.64	13.57	0.23	0.000373
	0.23503	172.43				165.79			
		99472.12							
1729.36	147.00	4394.86	12.16	10.05	4.58	7920.02	13.61	0.23	0.000376
	0.23603	172.13				165.51			
		99306.54							
1727.54	148.00	4394.85	12.15	10.04	4.58	7917.72	13.62	0.23	0.000377
	0.23589	172.09				165.47			
		99283.59							
1726.53	149.00	4394.85	12.15	10.03	4.59	7917.67	13.62	0.23	0.000377
	0.23612	172.06				165.45			
		99270.70							
1725.72	150.00	4394.84	12.14	10.03	4.59	7917.30	13.62	0.23	0.000378
	0.23657	172.04				165.43			
		99260.39							
1724.80	151.00	4394.84	12.14	10.03	4.59	7914.84	13.63	0.23	0.000379
	0.23685	172.02				165.41			
		99248.66							
1716.03	152.00	4394.80	12.10	9.99	4.58	7851.97	13.65	0.23	0.000380
	0.23668	171.82				165.23			
		99136.38							
1703.00	153.00	4394.75	12.05	9.93	4.56	7771.34	13.69	0.23	0.000384
	0.23791	171.52				164.95			
		98969.70							
1696.61	154.00	4394.72	12.02	9.90	4.56	7744.71	13.71	0.23	0.000385
	0.23760	171.37				164.81			
		98887.81							
1694.95	155.00	4394.71	12.01	9.89	4.57	7739.77	13.72	0.23	0.000385
	0.23751	171.33				164.78			
		98866.34							
1683.03	156.00	4394.66	11.96	9.84	4.55	7653.91	13.76	0.23	0.000387
	0.23788	171.05				164.52			
		98711.66							
1694.01	157.00	4394.71	12.01	9.89	4.58	7766.02	13.72	0.23	0.000386
	0.23818	171.31				164.76			
		98854.85							
1717.42	158.00	4394.81	12.11	9.99	4.61	7911.20	13.65	0.23	0.000381
	0.23746	171.85				165.26			
		99154.96							
1719.90	159.00	4394.82	12.12	10.00	4.60	7916.48	13.64	0.23	0.000382
	0.23821	171.91				165.31			
		99186.41							
1720.14	160.00	4394.82	12.12	10.01	4.60	7916.88	13.64	0.23	0.000381
	0.23805	171.92				165.32			
		99189.45							
1719.97	161.00	4394.82	12.12	10.00	4.60	7917.45	13.64	0.23	0.000382
	0.23826	171.91				165.31			
		99187.28							
1719.76	162.00	4394.82	12.12	10.00	4.60	7917.21	13.64	0.23	0.000381
	0.23792	171.91				165.31			
		99184.56							
1719.52	163.00	4394.82	12.12	10.00	4.60	7917.04	13.64	0.23	0.000382
	0.23869	171.90				165.30			
		99181.55							
1719.31	164.00	4394.82	12.12	10.00	4.60	7917.08	13.64	0.23	0.000382
	0.23820	171.90				165.30			
		99178.84							
1718.77	165.00	4394.81	12.11	10.00	4.60	7912.95	13.64	0.23	0.000382
	0.23823	171.88				165.29			
		99171.88							
1706.67	166.00	4394.76	12.06	9.95	4.58	7821.05	13.68	0.23	0.000385
	0.23866	171.60				165.03			
		99016.26							



HYCHAN.OUT									
167.00	4394.71	12.00	4.57	7745.65	0.23				
1693.68	171.30	9.89	164.75	13.72	0.000387				
0.23851	98849.88								
168.00	4394.70	12.00	4.58	7743.47	0.23				
1692.01	171.26	9.88	164.71	13.73	0.000387				
0.23868	98828.52								
169.00	4394.70	12.00	4.58	7743.10	0.23				
1691.54	171.25	9.88	164.70	13.73	0.000387				
0.23846	98822.38								
170.00	4394.70	11.99	4.58	7743.17	0.23				
1691.34	171.25	9.88	164.70	13.73	0.000388				
0.23892	98819.81								
171.00	4394.69	11.99	4.58	7743.11	0.23				
1691.16	171.24	9.88	164.70	13.73	0.000388				
0.23915	98817.52								
172.00	4394.69	11.99	4.58	7742.96	0.23				
1690.90	171.24	9.87	164.69	13.73	0.000388				
0.23881	98814.12								
173.00	4394.69	11.99	4.58	7739.59	0.23				
1690.40	171.23	9.87	164.68	13.73	0.000388				
0.23902	98807.62								
174.00	4394.64	11.94	4.56	7645.56	0.23				
1678.13	170.94	9.82	164.41	13.77	0.000390				
0.23910	98647.81								
175.00	4394.58	11.88	4.55	7572.22	0.23				
1665.26	170.64	9.76	164.13	13.81	0.000393				
0.23907	98480.82								
176.00	4394.57	11.87	4.55	7569.59	0.23				
1663.50	170.60	9.75	164.10	13.82	0.000393				
0.23914	98457.98								
177.00	4394.57	11.87	4.55	7569.17	0.23				
1662.98	170.58	9.75	164.09	13.82	0.000393				
0.23923	98451.12								
178.00	4394.57	11.87	4.55	7568.90	0.23				
1662.82	170.58	9.75	164.08	13.82	0.000393				
0.23906	98449.10								
179.00	4394.57	11.87	4.55	7568.89	0.23				
1662.65	170.58	9.75	164.08	13.82	0.000393				
0.23895	98446.79								
180.00	4394.57	11.87	4.56	7577.23	0.23				
1663.29	170.59	9.75	164.09	13.82	0.000394				
0.23982	98455.42								
181.00	4394.68	11.98	4.60	7763.30	0.23				
1687.51	171.16	9.86	164.62	13.74	0.000389				
0.23927	98770.91								
182.00	4394.79	12.09	4.62	7913.70	0.23				
1712.89	171.75	9.97	165.16	13.66	0.000385				
0.23982	99097.17								
183.00	4394.85	12.15	4.64	8013.73	0.23				
1728.15	172.10	10.04	165.49	13.62	0.000383				
0.23997	99291.82								
184.00	4394.91	12.21	4.65	8087.69	0.23				
1741.10	172.40	10.10	165.76	13.58	0.000380				
0.23921	99455.53								
185.00	4394.92	12.22	4.64	8090.27	0.23				
1742.92	172.44	10.11	165.80	13.57	0.000379				
0.23887	99478.27								
186.00	4394.92	12.22	4.64	8091.11	0.23				
1743.44	172.45	10.11	165.81	13.57	0.000379				
0.23901	99484.88								
187.00	4394.92	12.22	4.64	8090.91	0.23				
1743.51	172.45	10.11	165.81	13.57	0.000379				
0.23929	99485.73								

HYCHAN.OUT									
1743.75	188.00	4394.92	12.22	10.11	4.64	8091.08	13.57	0.23	0.000379
	0.23930	172.46				165.81			
		99488.75							
1743.78	189.00	4394.92	12.22	10.11	4.64	8090.64	13.57	0.23	0.000380
	0.23967	172.46				165.82			
		99489.22							
1743.86	190.00	4394.92	12.22	10.11	4.64	8091.23	13.57	0.23	0.000380
	0.23949	172.46				165.82			
		99490.14							
1743.42	191.00	4394.92	12.22	10.11	4.64	8087.15	13.57	0.23	0.000379
	0.23921	172.45				165.81			
		99484.52							
1731.48	192.00	4394.87	12.17	10.06	4.62	7994.10	13.61	0.23	0.000381
	0.23932	172.17				165.55			
		99332.76							
1718.87	193.00	4394.81	12.11	10.00	4.61	7919.86	13.64	0.23	0.000383
	0.23922	171.89				165.29			
		99173.05							
1717.21	194.00	4394.81	12.11	9.99	4.61	7917.85	13.65	0.23	0.000383
	0.23907	171.85				165.25			
		99152.02							
1716.78	195.00	4394.81	12.11	9.99	4.61	7917.23	13.65	0.23	0.000384
	0.23968	171.84				165.24			
		99146.55							
1716.49	196.00	4394.80	12.10	9.99	4.61	7917.07	13.65	0.23	0.000385
	0.24000	171.83				165.24			
		99142.80							
1716.42	197.00	4394.80	12.10	9.99	4.61	7916.79	13.65	0.23	0.000384
	0.23939	171.83				165.24			
		99141.91							
1716.35	198.00	4394.80	12.10	9.99	4.61	7917.22	13.65	0.23	0.000384
	0.23921	171.83				165.24			
		99141.12							
1716.27	199.00	4394.80	12.10	9.99	4.61	7917.31	13.65	0.23	0.000384
	0.23954	171.83				165.23			
		99140.00							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4068

MAXIMUM DISCHARGE (CFS) = 15136.56 AT TIME = 74.93  
 MAXIMUM STAGE = 4401.62 AT TIME = 90.68

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	SURFACE AREA	AREA					
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)			
0.00	0.00	4381.80	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4381.80	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4381.80	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4381.80	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4385.54	3.75	1.94	1807.96	0.18	

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		HYCHAN.OUT					
933.63	110.55	8.45	96.92	25.88	0.000504		
0.26543	48458.73						
5.00	4392.26	10.46	4.46	5414.34	0.24		
1212.63	162.63	7.46	140.40	13.43	0.000432		
0.20110	70199.61						
6.00	4392.35	10.55	4.37	5373.11	0.24		
1230.92	163.18	7.54	140.86	13.35	0.000419		
0.19706	70428.80						
7.00	4392.35	10.55	4.31	5309.15	0.23		
1231.40	163.19	7.55	140.87	13.35	0.000413		
0.19438	70433.74						
8.00	4392.26	10.46	4.25	5166.87	0.23		
1214.80	162.68	7.47	140.44	13.42	0.000415		
0.19347	70222.10						
9.00	4392.15	10.35	4.21	5021.33	0.23		
1193.14	162.01	7.36	139.89	13.52	0.000421		
0.19361	69943.31						
10.00	4392.03	10.23	4.17	4876.20	0.23		
1170.29	161.29	7.26	139.29	13.62	0.000426		
0.19309	69644.89						
11.00	4391.94	10.14	4.15	4782.03	0.23		
1153.34	160.75	7.17	138.84	13.70	0.000433		
0.19377	69421.61						
12.00	4391.88	10.08	4.13	4725.10	0.23		
1143.17	160.42	7.13	138.57	13.74	0.000434		
0.19295	69285.02						
13.00	4391.75	9.95	4.09	4580.15	0.23		
1119.49	159.65	7.01	137.93	13.86	0.000438		
0.19158	68964.85						
14.00	4391.65	9.85	4.07	4477.19	0.23		
1100.85	159.04	6.92	137.42	13.95	0.000445		
0.19236	68710.42						
15.00	4391.64	9.84	4.07	4469.70	0.23		
1097.92	158.94	6.91	137.34	13.96	0.000446		
0.19238	68670.34						
16.00	4391.63	9.83	4.07	4469.21	0.23		
1097.24	158.92	6.90	137.32	13.97	0.000446		
0.19210	68660.94						
17.00	4391.63	9.83	4.07	4469.07	0.23		
1096.97	158.91	6.90	137.31	13.97	0.000448		
0.19287	68657.19						
18.00	4391.63	9.83	4.07	4467.52	0.23		
1097.14	158.92	6.90	137.32	13.97	0.000449		
0.19322	68659.59						
19.00	4391.67	9.87	4.09	4514.95	0.23		
1104.56	159.16	6.94	137.52	13.93	0.000444		
0.19221	68762.50						
20.00	4391.80	10.00	4.13	4662.27	0.23		
1128.52	159.95	7.06	138.18	13.81	0.000438		
0.19286	69089.60						
21.00	4391.94	10.14	4.17	4817.40	0.23		
1154.11	160.78	7.18	138.87	13.69	0.000430		
0.19238	69432.92						
22.00	4392.04	10.24	4.19	4916.73	0.23		
1172.30	161.36	7.27	139.35	13.61	0.000427		
0.19371	69673.03						
23.00	4392.05	10.25	4.19	4923.58	0.23		
1175.02	161.44	7.28	139.42	13.60	0.000425		
0.19308	69708.39						
24.00	4392.10	10.30	4.21	4981.82	0.23		
1183.67	161.72	7.32	139.64	13.56	0.000422		
0.19265	69822.01						
25.00	4392.27	10.47	4.27	5196.94	0.23		

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		HYCHAN.OUT					
1216.38	0.19305	162.74	7.47	140.49	13.41	0.000414	
26.00	4392.52	70243.95	10.72	4.35	5502.65	0.23	
1264.24	0.19236	164.19	7.70	141.69	13.21	0.000400	
27.00	4392.77	70845.98	10.97	4.43	5810.31	0.24	
1312.72	0.19200	165.62	7.93	142.88	13.02	0.000388	
28.00	4392.92	71437.81	11.12	4.45	5975.38	0.24	
1341.97	0.19155	166.46	8.06	143.57	12.91	0.000381	
29.00	4392.94	71786.38	11.14	4.45	5985.38	0.23	
1346.22	0.19171	166.58	8.08	143.67	12.89	0.000380	
30.00	4393.00	71836.34	11.20	4.47	6063.27	0.24	
1357.57	0.19107	166.90	8.13	143.94	12.85	0.000376	
31.00	4393.07	71970.14	11.27	4.48	6147.43	0.24	
1371.72	0.19205	167.30	8.20	144.27	12.80	0.000375	
32.00	4393.08	72135.05	11.28	4.48	6153.18	0.24	
1373.86	0.19105	167.36	8.21	144.32	12.79	0.000373	
33.00	4393.14	72159.82	11.34	4.50	6234.77	0.24	
1385.38	0.19002	167.69	8.26	144.59	12.75	0.000369	
34.00	4393.21	72293.46	11.41	4.52	6321.69	0.24	
1399.66	0.19027	168.08	8.33	144.91	12.70	0.000366	
35.00	4393.22	72457.25	11.42	4.51	6323.69	0.24	
1401.24	0.18925	168.12	8.33	144.95	12.69	0.000364	
36.00	4393.17	72475.11	11.37	4.49	6242.05	0.23	
1391.22	0.19016	167.84	8.29	144.72	12.73	0.000368	
37.00	4393.11	72359.47	11.31	4.47	6154.64	0.23	
1378.21	0.18949	167.48	8.23	144.42	12.77	0.000369	
38.00	4393.05	72209.95	11.25	4.44	6073.07	0.23	
1367.18	0.18939	167.17	8.18	144.16	12.81	0.000371	
39.00	4392.98	72081.12	11.18	4.43	5989.58	0.23	
1353.56	0.19034	166.79	8.12	143.84	12.86	0.000376	
40.00	4392.97	71922.45	11.17	4.43	5985.45	0.23	
1351.81	0.19050	166.74	8.11	143.80	12.87	0.000377	
41.00	4392.97	71902.09	11.17	4.43	5985.32	0.23	
1351.30	0.18957	166.73	8.10	143.79	12.87	0.000375	
42.00	4392.97	71896.07	11.17	4.43	5985.06	0.23	
1350.98	0.19021	166.72	8.10	143.78	12.87	0.000376	
43.00	4392.97	71892.21	11.17	4.43	5986.48	0.23	
1350.96	0.18984	166.72	8.10	143.78	12.87	0.000375	
44.00	4393.02	71892.04	11.22	4.45	6063.55	0.23	
1361.18	0.18993	167.01	8.15	144.02	12.84	0.000373	
45.00	4393.09	72012.41	11.29	4.47	6149.52	0.23	
1374.88	0.19029	167.39	8.21	144.34	12.79	0.000371	
46.00	4393.15	72171.80	11.35	4.50	6237.07	0.24	

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				HYCHAN.OUT			
1387.41		167.74		8.27	144.63	12.74	0.000365
	0.18850	72316.93					
47.00		4393.28	11.48	4.54	6408.55	0.24	
1412.91		168.45		8.39	145.22	12.65	0.000361
	0.18898	72608.73					
48.00		4393.41	11.61	4.57	6582.45	0.24	
1439.30		169.17		8.51	145.81	12.56	0.000354
	0.18802	72906.40					
49.00		4393.54	11.74	4.61	6757.88	0.24	
1466.07		169.89		8.63	146.41	12.47	0.000341
	0.18382	73204.02					
50.00		4393.67	11.87	4.64	6924.39	0.24	
1491.31		170.55		8.74	146.96	12.39	0.000335
	0.18272	73480.69					
51.00		4393.80	12.00	4.68	7105.96	0.24	
1518.80		171.27		8.87	147.56	12.30	0.000329
	0.18219	73778.12					
52.00		4393.97	12.17	4.73	7360.15	0.24	
1555.23		172.21		9.03	148.33	12.18	0.000319
	0.17970	74165.58					
53.00		4394.11	12.31	4.76	7537.55	0.24	
1584.00		172.94		9.16	148.93	12.10	0.000314
	0.17972	74466.55					
54.00		4394.19	12.39	4.78	7647.74	0.24	
1600.86		173.36		9.23	149.28	12.05	0.000310
	0.17886	74641.30					
55.00		4394.44	12.64	4.86	8032.22	0.24	
1652.48		174.63		9.46	150.33	11.90	0.000297
	0.17518	75166.12					
56.00		4394.87	13.07	5.01	8744.69	0.24	
1746.30		176.86		9.87	152.18	11.64	0.000277
	0.17078	76088.27					
57.00		4395.46	13.66	5.18	9723.26	0.25	
1876.54		179.81		10.44	154.61	11.32	0.000258
	0.16806	77307.17					
58.00		4396.14	14.34	5.37	10910.81	0.25	
2033.05		183.16		11.10	157.38	10.97	0.000224
	0.15535	78688.20					
59.00		4396.73	14.93	5.49	11913.14	0.25	
2170.71		185.96		11.67	159.69	10.69	0.000197
	0.14358	79843.05					
60.00		4397.17	15.37	5.66	12738.16	0.25	
2250.09		187.27		12.02	161.35	10.50	0.000206
	0.15453	80675.90					
61.00		4397.49	15.69	5.89	13532.69	0.26	
2295.86		187.90		12.22	162.54	10.36	0.000221
	0.16876	81270.23					
62.00		4397.65	15.85	6.05	14035.86	0.27	
2320.20		188.24		12.33	163.17	10.29	0.000258
	0.19825	81582.94					
63.00		4397.75	15.95	6.16	14364.20	0.27	
2333.29		188.42		12.38	163.51	10.25	0.000248
	0.19169	81752.66					
64.00		4397.82	16.02	6.24	14624.82	0.27	
2343.73		188.57		12.43	163.77	10.22	0.000254
	0.19683	81885.83					
65.00		4397.86	16.06	6.28	14754.61	0.28	
2349.22		188.64		12.45	163.91	10.21	0.000259
	0.20135	81956.49					
66.00		4397.91	16.11	6.32	14901.99	0.28	
2356.28		188.74		12.48	164.10	10.19	0.000267
	0.20795	82047.80					
67.00		4397.94	16.14	6.36	15027.03	0.28	

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				HYCHAN.OUT			
2361.74		188.82		12.51	164.24	10.17	0.000271
	0.21168	82118.30					
68.00	4397.95	16.15		6.37	15063.62	0.28	
2363.33		188.84		12.51	164.28	10.17	0.000272
	0.21206	82138.70					
69.00	4397.97	16.17		6.38	15077.28	0.28	
2365.03		188.87		12.52	164.32	10.16	0.000274
	0.21405	82160.70					
70.00	4397.97	16.17		6.37	15080.88	0.28	
2365.80		188.88		12.53	164.34	10.16	0.000274
	0.21412	82170.66					
71.00	4397.98	16.18		6.36	15063.97	0.28	
2367.20		188.90		12.53	164.38	10.16	0.000273
	0.21349	82188.98					
72.00	4398.00	16.20		6.35	15059.55	0.28	
2370.03		188.94		12.54	164.45	10.15	0.000275
	0.21544	82225.52					
73.00	4398.04	16.24		6.33	15038.59	0.28	
2375.91		189.02		12.57	164.60	10.13	0.000278
	0.21818	82301.82					
74.00	4398.08	16.28		6.32	15052.52	0.28	
2380.60		189.09		12.59	164.72	10.12	0.000292
	0.22920	82362.33					
75.00	4398.12	16.32		6.33	15108.87	0.28	
2387.24		189.18		12.62	164.90	10.10	0.000298
	0.23498	82448.46					
76.00	4398.19	16.39		6.30	15101.34	0.27	
2396.98		189.32		12.66	165.15	10.07	0.000300
	0.23732	82575.55					
77.00	4398.27	16.47		6.25	15034.87	0.27	
2407.08		189.46		12.70	165.41	10.05	0.000301
	0.23861	82705.72					
78.00	4398.36	16.56		6.17	14931.21	0.27	
2419.33		189.64		12.76	165.74	10.01	0.000314
	0.24967	82869.25					
79.00	4398.71	16.91		5.90	14565.39	0.25	
2467.98		190.35		12.97	167.01	9.88	0.000299
	0.24200	83505.51					
80.00	4398.95	17.15		5.73	14331.25	0.24	
2500.37		190.83		13.10	167.86	9.79	0.000283
	0.23135	83929.39					
81.00	4399.30	17.50		5.29	13479.25	0.22	
2546.05		191.54		13.29	169.10	9.66	0.000243
	0.20194	84547.89					
82.00	4399.81	18.01		4.59	11992.36	0.19	
2610.84		192.56		13.56	170.86	9.49	0.000174
	0.14732	85429.76					
83.00	4400.31	18.51		3.80	10256.63	0.16	
2697.05		193.55		13.93	172.55	9.32	0.000000
	0.00000	86273.46					
84.00	4400.71	18.91		3.12	8600.87	0.13	
2759.44		194.35		14.20	173.88	9.20	0.000034
	0.03047	86942.28					
85.00	4401.02	19.22		2.52	7071.63	0.10	
2800.87		194.96		14.37	174.90	9.10	0.000045
	0.04008	87447.94					
86.00	4401.42	19.62		1.71	4861.78	0.07	
2842.26		195.76		14.52	176.20	8.98	0.000043
	0.03857	88101.25					
87.00	4401.86	20.06		0.70	2017.28	0.03	
2873.48		196.65		14.61	177.63	8.85	0.000000
	0.00000	88817.15					
88.00	4402.18	20.38		-0.03	-96.54	0.00	

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				HYCHAN.OUT			
2962.48		197.29		15.02	178.65	8.77	0.000055
	0.05149	89324.80					
89.00		4402.38	20.58	-0.57	-1667.82	0.02	
2909.20		197.68		14.72	179.27	8.71	0.000000
	0.00000	89633.05					
90.00		4402.47	20.67	-0.91	-2661.74	0.04	
2919.42		197.87		14.75	179.55	8.69	0.000000
	0.00000	89777.33					
91.00		4402.48	20.68	-1.12	-3263.53	0.04	
2914.34		197.89		14.73	179.58	8.69	0.000000
	0.00000	89791.84					
92.00		4402.38	20.58	-1.10	-3199.76	0.04	
2912.43		197.70		14.73	179.30	8.71	0.000015
	0.01368	89647.73					
93.00		4402.27	20.47	-1.02	-2964.58	0.04	
2906.98		197.47		14.72	178.93	8.74	0.000000
	0.00000	89463.28					
94.00		4402.13	20.33	-0.90	-2591.26	0.04	
2888.95		197.19		14.65	178.48	8.78	0.000104
	0.09463	89242.07					
95.00		4401.97	20.17	-0.70	-2015.19	0.03	
2870.07		196.87		14.58	177.97	8.83	0.000059
	0.05325	88986.68					
96.00		4401.78	19.98	-0.35	-989.63	0.01	
2855.17		196.49		14.53	177.37	8.88	0.000000
	0.00000	88683.55					
97.00		4401.45	19.65	0.21	586.62	0.01	
2800.99		195.83		14.30	176.31	8.97	0.000048
	0.04298	88155.33					
98.00		4400.98	19.18	1.04	2893.14	0.04	
2775.74		194.89		14.24	174.78	9.11	0.000000
	0.00000	87389.62					
99.00		4400.51	18.71	1.74	4742.21	0.07	
2726.19		193.95		14.06	173.21	9.26	0.000000
	0.00000	86603.92					
100.00		4400.06	18.26	2.35	6269.00	0.10	
2671.36		193.06		13.84	171.72	9.40	0.000058
	0.05031	85858.02					
101.00		4399.69	17.89	2.71	7086.14	0.11	
2616.99		192.31		13.61	170.43	9.53	0.000125
	0.10596	85216.41					
102.00		4399.26	17.46	3.09	7869.24	0.13	
2549.54		191.46		13.32	168.97	9.67	0.000133
	0.11034	84483.55					
103.00		4398.70	16.90	3.49	8595.67	0.15	
2465.71		190.33		12.96	166.96	9.88	0.000125
	0.10115	83482.26					
104.00		4397.99	16.19	3.77	8935.12	0.17	
2367.89		188.91		12.53	164.41	10.15	0.000103
	0.08094	82204.45					
105.00		4397.17	15.37	3.96	8901.67	0.18	
2247.61		187.27		12.00	161.34	10.50	0.000107
	0.08005	80668.46					
106.00		4396.51	14.71	4.01	8493.28	0.18	
2118.61		184.91		11.46	158.82	10.80	0.000124
	0.08843	79407.60					
107.00		4396.28	14.48	3.97	8189.83	0.18	
2064.15		183.81		11.23	157.91	10.91	0.000128
	0.08978	78953.73					
108.00		4396.10	14.31	3.96	8022.21	0.18	
2023.89		182.97		11.06	157.22	10.99	0.000140
	0.09629	78610.68					
109.00		4395.82	14.02	4.02	7873.16	0.19	

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				HYCHAN.OUT			
1958.45		181.59		10.78	156.08	11.13	0.000159
	0.10704	78041.60					
	110.00	4395.48	13.68	4.15	7799.62	0.20	
1881.35		179.92		10.46	154.70	11.31	0.000183
	0.11931	77352.45					
	111.00	4395.32	13.52	4.26	7873.49	0.20	
1846.23		179.15		10.31	154.06	11.39	0.000197
	0.12647	77031.18					
	112.00	4395.32	13.52	4.40	8124.66	0.21	
1846.08		179.14		10.31	154.06	11.39	0.000204
	0.13112	77029.82					
	113.00	4395.27	13.47	4.46	8175.67	0.21	
1834.86		178.89		10.26	153.85	11.42	0.000210
	0.13427	76925.27					
	114.00	4395.12	13.32	4.45	8017.19	0.21	
1801.49		178.14		10.11	153.23	11.50	0.000221
	0.13934	76613.91					
	115.00	4395.10	13.30	4.53	8136.57	0.22	
1796.11		178.01		10.09	153.13	11.52	0.000227
	0.14315	76563.94					
	116.00	4395.24	13.44	4.65	8491.36	0.22	
1827.35		178.72		10.22	153.71	11.44	0.000225
	0.14355	76856.62					
	117.00	4395.26	13.46	4.67	8556.17	0.22	
1832.91		178.85		10.25	153.81	11.43	0.000228
	0.14605	76907.43					
	118.00	4395.19	13.39	4.67	8479.53	0.22	
1816.26		178.47		10.18	153.51	11.47	0.000233
	0.14778	76752.82					
	119.00	4395.16	13.36	4.69	8479.17	0.23	
1809.51		178.32		10.15	153.38	11.48	0.000238
	0.15058	76689.88					
	120.00	4395.19	13.39	4.73	8586.29	0.23	
1817.07		178.49		10.18	153.52	11.46	0.000237
	0.15027	76760.84					
	121.00	4395.23	13.43	4.75	8669.32	0.23	
1825.89		178.69		10.22	153.69	11.44	0.000236
	0.15055	76842.84					
	122.00	4395.22	13.42	4.75	8666.85	0.23	
1823.90		178.64		10.21	153.65	11.45	0.000237
	0.15109	76824.21					
	123.00	4395.15	13.35	4.73	8560.54	0.23	
1808.08		178.29		10.14	153.35	11.49	0.000242
	0.15329	76675.78					
	124.00	4395.08	13.28	4.73	8472.13	0.23	
1791.94		177.92		10.07	153.05	11.53	0.000245
	0.15427	76524.43					
	125.00	4395.00	13.20	4.71	8361.98	0.23	
1775.51		177.54		10.00	152.74	11.57	0.000249
	0.15522	76368.25					
	126.00	4394.93	13.13	4.70	8275.53	0.23	
1759.21		177.17		9.93	152.43	11.61	0.000253
	0.15672	76213.34					
	127.00	4394.91	13.11	4.71	8268.51	0.23	
1755.40		177.08		9.91	152.35	11.62	0.000254
	0.15726	76176.82					
	128.00	4394.85	13.05	4.69	8173.83	0.23	
1741.99		176.76		9.85	152.09	11.65	0.000257
	0.15798	76047.23					
	129.00	4394.79	12.99	4.69	8096.54	0.23	
1728.16		176.44		9.79	151.83	11.69	0.000260
	0.15862	75913.84					
	130.00	4394.77	12.97	4.69	8089.53	0.23	

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				HYCHAN.OUT			
1724.70		176.36		9.78	151.76	11.70	0.000261
	0.15923	75880.25					
	131.00	4394.71	12.91	4.67	7998.42	0.23	
1711.55		176.05		9.72	151.50	11.74	0.000265
	0.16061	75751.47					
	132.00	4394.65	12.85	4.67	7929.01	0.23	
1698.28		175.73		9.66	151.24	11.77	0.000268
	0.16159	75621.84					
	133.00	4394.74	12.94	4.72	8110.71	0.23	
1718.17		176.21		9.75	151.63	11.72	0.000263
	0.16019	75817.18					
	134.00	4394.84	13.04	4.75	8263.12	0.23	
1740.84		176.74		9.85	152.07	11.66	0.000260
	0.15998	76036.95					
	135.00	4394.85	13.05	4.75	8270.34	0.23	
1742.44		176.78		9.86	152.10	11.65	0.000260
	0.16011	76052.23					
	136.00	4394.85	13.05	4.75	8270.97	0.23	
1741.76		176.76		9.85	152.09	11.66	0.000260
	0.16010	76045.68					
	137.00	4394.84	13.05	4.75	8270.81	0.23	
1740.87		176.74		9.85	152.07	11.66	0.000262
	0.16104	76037.12					
	138.00	4394.84	13.04	4.75	8270.58	0.23	
1739.90		176.72		9.85	152.06	11.66	0.000263
	0.16182	76027.68					
	139.00	4394.84	13.04	4.76	8270.51	0.23	
1739.09		176.70		9.84	152.04	11.66	0.000262
	0.16094	76019.92					
	140.00	4394.83	13.03	4.76	8267.79	0.23	
1738.01		176.67		9.84	152.02	11.67	0.000262
	0.16089	76009.39					
	141.00	4394.77	12.97	4.74	8173.09	0.23	
1725.56		176.38		9.78	151.78	11.70	0.000266
	0.16230	75888.07					
	142.00	4394.72	12.92	4.73	8095.14	0.23	
1712.78		176.08		9.73	151.53	11.73	0.000270
	0.16374	75764.02					
	143.00	4394.71	12.91	4.73	8091.95	0.23	
1710.76		176.03		9.72	151.49	11.74	0.000268
	0.16277	75744.36					
	144.00	4394.70	12.90	4.73	8091.26	0.23	
1709.82		176.01		9.71	151.47	11.74	0.000271
	0.16404	75735.15					
	145.00	4394.70	12.90	4.73	8088.19	0.23	
1708.70		175.98		9.71	151.45	11.74	0.000271
	0.16393	75724.10					
	146.00	4394.64	12.84	4.71	7997.49	0.23	
1696.78		175.70		9.66	151.21	11.78	0.000274
	0.16529	75606.50					
	147.00	4394.58	12.78	4.70	7920.71	0.23	
1684.11		175.39		9.60	150.96	11.81	0.000276
	0.16529	75481.82					
	148.00	4394.57	12.77	4.71	7917.88	0.23	
1682.22		175.35		9.59	150.93	11.82	0.000276
	0.16497	75463.18					
	149.00	4394.57	12.77	4.71	7917.83	0.23	
1681.15		175.32		9.59	150.91	11.82	0.000276
	0.16505	75452.59					
	150.00	4394.56	12.77	4.71	7917.37	0.23	
1680.28		175.30		9.59	150.89	11.82	0.000278
	0.16599	75443.97					
	151.00	4394.56	12.76	4.71	7915.23	0.23	

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				HYCHAN.OUT			
1679.38		175.28		9.58	150.87	11.82	0.000277
	0.16542	75434.98					
	152.00	4394.52	12.72	4.70	7853.99	0.23	
1671.12		175.08		9.54	150.70	11.85	0.000280
	0.16702	75352.41					
	153.00	4394.46	12.66	4.69	7772.87	0.23	
1658.65		174.78		9.49	150.46	11.88	0.000281
	0.16663	75227.87					
	154.00	4394.43	12.63	4.69	7745.07	0.23	
1652.33		174.63		9.46	150.33	11.90	0.000283
	0.16732	75164.69					
	155.00	4394.43	12.63	4.69	7740.22	0.23	
1650.66		174.59		9.45	150.30	11.90	0.000284
	0.16739	75147.84					
	156.00	4394.37	12.57	4.67	7655.97	0.23	
1639.41		174.31		9.41	150.07	11.93	0.000289
	0.16958	75033.88					
	157.00	4394.42	12.62	4.71	7761.26	0.23	
1649.20		174.55		9.45	150.27	11.91	0.000283
	0.16707	75133.53					
	158.00	4394.52	12.72	4.73	7910.05	0.23	
1671.61		175.09		9.55	150.72	11.84	0.000281
	0.16763	75357.96					
	159.00	4394.54	12.74	4.73	7916.46	0.23	
1674.12		175.15		9.56	150.77	11.84	0.000280
	0.16721	75382.73					
	160.00	4394.54	12.74	4.73	7916.83	0.23	
1674.37		175.16		9.56	150.77	11.84	0.000281
	0.16774	75385.18					
	161.00	4394.54	12.74	4.73	7917.55	0.23	
1674.18		175.16		9.56	150.77	11.84	0.000280
	0.16701	75383.33					
	162.00	4394.54	12.74	4.73	7917.16	0.23	
1673.97		175.15		9.56	150.76	11.84	0.000281
	0.16756	75381.30					
	163.00	4394.53	12.73	4.73	7917.12	0.23	
1673.73		175.15		9.56	150.76	11.84	0.000281
	0.16769	75378.83					
	164.00	4394.53	12.73	4.73	7917.14	0.23	
1673.51		175.14		9.56	150.75	11.84	0.000281
	0.16739	75376.62					
	165.00	4394.53	12.73	4.73	7913.27	0.23	
1673.00		175.13		9.55	150.74	11.84	0.000280
	0.16716	75371.53					
	166.00	4394.48	12.68	4.71	7823.85	0.23	
1661.69		174.85		9.50	150.52	11.87	0.000285
	0.16880	75257.92					
	167.00	4394.42	12.62	4.70	7746.27	0.23	
1649.17		174.55		9.45	150.27	11.91	0.000287
	0.16943	75132.83					
	168.00	4394.41	12.61	4.70	7743.59	0.23	
1647.45		174.51		9.44	150.23	11.91	0.000287
	0.16917	75115.59					
	169.00	4394.41	12.61	4.70	7743.15	0.23	
1646.95		174.50		9.44	150.22	11.91	0.000288
	0.16944	75110.53					
	170.00	4394.41	12.61	4.70	7743.19	0.23	
1646.73		174.49		9.44	150.22	11.91	0.000288
	0.16948	75108.36					
	171.00	4394.41	12.61	4.70	7743.13	0.23	
1646.54		174.49		9.44	150.21	11.91	0.000288
	0.16932	75106.46					
	172.00	4394.41	12.61	4.70	7743.02	0.23	

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				HYCHAN.OUT			
1646.28		174.48		9.44	150.21	11.92	0.000288
	0.16935	75103.74					
	173.00	4394.40	12.60	4.70	7739.97	0.23	
1645.81		174.47		9.43	150.20	11.92	0.000287
	0.16915	75098.95					
	174.00	4394.35	12.55	4.68	7648.41	0.23	
1634.33		174.19		9.38	149.96	11.95	0.000289
	0.16921	74982.22					
	175.00	4394.29	12.49	4.67	7572.81	0.23	
1621.92		173.88		9.33	149.71	11.99	0.000293
	0.17072	74856.57					
	176.00	4394.28	12.48	4.67	7569.71	0.23	
1620.10		173.84		9.32	149.68	11.99	0.000293
	0.17063	74838.07					
	177.00	4394.28	12.48	4.67	7569.20	0.23	
1619.54		173.82		9.32	149.66	11.99	0.000293
	0.17046	74832.44					
	178.00	4394.28	12.48	4.67	7568.95	0.23	
1619.36		173.82		9.32	149.66	11.99	0.000293
	0.17060	74830.59					
	179.00	4394.28	12.48	4.67	7568.95	0.23	
1619.18		173.81		9.32	149.66	11.99	0.000293
	0.17035	74828.70					
	180.00	4394.28	12.48	4.68	7576.44	0.23	
1619.71		173.83		9.32	149.67	11.99	0.000294
	0.17114	74834.24					
	181.00	4394.39	12.59	4.72	7757.79	0.23	
1642.31		174.38		9.42	150.13	11.93	0.000288
	0.16932	75064.19					
	182.00	4394.50	12.70	4.75	7912.16	0.23	
1666.72		174.98		9.53	150.62	11.86	0.000285
	0.16959	75309.27					
	183.00	4394.57	12.77	4.76	8010.88	0.24	
1681.25		175.33		9.59	150.91	11.82	0.000279
	0.16716	75454.00					
	184.00	4394.63	12.83	4.77	8086.96	0.24	
1693.77		175.63		9.64	151.16	11.78	0.000279
	0.16800	75577.60					
	185.00	4394.64	12.84	4.77	8090.15	0.23	
1695.63		175.67		9.65	151.19	11.78	0.000278
	0.16766	75595.80					
	186.00	4394.64	12.84	4.77	8091.06	0.23	
1696.17		175.68		9.65	151.20	11.78	0.000279
	0.16787	75601.12					
	187.00	4394.64	12.84	4.77	8090.92	0.23	
1696.27		175.69		9.66	151.20	11.78	0.000277
	0.16686	75602.09					
	188.00	4394.64	12.84	4.77	8091.05	0.23	
1696.50		175.69		9.66	151.21	11.78	0.000278
	0.16721	75604.36					
	189.00	4394.64	12.84	4.77	8090.63	0.23	
1696.54		175.69		9.66	151.21	11.78	0.000278
	0.16772	75604.75					
	190.00	4394.64	12.84	4.77	8091.27	0.23	
1696.61		175.69		9.66	151.21	11.78	0.000276
	0.16642	75605.45					
	191.00	4394.64	12.84	4.77	8087.49	0.23	
1696.22		175.68		9.65	151.20	11.78	0.000277
	0.16667	75601.55					
	192.00	4394.59	12.79	4.75	7996.87	0.23	
1685.08		175.42		9.61	150.98	11.81	0.000280
	0.16781	75490.95					
	193.00	4394.53	12.73	4.73	7920.44	0.23	

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HYCHAN.OUT						
1672.94	175.13	9.55	150.74	11.84	0.000282	
0.16801	75370.91					
194.00	4394.52	12.72	4.74	7917.95	0.23	
1671.24	175.09	9.55	150.71	11.85	0.000283	
0.16839	75354.04					
195.00	4394.52	12.72	4.74	7917.24	0.23	
1670.78	175.07	9.54	150.70	11.85	0.000283	
0.16873	75349.49					
196.00	4394.52	12.72	4.74	7917.20	0.23	
1670.50	175.07	9.54	150.69	11.85	0.000282	
0.16790	75346.60					
197.00	4394.52	12.72	4.74	7916.72	0.23	
1670.40	175.07	9.54	150.69	11.85	0.000284	
0.16905	75345.72					
198.00	4394.52	12.72	4.74	7917.23	0.23	
1670.33	175.06	9.54	150.69	11.85	0.000284	
0.16917	75344.99					
199.00	4394.52	12.72	4.74	7917.37	0.23	
1670.24	175.06	9.54	150.69	11.85	0.000283	
0.16832	75344.10					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4130

MAXIMUM DISCHARGE (CFS) = 14431.81 AT TIME = 68.87  
 MAXIMUM STAGE = 4401.89 AT TIME = 91.02

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)			
0.00	4380.95	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4380.95	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4380.95	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4380.95	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4384.60	3.66	2.06	1651.83	0.19	0.000690
803.74	109.54	7.34	80.11	21.91		
0.31612	40053.10					
5.00	4391.82	10.87	5.25	5404.79	0.28	0.000595
1028.95	165.00	6.24	118.70	10.92		
0.23158	59351.32					
6.00	4391.94	10.99	5.12	5371.56	0.27	0.000574
1048.44	165.70	6.33	119.19	10.85		
0.22674	59593.50					
7.00	4391.95	11.00	5.06	5310.35	0.27	0.000566
1050.50	165.77	6.34	119.24	10.84		
0.22386	59618.28					
8.00	4391.87	10.92	4.98	5169.53	0.27	0.000564
1037.55	165.30	6.28	118.91	10.89		
0.22075	59455.25					
9.00	4391.75	10.80	4.93	5024.32	0.26	0.000570
1019.59	164.64	6.19	118.45	10.97		

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0.22024	59226.99						
10.00	4391.63	10.68	4.88	4879.31	0.26		
1000.42	163.92	6.10		117.96	11.05	0.000578	
0.21997	58980.14						
11.00	4391.54	10.59	4.85	4783.18	0.26		
986.11	163.39	6.04		117.59	11.11	0.000580	
0.21861	58794.19						
12.00	4391.48	10.53	4.84	4727.57	0.26		
977.72	163.06	6.00		117.37	11.15	0.000581	
0.21729	58683.13						
13.00	4391.35	10.40	4.78	4583.46	0.26		
957.94	162.30	5.90		116.84	11.23	0.000585	
0.21533	58419.34						
14.00	4391.24	10.29	4.75	4478.43	0.26		
942.09	161.68	5.83		116.41	11.31	0.000591	
0.21486	58206.10						
15.00	4391.23	10.28	4.76	4469.86	0.26		
939.34	161.58	5.81		116.34	11.32	0.000592	
0.21492	58169.02						
16.00	4391.22	10.27	4.76	4469.26	0.26		
938.68	161.55	5.81		116.32	11.32	0.000594	
0.21549	58160.04						
17.00	4391.22	10.27	4.76	4469.11	0.26		
938.43	161.54	5.81		116.31	11.32	0.000594	
0.21515	58156.62						
18.00	4391.22	10.27	4.76	4467.50	0.26		
938.30	161.54	5.81		116.31	11.33	0.000599	
0.21708	58154.85						
19.00	4391.26	10.31	4.78	4512.49	0.26		
944.36	161.78	5.84		116.48	11.30	0.000596	
0.21704	58237.72						
20.00	4391.39	10.44	4.83	4658.83	0.26		
964.44	162.56	5.93		117.02	11.20	0.000589	
0.21804	58508.16						
21.00	4391.53	10.58	4.88	4813.94	0.26		
985.96	163.38	6.03		117.59	11.11	0.000581	
0.21894	58793.06						
22.00	4391.64	10.69	4.91	4915.67	0.26		
1001.43	163.97	6.11		117.99	11.04	0.000576	
0.21948	58994.59						
23.00	4391.65	10.70	4.90	4923.37	0.26		
1004.01	164.06	6.12		118.06	11.03	0.000574	
0.21937	59027.75						
24.00	4391.70	10.75	4.92	4979.14	0.26		
1011.38	164.34	6.15		118.25	11.00	0.000570	
0.21893	59123.21						
25.00	4391.88	10.93	5.00	5191.05	0.27		
1038.68	165.35	6.28		118.94	10.89	0.000563	
0.22089	59470.81						
26.00	4392.13	11.18	5.09	5496.01	0.27		
1078.90	166.79	6.47		119.94	10.73	0.000553	
0.22306	59970.22						
27.00	4392.39	11.44	5.18	5804.12	0.27		
1119.68	168.22	6.66		120.92	10.57	0.000538	
0.22336	60462.04						
28.00	4392.54	11.59	5.22	5973.84	0.27		
1144.76	169.07	6.77		121.51	10.48	0.000531	
0.22424	60757.41						
29.00	4392.57	11.62	5.21	5984.91	0.27		
1148.72	169.21	6.79		121.61	10.47	0.000529	
0.22422	60803.34						
30.00	4392.63	11.68	5.23	6060.63	0.27		
1158.28	169.53	6.83		121.83	10.43	0.000525	

## HYCHAN.OUT

0.22378	60914.62						
31.00	4392.70	11.75	5.25	6146.76	0.27		
1170.30	169.93	6.89		122.11	10.39	0.000521	
0.22399	61053.02						
32.00	4392.71	11.76	5.25	6152.79	0.27		
1172.24	169.99	6.90		122.15	10.38	0.000523	
0.22492	61075.13						
33.00	4392.77	11.82	5.27	6232.04	0.27		
1181.85	170.31	6.94		122.37	10.35	0.000518	
0.22431	61185.29						
34.00	4392.84	11.90	5.29	6320.98	0.27		
1193.97	170.71	6.99		122.65	10.31	0.000516	
0.22519	61322.64						
35.00	4392.85	11.90	5.29	6323.74	0.27		
1195.49	170.76	7.00		122.68	10.31	0.000512	
0.22374	61339.67						
36.00	4392.80	11.85	5.26	6244.55	0.27		
1187.40	170.49	6.96		122.49	10.33	0.000515	
0.22397	61247.29						
37.00	4392.74	11.79	5.23	6155.38	0.27		
1176.50	170.13	6.92		122.25	10.37	0.000514	
0.22172	61123.72						
38.00	4392.68	11.73	5.20	6075.56	0.27		
1167.39	169.83	6.87		122.04	10.40	0.000517	
0.22178	61018.59						
39.00	4392.61	11.66	5.18	5990.36	0.27		
1155.82	169.44	6.82		121.77	10.44	0.000522	
0.22229	60885.60						
40.00	4392.60	11.65	5.19	5985.52	0.27		
1154.22	169.39	6.81		121.73	10.45	0.000524	
0.22273	60867.14						
41.00	4392.60	11.65	5.19	5985.33	0.27		
1153.72	169.37	6.81		121.72	10.45	0.000524	
0.22252	60861.42						
42.00	4392.60	11.65	5.19	5985.13	0.27		
1153.40	169.36	6.81		121.72	10.45	0.000523	
0.22216	60857.66						
43.00	4392.60	11.65	5.19	5986.30	0.27		
1153.38	169.36	6.81		121.72	10.45	0.000522	
0.22203	60857.53						
44.00	4392.65	11.70	5.22	6061.00	0.27		
1161.81	169.65	6.85		121.91	10.42	0.000522	
0.22299	60955.36						
45.00	4392.72	11.77	5.24	6148.71	0.27		
1173.36	170.03	6.90		122.18	10.38	0.000519	
0.22360	61088.07						
46.00	4392.78	11.83	5.27	6234.03	0.27		
1183.84	170.38	6.95		122.42	10.34	0.000513	
0.22254	61207.96						
47.00	4392.91	11.96	5.31	6405.06	0.27		
1205.20	171.08	7.04		122.90	10.27	0.000508	
0.22347	61449.49						
48.00	4393.05	12.10	5.36	6578.86	0.27		
1227.45	171.80	7.14		123.39	10.20	0.000501	
0.22355	61697.34						
49.00	4393.18	12.23	5.40	6754.32	0.27		
1250.05	172.52	7.25		123.89	10.13	0.000495	
0.22401	61945.58						
50.00	4393.31	12.36	5.44	6920.75	0.27		
1271.43	173.19	7.34		124.35	10.06	0.000489	
0.22378	62177.26						
51.00	4393.45	12.50	5.49	7102.20	0.27		
1294.64	173.91	7.44		124.85	9.99	0.000484	

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	0.22468	62425.30							
1325.07	52.00	4393.62	12.68	7.58	5.55	7354.26	0.27	0.000473	
	0.22383	62745.34				125.49	9.90		
1349.42	53.00	4393.77	12.82	7.69	5.58	7535.87	0.28	0.000469	
	0.22514	62997.21				125.99	9.83		
1363.77	54.00	4393.85	12.90	7.75	5.61	7643.96	0.28	0.000465	
	0.22467	63144.14				126.29	9.79		
1406.72	55.00	4394.10	13.15	7.94	5.70	8022.12	0.28	0.000453	
	0.22422	63576.07				127.15	9.67		
1484.77	56.00	4394.53	13.58	8.27	5.88	8729.88	0.28	0.000435	
	0.22447	64335.18				128.67	9.47		
1591.64	57.00	4395.12	14.17	8.73	6.10	9704.25	0.29	0.000419	
	0.22801	65326.29				130.65	9.22		
1720.94	58.00	4395.82	14.87	9.27	6.33	10890.29	0.29	0.000390	
	0.22559	66462.86				132.93	8.94		
1817.40	59.00	4396.42	15.47	9.69	6.53	11864.35	0.29	0.000393	
	0.23783	67432.63				134.87	8.72		
1875.41	60.00	4396.85	15.90	9.96	6.72	12597.87	0.30	0.000424	
	0.26358	68100.80				136.20	8.56		
1914.41	61.00	4397.15	16.20	10.13	6.92	13255.23	0.30	0.000454	
	0.28682	68558.23				137.12	8.46		
1935.19	62.00	4397.31	16.36	10.23	7.06	13656.48	0.31	0.000430	
	0.27432	68805.02				137.61	8.41		
1945.67	63.00	4397.40	16.45	10.27	7.14	13896.41	0.31	0.000484	
	0.31013	68935.19				137.87	8.38		
1954.48	64.00	4397.47	16.52	10.31	7.21	14096.47	0.31	0.000491	
	0.31559	69041.94				138.08	8.36		
1959.12	65.00	4397.51	16.56	10.33	7.24	14190.47	0.31	0.000496	
	0.31970	69097.77				138.20	8.35		
1965.16	66.00	4397.55	16.60	10.36	7.28	14298.89	0.31	0.000504	
	0.32598	69170.16				138.34	8.33		
1969.74	67.00	4397.59	16.64	10.38	7.30	14387.68	0.32	0.000509	
	0.32940	69226.48				138.45	8.32		
1971.10	68.00	4397.60	16.65	10.38	7.31	14408.84	0.32	0.000509	
	0.32966	69243.92				138.49	8.32		
1972.74	69.00	4397.62	16.67	10.39	7.31	14411.82	0.32	0.000510	
	0.33077	69264.13				138.53	8.31		
1973.53	70.00	4397.62	16.67	10.39	7.30	14399.54	0.32	0.000509	
	0.33032	69275.52				138.55	8.31		
1975.14	71.00	4397.64	16.69	10.40	7.27	14366.73	0.31	0.000508	
	0.32950	69295.84				138.59	8.30		
1978.14	72.00	4397.66	16.71	10.41	7.25	14343.00	0.31	0.000508	
		189.96				138.66	8.30		

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	0.32980	69331.36							
1984.47	73.00	4397.71	16.77	10.44	7.19	14260.17	0.31	0.000508	
		190.06				138.82	8.28		
	0.33066	69410.78							
1989.03	74.00	4397.75	16.80	10.46	7.16	14232.99	0.31	0.000511	
		190.14				138.93	8.27		
	0.33356	69467.05							
1995.54	75.00	4397.81	16.86	10.49	7.13	14230.83	0.31	0.000514	
		190.25				139.10	8.25		
	0.33656	69547.55							
2005.89	76.00	4397.89	16.94	10.53	7.04	14119.84	0.30	0.000511	
		190.42				139.35	8.22		
	0.33592	69676.83							
2017.01	77.00	4397.99	17.04	10.58	6.91	13944.13	0.30	0.000507	
		190.60				139.63	8.20		
	0.33498	69813.22							
2030.65	78.00	4398.11	17.16	10.64	6.73	13663.03	0.29	0.000415	
		190.85				139.99	8.16		
	0.27528	69992.60							
2084.87	79.00	4398.57	17.62	10.87	6.09	12688.55	0.26	0.000365	
		191.77				141.33	8.02		
	0.24769	70666.24							
2122.29	80.00	4398.88	17.93	11.03	5.71	12123.46	0.24	0.000315	
		192.38				142.22	7.93		
	0.21687	71107.82							
2173.59	81.00	4399.29	18.34	11.25	5.03	10925.87	0.21	0.000215	
		193.21				143.40	7.82		
	0.15080	71698.73							
2250.64	82.00	4399.81	18.86	11.59	4.29	9647.37	0.17	0.000092	
		194.25				144.84	7.68		
	0.06622	72420.05							
2333.06	83.00	4400.26	19.31	11.95	3.53	8246.52	0.14	0.000000	
		195.16				146.09	7.57		
	0.00000	73045.27							
2396.88	84.00	4400.60	19.65	12.24	2.83	6777.75	0.11	0.000000	
		195.84				147.02	7.48		
	0.00000	73510.07							
2435.53	85.00	4400.85	19.90	12.40	2.17	5276.11	0.09	0.000000	
		196.34				147.69	7.42		
	0.00000	73843.29							
2480.97	86.00	4401.16	20.21	12.60	1.18	2924.48	0.05	0.000000	
		196.95				148.50	7.35		
	0.00000	74249.83							
2335.32	87.00	4401.40	20.45	11.83	0.03	66.09	0.00	0.000000	
		197.43				149.14	7.29		
	0.00000	74571.38							
2549.16	88.00	4401.54	20.59	12.89	-0.78	-1982.17	0.03	0.000132	
		197.71				149.51	7.26		
	0.10634	74752.94							
2559.45	89.00	4401.61	20.66	12.94	-1.34	-3441.27	0.05	0.000000	
		197.85				149.70	7.25		
	0.00000	74848.47							
2569.58	90.00	4401.66	20.71	12.98	-1.71	-4383.08	0.07	0.000000	
		197.96				149.84	7.23		
	0.00000	74917.58							
2568.31	91.00	4401.65	20.70	12.98	-1.95	-5008.14	0.08	0.000307	
		197.93				149.80	7.24		
	0.24827	74901.14							
2566.32	92.00	4401.63	20.68	12.97	-1.94	-4984.09	0.08	0.000160	
		197.90				149.76	7.24		
	0.12970	74879.77							
2560.60	93.00	4401.59	20.64	12.94	-1.84	-4707.31	0.07	0.000000	
		197.82				149.65	7.25		

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0.00000	74822.83						
94.00	4401.47	20.52	-1.70	-4330.14	0.07		
2542.49	197.57	12.87		149.33	7.28	0.000190	
0.15232	74663.84						
95.00	4401.36	20.41	-1.51	-3804.17	0.06		
2524.80	197.35	12.79		149.04	7.30	0.000000	
0.00000	74520.25						
96.00	4401.25	20.30	-1.13	-2828.79	0.04		
2504.87	197.12	12.71		148.74	7.33	0.000083	
0.06609	74367.67						
97.00	4401.04	20.09	-0.49	-1204.92	0.02		
2478.52	196.70	12.60		148.18	7.38	0.000008	
0.00597	74089.73						
98.00	4400.75	19.80	0.49	1192.00	0.02		
2412.16	196.14	12.30		147.42	7.44	0.000000	
0.00000	73711.20						
99.00	4400.40	19.45	1.34	3166.88	0.05		
2371.84	195.42	12.14		146.46	7.53	0.000000	
0.00000	73227.72						
100.00	4400.04	19.09	2.01	4666.80	0.08		
2321.83	194.71	11.92		145.48	7.62	0.000000	
0.00000	72739.37						
101.00	4399.73	18.78	2.33	5310.30	0.09		
2274.96	194.09	11.72		144.63	7.70	0.000078	
0.05719	72313.82						
102.00	4399.34	18.39	2.76	6103.04	0.11		
2213.22	193.31	11.45		143.53	7.81	0.000035	
0.02481	71763.28						
103.00	4398.77	17.82	3.28	6954.99	0.14		
2119.40	192.18	11.03		141.92	7.96	0.000115	
0.07901	70958.79						
104.00	4397.96	17.01	4.02	8094.13	0.17		
2013.43	190.55	10.57		139.54	8.20	0.000198	
0.13072	69772.14						
105.00	4397.04	16.09	4.59	8721.03	0.20		
1898.87	188.71	10.06		136.77	8.50	0.000212	
0.13304	68385.38						
106.00	4396.35	15.40	4.70	8494.41	0.21		
1808.41	187.34	9.65		134.64	8.74	0.000217	
0.13049	67321.64						
107.00	4396.12	15.17	4.62	8195.77	0.21		
1775.49	186.87	9.50		133.90	8.83	0.000214	
0.12663	66947.55						
108.00	4395.94	14.99	4.60	8031.12	0.21		
1744.91	186.22	9.37		133.32	8.89	0.000230	
0.13434	66662.34						
109.00	4395.64	14.69	4.67	7885.35	0.21		
1688.16	184.81	9.13		132.36	9.01	0.000255	
0.14532	66179.01						
110.00	4395.28	14.33	4.82	7809.78	0.22		
1620.10	183.08	8.85		131.17	9.15	0.000288	
0.15893	65582.84						
111.00	4395.10	14.15	4.96	7876.68	0.23		
1587.83	182.24	8.71		130.59	9.23	0.000308	
0.16753	65293.40						
112.00	4395.09	14.14	5.13	8124.83	0.24		
1585.10	182.17	8.70		130.54	9.23	0.000322	
0.17507	65268.68						
113.00	4395.03	14.08	5.19	8180.55	0.24		
1574.75	181.89	8.66		130.35	9.26	0.000329	
0.17765	65173.94						
114.00	4394.87	13.92	5.19	8021.87	0.25		
1546.07	181.13	8.54		129.82	9.32	0.000343	

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1539.49	0.18256	64910.94	13.89	8.51	5.28	8134.67	0.25	0.000354
	115.00	4394.84				129.70	9.34	
	0.18808	64850.74						
1564.03	116.00	4394.97	14.02	8.61	5.43	8487.68	0.26	0.000356
		181.61				130.15	9.28	
	0.19139	65076.93						
1568.07	117.00	4394.99	14.05	8.63	5.46	8559.11	0.26	0.000359
		181.72				130.23	9.27	
	0.19342	65113.30						
1553.74	118.00	4394.92	13.97	8.57	5.46	8481.28	0.26	0.000364
		181.33				129.96	9.31	
	0.19467	64982.17						
1547.54	119.00	4394.88	13.93	8.54	5.48	8479.94	0.26	0.000372
		181.17				129.85	9.32	
	0.19833	64925.12						
1553.18	120.00	4394.91	13.96	8.57	5.53	8584.49	0.26	0.000374
		181.32				129.95	9.31	
	0.19970	64977.45						
1560.14	121.00	4394.95	14.00	8.60	5.56	8669.44	0.26	0.000373
		181.51				130.08	9.29	
	0.20008	65041.21						
1558.32	122.00	4394.94	13.99	8.59	5.56	8667.79	0.26	0.000375
		181.46				130.05	9.29	
	0.20094	65024.36						
1545.03	123.00	4394.87	13.92	8.53	5.54	8563.81	0.26	0.000379
		181.10				129.80	9.33	
	0.20194	64901.41						
1531.24	124.00	4394.79	13.84	8.47	5.53	8473.55	0.26	0.000381
		180.73				129.55	9.36	
	0.20160	64773.89						
1517.43	125.00	4394.72	13.77	8.41	5.51	8365.04	0.26	0.000386
		180.35				129.29	9.39	
	0.20240	64644.49						
1503.45	126.00	4394.64	13.69	8.35	5.51	8276.60	0.26	0.000392
		179.97				129.03	9.43	
	0.20439	64513.39						
1499.99	127.00	4394.62	13.67	8.34	5.51	8269.19	0.26	0.000393
		179.88				128.96	9.43	
	0.20447	64480.77						
1488.81	128.00	4394.56	13.61	8.29	5.49	8176.49	0.26	0.000395
		179.57				128.75	9.46	
	0.20448	64374.20						
1476.99	129.00	4394.49	13.54	8.24	5.48	8097.36	0.26	0.000398
		179.24				128.52	9.49	
	0.20472	64261.81						
1473.85	130.00	4394.47	13.52	8.23	5.49	8090.18	0.26	0.000401
		179.15				128.46	9.50	
	0.20572	64231.70						
1462.88	131.00	4394.41	13.46	8.18	5.47	8001.16	0.26	0.000402
		178.85				128.25	9.53	
	0.20520	64125.71						
1451.64	132.00	4394.35	13.40	8.13	5.46	7929.16	0.26	0.000409
		178.53				128.04	9.55	
	0.20744	64017.53						
1467.74	133.00	4394.44	13.49	8.20	5.52	8106.01	0.27	0.000406
		178.98				128.35	9.51	
	0.20752	64173.36						
1486.51	134.00	4394.54	13.60	8.28	5.56	8262.23	0.27	0.000403
		179.51				128.71	9.47	
	0.20801	64353.02						
1487.91	135.00	4394.55	13.60	8.29	5.56	8270.38	0.27	0.000401
		179.54				128.73	9.46	

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1487.27	0.20752	64366.17	13.60	8.28	5.56	8271.09	0.27	0.000402
	136.00	4394.55				128.72		
		179.53						
1486.43	0.20772	64360.04	13.59	8.28	5.56	8270.98	0.27	0.000404
	137.00	4394.54				128.70		
		179.50						
1485.53	0.20883	64352.04	13.59	8.28	5.57	8270.75	0.27	0.000404
	138.00	4394.54				128.69		
		179.48						
1484.78	0.20871	64343.46	13.59	8.27	5.57	8270.57	0.27	0.000404
	139.00	4394.54				128.67		
		179.46						
1483.81	0.20863	64336.33	13.58	8.27	5.57	8268.25	0.27	0.000405
	140.00	4394.53				128.65		
		179.43						
1473.48	0.20881	64327.00	13.52	8.23	5.55	8175.70	0.27	0.000407
	141.00	4394.47				128.46		
		179.14						
1462.63	0.20897	64227.72	13.46	8.18	5.54	8095.83	0.27	0.000412
	142.00	4394.41				128.25		
		178.84						
1460.78	0.21002	64123.72	13.45	8.17	5.54	8092.03	0.27	0.000411
	143.00	4394.40				128.21		
		178.79						
1459.91	0.20976	64105.98	13.45	8.17	5.54	8091.46	0.27	0.000413
	144.00	4394.40				128.20		
		178.76						
1458.89	0.21049	64097.55	13.44	8.16	5.54	8088.58	0.27	0.000413
	145.00	4394.39				128.18		
		178.74						
1449.07	0.21045	64087.63	13.39	8.12	5.52	8000.08	0.27	0.000416
	146.00	4394.33				127.98		
		178.46						
1438.27	0.21054	63991.95	13.32	8.07	5.51	7921.30	0.27	0.000417
	147.00	4394.27				127.77		
		178.15						
1436.50	0.20997	63887.22	13.31	8.07	5.51	7918.00	0.27	0.000419
	148.00	4394.26				127.74		
		178.10						
1435.52	0.21111	63869.89	13.31	8.06	5.52	7917.98	0.27	0.000420
	149.00	4394.26				127.72		
		178.08						
1434.70	0.21126	63860.31	13.30	8.06	5.52	7917.53	0.27	0.000420
	150.00	4394.25				127.70		
		178.05						
1433.91	0.21121	63852.34	13.30	8.05	5.52	7915.50	0.27	0.000420
	151.00	4394.25				127.69		
		178.03						
1427.07	0.21108	63844.54	13.26	8.02	5.50	7855.88	0.27	0.000422
	152.00	4394.21				127.55		
		177.83						
1416.56	0.21128	63777.06	13.20	7.98	5.49	7774.17	0.27	0.000424
	153.00	4394.15				127.35		
		177.53						
1411.04	0.21102	63673.51	13.17	7.96	5.49	7745.47	0.27	0.000428
	154.00	4394.12				127.24		
		177.37						
1409.54	0.21229	63619.02	13.16	7.95	5.49	7740.63	0.27	0.000429
	155.00	4394.11				127.21		
		177.33						
1400.25	0.21254	63604.13	13.11	7.91	5.47	7657.94	0.27	0.000433
	156.00	4394.06				127.02		
		177.06						

## HYCHAN.OUT

1408.02	0.21343	63511.22	13.15	7.94	5.51	7756.91	0.27	0.000428
	157.00	4394.10				127.18	9.67	
		177.29						
1426.69	0.21227	63589.32	13.26	8.02	5.54	7909.12	0.27	0.000427
	158.00	4394.21				127.55	9.62	
		177.82						
1428.94	0.21358	63773.86	13.27	8.03	5.54	7916.32	0.27	0.000426
	159.00	4394.22				127.59	9.61	
		177.89						
1429.16	0.21338	63795.83	13.27	8.03	5.54	7916.88	0.27	0.000427
	160.00	4394.22				127.60	9.61	
		177.89						
1429.01	0.21392	63797.98	13.27	8.03	5.54	7917.54	0.27	0.000424
	161.00	4394.22				127.59	9.61	
		177.89						
1428.80	0.21252	63796.50	13.27	8.03	5.54	7917.20	0.27	0.000427
	162.00	4394.22				127.59	9.61	
		177.88						
1428.58	0.21393	63794.42	13.27	8.03	5.54	7917.17	0.27	0.000427
	163.00	4394.22				127.58	9.61	
		177.88						
1428.37	0.21387	63792.31	13.27	8.03	5.54	7917.17	0.27	0.000426
	164.00	4394.22				127.58	9.62	
		177.87						
1427.93	0.21353	63790.23	13.27	8.03	5.54	7913.55	0.27	0.000427
	165.00	4394.22				127.57	9.62	
		177.86						
1418.68	0.21377	63785.80	13.21	7.99	5.52	7826.44	0.27	0.000428
	166.00	4394.16				127.39	9.64	
		177.59						
1408.05	0.21339	63694.16	13.15	7.94	5.50	7746.88	0.27	0.000432
	167.00	4394.10				127.18	9.67	
		177.29						
1406.47	0.21407	63589.29	13.14	7.94	5.51	7743.64	0.27	0.000433
	168.00	4394.09				127.15	9.67	
		177.24						
1406.00	0.21420	63573.68	13.14	7.93	5.51	7743.23	0.27	0.000433
	169.00	4394.09				127.14	9.67	
		177.23						
1405.80	0.21436	63569.00	13.14	7.93	5.51	7743.22	0.27	0.000432
	170.00	4394.09				127.13	9.68	
		177.22						
1405.60	0.21393	63566.97	13.14	7.93	5.51	7743.14	0.27	0.000432
	171.00	4394.09				127.13	9.68	
		177.22						
1405.38	0.21367	63565.02	13.14	7.93	5.51	7743.06	0.27	0.000433
	172.00	4394.09				127.13	9.68	
		177.21						
1404.97	0.21450	63562.82	13.14	7.93	5.51	7740.29	0.27	0.000433
	173.00	4394.09				127.12	9.68	
		177.20						
1395.54	0.21420	63558.62	13.08	7.89	5.48	7650.86	0.27	0.000434
	174.00	4394.03				126.93	9.70	
		176.92						
1385.02	0.21349	63464.05	13.02	7.84	5.47	7573.48	0.27	0.000439
	175.00	4393.97				126.72	9.73	
		176.62						
1383.37	0.21475	63358.84	13.01	7.83	5.47	7569.81	0.27	0.000439
	176.00	4393.96				126.68	9.74	
		176.57						
1382.86	0.21480	63342.29	13.01	7.83	5.47	7569.27	0.27	0.000439
	177.00	4393.96				126.67	9.74	
		176.56						

## HYCHAN.OUT

1382.68	0.21452	63337.23	13.01	7.83	5.47	7568.92	0.27	0.000439
	178.00	4393.96				126.67	9.74	
		176.55						
1382.51	0.21468	63335.35	13.01	7.83	5.47	7569.00	0.27	0.000440
	179.00	4393.96				126.67	9.74	
		176.55						
1382.88	0.21478	63333.64	13.01	7.83	5.48	7575.81	0.27	0.000441
	180.00	4393.96				126.68	9.74	
		176.56						
1401.44	0.21553	63337.55	13.12	7.91	5.53	7752.94	0.27	0.000434
	181.00	4394.07				127.05	9.69	
		177.10						
1422.05	0.21450	63523.89	13.23	8.00	5.56	7910.72	0.27	0.000431
	182.00	4394.18				127.46	9.63	
		177.69						
1434.26	0.21531	63728.27	13.30	8.06	5.58	8008.19	0.27	0.000426
	183.00	4394.25				127.70	9.60	
		178.04						
1444.94	0.21428	63848.37	13.36	8.10	5.60	8086.41	0.27	0.000423
	184.00	4394.31				127.90	9.57	
		178.34						
1446.59	0.21410	63952.45	13.37	8.11	5.59	8090.01	0.27	0.000425
	185.00	4394.32				127.94	9.57	
		178.39						
1447.08	0.21485	63968.46	13.37	8.11	5.59	8091.04	0.27	0.000424
	186.00	4394.32				127.95	9.57	
		178.40						
1447.19	0.21480	63973.19	13.37	8.11	5.59	8090.84	0.27	0.000424
	187.00	4394.32				127.95	9.57	
		178.41						
1447.39	0.21469	63974.32	13.38	8.11	5.59	8091.07	0.27	0.000424
	188.00	4394.33				127.95	9.57	
		178.41						
1447.42	0.21488	63976.23	13.38	8.11	5.59	8090.65	0.27	0.000423
	189.00	4394.33				127.95	9.57	
		178.41						
1447.49	0.21408	63976.53	13.38	8.11	5.59	8091.19	0.27	0.000422
	190.00	4394.33				127.95	9.57	
		178.41						
1447.20	0.21373	63977.19	13.37	8.11	5.59	8087.80	0.27	0.000422
	191.00	4394.32				127.95	9.57	
		178.41						
1438.06	0.21383	63974.27	13.32	8.07	5.56	7999.34	0.27	0.000426
	192.00	4394.27				127.77	9.59	
		178.15						
1427.76	0.21446	63884.66	13.27	8.03	5.55	7921.03	0.27	0.000429
	193.00	4394.21				127.57	9.62	
		177.85						
1426.22	0.21471	63784.17	13.26	8.02	5.55	7918.11	0.27	0.000429
	194.00	4394.21				127.54	9.62	
		177.81						
1425.79	0.21491	63769.07	13.25	8.02	5.55	7917.27	0.27	0.000427
	195.00	4394.20				127.53	9.62	
		177.80						
1425.54	0.21387	63764.86	13.25	8.02	5.55	7917.18	0.27	0.000428
	196.00	4394.20				127.52	9.62	
		177.79						
1425.44	0.21395	63762.34	13.25	8.02	5.55	7916.77	0.27	0.000430
	197.00	4394.20				127.52	9.62	
		177.79						
1425.39	0.21527	63761.40	13.25	8.02	5.55	7917.26	0.27	0.000430
	198.00	4394.20				127.52	9.62	
		177.79						



## HYCHAN.OUT

0.21513 63760.84  
 199.00 4394.20 13.25 5.55 7917.35 0.27  
 1425.28 177.78 8.02 127.52 9.62 0.000430  
 0.21515 63759.86

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4131

MAXIMUM DISCHARGE (CFS) = 14048.04 AT TIME = 67.92

MAXIMUM STAGE = 4402.11 AT TIME = 90.86

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)								
0.00	0.00	4380.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
1.00	4380.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
2.00	4380.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
3.00	4380.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
4.00	4383.49	3.49	2.25	1534.61	0.21				
683.02	64.71	10.56	63.48	18.20	0.001206				
0.79453	32373.06								
5.00	4391.05	11.05	6.07	5395.46	0.32				
889.37	127.20	6.99	121.94	11.03	0.001034				
0.45116	62187.12								
6.00	4391.23	11.23	5.88	5369.87	0.31				
913.25	128.39	7.11	123.03	10.96	0.000994				
0.44133	62746.85								
7.00	4391.26	11.26	5.79	5310.96	0.30				
917.86	128.61	7.14	123.24	10.94	0.000971				
0.43241	62853.50								
8.00	4391.19	11.19	5.69	5171.40	0.30				
908.22	128.13	7.09	122.79	10.97	0.000961				
0.42488	62625.29								
9.00	4391.08	11.08	5.63	5026.62	0.30				
893.11	127.37	7.01	122.09	11.02	0.000962				
0.42111	62265.55								
10.00	4390.95	10.95	5.57	4881.70	0.30				
876.64	126.53	6.93	121.31	11.08	0.000964				
0.41659	61869.14								
11.00	4390.86	10.86	5.54	4784.08	0.30				
864.10	125.89	6.86	120.72	11.12	0.000966				
0.41394	61565.53								
12.00	4390.80	10.80	5.52	4729.43	0.30				
856.83	125.51	6.83	120.37	11.14	0.000965				
0.41108	61386.41								
13.00	4390.67	10.67	5.46	4586.01	0.29				
839.78	124.61	6.74	119.54	11.20	0.000968				
0.40710	60963.96								
14.00	4390.56	10.56	5.42	4479.46	0.29				
825.72	123.87	6.67	118.85	11.25	0.000975				
0.40568	60613.22								

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822.89	15.00	4390.54	10.54	5.43	4470.02	0.29	0.000978
	0.40605	123.72	6.65	118.71	11.26		
822.15	16.00	4390.53	10.53	5.44	4469.32	0.30	0.000980
	0.40654	123.68	6.65	118.67	11.27		
821.87	17.00	4390.53	10.53	5.44	4469.14	0.30	0.000980
	0.40634	123.67	6.65	118.66	11.27		
821.71	18.00	4390.53	10.53	5.44	4467.50	0.30	0.000981
	0.40677	123.66	6.65	118.65	11.27		
826.70	19.00	4390.57	10.57	5.46	4510.68	0.30	0.000985
	0.41006	123.93	6.67	118.90	11.25		
843.89	20.00	4390.70	10.70	5.52	4656.18	0.30	0.000983
	0.41456	124.83	6.76	119.74	11.19		
862.60	21.00	4390.85	10.85	5.58	4811.27	0.30	0.000978
	0.41854	125.81	6.86	120.65	11.12		
876.45	22.00	4390.95	10.95	5.61	4914.76	0.30	0.000971
	0.41965	126.52	6.93	121.31	11.08		
879.11	23.00	4390.97	10.97	5.60	4923.17	0.30	0.000968
	0.41905	126.66	6.94	121.43	11.07		
885.44	24.00	4391.02	11.02	5.62	4977.13	0.30	0.000970
	0.42186	126.98	6.97	121.73	11.05		
908.75	25.00	4391.19	11.19	5.71	5186.59	0.30	0.000968
	0.42851	128.16	7.09	122.82	10.97		
943.53	26.00	4391.45	11.45	5.82	5490.94	0.30	0.000965
	0.43735	129.88	7.26	124.42	10.87		
979.03	27.00	4391.71	11.71	5.92	5799.29	0.31	0.000953
	0.44224	131.60	7.44	126.00	10.76		
1001.55	28.00	4391.87	11.87	5.96	5972.57	0.31	0.000945
	0.44497	132.66	7.55	126.99	10.70		
1005.61	29.00	4391.90	11.90	5.95	5984.51	0.30	0.000941
	0.44433	132.85	7.57	127.16	10.68		
1013.86	30.00	4391.96	11.96	5.98	6058.59	0.30	0.000938
	0.44514	133.24	7.61	127.52	10.66		
1024.53	31.00	4392.04	12.04	6.00	6146.16	0.30	0.000933
	0.44580	133.74	7.66	127.98	10.63		
1026.48	32.00	4392.05	12.05	5.99	6152.55	0.30	0.000935
	0.44732	133.83	7.67	128.06	10.63		
1034.68	33.00	4392.11	12.11	6.02	6229.95	0.31	0.000934
	0.44915	134.21	7.71	128.41	10.60		
1045.38	34.00	4392.18	12.18	6.05	6320.39	0.31	0.000930
	0.45027	134.70	7.76	128.87	10.58		
1046.97	35.00	4392.20	12.20	6.04	6323.75	0.30	0.000927
	0.44949	134.77	7.77	128.93	10.57		
		65756.59					

HYCHAN.OUT							
1040.43	36.00	4392.15	12.15	6.00	6246.38	0.30	0.000922
	0.44527	134.47	7.74	128.66	10.59		
		65614.34					
1031.14	37.00	4392.08	12.08	5.97	6155.92	0.30	0.000922
	0.44281	134.04	7.69	128.26	10.61		
		65413.64					
1023.50	38.00	4392.03	12.03	5.94	6077.47	0.30	0.000922
	0.44047	133.69	7.66	127.93	10.64		
		65246.01					
1013.35	39.00	4391.96	11.96	5.91	5990.96	0.30	0.000923
	0.43817	133.21	7.61	127.50	10.66		
		65024.21					
1011.73	40.00	4391.95	11.95	5.92	5985.64	0.30	0.000927
	0.43949	133.14	7.60	127.43	10.67		
		64988.85					
1011.19	41.00	4391.94	11.94	5.92	5985.35	0.30	0.000929
	0.44051	133.11	7.60	127.41	10.67		
		64976.83					
1010.84	42.00	4391.94	11.94	5.92	5985.18	0.30	0.000929
	0.44036	133.10	7.59	127.39	10.67		
		64969.13					
1010.77	43.00	4391.94	11.94	5.92	5986.18	0.30	0.000930
	0.44050	133.10	7.59	127.39	10.67		
		64967.82					
1017.78	44.00	4391.99	11.99	5.95	6059.10	0.30	0.000930
	0.44291	133.42	7.63	127.69	10.65		
		65122.45					
1027.85	45.00	4392.06	12.06	5.98	6148.06	0.30	0.000929
	0.44486	133.89	7.68	128.12	10.62		
		65342.39					
1036.83	46.00	4392.12	12.12	6.01	6231.71	0.30	0.000929
	0.44769	134.31	7.72	128.51	10.60		
		65538.12					
1055.26	47.00	4392.25	12.25	6.07	6402.35	0.31	0.000924
	0.45015	135.15	7.81	129.29	10.55		
		65935.44					
1074.60	48.00	4392.39	12.39	6.12	6576.11	0.31	0.000923
	0.45482	136.02	7.90	130.09	10.50		
		66347.62					
1094.33	49.00	4392.53	12.53	6.17	6751.61	0.31	0.000920
	0.45879	136.90	7.99	130.91	10.45		
		66762.91					
1113.02	50.00	4392.66	12.66	6.22	6917.94	0.31	0.000916
	0.46183	137.73	8.08	131.67	10.40		
		67151.95					
1133.30	51.00	4392.80	12.80	6.26	7099.32	0.31	0.000913
	0.46589	138.62	8.18	132.49	10.35		
		67569.21					
1159.57	52.00	4392.98	12.98	6.34	7349.75	0.31	0.000909
	0.47059	139.75	8.30	133.53	10.29		
		68102.22					
1181.14	53.00	4393.12	13.12	6.38	7534.51	0.31	0.000901
	0.47201	140.67	8.40	134.38	10.24		
		68533.98					
1193.86	54.00	4393.21	13.21	6.40	7641.04	0.31	0.000898
	0.47360	141.20	8.45	134.88	10.21		
		68786.44					
1230.54	55.00	4393.45	13.45	6.51	8014.52	0.31	0.000901
	0.48477	142.73	8.62	136.28	10.13		
		69503.28					
1297.03	56.00	4393.89	13.89	6.72	8718.69	0.32	0.000901
	0.50171	145.42	8.92	138.76	9.99		
		70767.73					

HYCHAN.OUT							
1388.61	57.00	4394.47	14.47	6.98	9689.79	0.32	0.000895
	0.52030	148.98	9.32		142.04	9.82	
		72442.31					
1497.99	58.00	4395.17	15.17	7.25	10863.45	0.33	0.000891
	0.54463	152.87	9.80		145.87	9.62	
		74393.37					
1583.96	59.00	4395.76	15.76	7.45	11802.63	0.33	0.000911
	0.58434	154.05	10.28		149.05	9.46	
		76016.47					
1641.61	60.00	4396.16	16.16	7.62	12514.07	0.33	0.000934
	0.61785	154.85	10.60		151.18	9.36	
		77101.04					
1679.66	61.00	4396.42	16.42	7.81	13112.94	0.34	0.000958
	0.64608	155.39	10.81		152.60	9.29	
		77824.09					
1699.85	62.00	4396.57	16.57	7.91	13452.30	0.34	0.000884
	0.60228	155.68	10.92		153.36	9.26	
		78215.17					
1709.46	63.00	4396.64	16.64	7.98	13641.52	0.34	0.000984
	0.67341	155.82	10.97		153.74	9.24	
		78406.17					
1717.92	64.00	4396.70	16.70	8.04	13805.60	0.35	0.000988
	0.67924	155.95	11.02		154.06	9.22	
		78572.18					
1722.51	65.00	4396.74	16.74	8.06	13876.74	0.35	0.000991
	0.68278	156.02	11.04		154.24	9.21	
		78662.15					
1728.48	66.00	4396.78	16.78	8.08	13959.57	0.35	0.000996
	0.68838	156.10	11.07		154.47	9.20	
		78778.76					
1733.00	67.00	4396.82	16.82	8.09	14025.60	0.35	0.000998
	0.69082	156.17	11.10		154.64	9.20	
		78868.29					
1734.53	68.00	4396.83	16.83	8.09	14036.13	0.35	0.000996
	0.69037	156.19	11.10		154.70	9.19	
		78899.23					
1736.61	69.00	4396.84	16.84	8.08	14029.87	0.35	0.000993
	0.68880	156.22	11.12		154.79	9.19	
		78940.50					
1738.00	70.00	4396.85	16.85	8.06	14004.09	0.35	0.000986
	0.68429	156.25	11.12		154.84	9.19	
		78969.84					
1740.69	71.00	4396.88	16.87	8.02	13954.23	0.34	0.000979
	0.68056	156.29	11.14		154.95	9.18	
		79023.93					
1744.97	72.00	4396.91	16.91	7.97	13908.74	0.34	0.000963
	0.67068	156.35	11.16		155.11	9.17	
		79108.39					
1754.76	73.00	4396.98	16.98	7.84	13761.38	0.34	0.000942
	0.65884	156.50	11.21		155.50	9.16	
		79305.61					
1761.16	74.00	4397.03	17.03	7.78	13693.48	0.33	0.000931
	0.65344	156.60	11.25		155.75	9.15	
		79433.80					
1769.79	75.00	4397.10	17.10	7.70	13635.58	0.33	0.000915
	0.64477	156.73	11.29		156.09	9.13	
		79607.05					
1785.21	76.00	4397.21	17.21	7.51	13414.59	0.32	0.000832
	0.59075	156.97	11.37		156.70	9.10	
		79919.49					
1802.35	77.00	4397.34	17.34	7.28	13113.14	0.31	0.000807
	0.57723	157.23	11.46		157.38	9.07	
		80262.55					

HYCHAN.OUT							
1824.62	78.00	4397.49	17.49	7.09	12927.63	0.30	0.000612
	0.44263	157.52	11.58		158.12	9.04	
		80640.55					
1906.28	79.00	4398.03	18.03	6.38	12161.03	0.26	0.000475
		158.59	12.02		160.85	8.92	
	0.35633	82033.73					
1957.04	80.00	4398.37	18.37	5.93	11595.50	0.24	0.000387
		159.29	12.29		162.60	8.85	
	0.29645	82925.66					
2027.00	81.00	4398.85	18.85	5.17	10479.38	0.21	0.000260
		160.24	12.65		164.98	8.75	
	0.20523	84141.70					
2115.00	82.00	4399.42	19.42	4.52	9553.89	0.18	0.000163
		161.38	13.11		167.77	8.64	
	0.13356	85562.69					
2203.85	83.00	4399.94	19.94	3.77	8300.59	0.15	0.000193
		162.42	13.57		170.30	8.54	
	0.16354	86851.59					
2279.37	84.00	4400.32	20.32	3.06	6967.07	0.12	0.000154
		163.18	13.97		172.14	8.47	
	0.13386	87791.23					
2320.97	85.00	4400.59	20.59	2.40	5574.78	0.09	0.000000
		163.71	14.18		173.40	8.42	
	0.00000	88435.12					
2373.92	86.00	4400.87	20.87	1.44	3416.46	0.06	0.000233
		164.29	14.45		174.77	8.37	
	0.21027	89133.60					
2397.05	87.00	4401.08	21.08	0.32	771.53	0.01	0.000224
		164.71	14.55		175.76	8.34	
	0.20363	89639.48					
2455.64	88.00	4401.24	21.24	-0.50	-1229.66	0.02	0.000000
		165.01	14.88		176.49	8.31	
	0.00000	90007.34					
2468.80	89.00	4401.34	21.34	-1.10	-2718.35	0.04	0.000022
		165.22	14.94		176.97	8.29	
	0.02091	90256.14					
2477.81	90.00	4401.42	21.42	-1.49	-3680.37	0.06	0.000000
		165.37	14.98		177.33	8.28	
	0.00000	90438.95					
2475.44	91.00	4401.41	21.41	-1.74	-4315.96	0.07	0.000000
		165.36	14.97		177.29	8.28	
	0.00000	90420.22					
2472.65	92.00	4401.40	21.39	-1.73	-4266.04	0.07	0.000000
		165.33	14.96		177.23	8.28	
	0.00000	90385.55					
2467.52	93.00	4401.36	21.36	-1.62	-3988.03	0.06	0.000307
		165.25	14.93		177.05	8.29	
	0.28585	90295.89					
2444.89	94.00	4401.22	21.22	-1.48	-3619.65	0.06	0.000000
		164.98	14.82		176.41	8.31	
	0.00000	89969.46					
2427.33	95.00	4401.10	21.10	-1.28	-3105.98	0.05	0.000000
		164.73	14.74		175.82	8.33	
	0.00000	89667.00					
2411.71	96.00	4400.95	20.95	-0.90	-2160.02	0.03	0.000138
		164.45	14.67		175.15	8.36	
	0.12634	89327.40					
2391.89	97.00	4400.73	20.73	-0.26	-615.43	0.01	0.000014
		163.99	14.59		174.07	8.40	
	0.01239	88778.08					
2309.02	98.00	4400.48	20.48	0.66	1534.72	0.03	0.000000
		163.49	14.12		172.88	8.44	
	0.00000	88168.35					

HYCHAN.OUT							
2262.59	99.00	4400.14	20.14	1.52	3450.00	0.06	0.000062
	0.05406	162.82	13.90		171.26	8.50	
2206.46	100.00	87344.29	19.78	2.18	4804.85	0.09	0.000096
	0.08121	162.10	13.61		169.52	8.57	
2153.54	101.00	86456.09	19.45	2.49	5354.98	0.10	0.000072
	0.05983	161.44	13.34		167.93	8.63	
2084.50	102.00	85644.93	19.05	2.91	6066.38	0.12	0.000055
	0.04449	160.64	12.98		165.95	8.71	
1985.02	103.00	84635.75	18.47	3.42	6792.74	0.14	0.000183
	0.14224	159.49	12.45		163.10	8.83	
1857.48	104.00	83180.66	17.66	4.31	8000.31	0.18	0.000339
	0.24885	157.86	11.77		158.98	9.00	
1720.75	105.00	81081.91	16.70	5.06	8703.68	0.22	0.000479
	0.32948	155.95	11.03		154.06	9.22	
1622.60	106.00	78571.67	16.02	5.21	8457.11	0.23	0.000470
	0.30786	154.58	10.50		150.46	9.39	
1589.89	107.00	76733.73	15.79	5.14	8165.93	0.23	0.000458
	0.29461	154.13	10.32		149.26	9.45	
1563.47	108.00	76120.84	15.61	5.13	8016.75	0.23	0.000474
	0.30067	153.76	10.17		148.27	9.50	
1516.66	109.00	75619.57	15.29	5.21	7894.54	0.23	0.000506
	0.31273	153.11	9.91		146.52	9.58	
1454.36	110.00	74726.41	14.88	5.38	7817.77	0.25	0.000565
	0.33848	151.45	9.60		144.32	9.70	
1421.19	111.00	73603.60	14.68	5.54	7879.08	0.26	0.000608
	0.35885	150.22	9.46		143.18	9.76	
1413.99	112.00	73023.88	14.63	5.75	8124.94	0.26	0.000645
	0.37950	149.95	9.43		142.93	9.77	
1402.56	113.00	72896.73	14.56	5.83	8183.92	0.27	0.000656
	0.38387	149.51	9.38		142.54	9.79	
1376.43	114.00	72692.91	14.40	5.83	8025.31	0.27	0.000675
	0.39025	148.52	9.27		141.62	9.84	
1367.43	115.00	72225.60	14.34	5.95	8133.36	0.28	0.000708
	0.40752	148.18	9.23		141.30	9.85	
1385.58	116.00	72064.45	14.45	6.12	8484.86	0.28	0.000727
	0.42219	148.87	9.31		141.94	9.82	
1388.29	117.00	72391.20	14.47	6.17	8561.10	0.29	0.000729
	0.42364	148.97	9.32		142.04	9.82	
1375.09	118.00	72438.80	14.39	6.17	8482.53	0.29	0.000737
	0.42623	148.47	9.26		141.57	9.84	
1368.70	119.00	72202.16	14.35	6.20	8480.51	0.29	0.000747
	0.43029	148.22	9.23		141.35	9.85	
		72087.19					

HYCHAN.OUT							
1372.39	120.00	4394.37	14.37	9.25	6.25	8583.09	0.29
	0.43622	148.37				141.48	9.85
		72154.34					0.000756
1377.84	121.00	4394.40	14.40	9.27	6.29	8669.43	0.29
	0.43908	148.58				141.67	9.84
		72252.15					0.000759
1375.98	122.00	4394.39	14.39	9.27	6.30	8668.44	0.29
	0.43984	148.50				141.60	9.84
		72218.43					0.000761
1364.34	123.00	4394.32	14.32	9.22	6.28	8566.22	0.29
	0.43970	148.05				141.19	9.86
		72007.40					0.000765
1351.91	124.00	4394.24	14.24	9.16	6.27	8474.59	0.29
	0.43932	147.58				140.75	9.88
		71782.51					0.000769
1339.87	125.00	4394.16	14.16	9.11	6.24	8367.45	0.29
	0.43901	147.11				140.32	9.91
		71561.75					0.000772
1327.19	126.00	4394.08	14.08	9.05	6.24	8277.51	0.29
	0.43885	146.61				139.86	9.93
		71329.59					0.000777
1323.75	127.00	4394.06	14.06	9.04	6.25	8269.72	0.29
	0.43864	146.48				139.74	9.94
		71266.20					0.000778
1314.08	128.00	4394.00	14.00	8.99	6.22	8178.55	0.29
	0.43849	146.09				139.39	9.96
		71086.45					0.000781
1303.46	129.00	4393.93	13.93	8.95	6.21	8098.06	0.29
	0.43934	145.67				139.00	9.98
		70889.47					0.000787
1300.34	130.00	4393.91	13.91	8.93	6.22	8090.72	0.29
	0.43887	145.55				138.88	9.99
		70831.23					0.000787
1290.83	131.00	4393.85	13.85	8.89	6.20	8003.21	0.29
	0.43774	145.17				138.53	10.01
		70652.37					0.000789
1280.68	132.00	4393.78	13.78	8.85	6.19	7929.44	0.29
	0.43972	144.77				138.16	10.03
		70462.14					0.000797
1293.58	133.00	4393.86	13.86	8.90	6.26	8102.53	0.30
	0.44575	145.28				138.64	10.00
		70705.37					0.000802
1309.77	134.00	4393.97	13.97	8.98	6.31	8261.52	0.30
	0.44794	145.93				139.23	9.97
		71007.46					0.000800
1311.04	135.00	4393.98	13.98	8.98	6.31	8270.41	0.30
	0.44900	145.98				139.28	9.96
		71030.95					0.000801
1310.35	136.00	4393.97	13.97	8.98	6.31	8271.20	0.30
	0.44964	145.95				139.25	9.97
		71018.00					0.000803
1309.47	137.00	4393.97	13.97	8.97	6.32	8271.12	0.30
	0.44899	145.91				139.22	9.97
		71001.59					0.000802
1308.52	138.00	4393.96	13.96	8.97	6.32	8270.86	0.30
	0.44944	145.88				139.18	9.97
		70984.06					0.000803
1307.74	139.00	4393.96	13.96	8.97	6.32	8270.68	0.30
	0.45149	145.84				139.16	9.97
		70969.39					0.000807
1306.78	140.00	4393.95	13.95	8.96	6.33	8268.61	0.30
	0.45128	145.81				139.12	9.97
		70951.39					0.000807



HYCHAN.OUT							
1298.02	141.00	4393.89	13.89	8.92	6.30	8177.67	0.30
	0.44920	145.46				138.80	9.99
		70787.19					0.000807
1288.39	142.00	4393.83	13.83	8.88	6.28	8096.39	0.30
	0.44831	145.07				138.45	10.01
		70607.32					0.000809
1286.52	143.00	4393.82	13.82	8.87	6.29	8092.17	0.30
	0.44991	145.00				138.38	10.01
		70572.31					0.000813
1285.62	144.00	4393.81	13.81	8.87	6.29	8091.60	0.30
	0.44891	144.96				138.34	10.02
		70555.33					0.000811
1284.61	145.00	4393.81	13.81	8.86	6.30	8088.89	0.30
	0.44882	144.92				138.31	10.02
		70536.24					0.000811
1276.30	146.00	4393.75	13.75	8.83	6.27	8002.02	0.30
	0.44638	144.59				138.00	10.04
		70378.54					0.000810
1266.72	147.00	4393.69	13.69	8.78	6.25	7921.81	0.30
	0.44773	144.20				137.64	10.06
		70197.70					0.000817
1264.91	148.00	4393.68	13.68	8.78	6.26	7918.17	0.30
	0.44872	144.13				137.58	10.06
		70163.34					0.000819
1263.88	149.00	4393.67	13.67	8.77	6.26	7918.12	0.30
	0.44947	144.09				137.54	10.06
		70143.81					0.000821
1263.02	150.00	4393.66	13.66	8.77	6.27	7917.63	0.30
	0.44963	144.05				137.50	10.06
		70127.43					0.000822
1262.25	151.00	4393.66	13.66	8.76	6.27	7915.73	0.30
	0.44987	144.02				137.48	10.06
		70112.75					0.000823
1256.42	152.00	4393.62	13.62	8.74	6.25	7857.27	0.30
	0.44812	143.78				137.26	10.08
		70000.88					0.000822
1247.21	153.00	4393.56	13.56	8.70	6.23	7775.24	0.30
	0.44865	143.41				136.91	10.10
		69824.69					0.000827
1242.06	154.00	4393.53	13.53	8.67	6.24	7745.83	0.30
	0.44892	143.20				136.72	10.11
		69725.88					0.000829
1240.59	155.00	4393.52	13.52	8.67	6.24	7740.96	0.30
	0.44834	143.14				136.66	10.11
		69697.63					0.000829
1232.68	156.00	4393.46	13.46	8.63	6.21	7659.44	0.30
	0.44625	142.81				136.36	10.13
		69544.35					0.000829
1238.55	157.00	4393.50	13.50	8.66	6.26	7753.74	0.30
	0.45298	143.06				136.59	10.11
		69658.85					0.000838
1254.75	158.00	4393.61	13.61	8.73	6.30	7908.31	0.30
	0.45268	143.72				137.20	10.08
		69969.81					0.000831
1256.93	159.00	4393.62	13.62	8.74	6.30	7916.23	0.30
	0.45387	143.81				137.28	10.08
		70011.26					0.000832
1257.15	160.00	4393.63	13.63	8.74	6.30	7916.91	0.30
	0.45302	143.82				137.29	10.08
		70015.46					0.000831
1256.98	161.00	4393.62	13.62	8.74	6.30	7917.51	0.30
	0.45366	143.81				137.28	10.08
		70012.30					0.000832

HYCHAN.OUT							
1256.78	162.00	4393.62	13.62	8.74	6.30	7917.27	0.30
	0.45392	143.80				137.27	10.08
		70008.33					0.000832
1256.55	163.00	4393.62	13.62	8.74	6.30	7917.21	0.30
	0.45377	143.79				137.26	10.08
		70004.10					0.000832
1256.33	164.00	4393.62	13.62	8.74	6.30	7917.21	0.30
	0.45448	143.78				137.25	10.08
		69999.80					0.000834
1255.94	165.00	4393.62	13.62	8.74	6.30	7913.76	0.30
	0.45399	143.77				137.24	10.08
		69992.22					0.000833
1248.21	166.00	4393.57	13.57	8.70	6.27	7828.33	0.30
	0.45025	143.45				136.95	10.09
		69843.44					0.000829
1238.83	167.00	4393.51	13.51	8.66	6.25	7747.42	0.30
	0.44995	143.07				136.60	10.11
		69663.70					0.000833
1237.24	168.00	4393.49	13.49	8.65	6.26	7743.74	0.30
	0.45123	143.00				136.54	10.12
		69632.99					0.000836
1236.75	169.00	4393.49	13.49	8.65	6.26	7743.29	0.30
	0.45047	142.98				136.52	10.12
		69623.63					0.000835
1236.53	170.00	4393.49	13.49	8.65	6.26	7743.23	0.30
	0.45046	142.97				136.51	10.12
		69619.37					0.000835
1236.32	171.00	4393.49	13.49	8.65	6.26	7743.14	0.30
	0.45138	142.96				136.50	10.12
		69615.30					0.000836
1236.10	172.00	4393.49	13.49	8.65	6.26	7743.15	0.30
	0.45138	142.96				136.49	10.12
		69611.02					0.000837
1235.72	173.00	4393.48	13.48	8.65	6.26	7740.51	0.30
	0.45096	142.94				136.48	10.12
		69603.65					0.000836
1227.84	174.00	4393.43	13.43	8.61	6.23	7652.70	0.30
	0.44968	142.61				136.18	10.14
		69450.20					0.000837
1218.54	175.00	4393.37	13.37	8.57	6.22	7574.06	0.30
	0.44851	142.23				135.82	10.16
		69270.02					0.000839
1216.87	176.00	4393.36	13.36	8.56	6.22	7569.91	0.30
	0.44894	142.16				135.76	10.16
		69237.59					0.000841
1216.34	177.00	4393.36	13.36	8.56	6.22	7569.29	0.30
	0.44864	142.14				135.74	10.16
		69227.45					0.000840
1216.14	178.00	4393.35	13.35	8.56	6.22	7568.95	0.30
	0.45002	142.13				135.73	10.16
		69223.39					0.000843
1215.96	179.00	4393.35	13.35	8.56	6.22	7569.05	0.30
	0.45030	142.12				135.73	10.16
		69219.84					0.000843
1216.18	180.00	4393.35	13.36	8.56	6.23	7575.37	0.30
	0.45130	142.13				135.73	10.16
		69224.39					0.000845
1231.63	181.00	4393.46	13.46	8.63	6.29	7749.23	0.30
	0.45525	142.77				136.32	10.13
		69525.17					0.000846
1249.75	182.00	4393.58	13.58	8.71	6.33	7909.56	0.30
	0.45646	143.52				137.01	10.09
		69874.34					0.000840

HYCHAN.OUT							
1260.39	183.00	4393.65	13.65	6.35	8006.16	0.30	0.000842
	0.45996	143.95	8.76	137.41	10.07		
		70077.92					
1269.89	184.00	4393.71	13.71	6.37	8085.87	0.30	0.000836
	0.45871	144.33	8.80	137.76	10.05		
		70258.30					
1271.54	185.00	4393.72	13.72	6.36	8089.94	0.30	0.000835
	0.45898	144.40	8.81	137.82	10.05		
		70289.44					
1272.03	186.00	4393.72	13.72	6.36	8091.00	0.30	0.000834
	0.45857	144.42	8.81	137.84	10.04		
		70298.70					
1272.18	187.00	4393.72	13.72	6.36	8090.81	0.30	0.000836
	0.45927	144.42	8.81	137.85	10.04		
		70301.45					
1272.37	188.00	4393.73	13.73	6.36	8091.07	0.30	0.000835
	0.45881	144.43	8.81	137.85	10.04		
		70305.02					
1272.40	189.00	4393.73	13.73	6.36	8090.63	0.30	0.000835
	0.45898	144.43	8.81	137.85	10.04		
		70305.66					
1272.47	190.00	4393.73	13.73	6.36	8091.16	0.30	0.000836
	0.45965	144.44	8.81	137.86	10.04		
		70306.93					
1272.24	191.00	4393.72	13.72	6.36	8088.03	0.30	0.000835
	0.45890	144.43	8.81	137.85	10.04		
		70302.50					
1264.63	192.00	4393.67	13.67	6.33	8001.20	0.30	0.000834
	0.45646	144.12	8.78	137.56	10.06		
		70157.24					
1255.55	193.00	4393.62	13.62	6.31	7921.53	0.30	0.000837
	0.45627	143.75	8.73	137.23	10.08		
		69984.80					
1254.01	194.00	4393.61	13.61	6.31	7918.23	0.30	0.000836
	0.45541	143.69	8.73	137.17	10.08		
		69955.45					
1253.56	195.00	4393.60	13.60	6.32	7917.25	0.30	0.000836
	0.45533	143.67	8.73	137.15	10.08		
		69946.84					
1253.31	196.00	4393.60	13.60	6.32	7917.24	0.30	0.000839
	0.45692	143.66	8.72	137.14	10.08		
		69942.02					
1253.20	197.00	4393.60	13.60	6.32	7916.80	0.30	0.000838
	0.45595	143.66	8.72	137.14	10.08		
		69939.91					
1253.13	198.00	4393.60	13.60	6.32	7917.27	0.30	0.000837
	0.45575	143.65	8.72	137.13	10.08		
		69938.62					
1253.02	199.00	4393.60	13.60	6.32	7917.36	0.30	0.000840
	0.45708	143.65	8.72	137.13	10.08		
		69936.52					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4196

MAXIMUM DISCHARGE (CFS) = 13654.53 AT TIME = 66.95  
 MAXIMUM STAGE = 4402.58 AT TIME = 90.17

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		

		HYCHAN.OUT						
	(LB/FT^2)	(FT^2)						
0.00	0.00	4378.85	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4378.85	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4378.85	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4378.85	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
674.25	4.00	4382.10	3.25	2.10	1416.44	0.21		0.001379
	0.93471	62.09	10.86	61.00	18.77			
906.56	5.00	4390.03	11.18	5.94	5382.25	0.31		0.001128
	0.49823	128.08	7.08	122.75	10.98			
943.49	6.00	4390.30	11.45	5.69	5367.24	0.30		0.001068
	0.48415	129.88	7.26	124.42	10.87			
953.14	7.00	4390.37	11.52	5.57	5311.00	0.29		0.001032
	0.47094	130.35	7.31	124.85	10.84			
946.05	8.00	4390.32	11.47	5.47	5173.10	0.28		0.001019
	0.46273	130.00	7.28	124.53	10.86			
931.45	9.00	4390.21	11.36	5.40	5028.98	0.28		0.001016
	0.45695	129.28	7.20	123.86	10.90			
914.93	10.00	4390.09	11.24	5.34	4884.09	0.28		0.001014
	0.45069	128.46	7.12	123.10	10.95			
902.00	11.00	4389.99	11.14	5.30	4785.07	0.28		0.001019
	0.44854	127.82	7.06	122.51	10.99			
894.55	12.00	4389.94	11.09	5.29	4731.29	0.28		0.001016
	0.44503	127.44	7.02	122.16	11.02			
877.34	13.00	4389.81	10.96	5.23	4588.66	0.28		0.001019
	0.44087	126.56	6.93	121.34	11.08			
862.52	14.00	4389.69	10.84	5.19	4480.62	0.28		0.001027
	0.43949	125.80	6.86	120.64	11.12			
858.90	15.00	4389.67	10.82	5.20	4470.25	0.28		0.001032
	0.44017	125.62	6.84	120.47	11.14			
857.85	16.00	4389.66	10.81	5.21	4469.42	0.28		0.001034
	0.44102	125.56	6.83	120.42	11.14			
857.45	17.00	4389.66	10.81	5.21	4469.16	0.28		0.001035
	0.44096	125.54	6.83	120.40	11.14			
857.25	18.00	4389.65	10.80	5.21	4467.52	0.28		0.001035
	0.44125	125.53	6.83	120.39	11.14			
861.94	19.00	4389.69	10.84	5.23	4508.90	0.28		0.001040
	0.44484	125.78	6.85	120.62	11.13			
	20.00	4389.82	10.97	5.29	4653.48	0.28		

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		HYCHAN.OUT					
879.07	126.66	6.94	121.43	11.07	0.001040		
0.45054	62537.69						
21.00	4389.96	11.11	5.35	4808.49	0.28		
898.20	127.63	7.04	122.33	11.01	0.001036		
0.45500	63001.40						
22.00	4390.08	11.23	5.38	4913.69	0.28		
913.02	128.37	7.11	123.02	10.96	0.001027		
0.45582	63355.60						
23.00	4390.10	11.25	5.37	4922.91	0.28		
916.45	128.54	7.13	123.18	10.95	0.001023		
0.45529	63436.76						
24.00	4390.15	11.30	5.39	4975.11	0.28		
922.83	128.86	7.16	123.47	10.93	0.001027		
0.45883	63588.61						
25.00	4390.32	11.47	5.48	5182.09	0.29		
946.05	130.00	7.28	124.53	10.86	0.001027		
0.46638	64132.70						
26.00	4390.58	11.73	5.59	5485.72	0.29		
981.34	131.71	7.45	126.10	10.75	0.001023		
0.47580	64943.66						
27.00	4390.84	11.99	5.69	5794.18	0.29		
1017.75	133.42	7.63	127.69	10.65	0.001014		
0.48247	65760.52						
28.00	4391.01	12.16	5.73	5971.07	0.29		
1041.95	134.54	7.74	128.72	10.59	0.001001		
0.48359	66292.68						
29.00	4391.05	12.20	5.71	5984.03	0.29		
1047.13	134.78	7.77	128.94	10.57	0.000996		
0.48296	66404.91						
30.00	4391.11	12.26	5.74	6056.48	0.29		
1055.54	135.16	7.81	129.30	10.55	0.000995		
0.48491	66587.91						
31.00	4391.19	12.34	5.76	6145.46	0.29		
1066.80	135.67	7.86	129.77	10.52	0.000990		
0.48567	66830.35						
32.00	4391.20	12.35	5.75	6152.29	0.29		
1069.25	135.78	7.87	129.87	10.51	0.000988		
0.48531	66882.87						
33.00	4391.26	12.41	5.78	6227.83	0.29		
1077.43	136.15	7.91	130.21	10.49	0.000988		
0.48795	67058.40						
34.00	4391.34	12.49	5.81	6319.70	0.29		
1088.64	136.65	7.97	130.67	10.46	0.000984		
0.48899	67296.58						
35.00	4391.35	12.50	5.80	6323.70	0.29		
1090.69	136.74	7.98	130.76	10.46	0.000981		
0.48821	67339.81						
36.00	4391.31	12.46	5.76	6248.11	0.29		
1084.80	136.48	7.95	130.51	10.47	0.000971		
0.48185	67213.59						
37.00	4391.25	12.40	5.72	6156.50	0.29		
1075.63	136.07	7.91	130.13	10.50	0.000974		
0.48062	67019.09						
38.00	4391.20	12.35	5.69	6079.36	0.29		
1068.24	135.73	7.87	129.83	10.52	0.000971		
0.47699	66859.88						
39.00	4391.12	12.27	5.66	5991.63	0.29		
1057.73	135.26	7.82	129.39	10.54	0.000974		
0.47544	66634.20						
40.00	4391.11	12.26	5.67	5985.81	0.29		
1055.71	135.17	7.81	129.30	10.55	0.000976		
0.47577	66590.86						
41.00	4391.10	12.25	5.67	5985.42	0.29		

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				HYCHAN.OUT			
1054.95		135.13		7.81	129.27	10.55	0.000979
	0.47682	66574.38					
42.00		4391.10	12.25	5.68	5985.24	0.29	
1054.47		135.11		7.80	129.25	10.55	0.000980
	0.47729	66564.13					
43.00		4391.10	12.25	5.68	5986.06	0.29	
1054.33		135.10		7.80	129.24	10.55	0.000980
	0.47734	66561.01					
44.00		4391.15	12.30	5.71	6057.20	0.29	
1061.02		135.41		7.84	129.53	10.53	0.000982
	0.48026	66706.23					
45.00		4391.22	12.37	5.74	6147.36	0.29	
1071.33		135.87		7.88	129.96	10.51	0.000980
	0.48240	66927.48					
46.00		4391.28	12.43	5.77	6229.40	0.29	
1080.38		136.28		7.93	130.33	10.48	0.000984
	0.48672	67121.20					
47.00		4391.41	12.56	5.82	6399.52	0.29	
1099.01		137.11		8.02	131.10	10.44	0.000982
	0.49102	67516.20					
48.00		4391.55	12.70	5.88	6573.28	0.29	
1118.85		137.99		8.11	131.91	10.39	0.000980
	0.49605	67931.89					
49.00		4391.69	12.84	5.92	6748.78	0.29	
1139.20		138.87		8.20	132.72	10.34	0.000975
	0.49918	68353.19					
50.00		4391.82	12.97	5.97	6915.00	0.29	
1158.53		139.70		8.29	133.49	10.29	0.000973
	0.50344	68748.86					
51.00		4391.96	13.11	6.02	7096.33	0.29	
1179.51		140.60		8.39	134.32	10.25	0.000970
	0.50757	69173.42					
52.00		4392.14	13.29	6.09	7345.10	0.29	
1206.17		141.72		8.51	135.35	10.19	0.000968
	0.51433	69705.56					
53.00		4392.29	13.44	6.13	7532.93	0.29	
1228.89		142.66		8.61	136.22	10.14	0.000957
	0.51463	70153.16					
54.00		4392.38	13.53	6.15	7638.02	0.29	
1242.39		143.22		8.67	136.73	10.11	0.000957
	0.51787	70416.84					
55.00		4392.62	13.77	6.26	8006.92	0.30	
1279.05		144.70		8.84	138.10	10.03	0.000964
	0.53158	71121.72					
56.00		4393.05	14.20	6.47	8707.42	0.30	
1345.11		147.31		9.13	140.50	9.90	0.000971
	0.55333	72359.27					
57.00		4393.63	14.78	6.73	9675.04	0.31	
1437.27		150.81		9.53	143.73	9.73	0.000970
	0.57661	74021.70					
58.00		4394.32	15.47	7.00	10815.97	0.31	
1544.53		153.48		10.06	147.52	9.53	0.000975
	0.61214	75971.56					
59.00		4394.91	16.06	7.19	11720.82	0.32	
1630.33		154.66		10.54	150.68	9.38	0.000970
	0.63789	77601.98					
60.00		4395.31	16.46	7.32	12361.06	0.32	
1687.65		155.47		10.86	152.80	9.28	0.000988
	0.66903	78693.98					
61.00		4395.57	16.72	7.48	12893.10	0.32	
1724.04		155.98		11.05	154.15	9.22	0.001005
	0.69303	79387.11					
62.00		4395.71	16.86	7.56	13181.06	0.32	

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				HYCHAN.OUT			
1743.76		156.26		11.16	154.88	9.19	0.000931
	0.64851	79765.01					
	63.00	4395.78	16.93		7.60	13327.17	0.33
1752.62		156.39		11.21		155.22	9.17
	0.71615	79939.45					0.001024
	64.00	4395.84	16.99		7.65	13465.07	0.33
1760.77		156.51		11.25		155.53	9.16
	0.72049	80096.13					0.001026
	65.00	4395.87	17.02		7.66	13519.36	0.33
1765.54		156.58		11.28		155.70	9.15
	0.72266	80187.16					0.001027
	66.00	4395.91	17.06		7.67	13588.21	0.33
1771.66		156.67		11.31		155.93	9.14
	0.72713	80303.02					0.001030
	67.00	4395.95	17.10		7.68	13640.35	0.33
1776.30		156.73		11.33		156.10	9.13
	0.72814	80391.81					0.001030
	68.00	4395.96	17.11		7.67	13643.10	0.33
1778.22		156.76		11.34		156.17	9.13
	0.72695	80428.95					0.001027
	69.00	4395.98	17.13		7.65	13629.30	0.33
1781.13		156.80		11.36		156.28	9.12
	0.72355	80484.83					0.001021
	70.00	4396.00	17.15		7.62	13582.94	0.32
1783.67		156.84		11.37		156.38	9.12
	0.71522	80537.23					0.001008
	71.00	4396.04	17.19		7.56	13512.19	0.32
1788.34		156.91		11.40		156.56	9.11
	0.70961	80628.39					0.000998
	72.00	4396.08	17.23		7.49	13443.05	0.32
1795.01		157.01		11.43		156.81	9.10
	0.69066	80756.70					0.000968
	73.00	4396.20	17.35		7.30	13216.01	0.31
1811.16		157.25		11.52		157.42	9.07
	0.67105	81073.20					0.000934
	74.00	4396.28	17.43		7.20	13104.82	0.30
1820.97		157.39		11.57		157.79	9.06
	0.65838	81263.27					0.000912
	75.00	4396.37	17.52		7.09	12992.80	0.30
1833.59		157.57		11.64		158.27	9.03
	0.64610	81506.98					0.000890
	76.00	4396.53	17.68		6.89	12801.33	0.29
1858.12		157.90		11.77		159.11	9.00
	0.57539	81940.59					0.000784
	77.00	4396.71	17.86		6.69	12612.30	0.28
1885.47		158.25		11.91		159.99	8.96
	0.54963	82394.95					0.000739
	78.00	4396.89	18.04		6.53	12490.18	0.27
1913.65		158.63		12.06		160.94	8.92
	0.46607	82881.59					0.000619
	79.00	4397.54	18.69		6.01	12100.93	0.24
2014.45		159.93		12.60		164.19	8.78
	0.35919	84559.58					0.000457
	80.00	4397.97	19.12		5.58	11596.92	0.23
2077.03		160.77		12.92		166.28	8.70
	0.30234	85632.27					0.000375
	81.00	4398.55	19.70		4.86	10522.43	0.19
2164.59		161.94		13.37		169.14	8.59
	0.24576	87108.92					0.000295
	82.00	4399.19	20.34		4.31	9763.12	0.17
2267.46		163.22		13.89		172.22	8.47
	0.20495	88694.46					0.000236
	83.00	4399.77	20.91		3.67	8695.37	0.14

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				HYCHAN.OUT			
2366.21		164.37		14.40	174.96	8.37	0.000158
	0.14205	90106.80					
84.00	4400.19		21.34	3.08	7508.25	0.12	
2439.19		165.22	14.76		176.98	8.29	0.000000
	0.00000	91142.77					
85.00	4400.49		21.64	2.49	6191.61	0.09	
2483.88		165.82	14.98		178.38	8.24	0.000000
	0.00000	91866.17					
86.00	4400.81		21.96	1.70	4305.69	0.06	
2539.51		166.45	15.26		179.85	8.19	0.000245
	0.23342	92621.41					
87.00	4401.04		22.19	0.72	1860.02	0.03	
2577.62		166.92	15.44		180.93	8.15	0.000000
	0.00000	93181.39					
88.00	4401.20		22.35	-0.03	-87.60	0.00	
2850.32		167.23	17.04		181.64	8.13	0.000000
	0.00000	93545.18					
89.00	4401.30		22.45	-0.60	-1590.33	0.02	
2644.16		167.44	15.79		182.13	8.11	0.000000
	0.00000	93797.47					
90.00	4401.38		22.53	-0.96	-2559.14	0.04	
2653.11		167.60	15.83		182.50	8.10	0.000000
	0.00000	93986.53					
91.00	4401.38		22.53	-1.25	-3301.17	0.05	
2646.51		167.60	15.79		182.49	8.10	0.000000
	0.00000	93982.20					
92.00	4401.36		22.51	-1.17	-3096.61	0.04	
2644.24		167.55	15.78		182.38	8.10	0.000000
	0.00000	93926.23					
93.00	4401.31		22.46	-1.04	-2760.63	0.04	
2642.36		167.46	15.78		182.18	8.11	0.000176
	0.17317	93821.10					
94.00	4401.18		22.33	-0.96	-2517.69	0.04	
2618.35		167.20	15.66		181.58	8.13	0.000129
	0.12616	93514.72					
95.00	4401.05		22.20	-0.76	-1962.60	0.03	
2597.97		166.93	15.56		180.96	8.15	0.000000
	0.00000	93194.79					
96.00	4400.91		22.06	-0.41	-1074.70	0.02	
2590.93		166.65	15.55		180.31	8.17	0.000000
	0.00000	92859.66					
97.00	4400.68		21.83	0.16	386.96	0.01	
2484.38		166.19	14.95		179.24	8.21	0.000045
	0.04173	92307.72					
98.00	4400.42		21.57	0.90	2221.48	0.03	
2477.98		165.68	14.96		178.05	8.25	0.000283
	0.26451	91696.05					
99.00	4400.07		21.22	1.66	4034.38	0.06	
2427.45		164.98	14.71		176.40	8.31	0.000090
	0.08278	90845.69					
100.00	4399.69		20.84	2.22	5249.99	0.09	
2367.14		164.22	14.41		174.61	8.38	0.000179
	0.16134	89921.84					
101.00	4399.35		20.50	2.46	5699.41	0.10	
2316.12		163.53	14.16		172.97	8.44	0.000082
	0.07281	89080.80					
102.00	4398.92		20.07	2.82	6336.14	0.11	
2247.09		162.68	13.81		170.94	8.52	0.000087
	0.07538	88033.25					
103.00	4398.31		19.46	3.24	6967.92	0.13	
2150.49		161.45	13.32		167.96	8.63	0.000209
	0.17382	86498.88					
104.00	4397.42		18.57	4.04	8075.17	0.17	

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				HYCHAN.OUT			
1998.08		159.67		12.51	163.55	8.81	0.000315
	0.24577	84229.94					
105.00		4396.39	17.54	4.60	8466.99	0.19	
1841.79		157.62	11.69		158.38	9.03	0.000440
	0.32080	81565.14					
106.00		4395.67	16.82	4.69	8147.59	0.20	
1736.50		156.18	11.12		154.67	9.19	0.000446
	0.30967	79656.08					
107.00		4395.44	16.59	4.66	7934.58	0.20	
1704.03		155.72	10.94		153.46	9.25	0.000438
	0.29879	79031.44					
108.00		4395.24	16.39	4.69	7865.38	0.20	
1676.60		155.32	10.79		152.42	9.30	0.000457
	0.30764	78497.01					
109.00		4394.88	16.03	4.83	7850.15	0.21	
1626.18		154.60	10.52		150.52	9.39	0.000491
	0.32220	77519.83					
110.00		4394.43	15.58	5.01	7824.62	0.22	
1560.41		153.69	10.15		148.08	9.51	0.000548
	0.34689	76260.15					
111.00		4394.18	15.33	5.17	7882.13	0.23	
1523.89		153.19	9.95		146.73	9.57	0.000595
	0.36947	75565.77					
112.00		4394.09	15.24	5.38	8125.93	0.24	
1510.59		153.01	9.87		146.25	9.60	0.000640
	0.39396	75320.07					
113.00		4393.99	15.14	5.47	8187.83	0.25	
1495.99		152.82	9.79		145.74	9.62	0.000650
	0.39692	75054.59					
114.00		4393.82	14.97	5.47	8029.28	0.25	
1467.83		151.95	9.66		144.78	9.67	0.000671
	0.40448	74559.88					
115.00		4393.73	14.88	5.59	8132.83	0.26	
1453.73		151.43	9.60		144.30	9.70	0.000713
	0.42703	74314.66					
116.00		4393.82	14.97	5.78	8482.46	0.26	
1467.47		151.94	9.66		144.77	9.67	0.000737
	0.44441	74554.95					
117.00		4393.82	14.97	5.83	8563.17	0.27	
1468.94		151.99	9.66		144.81	9.67	0.000739
	0.44565	74579.70					
118.00		4393.73	14.88	5.83	8484.05	0.27	
1454.24		151.45	9.60		144.32	9.70	0.000753
	0.45091	74323.22					
119.00		4393.68	14.83	5.86	8481.30	0.27	
1446.15		151.15	9.57		144.04	9.71	0.000762
	0.45490	74181.34					
120.00		4393.70	14.85	5.93	8581.90	0.27	
1448.07		151.22	9.58		144.11	9.71	0.000775
	0.46299	74215.68					
121.00		4393.72	14.87	5.97	8669.50	0.27	
1452.70		151.39	9.60		144.27	9.70	0.000778
	0.46576	74296.80					
122.00		4393.71	14.86	5.98	8669.16	0.27	
1450.35		151.31	9.59		144.18	9.70	0.000781
	0.46697	74255.14					
123.00		4393.63	14.78	5.96	8568.78	0.27	
1438.22		150.85	9.53		143.77	9.73	0.000785
	0.46685	74040.72					
124.00		4393.55	14.70	5.95	8475.77	0.27	
1424.81		150.35	9.48		143.31	9.75	0.000791
	0.46774	73803.93					
125.00		4393.47	14.62	5.93	8369.97	0.27	

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				HYCHAN.OUT			
1412.36		149.88		9.42	142.88	9.77	0.000794
	0.46671	73581.36					
	126.00	4393.39	14.54	5.92	8278.55	0.27	
1398.56		149.36		9.36	142.40	9.80	0.000799
	0.46680	73334.68					
	127.00	4393.36	14.51	5.93	8270.29	0.27	
1394.35		149.20		9.35	142.25	9.80	0.000801
	0.46731	73259.00					
	128.00	4393.30	14.45	5.91	8180.72	0.27	
1384.48		148.83		9.30	141.90	9.82	0.000803
	0.46597	73079.95					
	129.00	4393.22	14.37	5.90	8098.92	0.27	
1373.06		148.39		9.25	141.50	9.84	0.000810
	0.46765	72873.21					
	130.00	4393.20	14.35	5.91	8091.27	0.28	
1369.24		148.24		9.24	141.37	9.85	0.000811
	0.46736	72803.70					
	131.00	4393.14	14.29	5.89	8005.38	0.27	
1359.50		147.87		9.19	141.02	9.87	0.000814
	0.46700	72624.85					
	132.00	4393.07	14.22	5.88	7929.86	0.27	
1348.50		147.44		9.15	140.63	9.89	0.000821
	0.46831	72423.58					
	133.00	4393.14	14.29	5.95	8099.15	0.28	
1360.07		147.89		9.20	141.04	9.87	0.000831
	0.47682	72636.63					
	134.00	4393.25	14.40	6.00	8260.74	0.28	
1376.41		148.52		9.27	141.62	9.84	0.000828
	0.47862	72934.73					
	135.00	4393.25	14.40	6.00	8270.48	0.28	
1377.80		148.57		9.27	141.67	9.84	0.000830
	0.48007	72959.83					
	136.00	4393.25	14.40	6.01	8271.35	0.28	
1376.86		148.54		9.27	141.64	9.84	0.000831
	0.48091	72942.72					
	137.00	4393.24	14.39	6.01	8271.26	0.28	
1375.71		148.49		9.26	141.60	9.84	0.000833
	0.48147	72921.81					
	138.00	4393.23	14.38	6.02	8271.03	0.28	
1374.49		148.45		9.26	141.55	9.84	0.000836
	0.48308	72899.54					
	139.00	4393.23	14.38	6.02	8270.86	0.28	
1373.46		148.41		9.25	141.52	9.84	0.000837
	0.48357	72880.80					
	140.00	4393.22	14.37	6.03	8268.98	0.28	
1372.28		148.36		9.25	141.47	9.85	0.000837
	0.48299	72859.30					
	141.00	4393.16	14.31	6.00	8179.67	0.28	
1363.62		148.03		9.21	141.17	9.86	0.000836
	0.48064	72700.47					
	142.00	4393.10	14.25	5.98	8097.02	0.28	
1353.46		147.64		9.17	140.81	9.88	0.000841
	0.48109	72514.92					
	143.00	4393.08	14.23	5.99	8092.37	0.28	
1351.13		147.55		9.16	140.72	9.89	0.000843
	0.48161	72472.20					
	144.00	4393.08	14.23	5.99	8091.73	0.28	
1349.97		147.50		9.15	140.68	9.89	0.000845
	0.48241	72450.75					
	145.00	4393.07	14.22	6.00	8089.21	0.28	
1348.74		147.45		9.15	140.64	9.89	0.000844
	0.48196	72428.09					
	146.00	4393.02	14.17	5.97	8003.98	0.28	

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				HYCHAN.OUT			
1340.53		147.13		9.11	140.34	9.91	0.000844
	0.47966	72275.77					
	147.00	4392.95	14.10	5.95	7922.47	0.28	
1330.43		146.74		9.07	139.98	9.93	0.000850
	0.48074	72089.27					
	148.00	4392.94	14.09	5.96	7918.38	0.28	
1328.16		146.65		9.06	139.90	9.93	0.000850
	0.48042	72047.05					
	149.00	4392.93	14.08	5.97	7918.30	0.28	
1326.81		146.60		9.05	139.85	9.93	0.000853
	0.48161	72022.07					
	150.00	4392.92	14.07	5.97	7917.76	0.28	
1325.68		146.55		9.05	139.81	9.94	0.000854
	0.48222	72000.91					
	151.00	4392.92	14.07	5.98	7915.98	0.28	
1324.77		146.52		9.04	139.77	9.94	0.000855
	0.48245	71983.93					
	152.00	4392.88	14.03	5.96	7858.70	0.28	
1318.93		146.29		9.02	139.56	9.95	0.000855
	0.48096	71874.40					
	153.00	4392.82	13.97	5.94	7776.43	0.28	
1309.38		145.91		8.97	139.21	9.97	0.000860
	0.48179	71695.70					
	154.00	4392.78	13.93	5.94	7746.25	0.28	
1303.54		145.68		8.95	139.00	9.98	0.000862
	0.48152	71586.01					
	155.00	4392.77	13.92	5.95	7741.27	0.28	
1301.76		145.61		8.94	138.94	9.98	0.000862
	0.48095	71552.64					
	156.00	4392.72	13.87	5.92	7660.98	0.28	
1293.91		145.29		8.91	138.65	10.00	0.000863
	0.47970	71403.62					
	157.00	4392.75	13.90	5.97	7750.72	0.28	
1298.59		145.48		8.93	138.82	9.99	0.000875
	0.48755	71493.09					
	158.00	4392.85	14.00	6.01	7907.33	0.28	
1315.08		146.14		9.00	139.42	9.96	0.000869
	0.48777	71803.41					
	159.00	4392.87	14.02	6.01	7916.15	0.28	
1317.68		146.24		9.01	139.52	9.95	0.000867
	0.48746	71851.59					
	160.00	4392.87	14.02	6.01	7916.92	0.28	
1317.94		146.25		9.01	139.53	9.95	0.000867
	0.48761	71856.53					
	161.00	4392.87	14.02	6.01	7917.52	0.28	
1317.72		146.24		9.01	139.52	9.95	0.000869
	0.48856	71852.43					
	162.00	4392.87	14.02	6.01	7917.32	0.28	
1317.47		146.23		9.01	139.51	9.95	0.000868
	0.48815	71847.64					
	163.00	4392.87	14.02	6.01	7917.24	0.28	
1317.18		146.22		9.01	139.50	9.95	0.000868
	0.48799	71842.37					
	164.00	4392.86	14.01	6.01	7917.27	0.28	
1316.89		146.21		9.01	139.49	9.95	0.000869
	0.48856	71836.83					
	165.00	4392.86	14.01	6.01	7913.95	0.28	
1316.48		146.19		9.01	139.47	9.95	0.000868
	0.48750	71829.08					
	166.00	4392.81	13.96	5.98	7830.21	0.28	
1309.01		145.89		8.97	139.20	9.97	0.000867
	0.48549	71688.16					
	167.00	4392.75	13.90	5.96	7748.04	0.28	

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				HYCHAN.OUT			
1299.20		145.51		8.93	138.84	9.99	0.000870
	0.48455	71504.22					
168.00		4392.74	13.89	5.97	7743.88	0.28	
1297.21		145.43		8.92	138.77	9.99	0.000872
	0.48522	71466.67					
169.00		4392.73	13.88	5.97	7743.34	0.28	
1296.58		145.40		8.92	138.75	9.99	0.000871
	0.48463	71454.95					
170.00		4392.73	13.88	5.97	7743.26	0.28	
1296.28		145.39		8.92	138.74	9.99	0.000873
	0.48597	71449.14					
171.00		4392.73	13.88	5.97	7743.19	0.28	
1296.01		145.38		8.91	138.73	9.99	0.000875
	0.48673	71444.09					
172.00		4392.73	13.88	5.98	7743.20	0.28	
1295.73		145.37		8.91	138.72	10.00	0.000873
	0.48571	71438.71					
173.00		4392.73	13.88	5.98	7740.73	0.28	
1295.31		145.35		8.91	138.70	10.00	0.000873
	0.48538	71430.73					
174.00		4392.68	13.83	5.94	7654.59	0.28	
1287.69		145.05		8.88	138.42	10.01	0.000872
	0.48314	71285.59					
175.00		4392.61	13.76	5.93	7574.69	0.28	
1277.94		144.66		8.83	138.06	10.03	0.000874
	0.48195	71100.52					
176.00		4392.60	13.75	5.93	7570.04	0.28	
1275.86		144.57		8.83	137.98	10.04	0.000876
	0.48247	71061.05					
177.00		4392.59	13.74	5.94	7569.34	0.28	
1275.18		144.55		8.82	137.96	10.04	0.000878
	0.48341	71048.15					
178.00		4392.59	13.74	5.94	7569.01	0.28	
1274.90		144.53		8.82	137.95	10.04	0.000878
	0.48341	71042.77					
179.00		4392.59	13.74	5.94	7569.11	0.28	
1274.65		144.52		8.82	137.94	10.04	0.000879
	0.48354	71037.98					
180.00		4392.59	13.74	5.94	7574.96	0.28	
1274.73		144.53		8.82	137.94	10.04	0.000882
	0.48520	71039.55					
181.00		4392.69	13.84	6.01	7745.52	0.28	
1289.53		145.12		8.89	138.49	10.01	0.000888
	0.49249	71321.82					
182.00		4392.81	13.96	6.04	7908.24	0.29	
1308.40		145.87		8.97	139.18	9.97	0.000881
	0.49304	71678.06					
183.00		4392.88	14.03	6.07	8004.13	0.29	
1319.38		146.31		9.02	139.58	9.95	0.000881
	0.49585	71883.88					
184.00		4392.95	14.10	6.08	8085.22	0.29	
1329.43		146.70		9.06	139.94	9.93	0.000878
	0.49623	72070.98					
185.00		4392.96	14.11	6.08	8089.82	0.29	
1331.46		146.78		9.07	140.02	9.92	0.000875
	0.49547	72108.61					
186.00		4392.96	14.11	6.07	8090.94	0.29	
1332.07		146.80		9.07	140.04	9.92	0.000874
	0.49496	72119.98					
187.00		4392.96	14.11	6.07	8090.78	0.28	
1332.30		146.81		9.07	140.05	9.92	0.000873
	0.49448	72124.12					
188.00		4392.97	14.12	6.07	8091.05	0.28	

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HYCHAN.OUT									
1332.52		146.82		9.08		140.05	9.92	0.000873	
	0.49421	72128.23							
189.00		4392.97	14.12		6.07	8090.65	0.28		
1332.57		146.82		9.08		140.06	9.92	0.000874	
	0.49513	72129.09							
190.00		4392.97	14.12		6.07	8091.13	0.28		
1332.65		146.83		9.08		140.06	9.92	0.000875	
	0.49530	72130.61							
191.00		4392.96	14.11		6.07	8088.23	0.28		
1332.44		146.82		9.08		140.05	9.92	0.000873	
	0.49428	72126.77							
192.00		4392.92	14.07		6.04	8003.04	0.28		
1325.15		146.53		9.04		139.79	9.94	0.000870	
	0.49074	71990.30							
193.00		4392.86	14.01		6.02	7922.12	0.28		
1315.67		146.16		9.00		139.44	9.96	0.000874	
	0.49083	71813.89							
194.00		4392.84	13.99		6.03	7918.34	0.28		
1313.77		146.08		8.99		139.38	9.96	0.000875	
	0.49097	71778.32							
195.00		4392.84	13.99		6.03	7917.27	0.28		
1313.18		146.06		8.99		139.35	9.96	0.000877	
	0.49220	71767.38							
196.00		4392.84	13.99		6.03	7917.33	0.28		
1312.88		146.05		8.99		139.34	9.96	0.000877	
	0.49221	71761.66							
197.00		4392.84	13.99		6.03	7916.79	0.28		
1312.71		146.04		8.99		139.34	9.96	0.000876	
	0.49135	71758.62							
198.00		4392.84	13.99		6.03	7917.29	0.28		
1312.62		146.04		8.99		139.33	9.96	0.000877	
	0.49167	71756.84							
199.00		4392.84	13.99		6.03	7917.41	0.28		
1312.47		146.03		8.99		139.33	9.96	0.000877	
	0.49181	71754.12							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4265

MAXIMUM DISCHARGE (CFS) = 13340.89 AT TIME = 66.63  
 MAXIMUM STAGE = 4403.42 AT TIME = 91.32

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA	AREA					
(FT^2)	(FT)	(FT^2)	(FT)	(FPS)	(CFS)		
(HRS)	(FT)		(FT)				
(LB/FT^2)	(FT)						
0.00	4377.90	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00	0.00	0.00	0.00	0.00	0.00	
0.000000	0.00						
1.00	4377.90	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00	0.00	0.00	0.00	0.00	0.00	
0.000000	0.00						
2.00	4377.90	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00	0.00	0.00	0.00	0.00	0.00	
0.000000	0.00						
3.00	4377.90	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00	0.00	0.00	0.00	0.00	0.00	
0.000000	0.00						
4.00	4380.91	3.01	1.94	1299.64	0.20		
669.50	59.35	11.28	58.39	19.41	0.001279		

HYCHAN.OUT							
	0.90055	29778.25					
927.28	5.00	4389.24	11.34	5.79	5364.58	0.30	
		129.13	7.18		123.72	10.91	0.000956
	0.42829	63099.36					
980.02	6.00	4389.62	11.72	5.47	5363.48	0.28	
		131.65	7.44		126.05	10.76	0.000878
	0.40794	64286.04					
995.77	7.00	4389.73	11.83	5.33	5310.47	0.27	
		132.39	7.52		126.74	10.71	0.000832
	0.39060	64635.70					
991.40	8.00	4389.70	11.80	5.22	5174.62	0.27	
		132.18	7.50		126.54	10.72	0.000820
	0.38370	64536.72					
977.09	9.00	4389.60	11.70	5.15	5031.31	0.27	
		131.50	7.43		125.91	10.77	0.000816
	0.37851	64215.16					
960.19	10.00	4389.47	11.57	5.09	4886.52	0.26	
		130.69	7.35		125.16	10.82	0.000814
	0.37307	63831.82					
946.80	11.00	4389.38	11.47	5.06	4786.13	0.26	
		130.04	7.28		124.56	10.86	0.000820
	0.37260	63526.16					
939.00	12.00	4389.32	11.42	5.04	4733.17	0.26	
		129.66	7.24		124.21	10.88	0.000818
	0.36956	63345.42					
921.19	13.00	4389.19	11.28	4.98	4591.41	0.26	
		128.78	7.15		123.39	10.93	0.000823
	0.36720	62929.99					
905.38	14.00	4389.07	11.17	4.95	4481.95	0.26	
		127.99	7.07		122.66	10.98	0.000833
	0.36774	62558.76					
900.88	15.00	4389.03	11.13	4.96	4470.53	0.26	
		127.76	7.05		122.46	11.00	0.000839
	0.36897	62452.46					
899.47	16.00	4389.02	11.12	4.97	4469.56	0.26	
		127.69	7.04		122.39	11.00	0.000842
	0.36990	62418.98					
898.84	17.00	4389.02	11.12	4.97	4469.23	0.26	
		127.66	7.04		122.36	11.00	0.000842
	0.36993	62404.08					
898.56	18.00	4389.02	11.12	4.97	4467.50	0.26	
		127.65	7.04		122.35	11.01	0.000844
	0.37081	62397.39					
903.12	19.00	4389.05	11.15	4.99	4507.16	0.26	
		127.88	7.06		122.56	10.99	0.000847
	0.37318	62506.39					
920.56	20.00	4389.18	11.28	5.05	4650.74	0.27	
		128.75	7.15		123.37	10.94	0.000844
	0.37654	62918.00					
940.53	21.00	4389.33	11.43	5.11	4805.57	0.27	
		129.74	7.25		124.28	10.87	0.000839
	0.37943	63383.12					
956.55	22.00	4389.45	11.55	5.14	4912.46	0.27	
		130.52	7.33		125.00	10.83	0.000828
	0.37859	63751.08					
960.82	23.00	4389.48	11.58	5.12	4922.59	0.27	
		130.72	7.35		125.19	10.81	0.000825
	0.37825	63848.16					
967.41	24.00	4389.53	11.63	5.14	4973.11	0.27	
		131.04	7.38		125.49	10.79	0.000827
	0.38076	63998.36					
991.07	25.00	4389.70	11.80	5.22	5177.43	0.27	
		132.17	7.50		126.53	10.73	0.000826

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		HYCHAN.OUT						
	0.38655	64531.10						
1028.04	26.00	4389.96	12.06	7.68	5.33	5480.30	0.27	0.000819
	0.39229	133.90				128.13	10.62	
		65347.00						
1066.45	27.00	4390.23	12.33	7.86	5.43	5788.82	0.27	0.000808
	0.39654	135.66				129.75	10.52	
		66174.70						
1092.78	28.00	4390.42	12.52	7.99	5.46	5969.33	0.27	0.000792
	0.39463	136.84				130.84	10.45	
		66730.51						
1099.19	29.00	4390.46	12.56	8.02	5.44	5983.46	0.27	0.000788
	0.39415	137.12				131.11	10.44	
		66864.09						
1107.99	30.00	4390.52	12.62	8.06	5.46	6054.31	0.27	0.000787
	0.39560	137.51				131.47	10.42	
		67047.39						
1120.04	31.00	4390.61	12.71	8.11	5.49	6144.66	0.27	0.000781
	0.39540	138.04				131.95	10.39	
		67296.47						
1123.05	32.00	4390.63	12.73	8.13	5.48	6151.97	0.27	0.000776
	0.39378	138.17				132.07	10.38	
		67358.16						
1131.42	33.00	4390.68	12.78	8.17	5.50	6225.67	0.27	0.000777
	0.39604	138.53				132.41	10.36	
		67530.42						
1143.33	34.00	4390.76	12.86	8.22	5.53	6318.92	0.27	0.000771
	0.39570	139.05				132.89	10.33	
		67773.23						
1145.88	35.00	4390.78	12.88	8.23	5.52	6323.62	0.27	0.000769
	0.39494	139.16				132.99	10.32	
		67824.80						
1140.48	36.00	4390.75	12.84	8.21	5.48	6249.72	0.27	0.000760
	0.38940	138.92				132.77	10.34	
		67713.90						
1131.31	37.00	4390.68	12.78	8.17	5.44	6157.13	0.27	0.000763
	0.38893	138.53				132.41	10.36	
		67527.30						
1124.00	38.00	4390.63	12.73	8.13	5.41	6081.26	0.27	0.000760
	0.38574	138.21				132.11	10.38	
		67376.55						
1112.95	39.00	4390.56	12.66	8.08	5.38	5992.37	0.27	0.000765
	0.38565	137.72				131.67	10.40	
		67149.28						
1110.50	40.00	4390.54	12.64	8.07	5.39	5986.01	0.27	0.000767
	0.38604	137.62				131.57	10.41	
		67098.80						
1109.50	41.00	4390.53	12.63	8.06	5.39	5985.51	0.27	0.000768
	0.38626	137.57				131.53	10.41	
		67078.16						
1108.89	42.00	4390.53	12.63	8.06	5.40	5985.32	0.27	0.000769
	0.38677	137.55				131.50	10.41	
		67065.48						
1108.65	43.00	4390.53	12.63	8.06	5.40	5985.95	0.27	0.000770
	0.38742	137.54				131.49	10.41	
		67060.62						
1115.20	44.00	4390.57	12.67	8.09	5.43	6055.29	0.27	0.000773
	0.39007	137.83				131.76	10.40	
		67196.82						
1125.91	45.00	4390.65	12.75	8.14	5.46	6146.62	0.27	0.000770
	0.39129	138.29				132.19	10.37	
		67417.23						
1135.25	46.00	4390.71	12.81	8.18	5.49	6227.07	0.27	0.000772
		138.70				132.57	10.35	

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## HYCHAN.OUT

0.39433	67608.81						
47.00	4390.84	12.94	5.54	6396.61	0.27		
1154.47	139.53	8.27	133.33	10.30	0.000770		
0.39762	67999.50						
48.00	4390.98	13.08	5.59	6570.35	0.27		
1175.22	140.42	8.37	134.15	10.26	0.000766		
0.39998	68416.23						
49.00	4391.12	13.22	5.64	6745.79	0.27		
1196.61	141.32	8.47	134.98	10.21	0.000759		
0.40129	68840.95						
50.00	4391.26	13.36	5.68	6911.97	0.27		
1216.99	142.17	8.56	135.77	10.16	0.000756		
0.40361	69240.92						
51.00	4391.41	13.51	5.72	7093.23	0.27		
1239.12	143.08	8.66	136.61	10.11	0.000751		
0.40570	69670.14						
52.00	4391.59	13.69	5.79	7340.33	0.28		
1266.78	144.21	8.78	137.65	10.06	0.000748		
0.40998	70199.60						
53.00	4391.75	13.85	5.83	7531.14	0.28		
1291.06	145.18	8.89	138.55	10.00	0.000737		
0.40914	70658.44						
54.00	4391.84	13.94	5.85	7634.92	0.28		
1305.68	145.77	8.96	139.08	9.98	0.000736		
0.41124	70931.93						
55.00	4392.08	14.18	5.96	7999.23	0.28		
1343.26	147.24	9.12	140.44	9.90	0.000739		
0.42046	71624.61						
56.00	4392.51	14.61	6.16	8696.01	0.28		
1410.56	149.81	9.42	142.81	9.77	0.000741		
0.43522	72834.12						
57.00	4393.10	15.20	6.41	9656.92	0.29		
1505.40	153.33	9.82	146.05	9.61	0.000735		
0.45033	74484.19						
58.00	4393.80	15.90	6.66	10768.14	0.29		
1615.65	155.12	10.42	149.83	9.42	0.000735		
0.47775	76411.24						
59.00	4394.40	16.50	6.84	11686.38	0.30		
1709.50	156.32	10.94	152.98	9.27	0.000721		
0.49224	78019.40						
60.00	4394.80	16.90	6.96	12318.33	0.30		
1770.51	157.13	11.27	155.09	9.18	0.000729		
0.51234	79096.91						
61.00	4395.06	17.16	7.07	12782.72	0.30		
1807.77	157.64	11.47	156.42	9.12	0.000730		
0.52255	79775.48						
62.00	4395.21	17.30	7.12	13009.83	0.30		
1828.50	157.93	11.58	157.17	9.08	0.000683		
0.49330	80157.52						
63.00	4395.27	17.37	7.14	13114.95	0.30		
1837.76	158.06	11.63	157.51	9.07	0.000734		
0.53241	80331.15						
64.00	4395.33	17.43	7.16	13220.44	0.30		
1846.24	158.18	11.67	157.82	9.05	0.000733		
0.53371	80488.73						
65.00	4395.37	17.47	7.16	13252.83	0.30		
1851.55	158.26	11.70	158.01	9.05	0.000731		
0.53351	80587.03						
66.00	4395.42	17.51	7.16	13298.47	0.30		
1858.06	158.35	11.73	158.25	9.04	0.000732		
0.53618	80707.14						
67.00	4395.45	17.55	7.16	13331.04	0.30		
1863.04	158.42	11.76	158.43	9.03	0.000730		

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## HYCHAN.OUT

0.53563	80799.74						
68.00	4395.47	17.57	7.14	13322.31	0.30		
1865.47	158.46	11.77		158.52	9.02	0.000726	
0.53317	80845.35						
69.00	4395.50	17.60	7.11	13292.88	0.30		
1869.30	158.51	11.79		158.66	9.02	0.000718	
0.52865	80916.88						
70.00	4395.53	17.63	7.06	13219.16	0.30		
1873.42	158.57	11.81		158.82	9.01	0.000701	
0.51646	80996.47						
71.00	4395.58	17.68	6.97	13113.15	0.29		
1880.32	158.67	11.85		159.07	9.00	0.000689	
0.50941	81126.71						
72.00	4395.64	17.74	6.88	12995.48	0.29		
1889.64	158.81	11.90		159.42	8.98	0.000649	
0.48187	81303.05						
73.00	4395.82	17.92	6.60	12628.88	0.27		
1913.03	159.15	12.02		160.29	8.95	0.000612	
0.45897	81747.64						
74.00	4395.92	18.02	6.45	12432.46	0.27		
1926.52	159.35	12.09		160.79	8.93	0.000586	
0.44215	82004.47						
75.00	4396.04	18.14	6.28	12208.39	0.26		
1943.38	159.60	12.18		161.42	8.90	0.000553	
0.42037	82326.57						
76.00	4396.24	18.34	6.10	12047.04	0.25		
1973.34	159.99	12.33		162.41	8.86	0.000509	
0.39161	82830.21						
77.00	4396.44	18.54	5.95	11931.65	0.24		
2004.36	160.39	12.50		163.40	8.82	0.000468	
0.36509	83334.84						
78.00	4396.63	18.73	5.86	11928.96	0.24		
2036.26	160.79	12.66		164.39	8.78	0.000437	
0.34496	83839.35						
79.00	4397.30	19.40	5.63	12083.76	0.23		
2144.61	162.12	13.23		167.68	8.64	0.000343	
0.28293	85514.60						
80.00	4397.76	19.86	5.28	11686.52	0.21		
2214.79	163.03	13.58		169.90	8.56	0.000279	
0.23625	86648.57						
81.00	4398.40	20.50	4.60	10686.52	0.18		
2322.24	164.32	14.13		172.99	8.44	0.000174	
0.15328	88224.73						
82.00	4399.05	21.15	4.22	10273.55	0.16		
2434.81	165.61	14.70		176.06	8.33	0.000000	
0.00000	89790.23						
83.00	4399.63	21.73	3.76	9520.51	0.14		
2534.80	166.78	15.20		178.79	8.23	0.000073	
0.06921	91183.28						
84.00	4400.07	22.17	3.26	8518.93	0.12		
2613.24	167.66	15.59		180.84	8.16	0.000000	
0.00000	92227.52						
85.00	4400.37	22.47	2.80	7448.43	0.10		
2661.70	168.26	15.82		182.22	8.11	0.000353	
0.34838	92933.03						
86.00	4400.67	22.77	2.24	6085.35	0.08		
2718.08	168.87	16.10		183.60	8.06	0.000000	
0.00000	93635.27						
87.00	4400.92	23.02	1.42	3909.97	0.05		
2761.64	169.36	16.31		184.72	8.02	0.000000	
0.00000	94206.38						
88.00	4401.07	23.17	0.78	2167.80	0.03		
2787.79	169.66	16.43		185.41	8.00	0.000000	

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HYCHAN.OUT									
	0.00000	94558.58							
89.00	4401.16	23.26	0.27	763.33	0.01				
2776.96	169.85	16.35	185.82	7.99	0.000000				
	0.00000	94769.71							
90.00	4401.23	23.33	-0.05	-148.15	0.00				
3060.49	169.98	18.00	186.13	7.98	0.000063				
	0.07125	94925.41							
91.00	4401.23	23.33	-0.36	-1046.03	0.01				
2866.98	169.98	16.87	186.14	7.98	0.000691				
	0.72723	94929.30							
92.00	4401.21	23.31	-0.26	-742.86	0.01				
2871.48	169.94	16.90	186.03	7.98	0.000292				
	0.30747	94874.80							
93.00	4401.16	23.26	-0.09	-256.54	0.00				
2943.71	169.85	17.33	185.82	7.99	0.000000				
	0.00000	94769.61							
94.00	4401.04	23.14	-0.06	-180.74	0.00				
2976.21	169.59	17.55	185.25	8.01	0.000114				
	0.12481	94479.40							
95.00	4400.90	23.00	0.15	404.36	0.01				
2713.68	169.32	16.03	184.63	8.03	0.000000				
	0.00000	94161.96							
96.00	4400.77	22.87	0.41	1106.81	0.01				
2732.85	169.07	16.16	184.06	8.05	0.000186				
	0.18810	93870.55							
97.00	4400.55	22.65	0.89	2402.55	0.03				
2708.35	168.61	16.06	183.02	8.08	0.000194				
	0.19492	93337.99							
98.00	4400.30	22.40	1.38	3672.54	0.05				
2661.22	168.13	15.83	181.91	8.12	0.000000				
	0.00000	92774.37							
99.00	4399.97	22.07	1.97	5129.03	0.07				
2606.22	167.47	15.56	180.38	8.17	0.000067				
	0.06517	91995.60							
100.00	4399.59	21.69	2.40	6108.61	0.09				
2541.59	166.71	15.25	178.62	8.23	0.000096				
	0.09124	91096.98							
101.00	4399.25	21.35	2.58	6410.71	0.10				
2489.15	166.02	14.99	177.02	8.29	0.000151				
	0.14097	90281.88							
102.00	4398.83	20.93	2.85	6883.49	0.11				
2418.68	165.18	14.64	175.04	8.36	0.000010				
	0.00952	89268.22							
103.00	4398.22	20.32	3.14	7292.29	0.12				
2319.95	163.95	14.15	172.11	8.47	0.000216				
	0.19100	87776.74							
104.00	4397.29	19.39	3.81	8214.32	0.15				
2153.55	162.11	13.28	167.64	8.64	0.000220				
	0.18253	85498.85							
105.00	4396.26	18.36	4.11	8160.81	0.17				
1984.08	160.05	12.40	162.54	8.85	0.000243				
	0.18784	82896.35							
106.00	4395.53	17.63	4.15	7775.58	0.17				
1873.11	158.59	11.81	158.85	9.01	0.000256				
	0.18892	81012.83							
107.00	4395.29	17.39	4.18	7691.13	0.18				
1838.71	158.09	11.63	157.59	9.06	0.000257				
	0.18643	80368.77							
108.00	4395.07	17.17	4.28	7734.38	0.18				
1808.34	157.66	11.47	156.47	9.11	0.000289				
	0.20691	79800.55							
109.00	4394.68	16.78	4.47	7839.58	0.19				
1752.12	156.88	11.17	154.45	9.21	0.000324				

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HYCHAN.OUT									
	0.22602	78767.19							
110.00	4394.19	16.29	4.67	7837.80	0.20				
1677.60	155.90	10.76	151.89	9.32	0.000364				
	0.24457	77461.49							
111.00	4393.92	16.02	4.83	7886.02	0.21				
1634.32	155.35	10.52	150.44	9.39	0.000401				
	0.26337	76724.90							
112.00	4393.80	15.90	5.03	8124.30	0.22				
1616.11	155.12	10.42	149.83	9.42	0.000437				
	0.28388	76412.23							
113.00	4393.69	15.79	5.12	8189.23	0.23				
1599.01	154.91	10.32	149.24	9.45	0.000443				
	0.28555	76114.32							
114.00	4393.51	15.61	5.12	8033.95	0.23				
1570.03	154.54	10.16	148.25	9.50	0.000460				
	0.29185	75607.70							
115.00	4393.40	15.50	5.24	8134.74	0.23				
1552.81	154.32	10.06	147.66	9.53	0.000495				
	0.31109	75306.00							
116.00	4393.46	15.56	5.43	8478.80	0.24				
1562.83	154.44	10.12	148.01	9.51	0.000517				
	0.32646	75483.68							
117.00	4393.46	15.56	5.48	8564.23	0.24				
1563.27	154.45	10.12	148.02	9.51	0.000519				
	0.32782	75490.27							
118.00	4393.37	15.47	5.48	8487.22	0.25				
1547.96	154.25	10.04	147.49	9.54	0.000531				
	0.33269	75220.13							
119.00	4393.31	15.41	5.51	8484.25	0.25				
1538.86	154.14	9.98	147.18	9.55	0.000539				
	0.33573	75059.29							
120.00	4393.31	15.41	5.57	8581.43	0.25				
1539.39	154.14	9.99	147.20	9.55	0.000551				
	0.34332	75069.68							
121.00	4393.34	15.44	5.62	8669.58	0.25				
1543.22	154.19	10.01	147.33	9.54	0.000553				
	0.34558	75137.38							
122.00	4393.32	15.42	5.63	8669.98	0.25				
1540.54	154.16	9.99	147.23	9.55	0.000556				
	0.34698	75089.66							
123.00	4393.24	15.34	5.61	8572.53	0.25				
1528.38	154.00	9.92	146.81	9.57	0.000558				
	0.34586	74873.11							
124.00	4393.15	15.25	5.60	8477.07	0.25				
1514.25	153.64	9.86	146.33	9.59	0.000563				
	0.34643	74629.77							
125.00	4393.07	15.17	5.58	8372.61	0.25				
1501.16	153.17	9.80	145.90	9.62	0.000567				
	0.34668	74407.11							
126.00	4392.98	15.08	5.57	8279.69	0.25				
1486.11	152.62	9.74	145.39	9.64	0.000573				
	0.34832	74151.20							
127.00	4392.95	15.05	5.58	8270.95	0.25				
1481.17	152.44	9.72	145.23	9.65	0.000577				
	0.34978	74066.67							
128.00	4392.89	14.99	5.56	8182.94	0.25				
1470.88	152.06	9.67	144.88	9.67	0.000577				
	0.34813	73888.98							
129.00	4392.81	14.91	5.55	8099.90	0.25				
1458.53	151.61	9.62	144.46	9.69	0.000583				
	0.35014	73676.28							
130.00	4392.78	14.88	5.57	8091.87	0.25				
1454.04	151.44	9.60	144.31	9.70	0.000586				

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1443.86	0.35095	73598.45	14.82	9.56	5.55	8007.65	0.25	0.000588
	131.00	4392.72				143.96	9.72	
		151.06						
1431.91	0.35048	73420.45	14.74	9.51	5.54	7930.40	0.25	0.000595
	132.00	4392.64				143.55	9.74	
		150.62						
1442.64	0.35312	73212.31	14.81	9.55	5.61	8095.84	0.26	0.000605
	133.00	4392.71				143.92	9.72	
		151.02						
1459.44	0.36045	73400.51	14.92	9.62	5.66	8259.87	0.26	0.000601
	134.00	4392.82				144.50	9.69	
		151.64						
1460.95	0.36074	73692.70	14.92	9.63	5.66	8270.59	0.26	0.000601
	135.00	4392.83				144.55	9.68	
		151.70						
1459.77	0.36143	73718.43	14.92	9.63	5.67	8271.53	0.26	0.000604
	136.00	4392.82				144.51	9.69	
		151.65						
1458.36	0.36251	73697.91	14.91	9.62	5.67	8271.45	0.26	0.000607
	137.00	4392.81				144.46	9.69	
		151.60						
1456.86	0.36426	73673.45	14.90	9.61	5.68	8271.25	0.26	0.000608
	138.00	4392.80				144.41	9.69	
		151.55						
1455.59	0.36496	73647.57	14.89	9.61	5.68	8271.04	0.26	0.000609
	139.00	4392.79				144.36	9.69	
		151.50						
1454.20	0.36493	73625.55	14.88	9.60	5.69	8269.35	0.26	0.000609
	140.00	4392.78				144.32	9.70	
		151.45						
1445.40	0.36490	73601.26	14.83	9.56	5.66	8181.71	0.26	0.000609
	141.00	4392.73				144.01	9.71	
		151.12						
1434.57	0.36356	73447.46	14.76	9.52	5.64	8097.77	0.26	0.000614
	142.00	4392.66				143.64	9.73	
		150.72						
1431.78	0.36450	73258.79	14.74	9.51	5.65	8092.60	0.26	0.000616
	143.00	4392.64				143.55	9.74	
		150.62						
1430.36	0.36532	73210.21	14.73	9.50	5.66	8091.93	0.26	0.000619
	144.00	4392.64				143.50	9.74	
		150.56						
1428.92	0.36678	73185.25	14.73	9.49	5.66	8089.53	0.26	0.000619
	145.00	4392.63				143.45	9.74	
		150.51						
1420.58	0.36687	73159.81	14.67	9.46	5.64	8005.98	0.26	0.000619
	146.00	4392.57				143.16	9.76	
		150.19						
1409.82	0.36549	73012.36	14.61	9.41	5.62	7923.22	0.26	0.000622
	147.00	4392.51				142.79	9.78	
		149.79						
1407.08	0.36556	72822.84	14.59	9.40	5.63	7918.60	0.26	0.000624
	148.00	4392.49				142.69	9.78	
		149.69						
1405.43	0.36596	72774.43	14.58	9.39	5.63	7918.52	0.26	0.000627
	149.00	4392.48				142.64	9.78	
		149.62						
1404.03	0.36736	72745.14	14.57	9.39	5.64	7917.92	0.26	0.000627
	150.00	4392.47				142.59	9.79	
		149.57						
1402.97	0.36732	72720.25	14.56	9.38	5.64	7916.26	0.26	0.000629
	151.00	4392.46				142.55	9.79	
		149.53						

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1396.98	0.36800	72701.38	14.53	9.36	5.63	7860.15	0.26	0.000628
	152.00	4392.43				142.34	9.80	
		149.30						
1386.91	0.36674	72594.26	14.46	9.31	5.61	7777.75	0.26	0.000634
	153.00	4392.36				141.99	9.82	
		148.92						
1380.33	0.36837	72414.52	14.42	9.28	5.61	7746.71	0.26	0.000637
	154.00	4392.32				141.76	9.83	
		148.67						
1378.25	0.36891	72296.76	14.41	9.28	5.62	7741.59	0.26	0.000638
	155.00	4392.31				141.69	9.83	
		148.59						
1370.23	0.36917	72259.40	14.36	9.24	5.59	7662.59	0.26	0.000640
	156.00	4392.26				141.40	9.85	
		148.28						
1374.02	0.36885	72114.33	14.38	9.26	5.64	7747.81	0.26	0.000648
	157.00	4392.28				141.54	9.84	
		148.43						
1391.13	0.37435	72183.64	14.49	9.33	5.68	7906.24	0.26	0.000643
	158.00	4392.39				142.14	9.81	
		149.08						
1394.12	0.37451	72490.87	14.51	9.34	5.68	7916.01	0.26	0.000641
	159.00	4392.41				142.24	9.80	
		149.20						
1394.43	0.37377	72543.95	14.51	9.35	5.68	7916.95	0.26	0.000642
	160.00	4392.41				142.25	9.80	
		149.21						
1394.16	0.37452	72549.30	14.51	9.34	5.68	7917.55	0.26	0.000642
	161.00	4392.41				142.24	9.80	
		149.20						
1393.85	0.37453	72544.55	14.51	9.34	5.68	7917.38	0.26	0.000643
	162.00	4392.41				142.23	9.81	
		149.19						
1393.51	0.37470	72539.00	14.50	9.34	5.68	7917.29	0.26	0.000643
	163.00	4392.40				142.22	9.81	
		149.17						
1393.15	0.37480	72532.97	14.50	9.34	5.68	7917.35	0.26	0.000643
	164.00	4392.40				142.21	9.81	
		149.16						
1392.71	0.37481	72526.46	14.50	9.34	5.68	7914.12	0.26	0.000642
	165.00	4392.40				142.19	9.81	
		149.14						
1385.26	0.37435	72518.56	14.45	9.31	5.65	7832.15	0.26	0.000642
	166.00	4392.35				141.93	9.82	
		148.86						
1374.88	0.37277	72384.55	14.39	9.26	5.64	7748.70	0.26	0.000646
	167.00	4392.29				141.57	9.84	
		148.46						
1372.49	0.37343	72198.63	14.37	9.25	5.64	7744.05	0.26	0.000647
	168.00	4392.27				141.48	9.85	
		148.37						
1371.74	0.37373	72155.82	14.37	9.25	5.64	7743.38	0.26	0.000648
	169.00	4392.27				141.46	9.85	
		148.34						
1371.34	0.37369	72142.21	14.36	9.25	5.65	7743.34	0.26	0.000650
	170.00	4392.26				141.44	9.85	
		148.33						
1371.02	0.37508	72135.09	14.36	9.24	5.65	7743.25	0.26	0.000649
	171.00	4392.26				141.43	9.85	
		148.31						
1370.67	0.37437	72129.27	14.36	9.24	5.65	7743.24	0.26	0.000649
	172.00	4392.26				141.42	9.85	
		148.30						

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0.37441	72122.95						
173.00	4392.26	14.36	9.24	5.65	7740.95	0.26	0.000649
1370.21	148.28				141.40	9.85	
0.37408	72114.55						
174.00	4392.21	14.31	9.21	5.62	7656.50	0.26	0.000647
1362.63	147.99				141.13	9.86	
0.37177	71976.62						
175.00	4392.14	14.24	9.16	5.60	7575.37	0.26	0.000651
1352.27	147.59				140.76	9.88	
0.37211	71789.08						
176.00	4392.13	14.23	9.15	5.61	7570.22	0.26	0.000653
1349.78	147.49				140.67	9.89	
0.37292	71743.98						
177.00	4392.12	14.22	9.15	5.61	7569.43	0.26	0.000655
1348.95	147.46				140.64	9.89	
0.37392	71728.91						
178.00	4392.12	14.22	9.15	5.61	7569.05	0.26	0.000654
1348.59	147.45				140.63	9.89	
0.37321	71722.24						
179.00	4392.12	14.22	9.14	5.61	7569.17	0.26	0.000654
1348.27	147.43				140.62	9.89	
0.37327	71716.46						
180.00	4392.12	14.22	9.14	5.62	7574.60	0.26	0.000658
1348.22	147.43				140.62	9.89	
0.37519	71715.61						
181.00	4392.21	14.31	9.21	5.68	7741.84	0.26	0.000662
1362.82	148.00				141.14	9.86	
0.38050	71981.45						
182.00	4392.34	14.44	9.29	5.72	7906.77	0.27	0.000656
1382.75	148.76				141.84	9.83	
0.38029	72340.75						
183.00	4392.41	14.51	9.34	5.74	8002.03	0.27	0.000654
1394.29	149.20				142.25	9.80	
0.38126	72547.33						
184.00	4392.48	14.58	9.39	5.75	8084.51	0.27	0.000651
1405.04	149.61				142.62	9.78	
0.38141	72738.57						
185.00	4392.49	14.59	9.40	5.75	8089.67	0.27	0.000649
1407.46	149.70				142.71	9.78	
0.38084	72781.23						
186.00	4392.50	14.60	9.40	5.75	8090.86	0.27	0.000648
1408.20	149.73				142.73	9.78	
0.38015	72794.32						
187.00	4392.50	14.60	9.41	5.74	8090.73	0.27	0.000647
1408.49	149.74				142.74	9.78	
0.37978	72799.59						
188.00	4392.50	14.60	9.41	5.74	8091.04	0.27	0.000648
1408.75	149.75				142.75	9.78	
0.38010	72804.10						
189.00	4392.50	14.60	9.41	5.74	8090.66	0.26	0.000647
1408.81	149.75				142.76	9.78	
0.37958	72805.17						
190.00	4392.50	14.60	9.41	5.74	8091.11	0.26	0.000647
1408.90	149.76				142.76	9.78	
0.37974	72806.89						
191.00	4392.50	14.60	9.41	5.74	8088.42	0.26	0.000646
1408.72	149.75				142.75	9.78	
0.37920	72803.48						
192.00	4392.45	14.55	9.38	5.71	8004.89	0.26	0.000644
1401.51	149.47				142.50	9.79	
0.37670	72674.71						
193.00	4392.39	14.49	9.33	5.69	7922.79	0.26	0.000648
1391.48	149.10				142.15	9.81	

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0.37763	72496.41							
194.00	4392.38	14.48	5.70	7918.49	0.26			
1389.21	149.01	9.32	142.07	9.81	0.000650			
0.37830	72456.14							
195.00	4392.37	14.47	5.70	7917.31	0.26			
1388.49	148.98	9.32	142.05	9.82	0.000651			
0.37877	72443.25							
196.00	4392.37	14.47	5.70	7917.41	0.26			
1388.14	148.97	9.32	142.03	9.82	0.000651			
0.37847	72436.89							
197.00	4392.37	14.47	5.70	7916.77	0.26			
1387.91	148.96	9.32	142.03	9.82	0.000652			
0.37880	72432.96							
198.00	4392.37	14.47	5.70	7917.32	0.26			
1387.79	148.96	9.32	142.02	9.82	0.000652			
0.37917	72430.70							
199.00	4392.37	14.47	5.71	7917.45	0.26			
1387.62	148.95	9.32	142.01	9.82	0.000651			
0.37865	72427.62							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4335

MAXIMUM DISCHARGE (CFS) = 13259.25 AT TIME = 66.39  
 MAXIMUM STAGE = 4403.58 AT TIME = 91.24

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
	(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4376.75	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4376.75	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4376.75	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4376.75	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4379.58	2.83	11.82	1.74	1179.54	0.18		0.001250
676.47	0.92197	57.24	11.74	7.44	5.44	5340.71	0.28		0.000843
980.91	5.00	4388.49	12.25	7.81	5.08	5358.18	0.26		0.000754
1054.87	0.39167	131.76	12.42	7.92	4.92	5309.09	0.25		0.000704
1078.80	6.00	4389.00	12.41	7.91	4.80	5176.01	0.24		0.000690
1077.62	0.36715	135.14	12.31	7.85	4.73	5033.69	0.24		0.000687
1063.54	7.00	4389.17							
	0.34800	136.21							
	8.00	4389.16							
	0.34066	136.15							
	9.00	4389.06							
	0.33649	135.52							
		66110.09							

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HYCHAN.OUT							
10.00	4388.94	12.19	4.67	4888.98	0.24		
1046.12	134.73	7.76	128.90	10.57	0.000682		
0.33067	65736.56						
11.00	4388.84	12.09	4.64	4787.32	0.24		
1032.07	134.08	7.70	128.30	10.61	0.000687		
0.33011	65433.44						
12.00	4388.78	12.03	4.62	4735.09	0.24		
1023.81	133.70	7.66	127.95	10.63	0.000685		
0.32755	65252.73						
13.00	4388.65	11.90	4.57	4594.35	0.23		
1005.24	132.83	7.57	127.14	10.69	0.000689		
0.32550	64843.42						
14.00	4388.52	11.77	4.54	4483.51	0.23		
987.65	132.00	7.48	126.38	10.74	0.000701		
0.32729	64453.22						
15.00	4388.48	11.73	4.55	4470.93	0.23		
982.05	131.74	7.45	126.13	10.75	0.000706		
0.32834	64328.15						
16.00	4388.47	11.72	4.56	4469.75	0.23		
980.19	131.65	7.45	126.05	10.76	0.000708		
0.32907	64286.61						
17.00	4388.46	11.71	4.56	4469.28	0.24		
979.33	131.61	7.44	126.01	10.76	0.000710		
0.32978	64267.23						
18.00	4388.46	11.71	4.56	4467.58	0.24		
978.92	131.59	7.44	126.00	10.76	0.000710		
0.32977	64257.88						
19.00	4388.49	11.74	4.58	4505.37	0.24		
983.29	131.80	7.46	126.19	10.75	0.000715		
0.33297	64356.92						
20.00	4388.62	11.87	4.64	4647.80	0.24		
1001.42	132.66	7.55	126.98	10.70	0.000713		
0.33583	64761.58						
21.00	4388.78	12.03	4.70	4802.45	0.24		
1022.88	133.66	7.65	127.91	10.64	0.000709		
0.33847	65234.68						
22.00	4388.90	12.15	4.72	4911.02	0.24		
1040.45	134.47	7.74	128.66	10.59	0.000699		
0.33730	65616.47						
23.00	4388.94	12.19	4.71	4922.21	0.24		
1045.76	134.71	7.76	128.88	10.58	0.000695		
0.33642	65730.66						
24.00	4388.99	12.24	4.72	4971.04	0.24		
1052.70	135.03	7.80	129.18	10.56	0.000697		
0.33887	65880.41						
25.00	4389.16	12.41	4.80	5172.63	0.24		
1077.08	136.13	7.91	130.20	10.49	0.000698		
0.34483	66399.65						
26.00	4389.43	12.68	4.91	5474.58	0.24		
1115.93	137.86	8.09	131.79	10.40	0.000694		
0.35049	67211.95						
27.00	4389.71	12.96	5.00	5783.09	0.24		
1156.70	139.63	8.28	133.42	10.30	0.000685		
0.35427	68044.49						
28.00	4389.90	13.15	5.03	5967.25	0.24		
1185.59	140.86	8.42	134.55	10.23	0.000669		
0.35115	68622.88						
29.00	4389.95	13.20	5.01	5982.81	0.24		
1193.46	141.19	8.45	134.86	10.21	0.000665		
0.35084	68778.11						
30.00	4390.02	13.27	5.03	6052.04	0.24		
1202.79	141.58	8.50	135.22	10.19	0.000664		
0.35217	68962.48						

HYCHAN.OUT									
1215.82	31.00	4390.10	13.35	8.55	5.05	6143.73	10.16	0.24	0.000658
	0.35136	142.12				135.72			
		69217.66							
1219.47	32.00	4390.13	13.38	8.57	5.04	6151.57	10.16	0.24	0.000655
	0.35016	142.27				135.86			
		69288.50							
1228.18	33.00	4390.19	13.43	8.61	5.07	6223.44	10.14	0.24	0.000656
	0.35225	142.63				136.19			
		69458.25							
1240.95	34.00	4390.27	13.52	8.67	5.09	6318.02	10.11	0.24	0.000650
	0.35138	143.16				136.68			
		69705.11							
1244.07	35.00	4390.29	13.54	8.68	5.08	6323.48	10.10	0.24	0.000647
	0.35034	143.28				136.79			
		69764.84							
1239.15	36.00	4390.26	13.51	8.66	5.04	6251.28	10.11	0.24	0.000639
	0.34519	143.08				136.61			
		69669.02							
1229.91	37.00	4390.20	13.45	8.62	5.01	6157.82	10.13	0.24	0.000640
	0.34410	142.70				136.26			
		69491.12							
1222.61	38.00	4390.15	13.40	8.59	4.98	6083.17	10.15	0.24	0.000636
	0.34097	142.40				135.98			
		69348.48							
1210.88	39.00	4390.07	13.32	8.53	4.95	5993.22	10.18	0.24	0.000642
	0.34157	141.91				135.53			
		69120.33							
1207.94	40.00	4390.05	13.30	8.52	4.96	5986.26	10.18	0.24	0.000644
	0.34256	141.79				135.42			
		69062.90							
1206.67	41.00	4390.04	13.29	8.51	4.96	5985.62	10.18	0.24	0.000644
	0.34225	141.74				135.37			
		69038.03							
1205.90	42.00	4390.04	13.29	8.51	4.96	5985.42	10.19	0.24	0.000645
	0.34256	141.71				135.34			
		69022.88							
1205.56	43.00	4390.03	13.28	8.51	4.97	5985.86	10.19	0.24	0.000647
	0.34354	141.69				135.33			
		69016.37							
1212.05	44.00	4390.08	13.33	8.54	4.99	6053.35	10.17	0.24	0.000651
	0.34702	141.96				135.58			
		69143.98							
1223.27	45.00	4390.15	13.40	8.59	5.02	6145.81	10.15	0.24	0.000649
	0.34772	142.43				136.01			
		69362.79							
1233.06	46.00	4390.22	13.47	8.63	5.05	6224.67	10.13	0.24	0.000649
	0.34972	142.83				136.38			
		69552.95							
1253.12	47.00	4390.35	13.60	8.72	5.10	6393.56	10.08	0.24	0.000649
	0.35308	143.65				137.14			
		69939.12							
1275.06	48.00	4390.49	13.74	8.82	5.15	6567.24	10.04	0.24	0.000644
	0.35469	144.54				137.95			
		70356.79							
1297.81	49.00	4390.64	13.89	8.92	5.20	6742.58	9.99	0.25	0.000640
	0.35626	145.45				138.79			
		70784.95							
1319.54	50.00	4390.78	14.03	9.02	5.24	6908.73	9.95	0.25	0.000635
	0.35741	146.31				139.59			
		71189.31							
1343.13	51.00	4390.93	14.18	9.12	5.28	7089.92	9.90	0.25	0.000632
	0.35953	147.24				140.44			
		71623.30							

HYCHAN.OUT							
1372.19	52.00	4391.12	14.37	9.25	5.35	7335.31	0.25
	0.36328	148.36				141.47	9.85
		72150.91					0.000629
1398.35	53.00	4391.28	14.53	9.36	5.38	7529.11	0.25
	0.36176	149.36				142.39	9.80
		72620.05					0.000619
1414.35	54.00	4391.38	14.63	9.43	5.40	7631.65	0.25
	0.36336	149.96				142.95	9.77
		72904.00					0.000617
1453.37	55.00	4391.63	14.88	9.60	5.50	7991.28	0.25
	0.37220	151.42				144.29	9.70
		73586.66					0.000621
1522.74	56.00	4392.05	15.30	9.89	5.70	8684.18	0.26
	0.38562	153.94				146.61	9.58
		74771.25					0.000625
1622.15	57.00	4392.65	15.90	10.30	5.94	9641.11	0.26
	0.39725	157.44				149.82	9.42
		76409.87					0.000618
1740.95	58.00	4393.36	16.61	10.81	6.17	10745.34	0.27
	0.41483	161.10				153.55	9.25
		78311.11					0.000615
1840.65	59.00	4393.96	17.21	11.34	6.35	11690.13	0.27
	0.43365	162.30				156.69	9.10
		79909.45					0.000613
1908.51	60.00	4394.37	17.62	11.70	6.47	12344.94	0.27
	0.44720	163.12				158.77	9.01
		80974.77					0.000613
1951.21	61.00	4394.63	17.88	11.92	6.55	12779.88	0.27
	0.45059	163.64				160.09	8.96
		81647.88					0.000606
1976.03	62.00	4394.78	18.03	12.05	6.58	12999.15	0.27
	0.43374	163.94				160.85	8.92
		82032.70					0.000577
1987.29	63.00	4394.85	18.09	12.11	6.59	13090.37	0.27
	0.45229	164.07				161.19	8.91
		82209.14					0.000598
1997.51	64.00	4394.91	18.16	12.17	6.60	13180.87	0.27
	0.45075	164.20				161.51	8.89
		82369.70					0.000594
2004.33	65.00	4394.95	18.20	12.20	6.59	13200.24	0.27
	0.44824	164.28				161.72	8.89
		82477.30					0.000589
2012.35	66.00	4395.00	18.25	12.24	6.57	13229.95	0.27
	0.44802	164.38				161.97	8.88
		82603.82					0.000586
2018.57	67.00	4395.04	18.29	12.27	6.56	13249.01	0.27
	0.44597	164.46				162.16	8.87
		82701.96					0.000582
2022.01	68.00	4395.06	18.31	12.29	6.54	13231.29	0.27
	0.44213	164.50				162.27	8.86
		82756.77					0.000576
2027.55	69.00	4395.09	18.34	12.32	6.50	13185.01	0.27
	0.43608	164.57				162.44	8.86
		82845.46					0.000567
2034.26	70.00	4395.14	18.39	12.35	6.43	13087.97	0.26
	0.42067	164.66				162.65	8.85
		82953.77					0.000546
2044.91	71.00	4395.20	18.45	12.41	6.33	12944.86	0.26
	0.41028	164.79				162.99	8.83
		83124.76					0.000530
2058.82	72.00	4395.29	18.54	12.48	6.20	12768.47	0.25
	0.37288	164.97				163.44	8.81
		83353.99					0.000479

HYCHAN.OUT							
2092.69	73.00	4395.52	18.77	5.84	12230.93	0.24	0.000437
	0.34495	165.43	12.65	164.58	8.77		
2111.38	74.00	4395.65	18.90	5.65	11919.01	0.23	0.000399
	0.31757	165.69	12.74	165.23	8.74		
2134.41	75.00	4395.81	19.06	5.42	11573.71	0.22	0.000361
	0.28995	166.01	12.86	166.01	8.71		
2169.09	76.00	4396.03	19.28	5.27	11436.73	0.21	0.000345
	0.28022	166.44	13.03	167.07	8.67		
2203.33	77.00	4396.23	19.48	5.18	11403.29	0.21	0.000313
	0.25818	166.85	13.21	168.09	8.63		
2237.35	78.00	4396.43	19.68	5.15	11525.62	0.20	0.000343
	0.28639	167.25	13.38	169.06	8.59		
2348.88	79.00	4397.09	20.34	5.18	12173.32	0.20	0.000320
	0.27812	168.56	13.93	172.22	8.47		
2429.61	80.00	4397.54	20.79	5.00	12154.93	0.19	0.000155
	0.13853	169.47	14.34	174.40	8.39		
2544.83	81.00	4398.19	21.44	4.60	11707.54	0.18	0.000074
	0.06906	170.76	14.90	177.42	8.28		
2659.90	82.00	4398.82	22.07	4.46	11868.39	0.17	0.000000
	0.00000	172.02	15.46	180.36	8.17		
2764.68	83.00	4399.38	22.63	4.23	11707.18	0.16	0.000000
	0.00000	173.15	15.97	182.95	8.08		
2845.37	84.00	4399.81	23.06	3.93	11185.35	0.14	0.000000
	0.00000	174.00	16.35	184.89	8.02		
2898.25	85.00	4400.10	23.35	3.64	10551.85	0.13	0.000289
	0.29960	174.58	16.60	186.22	7.98		
2963.24	86.00	4400.42	23.67	3.25	9631.00	0.12	0.000000
	0.00000	175.22	16.91	187.66	7.93		
3013.89	87.00	4400.65	23.90	2.69	8099.92	0.10	0.000000
	0.00000	175.69	17.15	188.69	7.89		
3052.67	88.00	4400.78	24.03	2.29	6981.66	0.08	0.000126
	0.13653	175.95	17.35	189.27	7.88		
3073.89	89.00	4400.86	24.11	1.89	5800.24	0.07	0.000228
	0.24832	176.11	17.45	189.64	7.86		
3090.92	90.00	4400.91	24.16	1.66	5123.37	0.06	0.000000
	0.00000	176.20	17.54	189.83	7.86		
3090.77	91.00	4400.87	24.12	1.44	4441.04	0.05	0.000397
	0.43492	176.13	17.55	189.67	7.86		
3088.50	92.00	4400.84	24.09	1.59	4921.15	0.06	0.000000
	0.00000	176.07	17.54	189.54	7.87		
3079.34	93.00	4400.85	24.10	1.67	5155.14	0.06	0.000000
	0.00000	176.09	17.49	189.58	7.87		
		96687.13					

HYCHAN.OUT							
3058.36	94.00	4400.70	23.95	1.71	5238.14	0.06	0.000000
	0.00000	175.79	17.40	188.92	7.89		
		96349.60					
3033.71	95.00	4400.60	23.85	1.81	5483.90	0.07	0.000295
	0.31756	175.58	17.28	188.45	7.90		
		96108.41					
3012.20	96.00	4400.45	23.70	2.02	6076.23	0.07	0.000333
	0.35760	175.28	17.18	187.79	7.92		
		95773.23					
2963.37	97.00	4400.29	23.54	2.16	6407.78	0.08	0.000098
	0.10319	174.96	16.94	187.06	7.95		
		95398.81					
2914.91	98.00	4400.05	23.30	2.39	6955.41	0.09	0.000082
	0.08585	174.49	16.71	186.01	7.98		
		94866.09					
2847.30	99.00	4399.69	22.94	2.87	8171.59	0.11	0.000000
	0.00000	173.77	16.39	184.37	8.04		
		94027.70					
2782.08	100.00	4399.35	22.60	3.07	8553.81	0.11	0.000026
	0.02649	173.08	16.07	182.80	8.09		
		93227.29					
2722.76	101.00	4399.01	22.26	3.17	8628.83	0.12	0.000182
	0.17969	172.41	15.79	181.25	8.14		
		92438.80					
2649.46	102.00	4398.61	21.86	3.28	8691.90	0.12	0.000000
	0.00000	171.61	15.44	179.40	8.21		
		91494.41					
2545.77	103.00	4398.03	21.28	3.36	8560.46	0.13	0.000111
	0.10327	170.44	14.94	176.68	8.30		
		90108.07					
2381.87	104.00	4397.17	20.42	3.61	8589.54	0.14	0.000155
	0.13621	168.72	14.12	172.60	8.45		
		88024.53					
2197.36	105.00	4396.16	19.41	3.61	7925.88	0.14	0.000158
	0.13031	166.71	13.18	167.73	8.64		
		85541.38					
2077.80	106.00	4395.42	18.67	3.60	7470.81	0.15	0.000178
	0.13939	165.23	12.57	164.10	8.79		
		83689.51					
2037.63	107.00	4395.16	18.41	3.69	7516.05	0.15	0.000190
	0.14653	164.71	12.37	162.80	8.84		
		83025.75					
2000.11	108.00	4394.93	18.18	3.83	7670.25	0.16	0.000228
	0.17292	164.24	12.18	161.62	8.89		
		82423.81					
1931.96	109.00	4394.51	17.76	4.07	7858.92	0.17	0.000261
	0.19291	163.41	11.82	159.51	8.98		
		81348.34					
1846.67	110.00	4393.99	17.24	4.28	7901.54	0.18	0.000293
	0.20825	162.37	11.37	156.84	9.10		
		79990.57					
1798.19	111.00	4393.70	16.95	4.40	7919.93	0.19	0.000322
	0.22354	161.78	11.11	155.34	9.16		
		79224.06					
1775.47	112.00	4393.56	16.81	4.59	8142.65	0.20	0.000351
	0.24083	161.51	10.99	154.63	9.20		
		78861.27					
1755.68	113.00	4393.44	16.69	4.68	8209.56	0.20	0.000355
	0.24136	161.27	10.89	154.00	9.23		
		78538.05					
1724.49	114.00	4393.25	16.50	4.67	8048.79	0.20	0.000367
	0.24561	160.89	10.72	153.01	9.27		
		78033.06					



HYCHAN.OUT							
1702.75	115.00	4393.13	16.38	4.78	8136.49	0.21	0.000397
	0.26352	160.18	10.63		152.34	9.30	
		77694.59					
1710.42	116.00	4393.17	16.42	4.96	8477.88	0.22	0.000417
	0.27711	160.43	10.66		152.58	9.29	
		77814.51					
1709.87	117.00	4393.17	16.42	5.01	8567.63	0.22	0.000419
	0.27866	160.41	10.66		152.56	9.29	
		77805.12					
1692.31	118.00	4393.07	16.32	5.02	8490.01	0.22	0.000428
	0.28285	159.83	10.59		152.02	9.32	
		77530.53					
1681.31	119.00	4393.00	16.25	5.05	8485.58	0.22	0.000437
	0.28725	159.46	10.54		151.68	9.33	
		77357.68					
1680.62	120.00	4393.00	16.25	5.11	8580.56	0.22	0.000446
	0.29362	159.44	10.54		151.66	9.33	
		77347.19					
1684.05	121.00	4393.02	16.27	5.15	8669.73	0.23	0.000449
	0.29570	159.55	10.55		151.77	9.33	
		77401.26					
1680.77	122.00	4393.00	16.25	5.16	8670.87	0.23	0.000452
	0.29717	159.44	10.54		151.67	9.33	
		77349.32					
1667.38	123.00	4392.92	16.17	5.14	8575.34	0.23	0.000453
	0.29673	158.99	10.49		151.25	9.35	
		77136.38					
1651.89	124.00	4392.83	16.08	5.13	8478.49	0.23	0.000457
	0.29723	158.46	10.42		150.77	9.38	
		76890.55					
1638.01	125.00	4392.75	16.00	5.11	8375.43	0.23	0.000460
	0.29760	157.99	10.37		150.33	9.40	
		76667.61					
1621.60	126.00	4392.65	15.90	5.11	8280.99	0.23	0.000465
	0.29900	157.42	10.30		149.81	9.42	
		76404.06					
1615.90	127.00	4392.62	15.87	5.12	8271.72	0.23	0.000469
	0.30067	157.23	10.28		149.63	9.43	
		76311.95					
1605.05	128.00	4392.55	15.80	5.10	8185.25	0.23	0.000469
	0.29931	156.85	10.23		149.28	9.45	
		76135.15					
1591.69	129.00	4392.47	15.72	5.09	8101.01	0.23	0.000474
	0.30121	156.39	10.18		148.86	9.47	
		75917.66					
1586.49	130.00	4392.44	15.69	5.10	8092.54	0.23	0.000477
	0.30203	156.20	10.16		148.69	9.48	
		75832.60					
1575.73	131.00	4392.37	15.62	5.08	8010.04	0.23	0.000478
	0.30147	155.83	10.11		148.34	9.49	
		75655.14					
1562.74	132.00	4392.30	15.55	5.08	7931.10	0.23	0.000486
	0.30494	155.37	10.06		147.92	9.51	
		75441.40					
1572.81	133.00	4392.36	15.61	5.15	8092.55	0.23	0.000494
	0.31132	155.73	10.10		148.25	9.50	
		75608.10					
1590.22	134.00	4392.46	15.71	5.19	8258.91	0.23	0.000491
	0.31148	156.34	10.17		148.81	9.47	
		75894.23					
1591.82	135.00	4392.47	15.72	5.20	8270.70	0.23	0.000491
	0.31206	156.39	10.18		148.86	9.47	
		75920.17					

HYCHAN.OUT							
1590.38	136.00	4392.46	15.71	5.20	8271.77	0.23	0.000494
	0.31343	156.34	10.17		148.82	9.47	
		75896.57					
1588.69	137.00	4392.45	15.70	5.21	8271.71	0.23	0.000496
	0.31466	156.28	10.17		148.76	9.47	
		75868.90					
1586.91	138.00	4392.44	15.69	5.21	8271.49	0.23	0.000497
	0.31509	156.22	10.16		148.71	9.48	
		75839.74					
1585.40	139.00	4392.43	15.68	5.22	8271.24	0.23	0.000498
	0.31541	156.17	10.15		148.66	9.48	
		75814.86					
1583.76	140.00	4392.42	15.67	5.22	8269.75	0.23	0.000499
	0.31562	156.11	10.15		148.60	9.48	
		75787.98					
1574.71	141.00	4392.37	15.62	5.20	8183.83	0.23	0.000498
	0.31402	155.79	10.11		148.31	9.50	
		75638.41					
1563.10	142.00	4392.30	15.55	5.18	8098.61	0.23	0.000502
	0.31487	155.38	10.06		147.94	9.51	
		75447.26					
1559.84	143.00	4392.28	15.53	5.19	8092.88	0.23	0.000505
	0.31636	155.27	10.05		147.83	9.52	
		75393.44					
1558.15	144.00	4392.27	15.52	5.19	8092.17	0.23	0.000506
	0.31684	155.21	10.04		147.78	9.52	
		75365.38					
1556.46	145.00	4392.26	15.51	5.20	8089.90	0.23	0.000507
	0.31732	155.15	10.03		147.72	9.52	
		75337.30					
1547.89	146.00	4392.21	15.46	5.17	8008.06	0.23	0.000506
	0.31582	154.84	10.00		147.44	9.54	
		75193.98					
1536.36	147.00	4392.14	15.39	5.16	7924.04	0.23	0.000509
	0.31580	154.43	9.95		147.06	9.56	
		75002.01					
1533.14	148.00	4392.12	15.37	5.17	7918.88	0.23	0.000512
	0.31731	154.32	9.93		146.96	9.56	
		74948.20					
1531.16	149.00	4392.11	15.36	5.17	7918.79	0.23	0.000514
	0.31852	154.25	9.93		146.89	9.57	
		74914.95					
1529.48	150.00	4392.10	15.35	5.18	7918.07	0.23	0.000514
	0.31841	154.19	9.92		146.84	9.57	
		74886.74					
1528.25	151.00	4392.09	15.34	5.18	7916.58	0.23	0.000516
	0.31914	154.14	9.91		146.80	9.57	
		74866.05					
1522.03	152.00	4392.05	15.30	5.17	7861.64	0.23	0.000515
	0.31751	153.92	9.89		146.59	9.58	
		74760.91					
1511.33	153.00	4391.98	15.23	5.15	7779.21	0.23	0.000519
	0.31876	153.53	9.84		146.24	9.60	
		74580.30					
1503.94	154.00	4391.94	15.19	5.15	7747.25	0.23	0.000523
	0.32019	153.27	9.81		145.99	9.61	
		74455.37					
1501.53	155.00	4391.92	15.17	5.16	7741.97	0.23	0.000523
	0.32011	153.18	9.80		145.91	9.62	
		74414.48					
1493.24	156.00	4391.87	15.12	5.13	7664.28	0.23	0.000525
	0.32004	152.88	9.77		145.63	9.63	
		74272.67					

HYCHAN.OUT							
1496.22	157.00	4391.89	15.14	5.18	7744.90	0.23	0.000533
	0.32540	152.99	9.78		145.73	9.62	
		74324.45					
1514.12	158.00	4392.00	15.25	5.22	7905.03	0.24	0.000528
	0.32473	153.64	9.86		146.33	9.59	
		74628.41					
1517.52	159.00	4392.02	15.27	5.22	7915.85	0.24	0.000528
	0.32489	153.76	9.87		146.44	9.59	
		74685.53					
1517.86	160.00	4392.02	15.27	5.22	7916.99	0.24	0.000528
	0.32498	153.77	9.87		146.45	9.59	
		74691.27					
1517.55	161.00	4392.02	15.27	5.22	7917.57	0.24	0.000528
	0.32520	153.76	9.87		146.44	9.59	
		74686.03					
1517.18	162.00	4392.02	15.27	5.22	7917.44	0.24	0.000528
	0.32526	153.75	9.87		146.43	9.59	
		74679.70					
1516.78	163.00	4392.02	15.27	5.22	7917.35	0.24	0.000529
	0.32588	153.73	9.87		146.42	9.59	
		74672.93					
1516.34	164.00	4392.02	15.27	5.22	7917.42	0.24	0.000529
	0.32591	153.72	9.86		146.40	9.59	
		74665.52					
1515.86	165.00	4392.01	15.26	5.22	7914.30	0.24	0.000529
	0.32576	153.70	9.86		146.39	9.59	
		74657.41					
1508.35	166.00	4391.97	15.22	5.19	7834.14	0.23	0.000526
	0.32287	153.43	9.83		146.14	9.60	
		74529.43					
1497.28	167.00	4391.90	15.15	5.18	7749.48	0.23	0.000532
	0.32469	153.03	9.78		145.77	9.62	
		74342.00					
1494.48	168.00	4391.88	15.13	5.18	7744.26	0.23	0.000533
	0.32476	152.93	9.77		145.68	9.63	
		74294.46					
1493.58	169.00	4391.88	15.13	5.18	7743.43	0.24	0.000534
	0.32535	152.89	9.77		145.65	9.63	
		74279.16					
1493.10	170.00	4391.87	15.12	5.19	7743.46	0.24	0.000534
	0.32573	152.88	9.77		145.63	9.63	
		74270.92					
1492.71	171.00	4391.87	15.12	5.19	7743.27	0.24	0.000533
	0.32491	152.86	9.77		145.62	9.63	
		74264.29					
1492.29	172.00	4391.87	15.12	5.19	7743.30	0.24	0.000535
	0.32591	152.85	9.76		145.60	9.63	
		74257.14					
1491.78	173.00	4391.86	15.11	5.19	7741.17	0.24	0.000533
	0.32489	152.83	9.76		145.58	9.63	
		74248.30					
1484.13	174.00	4391.82	15.07	5.16	7658.47	0.23	0.000532
	0.32276	152.55	9.73		145.33	9.64	
		74116.65					
1473.05	175.00	4391.75	15.00	5.14	7576.15	0.23	0.000536
	0.32394	152.14	9.68		144.96	9.66	
		73927.09					
1470.13	176.00	4391.73	14.98	5.15	7570.44	0.23	0.000538
	0.32470	152.04	9.67		144.86	9.67	
		73876.98					
1469.14	177.00	4391.73	14.98	5.15	7569.54	0.23	0.000538
	0.32459	152.00	9.67		144.82	9.67	
		73859.95					

HYCHAN.OUT							
1468.69	178.00	4391.72	14.97	5.15	7569.10	0.23	0.000539
	0.32511	151.98	9.66		144.81	9.67	
		73852.11					
1468.30	179.00	4391.72	14.97	5.16	7569.24	0.23	0.000539
	0.32507	151.97	9.66		144.79	9.67	
		73845.41					
1468.11	180.00	4391.72	14.97	5.16	7574.27	0.24	0.000542
	0.32702	151.96	9.66		144.79	9.67	
		73842.35					
1482.72	181.00	4391.81	15.06	5.22	7738.06	0.24	0.000546
	0.33108	152.50	9.72		145.28	9.65	
		74093.74					
1503.90	182.00	4391.94	15.19	5.26	7905.16	0.24	0.000540
	0.33086	153.27	9.81		145.99	9.61	
		74455.32					
1516.14	183.00	4392.01	15.26	5.28	7999.82	0.24	0.000540
	0.33226	153.71	9.86		146.40	9.59	
		74662.61					
1527.72	184.00	4392.08	15.33	5.29	8083.71	0.24	0.000536
	0.33135	154.13	9.91		146.78	9.57	
		74857.45					
1530.53	185.00	4392.10	15.35	5.29	8089.50	0.24	0.000535
	0.33111	154.23	9.92		146.87	9.57	
		74904.52					
1531.41	186.00	4392.11	15.36	5.28	8090.75	0.24	0.000534
	0.33062	154.26	9.93		146.90	9.57	
		74919.25					
1531.78	187.00	4392.11	15.36	5.28	8090.69	0.24	0.000534
	0.33095	154.27	9.93		146.91	9.57	
		74925.43					
1532.07	188.00	4392.11	15.36	5.28	8091.03	0.24	0.000534
	0.33068	154.28	9.93		146.92	9.56	
		74930.36					
1532.14	189.00	4392.11	15.36	5.28	8090.65	0.24	0.000533
	0.33031	154.28	9.93		146.92	9.56	
		74931.54					
1532.25	190.00	4392.11	15.36	5.28	8091.09	0.24	0.000534
	0.33068	154.29	9.93		146.93	9.56	
		74933.33					
1532.08	191.00	4392.11	15.36	5.28	8088.61	0.24	0.000532
	0.32970	154.28	9.93		146.92	9.56	
		74930.45					
1524.86	192.00	4392.07	15.32	5.25	8006.78	0.24	0.000531
	0.32787	154.02	9.90		146.68	9.58	
		74808.38					
1514.16	193.00	4392.00	15.25	5.23	7923.57	0.24	0.000534
	0.32845	153.64	9.86		146.33	9.59	
		74628.49					
1511.53	194.00	4391.99	15.24	5.24	7918.66	0.24	0.000536
	0.32911	153.54	9.84		146.24	9.60	
		74584.12					
1510.66	195.00	4391.98	15.23	5.24	7917.36	0.24	0.000536
	0.32914	153.51	9.84		146.21	9.60	
		74569.51					
1510.26	196.00	4391.98	15.23	5.24	7917.49	0.24	0.000536
	0.32929	153.50	9.84		146.20	9.60	
		74562.60					
1509.97	197.00	4391.98	15.23	5.24	7916.77	0.24	0.000537
	0.32961	153.49	9.84		146.19	9.60	
		74557.77					
1509.81	198.00	4391.98	15.23	5.24	7917.37	0.24	0.000538
	0.32995	153.48	9.84		146.19	9.60	
		74555.07					

HYCHAN.OUT  
 199.00 4391.97 15.22 5.24 7917.49 0.24  
 1509.61 153.47 9.84 146.18 9.60 0.000537  
 0.32983 74551.70

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4402

MAXIMUM DISCHARGE (CFS) = 19945.11 AT TIME = 90.69  
 MAXIMUM STAGE = 4403.46 AT TIME = 89.98

AREA BED SHEAR (FT^2)	TIME WETTED PERIMETER (HRS) (LB/FT^2)	ELEV. SURFACE AREA (FT) (FT^2)	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	فروUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4375.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4375.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4375.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4375.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
666.83	4.00	4378.41	2.61	1.59	1058.41	0.17	0.001183
	0.90264	54.55	12.22	53.83	20.66		
1024.48	5.00	4387.85	12.05	5.18	5309.47	0.26	0.000707
	0.33776	133.85	7.65	128.08	10.63		
1121.65	6.00	4388.52	12.72	4.77	5351.32	0.24	0.000618
	0.31310	138.12	8.12	132.03	10.38		
1153.30	7.00	4388.73	12.93	4.60	5306.95	0.23	0.000572
	0.29508	139.48	8.27	133.29	10.31		
1155.35	8.00	4388.75	12.95	4.48	5177.21	0.22	0.000556
	0.28712	139.57	8.28	133.36	10.30		
1141.67	9.00	4388.65	12.85	4.41	5036.11	0.22	0.000553
	0.28329	138.97	8.21	132.82	10.33		
1123.96	10.00	4388.53	12.73	4.35	4891.46	0.22	0.000548
	0.27809	138.20	8.13	132.11	10.38		
1109.45	11.00	4388.43	12.63	4.32	4788.59	0.21	0.000550
	0.27686	137.57	8.06	131.52	10.41		
1100.84	12.00	4388.37	12.57	4.30	4737.06	0.21	0.000548
	0.27464	137.19	8.02	131.17	10.43		
1081.73	13.00	4388.24	12.44	4.25	4597.43	0.21	0.000550
	0.27230	136.34	7.93	130.38	10.48		
1062.94	14.00	4388.11	12.31	4.22	4485.28	0.21	0.000559
	0.27381	135.49	7.84	129.60	10.53		
	15.00	4388.06	12.26	4.23	4471.39	0.21	

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				HYCHAN.OUT			
1056.32		135.19		7.81	129.33	10.55	0.000563
	0.27427	65957.16					
16.00		4388.05	12.25	4.24	4469.99	0.21	
1054.03		135.09		7.80	129.23	10.55	0.000565
	0.27527	65908.36					
17.00		4388.04	12.24	4.24	4469.37	0.21	
1052.97		135.04		7.80	129.19	10.56	0.000567
	0.27598	65885.49					
18.00		4388.03	12.23	4.24	4467.62	0.21	
1052.45		135.02		7.79	129.17	10.56	0.000566
	0.27521	65874.53					
19.00		4388.06	12.26	4.26	4503.63	0.21	
1056.62		135.21		7.81	129.34	10.55	0.000574
	0.27973	65964.40					
20.00		4388.19	12.39	4.32	4644.76	0.22	
1075.02		136.04		7.90	130.11	10.50	0.000574
	0.28327	66356.48					
21.00		4388.35	12.55	4.37	4799.17	0.22	
1097.47		137.04		8.01	131.04	10.44	0.000571
	0.28544	66828.87					
22.00		4388.48	12.68	4.40	4909.39	0.22	
1116.35		137.88		8.10	131.81	10.39	0.000562
	0.28395	67220.76					
23.00		4388.52	12.72	4.38	4921.74	0.22	
1122.64		138.15		8.13	132.06	10.38	0.000558
	0.28310	67349.92					
24.00		4388.57	12.77	4.40	4968.94	0.22	
1129.90		138.47		8.16	132.35	10.36	0.000561
	0.28561	67499.28					
25.00		4388.74	12.94	4.48	5167.68	0.22	
1154.74		139.54		8.28	133.34	10.30	0.000564
	0.29125	68004.52					
26.00		4389.01	13.21	4.58	5468.62	0.22	
1195.02		141.25		8.46	134.92	10.21	0.000563
	0.29707	68809.16					
27.00		4389.30	13.50	4.67	5777.07	0.22	
1237.66		143.02		8.65	136.55	10.12	0.000558
	0.30117	69641.91					
28.00		4389.50	13.70	4.70	5964.86	0.22	
1268.74		144.29		8.79	137.72	10.05	0.000543
	0.29777	70237.31					
29.00		4389.56	13.76	4.68	5982.08	0.22	
1277.96		144.66		8.83	138.06	10.03	0.000539
	0.29691	70411.17					
30.00		4389.63	13.83	4.70	6049.68	0.22	
1287.77		145.05		8.88	138.42	10.01	0.000539
	0.29870	70596.37					
31.00		4389.72	13.92	4.72	6142.68	0.22	
1301.61		145.60		8.94	138.93	9.98	0.000533
	0.29756	70855.66					
32.00		4389.74	13.94	4.71	6151.11	0.22	
1305.84		145.77		8.96	139.09	9.98	0.000532
	0.29714	70934.30					
33.00		4389.80	14.00	4.73	6221.16	0.22	
1314.83		146.13		9.00	139.42	9.96	0.000533
	0.29916	71101.71					
34.00		4389.89	14.09	4.76	6316.99	0.22	
1328.31		146.66		9.06	139.90	9.93	0.000528
	0.29823	71350.92					
35.00		4389.91	14.11	4.75	6323.29	0.22	
1331.95		146.80		9.07	140.03	9.92	0.000525
	0.29716	71417.53					
36.00		4389.88	14.08	4.71	6252.76	0.22	

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1327.53		146.62		9.05	139.87	9.93	0.000517
	0.29185	71335.23					
	37.00	4389.82	14.02	4.67	6158.54	0.22	
1318.35		146.26		9.01	139.54	9.95	0.000517
	0.29067	71166.17					
	38.00	4389.78	13.98	4.64	6085.09	0.22	
1311.10		145.98		8.98	139.28	9.96	0.000513
	0.28726	71030.91					
	39.00	4389.70	13.90	4.61	5994.17	0.22	
1298.85		145.49		8.93	138.83	9.99	0.000517
	0.28798	70803.34					
	40.00	4389.68	13.88	4.62	5986.56	0.22	
1295.46		145.36		8.91	138.71	10.00	0.000520
	0.28924	70740.05					
	41.00	4389.67	13.87	4.63	5985.73	0.22	
1293.94		145.30		8.91	138.65	10.00	0.000520
	0.28912	70711.57					
	42.00	4389.66	13.86	4.63	5985.54	0.22	
1293.01		145.26		8.90	138.62	10.00	0.000521
	0.28951	70694.25					
	43.00	4389.66	13.86	4.63	5985.80	0.22	
1292.59		145.24		8.90	138.60	10.00	0.000522
	0.29011	70686.34					
	44.00	4389.70	13.90	4.66	6051.41	0.22	
1298.97		145.50		8.93	138.84	9.99	0.000528
	0.29434	70806.29					
	45.00	4389.77	13.97	4.69	6144.93	0.22	
1310.57		145.96		8.98	139.26	9.97	0.000526
	0.29468	71022.41					
	46.00	4389.84	14.04	4.71	6222.18	0.22	
1320.73		146.36		9.02	139.63	9.95	0.000526
	0.29639	71211.00					
	47.00	4389.97	14.17	4.76	6390.40	0.22	
1341.41		147.17		9.11	140.38	9.90	0.000526
	0.29922	71591.82					
	48.00	4390.12	14.32	4.81	6563.98	0.22	
1364.31		148.06		9.21	141.19	9.86	0.000524
	0.30118	72008.79					
	49.00	4390.27	14.47	4.85	6739.22	0.22	
1388.18		148.97		9.32	142.04	9.82	0.000522
	0.30330	72438.52					
	50.00	4390.41	14.61	4.89	6905.32	0.23	
1411.04		149.84		9.42	142.83	9.77	0.000518
	0.30414	72845.41					
	51.00	4390.57	14.77	4.94	7086.46	0.23	
1435.84		150.77		9.52	143.69	9.73	0.000516
	0.30642	73282.19					
	52.00	4390.76	14.96	5.00	7330.10	0.23	
1466.03		151.89		9.65	144.72	9.68	0.000515
	0.31023	73806.88					
	53.00	4390.93	15.13	5.04	7526.86	0.23	
1493.76		152.90		9.77	145.65	9.63	0.000506
	0.30824	74282.95					
	54.00	4391.03	15.23	5.05	7628.24	0.23	
1510.98		153.52		9.84	146.23	9.60	0.000504
	0.30925	74575.59					
	55.00	4391.28	15.48	5.15	7983.15	0.23	
1551.15		154.96		10.01	147.55	9.53	0.000510
	0.31839	75248.54					
	56.00	4391.70	15.90	5.35	8672.05	0.24	
1622.01		157.43		10.30	149.82	9.42	0.000516
	0.33184	76408.67					
	57.00	4392.31	16.50	5.58	9624.63	0.24	

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				HYCHAN.OUT			
1725.01	160.91	10.72	153.02	9.27	0.000510		
0.34088	78038.30						
58.00	4393.02	17.22	5.80	10727.30	0.25		
1850.69	164.98	11.22	156.75	9.10	0.000500		
0.34986	79944.28						
59.00	4393.63	17.83	5.96	11677.07	0.25		
1959.43	168.37	11.64	159.86	8.97	0.000498		
0.36160	81528.48						
60.00	4394.04	18.24	6.06	12336.73	0.25		
2034.67	170.64	11.92	161.94	8.88	0.000490		
0.36477	82590.13						
61.00	4394.31	18.51	6.13	12774.56	0.25		
2083.25	172.08	12.11	163.26	8.82	0.000484		
0.36556	83262.70						
62.00	4394.46	18.66	6.16	12997.45	0.25		
2110.73	172.53	12.23	164.03	8.79	0.000470		
0.35877	83653.25						
63.00	4394.53	18.73	6.16	13088.68	0.25		
2123.18	172.68	12.30	164.38	8.78	0.000478		
0.36706	83833.30						
64.00	4394.60	18.80	6.17	13176.30	0.25		
2134.50	172.81	12.35	164.70	8.76	0.000473		
0.36489	83997.46						
65.00	4394.64	18.84	6.16	13190.43	0.25		
2142.49	172.90	12.39	164.93	8.75	0.000468		
0.36188	84113.84						
66.00	4394.70	18.90	6.14	13211.18	0.25		
2151.66	173.00	12.44	165.19	8.74	0.000464		
0.36012	84247.90						
67.00	4394.74	18.94	6.12	13222.45	0.25		
2158.81	173.09	12.47	165.40	8.73	0.000459		
0.35733	84352.41						
68.00	4394.76	18.96	6.10	13198.75	0.25		
2163.15	173.14	12.49	165.52	8.73	0.000452		
0.35244	84416.01						
69.00	4394.80	19.00	6.05	13139.75	0.24		
2170.27	173.22	12.53	165.73	8.72	0.000443		
0.34616	84521.20						
70.00	4394.86	19.06	5.98	13023.64	0.24		
2179.37	173.33	12.57	165.99	8.71	0.000421		
0.33010	84656.22						
71.00	4394.94	19.14	5.86	12848.22	0.24		
2193.46	173.49	12.64	166.40	8.69	0.000404		
0.31856	84865.00						
72.00	4395.05	19.25	5.70	12612.67	0.23		
2212.03	173.72	12.73	166.95	8.67	0.000346		
0.27466	85145.98						
73.00	4395.34	19.54	5.27	11893.04	0.21		
2258.88	174.29	12.96	168.34	8.62	0.000304		
0.24618	85854.40						
74.00	4395.50	19.70	5.02	11462.63	0.20		
2283.48	174.60	13.08	169.11	8.59	0.000270		
0.22040	86248.58						
75.00	4395.67	19.87	4.79	11078.69	0.19		
2312.59	174.96	13.22	169.98	8.55	0.000242		
0.19920	86691.07						
76.00	4395.90	20.10	4.69	11015.77	0.18		
2350.64	175.40	13.40	171.05	8.51	0.000243		
0.20318	87236.67						
77.00	4396.11	20.31	4.63	11045.94	0.18		
2386.83	175.83	13.57	172.07	8.47	0.000236		
0.19950	87755.02						
78.00	4396.29	20.49	4.69	11347.78	0.18		

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2421.28		176.20		13.74	172.96	8.44	0.000289
	0.24741	88211.05					
79.00		4396.92	21.12	4.96	12563.99	0.19	
2533.48		177.44	14.28		175.91	8.33	0.000316
	0.28168	89716.34					
80.00		4397.34	21.54	5.04	13184.68	0.19	
2613.94		178.30	14.66		177.91	8.26	0.000125
	0.11405	90734.77					
81.00		4397.94	22.14	5.00	13666.87	0.19	
2731.39		179.50	15.22		180.71	8.16	0.000196
	0.18578	92162.97					
82.00		4398.52	22.72	5.20	14782.02	0.19	
2843.28		180.65	15.74		183.35	8.07	0.000170
	0.16672	93509.63					
83.00		4399.04	23.24	5.28	15549.84	0.19	
2946.27		181.70	16.22		185.73	7.99	0.000203
	0.20506	94722.36					
84.00		4399.44	23.63	5.24	15875.12	0.19	
3027.62		182.48	16.59		187.50	7.93	0.000248
	0.25689	95625.45					
85.00		4399.70	23.90	5.18	15990.38	0.19	
3085.94		183.01	16.86		188.69	7.89	0.000217
	0.22880	96230.64					
86.00		4399.97	24.17	5.14	16183.76	0.18	
3149.00		183.55	17.16		189.89	7.86	0.000234
	0.25091	96842.20					
87.00		4400.16	24.36	4.96	15909.01	0.18	
3205.84		183.93	17.43		190.72	7.83	0.000939
	1.02088	97266.98					
88.00		4400.28	24.48	4.79	15547.24	0.17	
3243.95		184.18	17.61		191.28	7.81	0.000000
	0.00000	97550.76					
89.00		4400.32	24.52	4.63	15129.72	0.16	
3270.45		184.25	17.75		191.44	7.81	0.000074
	0.08193	97633.15					
90.00		4400.38	24.58	4.46	14685.71	0.16	
3289.89		184.36	17.84		191.69	7.80	0.000000
	0.00000	97762.02					
91.00		4400.34	24.54	4.35	14329.83	0.15	
3295.42		184.29	17.88		191.53	7.80	0.000000
	0.00000	97680.50					
92.00		4400.38	24.58	4.36	14344.98	0.16	
3286.46		184.37	17.83		191.70	7.80	0.000000
	0.00000	97769.34					
93.00		4400.36	24.56	4.45	14590.05	0.16	
3277.05		184.34	17.78		191.64	7.80	0.000067
	0.07469	97735.01					
94.00		4400.25	24.45	4.40	14306.13	0.16	
3254.89		184.10	17.68		191.12	7.82	0.000000
	0.00000	97468.97					
95.00		4400.13	24.33	4.39	14189.65	0.16	
3233.32		183.87	17.58		190.59	7.83	0.000135
	0.14816	97203.44					
96.00		4400.00	24.20	4.45	14271.38	0.16	
3204.57		183.61	17.45		190.02	7.85	0.000049
	0.05284	96911.72					
97.00		4399.79	23.99	4.45	14056.73	0.16	
3161.10		183.19	17.26		189.09	7.88	0.000000
	0.00000	96436.04					
98.00		4399.56	23.76	4.45	13825.15	0.16	
3109.08		182.73	17.01		188.06	7.92	0.000246
	0.26153	95909.01					
99.00		4399.28	23.48	4.54	13815.29	0.17	

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3040.67		182.17		16.69	186.80	7.96	0.000000
	0.00000	95266.59					
100.00		4399.00	23.20	4.39	13068.78	0.16	
2975.22		181.61		16.38	185.53	8.00	0.000000
	0.00000	94619.89					
101.00		4398.67	22.87	4.40	12792.94	0.16	
2909.44		180.95		16.08	184.04	8.05	0.000000
	0.00000	93858.16					
102.00		4398.32	22.52	4.23	12009.60	0.16	
2838.48		180.26		15.75	182.46	8.10	0.000306
	0.30073	93053.36					
103.00		4397.79	21.99	4.02	10999.44	0.15	
2732.83		179.20		15.25	180.01	8.19	0.000000
	0.00000	91805.20					
104.00		4397.03	21.23	3.66	9431.29	0.14	
2573.67		177.68		14.49	176.46	8.31	0.000075
	0.06734	89996.58					
105.00		4396.08	20.28	3.32	7928.93	0.13	
2389.68		175.76		13.60	171.92	8.48	0.000102
	0.08630	87678.73					
106.00		4395.35	19.55	3.21	7261.73	0.13	
2262.92		174.32		12.98	168.42	8.61	0.000121
	0.09824	85895.91					
107.00		4395.09	19.29	3.32	7366.60	0.13	
2217.91		173.79		12.76	167.12	8.66	0.000137
	0.10919	85232.38					
108.00		4394.84	19.04	3.50	7618.27	0.14	
2175.22		173.28		12.55	165.89	8.71	0.000172
	0.13451	84601.99					
109.00		4394.40	18.60	3.75	7873.89	0.15	
2098.99		172.41		12.17	163.71	8.80	0.000202
	0.15383	83491.59					
110.00		4393.86	18.06	3.96	7913.65	0.16	
2000.64		169.61		11.80	161.00	8.92	0.000226
	0.16647	82111.70					
111.00		4393.55	17.75	4.07	7925.33	0.17	
1944.99		167.93		11.58	159.46	8.98	0.000249
	0.18029	81322.17					
112.00		4393.40	17.60	4.25	8145.35	0.18	
1917.22		167.07		11.48	158.67	9.02	0.000273
	0.19538	80922.02					
113.00		4393.27	17.47	4.34	8213.93	0.18	
1893.91		166.34		11.39	158.00	9.05	0.000276
	0.19644	80581.78					
114.00		4393.07	17.27	4.33	8053.89	0.18	
1859.47		165.26		11.25	157.01	9.09	0.000287
	0.20146	80075.85					
115.00		4392.93	17.13	4.44	8137.53	0.19	
1834.34		164.47		11.15	156.28	9.12	0.000313
	0.21770	79704.55					
116.00		4392.96	17.16	4.61	8476.28	0.20	
1839.73		164.64		11.17	156.44	9.12	0.000329
	0.22910	79784.56					
117.00		4392.95	17.15	4.66	8570.06	0.20	
1838.31		164.59		11.17	156.40	9.12	0.000331
	0.23060	79762.78					
118.00		4392.85	17.05	4.67	8492.21	0.20	
1819.33		163.99		11.09	155.84	9.14	0.000338
	0.23428	79479.71					
119.00		4392.78	16.98	4.70	8486.89	0.20	
1807.00		163.59		11.05	155.48	9.16	0.000348
	0.23968	79294.63					
120.00		4392.77	16.97	4.75	8579.79	0.20	

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1805.24		163.54		11.04	155.43	9.16	0.000356
	0.24488	79268.56					
121.00		4392.78	16.98	4.79	8669.94	0.21	
1808.21		163.63		11.05	155.52	9.16	0.000358
	0.24662	79313.21					
122.00		4392.76	16.96	4.81	8671.84	0.21	
1804.48		163.51		11.04	155.41	9.16	0.000360
	0.24791	79256.80					
123.00		4392.68	16.88	4.79	8578.31	0.21	
1790.34		163.05		10.98	154.98	9.18	0.000363
	0.24902	79042.31					
124.00		4392.59	16.79	4.78	8479.97	0.21	
1773.88		162.52		10.91	154.50	9.20	0.000365
	0.24889	78793.06					
125.00		4392.50	16.70	4.76	8378.39	0.21	
1759.35		162.05		10.86	154.06	9.22	0.000368
	0.24917	78570.27					
126.00		4392.40	16.60	4.75	8282.38	0.21	
1741.83		161.47		10.79	153.53	9.25	0.000371
	0.24994	78301.69					
127.00		4392.37	16.57	4.77	8272.58	0.21	
1735.48		161.26		10.76	153.34	9.26	0.000374
	0.25140	78203.85					
128.00		4392.30	16.50	4.75	8187.62	0.21	
1724.18		160.89		10.72	153.00	9.27	0.000375
	0.25044	78028.10					
129.00		4392.22	16.42	4.74	8102.26	0.21	
1709.97		160.42		10.66	152.56	9.29	0.000380
	0.25261	77807.50					
130.00		4392.19	16.38	4.75	8093.27	0.21	
1704.17		160.23		10.64	152.39	9.30	0.000381
	0.25312	77717.06					
131.00		4392.12	16.32	4.73	8012.54	0.21	
1692.94		159.85		10.59	152.04	9.32	0.000382
	0.25278	77540.15					
132.00		4392.04	16.24	4.72	7931.94	0.21	
1679.09		159.38		10.53	151.61	9.34	0.000389
	0.25571	77322.78					
133.00		4392.09	16.29	4.79	8089.24	0.21	
1688.55		159.70		10.57	151.91	9.32	0.000395
	0.26080	77472.26					
134.00		4392.20	16.40	4.84	8257.86	0.21	
1706.39		160.30		10.64	152.46	9.30	0.000393
	0.26125	77752.30					
135.00		4392.21	16.41	4.84	8270.85	0.21	
1708.06		160.36		10.65	152.51	9.29	0.000395
	0.26261	77777.97					
136.00		4392.20	16.40	4.85	8272.05	0.21	
1706.39		160.30		10.65	152.45	9.30	0.000397
	0.26364	77751.88					
137.00		4392.19	16.39	4.85	8271.99	0.21	
1704.46		160.23		10.64	152.40	9.30	0.000398
	0.26409	77721.68					
138.00		4392.17	16.37	4.86	8271.77	0.21	
1702.43		160.17		10.63	152.33	9.30	0.000400
	0.26505	77689.93					
139.00		4392.17	16.36	4.86	8271.47	0.21	
1700.70		160.11		10.62	152.28	9.31	0.000401
	0.26584	77662.85					
140.00		4392.15	16.35	4.87	8270.17	0.21	
1698.85		160.05		10.61	152.22	9.31	0.000401
	0.26564	77633.80					
141.00		4392.10	16.30	4.84	8186.01	0.21	

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1689.61	0.26378	159.74	10.58	151.94	9.32	0.000400	
		77487.88					
142.00	4392.03	16.23	4.83	8099.54	0.21		
1677.36	159.33	10.53	151.56	9.34	0.000403		
	0.26457	77295.41					
143.00	4392.01	16.21	4.84	8093.22	0.21		
1673.70	159.20	10.51	151.45	9.34	0.000405		
	0.26577	77237.66					
144.00	4392.00	16.20	4.84	8092.42	0.21		
1671.76	159.14	10.51	151.39	9.35	0.000406		
	0.26629	77206.98					
145.00	4391.98	16.18	4.84	8090.28	0.21		
1669.87	159.07	10.50	151.33	9.35	0.000407		
	0.26631	77176.89					
146.00	4391.93	16.13	4.82	8010.21	0.21		
1661.11	158.77	10.46	151.05	9.36	0.000405		
	0.26464	77037.08					
147.00	4391.86	16.06	4.81	7924.91	0.21		
1648.96	158.36	10.41	150.67	9.38	0.000408		
	0.26515	76843.90					
148.00	4391.84	16.04	4.81	7919.22	0.21		
1645.32	158.24	10.40	150.56	9.39	0.000411		
	0.26676	76785.86					
149.00	4391.83	16.03	4.82	7919.11	0.21		
1643.05	158.16	10.39	150.49	9.39	0.000413		
	0.26789	76749.48					
150.00	4391.81	16.01	4.82	7918.23	0.21		
1641.12	158.09	10.38	150.43	9.39	0.000414		
	0.26805	76718.59					
151.00	4391.81	16.01	4.83	7916.96	0.21		
1639.74	158.05	10.38	150.39	9.40	0.000415		
	0.26866	76696.41					
152.00	4391.77	15.97	4.81	7863.16	0.21		
1633.34	157.83	10.35	150.18	9.40	0.000414		
	0.26713	76593.09					
153.00	4391.70	15.90	4.80	7780.77	0.21		
1622.11	157.44	10.30	149.83	9.42	0.000417		
	0.26783	76412.17					
154.00	4391.65	15.85	4.80	7747.87	0.21		
1614.05	157.16	10.27	149.57	9.43	0.000420		
	0.26887	76282.01					
155.00	4391.64	15.84	4.80	7742.36	0.21		
1611.35	157.07	10.26	149.49	9.44	0.000420		
	0.26866	76238.32					
156.00	4391.59	15.79	4.78	7666.04	0.21		
1602.85	156.77	10.22	149.21	9.45	0.000421		
	0.26861	76099.40					
157.00	4391.60	15.80	4.82	7742.02	0.21		
1605.11	156.85	10.23	149.29	9.45	0.000430		
	0.27426	76137.21					
158.00	4391.71	15.91	4.87	7903.71	0.22		
1623.61	157.49	10.31	149.88	9.42	0.000425		
	0.27319	76437.30					
159.00	4391.73	15.93	4.86	7915.70	0.21		
1627.35	157.62	10.32	149.99	9.41	0.000425		
	0.27367	76497.31					
160.00	4391.74	15.94	4.86	7917.02	0.21		
1627.73	157.63	10.33	150.01	9.41	0.000424		
	0.27330	76503.28					
161.00	4391.73	15.93	4.87	7917.61	0.21		
1627.38	157.62	10.32	150.00	9.41	0.000426		
	0.27425	76497.67					
162.00	4391.73	15.93	4.87	7917.50	0.21		

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1626.95		157.61		10.32	149.98	9.41	0.000425
	0.27389	76490.80					
163.00	4391.73		15.93	4.87	7917.43	0.22	
1626.49		157.59		10.32	149.97	9.42	0.000426
	0.27443	76483.37					
164.00	4391.73		15.93	4.87	7917.49	0.22	
1625.99		157.58		10.32	149.95	9.42	0.000426
	0.27435	76475.23					
165.00	4391.72		15.92	4.87	7914.50	0.22	
1625.48		157.56		10.32	149.94	9.42	0.000426
	0.27447	76466.98					
166.00	4391.68		15.88	4.84	7836.12	0.21	
1617.92		157.30		10.29	149.69	9.43	0.000422
	0.27108	76344.10					
167.00	4391.61		15.81	4.82	7750.36	0.21	
1606.30		156.89		10.24	149.33	9.45	0.000427
	0.27301	76156.13					
168.00	4391.59		15.79	4.83	7744.48	0.21	
1603.15		156.79		10.23	149.23	9.45	0.000428
	0.27296	76104.96					
169.00	4391.58		15.78	4.83	7743.51	0.21	
1602.12		156.75		10.22	149.19	9.45	0.000429
	0.27388	76088.31					
170.00	4391.58		15.78	4.84	7743.57	0.21	
1601.56		156.73		10.22	149.17	9.45	0.000428
	0.27320	76079.19					
171.00	4391.58		15.78	4.84	7743.28	0.21	
1601.11		156.71		10.22	149.16	9.45	0.000429
	0.27380	76071.83					
172.00	4391.57		15.77	4.84	7743.40	0.21	
1600.64		156.70		10.21	149.15	9.46	0.000430
	0.27425	76064.12					
173.00	4391.57		15.77	4.84	7741.35	0.21	
1600.08		156.68		10.21	149.13	9.46	0.000428
	0.27304	76054.96					
174.00	4391.52		15.72	4.81	7660.48	0.21	
1592.38		156.41		10.18	148.88	9.47	0.000427
	0.27152	75928.45					
175.00	4391.46		15.65	4.79	7577.03	0.21	
1580.74		156.00		10.13	148.51	9.49	0.000431
	0.27264	75738.13					
176.00	4391.44		15.64	4.80	7570.69	0.21	
1577.44		155.89		10.12	148.40	9.49	0.000432
	0.27283	75684.11					
177.00	4391.43		15.63	4.80	7569.65	0.21	
1576.30		155.85		10.11	148.36	9.49	0.000431
	0.27231	75665.47					
178.00	4391.43		15.63	4.80	7569.18	0.21	
1575.77		155.83		10.11	148.35	9.49	0.000434
	0.27363	75656.62					
179.00	4391.42		15.62	4.80	7569.32	0.21	
1575.32		155.81		10.11	148.33	9.49	0.000434
	0.27400	75649.20					
180.00	4391.42		15.62	4.81	7573.97	0.21	
1575.02		155.80		10.11	148.32	9.50	0.000437
	0.27545	75644.39					
181.00	4391.51		15.71	4.87	7734.19	0.22	
1589.56		156.31		10.17	148.79	9.47	0.000440
	0.27930	75883.55					
182.00	4391.64		15.84	4.90	7903.42	0.22	
1611.75		157.09		10.26	149.50	9.44	0.000436
	0.27900	76245.50					
183.00	4391.72		15.92	4.92	7997.53	0.22	

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1624.56	157.53	10.31	149.91	9.42	0.000436		
0.28074	76452.79						
184.00	4391.79	15.99	4.94	8082.82	0.22		
1636.81	157.95	10.36	150.29	9.40	0.000432		
0.27966	76649.85						
185.00	4391.81	16.01	4.93	8089.30	0.22		
1639.97	158.06	10.38	150.39	9.39	0.000432		
0.27938	76700.36						
186.00	4391.81	16.01	4.93	8090.62	0.22		
1640.98	158.09	10.38	150.42	9.39	0.000431		
0.27920	76716.45						
187.00	4391.82	16.02	4.93	8090.65	0.22		
1641.41	158.10	10.38	150.44	9.39	0.000431		
0.27951	76723.24						
188.00	4391.82	16.02	4.93	8091.00	0.22		
1641.74	158.12	10.38	150.45	9.39	0.000430		
0.27853	76728.54						
189.00	4391.82	16.02	4.93	8090.64	0.22		
1641.82	158.12	10.38	150.45	9.39	0.000430		
0.27866	76729.82						
190.00	4391.82	16.02	4.93	8091.10	0.22		
1641.93	158.12	10.38	150.45	9.39	0.000432		
0.27973	76731.65						
191.00	4391.82	16.02	4.93	8088.76	0.22		
1641.78	158.12	10.38	150.45	9.39	0.000429		
0.27799	76729.16						
192.00	4391.78	15.98	4.90	8008.73	0.22		
1634.57	157.87	10.35	150.22	9.40	0.000428		
0.27651	76612.71						
193.00	4391.71	15.91	4.88	7924.40	0.22		
1623.34	157.48	10.31	149.87	9.42	0.000430		
0.27667	76432.16						
194.00	4391.69	15.89	4.89	7918.88	0.22		
1620.39	157.38	10.30	149.77	9.42	0.000432		
0.27749	76384.84						
195.00	4391.69	15.89	4.89	7917.42	0.22		
1619.39	157.35	10.29	149.74	9.43	0.000432		
0.27737	76368.70						
196.00	4391.68	15.88	4.89	7917.59	0.22		
1618.95	157.33	10.29	149.73	9.43	0.000432		
0.27753	76361.47						
197.00	4391.68	15.88	4.89	7916.78	0.22		
1618.59	157.32	10.29	149.72	9.43	0.000433		
0.27776	76355.81						
198.00	4391.68	15.88	4.89	7917.42	0.22		
1618.41	157.31	10.29	149.71	9.43	0.000433		
0.27821	76352.79						
199.00	4391.68	15.88	4.89	7917.53	0.22		
1618.18	157.31	10.29	149.70	9.43	0.000433		
0.27821	76349.14						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4467

MAXIMUM DISCHARGE (CFS) = 26802.69 AT TIME = 88.81  
 MAXIMUM STAGE = 4402.39 AT TIME = 90.69

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)		
(LB/FT^2)	(FT^2)						



## HYCHAN.OUT

0.00	0.00	4374.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4374.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4374.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4374.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
654.21	4.00	4377.16	2.36	1.41	924.13	0.16		
	0.91955	51.49	12.71	50.90	21.56			0.001160
1076.78	5.00	4387.23	12.43	4.89	5265.26	0.24		
	0.30790	136.28	7.90	130.33	10.48			0.000624
1201.79	6.00	4388.06	13.26	4.44	5341.89	0.22		
	0.28424	141.55	8.49	135.20	10.19			0.000537
1241.98	7.00	4388.33	13.53	4.27	5303.68	0.20		
	0.26609	143.20	8.67	136.72	10.11			0.000492
1247.62	8.00	4388.36	13.56	4.15	5178.28	0.20		
	0.25781	143.43	8.70	136.93	10.10			0.000475
1234.49	9.00	4388.28	13.48	4.08	5038.80	0.20		
	0.25413	142.89	8.64	136.43	10.12			0.000471
1216.64	10.00	4388.16	13.36	4.02	4894.19	0.19		
	0.24900	142.15	8.56	135.75	10.16			0.000466
1201.79	11.00	4388.06	13.26	3.99	4790.07	0.19		
	0.24771	141.53	8.49	135.18	10.20			0.000468
1192.84	12.00	4388.00	13.20	3.97	4739.25	0.19		
	0.24521	141.16	8.45	134.83	10.22			0.000465
1173.29	13.00	4387.87	13.07	3.92	4600.94	0.19		
	0.24224	140.33	8.36	134.07	10.26			0.000464
1153.41	14.00	4387.73	12.93	3.89	4487.43	0.19		
	0.24310	139.48	8.27	133.29	10.31			0.000471
1145.72	15.00	4387.68	12.88	3.90	4471.97	0.19		
	0.24426	139.15	8.23	132.98	10.32			0.000475
1142.98	16.00	4387.66	12.86	3.91	4470.32	0.19		
	0.24517	139.03	8.22	132.87	10.33			0.000478
1141.70	17.00	4387.65	12.85	3.91	4469.50	0.19		
	0.24559	138.98	8.21	132.82	10.33			0.000479
1141.09	18.00	4387.65	12.85	3.92	4467.67	0.19		
	0.24532	138.95	8.21	132.80	10.34			0.000479
1145.01	19.00	4387.68	12.88	3.93	4501.79	0.19		
	0.24982	139.12	8.23	132.96	10.33			0.000486
1163.55	20.00	4387.80	13.00	3.99	4641.33	0.20		
		139.92	8.32	133.69	10.28			0.000488

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0.25346	74866.96						
21.00	4387.96	13.16	8.42	4.04	4795.39	0.20	
1186.86	140.91				134.60	10.23	0.000486
0.25563	75378.38						
22.00	4388.09	13.29	8.51	4.07	4907.38	0.20	
1207.01	141.75				135.38	10.18	0.000478
0.25404	75814.65						
23.00	4388.14	13.34	8.55	4.05	4921.15	0.20	
1214.32	142.06				135.66	10.17	0.000474
0.25309	75971.32						
24.00	4388.19	13.39	8.58	4.06	4966.60	0.20	
1221.89	142.37				135.95	10.15	0.000478
0.25600	76133.80						
25.00	4388.36	13.56	8.70	4.14	5162.14	0.20	
1247.06	143.41				136.91	10.10	0.000484
0.26239	76667.89						
26.00	4388.63	13.83	8.88	4.24	5461.85	0.20	
1288.55	145.08				138.45	10.01	0.000484
0.26806	77533.62						
27.00	4388.92	14.12	9.08	4.33	5770.17	0.20	
1332.88	146.84				140.07	9.92	0.000482
0.27295	78438.60						
28.00	4389.13	14.33	9.22	4.36	5961.89	0.20	
1366.07	148.13				141.26	9.86	0.000469
0.26996	79103.74						
29.00	4389.20	14.40	9.27	4.34	5981.17	0.20	
1376.68	148.53				141.63	9.84	0.000464
0.26862	79313.12						
30.00	4389.26	14.46	9.31	4.36	6047.02	0.20	
1386.95	148.92				141.99	9.82	0.000466
0.27086	79515.97						
31.00	4389.35	14.55	9.38	4.38	6141.39	0.20	
1401.56	149.48				142.50	9.79	0.000461
0.26956	79802.05						
32.00	4389.38	14.58	9.40	4.37	6150.55	0.20	
1406.40	149.66				142.67	9.78	0.000459
0.26944	79896.23						
33.00	4389.44	14.64	9.44	4.39	6218.60	0.20	
1415.64	150.01				142.99	9.77	0.000461
0.27146	80076.21						
34.00	4389.53	14.73	9.50	4.42	6315.74	0.20	
1429.77	150.54				143.48	9.74	0.000457
0.27083	80349.48						
35.00	4389.56	14.76	9.52	4.41	6323.03	0.20	
1433.94	150.70				143.62	9.73	0.000455
0.27003	80429.41						
36.00	4389.53	14.73	9.50	4.37	6254.28	0.20	
1430.11	150.55				143.49	9.74	0.000446
0.26421	80354.58						
37.00	4389.48	14.68	9.46	4.33	6159.37	0.20	
1421.08	150.21				143.18	9.76	0.000446
0.26315	80180.77						
38.00	4389.43	14.63	9.43	4.31	6087.17	0.20	
1413.94	149.94				142.93	9.77	0.000441
0.25963	80041.66						
39.00	4389.35	14.55	9.38	4.28	5995.33	0.20	
1401.25	149.47				142.49	9.79	0.000445
0.26006	79795.02						
40.00	4389.33	14.53	9.36	4.28	5986.95	0.20	
1397.39	149.32				142.36	9.80	0.000447
0.26087	79719.84						
41.00	4389.32	14.52	9.35	4.29	5985.86	0.20	
1395.60	149.25				142.29	9.80	0.000448

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## HYCHAN.OUT

0.26112	79684.97						
42.00	4389.31	14.51	4.29	5985.71	0.20		
1394.51	149.21	9.35		142.26	9.80	0.000449	
0.26185	79663.65						
43.00	4389.31	14.51	4.29	5985.75	0.20		
1393.99	149.19	9.34		142.24	9.81	0.000449	
0.26189	79653.59						
44.00	4389.35	14.55	4.32	6049.33	0.20		
1400.23	149.43	9.37		142.46	9.79	0.000456	
0.26652	79776.05						
45.00	4389.42	14.62	4.35	6143.90	0.20		
1412.12	149.88	9.42		142.87	9.77	0.000454	
0.26691	80007.75						
46.00	4389.49	14.69	4.37	6219.37	0.20		
1422.63	150.27	9.47		143.24	9.75	0.000455	
0.26895	80211.63						
47.00	4389.62	14.82	4.42	6386.80	0.20		
1443.84	151.07	9.56		143.96	9.71	0.000455	
0.27140	80620.01						
48.00	4389.77	14.97	4.47	6560.26	0.20		
1467.59	151.94	9.66		144.77	9.67	0.000455	
0.27407	81072.64						
49.00	4389.92	15.12	4.51	6735.39	0.20		
1492.50	152.85	9.76		145.61	9.63	0.000454	
0.27652	81541.97						
50.00	4390.07	15.27	4.55	6901.39	0.21		
1516.39	153.72	9.86		146.41	9.59	0.000452	
0.27809	81987.46						
51.00	4390.22	15.42	4.59	7082.49	0.21		
1542.33	154.65	9.97		147.26	9.55	0.000450	
0.28011	82465.83						
52.00	4390.41	15.61	4.65	7324.20	0.21		
1573.53	155.75	10.10		148.28	9.50	0.000451	
0.28463	83034.01						
53.00	4390.59	15.79	4.69	7524.14	0.21		
1602.70	156.77	10.22		149.21	9.45	0.000443	
0.28234	83559.30						
54.00	4390.70	15.90	4.70	7624.33	0.21		
1621.15	157.41	10.30		149.80	9.42	0.000441	
0.28333	83887.91						
55.00	4390.94	16.14	4.80	7974.08	0.21		
1662.29	158.81	10.47		151.09	9.36	0.000449	
0.29335	84610.62						
56.00	4391.36	16.56	4.99	8658.46	0.22		
1734.21	161.22	10.76		153.30	9.26	0.000458	
0.30766	85846.95						
57.00	4391.96	17.16	5.22	9605.89	0.22		
1840.31	164.65	11.18		156.45	9.11	0.000456	
0.31830	87612.10						
58.00	4392.69	17.89	5.43	10706.60	0.23		
1971.18	168.72	11.68		160.18	8.95	0.000445	
0.32439	89701.68						
59.00	4393.32	18.52	5.59	11662.03	0.23		
2085.07	172.12	12.11		163.30	8.82	0.000436	
0.32927	91450.37						
60.00	4393.74	18.94	5.70	12327.23	0.23		
2164.10	174.42	12.41		165.40	8.73	0.000428	
0.33124	92626.12						
61.00	4394.01	19.21	5.76	12768.19	0.23		
2215.39	175.87	12.60		166.74	8.68	0.000422	
0.33143	93373.47						
62.00	4394.17	19.37	5.79	12994.39	0.23		
2245.44	176.72	12.71		167.51	8.65	0.000415	

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HYCHAN.OUT									
	0.32926	93805.59							
2259.39	63.00	4394.24	19.44	12.76	5.79	13086.66	0.23	8.64	0.000418
	0.33237	94004.83							
2272.02	64.00	4394.31	19.51	12.80	5.80	13174.86	0.23	8.62	0.000413
	0.33032	94186.41							
2280.97	65.00	4394.35	19.55	12.85	5.78	13189.16	0.23	8.61	0.000409
	0.32782	94321.39							
2291.07	66.00	4394.41	19.61	12.90	5.77	13209.39	0.23	8.60	0.000405
	0.32628	94474.12							
2298.97	67.00	4394.45	19.65	12.93	5.75	13219.52	0.23	8.59	0.000401
	0.32380	94593.72							
2304.13	68.00	4394.48	19.68	12.96	5.73	13193.78	0.23	8.59	0.000394
	0.31849	94671.94							
2312.78	69.00	4394.53	19.73	13.00	5.68	13131.77	0.23	8.58	0.000386
	0.31291	94802.91							
2324.24	70.00	4394.60	19.80	13.06	5.60	13010.05	0.22	8.57	0.000365
	0.29707	94976.72							
2341.73	71.00	4394.69	19.89	13.14	5.47	12814.60	0.22	8.55	0.000348
	0.28502	95243.18							
2364.97	72.00	4394.83	20.03	13.25	5.30	12528.39	0.21	8.52	0.000280
	0.23146	95606.49							
2424.03	73.00	4395.17	20.37	13.53	4.80	11629.82	0.19	8.46	0.000236
	0.19893	96520.37							
2456.16	74.00	4395.35	20.55	13.68	4.51	11077.00	0.18	8.43	0.000208
	0.17730	97019.89							
2492.19	75.00	4395.56	20.76	13.85	4.25	10588.41	0.16	8.39	0.000176
	0.15231	97565.16							
2532.95	76.00	4395.80	21.00	14.04	4.11	10421.30	0.16	8.35	0.000177
	0.15488	98205.60							
2570.59	77.00	4396.03	21.23	14.21	4.02	10340.80	0.15	8.31	0.000182
	0.16102	98809.74							
2603.57	78.00	4396.22	21.42	14.36	4.07	10602.55	0.16	8.28	0.000231
	0.20712	99316.59							
2711.89	79.00	4396.78	21.98	14.87	4.65	12598.16	0.17	8.19	0.000289
	0.26767	100785.62							
2787.87	80.00	4397.19	22.39	15.22	4.92	13722.71	0.18	8.12	0.000312
	0.29596	101830.94							
2899.90	81.00	4397.77	22.97	15.73	5.17	14991.79	0.19	8.03	0.000422
	0.41408	103311.55							
3004.30	82.00	4398.31	23.51	16.20	5.58	16773.53	0.20	7.95	0.000673
	0.67983	104695.55							
3101.00	83.00	4398.80	24.00	16.63	5.94	18429.00	0.21	7.88	0.000565
		186.43							

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HYCHAN.OUT									
	0.58622	105916.60							
3176.29	84.00	4399.18	24.38	16.97	6.11	19418.55	0.22		0.000670
	0.70961	106864.88							
3229.77	85.00	4399.45	24.65	17.20	6.19	19991.26	0.22		0.000523
	0.56198	107536.52							
3285.96	86.00	4399.73	24.93	17.45	6.35	20865.19	0.22		0.000414
	0.45106	108209.13							
3335.88	87.00	4399.92	25.12	17.68	6.45	21513.23	0.23		0.001094
	1.20710	108696.32							
3369.99	88.00	4400.06	25.26	17.84	6.48	21823.95	0.23		0.000256
	0.28491	109022.35							
3394.15	89.00	4400.13	25.33	17.95	6.45	21895.21	0.23		0.000490
	0.54917	109188.05							
3413.11	90.00	4400.18	25.38	18.04	6.43	21938.63	0.22		0.001257
	1.41513	109323.77							
3418.25	91.00	4400.18	25.38	18.07	6.35	21701.85	0.22		0.000295
	0.33270	109319.05							
3411.92	92.00	4400.20	25.40	18.03	6.31	21520.73	0.22		0.000783
	0.88120	109358.56							
3402.96	93.00	4400.18	25.38	17.99	6.32	21520.67	0.22		0.000923
	1.03641	109317.28							
3382.95	94.00	4400.06	25.26	17.90	6.24	21095.76	0.22		0.000201
	0.22501	109030.70							
3365.73	95.00	4399.95	25.15	17.83	6.17	20753.93	0.22		0.000372
	0.41392	108754.54							
3336.14	96.00	4399.82	25.02	17.70	6.13	20441.65	0.22		0.000515
	0.56855	108432.13							
3297.15	97.00	4399.63	24.83	17.53	5.95	19633.60	0.21		0.000377
	0.41251	107972.20							
3249.70	98.00	4399.42	24.62	17.32	5.73	18616.91	0.20		0.000135
	0.14538	107459.89							
3186.86	99.00	4399.12	24.32	17.04	5.60	17856.32	0.20		0.000413
	0.43918	106714.77							
3130.25	100.00	4398.84	24.04	16.78	5.28	16537.38	0.19		0.000387
	0.40508	106014.23							
3070.35	101.00	4398.53	23.73	16.52	5.14	15781.25	0.19		0.000202
	0.20798	105244.45							
3005.54	102.00	4398.19	23.39	16.23	4.82	14491.34	0.18		0.000399
	0.40364	104387.86							
2907.71	103.00	4397.69	22.89	15.78	4.36	12681.28	0.16		0.000255
	0.25136	103121.70							
2764.93	104.00	4396.95	22.15	15.13	3.65	10100.91	0.14		0.000108
		182.72							

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HYCHAN.OUT									
	0.10163	101205.97							
2593.21	105.00	4396.03	21.23	14.34	3.00	7777.07	0.11	0.000090	
	0.08035	98810.52							
2459.81	106.00	4395.30	20.50	13.71	2.84	6991.74	0.11	0.000092	
	0.07892	96878.83							
2398.67	107.00	4395.02	20.22	13.41	3.01	7226.64	0.12	0.000111	
	0.09249	96121.97							
2351.49	108.00	4394.75	19.95	13.19	3.23	7584.83	0.13	0.000144	
	0.11843	95398.39							
2268.87	109.00	4394.29	19.49	12.79	3.48	7891.99	0.14	0.000171	
	0.13640	94152.25							
2162.85	110.00	4393.73	18.93	12.40	3.67	7927.77	0.15	0.000189	
	0.14629	92605.38							
2102.61	111.00	4393.41	18.61	12.18	3.77	7931.98	0.15	0.000214	
	0.16229	91713.99							
2070.80	112.00	4393.24	18.44	12.06	3.94	8148.86	0.16	0.000234	
	0.17574	91235.68							
2044.93	113.00	4393.10	18.30	11.96	4.02	8218.98	0.17	0.000238	
	0.17796	90841.47							
2008.45	114.00	4392.90	18.10	11.82	4.01	8059.87	0.17	0.000248	
	0.18325	90281.98							
1980.01	115.00	4392.74	17.94	11.72	4.11	8139.22	0.17	0.000272	
	0.19874	89843.12							
1982.90	116.00	4392.76	17.96	11.73	4.27	8474.77	0.18	0.000286	
	0.20919	89887.96							
1980.54	117.00	4392.75	17.95	11.72	4.33	8572.83	0.18	0.000287	
	0.20984	89850.59							
1960.22	118.00	4392.64	17.84	11.64	4.33	8494.86	0.18	0.000295	
	0.21433	89533.45							
1946.55	119.00	4392.56	17.76	11.59	4.36	8488.57	0.18	0.000302	
	0.21843	89319.15							
1943.67	120.00	4392.54	17.74	11.58	4.41	8579.07	0.18	0.000311	
	0.22438	89274.13							
1946.11	121.00	4392.56	17.76	11.59	4.46	8670.20	0.19	0.000313	
	0.22633	89312.47							
1941.92	122.00	4392.53	17.73	11.57	4.47	8672.96	0.19	0.000314	
	0.22640	89246.16							
1927.08	123.00	4392.45	17.65	11.51	4.45	8581.77	0.19	0.000316	
	0.22679	89010.82							
1909.73	124.00	4392.36	17.56	11.45	4.44	8481.67	0.19	0.000318	
	0.22714	88735.88							
1894.58	125.00	4392.27	17.47	11.39	4.42	8381.80	0.19	0.000319	
		166.36							

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1875.99	0.22655	88492.80	17.37	11.32	4.42	8284.03	0.19	0.000323
	126.00	4392.17				157.49	9.07	
		165.78						
1868.98	0.22828	88194.80	17.33	11.29	4.43	8273.60	0.19	0.000325
	127.00	4392.13				157.29	9.08	
		165.57						
1857.27	0.22865	88081.88	17.26	11.24	4.41	8190.31	0.19	0.000325
	128.00	4392.06				156.95	9.09	
		165.19						
1842.25	0.22777	87891.35	17.18	11.18	4.40	8103.79	0.19	0.000329
	129.00	4391.98				156.51	9.11	
		164.72						
1835.85	0.22972	87647.48	17.14	11.16	4.41	8094.12	0.19	0.000331
	130.00	4391.94				156.33	9.12	
		164.52						
1824.16	0.23033	87543.20	17.07	11.11	4.39	8015.40	0.19	0.000331
	131.00	4391.87				155.98	9.14	
		164.14						
1809.50	0.22985	87350.70	16.99	11.06	4.38	7933.00	0.19	0.000336
	132.00	4391.79				155.55	9.15	
		163.67						
1818.27	0.23158	87110.06	17.04	11.09	4.45	8085.60	0.19	0.000342
	133.00	4391.84				155.81	9.14	
		163.96						
1836.45	0.23678	87255.16	17.14	11.16	4.50	8256.67	0.19	0.000342
	134.00	4391.94				156.35	9.12	
		164.54						
1838.16	0.23804	87553.52	17.15	11.17	4.50	8271.07	0.19	0.000344
	135.00	4391.95				156.39	9.12	
		164.59						
1836.25	0.23964	87581.05	17.14	11.16	4.51	8272.38	0.19	0.000344
	136.00	4391.94				156.34	9.12	
		164.53						
1834.06	0.23966	87549.84	17.13	11.15	4.51	8272.34	0.19	0.000346
	137.00	4391.93				156.28	9.12	
		164.46						
1831.79	0.24065	87514.06	17.12	11.14	4.52	8272.12	0.19	0.000347
	138.00	4391.92				156.21	9.13	
		164.39						
1829.83	0.24145	87476.75	17.11	11.14	4.52	8271.76	0.19	0.000349
	139.00	4391.91				156.15	9.13	
		164.33						
1827.76	0.24269	87444.77	17.10	11.13	4.53	8270.65	0.19	0.000349
	140.00	4391.90				156.09	9.13	
		164.26						
1818.36	0.24224	87410.80	17.04	11.09	4.50	8188.43	0.19	0.000347
	141.00	4391.84				155.81	9.14	
		163.96						
1805.53	0.24036	87255.43	16.97	11.04	4.49	8100.66	0.19	0.000350
	142.00	4391.77				155.44	9.16	
		163.55						
1801.47	0.24129	87044.36	16.95	11.02	4.49	8093.62	0.19	0.000351
	143.00	4391.75				155.32	9.17	
		163.42						
1799.28	0.24163	86977.34	16.93	11.02	4.50	8092.75	0.19	0.000353
	144.00	4391.73				155.25	9.17	
		163.35						
1797.17	0.24240	86941.11	16.92	11.01	4.50	8090.72	0.19	0.000355
	145.00	4391.72				155.19	9.17	
		163.28						
1788.26	0.24348	86906.05	16.87	10.97	4.48	8012.59	0.19	0.000352
	146.00	4391.67				154.92	9.18	
		162.99						

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1775.53	0.24073	86757.23	16.80	10.92	4.46	7925.98	0.19	0.000355
	147.00	4391.60						
		162.58				154.55	9.20	
1771.46	0.24171	86545.55	16.77	10.91	4.47	7919.67	0.19	0.000357
	148.00	4391.57						
		162.44				154.42	9.21	
1768.90	0.24291	86477.66	16.76	10.89	4.48	7919.53	0.19	0.000358
	149.00	4391.56						
		162.36				154.35	9.21	
1766.72	0.24370	86434.65	16.75	10.89	4.48	7918.43	0.19	0.000360
	150.00	4391.55						
		162.29				154.28	9.21	
1765.18	0.24478	86398.25	16.74	10.88	4.49	7917.39	0.19	0.000360
	151.00	4391.54						
		162.24				154.24	9.21	
1758.61	0.24448	86372.35	16.70	10.85	4.47	7864.85	0.19	0.000359
	152.00	4391.50						
		162.02				154.04	9.22	
1746.90	0.24317	86261.48	16.63	10.81	4.46	7782.60	0.19	0.000362
	153.00	4391.43						
		161.64				153.69	9.24	
1738.18	0.24412	86064.09	16.58	10.77	4.46	7748.60	0.19	0.000363
	154.00	4391.38						
		161.35				153.42	9.25	
1735.19	0.24384	85916.67	16.56	10.76	4.46	7742.81	0.19	0.000364
	155.00	4391.36						
		161.25				153.33	9.26	
1726.50	0.24465	85866.12	16.51	10.73	4.44	7668.06	0.19	0.000366
	156.00	4391.31						
		160.97				153.07	9.27	
1728.01	0.24473	85717.65	16.52	10.73	4.48	7738.91	0.19	0.000373
	157.00	4391.32						
		161.02				153.12	9.27	
1747.02	0.24990	85744.48	16.63	10.81	4.52	7902.12	0.20	0.000370
	158.00	4391.43						
		161.65				153.69	9.24	
1751.09	0.24929	86067.04	16.66	10.82	4.52	7915.54	0.20	0.000370
	159.00	4391.46						
		161.78				153.81	9.23	
1751.49	0.24980	86135.35	16.66	10.83	4.52	7917.03	0.20	0.000369
	160.00	4391.46						
		161.79				153.83	9.23	
1751.10	0.24913	86142.09	16.66	10.82	4.52	7917.71	0.20	0.000370
	161.00	4391.46						
		161.78				153.81	9.23	
1750.62	0.25020	86135.45	16.65	10.82	4.52	7917.53	0.20	0.000370
	162.00	4391.45						
		161.76				153.80	9.23	
1750.09	0.24961	86127.37	16.65	10.82	4.52	7917.56	0.20	0.000371
	163.00	4391.45						
		161.75				153.78	9.24	
1749.53	0.25054	86118.49	16.65	10.82	4.53	7917.55	0.20	0.000370
	164.00	4391.45						
		161.73				153.77	9.24	
1748.99	0.25004	86109.09	16.64	10.82	4.53	7914.74	0.20	0.000370
	165.00	4391.44						
		161.71				153.75	9.24	
1741.43	0.25000	86099.74	16.60	10.79	4.50	7838.29	0.19	0.000367
	166.00	4391.40						
		161.46				153.52	9.25	
1729.31	0.24687	85971.11	16.53	10.74	4.48	7751.46	0.19	0.000371
	167.00	4391.33						
		161.06				153.15	9.26	

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1725.79	0.24877	85765.95	16.51	4.49	7744.74	0.19	0.000372
1724.64	0.24869	85706.27	16.50	4.49	7743.64	0.19	0.000372
1723.99	0.24906	85686.77	16.50	4.49	7743.67	0.19	0.000372
1723.49	0.24877	85675.77	16.50	4.49	7743.35	0.20	0.000374
1722.95	0.25010	85667.10	16.49	4.49	7743.51	0.20	0.000373
1722.35	0.24928	85657.94	16.49	4.49	7741.53	0.20	0.000372
1714.64	0.24885	85647.62	16.45	4.47	7662.76	0.19	0.000372
1702.47	0.24778	85515.18	16.37	4.45	7578.09	0.19	0.000374
1698.80	0.24831	85307.12	16.35	4.46	7570.98	0.19	0.000375
1697.52	0.24817	85244.19	16.35	4.46	7569.73	0.19	0.000374
1696.90	0.24775	85222.21	16.34	4.46	7569.31	0.19	0.000375
1696.38	0.24828	85211.45	16.34	4.46	7569.43	0.19	0.000377
1695.96	0.24922	85202.50	16.34	4.47	7573.66	0.19	0.000379
1710.37	0.25049	85195.45	16.42	4.52	7729.88	0.20	0.000383
1733.48	0.25450	85443.34	16.56	4.56	7901.38	0.20	0.000379
1746.81	0.25464	85837.75	16.63	4.58	7994.96	0.20	0.000380
1759.68	0.25650	86063.57	16.71	4.59	8081.72	0.20	0.000377
1763.19	0.25537	86280.45	16.73	4.59	8089.07	0.20	0.000376
1764.32	0.25508	86339.01	16.73	4.59	8090.47	0.20	0.000376
1764.81	0.25521	86358.05	16.74	4.58	8090.62	0.20	0.000376
1765.17	0.25500	86366.22	16.74	4.58	8090.93	0.20	0.000375

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## HYCHAN.OUT

1765.27	0.25460	86372.34	16.74	10.88	4.58	8090.63	0.20	0.000375
1765.38	0.25477	86373.90	16.74	10.88	4.58	8091.15	0.20	0.000376
1765.25	0.25536	86375.82	16.74	10.88	4.58	8088.87	0.20	0.000374
1758.10	0.25397	86373.64	16.70	10.85	4.56	8010.93	0.20	0.000372
1746.37	0.25217	86252.52	16.63	10.81	4.54	7925.37	0.20	0.000374
1743.11	0.25221	86055.37	16.61	10.79	4.54	7919.17	0.20	0.000376
1741.99	0.25322	86000.47	16.60	10.79	4.55	7917.47	0.20	0.000376
1741.49	0.25332	85981.45	16.60	10.79	4.55	7917.70	0.20	0.000376
1741.08	0.25272	85973.05	16.60	10.78	4.55	7916.81	0.20	0.000377
1740.86	0.25365	85966.11	16.60	10.78	4.55	7917.50	0.20	0.000377
1740.61	0.25392	85962.34	16.60	10.78	4.55	7917.57	0.20	0.000377
	0.25364	85958.10						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4532

MAXIMUM DISCHARGE (CFS) = 21665.59 AT TIME = 89.38  
 MAXIMUM STAGE = 4400.79 AT TIME = 90.93

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)			(FT)			
0.00	0.00	4373.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	1.00	4373.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	2.00	4373.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	3.00	4373.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	4.00	4376.00	2.10	1.26	796.74	0.15		
632.39	0.90738	48.10	13.15	47.66	22.67			0.001106
		25262.00						

HYCHAN.OUT							
1127.33	5.00	4386.69	12.79	8.14	4.62	5213.18	0.23
	0.26308	138.57				132.45	10.36
	6.00	70198.20					0.000518
1281.18		4387.69	13.79	8.85	4.16	5331.23	0.20
	0.24092	144.81				138.20	10.02
	7.00	73245.05					0.000436
1329.61		4388.00	14.10	9.06	3.99	5299.75	0.19
	0.22362	146.71				139.96	9.93
	8.00	74176.79					0.000395
1338.70		4388.05	14.15	9.10	3.87	5179.05	0.18
	0.21618	147.06				140.28	9.91
	9.00	74346.41					0.000381
1326.18		4387.97	14.07	9.05	3.80	5041.36	0.18
	0.21307	146.57				139.82	9.93
	10.00	74106.18					0.000377
1308.33		4387.86	13.96	8.97	3.74	4896.76	0.18
	0.20812	145.87				139.17	9.97
	11.00	73762.41					0.000372
1293.27		4387.76	13.86	8.90	3.70	4791.52	0.18
	0.20702	145.27				138.62	10.00
	12.00	73470.90					0.000373
1284.04		4387.70	13.80	8.86	3.69	4741.36	0.18
	0.20472	144.90				138.28	10.02
	13.00	73290.22					0.000370
1264.19		4387.57	13.67	8.77	3.64	4604.35	0.17
	0.20167	144.10				137.54	10.06
	14.00	72898.62					0.000368
1243.40		4387.44	13.54	8.68	3.61	4489.61	0.17
	0.20238	143.25				136.77	10.10
	15.00	72486.25					0.000374
1234.77		4387.38	13.48	8.64	3.62	4472.62	0.17
	0.20373	142.90				136.44	10.12
	16.00	72314.04					0.000378
1231.60		4387.36	13.46	8.63	3.63	4470.68	0.17
	0.20461	142.77				136.32	10.13
	17.00	72250.44					0.000380
1230.13		4387.35	13.45	8.62	3.63	4469.64	0.17
	0.20500	142.71				136.27	10.13
	18.00	72220.82					0.000381
1229.42		4387.34	13.44	8.62	3.63	4467.72	0.17
	0.20515	142.68				136.24	10.13
	19.00	72206.63					0.000382
1233.12		4387.37	13.47	8.63	3.65	4500.11	0.18
	0.20851	142.83				136.38	10.13
	20.00	72281.42					0.000387
1251.67		4387.49	13.59	8.72	3.71	4638.02	0.18
	0.21207	143.59				137.08	10.09
	21.00	72652.91					0.000390
1275.66		4387.65	13.75	8.82	3.76	4791.68	0.18
	0.21403	144.57				137.98	10.04
	22.00	73127.89					0.000389
1296.87		4387.79	13.89	8.92	3.78	4905.29	0.18
	0.21253	145.42				138.76	9.99
	23.00	73542.54					0.000382
1305.11		4387.84	13.94	8.95	3.77	4920.51	0.18
	0.21136	145.74				139.06	9.98
	24.00	73701.95					0.000378
1312.96		4387.89	13.99	8.99	3.78	4964.38	0.18
	0.21437	146.05				139.35	9.96
	25.00	73854.00					0.000382
1338.32		4388.05	14.15	9.10	3.85	5156.83	0.18
	0.22007	147.05				140.26	9.91
		74340.02					0.000388

HYCHAN.OUT							
26.00	4388.32	14.42	3.95	5455.25	0.18		
1380.72	148.69	9.29	141.77	9.83	0.000388		
0.22509	75139.77						
27.00	4388.61	14.71	4.04	5763.44	0.19		
1426.39	150.41	9.48	143.37	9.75	0.000388		
0.22957	75983.46						
28.00	4388.83	14.93	4.08	5958.81	0.19		
1461.37	151.72	9.63	144.56	9.68	0.000378		
0.22704	76618.05						
29.00	4388.90	15.00	4.06	5980.20	0.18		
1473.24	152.15	9.68	144.96	9.66	0.000373		
0.22554	76830.19						
30.00	4388.97	15.07	4.07	6044.45	0.19		
1483.93	152.54	9.73	145.32	9.65	0.000375		
0.22757	77021.15						
31.00	4389.06	15.16	4.10	6140.05	0.19		
1499.16	153.10	9.79	145.83	9.62	0.000371		
0.22665	77291.37						
32.00	4389.09	15.19	4.09	6149.98	0.18		
1504.56	153.29	9.82	146.01	9.61	0.000369		
0.22592	77386.44						
33.00	4389.15	15.25	4.11	6216.13	0.19		
1514.01	153.63	9.85	146.33	9.59	0.000371		
0.22805	77553.13						
34.00	4389.24	15.34	4.13	6314.46	0.19		
1528.66	154.16	9.92	146.81	9.57	0.000367		
0.22733	77809.75						
35.00	4389.27	15.37	4.12	6322.74	0.19		
1533.31	154.33	9.94	146.96	9.56	0.000366		
0.22663	77890.53						
36.00	4389.25	15.35	4.09	6255.61	0.18		
1530.05	154.21	9.92	146.85	9.57	0.000358		
0.22189	77832.85						
37.00	4389.19	15.30	4.05	6160.15	0.18		
1521.24	153.89	9.89	146.56	9.58	0.000356		
0.21980	77679.23						
38.00	4389.15	15.25	4.02	6089.13	0.18		
1514.25	153.64	9.86	146.33	9.59	0.000354		
0.21744	77555.83						
39.00	4389.07	15.17	3.99	5996.53	0.18		
1501.20	153.17	9.80	145.90	9.62	0.000356		
0.21785	77326.54						
40.00	4389.05	15.15	4.00	5987.33	0.18		
1496.93	153.01	9.78	145.76	9.62	0.000357		
0.21786	77251.25						
41.00	4389.03	15.13	4.00	5986.01	0.18		
1494.90	152.94	9.77	145.69	9.63	0.000358		
0.21853	77215.38						
42.00	4389.03	15.13	4.01	5985.91	0.18		
1493.65	152.90	9.77	145.65	9.63	0.000360		
0.21918	77193.30						
43.00	4389.02	15.12	4.01	5985.68	0.18		
1493.06	152.87	9.77	145.63	9.63	0.000359		
0.21869	77182.79						
44.00	4389.06	15.16	4.03	6047.42	0.18		
1499.14	153.10	9.79	145.83	9.62	0.000365		
0.22320	77290.93						
45.00	4389.13	15.23	4.06	6142.88	0.18		
1511.22	153.53	9.84	146.23	9.60	0.000363		
0.22291	77504.02						
46.00	4389.20	15.30	4.08	6216.67	0.18		
1522.03	153.92	9.89	146.59	9.58	0.000365		
0.22545	77693.85						

HYCHAN.OUT							
1543.62	47.00	4389.33	15.43	4.14	6383.30	0.19	0.000366
	0.22795	154.69	9.98		147.30	9.55	
		78070.31					
1568.06	48.00	4389.48	15.58	4.18	6556.61	0.19	0.000365
	0.22967	155.56	10.08		148.10	9.51	
		78492.23					
1593.82	49.00	4389.63	15.73	4.22	6731.66	0.19	0.000365
	0.23206	156.46	10.19		148.93	9.47	
		78932.17					
1618.58	50.00	4389.78	15.88	4.26	6897.54	0.19	0.000364
	0.23382	157.32	10.29		149.72	9.43	
		79350.70					
1645.47	51.00	4389.94	16.04	4.30	7078.59	0.19	0.000362
	0.23464	158.24	10.40		150.57	9.39	
		79800.38					
1677.48	52.00	4390.13	16.23	4.36	7318.50	0.19	0.000364
	0.23914	159.33	10.53		151.56	9.34	
		80329.23					
1707.85	53.00	4390.31	16.41	4.40	7521.32	0.19	0.000356
	0.23634	160.35	10.65		152.50	9.30	
		80825.73					
1727.41	54.00	4390.42	16.52	4.41	7620.49	0.19	0.000355
	0.23756	161.00	10.73		153.10	9.27	
		81141.78					
1769.29	55.00	4390.66	16.76	4.50	7965.40	0.19	0.000361
	0.24573	162.37	10.90		154.36	9.21	
		81810.04					
1841.87	56.00	4391.07	17.17	4.69	8645.44	0.20	0.000370
	0.25793	164.70	11.18		156.50	9.11	
		82944.05					
1950.45	57.00	4391.68	17.78	4.92	9587.66	0.21	0.000367
	0.26568	168.08	11.60		159.60	8.98	
		84588.36					
2085.56	58.00	4392.42	18.52	5.12	10686.32	0.21	0.000357
	0.26986	172.13	12.12		163.31	8.82	
		86554.54					
2203.42	59.00	4393.05	19.15	5.29	11647.30	0.21	0.000349
	0.27319	175.53	12.55		166.43	8.69	
		88205.85					
2285.32	60.00	4393.47	19.57	5.39	12317.91	0.21	0.000343
	0.27479	177.83	12.85		168.52	8.61	
		89318.23					
2338.55	61.00	4393.75	19.85	5.46	12761.90	0.22	0.000337
	0.27422	179.29	13.04		169.86	8.56	
		90026.74					
2370.07	62.00	4393.91	20.01	5.48	12991.31	0.22	0.000332
	0.27270	180.14	13.16		170.64	8.53	
		90440.79					
2384.82	63.00	4393.99	20.09	5.49	13084.68	0.22	0.000331
	0.27289	180.54	13.21		171.01	8.51	
		90633.16					
2398.25	64.00	4394.05	20.15	5.49	13173.28	0.22	0.000327
	0.27056	180.90	13.26		171.34	8.50	
		90808.00					
2408.55	65.00	4394.11	20.21	5.48	13187.67	0.21	0.000323
	0.26790	181.17	13.29		171.59	8.49	
		90941.54					
2420.05	66.00	4394.17	20.27	5.46	13207.64	0.21	0.000320
	0.26603	181.48	13.34		171.87	8.48	
		91090.39					
2429.11	67.00	4394.21	20.31	5.44	13218.49	0.21	0.000316
	0.26369	181.72	13.37		172.09	8.47	
		91207.09					

HYCHAN.OUT							
2435.39	68.00	4394.24	20.34	5.42	13192.67	0.21	0.000308
	0.25751	181.89	13.39		172.24	8.47	
		91287.88					
2446.03	69.00	4394.30	20.40	5.37	13130.23	0.21	0.000302
	0.25298	182.17	13.43		172.50	8.46	
		91424.58					
2460.49	70.00	4394.37	20.47	5.29	13007.03	0.21	0.000283
	0.23802	182.55	13.48		172.85	8.44	
		91610.49					
2482.57	71.00	4394.48	20.58	5.16	12811.76	0.20	0.000267
	0.22553	183.13	13.56		173.38	8.42	
		91891.41					
2511.91	72.00	4394.63	20.73	4.98	12518.71	0.19	0.000203
	0.17289	183.93	13.66		174.11	8.40	
		92276.83					
2580.25	73.00	4395.01	21.11	4.50	11601.91	0.17	0.000168
	0.14635	184.87	13.96		175.91	8.33	
		93230.45					
2615.69	74.00	4395.22	21.32	4.22	11033.94	0.16	0.000140
	0.12354	185.28	14.12		176.87	8.30	
		93741.44					
2653.90	75.00	4395.44	21.54	3.95	10481.11	0.15	0.000116
	0.10307	185.72	14.29		177.92	8.26	
		94296.94					
2696.71	76.00	4395.70	21.80	3.78	10194.50	0.14	0.000099
	0.08957	186.24	14.48		179.12	8.22	
		94931.07					
2737.09	77.00	4395.94	22.04	3.65	9986.42	0.14	0.000097
	0.08861	186.72	14.66		180.24	8.18	
		95526.60					
2770.21	78.00	4396.14	22.24	3.65	10103.37	0.14	0.000116
	0.10731	187.12	14.80		181.17	8.15	
		96018.78					
2868.65	79.00	4396.74	22.84	4.10	11758.38	0.15	0.000123
	0.11724	188.31	15.23		183.88	8.05	
		97458.77					
2947.50	80.00	4397.16	23.26	4.30	12667.48	0.16	0.000268
	0.26095	189.16	15.58		185.81	7.99	
		98480.40					
3059.73	81.00	4397.77	23.87	4.46	13648.19	0.16	0.000263
	0.26355	190.39	16.07		188.58	7.90	
		99944.87					
3164.22	82.00	4398.36	24.46	4.71	14908.79	0.17	0.000454
	0.46843	191.56	16.52		191.18	7.82	
		101325.78					
3253.79	83.00	4398.89	24.99	4.95	16091.44	0.17	0.000387
	0.40821	192.62	16.89		193.51	7.74	
		102561.42					
3327.11	84.00	4399.31	25.41	5.02	16712.31	0.18	0.000266
	0.28583	193.46	17.20		195.35	7.69	
		103535.96					
3385.61	85.00	4399.64	25.74	4.95	16768.71	0.17	0.000141
	0.15322	194.11	17.44		196.77	7.64	
		104289.52					
3439.43	86.00	4399.96	26.06	4.99	17174.46	0.17	0.000263
	0.29008	194.76	17.66		198.17	7.60	
		105030.32					
3472.06	87.00	4400.17	26.27	5.20	18043.28	0.18	0.000361
	0.40062	195.17	17.79		199.05	7.58	
		105495.30					
3497.45	88.00	4400.34	26.44	5.22	18255.51	0.18	0.000928
	1.03592	195.52	17.89		199.79	7.56	
		105888.57					



HYCHAN.OUT							
3513.91	89.00	4400.44	26.54	5.28	18540.22	0.18	0.000555
	0.62144	195.72	17.95	200.23	7.54		
		106121.97					
3526.06	90.00	4400.51	26.61	5.36	18888.72	0.18	0.000790
	0.88729	195.85	18.00	200.50	7.54		
		106266.13					
3528.16	91.00	4400.51	26.61	5.33	18802.44	0.18	0.000666
	0.74911	195.86	18.01	200.53	7.54		
		106278.98					
3535.04	92.00	4400.54	26.64	5.17	18284.84	0.18	0.000649
	0.73117	195.91	18.04	200.62	7.53		
		106330.80					
3526.83	93.00	4400.51	26.61	5.12	18046.08	0.17	0.000583
	0.65476	195.86	18.01	200.51	7.54		
		106271.47					
3509.49	94.00	4400.40	26.50	5.06	17748.39	0.17	0.000483
	0.54121	195.63	17.94	200.04	7.55		
		106019.27					
3489.05	95.00	4400.29	26.39	5.01	17471.38	0.17	0.000408
	0.45444	195.42	17.85	199.58	7.56		
		105776.79					
3463.94	96.00	4400.15	26.25	4.97	17223.49	0.17	0.000200
	0.22144	195.14	17.75	198.98	7.58		
		105459.81					
3434.81	97.00	4399.96	26.06	4.80	16488.17	0.17	0.000425
	0.46810	194.76	17.64	198.16	7.60		
		105027.06					
3393.90	98.00	4399.73	25.82	4.63	15722.43	0.16	0.000292
	0.31864	194.29	17.47	197.15	7.63		
		104487.09					
3342.86	99.00	4399.42	25.52	4.46	14895.06	0.16	0.000577
	0.62120	193.67	17.26	195.82	7.67		
		103782.07					
3289.20	100.00	4399.11	25.21	4.23	13906.19	0.15	0.000319
	0.33924	193.06	17.04	194.48	7.71		
		103073.31					
3230.44	101.00	4398.75	24.85	4.20	13559.41	0.15	0.000312
	0.32666	192.35	16.79	192.92	7.76		
		102247.18					
3167.89	102.00	4398.38	24.48	3.99	12647.74	0.14	0.000099
	0.10192	191.59	16.53	191.24	7.81		
		101359.84					
3077.46	103.00	4397.82	23.92	3.70	11381.38	0.13	0.000228
	0.22940	190.47	16.16	188.76	7.89		
		100045.11					
2942.16	104.00	4396.99	23.09	3.17	9324.72	0.12	0.000119
	0.11587	188.83	15.58	185.06	8.01		
		98083.54					
2775.56	105.00	4396.00	22.10	2.70	7480.59	0.10	0.000081
	0.07475	186.84	14.86	180.52	8.17		
		95675.01					
2632.89	106.00	4395.24	21.34	2.65	6971.14	0.10	0.000064
	0.05691	185.31	14.21	176.95	8.29		
		93782.96					
2569.98	107.00	4394.95	21.05	2.81	7231.71	0.11	0.000079
	0.06824	184.74	13.91	175.61	8.34		
		93073.59					
2520.30	108.00	4394.68	20.78	3.02	7601.50	0.12	0.000108
	0.09215	184.15	13.69	174.31	8.39		
		92384.70					
2428.04	109.00	4394.21	20.31	3.26	7907.45	0.13	0.000132
	0.10979	181.70	13.36	172.07	8.47		
		91195.77					

HYCHAN.OUT							
2315.06	110.00	4393.63	19.73	3.43	7941.70	0.14	0.000145
	0.11693	178.64	12.96		169.27	8.58	
		89712.92					
2250.96	111.00	4393.29	19.39	3.53	7938.91	0.14	0.000162
	0.12868	176.87	12.73		167.65	8.64	
		88854.64					
2215.65	112.00	4393.11	19.21	3.68	8152.58	0.15	0.000177
	0.13940	175.88	12.60		166.74	8.68	
		88374.17					
2187.60	113.00	4392.96	19.06	3.76	8224.00	0.15	0.000182
	0.14155	175.08	12.49		166.01	8.71	
		87987.16					
2149.41	114.00	4392.76	18.86	3.75	8065.89	0.15	0.000192
	0.14789	173.99	12.35		165.01	8.75	
		87456.92					
2118.05	115.00	4392.59	18.69	3.84	8141.28	0.16	0.000211
	0.16150	173.09	12.24		164.19	8.78	
		87018.84					
2118.70	116.00	4392.60	18.70	4.00	8473.50	0.16	0.000220
	0.16821	173.11	12.24		164.20	8.78	
		87027.79					
2115.48	117.00	4392.58	18.68	4.05	8575.56	0.17	0.000222
	0.16919	173.01	12.23		164.12	8.79	
		86981.66					
2093.96	118.00	4392.46	18.56	4.06	8497.61	0.17	0.000230
	0.17443	172.38	12.15		163.54	8.81	
		86677.38					
2079.13	119.00	4392.38	18.48	4.08	8490.26	0.17	0.000233
	0.17574	171.95	12.09		163.14	8.83	
		86466.59					
2075.23	120.00	4392.36	18.46	4.13	8578.56	0.17	0.000240
	0.18093	171.84	12.08		163.04	8.83	
		86411.23					
2077.17	121.00	4392.37	18.47	4.17	8670.54	0.17	0.000244
	0.18369	171.89	12.08		163.09	8.83	
		86438.87					
2072.56	122.00	4392.35	18.45	4.19	8674.04	0.17	0.000246
	0.18506	171.76	12.07		162.97	8.83	
		86372.82					
2057.11	123.00	4392.26	18.36	4.17	8585.13	0.17	0.000244
	0.18300	171.30	12.01		162.55	8.85	
		86150.58					
2039.02	124.00	4392.17	18.27	4.16	8483.41	0.17	0.000248
	0.18515	170.76	11.94		162.06	8.87	
		85890.55					
2023.31	125.00	4392.08	18.18	4.14	8385.12	0.17	0.000250
	0.18525	170.29	11.88		161.63	8.89	
		85662.32					
2003.81	126.00	4391.97	18.07	4.14	8285.74	0.17	0.000254
	0.18694	169.71	11.81		161.09	8.91	
		85378.90					
1996.23	127.00	4391.93	18.03	4.15	8274.59	0.17	0.000254
	0.18691	169.48	11.78		160.88	8.92	
		85268.15					
1984.16	128.00	4391.87	17.97	4.13	8192.95	0.17	0.000254
	0.18597	169.12	11.73		160.55	8.94	
		85090.25					
1968.44	129.00	4391.78	17.88	4.12	8105.34	0.17	0.000257
	0.18685	168.64	11.67		160.11	8.95	
		84858.95					
1961.53	130.00	4391.74	17.84	4.13	8094.98	0.17	0.000259
	0.18813	168.43	11.65		159.92	8.96	
		84756.82					

HYCHAN.OUT							
1949.43	131.00	4391.68	17.78	4.11	8018.19	0.17	0.000260
	0.18805	168.06	11.60		159.58	8.98	
		84576.41					
1934.08	132.00	4391.59	17.69	4.10	7934.07	0.17	0.000262
	0.18897	167.59	11.54		159.15	9.00	
		84348.12					
1942.23	133.00	4391.64	17.74	4.16	8082.18	0.17	0.000269
	0.19451	167.84	11.57		159.38	8.99	
		84470.25					
1960.62	134.00	4391.74	17.84	4.21	8255.53	0.18	0.000270
	0.19581	168.41	11.64		159.89	8.96	
		84743.94					
1962.35	135.00	4391.75	17.85	4.22	8271.32	0.18	0.000271
	0.19703	168.46	11.65		159.94	8.96	
		84769.11					
1960.23	136.00	4391.74	17.84	4.22	8272.68	0.18	0.000271
	0.19670	168.39	11.64		159.88	8.96	
		84737.66					
1957.81	137.00	4391.72	17.82	4.23	8272.70	0.18	0.000272
	0.19712	168.32	11.63		159.81	8.97	
		84701.75					
1955.30	138.00	4391.71	17.81	4.23	8272.47	0.18	0.000272
	0.19709	168.24	11.62		159.74	8.97	
		84664.57					
1953.15	139.00	4391.70	17.80	4.24	8272.10	0.18	0.000273
	0.19818	168.18	11.61		159.68	8.97	
		84632.62					
1950.88	140.00	4391.68	17.78	4.24	8271.11	0.18	0.000273
	0.19800	168.11	11.61		159.62	8.98	
		84598.84					
1941.34	141.00	4391.63	17.73	4.22	8190.78	0.18	0.000274
	0.19759	167.81	11.57		159.35	8.99	
		84455.99					
1928.03	142.00	4391.56	17.66	4.20	8101.80	0.18	0.000276
	0.19847	167.40	11.52		158.98	9.00	
		84257.37					
1923.62	143.00	4391.53	17.63	4.21	8094.02	0.18	0.000277
	0.19857	167.27	11.50		158.85	9.01	
		84191.38					
1921.20	144.00	4391.52	17.62	4.21	8093.08	0.18	0.000277
	0.19845	167.19	11.49		158.78	9.01	
		84155.16					
1918.89	145.00	4391.51	17.61	4.22	8091.24	0.18	0.000279
	0.19993	167.12	11.48		158.72	9.01	
		84120.39					
1909.86	146.00	4391.46	17.56	4.20	8014.86	0.18	0.000278
	0.19872	166.84	11.45		158.46	9.03	
		83983.64					
1896.66	147.00	4391.38	17.48	4.18	7927.05	0.18	0.000280
	0.19889	166.43	11.40		158.08	9.04	
		83784.55					
1892.21	148.00	4391.36	17.46	4.19	7920.16	0.18	0.000282
	0.20042	166.29	11.38		157.96	9.05	
		83717.29					
1889.37	149.00	4391.34	17.44	4.19	7919.92	0.18	0.000281
	0.19954	166.20	11.37		157.88	9.05	
		83674.26					
1886.98	150.00	4391.33	17.43	4.20	7918.71	0.18	0.000285
	0.20185	166.13	11.36		157.81	9.05	
		83637.94					
1885.29	151.00	4391.32	17.42	4.20	7917.77	0.18	0.000284
	0.20091	166.08	11.35		157.76	9.06	
		83612.19					

HYCHAN.OUT							
1878.59	152.00	4391.28	17.38	4.19	7866.50	0.18	0.000284
	0.20060	165.87	11.33	157.57	9.07		
		83509.70					
1866.46	153.00	4391.21	17.31	4.17	7784.42	0.18	0.000285
	0.20057	165.49	11.28	157.22	9.08		
		83324.40					
1857.16	154.00	4391.16	17.26	4.17	7749.30	0.18	0.000285
	0.20022	165.19	11.24	156.95	9.09		
		83182.05					
1853.92	155.00	4391.14	17.24	4.18	7743.33	0.18	0.000289
	0.20263	165.09	11.23	156.85	9.10		
		83132.26					
1845.08	156.00	4391.09	17.19	4.16	7670.06	0.18	0.000289
	0.20211	164.81	11.20	156.60	9.11		
		82995.45					
1845.93	157.00	4391.10	17.20	4.19	7735.99	0.18	0.000294
	0.20523	164.84	11.20	156.62	9.11		
		83009.48					
1865.32	158.00	4391.21	17.31	4.24	7900.52	0.18	0.000293
	0.20587	165.45	11.27	157.18	9.08		
		83307.81					
1869.66	159.00	4391.23	17.33	4.23	7915.40	0.18	0.000292
	0.20548	165.59	11.29	157.31	9.08		
		83373.87					
1870.08	160.00	4391.23	17.33	4.23	7917.01	0.18	0.000292
	0.20587	165.60	11.29	157.32	9.08		
		83380.30					
1869.65	161.00	4391.23	17.33	4.23	7917.83	0.18	0.000291
	0.20528	165.59	11.29	157.31	9.08		
		83373.64					
1869.13	162.00	4391.23	17.33	4.24	7917.56	0.18	0.000293
	0.20639	165.57	11.29	157.29	9.08		
		83365.70					
1868.54	163.00	4391.23	17.33	4.24	7917.71	0.18	0.000293
	0.20616	165.55	11.29	157.28	9.08		
		83356.68					
1867.93	164.00	4391.22	17.32	4.24	7917.60	0.18	0.000294
	0.20685	165.53	11.28	157.26	9.08		
		83347.39					
1867.34	165.00	4391.22	17.32	4.24	7914.96	0.18	0.000291
	0.20515	165.51	11.28	157.24	9.08		
		83338.33					
1859.80	166.00	4391.18	17.28	4.22	7840.34	0.18	0.000290
	0.20394	165.27	11.25	157.02	9.09		
		83221.93					
1847.27	167.00	4391.11	17.21	4.20	7752.62	0.18	0.000294
	0.20551	164.88	11.20	156.66	9.11		
		83029.66					
1843.43	168.00	4391.08	17.18	4.20	7744.98	0.18	0.000294
	0.20495	164.76	11.19	156.55	9.11		
		82970.72					
1842.18	169.00	4391.08	17.18	4.20	7743.75	0.18	0.000294
	0.20547	164.72	11.18	156.51	9.11		
		82951.37					
1841.45	170.00	4391.07	17.17	4.21	7743.78	0.18	0.000295
	0.20570	164.70	11.18	156.49	9.11		
		82940.09					
1840.90	171.00	4391.07	17.17	4.21	7743.45	0.18	0.000296
	0.20614	164.68	11.18	156.47	9.11		
		82931.60					
1840.30	172.00	4391.07	17.17	4.21	7743.57	0.18	0.000295
	0.20580	164.66	11.18	156.46	9.11		
		82922.34					

HYCHAN.OUT							
173.00	4391.06	17.16	4.21	7741.73	0.18		
1839.66	164.64	11.17		156.44	9.12	0.000296	
0.20604	82912.41						
174.00	4391.02	17.12	4.18	7664.97	0.18		
1831.96	164.39	11.14		156.21	9.13	0.000294	
0.20433	82792.41						
175.00	4390.95	17.05	4.17	7579.16	0.18		
1819.36	163.99	11.09		155.84	9.14	0.000296	
0.20468	82597.20						
176.00	4390.92	17.02	4.17	7571.26	0.18		
1815.36	163.86	11.08		155.73	9.15	0.000296	
0.20479	82535.18						
177.00	4390.92	17.02	4.17	7569.82	0.18		
1813.95	163.82	11.07		155.69	9.15	0.000297	
0.20527	82513.26						
178.00	4390.91	17.01	4.17	7569.43	0.18		
1813.25	163.80	11.07		155.66	9.15	0.000297	
0.20489	82502.22						
179.00	4390.91	17.01	4.18	7569.59	0.18		
1812.66	163.78	11.07		155.65	9.15	0.000299	
0.20624	82493.08						
180.00	4390.91	17.01	4.18	7573.39	0.18		
1812.15	163.76	11.07		155.63	9.15	0.000300	
0.20693	82485.15						
181.00	4390.99	17.09	4.23	7725.74	0.18		
1826.40	164.22	11.12		156.05	9.13	0.000303	
0.21048	82707.38						
182.00	4391.12	17.22	4.27	7899.36	0.18		
1850.24	164.98	11.22		156.75	9.10	0.000301	
0.21086	83076.34						
183.00	4391.20	17.30	4.29	7992.47	0.18		
1864.01	165.41	11.27		157.15	9.08	0.000301	
0.21132	83287.80						
184.00	4391.27	17.38	4.30	8080.60	0.18		
1877.41	165.83	11.32		157.53	9.07	0.000299	
0.21088	83492.52						
185.00	4391.30	17.40	4.30	8088.80	0.18		
1881.20	165.95	11.34		157.64	9.06	0.000297	
0.20997	83550.16						
186.00	4391.30	17.40	4.30	8090.36	0.18		
1882.45	165.99	11.34		157.68	9.06	0.000298	
0.21096	83569.12						
187.00	4391.31	17.41	4.30	8090.56	0.18		
1882.99	166.01	11.34		157.69	9.06	0.000297	
0.21046	83577.34						
188.00	4391.31	17.41	4.30	8090.87	0.18		
1883.39	166.02	11.34		157.70	9.06	0.000297	
0.21033	83583.45						
189.00	4391.31	17.41	4.30	8090.63	0.18		
1883.50	166.02	11.34		157.71	9.06	0.000299	
0.21137	83584.98						
190.00	4391.31	17.41	4.30	8091.17	0.18		
1883.61	166.02	11.35		157.71	9.06	0.000297	
0.20996	83586.78						
191.00	4391.31	17.41	4.29	8088.97	0.18		
1883.51	166.02	11.34		157.71	9.06	0.000297	
0.20995	83585.13						
192.00	4391.27	17.37	4.27	8013.02	0.18		
1876.41	165.80	11.32		157.50	9.07	0.000294	
0.20786	83476.10						
193.00	4391.20	17.30	4.25	7926.35	0.18		
1864.29	165.42	11.27		157.15	9.08	0.000296	
0.20841	83291.33						

HYCHAN.OUT							
1860.75	194.00	4391.18	17.28	4.26	7919.48	0.18	0.000298
	0.20904	165.31	11.26	157.05	9.09		
1859.51	195.00	4391.17	17.27	4.26	7917.55	0.18	0.000298
	0.20954	165.27	11.25	157.02	9.09		
1858.98	196.00	4391.17	17.27	4.26	7917.76	0.18	0.000297
	0.20852	165.25	11.25	157.00	9.09		
1858.51	197.00	4391.17	17.27	4.26	7916.90	0.18	0.000299
	0.21006	165.24	11.25	156.99	9.09		
1858.25	198.00	4391.17	17.27	4.26	7917.55	0.18	0.000298
	0.20884	165.23	11.25	156.98	9.09		
1857.98	199.00	4391.17	17.27	4.26	7917.61	0.18	0.000298
	0.20922	165.22	11.25	156.97	9.09		
		83194.82					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4533

MAXIMUM DISCHARGE (CFS) = 17524.26 AT TIME = 89.38  
 MAXIMUM STAGE = 4400.63 AT TIME = 90.02

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4373.25	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4373.25	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4373.25	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4373.25	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
627.08	4.00	4375.09	1.84	1.10	692.66	0.14	0.000922	
	0.81075	44.49	14.09	44.21	24.02			
1184.79	5.00	4386.27	13.02	4.36	5161.95	0.21	0.000387	
	0.20427	140.04	8.46	133.80	10.28			
1352.32	6.00	4387.41	14.16	3.93	5321.19	0.18	0.000321	
	0.18435	147.09	9.19	140.30	9.91			
1403.95	7.00	4387.76	14.51	3.77	5295.92	0.17	0.000289	
	0.16976	149.20	9.41	142.24	9.80			
1415.07	8.00	4387.83	14.58	3.66	5179.52	0.17	0.000278	
	0.16381	149.64	9.46	142.65	9.78			
1403.92	9.00	4387.76	14.51	3.59	5043.49	0.17	0.000275	
	0.16136	149.18	9.41	142.23	9.81			
	10.00	4387.64	14.39	3.53	4898.86	0.16		

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				HYCHAN.OUT			
1387.35		148.51		9.34	141.61	9.84	0.000269
	0.15683	62307.67					
	11.00	4387.55	14.30	3.49	4792.76	0.16	
1373.20		147.93		9.28	141.07	9.87	0.000270
	0.15645	62072.86					
	12.00	4387.49	14.24	3.48	4743.11	0.16	
1364.41		147.56		9.25	140.74	9.89	0.000267
	0.15432	61925.28					
	13.00	4387.36	14.11	3.42	4607.21	0.16	
1345.68		146.78		9.17	140.02	9.92	0.000265
	0.15158	61609.09					
	14.00	4387.22	13.97	3.39	4491.52	0.16	
1325.62		145.94		9.08	139.25	9.97	0.000269
	0.15256	61268.96					
	15.00	4387.16	13.91	3.40	4473.23	0.16	
1316.85		145.58		9.05	138.91	9.98	0.000273
	0.15387	61119.42					
	16.00	4387.14	13.89	3.40	4471.00	0.16	
1313.56		145.44		9.03	138.78	9.99	0.000274
	0.15434	61063.05					
	17.00	4387.13	13.88	3.41	4469.77	0.16	
1312.03		145.37		9.03	138.72	10.00	0.000275
	0.15469	61036.91					
	18.00	4387.12	13.87	3.41	4467.77	0.16	
1311.30		145.34		9.02	138.69	10.00	0.000276
	0.15513	61024.33					
	19.00	4387.15	13.90	3.42	4498.74	0.16	
1314.58		145.48		9.04	138.82	9.99	0.000280
	0.15763	61081.07					
	20.00	4387.27	14.02	3.48	4635.26	0.16	
1331.89		146.21		9.11	139.49	9.95	0.000283
	0.16075	61377.34					
	21.00	4387.42	14.17	3.53	4788.52	0.17	
1354.77		147.17		9.21	140.37	9.90	0.000283
	0.16235	61764.96					
	22.00	4387.56	14.31	3.57	4903.45	0.17	
1375.30		148.02		9.29	141.16	9.86	0.000278
	0.16095	62109.23					
	23.00	4387.62	14.37	3.56	4919.92	0.17	
1383.68		148.36		9.33	141.47	9.85	0.000274
	0.15967	62248.26					
	24.00	4387.67	14.42	3.57	4962.55	0.17	
1391.22		148.67		9.36	141.76	9.83	0.000278
	0.16228	62373.46					
	25.00	4387.83	14.58	3.64	5152.40	0.17	
1414.94		149.63		9.46	142.65	9.78	0.000283
	0.16676	62764.00					
	26.00	4388.10	14.85	3.75	5449.70	0.17	
1454.96		151.24		9.62	144.12	9.71	0.000285
	0.17103	63414.01					
	27.00	4388.38	15.13	3.84	5757.74	0.17	
1498.26		152.94		9.80	145.69	9.63	0.000285
	0.17428	64104.70					
	28.00	4388.61	15.36	3.89	5956.09	0.17	
1531.92		154.25		9.93	146.89	9.57	0.000278
	0.17208	64633.32					
	29.00	4388.68	15.43	3.87	5979.33	0.17	
1543.84		154.71		9.98	147.31	9.55	0.000274
	0.17091	64817.95					
	30.00	4388.75	15.50	3.89	6042.30	0.17	
1554.04		155.10		10.02	147.67	9.53	0.000276
	0.17236	64975.84					
	31.00	4388.84	15.59	3.91	6138.88	0.17	

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				HYCHAN.OUT			
1568.56		155.65		10.08	148.18	9.50	0.000273
	0.17155	65199.26					
	32.00	4388.88	15.63	3.91	6149.46	0.17	
1573.97		155.85		10.10	148.37	9.49	0.000271
	0.17052	65281.91					
	33.00	4388.94	15.69	3.93	6214.07	0.17	
1582.85		156.19		10.13	148.68	9.48	0.000273
	0.17261	65417.93					
	34.00	4389.03	15.78	3.95	6313.34	0.18	
1596.74		156.71		10.19	149.16	9.45	0.000270
	0.17195	65629.20					
	35.00	4389.06	15.81	3.95	6322.47	0.18	
1601.39		156.88		10.21	149.32	9.45	0.000269
	0.17124	65699.34					
	36.00	4389.04	15.79	3.91	6256.67	0.17	
1598.83		156.79		10.20	149.23	9.45	0.000264
	0.16811	65659.93					
	37.00	4388.99	15.74	3.87	6160.74	0.17	
1590.90		156.49		10.17	148.95	9.46	0.000260
	0.16497	65539.84					
	38.00	4388.95	15.70	3.84	6090.78	0.17	
1584.56		156.25		10.14	148.73	9.48	0.000259
	0.16414	65442.71					
	39.00	4388.87	15.62	3.81	5997.56	0.17	
1572.27		155.79		10.09	148.31	9.50	0.000260
	0.16398	65255.38					
	40.00	4388.84	15.59	3.82	5987.66	0.17	
1568.02		155.63		10.08	148.16	9.50	0.000262
	0.16445	65190.50					
	41.00	4388.83	15.58	3.82	5986.16	0.17	
1565.96		155.55		10.07	148.09	9.51	0.000263
	0.16536	65158.87					
	42.00	4388.82	15.57	3.83	5986.09	0.17	
1564.69		155.50		10.06	148.04	9.51	0.000263
	0.16499	65139.32					
	43.00	4388.81	15.57	3.83	5985.61	0.17	
1564.08		155.48		10.06	148.02	9.51	0.000262
	0.16472	65130.09					
	44.00	4388.85	15.60	3.85	6045.90	0.17	
1569.58		155.69		10.08	148.22	9.50	0.000268
	0.16885	65214.77					
	45.00	4388.92	15.67	3.89	6141.96	0.17	
1580.85		156.11		10.13	148.61	9.48	0.000265
	0.16767	65387.33					
	46.00	4388.99	15.74	3.91	6214.42	0.17	
1591.05		156.50		10.17	148.96	9.46	0.000268
	0.17003	65542.84					
	47.00	4389.12	15.87	3.96	6380.38	0.18	
1611.22		157.25		10.25	149.66	9.43	0.000270
	0.17269	65848.48					
	48.00	4389.27	16.02	4.01	6553.50	0.18	
1634.23		158.11		10.34	150.44	9.39	0.000269
	0.17349	66194.09					
	49.00	4389.42	16.17	4.06	6728.51	0.18	
1658.56		159.00		10.43	151.26	9.35	0.000269
	0.17531	66555.97					
	50.00	4389.57	16.32	4.10	6894.29	0.18	
1681.95		159.86		10.52	152.05	9.32	0.000269
	0.17657	66900.99					
	51.00	4389.73	16.48	4.14	7075.25	0.18	
1707.34		160.77		10.62	152.89	9.28	0.000267
	0.17673	67271.88					
	52.00	4389.92	16.67	4.21	7313.74	0.18	

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1737.30		161.85		10.73	153.87	9.23	0.000269
	0.18016	67704.69					
53.00	4390.10	16.85		4.26	7518.83	0.18	
1766.01		162.86	10.84		154.81	9.19	0.000263
	0.17786	68115.70					
54.00	4390.21	16.96		4.27	7617.25	0.18	
1784.74		163.52	10.91		155.41	9.16	0.000263
	0.17910	68381.23					
55.00	4390.45	17.20		4.36	7958.17	0.19	
1823.60		164.87	11.06		156.65	9.11	0.000269
	0.18572	68925.50					
56.00	4390.86	17.61		4.57	8634.56	0.19	
1890.25		167.14	11.31		158.73	9.01	0.000275
	0.19410	69842.38					
57.00	4391.46	18.21		4.81	9572.26	0.20	
1990.86		170.48	11.68		161.79	8.88	0.000273
	0.19894	71189.28					
58.00	4392.20	18.95		5.04	10669.12	0.20	
2116.45		174.50	12.13		165.48	8.73	0.000273
	0.20642	72812.67					
59.00	4392.84	19.59		5.23	11634.79	0.21	
2225.73		177.90	12.51		168.59	8.61	0.000264
	0.20596	74179.32					
60.00	4393.27	20.02		5.35	12309.99	0.21	
2301.52		180.19	12.77		170.68	8.53	0.000257
	0.20462	75101.27					
61.00	4393.55	20.30		5.43	12756.52	0.21	
2350.78		181.65	12.94		172.02	8.48	0.000251
	0.20276	75689.50					
62.00	4393.71	20.46		5.46	12988.67	0.21	
2380.10		182.51	13.04		172.81	8.45	0.000247
	0.20129	76035.54					
63.00	4393.79	20.54		5.47	13082.99	0.21	
2393.89		182.91	13.09		173.18	8.43	0.000245
	0.20023	76197.18					
64.00	4393.86	20.61		5.47	13171.88	0.21	
2406.44		183.27	13.13		173.51	8.42	0.000241
	0.19760	76344.23					
65.00	4393.91	20.66		5.46	13186.34	0.21	
2416.40		183.56	13.16		173.77	8.41	0.000237
	0.19462	76460.45					
66.00	4393.98	20.73		5.44	13206.10	0.21	
2427.42		183.88	13.20		174.07	8.40	0.000233
	0.19224	76588.70					
67.00	4394.02	20.77		5.43	13217.56	0.21	
2436.10		184.13	13.23		174.29	8.39	0.000230
	0.18998	76689.30					
68.00	4394.06	20.81		5.40	13191.67	0.21	
2442.25		184.29	13.25		174.46	8.38	0.000223
	0.18416	76762.02					
69.00	4394.12	20.87		5.35	13127.79	0.21	
2451.91		184.40	13.30		174.74	8.37	0.000218
	0.18046	76885.83					
70.00	4394.20	20.95		5.28	13000.64	0.20	
2464.43		184.57	13.35		175.13	8.36	0.000205
	0.17064	77057.37					
71.00	4394.32	21.07		5.16	12801.94	0.20	
2483.27		184.82	13.44		175.71	8.34	0.000193
	0.16169	77313.77					
72.00	4394.49	21.24		4.98	12492.14	0.19	
2508.81		185.16	13.55		176.52	8.31	0.000146
	0.12364	77668.56					
73.00	4394.91	21.66		4.51	11592.83	0.17	

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				HYCHAN.OUT			
2572.20		185.98		13.83	178.44	8.24	0.000125
	0.10755	78515.21					
	74.00	4395.12	21.87	4.23	11028.34	0.16	
2605.75		186.42		13.98	179.46	8.20	0.000107
	0.09320	78963.91					
	75.00	4395.36	22.11	3.96	10462.98	0.15	
2641.89		186.89		14.14	180.56	8.17	0.000092
	0.08101	79445.02					
	76.00	4395.62	22.38	3.78	10128.20	0.14	
2681.57		187.42		14.31	181.78	8.12	0.000067
	0.06023	79982.16					
	77.00	4395.87	22.62	3.63	9864.85	0.13	
2718.90		187.92		14.47	182.92	8.09	0.000061
	0.05496	80484.38					
	78.00	4396.08	22.83	3.60	9905.78	0.13	
2748.82		188.32		14.60	183.84	8.05	0.000053
	0.04833	80891.41					
	79.00	4396.67	23.42	3.98	11278.39	0.14	
2835.55		189.51		14.96	186.54	7.96	0.000060
	0.05620	82077.09					
	80.00	4397.11	23.86	4.13	11976.70	0.15	
2898.94		190.38		15.23	188.50	7.90	0.000169
	0.16105	82939.15					
	81.00	4397.73	24.48	4.26	12765.02	0.15	
2993.70		191.62		15.62	191.24	7.81	0.000041
	0.04023	84147.77					
	82.00	4398.33	25.08	4.42	13618.89	0.16	
3081.80		192.83		15.98	193.90	7.73	0.000000
	0.00000	85316.96					
	83.00	4398.87	25.62	4.55	14417.27	0.16	
3165.22		193.92		16.32	196.28	7.66	0.000148
	0.15082	86361.16					
	84.00	4399.30	26.05	4.59	14799.57	0.16	
3224.28		194.77		16.55	198.12	7.60	0.000000
	0.00000	87174.92					
	85.00	4399.65	26.40	4.41	14456.80	0.15	
3277.54		195.48		16.77	199.64	7.56	0.000000
	0.00000	87840.91					
	86.00	4400.01	26.76	4.33	14409.22	0.15	
3329.98		196.18		16.97	201.14	7.52	0.000000
	0.00000	88500.26					
	87.00	4400.23	26.98	4.48	15069.46	0.15	
3361.85		196.63		17.10	202.09	7.49	0.000015
	0.01638	88921.79					
	88.00	4400.42	27.17	4.44	15046.86	0.15	
3388.47		197.02		17.20	202.91	7.47	0.000166
	0.17826	89279.91					
	89.00	4400.55	27.30	4.48	15238.06	0.15	
3404.34		197.26		17.26	203.43	7.45	0.000000
	0.00000	89510.21					
	90.00	4400.64	27.39	4.53	15480.20	0.15	
3415.08		197.44		17.30	203.80	7.44	0.000000
	0.00000	89672.74					
	91.00	4400.65	27.40	4.49	15343.71	0.15	
3416.23		197.47		17.30	203.87	7.44	0.000303
	0.32690	89703.36					
	92.00	4400.67	27.42	4.33	14818.85	0.15	
3420.33		197.50		17.32	203.93	7.44	0.000000
	0.00000	89727.87					
	93.00	4400.62	27.37	4.30	14686.37	0.14	
3415.82		197.40		17.30	203.72	7.44	0.000000
	0.00000	89637.11					
	94.00	4400.49	27.24	4.30	14615.84	0.15	

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3397.61		197.14		17.23	203.17	7.46	0.000160
	0.17173	89394.91					
95.00		4400.37	27.12	4.28	14456.42	0.14	
3380.78		196.91	17.17		202.68	7.47	0.000000
	0.00000	89177.23					
96.00		4400.23	26.97	4.26	14311.12	0.14	
3358.36		196.62	17.08		202.07	7.49	0.000000
	0.00000	88909.62					
97.00		4400.02	26.77	4.15	13804.61	0.14	
3329.04		196.20	16.97		201.18	7.52	0.000000
	0.00000	88519.27					
98.00		4399.76	26.51	4.06	13355.54	0.14	
3293.55		195.69	16.83		200.09	7.55	0.000181
	0.18994	88038.34					
99.00		4399.42	26.17	3.96	12848.28	0.14	
3245.38		195.01	16.64		198.62	7.59	0.000149
	0.15508	87394.61					
100.00		4399.10	25.85	3.79	12135.53	0.13	
3198.70		194.36	16.46		197.24	7.63	0.000000
	0.00000	86783.66					
101.00		4398.73	25.48	3.84	12082.21	0.13	
3149.98		193.63	16.27		195.65	7.68	0.000096
	0.09722	86087.84					
102.00		4398.34	25.09	3.72	11482.63	0.13	
3088.79		192.84	16.02		193.94	7.73	0.000089
	0.08867	85332.59					
103.00		4397.78	24.53	3.51	10591.84	0.13	
3015.57		191.72	15.73		191.47	7.81	0.000000
	0.00000	84246.79					
104.00		4396.95	23.70	3.07	8897.82	0.11	
2898.61		190.07	15.25		187.80	7.92	0.000102
	0.09710	82631.61					
105.00		4395.96	22.71	2.68	7367.27	0.10	
2753.79		188.09	14.64		183.31	8.07	0.000023
	0.02070	80657.41					
106.00		4395.19	21.94	2.66	6983.01	0.10	
2628.64		186.56	14.09		179.79	8.19	0.000042
	0.03652	79106.07					
107.00		4394.91	21.66	2.82	7260.45	0.11	
2573.12		185.98	13.84		178.45	8.24	0.000047
	0.04070	78516.44					
108.00		4394.62	21.37	3.03	7652.30	0.12	
2529.48		185.41	13.64		177.11	8.29	0.000072
	0.06087	77929.21					
109.00		4394.14	20.89	3.24	7948.79	0.12	
2454.45		184.45	13.31		174.84	8.37	0.000094
	0.07767	76930.73					
110.00		4393.55	20.30	3.38	7953.66	0.13	
2351.52		181.66	12.94		172.04	8.47	0.000108
	0.08763	75695.91					
111.00		4393.21	19.96	3.47	7944.92	0.14	
2291.05		179.87	12.74		170.40	8.54	0.000118
	0.09410	74974.70					
112.00		4393.01	19.76	3.61	8155.94	0.14	
2256.71		178.84	12.62		169.45	8.57	0.000132
	0.10433	74558.91					
113.00		4392.86	19.61	3.69	8228.29	0.15	
2229.84		178.02	12.53		168.70	8.60	0.000135
	0.10590	74229.21					
114.00		4392.66	19.41	3.68	8071.18	0.15	
2194.11		176.93	12.40		167.70	8.64	0.000146
	0.11272	73788.53					
115.00		4392.48	19.23	3.76	8143.31	0.15	

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				HYCHAN.OUT			
2163.65		175.99		12.29	166.84	8.68	0.000161
	0.12360	73410.88					
	116.00	4392.47	19.22	3.92	8472.49	0.16	
2162.61		175.96		12.29	166.81	8.68	0.000167
	0.12809	73397.75					
	117.00	4392.45	19.20	3.97	8577.91	0.16	
2159.04		175.84		12.28	166.71	8.68	0.000167
	0.12800	73352.48					
	118.00	4392.34	19.09	3.97	8500.07	0.16	
2138.71		175.21		12.21	166.13	8.70	0.000175
	0.13319	73097.30					
	119.00	4392.25	19.00	4.00	8491.70	0.16	
2124.44		174.76		12.16	165.72	8.72	0.000175
	0.13303	72917.49					
	120.00	4392.23	18.98	4.05	8578.20	0.16	
2120.16		174.63		12.14	165.60	8.73	0.000181
	0.13709	72863.59					
	121.00	4392.24	18.99	4.09	8670.89	0.17	
2121.54		174.67		12.15	165.64	8.72	0.000182
	0.13781	72880.99					
	122.00	4392.21	18.96	4.10	8675.06	0.17	
2117.06		174.53		12.13	165.51	8.73	0.000187
	0.14153	72824.00					
	123.00	4392.12	18.87	4.08	8587.87	0.17	
2102.62		174.07		12.08	165.09	8.75	0.000186
	0.13994	72639.87					
	124.00	4392.03	18.78	4.07	8484.96	0.17	
2085.68		173.54		12.02	164.60	8.77	0.000189
	0.14140	72424.16					
	125.00	4391.94	18.69	4.05	8387.98	0.17	
2071.04		173.07		11.97	164.17	8.78	0.000191
	0.14268	72235.85					
	126.00	4391.83	18.58	4.04	8287.19	0.17	
2052.69		172.49		11.90	163.64	8.81	0.000193
	0.14343	71999.91					
	127.00	4391.79	18.54	4.05	8275.45	0.17	
2045.40		172.25		11.87	163.42	8.81	0.000195
	0.14425	71905.67					
	128.00	4391.72	18.47	4.03	8195.17	0.17	
2034.18		171.89		11.83	163.09	8.83	0.000194
	0.14346	71759.48					
	129.00	4391.64	18.39	4.01	8106.65	0.17	
2019.41		171.41		11.78	162.65	8.85	0.000196
	0.14392	71567.34					
	130.00	4391.60	18.35	4.02	8095.76	0.17	
2012.75		171.20		11.76	162.46	8.86	0.000199
	0.14609	71480.47					
	131.00	4391.53	18.28	4.01	8020.59	0.17	
2001.46		170.83		11.72	162.12	8.87	0.000199
	0.14528	71331.73					
	132.00	4391.44	18.19	3.99	7934.98	0.17	
1987.02		170.36		11.66	161.69	8.89	0.000202
	0.14716	71142.20					
	133.00	4391.48	18.23	4.05	8079.42	0.17	
1993.97		170.59		11.69	161.90	8.88	0.000208
	0.15136	71234.12					
	134.00	4391.58	18.33	4.11	8254.56	0.17	
2010.81		171.14		11.75	162.40	8.86	0.000207
	0.15171	71455.50					
	135.00	4391.59	18.34	4.11	8271.55	0.17	
2012.38		171.19		11.76	162.44	8.86	0.000207
	0.15201	71475.68					
	136.00	4391.58	18.33	4.12	8272.94	0.17	

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				HYCHAN.OUT			
2010.29	171.12	11.75	162.38	8.86	0.000209		
	0.15290 71448.41						
137.00	4391.57	18.32	4.12 8273.00	0.17			
2007.92	171.04	11.74	162.31	8.86	0.000210		
	0.15353 71417.30						
138.00	4391.55	18.30	4.13 8272.75	0.17			
2005.48	170.96	11.73	162.24	8.86	0.000209		
	0.15286 71385.21						
139.00	4391.54	18.29	4.13 8272.39	0.17			
2003.37	170.89	11.72	162.18	8.87	0.000209		
	0.15318 71357.59						
140.00	4391.53	18.28	4.13 8271.49	0.17			
2001.16	170.82	11.71	162.11	8.87	0.000210		
	0.15320 71328.55						
141.00	4391.47	18.22	4.11 8192.80	0.17			
1992.40	170.53	11.68	161.85	8.88	0.000210		
	0.15309 71212.56						
142.00	4391.40	18.15	4.09 8102.79	0.17			
1979.94	170.13	11.64	161.47	8.90	0.000209		
	0.15197 71048.57						
143.00	4391.38	18.13	4.10 8094.38	0.17			
1975.68	169.99	11.62	161.35	8.90	0.000212		
	0.15405 70992.32						
144.00	4391.36	18.11	4.10 8093.33	0.17			
1973.31	169.91	11.61	161.28	8.90	0.000214		
	0.15478 70961.00						
145.00	4391.35	18.10	4.11 8091.69	0.17			
1971.06	169.84	11.61	161.21	8.91	0.000211		
	0.15276 70931.03						
146.00	4391.30	18.05	4.08 8016.81	0.17			
1962.76	169.56	11.58	160.95	8.92	0.000213		
	0.15366 70820.12						
147.00	4391.22	17.97	4.06 7927.97	0.17			
1950.40	169.15	11.53	160.58	8.93	0.000216		
	0.15534 70655.89						
148.00	4391.20	17.95	4.07 7920.61	0.17			
1946.07	169.01	11.51	160.45	8.94	0.000215		
	0.15423 70598.16						
149.00	4391.18	17.93	4.08 7920.20	0.17			
1943.29	168.92	11.50	160.37	8.94	0.000216		
	0.15476 70561.04						
150.00	4391.17	17.92	4.08 7919.03	0.17			
1940.95	168.84	11.50	160.29	8.95	0.000217		
	0.15561 70529.60						
151.00	4391.16	17.91	4.08 7918.10	0.17			
1939.30	168.79	11.49	160.24	8.95	0.000216		
	0.15510 70507.60						
152.00	4391.12	17.87	4.07 7867.88	0.17			
1933.10	168.58	11.47	160.05	8.96	0.000218		
	0.15605 70423.94						
153.00	4391.05	17.80	4.05 7785.93	0.17			
1921.75	168.20	11.43	159.71	8.97	0.000208		
	0.14809 70271.21						
154.00	4391.00	17.75	4.05 7749.93	0.17			
1912.86	167.90	11.39	159.44	8.98	0.000210		
	0.14906 70151.44						
155.00	4390.98	17.73	4.05 7743.83	0.17			
1909.71	167.80	11.38	159.34	8.99	0.000211		
	0.14997 70108.82						
156.00	4390.93	17.68	4.03 7671.73	0.17			
1901.54	167.52	11.35	159.09	9.00	0.000210		
	0.14887 69997.59						
157.00	4390.93	17.68	4.07 7733.54	0.17			

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		HYCHAN.OUT					
1901.83	167.54	11.35	159.10	9.00	0.000214		
0.15144	70002.40						
158.00	4391.04	17.79	4.11	7899.21	0.17		
1919.77	168.14	11.42	159.65	8.97	0.000215		
0.15352	70245.31						
159.00	4391.06	17.81	4.11	7915.22	0.17		
1923.91	168.27	11.43	159.77	8.97	0.000212		
0.15153	70300.88						
160.00	4391.07	17.82	4.11	7917.04	0.17		
1924.32	168.29	11.43	159.79	8.97	0.000215		
0.15323	70306.25						
161.00	4391.06	17.81	4.12	7917.88	0.17		
1923.89	168.27	11.43	159.77	8.97	0.000212		
0.15150	70300.44						
162.00	4391.06	17.81	4.12	7917.68	0.17		
1923.39	168.26	11.43	159.76	8.97	0.000215		
0.15341	70293.70						
163.00	4391.06	17.81	4.12	7917.80	0.17		
1922.80	168.24	11.43	159.74	8.97	0.000213		
0.15219	70285.78						
164.00	4391.05	17.80	4.12	7917.69	0.17		
1922.21	168.22	11.43	159.72	8.97	0.000215		
0.15365	70277.80						
165.00	4391.05	17.80	4.12	7915.07	0.17		
1921.64	168.20	11.42	159.71	8.97	0.000213		
0.15198	70270.21						
166.00	4391.01	17.76	4.10	7842.12	0.17		
1914.77	167.97	11.40	159.49	8.98	0.000214		
0.15239	70176.80						
167.00	4390.94	17.69	4.07	7753.63	0.17		
1903.06	167.58	11.36	159.13	9.00	0.000213		
0.15121	70018.56						
168.00	4390.92	17.67	4.08	7745.17	0.17		
1899.34	167.45	11.34	159.02	9.00	0.000214		
0.15162	69968.31						
169.00	4390.91	17.66	4.08	7743.88	0.17		
1898.11	167.41	11.34	158.98	9.00	0.000217		
0.15331	69951.63						
170.00	4390.90	17.65	4.08	7743.88	0.17		
1897.39	167.38	11.34	158.96	9.00	0.000215		
0.15226	69941.80						
171.00	4390.90	17.65	4.08	7743.53	0.17		
1896.85	167.37	11.33	158.94	9.00	0.000215		
0.15223	69934.50						
172.00	4390.90	17.65	4.08	7743.64	0.17		
1896.26	167.35	11.33	158.92	9.01	0.000217		
0.15349	69926.51						
173.00	4390.89	17.64	4.08	7741.90	0.17		
1895.64	167.33	11.33	158.90	9.01	0.000217		
0.15355	69918.07						
174.00	4390.85	17.60	4.06	7666.78	0.17		
1888.62	167.09	11.30	158.69	9.02	0.000213		
0.14996	69821.82						
175.00	4390.78	17.53	4.04	7580.09	0.17		
1876.82	166.69	11.26	158.32	9.03	0.000215		
0.15100	69661.06						
176.00	4390.76	17.51	4.04	7571.52	0.17		
1872.94	166.56	11.24	158.20	9.04	0.000216		
0.15191	69608.09						
177.00	4390.75	17.50	4.04	7569.93	0.17		
1871.57	166.51	11.24	158.16	9.04	0.000219		
0.15330	69589.27						
178.00	4390.74	17.49	4.05	7569.52	0.17		

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				HYCHAN.OUT			
1870.86		166.49		11.24	158.14	9.04	0.000219
	0.15328	69579.54					
179.00	4390.74	17.49		4.05	7569.76	0.17	
1870.27		166.47		11.24	158.12	9.04	0.000219
	0.15342	69571.55					
180.00	4390.74	17.49		4.05	7573.16	0.17	
1869.73		166.45		11.23	158.10	9.04	0.000219
	0.15380	69564.19					
181.00	4390.81	17.56		4.10	7722.31	0.17	
1882.63		166.89		11.28	158.50	9.02	0.000223
	0.15730	69740.91					
182.00	4390.95	17.70		4.15	7897.63	0.17	
1904.88		167.64		11.36	159.19	8.99	0.000221
	0.15643	70044.01					
183.00	4391.03	17.78		4.17	7990.31	0.17	
1917.74		168.07		11.41	159.59	8.98	0.000220
	0.15629	70218.00					
184.00	4391.10	17.85		4.19	8079.65	0.17	
1930.32		168.49		11.46	159.97	8.96	0.000219
	0.15648	70387.35					
185.00	4391.12	17.88		4.18	8088.55	0.17	
1933.99		168.61		11.47	160.08	8.96	0.000218
	0.15617	70436.49					
186.00	4391.13	17.88		4.18	8090.30	0.17	
1935.21		168.65		11.47	160.12	8.95	0.000218
	0.15596	70452.74					
187.00	4391.14	17.89		4.18	8090.49	0.17	
1935.74		168.67		11.48	160.14	8.95	0.000218
	0.15643	70459.96					
188.00	4391.14	17.89		4.18	8090.81	0.17	
1936.13		168.68		11.48	160.15	8.95	0.000218
	0.15581	70465.17					
189.00	4391.14	17.89		4.18	8090.69	0.17	
1936.23		168.69		11.48	160.15	8.95	0.000220
	0.15724	70466.48					
190.00	4391.14	17.89		4.18	8091.12	0.17	
1936.34		168.69		11.48	160.15	8.95	0.000218
	0.15614	70467.98					
191.00	4391.14	17.89		4.18	8089.06	0.17	
1936.26		168.69		11.48	160.15	8.95	0.000217
	0.15542	70466.86					
192.00	4391.10	17.85		4.15	8014.77	0.17	
1929.84		168.47		11.46	159.95	8.96	0.000217
	0.15487	70379.90					
193.00	4391.03	17.78		4.13	7927.20	0.17	
1918.52		168.09		11.41	159.61	8.98	0.000217
	0.15454	70227.81					
194.00	4391.01	17.76		4.14	7919.75	0.17	
1915.09		167.98		11.40	159.50	8.98	0.000219
	0.15566	70181.77					
195.00	4391.00	17.75		4.14	7917.62	0.17	
1913.87		167.94		11.40	159.47	8.98	0.000218
	0.15481	70165.32					
196.00	4391.00	17.75		4.14	7917.80	0.17	
1913.36		167.92		11.39	159.45	8.98	0.000219
	0.15589	70158.45					
197.00	4391.00	17.75		4.14	7917.00	0.17	
1912.89		167.91		11.39	159.44	8.98	0.000219
	0.15559	70152.06					
198.00	4391.00	17.75		4.14	7917.54	0.17	
1912.64		167.90		11.39	159.43	8.98	0.000218
	0.15474	70148.59					
199.00	4390.99	17.74		4.14	7917.67	0.17	

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1912.37 167.89 HYCHAN.OUT 159.42 8.98 0.000218  
 0.15488 70144.99 11.39

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4590

MAXIMUM DISCHARGE (CFS) = 17202.22 AT TIME = 89.39  
 MAXIMUM STAGE = 4400.67 AT TIME = 90.02

AREA	TIME WETTED BED SHEAR STRESS (FT^2) (LB/FT^2)	ELEV. PERIMETER SURFACE AREA (FT) (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4372.75	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4372.75	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4372.75	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4372.75	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
635.21	4.00	4374.34	1.59	0.89	565.27	0.12	0.000786
	0.52677	59.11	10.75	58.76	36.99		
1195.54	5.00	4385.97	13.22	4.27	5103.53	0.21	0.000333
	0.20429	121.75	9.82	114.31	8.64		
1362.93	6.00	4387.21	14.46	3.90	5310.41	0.18	0.000280
	0.18986	125.51	10.86	117.56	8.13		
1413.44	7.00	4387.58	14.83	3.74	5291.74	0.17	0.000252
	0.17556	126.61	11.16	118.50	7.99		
1425.20	8.00	4387.67	14.92	3.63	5179.85	0.17	0.000243
	0.17006	126.86	11.23	118.72	7.96		
1415.68	9.00	4387.60	14.85	3.56	5045.56	0.16	0.000239
	0.16660	126.66	11.18	118.54	7.98		
1401.04	10.00	4387.49	14.74	3.50	4900.87	0.16	0.000232
	0.16058	126.34	11.09	118.27	8.02		
1388.40	11.00	4387.39	14.64	3.45	4794.01	0.16	0.000233
	0.16032	126.06	11.01	118.03	8.06		
1380.45	12.00	4387.33	14.58	3.44	4744.82	0.16	0.000230
	0.15767	125.89	10.97	117.88	8.08		
1363.66	13.00	4387.21	14.46	3.38	4610.03	0.16	0.000226
	0.15330	125.52	10.86	117.56	8.13		
1345.34	14.00	4387.07	14.32	3.34	4493.50	0.16	0.000231
	0.15492	125.11	10.75	117.21	8.18		
1337.03	15.00	4387.01	14.26	3.35	4473.88	0.16	0.000235
		124.92	10.70	117.05	8.21		

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HYCHAN.OUT									
	0.15669	58523.60							
1333.87	16.00	4386.99	14.24	10.68	3.35	4471.33	0.16	8.22	0.000233
	0.15540	58492.95							
1332.40	17.00	4386.97	14.22	10.67	3.35	4469.91	0.16	8.22	0.000236
	0.15722	58478.77							
1331.70	18.00	4386.97	14.22	10.67	3.35	4467.83	0.16	8.22	0.000236
	0.15697	58471.92							
1334.50	19.00	4386.99	14.24	10.69	3.37	4497.40	0.16	8.22	0.000242
	0.16144	58499.38							
1349.91	20.00	4387.11	14.36	10.78	3.43	4632.54	0.16	8.17	0.000245
	0.16501	58648.58							
1370.60	21.00	4387.26	14.51	10.91	3.49	4785.37	0.16	8.11	0.000248
	0.16853	58846.82							
1389.38	22.00	4387.40	14.65	11.02	3.53	4901.55	0.16	8.06	0.000241
	0.16602	59024.71							
1397.31	23.00	4387.46	14.71	11.07	3.52	4919.31	0.16	8.03	0.000239
	0.16492	59099.01							
1404.15	24.00	4387.51	14.76	11.11	3.53	4960.77	0.16	8.02	0.000244
	0.16943	59163.14							
1425.26	25.00	4387.67	14.92	11.23	3.61	5148.06	0.16	7.96	0.000249
	0.17447	59359.07							
1461.10	26.00	4387.93	15.18	11.45	3.73	5444.26	0.17	7.86	0.000254
	0.18163	59686.81							
1499.96	27.00	4388.22	15.47	11.68	3.83	5752.16	0.17	7.76	0.000255
	0.18603	60035.40							
1530.51	28.00	4388.44	15.69	11.86	3.89	5953.34	0.17	7.69	0.000248
	0.18379	60304.72							
1541.67	29.00	4388.52	15.77	11.92	3.88	5978.43	0.17	7.66	0.000246
	0.18340	60401.68							
1550.86	30.00	4388.58	15.83	11.98	3.89	6040.21	0.17	7.64	0.000248
	0.18557	60481.43							
1563.93	31.00	4388.68	15.93	12.06	3.92	6137.71	0.17	7.61	0.000246
	0.18511	60594.05							
1568.99	32.00	4388.71	15.97	12.08	3.92	6148.92	0.17	7.60	0.000245
	0.18477	60637.32							
1576.90	33.00	4388.77	16.02	12.13	3.94	6212.10	0.17	7.58	0.000248
	0.18794	60705.05							
1589.34	34.00	4388.86	16.11	12.20	3.97	6312.23	0.17	7.55	0.000246
	0.18698	60810.90							
1593.67	35.00	4388.89	16.14	12.23	3.97	6322.18	0.17	7.54	0.000243
	0.18575	60847.47							
1591.76	36.00	4388.88	16.13	12.22	3.93	6257.64	0.17	7.54	0.000238
		130.28							

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HYCHAN.OUT									
	0.18110	60831.04							
1584.98	37.00	4388.83	16.08	12.18	3.89	6161.25	0.17	0.000236	
	0.17905	60773.58							
1579.50	38.00	4388.79	16.04	12.15	3.86	6092.38	0.17	0.000233	
	0.17690	60726.66							
1568.55	39.00	4388.71	15.96	12.08	3.82	5998.57	0.17	0.000233	
	0.17561	60633.26							
1564.60	40.00	4388.68	15.93	12.06	3.83	5988.00	0.17	0.000236	
	0.17744	60599.53							
1562.65	41.00	4388.67	15.92	12.05	3.83	5986.33	0.17	0.000238	
	0.17867	60582.80							
1561.45	42.00	4388.66	15.91	12.04	3.83	5986.23	0.17	0.000236	
	0.17726	60572.43							
1560.88	43.00	4388.66	15.91	12.04	3.83	5985.55	0.17	0.000236	
	0.17755	60567.55							
1565.61	44.00	4388.69	15.94	12.06	3.86	6044.50	0.17	0.000242	
	0.18250	60608.33							
1575.58	45.00	4388.76	16.01	12.12	3.90	6141.00	0.17	0.000238	
	0.18023	60693.80							
1584.69	46.00	4388.83	16.08	12.18	3.92	6212.28	0.17	0.000244	
	0.18520	60771.44							
1602.54	47.00	4388.96	16.21	12.28	3.98	6377.57	0.17	0.000246	
	0.18818	60922.61							
1623.02	48.00	4389.10	16.35	12.40	4.04	6550.49	0.18	0.000246	
	0.18999	61094.49							
1644.72	49.00	4389.26	16.51	12.52	4.09	6725.49	0.18	0.000248	
	0.19367	61274.61							
1665.59	50.00	4389.40	16.65	12.65	4.14	6891.15	0.18	0.000247	
	0.19475	61446.27							
1688.22	51.00	4389.56	16.81	12.78	4.19	7072.02	0.18	0.000248	
	0.19783	61630.43							
1714.70	52.00	4389.75	17.00	12.93	4.26	7309.20	0.18	0.000252	
	0.20293	61843.34							
1740.28	53.00	4389.93	17.18	13.07	4.32	7516.37	0.18	0.000246	
	0.20107	62046.96							
1757.16	54.00	4390.04	17.29	13.17	4.33	7614.17	0.18	0.000251	
	0.20595	62179.86							
1791.22	55.00	4390.28	17.53	13.36	4.44	7951.42	0.19	0.000259	
	0.21593	62444.41							
1849.01	56.00	4390.68	17.93	13.69	4.66	8624.38	0.19	0.000267	
	0.22798	62884.82							
1936.84	57.00	4391.27	18.52	14.18	4.93	9557.87	0.20	0.000285	
		136.58							

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HYCHAN.OUT									
	0.25252	63534.48							
2044.76	58.00	4392.00	19.25	14.78	5.21	10653.37	0.21	0.000298	
	0.27490	138.38				128.61	6.68		
		64303.05							
2140.04	59.00	4392.63	19.88	15.30	5.43	11623.17	0.21	0.000297	
	0.28332	139.91				129.91	6.54		
		64957.46							
2206.26	60.00	4393.06	20.31	15.65	5.58	12302.65	0.22	0.000295	
	0.28852	140.94				130.80	6.44		
		65398.54							
2249.26	61.00	4393.34	20.59	15.88	5.67	12751.54	0.22	0.000293	
	0.29055	141.60				131.36	6.38		
		65679.18							
2275.03	62.00	4393.51	20.76	16.02	5.71	12986.21	0.22	0.000291	
	0.29105	141.99				131.69	6.34		
		65845.23							
2287.08	63.00	4393.58	20.83	16.09	5.72	13081.51	0.22	0.000290	
	0.29115	142.17				131.85	6.33		
		65922.66							
2297.40	64.00	4393.66	20.91	16.14	5.73	13169.73	0.22	0.000287	
	0.28939	142.32				131.99	6.31		
		65993.90							
2305.11	65.00	4393.71	20.96	16.18	5.72	13182.87	0.22	0.000284	
	0.28697	142.43				132.10	6.30		
		66051.55							
2313.46	66.00	4393.78	21.03	16.23	5.71	13200.84	0.22	0.000283	
	0.28635	142.56				132.23	6.29		
		66114.35							
2320.05	67.00	4393.83	21.08	16.26	5.69	13211.06	0.22	0.000280	
	0.28448	142.66				132.33	6.28		
		66163.78							
2324.99	68.00	4393.86	21.11	16.29	5.67	13183.62	0.22	0.000275	
	0.27902	142.74				132.40	6.27		
		66200.91							
2333.34	69.00	4393.93	21.18	16.33	5.62	13112.32	0.22	0.000271	
	0.27583	142.86				132.53	6.26		
		66264.08							
2345.06	70.00	4394.02	21.27	16.39	5.53	12973.05	0.21	0.000256	
	0.26231	143.04				132.71	6.24		
		66353.02							
2362.55	71.00	4394.15	21.40	16.49	5.40	12762.46	0.21	0.000249	
	0.25651	143.31				132.97	6.21		
		66483.97							
2386.48	72.00	4394.34	21.59	16.61	5.22	12450.67	0.20	0.000168	
	0.17360	143.68				133.33	6.18		
		66663.17							
2445.32	73.00	4394.77	22.02	16.92	4.75	11612.90	0.18	0.000132	
	0.13974	144.56				134.17	6.09		
		67083.93							
2476.33	74.00	4395.01	22.26	17.07	4.46	11046.88	0.17	0.000102	
	0.10892	145.03				134.62	6.05		
		67308.72							
2509.44	75.00	4395.26	22.51	17.24	4.17	10464.87	0.15	0.000059	
	0.06336	145.53				135.09	6.00		
		67546.62							
2545.07	76.00	4395.53	22.78	17.42	3.98	10120.95	0.15	0.000051	
	0.05493	146.07				135.60	5.95		
		67801.49							
2578.65	77.00	4395.79	23.04	17.59	3.82	9850.12	0.14	0.000064	
	0.07057	146.58				136.07	5.91		
		68037.07							
2606.27	78.00	4395.99	23.24	17.73	3.78	9860.26	0.14	0.000055	
		146.98				136.45	5.87		

HYCHAN.OUT									
0.06123	68224.20								
79.00	4396.57	23.82	4.13	11078.64	0.15				
2682.49	148.14	18.11		137.50	5.77	0.000011			
0.01216	68752.20								
80.00	4396.98	24.23	4.31	11797.68	0.15				
2736.56	148.97	18.37		138.26	5.71	0.000000			
0.00000	69128.02								
81.00	4397.57	24.82	4.48	12638.84	0.16				
2820.04	150.15	18.78		139.30	5.61	0.000000			
0.00000	69651.66								
82.00	4398.15	25.40	4.65	13453.29	0.16				
2895.80	151.31	19.14		140.31	5.52	0.000000			
0.00000	70156.46								
83.00	4398.68	25.93	4.77	14135.25	0.17				
2964.03	152.37	19.45		141.23	5.45	0.000000			
0.00000	70612.57								
84.00	4399.08	26.33	4.84	14598.19	0.17				
3017.96	153.16	19.70		141.90	5.39	0.000000			
0.00000	70951.45								
85.00	4399.41	26.66	4.66	14273.17	0.16				
3063.16	153.83	19.91		142.46	5.34	0.000000			
0.00000	71231.62								
86.00	4399.74	26.99	4.57	14198.90	0.16				
3106.51	154.48	20.11		143.00	5.30	0.000000			
0.00000	71502.40								
87.00	4399.95	27.20	4.72	14788.08	0.16				
3132.79	154.90	20.22		143.35	5.27	0.000000			
0.00000	71676.69								
88.00	4400.12	27.37	4.66	14719.39	0.16				
3155.37	155.25	20.32		143.65	5.25	0.000000			
0.00000	71822.63								
89.00	4400.25	27.50	4.67	14798.48	0.16				
3170.07	155.50	20.39		143.85	5.23	0.000000			
0.00000	71924.74								
90.00	4400.33	27.58	4.69	14923.73	0.16				
3179.76	155.67	20.43		143.99	5.22	0.000000			
0.00000	71994.66								
91.00	4400.35	27.60	4.64	14750.45	0.16				
3181.37	155.70	20.43		144.01	5.22	0.000000			
0.00000	72007.48								
92.00	4400.36	27.61	4.50	14323.04	0.15				
3184.37	155.72	20.45		144.03	5.22	0.000000			
0.00000	72017.23								
93.00	4400.31	27.56	4.50	14298.50	0.15				
3180.12	155.63	20.43		143.96	5.22	0.000000			
0.00000	71979.75								
94.00	4400.19	27.44	4.50	14247.40	0.15				
3164.39	155.39	20.36		143.76	5.24	0.000000			
0.00000	71879.09								
95.00	4400.08	27.33	4.47	14093.31	0.15				
3149.49	155.16	20.30		143.57	5.25	0.000000			
0.00000	71786.41								
96.00	4399.94	27.19	4.46	13977.97	0.15				
3131.53	154.88	20.22		143.34	5.27	0.000249			
0.31397	71670.23								
97.00	4399.74	26.99	4.35	13515.65	0.15				
3106.54	154.49	20.11		143.01	5.30	0.000119			
0.14923	71506.09								
98.00	4399.50	26.75	4.27	13125.27	0.15				
3076.62	154.01	19.98		142.61	5.33	0.000000			
0.00000	71307.38								
99.00	4399.18	26.43	4.18	12673.57	0.14				
3035.07	153.37	19.79		142.08	5.38	0.000000			

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HYCHAN.OUT									
	0.00000	71037.59							
100.00	4398.89	26.14	3.97	11908.17	0.14				
2995.81	152.78	19.61		141.58	5.42	0.000000			
	0.00000	70790.02							
101.00	4398.54	25.79	4.04	11926.84	0.14				
2950.15	152.08	19.40		140.98	5.47	0.000000			
	0.00000	70491.01							
102.00	4398.16	25.41	3.93	11417.13	0.14				
2901.85	151.33	19.18		140.33	5.52	0.000000			
	0.00000	70164.67							
103.00	4397.64	24.89	3.72	10535.44	0.13				
2834.01	150.28	18.86		139.42	5.60	0.000000			
	0.00000	69709.10							
104.00	4396.86	24.11	3.25	8872.64	0.12				
2733.86	148.72	18.38		138.03	5.73	0.000000			
	0.00000	69013.59							
105.00	4395.91	23.16	2.81	7343.25	0.10				
2608.93	146.82	17.77		136.30	5.89	0.000000			
	0.00000	68148.91							
106.00	4395.14	22.39	2.81	7030.96	0.10				
2500.01	145.29	17.21		134.86	6.02	0.000033			
	0.03546	67432.40							
107.00	4394.85	22.10	2.99	7351.07	0.11				
2457.77	144.70	16.99		134.30	6.08	0.000032			
	0.03379	67151.12							
108.00	4394.55	21.80	3.22	7786.73	0.12				
2417.32	144.10	16.78		133.73	6.14	0.000060			
	0.06298	66865.02							
109.00	4394.06	21.31	3.43	8073.46	0.13				
2352.50	143.12	16.44		132.78	6.23	0.000094			
	0.09658	66387.80							
110.00	4393.47	20.72	3.52	7983.91	0.14				
2269.33	141.89	15.99		131.61	6.35	0.000117			
	0.11682	65806.31							
111.00	4393.12	20.37	3.59	7950.65	0.14				
2215.66	141.08	15.70		130.92	6.43	0.000133			
	0.13000	65459.99							
112.00	4392.92	20.17	3.74	8159.32	0.15				
2184.12	140.60	15.53		130.50	6.47	0.000148			
	0.14388	65252.34							
113.00	4392.76	20.01	3.81	8232.31	0.15				
2159.85	140.22	15.40		130.18	6.51	0.000150			
	0.14411	65090.11							
114.00	4392.55	19.80	3.79	8076.24	0.15				
2128.28	139.72	15.23		129.76	6.55	0.000160			
	0.15190	64877.83							
115.00	4392.37	19.62	3.88	8145.43	0.15				
2100.38	139.28	15.08		129.38	6.60	0.000172			
	0.16177	64689.02							
116.00	4392.35	19.60	4.04	8471.67	0.16				
2098.04	139.24	15.07		129.35	6.60	0.000180			
	0.16952	64672.96							
117.00	4392.33	19.58	4.10	8580.06	0.16				
2094.46	139.18	15.05		129.30	6.60	0.000178			
	0.16757	64648.16							
118.00	4392.21	19.46	4.09	8502.48	0.16				
2076.32	138.89	14.95		129.05	6.63	0.000185			
	0.17271	64523.65							
119.00	4392.12	19.37	4.12	8493.04	0.16				
2063.39	138.68	14.88		128.87	6.65	0.000188			
	0.17431	64434.48							
120.00	4392.09	19.34	4.17	8577.98	0.17				
2059.05	138.61	14.85		128.81	6.66	0.000195			

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	0.18107	64404.50						
2059.92	121.00	4392.10	19.35	4.21	8671.16	0.17		
		138.63	14.86		128.82	6.66	0.000194	
	0.17962	64410.50						
2055.81	122.00	4392.07	19.32	4.22	8676.10	0.17		
		138.56	14.84		128.76	6.66	0.000196	
	0.18153	64381.90						
2043.10	123.00	4391.99	19.24	4.20	8590.46	0.17		
		138.35	14.77		128.59	6.68	0.000199	
	0.18294	64293.10						
2028.10	124.00	4391.89	19.14	4.18	8486.43	0.17		
		138.11	14.68		128.38	6.71	0.000199	
	0.18208	64188.37						
2015.22	125.00	4391.80	19.05	4.16	8390.67	0.17		
		137.90	14.61		128.20	6.73	0.000184	
	0.16823	64097.50						
1998.93	126.00	4391.69	18.94	4.15	8288.62	0.17		
		137.63	14.52		127.96	6.76	0.000194	
	0.17584	63982.46						
1992.30	127.00	4391.65	18.90	4.15	8276.25	0.17		
		137.52	14.49		127.87	6.77	0.000189	
	0.17069	63935.49						
1982.46	128.00	4391.58	18.83	4.13	8197.24	0.17		
		137.35	14.43		127.73	6.78	0.000194	
	0.17505	63865.07						
1969.33	129.00	4391.49	18.74	4.12	8107.93	0.17		
		137.14	14.36		127.54	6.80	0.000194	
	0.17377	63771.23						
1963.29	130.00	4391.45	18.70	4.12	8096.57	0.17		
		137.03	14.33		127.46	6.81	0.000194	
	0.17303	63727.86						
1953.36	131.00	4391.39	18.64	4.11	8022.77	0.17		
		136.87	14.27		127.31	6.83	0.000191	
	0.17009	63655.91						
1940.50	132.00	4391.30	18.55	4.09	7935.95	0.17		
		136.65	14.20		127.13	6.85	0.000197	
	0.17413	63563.04						
1946.04	133.00	4391.34	18.59	4.15	8076.89	0.17		
		136.74	14.23		127.21	6.84	0.000201	
	0.17852	63603.40						
1960.67	134.00	4391.44	18.69	4.21	8253.64	0.17		
		136.99	14.31		127.42	6.82	0.000200	
	0.17854	63709.22						
1962.03	135.00	4391.45	18.70	4.22	8271.76	0.17		
		137.01	14.32		127.44	6.82	0.000200	
	0.17859	63718.83						
1960.11	136.00	4391.43	18.68	4.22	8273.23	0.17		
		136.98	14.31		127.41	6.82	0.000201	
	0.17949	63705.01						
1957.91	137.00	4391.42	18.67	4.23	8273.32	0.17		
		136.94	14.30		127.38	6.82	0.000203	
	0.18135	63689.18						
1955.68	138.00	4391.40	18.65	4.23	8273.01	0.17		
		136.91	14.28		127.35	6.83	0.000206	
	0.18379	63673.04						
1953.74	139.00	4391.39	18.64	4.23	8272.68	0.17		
		136.87	14.27		127.32	6.83	0.000206	
	0.18343	63659.05						
1951.71	140.00	4391.38	18.63	4.24	8271.86	0.17		
		136.84	14.26		127.29	6.83	0.000207	
	0.18430	63644.38						
1944.11	141.00	4391.32	18.57	4.22	8194.67	0.17		
		136.71	14.22		127.18	6.85	0.000207	

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HYCHAN.OUT									
	0.18342	63589.02							
1933.09	142.00	4391.25	18.50	4.19	8103.66	0.17			
		136.52	14.16		127.02	6.87		0.000207	
	0.18254	63509.13							
1929.21	143.00	4391.22	18.47	4.20	8094.79	0.17			
		136.46	14.14		126.96	6.87		0.000205	
	0.18074	63480.88							
1927.04	144.00	4391.21	18.46	4.20	8093.65	0.17			
		136.42	14.13		126.93	6.88		0.000209	
	0.18413	63465.07							
1924.97	145.00	4391.19	18.45	4.20	8091.98	0.17			
		136.39	14.11		126.90	6.88		0.000207	
	0.18234	63449.93							
1917.76	146.00	4391.15	18.40	4.18	8018.67	0.17			
		136.26	14.07		126.79	6.89		0.000204	
	0.17900	63396.86							
1906.82	147.00	4391.07	18.32	4.16	7928.96	0.17			
		136.07	14.01		126.63	6.91		0.000212	
	0.18522	63316.71							
1902.84	148.00	4391.04	18.30	4.16	7920.92	0.17			
		136.01	13.99		126.58	6.92		0.000207	
	0.18029	63287.52							
1900.30	149.00	4391.03	18.28	4.17	7920.57	0.17			
		135.96	13.98		126.54	6.92		0.000211	
	0.18434	63268.73							
1898.14	150.00	4391.01	18.26	4.17	7919.28	0.17			
		135.93	13.96		126.51	6.93		0.000209	
	0.18219	63252.80							
1896.63	151.00	4391.00	18.25	4.17	7918.42	0.17			
		135.90	13.96		126.48	6.93		0.000212	
	0.18448	63241.64							
1891.27	152.00	4390.97	18.22	4.16	7869.22	0.17			
		135.81	13.93		126.40	6.94		0.000208	
	0.18066	63201.76							
1881.71	153.00	4390.90	18.15	4.14	7787.05	0.17			
		135.64	13.87		126.26	6.96		0.000203	
	0.17575	63130.84							
1875.43	154.00	4390.86	18.11	4.13	7750.56	0.17			
		135.53	13.84		126.17	6.97		0.000202	
	0.17474	63084.16							
1872.56	155.00	4390.84	18.09	4.14	7744.28	0.17			
		135.48	13.82		126.13	6.97		0.000199	
	0.17121	63062.75							
1865.44	156.00	4390.79	18.04	4.11	7673.29	0.17			
		135.36	13.78		126.02	6.99		0.000198	
	0.17026	63009.22							
1865.32	157.00	4390.79	18.04	4.14	7731.31	0.17			
		135.36	13.78		126.02	6.99		0.000207	
	0.17799	63008.71							
1880.98	158.00	4390.90	18.15	4.20	7898.02	0.17			
		135.63	13.87		126.25	6.96		0.000206	
	0.17787	63125.72							
1884.70	159.00	4390.92	18.17	4.20	7914.99	0.17			
		135.69	13.89		126.31	6.95		0.000206	
	0.17886	63153.25							
1885.05	160.00	4390.92	18.17	4.20	7917.11	0.17			
		135.70	13.89		126.31	6.95		0.000204	
	0.17692	63155.87							
1884.66	161.00	4390.92	18.17	4.20	7917.89	0.17			
		135.69	13.89		126.31	6.95		0.000208	
	0.17992	63152.94							
1884.20	162.00	4390.92	18.17	4.20	7917.80	0.17			
		135.68	13.89		126.30	6.95		0.000204	

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	0.17677	63149.50							
1883.66	163.00	4390.91	18.16	13.88	4.20	7917.86	0.17	0.000207	
		135.67				126.29	6.95		
	0.17929	63145.49							
1883.12	164.00	4390.91	18.16	13.88	4.20	7917.78	0.17	0.000203	
		135.67				126.28	6.95		
	0.17601	63141.44							
1882.62	165.00	4390.91	18.16	13.88	4.20	7915.17	0.17	0.000208	
		135.66				126.28	6.95		
	0.18050	63137.73							
1876.70	166.00	4390.87	18.12	13.84	4.18	7843.80	0.17	0.000204	
		135.55				126.19	6.97		
	0.17666	63093.31							
1866.37	167.00	4390.80	18.05	13.79	4.15	7754.51	0.17	0.000203	
		135.37				126.03	6.98		
	0.17445	63016.34							
1862.99	168.00	4390.77	18.02	13.77	4.16	7745.40	0.17	0.000208	
		135.31				125.98	6.99		
	0.17832	62991.13							
1861.86	169.00	4390.77	18.02	13.76	4.16	7744.05	0.17	0.000206	
		135.29				125.97	6.99		
	0.17685	62982.67							
1861.19	170.00	4390.76	18.01	13.76	4.16	7743.91	0.17	0.000204	
		135.28				125.96	6.99		
	0.17526	62977.69							
1860.70	171.00	4390.76	18.01	13.75	4.16	7743.62	0.17	0.000208	
		135.27				125.95	6.99		
	0.17883	62973.97							
1860.16	172.00	4390.75	18.00	13.75	4.16	7743.74	0.17	0.000205	
		135.27				125.94	6.99		
	0.17588	62969.91							
1859.60	173.00	4390.75	18.00	13.75	4.16	7742.06	0.17	0.000205	
		135.26				125.93	7.00		
	0.17588	62965.71							
1853.54	174.00	4390.71	17.96	13.71	4.14	7668.40	0.17	0.000203	
		135.15				125.84	7.01		
	0.17396	62919.89							
1843.12	175.00	4390.64	17.89	13.66	4.11	7581.03	0.17	0.000205	
		134.97				125.68	7.03		
	0.17510	62841.43							
1839.58	176.00	4390.61	17.86	13.64	4.12	7571.79	0.17	0.000209	
		134.90				125.63	7.03		
	0.17785	62814.79							
1838.32	177.00	4390.60	17.85	13.63	4.12	7570.08	0.17	0.000209	
		134.88				125.61	7.04		
	0.17798	62805.25							
1837.66	178.00	4390.60	17.85	13.63	4.12	7569.61	0.17	0.000209	
		134.87				125.60	7.04		
	0.17764	62800.25							
1837.12	179.00	4390.60	17.85	13.62	4.12	7569.88	0.17	0.000205	
		134.86				125.59	7.04		
	0.17392	62796.12							
1836.60	180.00	4390.59	17.84	13.62	4.12	7572.96	0.17	0.000206	
		134.85				125.58	7.04		
	0.17516	62792.22							
1847.64	181.00	4390.67	17.92	13.68	4.18	7719.13	0.17	0.000212	
		135.05				125.75	7.02		
	0.18138	62875.83							
1867.24	182.00	4390.80	18.05	13.79	4.23	7895.93	0.18	0.000209	
		135.39				126.05	6.98		
	0.17956	63023.22							
1878.57	183.00	4390.88	18.13	13.86	4.25	7988.29	0.18	0.000213	
		135.59				126.22	6.96		

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## HYCHAN.OUT

1889.69	0.18417	63107.82	18.21	4.28	8078.73	0.18	0.000209
	184.00	4390.96	13.92		126.38	6.94	
	0.18173	63190.39					
1893.02	185.00	4390.98	18.23	4.27	8088.32	0.18	0.000213
		135.84	13.94		126.43	6.94	
	0.18499	63215.01					
1894.13	186.00	4390.99	18.24	4.27	8090.19	0.18	0.000208
		135.86	13.94		126.45	6.93	
	0.18119	63223.17					
1894.63	187.00	4390.99	18.24	4.27	8090.47	0.18	0.000210
		135.86	13.94		126.45	6.93	
	0.18295	63226.83					
1894.98	188.00	4390.99	18.24	4.27	8090.72	0.18	0.000210
		135.87	13.95		126.46	6.93	
	0.18278	63229.48					
1895.07	189.00	4390.99	18.24	4.27	8090.77	0.18	0.000209
		135.87	13.95		126.46	6.93	
	0.18191	63230.09					
1895.17	190.00	4390.99	18.24	4.27	8091.08	0.18	0.000212
		135.87	13.95		126.46	6.93	
	0.18432	63230.89					
1895.11	191.00	4390.99	18.24	4.27	8089.10	0.18	0.000208
		135.87	13.95		126.46	6.93	
	0.18145	63230.42					
1889.61	192.00	4390.96	18.20	4.24	8016.45	0.18	0.000208
		135.78	13.92		126.38	6.94	
	0.18106	63189.33					
1879.64	193.00	4390.89	18.14	4.22	7927.96	0.17	0.000207
		135.60	13.86		126.23	6.96	
	0.17943	63115.52					
1876.53	194.00	4390.87	18.12	4.22	7920.06	0.17	0.000210
		135.55	13.84		126.18	6.97	
	0.18137	63092.39					
1875.41	195.00	4390.86	18.11	4.22	7917.63	0.17	0.000207
		135.53	13.84		126.17	6.97	
	0.17879	63084.11					
1874.96	196.00	4390.86	18.11	4.22	7917.93	0.17	0.000211
		135.52	13.83		126.16	6.97	
	0.18257	63080.67					
1874.51	197.00	4390.85	18.10	4.22	7917.05	0.18	0.000207
		135.52	13.83		126.15	6.97	
	0.17887	63077.38					
1874.27	198.00	4390.85	18.10	4.22	7917.55	0.18	0.000211
		135.51	13.83		126.15	6.97	
	0.18233	63075.61					
1874.03	199.00	4390.85	18.10	4.22	7917.70	0.18	0.000207
		135.51	13.83		126.15	6.97	
	0.17888	63073.76					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4644

MAXIMUM DISCHARGE (CFS) = 25146.61 AT TIME = 90.98  
 MAXIMUM STAGE = 4401.57 AT TIME = 91.10

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)		

HYCHAN.OUT									
0.00	0.00	4372.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4372.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4372.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4372.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
587.75	4.00	4373.77	1.37	0.79	463.05	0.12			0.000877
	0.57231	56.21	10.46	56.10	40.92				
1154.39	5.00	4385.65	13.25	4.38	5050.74	0.21			0.000359
	0.21248	121.85	9.47	114.39	8.63				
1335.66	6.00	4386.99	14.59	3.97	5300.88	0.18			0.000299
	0.19795	125.90	10.61	117.89	8.08				
1388.40	7.00	4387.39	14.99	3.81	5287.95	0.17			0.000270
	0.18399	127.07	10.93	118.89	7.93				
1401.49	8.00	4387.49	15.09	3.70	5180.02	0.17			0.000260
	0.17865	127.35	11.01	119.14	7.90				
1392.89	9.00	4387.42	15.02	3.62	5047.23	0.16			0.000255
	0.17412	127.16	10.95	118.97	7.92				
1379.16	10.00	4387.32	14.92	3.55	4902.46	0.16			0.000251
	0.17039	126.86	10.87	118.71	7.96				
1367.08	11.00	4387.22	14.82	3.51	4795.05	0.16			0.000249
	0.16763	126.59	10.80	118.48	7.99				
1359.49	12.00	4387.17	14.77	3.49	4746.22	0.16			0.000243
	0.16295	126.42	10.75	118.34	8.01				
1343.53	13.00	4387.04	14.64	3.43	4612.30	0.16			0.000245
	0.16286	126.06	10.66	118.03	8.06				
1325.72	14.00	4386.91	14.51	3.39	4495.19	0.16			0.000244
	0.16086	125.66	10.55	117.68	8.11				
1317.35	15.00	4386.84	14.44	3.40	4474.47	0.16			0.000250
	0.16364	125.47	10.50	117.51	8.14				
1314.14	16.00	4386.82	14.42	3.40	4471.57	0.16			0.000250
	0.16329	125.39	10.48	117.45	8.15				
1312.65	17.00	4386.80	14.40	3.41	4470.09	0.16			0.000251
	0.16401	125.36	10.47	117.42	8.15				
1311.93	18.00	4386.80	14.40	3.41	4467.87	0.16			0.000248
	0.16199	125.34	10.47	117.41	8.15				
1314.39	19.00	4386.82	14.42	3.42	4496.39	0.16			0.000256
	0.16763	125.40	10.48	117.46	8.15				
1328.84	20.00	4386.93	14.53	3.48	4630.32	0.16			0.000259
	0.17079	125.73	10.57	117.74	8.10				
		51805.79							

HYCHAN.OUT							
21.00	4387.08	14.68	3.55	4782.81	0.16		
1348.68	126.18	10.69	118.13	8.05	0.000264		
0.17602	51976.46						
22.00	4387.22	14.82	3.58	4899.88	0.16		
1367.01	126.59	10.80	118.48	7.99	0.000260		
0.17509	52132.31						
23.00	4387.28	14.88	3.58	4918.76	0.16		
1375.04	126.77	10.85	118.64	7.97	0.000257		
0.17397	52199.87						
24.00	4387.33	14.93	3.59	4959.40	0.16		
1381.59	126.91	10.89	118.76	7.95	0.000263		
0.17834	52254.89						
25.00	4387.49	15.09	3.67	5144.50	0.17		
1401.47	127.35	11.00	119.14	7.90	0.000268		
0.18370	52420.62						
26.00	4387.75	15.35	3.79	5439.85	0.17		
1435.64	128.09	11.21	119.78	7.81	0.000276		
0.19279	52701.33						
27.00	4388.03	15.63	3.90	5747.55	0.17		
1472.92	128.88	11.43	120.46	7.71	0.000278		
0.19838	53001.84						
28.00	4388.25	15.85	3.96	5950.98	0.18		
1502.83	129.51	11.60	121.00	7.63	0.000271		
0.19610	53238.99						
29.00	4388.33	15.93	3.95	5977.67	0.17		
1514.11	129.74	11.67	121.20	7.61	0.000269		
0.19617	53327.09						
30.00	4388.40	16.00	3.97	6038.50	0.17		
1522.93	129.92	11.72	121.35	7.59	0.000272		
0.19927	53395.90						
31.00	4388.49	16.09	4.00	6136.71	0.18		
1535.65	130.19	11.80	121.58	7.55	0.000268		
0.19753	53494.41						
32.00	4388.53	16.13	3.99	6148.48	0.18		
1540.77	130.29	11.83	121.67	7.54	0.000270		
0.19903	53533.79						
33.00	4388.59	16.19	4.01	6210.52	0.18		
1548.25	130.44	11.87	121.80	7.53	0.000274		
0.20259	53591.46						
34.00	4388.67	16.27	4.04	6311.27	0.18		
1560.31	130.69	11.94	122.01	7.50	0.000270		
0.20148	53683.73						
35.00	4388.71	16.31	4.04	6321.92	0.18		
1564.71	130.77	11.96	122.08	7.49	0.000268		
0.20026	53717.12						
36.00	4388.70	16.30	4.00	6258.34	0.17		
1563.36	130.75	11.96	122.06	7.49	0.000260		
0.19407	53706.62						
37.00	4388.65	16.25	3.96	6161.68	0.17		
1557.10	130.62	11.92	121.95	7.50	0.000260		
0.19361	53658.99						
38.00	4388.61	16.21	3.93	6093.66	0.17		
1552.06	130.52	11.89	121.86	7.52	0.000258		
0.19163	53620.13						
39.00	4388.54	16.14	3.89	5999.39	0.17		
1541.52	130.30	11.83	121.68	7.54	0.000255		
0.18851	53539.38						
40.00	4388.51	16.11	3.89	5988.33	0.17		
1537.55	130.22	11.81	121.61	7.55	0.000256		
0.18834	53508.88						
41.00	4388.49	16.09	3.90	5986.50	0.17		
1535.57	130.18	11.80	121.58	7.56	0.000257		
0.18927	53493.59						

HYCHAN.OUT							
1534.33	42.00	4388.48	16.08	3.90	5986.32	0.17	0.000258
	0.18984	130.16	11.79		121.55	7.56	
		53484.05					
1533.76	43.00	4388.48	16.08	3.90	5985.51	0.17	0.000262
	0.19271	130.15	11.78		121.54	7.56	
		53479.64					
1538.06	44.00	4388.51	16.11	3.93	6043.42	0.17	0.000266
	0.19572	130.23	11.81		121.62	7.55	
		53512.95					
1547.57	45.00	4388.58	16.18	3.97	6140.15	0.17	0.000262
	0.19375	130.43	11.87		121.79	7.53	
		53586.23					
1556.28	46.00	4388.65	16.25	3.99	6210.60	0.17	0.000267
	0.19878	130.60	11.92		121.94	7.51	
		53652.97					
1573.25	47.00	4388.77	16.37	4.05	6375.27	0.18	0.000271
	0.20344	130.95	12.01		122.23	7.47	
		53782.21					
1592.94	48.00	4388.91	16.51	4.11	6547.99	0.18	0.000272
	0.20578	131.34	12.13		122.57	7.42	
		53930.77					
1613.82	49.00	4389.07	16.67	4.17	6723.04	0.18	0.000274
	0.20932	131.75	12.25		122.92	7.38	
		54086.73					
1633.99	50.00	4389.21	16.81	4.22	6888.53	0.18	0.000272
	0.20989	132.15	12.37		123.26	7.33	
		54235.91					
1655.86	51.00	4389.37	16.97	4.27	7069.40	0.18	0.000278
	0.21652	132.57	12.49		123.63	7.28	
		54396.05					
1681.19	52.00	4389.56	17.16	4.35	7305.50	0.18	0.000282
	0.22198	133.06	12.64		124.04	7.23	
		54579.31					
1706.08	53.00	4389.73	17.33	4.40	7514.29	0.19	0.000278
	0.22176	133.53	12.78		124.45	7.18	
		54757.75					
1722.62	54.00	4389.85	17.45	4.42	7611.72	0.19	0.000284
	0.22820	133.84	12.87		124.72	7.15	
		54874.90					
1754.98	55.00	4390.08	17.68	4.53	7945.94	0.19	0.000293
	0.23882	134.44	13.05		125.23	7.08	
		55101.30					
1809.52	56.00	4390.47	18.07	4.76	8616.11	0.20	0.000308
	0.25707	135.43	13.36		126.08	6.98	
		55475.73					
1892.41	57.00	4391.05	18.65	5.04	9546.47	0.21	0.000333
	0.28708	136.90	13.82		127.34	6.83	
		56028.78					
1992.84	58.00	4391.75	19.35	5.34	10640.58	0.21	0.000358
	0.32123	138.63	14.38		128.82	6.66	
		56679.82					
2083.16	59.00	4392.37	19.97	5.58	11613.70	0.22	0.000365
	0.33840	140.13	14.87		130.10	6.52	
		57244.95					
2146.14	60.00	4392.80	20.40	5.73	12296.68	0.22	0.000369
	0.34993	141.14	15.21		130.97	6.42	
		57626.53					
2187.12	61.00	4393.07	20.67	5.83	12747.45	0.23	0.000370
	0.35573	141.79	15.43		131.52	6.36	
		57869.66					
2212.04	62.00	4393.24	20.84	5.87	12984.17	0.23	0.000369
	0.35790	142.17	15.56		131.85	6.33	
		58014.83					

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HYCHAN.OUT							
2223.62	63.00	4393.31	20.91	5.88	13080.15	0.23	0.000370
	0.36034	142.35	15.62		132.01	6.31	
		58082.97					
2233.17	64.00	4393.39	20.99	5.90	13166.82	0.23	0.000368
	0.35994	142.49	15.67		132.15	6.30	
		58145.09					
2241.19	65.00	4393.45	21.05	5.88	13179.13	0.23	0.000366
	0.35846	142.61	15.72		132.27	6.28	
		58196.82					
2249.83	66.00	4393.51	21.11	5.86	13194.49	0.23	0.000364
	0.35821	142.74	15.76		132.39	6.27	
		58252.81					
2256.67	67.00	4393.56	21.16	5.85	13202.27	0.22	0.000361
	0.35622	142.84	15.80		132.49	6.26	
		58297.05					
2262.19	68.00	4393.60	21.20	5.82	13172.63	0.22	0.000356
	0.35171	142.92	15.83		132.57	6.25	
		58331.95					
2271.80	69.00	4393.67	21.27	5.76	13090.27	0.22	0.000352
	0.34884	143.07	15.88		132.71	6.24	
		58392.79					
2285.22	70.00	4393.77	21.37	5.66	12931.42	0.22	0.000324
	0.32295	143.27	15.95		132.91	6.22	
		58480.74					
2304.53	71.00	4393.93	21.53	5.50	12684.58	0.21	0.000301
	0.30142	143.57	16.05		133.21	6.19	
		58610.36					
2331.15	72.00	4394.10	21.70	5.38	12545.96	0.20	0.000254
	0.25713	143.93	16.20		133.55	6.15	
		58761.66					
2394.01	73.00	4394.46	22.06	5.23	12531.62	0.20	0.000213
	0.21983	144.65	16.55		134.24	6.08	
		59066.98					
2427.71	74.00	4394.67	22.27	5.07	12311.65	0.19	0.000171
	0.17847	145.07	16.74		134.64	6.05	
		59241.11					
2463.36	75.00	4394.89	22.49	4.90	12077.61	0.18	0.000119
	0.12565	145.51	16.93		135.06	6.00	
		59424.52					
2501.42	76.00	4395.16	22.76	4.75	11871.66	0.18	0.000097
	0.10382	146.04	17.13		135.55	5.96	
		59643.49					
2535.93	77.00	4395.39	22.99	4.67	11841.37	0.17	0.000094
	0.10131	146.50	17.31		135.98	5.92	
		59832.52					
2562.12	78.00	4395.57	23.17	4.69	12007.79	0.17	0.000099
	0.10804	146.86	17.45		136.32	5.88	
		59980.56					
2631.65	79.00	4396.10	23.70	5.08	13372.41	0.18	0.000047
	0.05235	147.91	17.79		137.28	5.79	
		60405.29					
2681.36	80.00	4396.43	24.03	5.47	14653.78	0.20	0.000000
	0.00000	148.58	18.05		137.89	5.74	
		60670.84					
2748.65	81.00	4396.84	24.44	6.07	16672.45	0.22	0.000198
	0.22742	149.41	18.40		138.63	5.67	
		60995.93					
2816.64	82.00	4397.29	24.89	6.50	18303.65	0.23	0.000000
	0.00000	150.30	18.74		139.42	5.60	
		61345.55					
2877.96	83.00	4397.70	25.30	6.85	19716.58	0.24	0.000000
	0.00000	151.12	19.04		140.13	5.54	
		61658.11					

HYCHAN.OUT							
2927.28	84.00	4398.03	25.63	7.05	20648.69	0.25	0.000144
	0.17312	151.79	19.29		140.71	5.49	
2970.77	85.00	4398.29	25.89	7.05	20934.36	0.24	0.000000
	0.00000	152.30	19.51		141.16	5.45	
3012.51	86.00	4398.55	26.15	7.07	21301.90	0.24	0.000019
	0.02290	152.83	19.71		141.60	5.41	
3038.08	87.00	4398.75	26.35	7.15	21721.11	0.25	0.000000
	0.00000	153.23	19.83		141.94	5.39	
3060.87	88.00	4398.88	26.48	7.14	21855.79	0.24	0.000000
	0.00000	153.49	19.94		142.16	5.37	
3074.49	89.00	4398.93	26.53	7.20	22128.00	0.25	0.000000
	0.00000	153.59	20.02		142.25	5.36	
3082.05	90.00	4398.95	26.55	7.29	22477.59	0.25	0.000000
	0.00000	153.62	20.06		142.27	5.36	
3084.79	91.00	4398.94	26.54	7.25	22350.35	0.25	0.000000
	0.00000	153.61	20.08		142.26	5.36	
3089.99	92.00	4399.00	26.60	7.10	21952.81	0.24	0.000135
	0.16897	153.73	20.10		142.36	5.35	
3086.55	93.00	4399.02	26.62	7.06	21794.35	0.24	0.000000
	0.00000	153.75	20.07		142.39	5.35	
3070.23	94.00	4398.88	26.48	7.07	21694.32	0.24	0.000000
	0.00000	153.49	20.00		142.16	5.37	
3056.17	95.00	4398.77	26.37	7.03	21486.81	0.24	0.000377
	0.46861	153.26	19.94		141.97	5.38	
3037.70	96.00	4398.61	26.21	7.03	21366.44	0.24	0.000217
	0.26927	152.95	19.86		141.71	5.41	
3012.88	97.00	4398.40	26.00	6.96	20979.74	0.24	0.000247
	0.30402	152.53	19.75		141.35	5.44	
2983.16	98.00	4398.17	25.77	6.89	20539.71	0.24	0.000000
	0.00000	152.05	19.62		140.94	5.47	
2943.21	99.00	4397.86	25.46	6.81	20055.99	0.24	0.000000
	0.00000	151.43	19.44		140.41	5.52	
2905.62	100.00	4397.54	25.14	6.67	19377.43	0.23	0.000103
	0.12365	150.80	19.27		139.86	5.56	
2863.65	101.00	4397.30	24.90	6.52	18679.98	0.23	0.000000
	0.00000	150.31	19.05		139.43	5.60	
2820.14	102.00	4397.01	24.61	6.25	17625.30	0.22	0.000276
	0.32473	149.75	18.83		138.93	5.64	
2761.56	103.00	4396.63	24.23	5.77	15928.40	0.21	0.000000
	0.00000	148.99	18.54		138.26	5.70	
2674.68	104.00	4396.09	23.69	4.84	12958.57	0.18	0.000000
	0.00000	147.90	18.08		137.27	5.79	
		60400.15					

HYCHAN.OUT							
105.00	4395.35	22.95	4.01	10251.42	0.15		
2559.09	146.42	17.48		135.91	5.92	0.000034	
	0.03679						
	59801.59						
106.00	4394.67	22.27	3.85	9471.27	0.14		
2458.85	145.06	16.95		134.63	6.05	0.000093	
	0.09812						
	59238.25						
107.00	4394.44	22.04	3.87	9352.99	0.15		
2419.59	144.61	16.73		134.20	6.09	0.000094	
	0.09815						
	59048.95						
108.00	4394.20	21.80	3.95	9391.03	0.15		
2378.83	144.12	16.51		133.74	6.13	0.000128	
	0.13148						
	58845.23						
109.00	4393.80	21.40	3.91	9052.35	0.15		
2312.74	143.33	16.14		132.97	6.21	0.000138	
	0.13927						
	58507.09						
110.00	4393.34	20.94	3.66	8163.18	0.14		
2232.50	142.40	15.68		132.05	6.31	0.000133	
	0.13050						
	58104.14						
111.00	4393.01	20.61	3.65	7955.68	0.14		
2180.63	141.66	15.39		131.41	6.37	0.000153	
	0.14660						
	57819.92						
112.00	4392.80	20.40	3.80	8162.36	0.15		
2148.35	141.15	15.22		130.98	6.42	0.000166	
	0.15788						
	57629.09						
113.00	4392.63	20.23	3.88	8235.63	0.15		
2123.93	140.76	15.09		130.64	6.46	0.000170	
	0.15986						
	57482.60						
114.00	4392.43	20.03	3.86	8080.58	0.15		
2093.09	140.26	14.92		130.22	6.50	0.000178	
	0.16566						
	57296.38						
115.00	4392.23	19.83	3.95	8147.33	0.16		
2064.79	139.81	14.77		129.83	6.55	0.000188	
	0.17328						
	57124.32						
116.00	4392.21	19.81	4.11	8471.13	0.16		
2060.86	139.74	14.75		129.77	6.55	0.000201	
	0.18474						
	57100.12						
117.00	4392.18	19.78	4.17	8581.82	0.17		
2056.79	139.67	14.73		129.72	6.56	0.000200	
	0.18336						
	57074.82						
118.00	4392.06	19.66	4.17	8504.56	0.17		
2038.95	139.38	14.63		129.47	6.59	0.000204	
	0.18599						
	56964.68						
119.00	4391.97	19.57	4.19	8494.22	0.17		
2026.01	139.17	14.56		129.28	6.61	0.000211	
	0.19160						
	56884.46						
120.00	4391.94	19.54	4.24	8577.92	0.17		
2021.15	139.09	14.53		129.21	6.61	0.000219	
	0.19838						
	56854.33						
121.00	4391.94	19.54	4.29	8671.38	0.17		
2021.56	139.10	14.53		129.22	6.61	0.000223	
	0.20230						
	56856.85						
122.00	4391.91	19.51	4.30	8676.94	0.17		
2017.39	139.03	14.51		129.16	6.62	0.000220	
	0.19921						
	56830.71						
123.00	4391.83	19.43	4.29	8592.66	0.17		
2005.08	138.82	14.44		128.98	6.64	0.000217	
	0.19589						
	56753.34						
124.00	4391.73	19.33	4.26	8487.65	0.17		
1990.53	138.58	14.36		128.78	6.66	0.000226	
	0.20219						
	56662.01						
125.00	4391.65	19.25	4.24	8392.48	0.17		
1978.48	138.37	14.30		128.60	6.68	0.000205	
	0.18259						
	56585.59						

HYCHAN.OUT							
1964.32	126.00	4391.55	19.15	4.22	8290.03	0.17	0.000215
	0.19103	138.14	14.22		128.40	6.71	
		56495.70					
1957.71	127.00	4391.50	19.10	4.23	8276.76	0.17	0.000208
	0.18443	138.02	14.18		128.30	6.72	
		56453.59					
1948.19	128.00	4391.44	19.04	4.21	8199.13	0.17	0.000214
	0.18875	137.86	14.13		128.16	6.73	
		56392.33					
1935.37	129.00	4391.35	18.95	4.19	8108.93	0.17	0.000211
	0.18508	137.64	14.06		127.98	6.75	
		56310.01					
1929.33	130.00	4391.31	18.91	4.20	8097.17	0.17	0.000211
	0.18490	137.54	14.03		127.89	6.76	
		56271.07					
1919.73	131.00	4391.24	18.84	4.18	8024.56	0.17	0.000209
	0.18229	137.37	13.97		127.75	6.78	
		56208.57					
1907.15	132.00	4391.15	18.75	4.16	7936.79	0.17	0.000212
	0.18418	137.16	13.90		127.56	6.80	
		56126.94					
1911.93	133.00	4391.19	18.79	4.22	8074.87	0.17	0.000219
	0.19072	137.24	13.93		127.63	6.79	
		56158.28					
1925.85	134.00	4391.28	18.88	4.29	8252.88	0.17	0.000219
	0.19185	137.48	14.01		127.84	6.77	
		56248.76					
1927.14	135.00	4391.29	18.89	4.29	8271.94	0.17	0.000221
	0.19315	137.50	14.02		127.86	6.77	
		56256.97					
1925.19	136.00	4391.28	18.88	4.30	8273.46	0.17	0.000221
	0.19273	137.47	14.00		127.83	6.77	
		56244.30					
1922.96	137.00	4391.26	18.86	4.30	8273.63	0.17	0.000221
	0.19299	137.43	13.99		127.80	6.78	
		56229.83					
1920.70	138.00	4391.25	18.85	4.31	8273.31	0.17	0.000224
	0.19501	137.39	13.98		127.76	6.78	
		56215.21					
1918.74	139.00	4391.23	18.83	4.31	8272.91	0.18	0.000224
	0.19538	137.36	13.97		127.73	6.78	
		56202.48					
1916.70	140.00	4391.22	18.82	4.32	8272.21	0.18	0.000226
	0.19652	137.32	13.96		127.70	6.79	
		56189.18					
1909.46	141.00	4391.17	18.77	4.29	8196.23	0.17	0.000227
	0.19691	137.20	13.92		127.60	6.80	
		56141.80					
1898.76	142.00	4391.09	18.69	4.27	8104.42	0.17	0.000232
	0.20029	137.01	13.86		127.44	6.82	
		56072.12					
1894.88	143.00	4391.07	18.67	4.27	8095.02	0.17	0.000226
	0.19521	136.94	13.84		127.38	6.82	
		56046.72					
1892.68	144.00	4391.05	18.65	4.28	8093.97	0.17	0.000225
	0.19394	136.91	13.82		127.35	6.83	
		56032.30					
1890.61	145.00	4391.04	18.64	4.28	8092.28	0.17	0.000231
	0.19928	136.87	13.81		127.32	6.83	
		56018.68					
1883.74	146.00	4390.99	18.59	4.26	8020.08	0.17	0.000225
	0.19350	136.75	13.78		127.21	6.84	
		55973.23					

HYCHAN.OUT							
1873.12	147.00	4390.92	18.52	4.23	7929.89	0.17	0.000227
	0.19422	136.56	13.72		127.05	6.86	
		55903.25					
1869.14	148.00	4390.89	18.49	4.24	7921.12	0.17	0.000229
	0.19530	136.49	13.69		126.99	6.87	
		55877.04					
1866.56	149.00	4390.87	18.47	4.24	7920.93	0.17	0.000228
	0.19494	136.45	13.68		126.95	6.87	
		55859.87					
1864.38	150.00	4390.85	18.46	4.25	7919.46	0.17	0.000233
	0.19839	136.41	13.67		126.92	6.88	
		55845.46					
1862.86	151.00	4390.84	18.44	4.25	7918.73	0.17	0.000229
	0.19487	136.38	13.66		126.90	6.88	
		55835.31					
1857.74	152.00	4390.81	18.41	4.24	7870.22	0.17	0.000228
	0.19363	136.29	13.63		126.82	6.89	
		55801.07					
1848.51	153.00	4390.74	18.34	4.21	7788.14	0.17	0.000233
	0.19707	136.13	13.58		126.68	6.91	
		55739.49					
1842.34	154.00	4390.70	18.30	4.21	7751.01	0.17	0.000228
	0.19295	136.02	13.54		126.59	6.92	
		55698.29					
1839.47	155.00	4390.68	18.28	4.21	7744.57	0.17	0.000230
	0.19422	135.97	13.53		126.54	6.92	
		55679.09					
1832.68	156.00	4390.63	18.23	4.19	7674.59	0.17	0.000230
	0.19394	135.85	13.49		126.44	6.93	
		55633.21					
1832.12	157.00	4390.63	18.23	4.22	7729.62	0.17	0.000238
	0.20012	135.84	13.49		126.43	6.94	
		55629.76					
1847.09	158.00	4390.73	18.33	4.28	7896.96	0.18	0.000233
	0.19717	136.11	13.57		126.66	6.91	
		55730.35					
1850.78	159.00	4390.76	18.36	4.28	7914.90	0.18	0.000238
	0.20161	136.17	13.59		126.72	6.90	
		55754.92					
1851.12	160.00	4390.76	18.36	4.28	7917.05	0.18	0.000233
	0.19800	136.18	13.59		126.72	6.90	
		55757.16					
1850.73	161.00	4390.76	18.36	4.28	7918.03	0.18	0.000237
	0.20109	136.17	13.59		126.71	6.90	
		55754.53					
1850.26	162.00	4390.76	18.36	4.28	7917.78	0.18	0.000234
	0.19860	136.16	13.59		126.71	6.90	
		55751.40					
1849.72	163.00	4390.75	18.35	4.28	7918.02	0.18	0.000235
	0.19947	136.15	13.59		126.70	6.90	
		55747.76					
1849.16	164.00	4390.75	18.35	4.28	7917.76	0.18	0.000235
	0.19932	136.14	13.58		126.69	6.90	
		55744.09					
1848.67	165.00	4390.75	18.35	4.28	7915.39	0.18	0.000238
	0.20127	136.13	13.58		126.68	6.91	
		55740.73					
1843.11	166.00	4390.71	18.31	4.26	7845.08	0.18	0.000230
	0.19410	136.03	13.55		126.60	6.92	
		55703.29					
1833.13	167.00	4390.64	18.24	4.23	7755.24	0.17	0.000237
	0.19914	135.86	13.49		126.45	6.93	
		55636.38					

HYCHAN.OUT							
1829.74	168.00	4390.61	18.21	4.23	7745.67	0.17	0.000237
	0.19954	135.80	13.47		126.39	6.94	
		55613.66					
1828.61	169.00	4390.60	18.20	4.23	7744.11	0.17	0.000232
	0.19515	135.78	13.47		126.38	6.94	
		55606.05					
1827.94	170.00	4390.60	18.20	4.24	7743.95	0.18	0.000237
	0.19932	135.76	13.46		126.37	6.94	
		55601.57					
1827.43	171.00	4390.60	18.20	4.24	7743.79	0.18	0.000237
	0.19874	135.75	13.46		126.36	6.94	
		55598.08					
1826.89	172.00	4390.59	18.19	4.24	7743.68	0.18	0.000232
	0.19518	135.74	13.46		126.35	6.95	
		55594.47					
1826.33	173.00	4390.59	18.19	4.24	7742.21	0.18	0.000235
	0.19753	135.73	13.46		126.34	6.95	
		55590.65					
1820.66	174.00	4390.55	18.15	4.21	7669.76	0.17	0.000236
	0.19755	135.63	13.42		126.25	6.96	
		55552.05					
1810.55	175.00	4390.48	18.08	4.19	7581.82	0.17	0.000237
	0.19788	135.45	13.37		126.10	6.98	
		55483.73					
1807.02	176.00	4390.45	18.05	4.19	7572.08	0.17	0.000236
	0.19691	135.39	13.35		126.04	6.98	
		55459.75					
1805.75	177.00	4390.44	18.04	4.19	7570.16	0.17	0.000234
	0.19486	135.36	13.34		126.03	6.98	
		55451.14					
1805.08	178.00	4390.44	18.04	4.19	7569.67	0.17	0.000233
	0.19401	135.35	13.34		126.01	6.99	
		55446.56					
1804.52	179.00	4390.43	18.03	4.19	7569.90	0.17	0.000234
	0.19478	135.34	13.33		126.01	6.99	
		55442.79					
1803.97	180.00	4390.43	18.03	4.20	7572.82	0.17	0.000235
	0.19575	135.33	13.33		126.00	6.99	
		55439.04					
1814.22	181.00	4390.50	18.10	4.25	7716.59	0.18	0.000241
	0.20107	135.52	13.39		126.16	6.97	
		55508.83					
1833.15	182.00	4390.64	18.24	4.31	7894.48	0.18	0.000241
	0.20330	135.86	13.49		126.45	6.93	
		55636.88					
1844.08	183.00	4390.71	18.31	4.33	7986.74	0.18	0.000243
	0.20574	136.05	13.55		126.61	6.91	
		55710.20					
1854.89	184.00	4390.79	18.39	4.35	8077.88	0.18	0.000242
	0.20541	136.24	13.61		126.78	6.89	
		55782.40					
1858.22	185.00	4390.81	18.41	4.35	8088.22	0.18	0.000241
	0.20536	136.30	13.63		126.83	6.89	
		55804.51					
1859.33	186.00	4390.82	18.42	4.35	8090.02	0.18	0.000242
	0.20637	136.32	13.64		126.85	6.89	
		55811.90					
1859.82	187.00	4390.82	18.42	4.35	8090.46	0.18	0.000238
	0.20293	136.33	13.64		126.85	6.89	
		55815.17					
1860.20	188.00	4390.83	18.43	4.35	8090.70	0.18	0.000244
	0.20767	136.34	13.64		126.86	6.88	
		55817.68					

HYCHAN.OUT							
189.00	4390.83	18.43	4.35	8090.77	0.18		
1860.28	136.34	13.64		126.86	6.88	0.000240	
0.20441	55818.18						
190.00	4390.83	18.43	4.35	8091.12	0.18		
1860.38	136.34	13.65		126.86	6.88	0.000239	
0.20374	55818.89						
191.00	4390.83	18.43	4.35	8089.11	0.18		
1860.35	136.34	13.64		126.86	6.88	0.000244	
0.20761	55818.64						
192.00	4390.79	18.39	4.32	8017.80	0.18		
1855.21	136.25	13.62		126.78	6.89	0.000236	
0.20019	55784.14						
193.00	4390.72	18.32	4.30	7928.60	0.18		
1845.59	136.08	13.56		126.64	6.91	0.000242	
0.20464	55720.04						
194.00	4390.70	18.30	4.30	7920.34	0.18		
1842.46	136.02	13.55		126.59	6.92	0.000237	
0.20023	55699.13						
195.00	4390.69	18.29	4.30	7917.62	0.18		
1841.34	136.00	13.54		126.57	6.92	0.000240	
0.20314	55691.70						
196.00	4390.69	18.29	4.30	7918.08	0.18		
1840.87	135.99	13.54		126.56	6.92	0.000238	
0.20143	55688.53						
197.00	4390.69	18.29	4.30	7917.02	0.18		
1840.43	135.99	13.53		126.56	6.92	0.000241	
0.20391	55685.56						
198.00	4390.69	18.29	4.30	7917.65	0.18		
1840.17	135.98	13.53		126.55	6.92	0.000240	
0.20231	55683.85						
199.00	4390.68	18.28	4.30	7917.64	0.18		
1839.94	135.98	13.53		126.55	6.92	0.000240	
0.20288	55682.28						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4645

MAXIMUM DISCHARGE (CFS) = 32188.31 AT TIME = 91.32  
 MAXIMUM STAGE = 4400.11 AT TIME = 90.15

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)			
0.00	0.00	4372.15	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4372.15	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4372.15	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4372.15	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4373.27	1.12	0.69	364.91	0.11		
528.98	52.53	10.07	52.71	46.90	0.001085		
0.68208	23719.72						
5.00	4385.29	13.14	4.39	4990.44	0.21		



				HYCHAN.OUT			
1136.78		121.49		9.36	114.08	8.68	0.000390
	0.22782	51335.52					
	6.00	4386.75	14.60	3.96	5290.31	0.18	
1336.24		125.94		10.61	117.92	8.08	0.000322
	0.21306	53064.14					
	7.00	4387.18	15.03	3.79	5283.72	0.17	
1394.29		127.20		10.96	119.01	7.92	0.000290
	0.19849	53552.78					
	8.00	4387.29	15.15	3.68	5180.07	0.17	
1409.22		127.52		11.05	119.28	7.88	0.000278
	0.19193	53677.56					
	9.00	4387.23	15.08	3.60	5048.87	0.16	
1401.33		127.35		11.00	119.13	7.90	0.000272
	0.18660	53610.23					
	10.00	4387.13	14.98	3.53	4904.09	0.16	
1388.11		127.05		10.93	118.88	7.93	0.000264
	0.17996	53497.60					
	11.00	4387.04	14.89	3.48	4796.06	0.16	
1376.30		126.79		10.85	118.66	7.97	0.000271
	0.18342	53396.66					
	12.00	4386.99	14.84	3.47	4747.52	0.16	
1368.80		126.63		10.81	118.52	7.99	0.000262
	0.17662	53331.82					
	13.00	4386.87	14.72	3.41	4614.77	0.16	
1353.24		126.28		10.72	118.21	8.03	0.000260
	0.17410	53196.35					
	14.00	4386.73	14.58	3.37	4496.85	0.16	
1335.46		125.88		10.61	117.87	8.08	0.000262
	0.17339	53040.99					
	15.00	4386.66	14.51	3.37	4475.14	0.16	
1326.77		125.68		10.56	117.70	8.11	0.000266
	0.17544	52964.59					
	16.00	4386.64	14.49	3.38	4471.85	0.16	
1323.40		125.60		10.54	117.63	8.12	0.000262
	0.17232	52934.80					
	17.00	4386.63	14.48	3.38	4470.25	0.16	
1321.83		125.57		10.53	117.60	8.12	0.000262
	0.17185	52920.88					
	18.00	4386.62	14.47	3.38	4467.84	0.16	
1321.09		125.55		10.52	117.59	8.13	0.000263
	0.17300	52914.35					
	19.00	4386.64	14.49	3.40	4495.44	0.16	
1323.27		125.60		10.54	117.63	8.12	0.000273
	0.17972	52933.85					
	20.00	4386.74	14.59	3.46	4628.07	0.16	
1337.15		125.92		10.62	117.90	8.08	0.000276
	0.18287	53056.52					
	21.00	4386.89	14.74	3.52	4780.26	0.16	
1356.71		126.36		10.74	118.28	8.02	0.000281
	0.18824	53227.72					
	22.00	4387.04	14.89	3.56	4898.18	0.16	
1375.11		126.77		10.85	118.64	7.97	0.000274
	0.18570	53387.04					
	23.00	4387.10	14.95	3.55	4918.17	0.16	
1383.50		126.95		10.90	118.80	7.95	0.000276
	0.18752	53458.87					
	24.00	4387.15	15.00	3.57	4958.00	0.16	
1389.95		127.10		10.94	118.92	7.93	0.000274
	0.18687	53514.07					
	25.00	4387.29	15.14	3.65	5140.94	0.17	
1409.16		127.52		11.05	119.28	7.88	0.000290
	0.20028	53677.12					
	26.00	4387.55	15.40	3.77	5435.42	0.17	

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				HYCHAN.OUT			
1442.60		128.24		11.25	119.90	7.79	0.000296
	0.20812	53956.86					
27.00		4387.82	15.67	3.88	5742.89	0.17	
1479.33		129.02		11.47	120.57	7.69	0.000303
	0.21658	54258.68					
28.00		4388.05	15.90	3.94	5948.48	0.17	
1509.49		129.65		11.64	121.12	7.62	0.000294
	0.21325	54502.46					
29.00		4388.14	15.99	3.93	5976.88	0.17	
1521.26		129.89		11.71	121.32	7.59	0.000292
	0.21369	54596.04					
30.00		4388.20	16.05	3.95	6036.81	0.17	
1529.97		130.07		11.76	121.48	7.57	0.000296
	0.21690	54665.28					
31.00		4388.29	16.14	3.98	6135.61	0.17	
1542.71		130.33		11.84	121.70	7.54	0.000291
	0.21477	54765.89					
32.00		4388.33	16.18	3.97	6148.06	0.17	
1548.05		130.44		11.87	121.79	7.53	0.000291
	0.21531	54807.73					
33.00		4388.39	16.24	3.99	6208.94	0.17	
1555.33		130.59		11.91	121.92	7.51	0.000297
	0.22097	54864.91					
34.00		4388.48	16.33	4.03	6310.25	0.18	
1567.36		130.83		11.98	122.13	7.48	0.000295
	0.22040	54958.73					
35.00		4388.51	16.36	4.02	6321.61	0.18	
1571.97		130.92		12.01	122.21	7.47	0.000291
	0.21803	54994.39					
36.00		4388.50	16.35	3.98	6258.97	0.17	
1571.17		130.90		12.00	122.20	7.47	0.000284
	0.21245	54988.00					
37.00		4388.46	16.31	3.94	6162.12	0.17	
1565.29		130.79		11.97	122.09	7.49	0.000279
	0.20874	54942.39					
38.00		4388.43	16.28	3.91	6094.99	0.17	
1560.55		130.69		11.94	122.01	7.50	0.000283
	0.21115	54905.14					
39.00		4388.35	16.20	3.87	6000.14	0.17	
1550.14		130.48		11.88	121.83	7.52	0.000275
	0.20380	54823.92					
40.00		4388.32	16.17	3.87	5988.65	0.17	
1546.01		130.40		11.86	121.76	7.53	0.000282
	0.20866	54791.61					
41.00		4388.30	16.15	3.88	5986.68	0.17	
1543.93		130.35		11.84	121.72	7.54	0.000281
	0.20779	54775.30					
42.00		4388.29	16.14	3.88	5986.47	0.17	
1542.61		130.33		11.84	121.70	7.54	0.000284
	0.21008	54764.88					
43.00		4388.29	16.14	3.88	5985.57	0.17	
1542.03		130.31		11.83	121.69	7.54	0.000286
	0.21132	54760.32					
44.00		4388.32	16.17	3.91	6042.31	0.17	
1546.02		130.40		11.86	121.76	7.53	0.000289
	0.21390	54791.86					
45.00		4388.39	16.24	3.95	6139.27	0.17	
1555.32		130.58		11.91	121.92	7.51	0.000290
	0.21534	54864.80					
46.00		4388.45	16.30	3.97	6208.91	0.17	
1563.89		130.76		11.96	122.07	7.49	0.000290
	0.21618	54931.74					
47.00		4388.57	16.42	4.03	6372.99	0.18	

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				HYCHAN.OUT			
1580.48		131.09		12.06	122.36	7.45	0.000294
	0.22140	55060.42					
48.00		4388.72	16.57	4.09	6545.46	0.18	
1599.92		131.48		12.17	122.69	7.41	0.000298
	0.22638	55209.92					
49.00		4388.87	16.72	4.15	6720.53	0.18	
1620.59		131.88		12.29	123.04	7.36	0.000300
	0.23030	55367.30					
50.00		4389.01	16.86	4.20	6885.80	0.18	
1640.64		132.28		12.40	123.37	7.32	0.000298
	0.23031	55518.54					
51.00		4389.17	17.02	4.25	7066.83	0.18	
1662.38		132.70		12.53	123.74	7.27	0.000307
	0.23974	55680.81					
52.00		4389.35	17.20	4.33	7301.73	0.18	
1687.29		133.17		12.67	124.14	7.22	0.000307
	0.24268	55864.64					
53.00		4389.53	17.38	4.39	7512.14	0.19	
1712.22		133.64		12.81	124.55	7.17	0.000305
	0.24381	56046.88					
54.00		4389.65	17.50	4.40	7609.27	0.19	
1728.94		133.96		12.91	124.82	7.13	0.000307
	0.24729	56167.61					
55.00		4389.87	17.72	4.51	7940.44	0.19	
1760.57		134.54		13.09	125.32	7.07	0.000323
	0.26346	56393.37					
56.00		4390.25	18.10	4.75	8607.91	0.20	
1812.88		135.50		13.38	126.14	6.97	0.000345
	0.28784	56762.80					
57.00		4390.81	18.66	5.04	9534.98	0.21	
1893.38		136.94		13.83	127.37	6.82	0.000361
	0.31150	57317.36					
58.00		4391.49	19.34	5.34	10628.02	0.21	
1990.25		138.60		14.36	128.80	6.66	0.000387
	0.34663	57959.45					
59.00		4392.10	19.95	5.58	11604.13	0.22	
2079.31		140.08		14.84	130.06	6.52	0.000393
	0.36423	58528.02					
60.00		4392.52	20.37	5.74	12290.64	0.22	
2141.80		141.09		15.18	130.92	6.43	0.000397
	0.37604	58914.73					
61.00		4392.79	20.65	5.84	12743.28	0.23	
2182.59		141.73		15.40	131.47	6.37	0.000397
	0.38140	59161.68					
62.00		4392.96	20.81	5.88	12982.08	0.23	
2207.66		142.12		15.53	131.80	6.33	0.000395
	0.38259	59310.76					
63.00		4393.04	20.89	5.89	13078.91	0.23	
2219.56		142.30		15.60	131.96	6.32	0.000395
	0.38489	59381.02					
64.00		4393.11	20.96	5.90	13164.58	0.23	
2229.51		142.44		15.65	132.10	6.30	0.000392
	0.38287	59444.46					
65.00		4393.17	21.02	5.89	13175.52	0.23	
2237.88		142.57		15.70	132.22	6.29	0.000389
	0.38060	59499.88					
66.00		4393.24	21.09	5.87	13189.72	0.23	
2246.82		142.70		15.74	132.35	6.28	0.000386
	0.37958	59559.21					
67.00		4393.29	21.14	5.85	13195.63	0.22	
2253.92		142.81		15.78	132.46	6.26	0.000385
	0.37877	59606.30					
68.00		4393.34	21.19	5.82	13163.94	0.22	

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				HYCHAN.OUT			
2259.94		142.90		15.82	132.55	6.26	0.000373
	0.36832	59645.31					
69.00		4393.42	21.27	5.76	13073.06	0.22	
2270.50		143.05		15.87	132.70	6.24	0.000367
	0.36306	59714.23					
70.00		4393.53	21.38	5.65	12905.92	0.22	
2285.96		143.28		15.95	132.92	6.22	0.000343
	0.34182	59814.44					
71.00		4393.70	21.55	5.48	12654.21	0.21	
2308.81		143.62		16.08	133.25	6.18	0.000308
	0.30864	59964.70					
72.00		4393.90	21.75	5.38	12571.52	0.20	
2336.07		144.02		16.22	133.64	6.14	0.000334
	0.33830	60136.86					
73.00		4394.24	22.09	5.51	13184.67	0.21	
2391.29		144.71		16.52	134.30	6.08	0.000324
	0.33397	60434.95					
74.00		4394.44	22.29	5.52	13380.57	0.21	
2422.83		145.10		16.70	134.67	6.04	0.000324
	0.33793	60601.31					
75.00		4394.64	22.49	5.55	13641.63	0.21	
2455.85		145.49		16.88	135.04	6.01	0.000303
	0.31941	60769.59					
76.00		4394.88	22.73	5.54	13815.77	0.20	
2493.19		145.97		17.08	135.50	5.96	0.000286
	0.30485	60972.89					
77.00		4395.07	22.92	5.65	14258.92	0.21	
2524.55		146.36		17.25	135.86	5.93	0.000287
	0.30875	61136.08					
78.00		4395.23	23.08	5.76	14673.56	0.21	
2548.43		146.68		17.37	136.16	5.90	0.000278
	0.30145	61270.11					
79.00		4395.69	23.54	6.29	16419.76	0.23	
2609.73		147.59		17.68	136.99	5.82	0.000400
	0.44130	61647.08					
80.00		4396.02	23.87	6.69	17750.43	0.24	
2651.62		148.27		17.88	137.61	5.76	0.000614
	0.68487	61923.57					
81.00		4396.44	24.29	7.36	19892.29	0.26	
2703.12		149.11		18.13	138.36	5.70	0.000623
	0.70527	62263.07					
82.00		4396.83	24.68	8.02	22103.72	0.28	
2755.42		149.88		18.38	139.05	5.63	0.000959
	1.10017	62570.74					
83.00		4397.16	25.01	8.61	24115.95	0.30	
2801.08		150.55		18.61	139.64	5.58	0.000916
	1.06390	62836.52					
84.00		4397.43	25.28	9.03	25639.69	0.32	
2838.78		151.08		18.79	140.10	5.54	0.000845
	0.99037	63045.32					
85.00		4397.62	25.47	9.33	26790.19	0.33	
2871.47		151.47		18.96	140.44	5.51	0.000807
	0.95434	63197.08					
86.00		4397.80	25.65	9.65	28000.49	0.34	
2901.87		151.83		19.11	140.75	5.49	0.000702
	0.83753	63337.59					
87.00		4397.93	25.78	9.86	28827.31	0.34	
2922.72		152.09		19.22	140.97	5.47	0.000727
	0.87124	63436.39					
88.00		4398.01	25.86	10.01	29438.23	0.35	
2939.99		152.25		19.31	141.11	5.46	0.001143
	1.37710	63499.55					
89.00		4398.07	25.92	10.08	29738.57	0.35	

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				HYCHAN.OUT			
2951.39		152.36		19.37	141.21	5.45	0.001809
	2.18710	63543.71					
	90.00	4398.11	25.96	10.13	29960.52	0.35	
2957.11		152.44		19.40	141.28	5.44	0.001110
	1.34308	63573.89					
	91.00	4398.08	25.93	10.16	30045.93	0.35	
2958.19		152.39		19.41	141.23	5.45	0.000977
	1.18353	63552.46					
	92.00	4398.12	25.97	10.14	30038.86	0.35	
2963.08		152.45		19.44	141.28	5.44	0.001058
	1.28373	63577.89					
	93.00	4398.11	25.96	10.12	29953.04	0.35	
2960.66		152.45		19.42	141.28	5.44	0.001193
	1.44610	63576.64					
	94.00	4398.01	25.86	10.03	29568.67	0.35	
2946.99		152.25		19.36	141.11	5.46	0.001441
	1.74054	63498.76					
	95.00	4397.92	25.77	9.93	29153.36	0.34	
2935.83		152.07		19.31	140.96	5.47	0.000920
	1.10785	63430.57					
	96.00	4397.81	25.66	9.83	28715.76	0.34	
2920.23		151.85		19.23	140.77	5.49	0.000589
	0.70672	63345.06					
	97.00	4397.67	25.52	9.63	27922.68	0.34	
2900.69		151.57		19.14	140.53	5.51	0.000680
	0.81166	63237.05					
	98.00	4397.52	25.37	9.36	26942.16	0.33	
2878.29		151.27		19.03	140.27	5.53	0.001318
	1.56432	63120.23					
	99.00	4397.34	25.19	9.00	25642.55	0.32	
2847.84		150.91		18.87	139.95	5.56	0.001107
	1.30384	62977.35					
	100.00	4397.13	24.98	8.67	24440.28	0.31	
2817.35		150.49		18.72	139.58	5.59	0.000623
	0.72787	62813.03					
	101.00	4396.93	24.78	8.31	23157.14	0.29	
2787.29		150.09		18.57	139.23	5.62	0.000989
	1.14560	62654.85					
	102.00	4396.71	24.56	7.86	21650.20	0.28	
2755.78		149.63		18.42	138.83	5.65	0.000762
	0.87526	62473.57					
	103.00	4396.36	24.21	7.24	19626.71	0.26	
2711.85		148.94		18.21	138.22	5.71	0.000917
	1.04174	62197.05					
	104.00	4395.79	23.64	6.28	16605.22	0.23	
2645.03		147.80		17.90	137.18	5.80	0.000396
	0.44221	61732.18					
	105.00	4395.05	22.90	5.30	13503.65	0.20	
2548.65		146.33		17.42	135.82	5.93	0.000329
	0.35726	61120.64					
	106.00	4394.48	22.33	4.77	11724.91	0.18	
2458.03		145.19		16.93	134.76	6.03	0.000198
	0.20891	60640.02					
	107.00	4394.30	22.15	4.55	11020.00	0.17	
2423.92		144.82		16.74	134.41	6.07	0.000209
	0.21796	60482.37					
	108.00	4394.09	21.94	4.42	10544.17	0.17	
2385.92		144.39		16.52	134.00	6.11	0.000205
	0.21120	60299.49					
	109.00	4393.71	21.56	4.15	9637.32	0.16	
2324.20		143.64		16.18	133.27	6.18	0.000174
	0.17524	59972.54					
	110.00	4393.24	21.09	3.68	8290.16	0.14	

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				HYCHAN.OUT			
2252.13		142.70		15.78	132.36	6.28	0.000139
	0.13674	59560.32					
111.00	4392.92	20.77	3.62	7965.78	0.14		
2203.48	142.01	15.52	131.71	6.34	0.000157		
	0.15215	59270.20					
112.00	4392.69	20.54	3.76	8165.60	0.15		
2169.43	141.48	15.33	131.26	6.39	0.000169		
	0.16187	59066.68					
113.00	4392.52	20.37	3.84	8239.15	0.15		
2144.09	141.08	15.20	130.92	6.43	0.000176		
	0.16684	58912.32					
114.00	4392.31	20.16	3.83	8085.11	0.15		
2112.91	140.58	15.03	130.49	6.47	0.000181		
	0.16977	58721.15					
115.00	4392.11	19.96	3.91	8149.37	0.15		
2083.30	140.11	14.87	130.09	6.52	0.000194		
	0.18044	58538.36					
116.00	4392.07	19.92	4.08	8470.82	0.16		
2077.74	140.02	14.84	130.01	6.53	0.000210		
	0.19468	58503.59					
117.00	4392.04	19.89	4.14	8583.61	0.16		
2073.10	139.94	14.81	129.94	6.53	0.000213		
	0.19707	58474.33					
118.00	4391.92	19.77	4.14	8506.72	0.16		
2054.93	139.64	14.72	129.69	6.56	0.000215		
	0.19786	58360.30					
119.00	4391.83	19.68	4.16	8495.56	0.17		
2041.54	139.42	14.64	129.50	6.58	0.000221		
	0.20205	58275.87					
120.00	4391.79	19.64	4.21	8577.94	0.17		
2036.02	139.33	14.61	129.42	6.59	0.000226		
	0.20641	58241.06					
121.00	4391.79	19.64	4.26	8671.76	0.17		
2036.03	139.33	14.61	129.42	6.59	0.000236		
	0.21528	58241.05					
122.00	4391.76	19.61	4.27	8677.73	0.17		
2031.66	139.26	14.59	129.36	6.60	0.000236		
	0.21498	58213.26					
123.00	4391.67	19.52	4.26	8594.75	0.17		
2019.29	139.06	14.52	129.19	6.62	0.000226		
	0.20504	58134.20					
124.00	4391.58	19.43	4.23	8489.14	0.17		
2004.67	138.81	14.44	128.98	6.64	0.000237		
	0.21356	58040.77					
125.00	4391.49	19.34	4.21	8394.18	0.17		
1992.65	138.61	14.38	128.81	6.66	0.000234		
	0.20947	57963.32					
126.00	4391.40	19.24	4.19	8291.53	0.17		
1978.41	138.37	14.30	128.60	6.68	0.000230		
	0.20563	57871.29					
127.00	4391.35	19.20	4.20	8277.29	0.17		
1971.61	138.26	14.26	128.51	6.69	0.000238		
	0.21169	57827.25					
128.00	4391.28	19.13	4.18	8201.05	0.17		
1962.10	138.10	14.21	128.37	6.71	0.000229		
	0.20343	57765.05					
129.00	4391.19	19.04	4.16	8109.89	0.17		
1949.22	137.88	14.14	128.18	6.73	0.000230		
	0.20319	57680.93					
130.00	4391.15	19.00	4.17	8097.86	0.17		
1942.98	137.77	14.10	128.09	6.74	0.000239		
	0.21053	57640.02					
131.00	4391.08	18.93	4.15	8026.35	0.17		

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				HYCHAN.OUT			
1933.41		137.61		14.05	127.95	6.76	0.000236
	0.20661	57576.68					
	132.00	4391.00	18.85	4.13	7937.68	0.17	
1920.74		137.39		13.98	127.76	6.78	0.000238
	0.20793	57492.99					
	133.00	4391.03	18.88	4.19	8072.91	0.17	
1924.88		137.46		14.00	127.82	6.77	0.000249
	0.21747	57520.59					
	134.00	4391.12	18.97	4.26	8252.10	0.17	
1938.49		137.70		14.08	128.02	6.75	0.000247
	0.21730	57610.60					
	135.00	4391.13	18.98	4.26	8272.17	0.17	
1939.73		137.72		14.08	128.04	6.75	0.000251
	0.22050	57618.66					
	136.00	4391.11	18.96	4.27	8273.68	0.17	
1937.68		137.68		14.07	128.01	6.75	0.000250
	0.21968	57605.18					
	137.00	4391.10	18.95	4.28	8273.91	0.17	
1935.34		137.64		14.06	127.98	6.75	0.000250
	0.21918	57589.69					
	138.00	4391.08	18.93	4.28	8273.59	0.17	
1932.99		137.60		14.05	127.94	6.76	0.000248
	0.21778	57574.19					
	139.00	4391.07	18.92	4.28	8273.15	0.17	
1930.94		137.57		14.04	127.91	6.76	0.000250
	0.21877	57560.65					
	140.00	4391.05	18.90	4.29	8272.58	0.17	
1928.81		137.53		14.02	127.88	6.77	0.000248
	0.21682	57546.52					
	141.00	4391.00	18.85	4.27	8197.85	0.17	
1921.71		137.41		13.99	127.78	6.78	0.000245
	0.21408	57499.24					
	142.00	4390.93	18.78	4.24	8105.31	0.17	
1911.04		137.22		13.93	127.62	6.80	0.000251
	0.21814	57428.46					
	143.00	4390.90	18.75	4.24	8095.21	0.17	
1907.03		137.16		13.90	127.56	6.80	0.000256
	0.22197	57401.84					
	144.00	4390.89	18.74	4.25	8094.17	0.17	
1904.72		137.12		13.89	127.53	6.81	0.000249
	0.21571	57386.41					
	145.00	4390.87	18.72	4.25	8092.74	0.17	
1902.57		137.08		13.88	127.49	6.81	0.000251
	0.21774	57372.01					
	146.00	4390.82	18.67	4.23	8021.51	0.17	
1895.85		136.96		13.84	127.39	6.82	0.000254
	0.21915	57326.76					
	147.00	4390.75	18.60	4.21	7930.74	0.17	
1885.22		136.78		13.78	127.23	6.84	0.000246
	0.21173	57255.54					
	148.00	4390.72	18.57	4.21	7921.45	0.17	
1881.13		136.70		13.76	127.17	6.85	0.000253
	0.21762	57228.01					
	149.00	4390.70	18.55	4.22	7921.21	0.17	
1878.42		136.66		13.75	127.13	6.85	0.000252
	0.21594	57209.73					
	150.00	4390.69	18.54	4.22	7919.83	0.17	
1876.15		136.62		13.73	127.10	6.86	0.000258
	0.22081	57194.41					
	151.00	4390.68	18.53	4.22	7918.83	0.17	
1874.57		136.59		13.72	127.07	6.86	0.000251
	0.21524	57183.73					
	152.00	4390.64	18.49	4.21	7871.38	0.17	

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				HYCHAN.OUT			
1869.53		136.50		13.70	127.00	6.87	0.000257
	0.21976	57149.37					
	153.00	4390.58	18.43	4.19	7789.21	0.17	
1860.34		136.34		13.64	126.86	6.88	0.000248
	0.21081	57087.04					
	154.00	4390.53	18.38	4.18	7751.40	0.17	
1854.11		136.23		13.61	126.77	6.90	0.000251
	0.21296	57044.73					
	155.00	4390.51	18.36	4.18	7745.01	0.17	
1851.14		136.18		13.59	126.72	6.90	0.000259
	0.21984	57024.42					
	156.00	4390.47	18.32	4.16	7675.93	0.17	
1844.49		136.06		13.56	126.62	6.91	0.000257
	0.21750	56978.68					
	157.00	4390.46	18.31	4.19	7727.90	0.17	
1843.46		136.04		13.55	126.60	6.91	0.000258
	0.21819	56972.03					
	158.00	4390.56	18.41	4.25	7895.82	0.17	
1858.17		136.30		13.63	126.83	6.89	0.000261
	0.22175	57072.61					
	159.00	4390.59	18.44	4.25	7914.84	0.17	
1861.93		136.37		13.65	126.88	6.88	0.000256
	0.21849	57098.03					
	160.00	4390.59	18.44	4.25	7916.99	0.17	
1862.28		136.37		13.66	126.89	6.88	0.000264
	0.22504	57100.43					
	161.00	4390.59	18.44	4.25	7918.14	0.17	
1861.86		136.37		13.65	126.88	6.88	0.000255
	0.21710	57097.51					
	162.00	4390.58	18.43	4.25	7917.82	0.17	
1861.38		136.36		13.65	126.88	6.88	0.000266
	0.22619	57094.30					
	163.00	4390.58	18.43	4.26	7918.08	0.17	
1860.80		136.35		13.65	126.87	6.88	0.000256
	0.21823	57090.33					
	164.00	4390.58	18.43	4.26	7917.86	0.17	
1860.24		136.34		13.64	126.86	6.88	0.000267
	0.22698	57086.49					
	165.00	4390.57	18.42	4.26	7915.53	0.17	
1859.72		136.33		13.64	126.85	6.89	0.000256
	0.21823	57082.95					
	166.00	4390.53	18.38	4.23	7846.29	0.17	
1854.37		136.23		13.61	126.77	6.90	0.000256
	0.21770	57046.29					
	167.00	4390.47	18.32	4.21	7756.19	0.17	
1844.43		136.06		13.56	126.62	6.91	0.000261
	0.22095	56978.40					
	168.00	4390.44	18.29	4.21	7745.88	0.17	
1840.93		136.00		13.54	126.57	6.92	0.000256
	0.21590	56954.57					
	169.00	4390.43	18.28	4.21	7744.13	0.17	
1839.77		135.97		13.53	126.55	6.92	0.000260
	0.21917	56946.64					
	170.00	4390.43	18.28	4.21	7744.12	0.17	
1839.06		135.96		13.53	126.54	6.92	0.000265
	0.22330	56941.74					
	171.00	4390.42	18.27	4.21	7743.83	0.17	
1838.52		135.95		13.52	126.53	6.92	0.000255
	0.21539	56938.04					
	172.00	4390.42	18.27	4.21	7743.67	0.17	
1837.97		135.94		13.52	126.52	6.93	0.000261
	0.22047	56934.29					
	173.00	4390.42	18.27	4.21	7742.45	0.17	

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				HYCHAN.OUT			
1837.38		135.93		13.52	126.51	6.93	0.000264
	0.22247	56930.21					
174.00		4390.38	18.23	4.19	7671.15	0.17	
1831.92		135.83	13.49		126.43	6.94	0.000257
	0.21666	56892.36					
175.00		4390.31	18.16	4.16	7582.65	0.17	
1821.86		135.65	13.43		126.27	6.95	0.000259
	0.21665	56823.10					
176.00		4390.28	18.13	4.16	7572.29	0.17	
1818.21		135.59	13.41		126.22	6.96	0.000254
	0.21242	56797.92					
177.00		4390.27	18.12	4.17	7570.21	0.17	
1816.89		135.57	13.40		126.20	6.96	0.000255
	0.21332	56788.82					
178.00		4390.27	18.12	4.17	7569.72	0.17	
1816.18		135.55	13.40		126.19	6.97	0.000258
	0.21538	56783.89					
179.00		4390.26	18.11	4.17	7570.03	0.17	
1815.59		135.54	13.40		126.18	6.97	0.000264
	0.22040	56779.82					
180.00		4390.26	18.11	4.17	7572.69	0.17	
1815.00		135.53	13.39		126.17	6.97	0.000265
	0.22162	56775.70					
181.00		4390.33	18.18	4.23	7714.02	0.17	
1824.76		135.71	13.45		126.32	6.95	0.000271
	0.22704	56843.37					
182.00		4390.46	18.31	4.28	7893.08	0.18	
1843.57		136.04	13.55		126.61	6.91	0.000269
	0.22767	56972.85					
183.00		4390.54	18.39	4.31	7985.07	0.18	
1854.41		136.23	13.61		126.77	6.90	0.000266
	0.22574	57046.99					
184.00		4390.61	18.46	4.33	8077.08	0.18	
1865.23		136.43	13.67		126.93	6.88	0.000272
	0.23196	57120.56					
185.00		4390.63	18.48	4.33	8088.00	0.18	
1868.65		136.49	13.69		126.99	6.87	0.000264
	0.22547	57143.70					
186.00		4390.64	18.49	4.33	8089.99	0.18	
1869.81		136.51	13.70		127.00	6.87	0.000269
	0.23011	57151.55					
187.00		4390.65	18.50	4.33	8090.31	0.18	
1870.32		136.52	13.70		127.01	6.87	0.000266
	0.22714	57155.03					
188.00		4390.65	18.50	4.32	8090.79	0.18	
1870.72		136.52	13.70		127.02	6.87	0.000267
	0.22836	57157.67					
189.00		4390.65	18.50	4.32	8090.75	0.18	
1870.81		136.52	13.70		127.02	6.87	0.000271
	0.23178	57158.28					
190.00		4390.65	18.50	4.32	8091.04	0.18	
1870.91		136.53	13.70		127.02	6.87	0.000263
	0.22520	57158.97					
191.00		4390.65	18.50	4.32	8089.28	0.18	
1870.89		136.52	13.70		127.02	6.87	0.000269
	0.23040	57158.82					
192.00		4390.62	18.47	4.30	8018.99	0.18	
1865.98		136.44	13.68		126.95	6.87	0.000261
	0.22300	57125.28					
193.00		4390.55	18.40	4.27	7929.44	0.18	
1856.41		136.27	13.62		126.80	6.89	0.000268
	0.22784	57060.34					
194.00		4390.53	18.38	4.27	7920.45	0.18	

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		HYCHAN.OUT					
1853.18	136.21	13.61	126.75	6.90	0.000264		
0.22425	57038.41						
195.00	4390.52	18.37	4.28	7917.73	0.18		
1852.02	136.19	13.60	126.73	6.90	0.000267		
0.22642	57030.45						
196.00	4390.52	18.37	4.28	7918.11	0.18		
1851.53	136.18	13.60	126.73	6.90	0.000263		
0.22314	57027.14						
197.00	4390.51	18.36	4.28	7917.17	0.18		
1851.06	136.18	13.59	126.72	6.90	0.000269		
0.22804	57023.94						
198.00	4390.51	18.36	4.28	7917.58	0.18		
1850.79	136.17	13.59	126.72	6.90	0.000261		
0.22146	57022.11						
199.00	4390.51	18.36	4.28	7917.70	0.18		
1850.56	136.17	13.59	126.71	6.90	0.000270		
0.22876	57020.48						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4699

MAXIMUM DISCHARGE (CFS) = 31602.49 AT TIME = 89.79  
 MAXIMUM STAGE = 4398.10 AT TIME = 91.32

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4371.92	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4371.92	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4371.92	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4371.92	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4372.77	0.85	0.54	254.90	0.10			
475.81	47.72	9.97	48.25	56.89	0.001076			
0.66954	26538.36							
5.00	4384.90	12.98	4.25	4907.39	0.21			
1154.40	120.99	9.54	113.64	8.76	0.000386			
0.22976	62504.21							
6.00	4386.50	14.58	3.83	5276.42	0.18			
1378.35	125.88	10.95	117.87	8.08	0.000320			
0.21884	64830.66							
7.00	4386.97	15.05	3.66	5278.07	0.17			
1442.78	127.24	11.34	119.04	7.91	0.000288			
0.20393	65474.50							
8.00	4387.10	15.18	3.55	5179.95	0.16			
1460.26	127.61	11.44	119.36	7.87	0.000275			
0.19654	65647.12							
9.00	4387.04	15.12	3.48	5050.77	0.16			
1452.91	127.45	11.40	119.22	7.88	0.000269			
0.19107	65573.09							
10.00	4386.94	15.02	3.41	4905.85	0.15			
1439.80	127.17	11.32	118.98	7.92	0.000258			

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HYCHAN.OUT							
0.18216	65441.37						
11.00	4386.86	14.94	3.36	4797.59	0.15		
1427.92	126.92	11.25		118.77	7.95	0.000264	
0.18527	65321.53						
12.00	4386.80	14.88	3.34	4749.00	0.15		
1420.29	126.75	11.20		118.63	7.97	0.000262	
0.18299	65243.84						
13.00	4386.68	14.76	3.29	4617.58	0.15		
1404.64	126.42	11.11		118.33	8.01	0.000247	
0.17112	65083.26						
14.00	4386.55	14.63	3.25	4499.03	0.15		
1386.39	126.02	11.00		117.99	8.07	0.000254	
0.17408	64895.16						
15.00	4386.48	14.56	3.25	4476.00	0.15		
1377.08	125.82	10.95		117.82	8.09	0.000252	
0.17229	64798.67						
16.00	4386.45	14.53	3.26	4472.01	0.15		
1373.43	125.74	10.92		117.75	8.10	0.000257	
0.17496	64760.68						
17.00	4386.44	14.52	3.26	4470.46	0.15		
1371.71	125.70	10.91		117.71	8.11	0.000259	
0.17609	64742.67						
18.00	4386.43	14.51	3.26	4467.96	0.15		
1370.93	125.68	10.91		117.70	8.11	0.000260	
0.17717	64734.55						
19.00	4386.45	14.53	3.27	4494.46	0.15		
1372.90	125.72	10.92		117.74	8.10	0.000266	
0.18137	64755.28						
20.00	4386.55	14.63	3.34	4625.34	0.15		
1386.60	126.03	11.00		118.00	8.06	0.000273	
0.18716	64898.21						
21.00	4386.70	14.78	3.40	4777.20	0.16		
1406.45	126.46	11.12		118.37	8.01	0.000277	
0.19231	65103.15						
22.00	4386.84	14.92	3.43	4895.87	0.16		
1425.48	126.87	11.24		118.72	7.96	0.000270	
0.18898	65297.62						
23.00	4386.91	14.99	3.43	4917.54	0.16		
1434.51	127.06	11.29		118.89	7.93	0.000266	
0.18734	65388.79						
24.00	4386.95	15.03	3.44	4956.21	0.16		
1441.11	127.20	11.33		119.01	7.92	0.000272	
0.19248	65455.49						
25.00	4387.09	15.18	3.52	5136.96	0.16		
1460.21	127.60	11.44		119.36	7.87	0.000291	
0.20759	65646.60						
26.00	4387.34	15.42	3.63	5430.05	0.16		
1493.90	128.31	11.64		119.96	7.78	0.000292	
0.21224	65979.50						
27.00	4387.61	15.69	3.75	5737.29	0.17		
1531.18	129.07	11.86		120.62	7.69	0.000299	
0.22131	66341.21						
28.00	4387.84	15.92	3.80	5945.24	0.17		
1562.56	129.71	12.05		121.17	7.61	0.000296	
0.22246	66640.83						
29.00	4387.93	16.01	3.79	5975.90	0.17		
1575.22	129.96	12.12		121.38	7.58	0.000290	
0.21959	66759.81						
30.00	4387.99	16.07	3.81	6034.77	0.17		
1584.13	130.13	12.17		121.53	7.56	0.000295	
0.22431	66843.34						
31.00	4388.09	16.17	3.84	6134.20	0.17		
1597.28	130.39	12.25		121.76	7.53	0.000293	

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HYCHAN.OUT									
	0.22431	66966.02							
1603.03	32.00	4388.13	16.21	12.28	3.83	6147.53	0.17		
		130.51				121.85	7.52	0.000291	
	0.22296	67019.27							
1610.35	33.00	4388.18	16.26	12.33	3.85	6207.13	0.17		
		130.65				121.98	7.50	0.000296	
	0.22733	67087.05							
1622.70	34.00	4388.27	16.35	12.40	3.89	6308.96	0.17		
		130.89				122.18	7.47	0.000294	
	0.22769	67200.95							
1627.69	35.00	4388.30	16.38	12.43	3.88	6321.15	0.17		
		130.99				122.27	7.46	0.000293	
	0.22718	67246.52							
1627.47	36.00	4388.30	16.38	12.43	3.85	6259.63	0.17		
		130.98				122.26	7.46	0.000269	
	0.20879	67244.28							
1621.86	37.00	4388.26	16.34	12.39	3.80	6162.54	0.17		
		130.87				122.17	7.48	0.000282	
	0.21814	67192.89							
1617.26	38.00	4388.23	16.31	12.37	3.77	6096.76	0.16		
		130.78				122.09	7.49	0.000268	
	0.20713	67150.23							
1606.71	39.00	4388.15	16.23	12.30	3.73	6000.86	0.16		
		130.58				121.91	7.51	0.000276	
	0.21186	67053.06							
1602.26	40.00	4388.12	16.20	12.28	3.74	5989.33	0.16		
		130.49				121.84	7.52	0.000284	
	0.21767	67011.90							
1600.01	41.00	4388.11	16.19	12.27	3.74	5986.86	0.16		
		130.45				121.80	7.52	0.000280	
	0.21436	66991.14							
1598.54	42.00	4388.10	16.18	12.26	3.75	5986.71	0.16		
		130.42				121.78	7.53	0.000282	
	0.21565	66977.48							
1597.94	43.00	4388.09	16.17	12.25	3.75	5985.54	0.16		
		130.41				121.77	7.53	0.000279	
	0.21315	66971.95							
1601.75	44.00	4388.12	16.20	12.28	3.77	6041.02	0.17		
		130.48				121.83	7.52	0.000278	
	0.21321	67007.39							
1611.07	45.00	4388.19	16.27	12.33	3.81	6138.24	0.17		
		130.66				121.99	7.50	0.000288	
	0.22171	67093.71							
1619.78	46.00	4388.25	16.33	12.38	3.83	6206.79	0.17		
		130.83				122.13	7.48	0.000295	
	0.22761	67174.07							
1636.47	47.00	4388.37	16.45	12.48	3.89	6370.18	0.17		
		131.16				122.41	7.44	0.000296	
	0.23035	67326.95							
1656.24	48.00	4388.51	16.59	12.59	3.95	6542.49	0.17		
		131.54				122.74	7.40	0.000294	
	0.23136	67506.55							
1677.36	49.00	4388.66	16.74	12.71	4.00	6717.50	0.17		
		131.94				123.08	7.35	0.000294	
	0.23308	67696.49							
1697.92	50.00	4388.80	16.88	12.83	4.05	6882.41	0.17		
		132.33				123.42	7.31	0.000306	
	0.24472	67879.66							
1720.18	51.00	4388.96	17.04	12.96	4.11	7063.85	0.18		
		132.74				123.77	7.27	0.000300	
	0.24228	68075.94							
1745.47	52.00	4389.13	17.21	13.10	4.18	7297.06	0.18		
		133.21				124.18	7.21	0.000308	

HYCHAN.OUT									
0.25197	68296.51								
53.00	4389.31	17.39	4.24	7509.48	0.18				
1771.19	133.68	13.25		124.58	7.16			0.000307	
0.25370	68518.65								
54.00	4389.43	17.51	4.25	7606.22	0.18				
1788.67	134.00	13.35		124.85	7.13			0.000308	
0.25671	68667.86								
55.00	4389.65	17.73	4.36	7934.07	0.18				
1820.55	134.56	13.53		125.34	7.07			0.000324	
0.27384	68936.73								
56.00	4390.01	18.09	4.59	8598.21	0.19				
1872.83	135.48	13.82		126.13	6.97			0.000346	
0.29810	69369.97								
57.00	4390.57	18.65	4.87	9521.20	0.20				
1955.06	136.89	14.28		127.33	6.83			0.000366	
0.32640	70033.22								
58.00	4391.23	19.31	5.17	10612.84	0.21				
2054.37	138.53	14.83		128.74	6.67			0.000384	
0.35501	70806.83								
59.00	4391.84	19.92	5.40	11592.49	0.21				
2146.03	140.00	15.33		130.00	6.53			0.000392	
0.37519	71497.38								
60.00	4392.26	20.34	5.56	12283.29	0.22				
2210.44	141.00	15.68		130.85	6.43			0.000397	
0.38882	71968.58								
61.00	4392.53	20.61	5.65	12738.16	0.22				
2252.55	141.65	15.90		131.40	6.38			0.000398	
0.39522	72270.47								
62.00	4392.70	20.78	5.70	12979.46	0.22				
2278.59	142.04	16.04		131.74	6.34			0.000396	
0.39645	72454.86								
63.00	4392.78	20.86	5.71	13077.32	0.22				
2290.98	142.22	16.11		131.89	6.32			0.000396	
0.39769	72541.86								
64.00	4392.85	20.93	5.72	13162.81	0.22				
2301.50	142.38	16.16		132.04	6.31			0.000393	
0.39616	72620.73								
65.00	4392.92	21.00	5.70	13171.86	0.22				
2310.04	142.51	16.21		132.17	6.30			0.000389	
0.39326	72691.41								
66.00	4392.98	21.06	5.68	13183.79	0.22				
2319.11	142.65	16.26		132.30	6.28			0.000387	
0.39261	72766.34								
67.00	4393.04	21.12	5.67	13185.61	0.22				
2326.34	142.76	16.30		132.41	6.27			0.000385	
0.39141	72826.19								
68.00	4393.09	21.17	5.64	13149.83	0.22				
2332.60	142.86	16.33		132.51	6.26			0.000371	
0.37760	72878.09								
69.00	4393.17	21.25	5.57	13047.52	0.21				
2343.59	143.03	16.39		132.67	6.24			0.000362	
0.36966	72969.42								
70.00	4393.30	21.38	5.45	12858.87	0.21				
2359.92	143.28	16.47		132.92	6.22			0.000348	
0.35770	73105.83								
71.00	4393.49	21.57	5.28	12601.54	0.20				
2384.53	143.65	16.60		133.28	6.18			0.000325	
0.33633	73305.89								
72.00	4393.70	21.78	5.20	12543.71	0.20				
2412.95	144.08	16.75		133.69	6.14			0.000340	
0.35555	73530.59								
73.00	4394.05	22.13	5.45	13434.50	0.20				
2463.25	144.77	17.01		134.36	6.07			0.000373	

HYCHAN.OUT									
0.39644	73898.49								
74.00	4394.23	22.32	5.59	13931.32	0.21				
2492.39	145.15	17.17		134.72	6.04	0.000401			
0.42925	74096.53								
75.00	4394.44	22.52	5.72	14428.81	0.21				
2521.01	145.56	17.32		135.11	6.00	0.000437			
0.47280	74310.17								
76.00	4394.67	22.75	5.85	14932.74	0.22				
2554.68	146.03	17.49		135.55	5.96	0.000465			
0.50757	74551.50								
77.00	4394.88	22.96	6.01	15505.29	0.22				
2581.76	146.44	17.63		135.93	5.92	0.000484			
0.53199	74759.68								
78.00	4395.04	23.12	6.12	15938.17	0.22				
2603.03	146.77	17.74		136.23	5.89	0.000544			
0.60202	74927.25								
79.00	4395.47	23.55	6.63	17607.48	0.24				
2656.35	147.63	17.99		137.03	5.82	0.000638			
0.71685	75364.92								
80.00	4395.79	23.87	6.97	18780.12	0.25				
2693.91	148.25	18.17		137.59	5.77	0.000777			
0.88092	75676.70								
81.00	4396.16	24.24	7.54	20625.48	0.27				
2737.21	149.00	18.37		138.27	5.70	0.000793			
0.90873	76048.02								
82.00	4396.50	24.58	8.18	22706.97	0.29				
2776.32	149.68	18.55		138.87	5.65	0.001189			
1.37579	76380.96								
83.00	4396.79	24.87	8.76	24615.09	0.31				
2808.63	150.26	18.69		139.38	5.60	0.001349			
1.57322	76660.11								
84.00	4397.02	25.10	9.20	26082.61	0.32				
2834.92	150.72	18.81		139.79	5.57	0.001190			
1.39643	76882.91								
85.00	4397.20	25.28	9.53	27214.20	0.33				
2855.79	151.09	18.90		140.11	5.54	0.001411			
1.66433	77058.46								
86.00	4397.36	25.44	9.88	28391.62	0.35				
2873.29	151.41	18.98		140.39	5.52	0.001394			
1.65077	77213.09								
87.00	4397.48	25.56	10.12	29200.67	0.35				
2886.70	151.65	19.04		140.60	5.50	0.001469			
1.74517	77327.74								
88.00	4397.58	25.66	10.29	29805.79	0.36				
2897.21	151.84	19.08		140.76	5.49	0.001648			
1.96222	77415.38								
89.00	4397.66	25.74	10.35	30090.18	0.36				
2907.27	152.00	19.13		140.89	5.47	0.002071			
2.47128	77491.00								
90.00	4397.70	25.78	10.41	30309.96	0.36				
2912.77	152.08	19.15		140.97	5.47	0.001717			
2.05238	77533.06								
91.00	4397.70	25.78	10.43	30360.59	0.36				
2912.05	152.08	19.15		140.97	5.47	0.001449			
1.73111	77530.83								
92.00	4397.72	25.80	10.41	30344.23	0.36				
2914.43	152.12	19.16		141.00	5.47	0.001445			
1.72740	77550.34								
93.00	4397.70	25.78	10.40	30273.91	0.36				
2912.08	152.08	19.15		140.97	5.47	0.001774			
2.11954	77533.07								
94.00	4397.62	25.70	10.30	29890.64	0.36				
2902.40	151.92	19.11		140.83	5.48	0.001697			

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HYCHAN.OUT									
2894.97	95.00	2.02325	4397.55	77454.51	25.63	10.18	29479.56	0.35	0.001289
		1.53447	151.79	77392.26	19.07		140.71	5.49	
2883.46	96.00		4397.46	25.54	10.08		29057.81	0.35	0.001308
		1.55228	151.59	77300.47	19.02		140.55	5.50	
2871.33	97.00		4397.34	25.42	9.86		28311.04	0.34	0.001195
		1.41504	151.37	77192.52	18.97		140.35	5.52	
2858.61	98.00		4397.22	25.30	9.57		27345.92	0.34	0.001182
		1.39546	151.12	77076.99	18.92		140.14	5.54	
2840.85	99.00		4397.05	25.13	9.19		26103.37	0.32	0.001141
		1.34162	150.79	76916.33	18.84		139.85	5.56	
2819.84	100.00		4396.87	24.95	8.83		24909.08	0.31	0.000963
		1.12632	150.42	76739.71	18.75		139.53	5.59	
2800.58	101.00		4396.70	24.78	8.45		23668.64	0.30	0.001089
		1.26864	150.07	76571.16	18.66		139.22	5.62	
2779.27	102.00		4396.50	24.58	8.00		22222.75	0.28	0.000658
		0.76227	149.69	76382.42	18.57		138.88	5.65	
2746.31	103.00		4396.21	24.29	7.40		20320.77	0.26	0.000911
		1.04729	149.10	76094.08	18.42		138.35	5.70	
2690.90	104.00		4395.71	23.79	6.55		17636.87	0.24	0.000552
		0.62558	148.11	75605.53	18.17		137.46	5.78	
2606.32	105.00		4395.00	23.08	5.70		14865.90	0.21	0.000403
		0.44678	146.69	74887.74	17.77		136.16	5.90	
2526.91	106.00		4394.42	22.50	5.05		12758.02	0.19	0.000302
		0.32715	145.53	74291.23	17.36		135.07	6.00	
2497.40	107.00		4394.20	22.28	4.82		12043.23	0.18	0.000291
		0.31313	145.07	74055.86	17.21		134.65	6.04	
2463.66	108.00		4393.96	22.04	4.63		11394.68	0.17	0.000250
		0.26535	144.60	73807.89	17.04		134.20	6.09	
2408.39	109.00		4393.58	21.66	4.22		10172.13	0.16	0.000183
		0.19126	143.84	73407.85	16.74		133.47	6.16	
2343.39	110.00		4393.13	21.21	3.63		8516.95	0.14	0.000151
		0.15435	142.95	72925.86	16.39		132.59	6.25	
2296.20	111.00		4392.80	20.88	3.52		8078.98	0.14	0.000154
		0.15554	142.28	72568.92	16.14		131.94	6.32	
2259.95	112.00		4392.57	20.65	3.64		8222.78	0.14	0.000174
		0.17295	141.74	72315.82	15.94		131.48	6.37	
2232.73	113.00		4392.40	20.48	3.71		8281.75	0.14	0.000177
		0.17419	141.33	72122.88	15.80		131.13	6.40	
2200.15	114.00		4392.19	20.27	3.69		8125.43	0.14	0.000176
		0.17138	140.83	71888.53	15.62		130.71	6.45	
2168.17	115.00		4391.98	20.06	3.78		8187.35	0.15	0.000202
			140.34		15.45		130.28	6.50	

HYCHAN.OUT									
	0.19431	71656.26							
2160.62	116.00	4391.93	20.01	15.41	3.94	8504.72	0.16	0.000225	
		140.22				130.18	6.51		
	0.21604	71600.88							
2155.21	117.00	4391.89	19.97	15.38	4.00	8619.43	0.16	0.000227	
		140.14				130.11	6.51		
	0.21746	71560.78							
2136.07	118.00	4391.77	19.85	15.28	4.00	8542.28	0.16	0.000232	
		139.84				129.85	6.54		
	0.22152	71419.42							
2121.73	119.00	4391.67	19.75	15.20	4.02	8528.40	0.16	0.000230	
		139.61				129.66	6.56		
	0.21816	71313.23							
2115.33	120.00	4391.63	19.71	15.16	4.07	8606.39	0.16	0.000231	
		139.51				129.57	6.57		
	0.21835	71265.98							
2114.86	121.00	4391.63	19.71	15.16	4.11	8698.48	0.16	0.000223	
		139.50				129.57	6.57		
	0.21118	71262.77							
2110.14	122.00	4391.60	19.68	15.13	4.12	8702.86	0.16	0.000235	
		139.43				129.50	6.58		
	0.22210	71227.62							
2097.32	123.00	4391.51	19.59	15.06	4.11	8619.38	0.16	0.000237	
		139.22				129.33	6.60		
	0.22297	71131.32							
2082.11	124.00	4391.41	19.49	14.98	4.09	8511.27	0.16	0.000226	
		138.98				129.12	6.62		
	0.21087	71017.06							
2069.75	125.00	4391.33	19.41	14.91	4.07	8414.82	0.16	0.000242	
		138.78				128.95	6.64		
	0.22530	70923.45							
2054.95	126.00	4391.23	19.31	14.83	4.04	8310.11	0.16	0.000224	
		138.54				128.75	6.67		
	0.20710	70811.01							
2047.71	127.00	4391.19	19.27	14.79	4.05	8294.10	0.16	0.000239	
		138.43				128.65	6.68		
	0.22049	70755.91							
2037.92	128.00	4391.12	19.20	14.74	4.03	8217.83	0.16	0.000225	
		138.27				128.51	6.69		
	0.20709	70680.57							
2024.56	129.00	4391.03	19.11	14.67	4.01	8124.87	0.16	0.000238	
		138.05				128.32	6.71		
	0.21806	70577.94							
2017.90	130.00	4390.99	19.07	14.63	4.02	8111.66	0.16	0.000239	
		137.94				128.23	6.72		
	0.21784	70526.54							
2008.05	131.00	4390.92	19.00	14.57	4.00	8040.27	0.16	0.000241	
		137.78				128.09	6.74		
	0.21899	70449.93							
1994.86	132.00	4390.83	18.91	14.50	3.99	7949.68	0.16	0.000245	
		137.56				127.90	6.76		
	0.22168	70347.46							
1998.44	133.00	4390.86	18.94	14.52	4.04	8080.83	0.16	0.000253	
		137.62				127.96	6.76		
	0.22932	70375.70							
2012.13	134.00	4390.95	19.03	14.60	4.11	8260.94	0.17	0.000255	
		137.84				128.15	6.73		
	0.23189	70482.43							
2013.36	135.00	4390.96	19.04	14.60	4.11	8282.10	0.17	0.000248	
		137.86				128.17	6.73		
	0.22580	70491.88							
2011.14	136.00	4390.94	19.02	14.59	4.12	8283.50	0.17	0.000250	
		137.83				128.14	6.74		

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	0.22789	70474.67						
2008.60	137.00	4390.93	19.01	4.12	8283.82	0.17		
		137.79	14.58		128.10	6.74	0.000254	
	0.23116	70454.88						
2006.06	138.00	4390.91	18.99	4.13	8283.47	0.17		
		137.74	14.56		128.06	6.74	0.000256	
	0.23267	70435.15						
2003.85	139.00	4390.89	18.97	4.13	8282.97	0.17		
		137.71	14.55		128.03	6.75	0.000257	
	0.23378	70417.89						
2001.54	140.00	4390.88	18.96	4.14	8281.92	0.17		
		137.67	14.54		128.00	6.75	0.000253	
	0.22946	70400.00						
1994.36	141.00	4390.83	18.91	4.12	8208.66	0.17		
		137.55	14.50		127.90	6.76	0.000243	
	0.22019	70343.59						
1983.36	142.00	4390.76	18.84	4.09	8115.79	0.17		
		137.37	14.44		127.74	6.78	0.000239	
	0.21554	70257.51						
1979.11	143.00	4390.73	18.81	4.09	8104.35	0.17		
		137.30	14.41		127.68	6.79	0.000252	
	0.22663	70224.24						
1976.60	144.00	4390.71	18.79	4.10	8102.29	0.17		
		137.25	14.40		127.64	6.79	0.000255	
	0.22939	70204.68						
1974.29	145.00	4390.70	18.78	4.10	8100.58	0.17		
		137.22	14.39		127.61	6.80	0.000245	
	0.21957	70186.48						
1967.50	146.00	4390.65	18.73	4.08	8030.27	0.17		
		137.10	14.35		127.51	6.81	0.000250	
	0.22377	70132.63						
1956.56	147.00	4390.58	18.66	4.06	7938.00	0.17		
		136.92	14.29		127.36	6.83	0.000248	
	0.22072	70046.30						
1952.17	148.00	4390.55	18.63	4.06	7927.85	0.17		
		136.84	14.27		127.29	6.83	0.000248	
	0.22042	70011.55						
1949.25	149.00	4390.53	18.61	4.07	7924.95	0.17		
		136.80	14.25		127.25	6.84	0.000257	
	0.22888	69988.75						
1946.79	150.00	4390.51	18.59	4.07	7922.84	0.17		
		136.76	14.24		127.22	6.84	0.000246	
	0.21896	69969.20						
1945.11	151.00	4390.50	18.58	4.07	7921.39	0.17		
		136.73	14.23		127.19	6.85	0.000254	
	0.22571	69955.94						
1939.96	152.00	4390.47	18.55	4.06	7874.89	0.17		
		136.64	14.20		127.12	6.85	0.000249	
	0.22078	69914.57						
1930.55	153.00	4390.40	18.48	4.04	7792.04	0.17		
		136.48	14.15		126.98	6.87	0.000243	
	0.21481	69839.38						
1924.05	154.00	4390.36	18.44	4.03	7753.82	0.17		
		136.37	14.11		126.89	6.88	0.000254	
	0.22379	69787.26						
1920.86	155.00	4390.34	18.42	4.03	7747.19	0.17		
		136.31	14.09		126.84	6.89	0.000250	
	0.21979	69761.57						
1914.14	156.00	4390.29	18.37	4.01	7678.89	0.17		
		136.20	14.05		126.74	6.90	0.000244	
	0.21414	69707.19						
1912.61	157.00	4390.28	18.36	4.04	7727.03	0.17		
		136.17	14.05		126.72	6.90	0.000253	

HYCHAN.OUT

1927.48	0.22184	69695.26	18.46	4.10	7895.81	0.17	0.000263
	158.00	4390.38	14.13	126.94	6.88		
	0.23166	69815.16					
1931.42	159.00	4390.41	18.49	4.10	7915.57	0.17	0.000252
		136.50	14.15	126.99	6.87		
	0.22219	69846.70					
1931.80	160.00	4390.41	18.49	4.10	7918.18	0.17	0.000261
		136.50	14.15	127.00	6.87		
	0.23057	69849.63					
1931.33	161.00	4390.41	18.49	4.10	7918.81	0.17	0.000254
		136.49	14.15	126.99	6.87		
	0.22396	69846.02					
1930.82	162.00	4390.40	18.48	4.10	7918.96	0.17	0.000259
		136.48	14.15	126.99	6.87		
	0.22854	69841.80					
1930.19	163.00	4390.40	18.48	4.10	7918.60	0.17	0.000256
		136.47	14.14	126.98	6.87		
	0.22579	69836.88					
1929.58	164.00	4390.40	18.48	4.10	7918.80	0.17	0.000258
		136.46	14.14	126.97	6.87		
	0.22784	69831.87					
1929.03	165.00	4390.39	18.47	4.10	7915.98	0.17	0.000254
		136.45	14.14	126.96	6.87		
	0.22398	69827.59					
1923.73	166.00	4390.36	18.44	4.08	7848.40	0.17	0.000264
		136.36	14.11	126.88	6.88		
	0.23220	69784.61					
1913.51	167.00	4390.29	18.37	4.05	7757.66	0.17	0.000250
		136.19	14.05	126.73	6.90		
	0.21924	69702.42					
1909.80	168.00	4390.26	18.34	4.06	7746.36	0.17	0.000251
		136.13	14.03	126.68	6.91		
	0.21952	69672.61					
1908.56	169.00	4390.25	18.33	4.06	7744.58	0.17	0.000258
		136.10	14.02	126.66	6.91		
	0.22551	69662.58					
1907.78	170.00	4390.25	18.33	4.06	7744.51	0.17	0.000254
		136.09	14.02	126.65	6.91		
	0.22212	69656.23					
1907.21	171.00	4390.24	18.32	4.06	7743.80	0.17	0.000256
		136.08	14.02	126.64	6.91		
	0.22378	69651.70					
1906.62	172.00	4390.24	18.32	4.06	7743.85	0.17	0.000262
		136.07	14.01	126.63	6.91		
	0.22896	69646.84					
1905.98	173.00	4390.24	18.32	4.06	7742.71	0.17	0.000255
		136.06	14.01	126.62	6.91		
	0.22250	69641.67					
1900.56	174.00	4390.20	18.28	4.04	7672.67	0.17	0.000248
		135.97	13.98	126.54	6.92		
	0.21599	69597.42					
1890.23	175.00	4390.13	18.21	4.01	7583.65	0.17	0.000248
		135.79	13.92	126.39	6.94		
	0.21525	69513.57					
1886.35	176.00	4390.10	18.18	4.01	7572.49	0.17	0.000255
		135.72	13.90	126.33	6.95		
	0.22075	69481.98					
1884.93	177.00	4390.09	18.17	4.02	7570.39	0.17	0.000256
		135.70	13.89	126.31	6.95		
	0.22176	69470.39					
1884.15	178.00	4390.09	18.17	4.02	7569.89	0.17	0.000262
		135.68	13.89	126.30	6.95		

HYCHAN.OUT									
	0.22675	69464.00							
1883.50	179.00	4390.08	18.16	13.88	4.02	7570.24	0.17	0.000255	
	0.22123	69458.71							
1882.84	180.00	4390.08	18.16	13.88	4.02	7572.57	0.17	0.000261	
	0.22605	69453.36							
1892.40	181.00	4390.14	18.22	13.93	4.07	7711.01	0.17	0.000270	
	0.23505	69531.47							
1911.64	182.00	4390.27	18.36	14.04	4.13	7891.17	0.17	0.000261	
	0.22874	69687.78							
1922.78	183.00	4390.35	18.43	14.10	4.15	7982.99	0.17	0.000266	
	0.23433	69777.56							
1933.91	184.00	4390.43	18.51	14.16	4.18	8076.26	0.17	0.000268	
	0.23669	69866.90							
1937.57	185.00	4390.45	18.53	14.18	4.17	8087.58	0.17	0.000269	
	0.23794	69896.11							
1938.80	186.00	4390.46	18.54	14.19	4.17	8089.94	0.17	0.000260	
	0.23049	69905.89							
1939.37	187.00	4390.46	18.54	14.19	4.17	8090.22	0.17	0.000269	
	0.23811	69910.48							
1939.78	188.00	4390.47	18.55	14.20	4.17	8090.74	0.17	0.000260	
	0.23030	69913.72							
1939.88	189.00	4390.47	18.55	14.20	4.17	8090.92	0.17	0.000264	
	0.23370	69914.53							
1940.00	190.00	4390.47	18.55	14.20	4.17	8090.83	0.17	0.000266	
	0.23566	69915.48							
1939.98	191.00	4390.47	18.55	14.20	4.17	8089.46	0.17	0.000258	
	0.22832	69915.29							
1935.17	192.00	4390.43	18.51	14.17	4.14	8020.45	0.17	0.000262	
	0.23167	69876.55							
1925.35	193.00	4390.37	18.45	14.12	4.12	7930.44	0.17	0.000257	
	0.22608	69797.91							
1921.92	194.00	4390.34	18.42	14.10	4.12	7920.70	0.17	0.000265	
	0.23268	69770.43							
1920.65	195.00	4390.34	18.42	14.09	4.12	7917.77	0.17	0.000259	
	0.22768	69760.24							
1920.14	196.00	4390.33	18.41	14.09	4.12	7918.20	0.17	0.000268	
	0.23551	69756.11							
1919.61	197.00	4390.33	18.41	14.08	4.12	7917.31	0.17	0.000258	
	0.22640	69751.85							
1919.34	198.00	4390.33	18.41	14.08	4.13	7917.45	0.17	0.000263	
	0.23087	69749.70							
1919.06	199.00	4390.33	18.41	14.08	4.13	7917.92	0.17	0.000261	
		136.28							

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## HYCHAN.OUT

0.22962 69747.42

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4751

MAXIMUM DISCHARGE (CFS) = 30605.29 AT TIME = 89.76

MAXIMUM STAGE = 4397.19 AT TIME = 91.33

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
SHEAR	STRESS	SURFACE	AREA						
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
	(LB/FT^2)	(FT)	(FT^2)		(FT)				
0.00	0.00	4371.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4371.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4371.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4371.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4372.30	0.60	9.48	0.38	154.59	0.09	0.001096	
401.91	0.64785	42.41	22076.58	12.82	4.10	4817.39	0.20	0.000332	
1175.88	5.00	4384.52	120.48	9.76	113.20	8.83	0.000269		
	0.20204	57733.55	14.57	11.52	3.63	5261.73	0.17	0.000240	
1449.08	6.00	4386.27	125.84	11.99	117.83	8.09	0.15	0.000223	
	0.19344	60094.89	15.07	12.13	3.45	5272.01	0.16	0.000228	
1526.64	7.00	4386.77	127.29	12.08	119.09	7.90	0.15	0.000223	
	0.17950	60734.64	15.21	12.00	3.34	5179.65	0.15	0.000210	
1548.97	8.00	4386.91	127.70	11.92	119.44	7.85	0.14	0.000206	
	0.17293	60912.82	15.16	11.86	3.28	5052.59	0.14	0.000212	
1541.46	9.00	4386.86	127.56	11.76	119.32	7.87	0.14	0.000203	
	0.16811	60851.66	15.07	11.63	3.21	4907.52	0.14	0.000207	
1527.26	10.00	4386.77	127.30	11.56	119.09	8.07	0.14		
	0.16699	60736.62	14.93	11.56	3.17	4798.97	0.14		
1514.07	11.00	4386.68	127.05	11.56	118.88	7.93	0.14		
	0.15289	60629.13	14.93	11.86	3.16	4750.60	0.14		
1505.47	12.00	4386.63	126.89	11.86	118.74	7.95	0.14		
	0.15568	60558.45	14.81	11.76	3.10	4620.09	0.14		
1488.01	13.00	4386.51	126.56	11.76	118.46	8.00	0.14		
	0.15520	60413.77	14.68	11.63	3.07	4501.24	0.14		
1467.20	14.00	4386.38	126.17	11.63	118.12	8.05	0.14		
	0.14726	60240.17	14.61	11.56	3.07	4476.76	0.14		
1456.22	15.00	4386.31	125.96	11.56	117.94	8.07	0.14		
	0.14902	60148.04							

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1451.92	16.00	4386.28	14.58	3.08	4472.54	0.14	0.000225
	0.16212	125.87	11.53		117.87	8.08	
		60111.75					
1449.88	17.00	4386.27	14.57	3.08	4470.69	0.14	0.000223
		125.84	11.52		117.83	8.09	
	0.16065	60094.48					
1448.90	18.00	4386.26	14.56	3.08	4468.00	0.14	0.000215
		125.82	11.52		117.82	8.09	
	0.15424	60086.25					
1450.83	19.00	4386.27	14.57	3.10	4493.44	0.14	0.000213
		125.85	11.53		117.85	8.09	
	0.15302	60102.75					
1465.84	20.00	4386.37	14.67	3.15	4622.78	0.15	0.000218
		126.14	11.62		118.10	8.05	
	0.15843	60229.57					
1488.23	21.00	4386.52	14.82	3.21	4774.23	0.15	0.000222
		126.57	11.76		118.46	8.00	
	0.16321	60416.70					
1510.04	22.00	4386.66	14.96	3.24	4893.57	0.15	0.000230
		126.98	11.89		118.82	7.94	
	0.17073	60596.91					
1520.73	23.00	4386.73	15.03	3.23	4916.69	0.15	0.000219
		127.18	11.96		118.99	7.92	
	0.16344	60684.13					
1528.21	24.00	4386.77	15.07	3.24	4954.75	0.15	0.000233
		127.32	12.00		119.11	7.90	
	0.17458	60745.07					
1549.30	25.00	4386.91	15.21	3.31	5133.15	0.15	0.000233
		127.70	12.13		119.44	7.85	
	0.17634	60915.43					
1587.16	26.00	4387.15	15.45	3.42	5424.66	0.15	0.000242
		128.39	12.36		120.03	7.77	
	0.18635	61216.97					
1629.44	27.00	4387.42	15.72	3.52	5731.80	0.16	0.000244
		129.14	12.62		120.68	7.68	
	0.19220	61546.96					
1665.57	28.00	4387.64	15.94	3.57	5942.11	0.16	0.000243
		129.77	12.83		121.22	7.60	
	0.19496	61824.02					
1680.54	29.00	4387.74	16.04	3.56	5974.77	0.16	0.000236
		130.03	12.92		121.44	7.57	
	0.19040	61936.88					
1691.10	30.00	4387.80	16.10	3.57	6032.84	0.16	0.000242
		130.21	12.99		121.60	7.55	
	0.19632	62016.25					
1706.28	31.00	4387.90	16.20	3.59	6132.81	0.16	0.000242
		130.47	13.08		121.82	7.52	
	0.19756	62129.62					
1713.17	32.00	4387.94	16.24	3.59	6146.93	0.16	0.000240
		130.59	13.12		121.92	7.51	
	0.19623	62180.69					
1721.52	33.00	4387.99	16.29	3.60	6205.33	0.16	0.000239
		130.73	13.17		122.04	7.49	
	0.19664	62242.57					
1735.71	34.00	4388.08	16.38	3.63	6307.70	0.16	0.000239
		130.97	13.25		122.25	7.46	
	0.19742	62347.12					
1741.69	35.00	4388.11	16.41	3.63	6320.74	0.16	0.000239
		131.07	13.29		122.34	7.45	
	0.19809	62390.89					
1742.23	36.00	4388.12	16.42	3.59	6259.63	0.16	0.000224
		131.07	13.29		122.34	7.45	
	0.18563	62394.70					



HYCHAN.OUT							
37.00	4388.08	16.38	3.55	6163.54	0.15		
1737.02	130.99	13.26		122.27	7.46	0.000225	
0.18658	62356.37						
38.00	4388.05	16.35	3.52	6097.91	0.15		
1731.93	130.90	13.23		122.19	7.47	0.000211	
0.17416	62318.86						
39.00	4387.98	16.28	3.49	6002.08	0.15		
1719.82	130.70	13.16		122.02	7.50	0.000232	
0.19051	62229.62						
40.00	4387.95	16.25	3.49	5989.97	0.15		
1714.45	130.61	13.13		121.94	7.51	0.000220	
0.17999	62190.02						
41.00	4387.93	16.23	3.50	5986.93	0.15		
1711.66	130.56	13.11		121.90	7.51	0.000220	
0.17981	62169.39						
42.00	4387.92	16.22	3.50	5986.95	0.15		
1710.10	130.53	13.10		121.88	7.51	0.000219	
0.17907	62157.75						
43.00	4387.91	16.21	3.50	5985.44	0.15		
1709.15	130.52	13.10		121.86	7.52	0.000218	
0.17840	62150.76						
44.00	4387.94	16.24	3.53	6039.65	0.15		
1713.23	130.59	13.12		121.92	7.51	0.000230	
0.18847	62181.17						
45.00	4388.00	16.30	3.56	6137.48	0.16		
1723.59	130.76	13.18		122.07	7.49	0.000221	
0.18150	62257.80						
46.00	4388.06	16.36	3.58	6204.99	0.16		
1733.31	130.93	13.24		122.21	7.47	0.000243	
0.20069	62329.47						
47.00	4388.18	16.48	3.63	6367.38	0.16		
1752.50	131.25	13.35		122.49	7.43	0.000246	
0.20509	62469.96						
48.00	4388.32	16.62	3.68	6539.29	0.16		
1775.15	131.62	13.49		122.81	7.39	0.000235	
0.19748	62634.19						
49.00	4388.47	16.77	3.73	6714.42	0.16		
1799.30	132.02	13.63		123.15	7.35	0.000239	
0.20319	62807.39						
50.00	4388.61	16.91	3.77	6879.53	0.16		
1823.64	132.41	13.77		123.49	7.30	0.000255	
0.21900	62980.00						
51.00	4388.77	17.07	3.82	7060.43	0.16		
1849.16	132.82	13.92		123.84	7.26	0.000234	
0.20330	63159.14						
52.00	4388.94	17.24	3.88	7292.75	0.16		
1878.99	133.29	14.10		124.25	7.20	0.000250	
0.22015	63365.81						
53.00	4389.13	17.43	3.93	7506.86	0.17		
1909.49	133.77	14.27		124.66	7.15	0.000245	
0.21830	63574.87						
54.00	4389.25	17.55	3.94	7603.27	0.17		
1929.91	134.08	14.39		124.93	7.12	0.000253	
0.22762	63713.00						
55.00	4389.46	17.76	4.03	7927.79	0.17		
1966.48	134.64	14.61		125.41	7.06	0.000254	
0.23175	63957.14						
56.00	4389.81	18.11	4.24	8588.75	0.18		
2026.12	135.54	14.95		126.17	6.97	0.000271	
0.25313	64347.82						
57.00	4390.36	18.66	4.48	9507.75	0.18		
2121.23	136.92	15.49		127.36	6.83	0.000286	
0.27656	64952.46						

HYCHAN.OUT							
2237.19	58.00	4391.01	19.31	4.74	10597.94	0.19	0.000297
	0.29915	138.54	16.15		128.75	6.67	
		65661.92					
2345.38	59.00	4391.62	19.92	4.94	11581.01	0.20	0.000302
		140.01	16.75		130.00	6.53	
	0.31526	66299.38					
2421.84	60.00	4392.04	20.34	5.07	12276.03	0.20	0.000304
		141.01	17.18		130.85	6.43	
	0.32602	66735.42					
2472.07	61.00	4392.31	20.61	5.15	12733.07	0.20	0.000302
		141.65	17.45		131.40	6.38	
	0.32907	67015.60					
2502.51	62.00	4392.48	20.78	5.19	12976.83	0.20	0.000300
		142.05	17.62		131.74	6.34	
	0.33029	67188.16					
2515.44	63.00	4392.56	20.86	5.20	13075.74	0.20	0.000301
		142.23	17.69		131.90	6.32	
	0.33168	67270.07					
2526.53	64.00	4392.64	20.94	5.21	13161.02	0.20	0.000299
		142.39	17.74		132.05	6.31	
	0.33076	67344.23					
2536.21	65.00	4392.70	21.00	5.19	13168.07	0.20	0.000297
		142.53	17.79		132.18	6.29	
	0.32977	67412.23					
2546.40	66.00	4392.77	21.07	5.17	13177.00	0.20	0.000296
		142.67	17.85		132.32	6.28	
	0.32970	67483.77					
2554.58	67.00	4392.83	21.13	5.16	13170.15	0.20	0.000291
		142.78	17.89		132.43	6.27	
	0.32531	67541.83					
2561.93	68.00	4392.88	21.18	5.12	13127.63	0.20	0.000286
		142.89	17.93		132.54	6.26	
	0.31994	67593.86					
2574.95	69.00	4392.98	21.28	5.05	13011.96	0.19	0.000282
		143.07	18.00		132.72	6.24	
	0.31644	67685.92					
2594.57	70.00	4393.12	21.42	4.93	12791.19	0.19	0.000250
		143.35	18.10		132.99	6.21	
	0.28211	67826.17					
2623.48	71.00	4393.31	21.61	4.79	12553.38	0.18	0.000249
		143.75	18.25		133.38	6.17	
	0.28352	68022.20					
2655.23	72.00	4393.53	21.83	4.72	12529.50	0.18	0.000257
		144.18	18.42		133.79	6.13	
	0.29587	68233.73					
2703.76	73.00	4393.86	22.16	4.97	13437.96	0.19	0.000283
		144.85	18.67		134.43	6.07	
	0.32969	68560.30					
2734.19	74.00	4394.07	22.37	5.10	13947.93	0.19	0.000298
		145.27	18.82		134.83	6.03	
	0.34950	68763.03					
2762.83	75.00	4394.27	22.57	5.23	14453.85	0.19	0.000340
		145.66	18.97		135.20	5.99	
	0.40222	68953.70					
2797.14	76.00	4394.51	22.81	5.35	14966.18	0.20	0.000369
		146.14	19.14		135.65	5.95	
	0.44059	69179.73					
2825.14	77.00	4394.70	23.00	5.50	15535.96	0.20	0.000370
		146.53	19.28		136.01	5.91	
	0.44478	69365.09					
2847.51	78.00	4394.86	23.16	5.60	15957.36	0.21	0.000466
		146.84	19.39		136.30	5.89	
	0.56419	69511.43					

HYCHAN.OUT							
2903.03	79.00	4395.25	23.55	6.06	17604.01	0.22	0.000494
	0.60664	147.61	19.67	137.01	5.82		
	80.00	69875.22	23.82	6.38	18763.10	0.23	
2942.87		4395.52	19.86	137.52	5.77	0.000566	
	0.70166	148.17					
	81.00	70133.34	24.15	6.86	20503.24	0.25	
2988.05		4395.85	20.08	138.10	5.72	0.000638	
	0.79900	148.82					
	82.00	70432.70	24.44	7.41	22423.89	0.26	
3026.61		4396.14	20.26	138.62	5.67	0.000728	
	0.92082	149.39					
	83.00	70694.71	24.67	7.91	24172.70	0.28	
3057.57		4396.37	20.40	139.04	5.64	0.000882	
	1.12319	149.87					
	84.00	70908.11	24.86	8.28	25527.72	0.29	
3082.74		4396.56	20.52	139.37	5.61	0.000937	
	1.20026	150.24					
	85.00	71077.71	25.00	8.57	26587.19	0.30	
3102.24		4396.71	20.61	139.62	5.58	0.000952	
	1.22370	150.53					
	86.00	71207.17	25.12	8.89	27718.17	0.31	
3117.57		4396.82	20.68	139.82	5.57	0.001127	
	1.45413	150.76					
	87.00	71308.31	25.21	9.11	28494.74	0.32	
3129.55		4396.91	20.73	139.98	5.55	0.001214	
	1.57017	150.94					
	88.00	71388.07	25.28	9.26	29073.54	0.32	
3139.01		4396.98	20.78	140.10	5.54	0.001131	
	1.46681	151.08					
	89.00	71451.97	25.36	9.31	29306.61	0.33	
3149.12		4397.06	20.82	140.25	5.53	0.001098	
	1.42633	151.25					
	90.00	71525.02	25.41	9.34	29463.48	0.33	
3154.39		4397.11	20.84	140.33	5.52	0.001143	
	1.48680	151.34					
	91.00	71567.71	25.41	9.35	29485.91	0.33	
3153.67		4397.11	20.84	140.33	5.52	0.000986	
	1.28150	151.34					
	92.00	71568.04	25.42	9.34	29484.00	0.33	
3156.47		4397.12	20.85	140.35	5.52	0.001227	
	1.59722	151.37					
	93.00	71579.07	25.40	9.34	29448.86	0.33	
3154.21		4397.10	20.84	140.31	5.52	0.001142	
	1.48490	151.32					
	94.00	71557.09	25.33	9.25	29094.46	0.32	
3145.09		4397.03	20.80	140.19	5.53	0.001034	
	1.34261	151.19					
	95.00	71498.36	25.28	9.15	28707.49	0.32	
3138.16		4396.98	20.77	140.11	5.54	0.001087	
	1.40903	151.09					
	96.00	71454.22	25.20	9.06	28313.79	0.32	
3126.59		4396.90	20.72	139.96	5.55	0.001084	
	1.40184	150.92					
	97.00	71380.77	25.12	8.87	27623.01	0.31	
3115.60		4396.82	20.67	139.82	5.57	0.001020	
	1.31551	150.75					
	98.00	71306.43	25.04	8.60	26695.17	0.30	
3104.99		4396.74	20.62	139.68	5.58	0.000950	
	1.22257	150.60					
	99.00	71236.22	24.92	8.26	25513.62	0.29	
3089.31		4396.62	20.55	139.47	5.60	0.000720	
	0.92358	150.36					
		71131.23					

HYCHAN.OUT							
3069.50	100.00	4396.47	24.77	7.94	24385.03	0.28	0.000932
	1.18934	150.07	20.45		139.22	5.62	
		71000.20					
3051.85	101.00	4396.34	24.64	7.61	23228.73	0.27	0.000739
	0.93974	149.80	20.37		138.98	5.64	
		70879.51					
3031.96	102.00	4396.19	24.49	7.22	21882.24	0.26	0.000639
	0.80859	149.50	20.28		138.71	5.66	
		70741.50					
2999.81	103.00	4395.94	24.24	6.71	20136.76	0.24	0.000453
	0.56930	149.00	20.13		138.27	5.70	
		70516.94					
2943.81	104.00	4395.52	23.82	5.98	17615.57	0.22	0.000385
	0.47784	148.16	19.87		137.51	5.77	
		70131.48					
2854.36	105.00	4394.89	23.19	5.22	14913.56	0.19	0.000255
	0.30863	146.90	19.43		136.36	5.88	
		69542.06					
2772.99	106.00	4394.32	22.62	4.65	12884.05	0.17	0.000261
	0.31024	145.77	19.02		135.30	5.98	
		69004.54					
2742.19	107.00	4394.11	22.41	4.44	12170.48	0.17	0.000228
	0.26883	145.34	18.87		134.90	6.02	
		68800.70					
2708.52	108.00	4393.88	22.18	4.25	11510.20	0.16	0.000183
	0.21374	144.88	18.70		134.46	6.06	
		68574.80					
2654.70	109.00	4393.50	21.80	3.89	10320.59	0.15	0.000138
	0.15868	144.12	18.42		133.73	6.14	
		68203.41					
2589.32	110.00	4393.04	21.34	3.37	8722.72	0.13	0.000124
	0.13986	143.19	18.08		132.84	6.23	
		67746.30					
2539.70	111.00	4392.70	21.00	3.26	8268.70	0.13	0.000124
	0.13738	142.52	17.82		132.17	6.29	
		67408.91					
2502.44	112.00	4392.47	20.77	3.33	8328.51	0.13	0.000133
	0.14661	142.02	17.62		131.72	6.34	
		67175.91					
2470.85	113.00	4392.30	20.60	3.38	8348.20	0.13	0.000133
	0.14449	141.61	17.45		131.37	6.38	
		67000.16					
2431.34	114.00	4392.08	20.38	3.36	8177.37	0.13	0.000129
	0.13912	141.11	17.23		130.95	6.42	
		66782.06					
2391.43	115.00	4391.87	20.17	3.44	8230.57	0.14	0.000159
	0.16905	140.60	17.01		130.51	6.47	
		66558.50					
2380.93	116.00	4391.81	20.11	3.59	8543.02	0.14	0.000164
	0.17380	140.46	16.95		130.39	6.48	
		66498.88					
2374.02	117.00	4391.77	20.07	3.65	8658.53	0.14	0.000161
	0.17005	140.37	16.91		130.31	6.49	
		66459.29					
2350.62	118.00	4391.64	19.94	3.65	8580.34	0.14	0.000163
	0.17116	140.07	16.78		130.05	6.52	
		66325.30					
2332.85	119.00	4391.55	19.85	3.67	8562.85	0.15	0.000183
	0.19084	139.83	16.68		129.85	6.54	
		66223.16					
2324.83	120.00	4391.50	19.80	3.71	8635.38	0.15	0.000181
	0.18797	139.73	16.64		129.76	6.55	
		66177.26					

HYCHAN.OUT							
2324.14	121.00	4391.50	19.80	3.75	8724.89	0.15	0.000170
	0.17653	139.72	16.63		129.75	6.55	
		66173.60					
2318.39	122.00	4391.47	19.77	3.76	8728.63	0.15	0.000173
	0.17936	139.64	16.60		129.69	6.56	
		66140.22					
2302.98	123.00	4391.38	19.68	3.75	8644.73	0.15	0.000185
	0.19059	139.43	16.52		129.51	6.58	
		66050.15					
2284.86	124.00	4391.28	19.58	3.74	8536.59	0.15	0.000166
	0.17048	139.19	16.42		129.30	6.60	
		65943.91					
2270.12	125.00	4391.20	19.50	3.72	8441.52	0.15	0.000174
	0.17725	138.99	16.33		129.13	6.62	
		65856.53					
2252.60	126.00	4391.10	19.40	3.70	8333.85	0.15	0.000181
	0.18337	138.75	16.23		128.93	6.65	
		65752.95					
2243.87	127.00	4391.05	19.35	3.71	8316.52	0.15	0.000174
	0.17605	138.63	16.19		128.83	6.66	
		65700.99					
2232.28	128.00	4390.99	19.29	3.69	8239.84	0.15	0.000181
	0.18199	138.47	16.12		128.69	6.67	
		65631.52					
2216.40	129.00	4390.90	19.20	3.68	8145.67	0.15	0.000188
	0.18797	138.26	16.03		128.50	6.69	
		65536.26					
2208.29	130.00	4390.85	19.15	3.68	8130.54	0.15	0.000178
	0.17782	138.14	15.99		128.41	6.70	
		65487.45					
2196.82	131.00	4390.79	19.09	3.67	8059.48	0.15	0.000173
	0.17169	137.99	15.92		128.27	6.72	
		65417.68					
2180.98	132.00	4390.70	19.00	3.65	7966.91	0.15	0.000180
	0.17785	137.76	15.83		128.08	6.74	
		65321.52					
2184.63	133.00	4390.72	19.02	3.70	8093.88	0.15	0.000188
	0.18622	137.82	15.85		128.13	6.74	
		65344.11					
2200.85	134.00	4390.81	19.11	3.76	8274.86	0.15	0.000184
	0.18349	138.04	15.94		128.32	6.71	
		65443.03					
2202.26	135.00	4390.82	19.12	3.77	8296.43	0.15	0.000183
	0.18213	138.06	15.95		128.34	6.71	
		65451.56					
2199.52	136.00	4390.80	19.10	3.77	8297.29	0.15	0.000189
	0.18748	138.02	15.94		128.30	6.72	
		65435.03					
2196.38	137.00	4390.79	19.09	3.78	8296.88	0.15	0.000192
	0.19106	137.98	15.92		128.27	6.72	
		65416.01					
2193.27	138.00	4390.77	19.07	3.78	8295.70	0.15	0.000200
	0.19864	137.94	15.90		128.23	6.72	
		65397.18					
2190.54	139.00	4390.75	19.05	3.79	8294.41	0.15	0.000199
	0.19735	137.90	15.88		128.20	6.73	
		65380.68					
2187.71	140.00	4390.74	19.04	3.79	8292.58	0.15	0.000202
	0.19959	137.86	15.87		128.16	6.73	
		65363.50					
2179.25	141.00	4390.69	18.99	3.77	8220.52	0.15	0.000198
	0.19534	137.74	15.82		128.06	6.74	
		65311.57					

HYCHAN.OUT							
2166.15	142.00	4390.61	18.91	3.75	8127.29	0.15	0.000188
	0.18500	137.56	15.75		127.90	6.76	
2161.16	143.00	4390.59	18.89	3.75	8115.04	0.15	0.000183
	0.17936	137.49	15.72		127.84	6.77	
2158.07	144.00	4390.57	18.87	3.76	8112.09	0.15	0.000202
	0.19759	137.45	15.70		127.81	6.77	
2155.35	145.00	4390.55	18.85	3.76	8109.57	0.15	0.000193
	0.18933	137.41	15.69		127.77	6.78	
2147.45	146.00	4390.51	18.81	3.74	8041.10	0.15	0.000184
	0.17941	137.29	15.64		127.68	6.79	
2134.41	147.00	4390.43	18.73	3.72	7947.89	0.15	0.000198
	0.19199	137.11	15.57		127.52	6.81	
2129.06	148.00	4390.40	18.70	3.73	7937.07	0.15	0.000189
	0.18285	137.03	15.54		127.46	6.81	
2125.66	149.00	4390.38	18.68	3.73	7934.55	0.15	0.000197
	0.19109	136.98	15.52		127.41	6.82	
2122.68	150.00	4390.37	18.67	3.74	7931.67	0.15	0.000186
	0.17988	136.94	15.50		127.38	6.82	
2120.71	151.00	4390.36	18.66	3.74	7930.76	0.15	0.000199
	0.19257	136.91	15.49		127.35	6.83	
2114.68	152.00	4390.32	18.62	3.73	7884.91	0.15	0.000185
	0.17857	136.83	15.46		127.28	6.84	
2103.70	153.00	4390.26	18.56	3.71	7802.03	0.15	0.000200
	0.19184	136.67	15.39		127.14	6.85	
2095.83	154.00	4390.21	18.51	3.70	7763.55	0.15	0.000201
	0.19216	136.56	15.35		127.05	6.86	
2091.98	155.00	4390.19	18.49	3.71	7756.36	0.15	0.000187
	0.17841	136.50	15.33		127.00	6.87	
2084.11	156.00	4390.15	18.45	3.69	7689.14	0.15	0.000187
	0.17820	136.39	15.28		126.90	6.88	
2081.97	157.00	4390.13	18.43	3.71	7734.02	0.15	0.000204
	0.19408	136.36	15.27		126.87	6.88	
2099.15	158.00	4390.23	18.53	3.77	7903.60	0.15	0.000196
	0.18833	136.60	15.37		127.09	6.86	
2103.92	159.00	4390.26	18.56	3.77	7923.72	0.15	0.000201
	0.19302	136.67	15.39		127.15	6.85	
2104.33	160.00	4390.26	18.56	3.77	7926.71	0.15	0.000191
	0.18345	136.68	15.40		127.15	6.85	
2103.80	161.00	4390.26	18.56	3.77	7926.59	0.15	0.000204
	0.19603	136.67	15.39		127.15	6.85	
2103.13	162.00	4390.26	18.56	3.77	7926.78	0.15	0.000191
	0.18304	136.66	15.39		127.14	6.85	
		64839.89					

HYCHAN.OUT							
2102.40	163.00	4390.25	18.55	3.77	7925.92	0.15	0.000206
	0.19744	136.65	15.39		127.13	6.85	
		64835.35					
2101.62	164.00	4390.25	18.55	3.77	7925.98	0.15	0.000190
	0.18245	136.64	15.38		127.12	6.85	
		64830.41					
2101.00	165.00	4390.24	18.54	3.77	7922.78	0.15	0.000204
	0.19583	136.63	15.38		127.11	6.85	
		64826.59					
2094.93	166.00	4390.21	18.51	3.75	7856.79	0.15	0.000197
	0.18891	136.54	15.34		127.04	6.86	
		64787.97					
2082.96	167.00	4390.14	18.44	3.73	7764.55	0.15	0.000191
	0.18196	136.37	15.27		126.89	6.88	
		64712.51					
2078.46	168.00	4390.11	18.41	3.73	7752.70	0.15	0.000205
	0.19538	136.31	15.25		126.83	6.89	
		64684.05					
2076.98	169.00	4390.10	18.40	3.73	7750.60	0.15	0.000195
	0.18508	136.28	15.24		126.81	6.89	
		64674.69					
2076.02	170.00	4390.10	18.40	3.73	7750.18	0.15	0.000190
	0.18072	136.27	15.23		126.80	6.89	
		64668.63					
2075.29	171.00	4390.10	18.40	3.73	7749.36	0.15	0.000205
	0.19515	136.26	15.23		126.79	6.89	
		64664.00					
2074.60	172.00	4390.09	18.39	3.74	7749.22	0.15	0.000199
	0.18937	136.25	15.23		126.78	6.89	
		64659.61					
2073.81	173.00	4390.09	18.39	3.74	7747.66	0.15	0.000189
	0.17946	136.24	15.22		126.77	6.89	
		64654.68					
2067.68	174.00	4390.05	18.35	3.71	7679.02	0.15	0.000192
	0.18203	136.15	15.19		126.70	6.90	
		64615.32					
2055.46	175.00	4389.98	18.28	3.69	7588.70	0.15	0.000196
	0.18530	135.97	15.12		126.54	6.92	
		64537.38					
2050.83	176.00	4389.95	18.25	3.69	7575.42	0.15	0.000204
	0.19184	135.90	15.09		126.49	6.93	
		64507.99					
2049.10	177.00	4389.94	18.24	3.70	7572.81	0.15	0.000205
	0.19274	135.88	15.08		126.46	6.93	
		64496.94					
2048.09	178.00	4389.94	18.24	3.70	7572.38	0.15	0.000199
	0.18723	135.86	15.07		126.45	6.93	
		64490.47					
2047.30	179.00	4389.93	18.23	3.70	7572.28	0.15	0.000192
	0.18063	135.85	15.07		126.44	6.93	
		64485.45					
2046.55	180.00	4389.93	18.23	3.70	7574.68	0.15	0.000195
	0.18357	135.84	15.07		126.43	6.94	
		64480.61					
2057.22	181.00	4389.99	18.29	3.75	7710.16	0.15	0.000201
	0.18961	136.00	15.13		126.57	6.92	
		64549.24					
2079.76	182.00	4390.12	18.42	3.79	7891.03	0.16	0.000200
	0.18996	136.33	15.26		126.85	6.89	
		64693.20					
2092.79	183.00	4390.20	18.50	3.81	7983.04	0.16	0.000212
	0.20285	136.51	15.33		127.01	6.87	
		64775.65					



HYCHAN.OUT							
2105.88	184.00	4390.27	18.57	3.84	8077.14	0.16	0.000198
	0.19038	136.70	15.40		127.17	6.85	
2110.32	185.00	4390.30	18.60	3.83	8089.17	0.16	0.000211
	0.20332	136.77	15.43		127.23	6.84	
2111.81	186.00	4390.31	18.61	3.83	8091.24	0.16	0.000200
	0.19272	136.79	15.44		127.25	6.84	
2112.51	187.00	4390.31	18.61	3.83	8092.07	0.16	0.000206
	0.19837	136.80	15.44		127.25	6.84	
2113.01	188.00	4390.31	18.61	3.83	8092.11	0.16	0.000207
	0.19951	136.81	15.45		127.26	6.84	
2113.12	189.00	4390.31	18.61	3.83	8092.56	0.16	0.000196
	0.18844	136.81	15.45		127.26	6.84	
2113.28	190.00	4390.31	18.61	3.83	8092.39	0.16	0.000209
	0.20119	136.81	15.45		127.26	6.84	
2113.26	191.00	4390.31	18.61	3.83	8090.83	0.16	0.000200
	0.19277	136.81	15.45		127.26	6.84	
2107.83	192.00	4390.28	18.58	3.81	8023.53	0.16	0.000201
	0.19328	136.73	15.42		127.20	6.84	
2096.34	193.00	4390.22	18.52	3.78	7932.60	0.16	0.000198
	0.18927	136.57	15.35		127.05	6.86	
2092.19	194.00	4390.19	18.49	3.79	7922.51	0.16	0.000199
	0.19029	136.51	15.33		127.00	6.87	
2090.65	195.00	4390.18	18.48	3.79	7918.99	0.16	0.000198
	0.18949	136.48	15.32		126.98	6.87	
2090.02	196.00	4390.18	18.48	3.79	7919.87	0.16	0.000205
	0.19632	136.47	15.31		126.98	6.87	
2089.38	197.00	4390.18	18.48	3.79	7918.30	0.16	0.000199
	0.19031	136.47	15.31		126.97	6.87	
2089.04	198.00	4390.18	18.47	3.79	7918.80	0.16	0.000208
	0.19909	136.46	15.31		126.96	6.87	
2088.69	199.00	4390.17	18.47	3.79	7919.07	0.16	0.000195
	0.18635	136.46	15.31		126.96	6.87	
		64749.62					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4795

MAXIMUM DISCHARGE (CFS) =	25803.96	AT TIME =	91.13
MAXIMUM STAGE =	4396.92	AT TIME =	91.00

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)		
(LB/FT^2)	(FT^2)					
0.00	4371.47	0.00	0.00	0.00	0.00	0.00

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HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4371.47	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4371.47	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4371.47	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
282.13	4.00	4371.87	0.40	0.27	76.07	0.08	0.001484
	1.23156	21.21	13.30	21.78	54.52		
1157.00	5.00	4384.17	12.70	4.06	4701.98	0.20	0.000320
	0.17125	134.96	8.57	122.38	9.64		
1483.39	6.00	4386.08	14.61	3.53	5243.12	0.16	0.000252
	0.16031	145.48	10.20	131.25	8.98		
1574.26	7.00	4386.61	15.14	3.34	5264.24	0.15	0.000221
	0.14652	148.29	10.62	133.61	8.83		
1601.19	8.00	4386.76	15.29	3.23	5179.11	0.15	0.000210
	0.14069	149.10	10.74	134.29	8.78		
1593.67	9.00	4386.72	15.25	3.17	5054.70	0.14	0.000206
	0.13769	148.87	10.71	134.10	8.79		
1578.60	10.00	4386.63	15.16	3.11	4909.69	0.14	0.000200
	0.13243	148.41	10.64	133.71	8.82		
1564.32	11.00	4386.55	15.08	3.07	4800.02	0.14	0.000199
	0.13146	147.98	10.57	133.35	8.84		
1554.86	12.00	4386.49	15.02	3.06	4752.58	0.14	0.000183
	0.12051	147.68	10.53	133.10	8.86		
1535.80	13.00	4386.38	14.91	3.01	4623.64	0.14	0.000205
	0.13380	147.09	10.44	132.60	8.89		
1512.63	14.00	4386.25	14.78	2.98	4503.41	0.14	0.000205
	0.13225	146.37	10.33	132.00	8.93		
1500.12	15.00	4386.17	14.70	2.99	4477.95	0.14	0.000210
	0.13495	145.98	10.28	131.67	8.96		
1495.13	16.00	4386.14	14.67	2.99	4473.45	0.14	0.000201
	0.12867	145.82	10.25	131.53	8.97		
1492.75	17.00	4386.13	14.66	3.00	4470.78	0.14	0.000188
	0.11992	145.75	10.24	131.47	8.97		
1491.65	18.00	4386.12	14.65	3.00	4467.78	0.14	0.000192
	0.12275	145.71	10.24	131.44	8.97		
1493.54	19.00	4386.13	14.66	3.01	4492.21	0.14	0.000208
	0.13272	145.77	10.25	131.49	8.97		
1509.77	20.00	4386.23	14.76	3.06	4619.72	0.14	0.000212
	0.13663	146.28	10.32	131.92	8.94		
	21.00	4386.38	14.91	3.11	4770.69	0.14	

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				HYCHAN.OUT			
1534.49		147.06		10.43	132.57	8.89	0.000202
	0.13175	66286.55					
22.00		4386.52	15.05	3.14	4891.22	0.14	
1558.72		147.81		10.55	133.20	8.85	0.000203
	0.13367	66601.62					
23.00		4386.59	15.12	3.13	4915.53	0.14	
1570.92		148.18		10.60	133.52	8.83	0.000213
	0.14109	66758.65					
24.00		4386.64	15.17	3.14	4953.10	0.14	
1579.17		148.43		10.64	133.73	8.82	0.000200
	0.13295	66864.48					
25.00		4386.77	15.30	3.20	5128.30	0.14	
1601.93		149.12		10.74	134.31	8.78	0.000205
	0.13773	67154.52					
26.00		4387.01	15.54	3.30	5418.49	0.15	
1643.26		150.36		10.93	135.35	8.71	0.000222
	0.15148	67673.91					
27.00		4387.27	15.80	3.39	5725.10	0.15	
1689.75		151.73		11.14	136.50	8.64	0.000226
	0.15686	68247.90					
28.00		4387.50	16.03	3.43	5938.22	0.15	
1730.16		152.90		11.32	137.48	8.58	0.000218
	0.15415	68738.47					
29.00		4387.60	16.13	3.42	5973.28	0.15	
1747.35		153.39		11.39	137.89	8.55	0.000215
	0.15291	68943.88					
30.00		4387.66	16.19	3.43	6030.58	0.15	
1759.18		153.72		11.44	138.17	8.53	0.000214
	0.15314	69084.75					
31.00		4387.76	16.29	3.45	6131.12	0.15	
1776.11		154.20		11.52	138.57	8.51	0.000213
	0.15333	69285.34					
32.00		4387.80	16.33	3.45	6146.16	0.15	
1784.05		154.42		11.55	138.76	8.50	0.000213
	0.15342	69378.63					
33.00		4387.85	16.38	3.46	6203.10	0.15	
1793.28		154.68		11.59	138.97	8.48	0.000215
	0.15563	69487.30					
34.00		4387.94	16.47	3.49	6306.11	0.15	
1809.08		155.12		11.66	139.34	8.46	0.000213
	0.15531	69671.93					
35.00		4387.98	16.51	3.48	6320.21	0.15	
1815.98		155.32		11.69	139.50	8.45	0.000208
	0.15190	69752.09					
36.00		4387.98	16.51	3.44	6259.92	0.15	
1817.17		155.35		11.70	139.53	8.45	0.000217
	0.15852	69765.62					
37.00		4387.95	16.48	3.40	6164.05	0.15	
1811.81		155.20		11.67	139.41	8.46	0.000177
	0.12875	69703.32					
38.00		4387.92	16.45	3.38	6099.48	0.15	
1806.43		155.05		11.65	139.28	8.46	0.000206
	0.14995	69640.23					
39.00		4387.85	16.38	3.35	6003.89	0.15	
1793.01		154.67		11.59	138.97	8.48	0.000191
	0.13841	69483.34					
40.00		4387.82	16.35	3.35	5990.16	0.15	
1786.85		154.50		11.57	138.82	8.49	0.000181
	0.13041	69411.46					
41.00		4387.80	16.33	3.36	5987.20	0.15	
1783.63		154.41		11.55	138.75	8.50	0.000195
	0.14028	69373.58					
42.00		4387.79	16.32	3.36	5987.16	0.15	

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				HYCHAN.OUT			
1781.81	0.13748	154.36	69352.09	11.54	138.70	8.50	0.000191
43.00	4387.78	16.31	3.36	5985.43	0.15		
1780.73	0.14973	154.33	69339.43	11.54	138.68	8.50	0.000208
44.00	4387.81	16.34	3.38	6038.64	0.15		
1784.99	0.15863	154.45	69389.67	11.56	138.78	8.50	0.000220
45.00	4387.87	16.40	3.42	6135.74	0.15		
1796.30	0.14352	154.77	69522.79	11.61	139.05	8.48	0.000198
46.00	4387.93	16.46	3.43	6203.31	0.15		
1807.07	0.13938	155.07	69648.42	11.65	139.30	8.46	0.000192
47.00	4388.05	16.58	3.48	6364.18	0.15		
1828.25	0.15532	155.66	69894.59	11.75	139.79	8.43	0.000212
48.00	4388.18	16.71	3.53	6535.07	0.15		
1853.41	0.15956	156.35	70184.52	11.85	140.37	8.40	0.000216
49.00	4388.33	16.86	3.57	6710.81	0.15		
1880.32	0.16211	157.08	70491.09	11.97	140.98	8.36	0.000217
50.00	4388.48	17.01	3.60	6876.05	0.15		
1907.59	0.15261	157.82	70798.93	12.09	141.60	8.33	0.000202
51.00	4388.63	17.16	3.64	7055.79	0.16		
1936.21	0.15975	158.58	71118.95	12.21	142.24	8.29	0.000210
52.00	4388.81	17.34	3.70	7287.64	0.16		
1969.52	0.15374	159.46	71486.49	12.35	142.97	8.25	0.000199
53.00	4388.99	17.52	3.74	7503.34	0.16		
2003.93	0.14722	160.36	71862.84	12.50	143.73	8.20	0.000189
54.00	4389.12	17.65	3.75	7599.93	0.16		
2027.22	0.15089	160.96	72114.22	12.59	144.23	8.17	0.000192
55.00	4389.33	17.86	3.83	7919.65	0.16		
2068.00	0.15824	162.00	72549.11	12.77	145.10	8.12	0.000199
56.00	4389.67	18.20	4.02	8577.21	0.17		
2133.95	0.17641	163.66	73240.23	13.04	146.48	8.05	0.000217
57.00	4390.22	18.75	4.24	9490.78	0.17		
2240.84	0.18586	166.27	74330.01	13.48	148.66	7.93	0.000221
58.00	4390.88	19.41	4.46	10578.87	0.18		
2372.30	0.19234	169.37	75623.26	14.01	151.25	7.79	0.000220
59.00	4391.49	20.02	4.63	11566.16	0.18		
2496.06	0.19590	172.20	76798.88	14.50	153.60	7.67	0.000217
60.00	4391.91	20.44	4.75	12266.57	0.19		
2583.86	0.19722	174.15	77608.70	14.84	155.22	7.59	0.000213
61.00	4392.19	20.72	4.83	12726.59	0.19		
2636.92	0.19742	175.41	78132.30	15.03	156.26	7.54	0.000210
62.00	4392.37	20.89	4.87	12969.01	0.19		
2665.03	0.20019	175.82	78457.09	15.16	156.91	7.51	0.000212
63.00	4392.45	20.98	4.88	13058.92	0.19		

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				HYCHAN.OUT			
2677.79	0.20229	175.99	15.22	157.22	7.49	0.000213	
64.00	4392.52	78612.02	21.05	4.88	13128.75	0.19	
2689.32	0.20256	176.14	15.27	157.51	7.48	0.000213	
65.00	4392.59	78753.42	21.12	4.86	13122.42	0.19	
2700.09	0.20242	176.28	15.32	157.77	7.47	0.000212	
66.00	4392.67	78884.80	21.20	4.84	13110.01	0.19	
2711.37	0.20167	176.43	15.37	158.05	7.46	0.000210	
67.00	4392.73	79023.73	21.26	4.81	13072.72	0.18	
2720.52	0.19835	176.55	15.41	158.28	7.44	0.000206	
68.00	4392.79	79138.89	21.32	4.77	13017.29	0.18	
2728.92	0.19425	176.66	15.45	158.48	7.44	0.000202	
69.00	4392.88	79241.52	21.41	4.69	12880.98	0.18	
2743.82	0.19480	176.86	15.51	158.85	7.42	0.000201	
70.00	4393.03	79422.80	21.56	4.57	12655.70	0.17	
2766.57	0.15286	177.15	15.62	159.39	7.39	0.000157	
71.00	4393.23	79694.28	21.76	4.47	12508.54	0.17	
2798.89	0.14784	177.55	15.76	160.11	7.36	0.000150	
72.00	4393.44	80056.52	21.97	4.42	12518.40	0.17	
2833.45	0.18070	177.98	15.92	160.91	7.32	0.000182	
73.00	4393.77	80453.66	22.30	4.65	13400.79	0.17	
2884.37	0.17767	178.64	16.15	162.11	7.27	0.000176	
74.00	4393.98	81053.32	22.51	4.76	13873.09	0.18	
2916.64	0.18724	179.06	16.29	162.87	7.23	0.000184	
75.00	4394.18	81434.95	22.71	4.86	14336.65	0.18	
2946.97	0.19273	179.46	16.42	163.59	7.20	0.000188	
76.00	4394.42	81794.16	22.95	4.96	14797.66	0.18	
2983.44	0.21720	179.94	16.58	164.44	7.16	0.000210	
77.00	4394.62	82222.23	23.15	5.08	15304.75	0.19	
3013.13	0.22240	180.33	16.71	165.15	7.13	0.000213	
78.00	4394.78	82574.30	23.31	5.16	15673.78	0.19	
3036.83	0.24536	180.64	16.81	165.70	7.11	0.000234	
79.00	4395.17	82851.30	23.70	5.53	17108.23	0.20	
3094.57	0.29454	181.43	17.06	167.09	7.05	0.000277	
80.00	4395.47	83544.98	24.00	5.73	17975.79	0.21	
3136.23	0.34858	182.03	17.23	168.13	7.01	0.000324	
81.00	4395.83	84067.02	24.36	6.02	19161.06	0.22	
3183.42	0.36523	182.75	17.42	169.39	6.95	0.000336	
82.00	4396.15	84693.58	24.68	6.34	20448.84	0.23	
3223.36	0.44858	183.39	17.58	170.51	6.91	0.000409	
83.00	4396.44	85253.00	24.97	6.56	21410.41	0.23	
3263.95	0.58209	183.98	17.74	171.51	6.87	0.000526	
84.00	4396.68	85755.05	25.21	6.69	22097.54	0.23	

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				HYCHAN.OUT			
3303.34		184.45		17.91	172.32	6.84	0.000578
	0.64559	86162.19					
85.00	4396.85	25.38	6.83	22717.20	0.24		
3326.60		184.80	18.00	172.92	6.81	0.000592	
	0.66515	86459.89					
86.00	4396.99	25.52	7.03	23491.68	0.25		
3342.97		185.07	18.06	173.38	6.79	0.000618	
	0.69666	86687.62					
87.00	4397.09	25.62	7.18	24077.31	0.25		
3355.54		185.27	18.11	173.72	6.78	0.000741	
	0.83761	86859.36					
88.00	4397.18	25.71	7.28	24496.79	0.25		
3366.08		185.45	18.15	174.02	6.77	0.000737	
	0.83491	87008.82					
89.00	4397.28	25.81	7.30	24652.85	0.25		
3378.54		185.65	18.20	174.35	6.76	0.000712	
	0.80816	87177.48					
90.00	4397.34	25.87	7.30	24720.37	0.25		
3385.87		185.78	18.23	174.57	6.75	0.000793	
	0.90144	87283.36					
91.00	4397.34	25.87	7.32	24769.48	0.25		
3385.30		185.78	18.22	174.58	6.75	0.000745	
	0.84703	87288.00					
92.00	4397.36	25.89	7.27	24645.52	0.25		
3388.85		185.81	18.24	174.63	6.75	0.000753	
	0.85707	87312.61					
93.00	4397.32	25.85	7.27	24626.86	0.25		
3385.14		185.74	18.23	174.50	6.75	0.000809	
	0.92025	87251.66					
94.00	4397.26	25.79	7.23	24400.87	0.25		
3375.21		185.61	18.18	174.28	6.76	0.000696	
	0.78928	87140.29					
95.00	4397.20	25.73	7.18	24173.86	0.25		
3367.16		185.49	18.15	174.09	6.77	0.000645	
	0.73080	87043.88					
96.00	4397.11	25.64	7.13	23901.27	0.25		
3354.16		185.32	18.10	173.80	6.78	0.000655	
	0.73988	86898.56					
97.00	4397.02	25.55	7.02	23446.76	0.24		
3341.98		185.13	18.05	173.48	6.79	0.000622	
	0.70031	86741.60					
98.00	4396.94	25.47	6.83	22749.48	0.24		
3331.13		184.96	18.01	173.20	6.80	0.000600	
	0.67388	86597.57					
99.00	4396.80	25.33	6.61	21910.97	0.23		
3314.17		184.70	17.94	172.74	6.82	0.000505	
	0.56527	86368.73					
100.00	4396.62	25.15	6.45	21227.51	0.23		
3289.60		184.34	17.85	172.13	6.84	0.000538	
	0.59938	86067.12					
101.00	4396.47	25.00	6.26	20447.09	0.22		
3265.30		184.03	17.74	171.60	6.86	0.000382	
	0.42252	85798.74					
102.00	4396.28	24.81	6.06	19625.85	0.21		
3236.47		183.65	17.62	170.94	6.89	0.000375	
	0.41192	85470.82					
103.00	4395.98	24.51	5.81	18586.33	0.21		
3199.20		183.04	17.48	169.91	6.93	0.000259	
	0.28299	84953.08					
104.00	4395.50	24.03	5.36	16828.70	0.19		
3140.12		182.10	17.24	168.26	7.00	0.000234	
	0.25189	84130.12					
105.00	4394.83	23.36	4.82	14673.05	0.18		

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				HYCHAN.OUT			
3046.72		180.76		16.86	165.90	7.10	0.000174
	0.18266	82951.78					
106.00	4394.27	22.80	4.33	12831.12	0.16		
2960.98		179.62	16.48	163.88	7.19	0.000164	
	0.16820	81941.23					
107.00	4394.06	22.59	4.15	12144.74	0.15		
2928.36		179.20	16.34	163.12	7.22	0.000111	
	0.11311	81562.20					
108.00	4393.82	22.35	3.98	11507.32	0.15		
2893.08		178.74	16.19	162.29	7.26	0.000086	
	0.08650	81145.48					
109.00	4393.45	21.98	3.65	10350.86	0.14		
2836.28		178.00	15.93	160.94	7.32	0.000078	
	0.07715	80472.27					
110.00	4392.99	21.52	3.23	8931.33	0.12		
2767.19		177.07	15.63	159.24	7.40	0.000073	
	0.07124	79618.05					
111.00	4392.64	21.17	3.14	8520.82	0.12		
2713.71		176.38	15.39	157.96	7.46	0.000096	
	0.09218	78979.27					
112.00	4392.41	20.94	3.19	8539.22	0.12		
2675.53		175.90	15.21	157.06	7.50	0.000084	
	0.08017	78532.43					
113.00	4392.23	20.76	3.22	8522.45	0.12		
2647.54		175.56	15.08	156.42	7.53	0.000091	
	0.08589	78210.53					
114.00	4392.03	20.56	3.18	8294.77	0.12		
2608.64		174.65	14.94	155.64	7.57	0.000099	
	0.09184	77820.33					
115.00	4391.81	20.34	3.23	8287.39	0.13		
2562.96		173.66	14.76	154.82	7.61	0.000090	
	0.08262	77407.58					
116.00	4391.75	20.28	3.36	8568.41	0.13		
2549.81		173.38	14.71	154.58	7.62	0.000094	
	0.08670	77291.98					
117.00	4391.71	20.24	3.41	8669.45	0.13		
2541.52		173.21	14.67	154.44	7.63	0.000102	
	0.09325	77218.29					
118.00	4391.58	20.11	3.42	8587.88	0.13		
2514.41		172.61	14.57	153.94	7.66	0.000099	
	0.08987	76968.90					
119.00	4391.48	20.01	3.44	8568.72	0.14		
2493.73		172.15	14.49	153.55	7.67	0.000109	
	0.09828	76777.07					
120.00	4391.43	19.96	3.48	8637.44	0.14		
2484.16		171.93	14.45	153.38	7.68	0.000128	
	0.11514	76688.42					
121.00	4391.43	19.96	3.51	8727.23	0.14		
2483.15		171.91	14.44	153.36	7.68	0.000154	
	0.13865	76678.88					
122.00	4391.39	19.92	3.53	8732.04	0.14		
2476.36		171.76	14.42	153.23	7.69	0.000119	
	0.10717	76615.21					
123.00	4391.31	19.84	3.52	8650.35	0.14		
2458.71		171.36	14.35	152.90	7.71	0.000119	
	0.10689	76448.92					
124.00	4391.21	19.74	3.50	8540.13	0.14		
2437.95		170.89	14.27	152.51	7.73	0.000147	
	0.13113	76253.63					
125.00	4391.12	19.65	3.49	8446.62	0.14		
2421.08		170.50	14.20	152.19	7.74	0.000122	
	0.10787	76093.09					
126.00	4391.02	19.55	3.47	8338.32	0.14		

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				HYCHAN.OUT			
2401.05	170.04		14.12	151.80	7.76	0.000154	
0.13583	75902.23						
127.00	4390.97	19.50	3.48	8319.18	0.14		
2390.93	169.81	14.08		151.61	7.77	0.000131	
0.11496	75805.73						
128.00	4390.91	19.44	3.47	8244.68	0.14		
2377.74	169.51	14.03		151.36	7.79	0.000153	
0.13367	75678.31						
129.00	4390.82	19.35	3.45	8149.25	0.14		
2359.55	169.08	13.95		151.01	7.80	0.000124	
0.10788	75503.04						
130.00	4390.77	19.30	3.46	8133.16	0.14		
2350.19	168.87	13.92		150.82	7.81	0.000123	
0.10685	75412.45						
131.00	4390.71	19.24	3.45	8063.63	0.14		
2337.15	168.56	13.87		150.57	7.83	0.000130	
0.11287	75285.16						
132.00	4390.62	19.15	3.44	7970.27	0.14		
2319.02	168.14	13.79		150.22	7.85	0.000127	
0.10892	75108.27						
133.00	4390.63	19.16	3.48	8092.94	0.14		
2322.67	168.22	13.81		150.29	7.84	0.000125	
0.10759	75144.33						
134.00	4390.73	19.26	3.53	8274.94	0.14		
2340.96	168.65	13.88		150.65	7.82	0.000136	
0.11804	75323.12						
135.00	4390.73	19.26	3.54	8298.33	0.14		
2342.48	168.69	13.89		150.68	7.82	0.000139	
0.12035	75337.69						
136.00	4390.72	19.25	3.55	8299.36	0.14		
2339.29	168.61	13.87		150.61	7.83	0.000136	
0.11776	75306.54						
137.00	4390.70	19.23	3.55	8298.96	0.14		
2335.61	168.53	13.86		150.54	7.83	0.000132	
0.11389	75270.70						
138.00	4390.68	19.21	3.56	8297.83	0.14		
2331.99	168.44	13.84		150.47	7.83	0.000133	
0.11522	75235.36						
139.00	4390.67	19.20	3.56	8296.13	0.14		
2328.82	168.37	13.83		150.41	7.84	0.000131	
0.11313	75204.41						
140.00	4390.65	19.18	3.57	8294.53	0.14		
2325.53	168.29	13.82		150.34	7.84	0.000142	
0.12204	75172.30						
141.00	4390.60	19.13	3.55	8224.09	0.14		
2315.99	168.07	13.78		150.16	7.85	0.000153	
0.13183	75078.36						
142.00	4390.53	19.06	3.53	8129.55	0.14		
2301.08	167.71	13.72		149.86	7.86	0.000165	
0.14163	74932.14						
143.00	4390.50	19.03	3.54	8116.57	0.14		
2295.28	167.58	13.70		149.75	7.87	0.000143	
0.12236	74875.09						
144.00	4390.48	19.01	3.54	8114.44	0.14		
2291.69	167.49	13.68		149.68	7.87	0.000137	
0.11722	74839.50						
145.00	4390.46	18.99	3.54	8111.00	0.14		
2288.58	167.42	13.67		149.62	7.88	0.000164	
0.13948	74808.85						
146.00	4390.42	18.95	3.53	8044.02	0.14		
2279.65	167.21	13.63		149.44	7.89	0.000141	
0.12009	74719.95						
147.00	4390.34	18.87	3.51	7950.65	0.14		

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		HYCHAN.OUT					
2264.82	166.85	13.57	149.15	7.90	0.000150		
0.12725	74572.73						
148.00	4390.31	18.84	3.51	7938.08	0.14		
2258.63	166.70	13.55	149.02	7.91	0.000151		
0.12745	74511.36						
149.00	4390.29	18.82	3.52	7936.21	0.14		
2254.65	166.61	13.53	148.94	7.91	0.000140		
0.11783	74471.45						
150.00	4390.27	18.80	3.52	7932.39	0.14		
2251.23	166.53	13.52	148.87	7.92	0.000162		
0.13662	74437.41						
151.00	4390.26	18.79	3.53	7932.17	0.14		
2248.89	166.47	13.51	148.83	7.92	0.000148		
0.12459	74413.85						
152.00	4390.23	18.76	3.52	7886.55	0.14		
2242.12	166.31	13.48	148.69	7.93	0.000150		
0.12636	74345.97						
153.00	4390.17	18.70	3.50	7804.44	0.14		
2229.66	166.01	13.43	148.44	7.94	0.000159		
0.13326	74220.54						
154.00	4390.12	18.65	3.50	7764.60	0.14		
2220.65	165.79	13.39	148.26	7.95	0.000143		
0.11977	74129.88						
155.00	4390.10	18.63	3.50	7756.71	0.14		
2216.22	165.68	13.38	148.17	7.95	0.000149		
0.12461	74085.30						
156.00	4390.05	18.58	3.48	7691.30	0.14		
2207.36	165.47	13.34	147.99	7.96	0.000164		
0.13612	73995.07						
157.00	4390.04	18.57	3.51	7732.18	0.14		
2204.55	165.40	13.33	147.93	7.97	0.000168		
0.13988	73967.12						
158.00	4390.14	18.67	3.55	7901.61	0.14		
2223.81	165.87	13.41	148.32	7.95	0.000143		
0.11992	74162.45						
159.00	4390.16	18.69	3.55	7923.69	0.14		
2229.33	166.00	13.43	148.44	7.94	0.000166		
0.13884	74217.69						
160.00	4390.17	18.70	3.55	7926.40	0.14		
2229.76	166.01	13.43	148.44	7.94	0.000152		
0.12703	74222.15						
161.00	4390.16	18.69	3.56	7927.07	0.15		
2229.17	166.00	13.43	148.43	7.94	0.000164		
0.13705	74216.04						
162.00	4390.16	18.69	3.56	7926.54	0.15		
2228.39	165.98	13.43	148.42	7.94	0.000158		
0.13259	74208.27						
163.00	4390.15	18.68	3.56	7926.52	0.15		
2227.54	165.96	13.42	148.40	7.94	0.000162		
0.13574	74199.54						
164.00	4390.15	18.68	3.56	7925.61	0.15		
2226.64	165.94	13.42	148.38	7.94	0.000159		
0.13274	74190.65						
165.00	4390.15	18.68	3.56	7923.35	0.15		
2225.93	165.92	13.42	148.37	7.94	0.000164		
0.13698	74183.28						
166.00	4390.11	18.64	3.54	7858.47	0.14		
2219.16	165.75	13.39	148.23	7.95	0.000137		
0.11413	74114.62						
167.00	4390.04	18.57	3.52	7765.64	0.14		
2205.67	165.43	13.33	147.96	7.97	0.000160		
0.13283	73978.18						
168.00	4390.02	18.55	3.52	7753.60	0.14		

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				HYCHAN.OUT			
2200.44		165.30		13.31	147.85	7.97	0.000164
	0.13596	73925.18					
169.00		4390.01	18.54	3.52	7750.35	0.14	
2198.74		165.26	13.30		147.82	7.97	0.000152
	0.12613	73908.07					
170.00		4390.00	18.53	3.53	7750.24	0.14	
2197.62		165.23	13.30		147.79	7.98	0.000163
	0.13542	73896.68					
171.00		4390.00	18.53	3.53	7749.91	0.14	
2196.76		165.21	13.30		147.78	7.98	0.000154
	0.12766	73887.76					
172.00		4389.99	18.52	3.53	7749.13	0.14	
2195.97		165.19	13.29		147.76	7.98	0.000144
	0.11979	73879.89					
173.00		4389.99	18.52	3.53	7747.54	0.14	
2195.09		165.17	13.29		147.74	7.98	0.000160
	0.13268	73870.89					
174.00		4389.95	18.48	3.51	7681.09	0.14	
2188.28		165.00	13.26		147.60	7.99	0.000162
	0.13423	73800.87					
175.00		4389.88	18.41	3.49	7590.26	0.14	
2174.43		164.66	13.21		147.32	8.00	0.000173
	0.14237	73659.55					
176.00		4389.86	18.39	3.49	7575.96	0.14	
2169.12		164.53	13.18		147.21	8.01	0.000154
	0.12643	73605.20					
177.00		4389.85	18.38	3.49	7573.01	0.14	
2167.13		164.48	13.18		147.17	8.01	0.000158
	0.12986	73584.81					
178.00		4389.84	18.37	3.50	7572.29	0.14	
2165.93		164.45	13.17		147.15	8.01	0.000144
	0.11873	73572.62					
179.00		4389.83	18.36	3.50	7572.23	0.14	
2165.05		164.43	13.17		147.13	8.01	0.000154
	0.12662	73563.46					
180.00		4389.83	18.36	3.50	7574.63	0.14	
2164.12		164.41	13.16		147.11	8.01	0.000149
	0.12246	73553.95					
181.00		4389.89	18.42	3.54	7706.54	0.15	
2175.83		164.70	13.21		147.35	8.00	0.000153
	0.12642	73674.40					
182.00		4390.02	18.55	3.58	7888.68	0.15	
2201.32		165.32	13.32		147.87	7.97	0.000162
	0.13429	73934.68					
183.00		4390.10	18.63	3.60	7981.01	0.15	
2216.03		165.68	13.38		148.17	7.95	0.000168
	0.14016	74083.68					
184.00		4390.17	18.70	3.62	8075.36	0.15	
2230.90		166.04	13.44		148.47	7.94	0.000155
	0.13015	74233.92					
185.00		4390.20	18.73	3.62	8089.29	0.15	
2236.02		166.16	13.46		148.57	7.93	0.000151
	0.12645	74285.05					
186.00		4390.21	18.74	3.62	8090.71	0.15	
2237.80		166.21	13.46		148.61	7.93	0.000163
	0.13682	74302.99					
187.00		4390.21	18.74	3.61	8092.15	0.15	
2238.57		166.22	13.47		148.62	7.93	0.000149
	0.12558	74310.62					
188.00		4390.21	18.74	3.61	8092.24	0.15	
2239.19		166.24	13.47		148.63	7.93	0.000171
	0.14353	74316.90					
189.00		4390.21	18.74	3.61	8092.13	0.15	

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HYCHAN.OUT									
2239.30		166.24		13.47		148.64		7.93	0.000160
	0.13441	74318.12							
190.00		4390.22	18.75		3.61	8092.74		0.15	
2239.48		166.25		13.47		148.64		7.93	0.000156
	0.13145	74319.72							
191.00		4390.22	18.75		3.61	8090.76		0.15	
2239.50		166.25		13.47		148.64		7.93	0.000171
	0.14387	74319.97							
192.00		4390.18	18.71		3.59	8025.38		0.15	
2233.47		166.10		13.45		148.52		7.94	0.000153
	0.12867	74258.93							
193.00		4390.12	18.65		3.57	7933.76		0.15	
2220.48		165.79		13.39		148.26		7.95	0.000169
	0.14163	74128.23							
194.00		4390.09	18.62		3.58	7922.77		0.15	
2215.67		165.67		13.37		148.16		7.96	0.000153
	0.12734	74079.70							
195.00		4390.09	18.62		3.58	7919.07		0.15	
2213.90		165.63		13.37		148.12		7.96	0.000166
	0.13852	74061.93							
196.00		4390.08	18.61		3.58	7920.23		0.15	
2213.13		165.61		13.36		148.11		7.96	0.000147
	0.12228	74054.02							
197.00		4390.08	18.61		3.58	7918.28		0.15	
2212.43		165.59		13.36		148.09		7.96	0.000168
	0.14005	74047.02							
198.00		4390.08	18.61		3.58	7919.04		0.15	
2212.00		165.58		13.36		148.09		7.96	0.000161
	0.13386	74042.59							
199.00		4390.07	18.60		3.58	7918.69		0.15	
2211.61		165.57		13.36		148.08		7.96	0.000164
	0.13696	74038.77							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4833

MAXIMUM DISCHARGE (CFS) = 18314.15 AT TIME = 81.93  
 MAXIMUM STAGE = 4397.04 AT TIME = 91.45

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	0.00	4371.22	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4371.22	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4371.22	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4371.22	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4371.41	0.19	0.11	12.88	0.04	
120.48	2.25738	14.16	8.51	14.94	79.61		0.004252
	5.00	4383.75	12.53	4.10	4570.42	0.20	
1116.07		134.02	8.33	121.58	9.70		0.000335

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HYCHAN.OUT									
	0.17409	60788.93							
1488.45	6.00	4385.86	14.64	10.22	3.51	5223.20	0.16	0.000263	
	0.16785	145.65				131.39	8.98		
	7.00	4386.43	15.21	10.67	3.31	5255.86	0.15	0.000231	
1585.85		148.65				133.91	8.81		
	0.15367	66954.79							
1615.38	8.00	4386.60	15.38	10.80	3.21	5178.35	0.14	0.000220	
	0.14849	149.53				134.65	8.76		
	9.00	4386.56	15.34	10.77	3.14	5056.76	0.14	0.000217	
1608.72		149.32				134.48	8.77		
	0.14597	67239.38							
1594.87	10.00	4386.48	15.26	10.71	3.08	4911.41	0.14	0.000187	
	0.12526	148.91				134.13	8.79		
	11.00	4386.40	15.18	10.65	3.04	4801.83	0.14	0.000224	
1581.32		148.50				133.78	8.81		
	0.14907	66891.16							
1571.81	12.00	4386.34	15.12	10.61	3.02	4753.81	0.14	0.000213	
	0.14111	148.21				133.54	8.83		
	13.00	4386.23	15.01	10.52	2.98	4627.54	0.14	0.000190	
1553.01		147.63				133.05	8.86		
	0.12495	66525.46							
1529.93	14.00	4386.10	14.88	10.41	2.95	4506.13	0.13	0.000220	
	0.14281	146.91				132.45	8.90		
	15.00	4386.02	14.80	10.35	2.95	4479.05	0.14	0.000213	
1516.84		146.50				132.11	8.93		
	0.13761	66054.14							
1511.58	16.00	4385.99	14.77	10.33	2.96	4473.63	0.14	0.000188	
	0.12132	146.34				131.97	8.94		
	17.00	4385.98	14.75	10.32	2.96	4470.51	0.14	0.000196	
1509.13		146.26				131.91	8.94		
	0.12638	65952.66							
1507.94	18.00	4385.97	14.75	10.31	2.96	4468.05	0.14	0.000218	
	0.14026	146.23				131.87	8.94		
	19.00	4385.98	14.76	10.32	2.98	4491.63	0.14	0.000230	
1509.52		146.28				131.92	8.94		
	0.14784	65957.78							
1525.03	20.00	4386.07	14.85	10.39	3.03	4616.82	0.14	0.000235	
	0.15210	146.76				132.32	8.91		
	21.00	4386.21	14.99	10.50	3.08	4766.71	0.14	0.000232	
1549.53		147.52				132.97	8.87		
	0.15226	66482.59							
1573.76	22.00	4386.36	15.14	10.61	3.11	4888.35	0.14	0.000205	
	0.13559	148.27				133.59	8.83		
	23.00	4386.43	15.21	10.67	3.10	4914.98	0.14	0.000210	
1586.73		148.66				133.92	8.80		
	0.13979	66961.02							
1595.19	24.00	4386.48	15.26	10.71	3.10	4950.73	0.14	0.000206	
	0.13781	148.92				134.14	8.79		
	25.00	4386.61	15.39	10.81	3.17	5123.99	0.14	0.000233	
1617.39		149.59				134.70	8.75		
	0.15696	67349.88							
1657.73	26.00	4386.84	15.62	10.99	3.27	5412.49	0.15	0.000230	
		150.79				135.71	8.69		

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HYCHAN.OUT									
0.15761	67853.70								
27.00	4387.10	15.88	3.36	5718.54	0.15				
1703.27	152.12	11.20		136.83	8.62			0.000234	
0.16349	68412.66								
28.00	4387.33	16.11	3.40	5934.12	0.15				
1744.27	153.30	11.38		137.82	8.55			0.000227	
0.16116	68907.72								
29.00	4387.43	16.21	3.39	5971.78	0.15				
1761.98	153.80	11.46		138.24	8.53			0.000225	
0.16085	69118.12								
30.00	4387.50	16.28	3.40	6028.19	0.15				
1774.25	154.15	11.51		138.53	8.51			0.000224	
0.16107	69263.33								
31.00	4387.59	16.37	3.42	6129.39	0.15				
1791.30	154.63	11.58		138.93	8.49			0.000222	
0.16070	69464.15								
32.00	4387.64	16.42	3.41	6145.41	0.15				
1799.56	154.86	11.62		139.12	8.47			0.000221	
0.16042	69560.64								
33.00	4387.69	16.47	3.43	6200.97	0.15				
1808.75	155.12	11.66		139.34	8.46			0.000224	
0.16327	69668.11								
34.00	4387.77	16.55	3.46	6304.48	0.15				
1824.55	155.55	11.73		139.70	8.44			0.000223	
0.16324	69851.70								
35.00	4387.81	16.59	3.45	6319.52	0.15				
1831.72	155.75	11.76		139.87	8.43			0.000220	
0.16178	69934.48								
36.00	4387.83	16.61	3.41	6260.31	0.15				
1834.33	155.82	11.77		139.93	8.43			0.000192	
0.14074	69964.40								
37.00	4387.81	16.59	3.37	6163.60	0.15				
1830.18	155.71	11.75		139.83	8.43			0.000215	
0.15804	69916.66								
38.00	4387.78	16.56	3.34	6102.28	0.14				
1825.00	155.56	11.73		139.71	8.44			0.000213	
0.15571	69855.78								
39.00	4387.70	16.48	3.31	6004.52	0.14				
1811.61	155.19	11.67		139.40	8.46			0.000186	
0.13562	69700.95								
40.00	4387.67	16.45	3.32	5990.65	0.14				
1805.34	155.02	11.65		139.26	8.47			0.000223	
0.16199	69627.93								
41.00	4387.65	16.43	3.32	5987.96	0.14				
1801.84	154.92	11.63		139.17	8.47			0.000232	
0.16866	69587.02								
42.00	4387.64	16.42	3.33	5987.26	0.14				
1799.93	154.87	11.62		139.13	8.47			0.000229	
0.16587	69564.86								
43.00	4387.63	16.41	3.33	5986.06	0.14				
1798.76	154.84	11.62		139.10	8.48			0.000215	
0.15583	69551.09								
44.00	4387.65	16.43	3.35	6037.30	0.15				
1802.75	154.95	11.63		139.20	8.47			0.000194	
0.14115	69597.92								
45.00	4387.72	16.50	3.38	6134.02	0.15				
1813.92	155.26	11.68		139.46	8.45			0.000234	
0.17082	69728.45								
46.00	4387.78	16.56	3.40	6200.58	0.15				
1824.59	155.56	11.73		139.70	8.44			0.000205	
0.14985	69852.38								
47.00	4387.89	16.67	3.45	6361.59	0.15				
1845.65	156.13	11.82		140.19	8.41			0.000190	

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0.14031	70095.13						
48.00	4388.03	16.81	3.49	6531.45	0.15		
1871.15	156.83	11.93		140.77	8.37	0.000226	
0.16846	70387.05						
49.00	4388.18	16.96	3.53	6706.92	0.15		
1898.25	157.57	12.05		141.39	8.34	0.000207	
0.15543	70693.96						
50.00	4388.33	17.11	3.57	6871.69	0.15		
1925.81	158.30	12.17		142.01	8.30	0.000196	
0.14859	71003.08						
51.00	4388.48	17.26	3.61	7052.18	0.15		
1954.70	159.07	12.29		142.65	8.26	0.000230	
0.17609	71323.62						
52.00	4388.66	17.44	3.66	7281.59	0.15		
1988.22	159.95	12.43		143.38	8.22	0.000212	
0.16453	71691.42						
53.00	4388.85	17.63	3.71	7499.55	0.16		
2023.18	160.86	12.58		144.14	8.18	0.000211	
0.16581	72071.09						
54.00	4388.97	17.75	3.71	7596.19	0.16		
2046.97	161.47	12.68		144.65	8.15	0.000184	
0.14554	72326.20						
55.00	4389.18	17.96	3.79	7912.11	0.16		
2087.76	162.50	12.85		145.52	8.10	0.000221	
0.17701	72758.23						
56.00	4389.52	18.30	3.98	8565.98	0.16		
2152.66	164.12	13.12		146.87	8.03	0.000228	
0.18650	73433.91						
57.00	4390.07	18.85	4.19	9473.77	0.17		
2259.58	166.72	13.55		149.04	7.91	0.000231	
0.19564	74517.55						
58.00	4390.73	19.51	4.42	10559.65	0.18		
2391.75	169.82	14.08		151.62	7.77	0.000230	
0.20224	75810.30						
59.00	4391.34	20.12	4.59	11551.13	0.18		
2516.83	172.66	14.58		153.98	7.65	0.000226	
0.20589	76991.70						
60.00	4391.77	20.55	4.71	12256.15	0.18		
2603.70	174.62	14.91		155.61	7.57	0.000225	
0.20955	77807.46						
61.00	4392.05	20.83	4.79	12699.28	0.19		
2649.18	175.19	15.12		156.67	7.52	0.000227	
0.21459	78335.88						
62.00	4392.23	21.01	4.82	12895.42	0.19		
2675.89	175.54	15.24		157.33	7.49	0.000229	
0.21825	78667.31						
63.00	4392.31	21.09	4.81	12937.75	0.18		
2688.73	175.72	15.30		157.66	7.47	0.000232	
0.22152	78831.02						
64.00	4392.40	21.17	4.80	12968.52	0.18		
2700.48	175.88	15.35		157.96	7.46	0.000233	
0.22355	78979.73						
65.00	4392.47	21.25	4.77	12923.42	0.18		
2711.71	176.03	15.41		158.24	7.45	0.000223	
0.21467	79121.41						
66.00	4392.55	21.33	4.73	12878.18	0.18		
2723.50	176.19	15.46		158.54	7.43	0.000218	
0.21061	79268.73						
67.00	4392.61	21.39	4.69	12828.21	0.18		
2733.28	176.31	15.50		158.78	7.42	0.000221	
0.21362	79387.67						
68.00	4392.67	21.45	4.66	12768.80	0.18		
2742.24	176.43	15.54		158.99	7.41	0.000185	

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0.17953	79494.95						
69.00	4392.78	21.56	4.58	12627.79	0.17		
2758.12	176.64	15.61		159.37	7.39	0.000169	
0.16510	79684.72						
70.00	4392.92	21.70	4.49	12487.89	0.17		
2782.31	176.93	15.73		159.91	7.37	0.000197	
0.19314	79954.30						
71.00	4393.11	21.89	4.44	12488.80	0.17		
2814.80	177.31	15.87		160.61	7.34	0.000147	
0.14561	80307.23						
72.00	4393.33	22.11	4.39	12515.55	0.16		
2849.60	177.76	16.03		161.42	7.30	0.000176	
0.17647	80710.38						
73.00	4393.66	22.44	4.62	13383.16	0.17		
2899.26	178.40	16.25		162.59	7.25	0.000191	
0.19335	81292.56						
74.00	4393.87	22.65	4.71	13808.23	0.17		
2931.23	178.82	16.39		163.35	7.21	0.000198	
0.20284	81672.55						
75.00	4394.07	22.85	4.80	14200.24	0.18		
2961.33	179.22	16.52		164.07	7.18	0.000209	
0.21508	82034.55						
76.00	4394.31	23.09	4.86	14554.20	0.18		
2997.71	179.71	16.68		164.94	7.14	0.000210	
0.21847	82472.45						
77.00	4394.52	23.30	4.93	14935.32	0.18		
3027.31	180.12	16.81		165.67	7.11	0.000200	
0.20966	82835.02						
78.00	4394.68	23.46	4.99	15215.78	0.18		
3050.86	180.44	16.91		166.23	7.09	0.000218	
0.23029	83117.21						
79.00	4395.08	23.86	5.26	16343.10	0.19		
3108.06	181.24	17.15		167.64	7.03	0.000232	
0.24804	83822.05						
80.00	4395.39	24.17	5.35	16862.36	0.19		
3151.39	181.87	17.33		168.75	6.98	0.000215	
0.23273	84372.84						
81.00	4395.78	24.56	5.45	17437.06	0.19		
3202.31	182.65	17.53		170.10	6.93	0.000200	
0.21841	85050.47						
82.00	4396.15	24.93	5.55	18004.10	0.20		
3246.87	183.38	17.71		171.35	6.87	0.000224	
0.24708	85676.77						
83.00	4396.52	25.30	5.44	17908.10	0.19		
3289.79	184.12	17.87		172.62	6.82	0.000152	
0.16932	86310.52						
84.00	4396.86	25.64	5.19	17356.84	0.18		
3342.41	184.80	18.09		173.78	6.78	0.000144	
0.16219	86889.40						
85.00	4397.13	25.91	5.01	16883.60	0.17		
3372.63	185.35	18.20		174.70	6.74	0.000130	
0.14784	87348.21						
86.00	4397.35	26.13	4.91	16673.37	0.17		
3394.34	185.79	18.27		175.45	6.71	0.000123	
0.14025	87723.26						
87.00	4397.53	26.31	4.85	16526.70	0.17		
3410.37	186.14	18.32		176.03	6.69	0.000145	
0.16548	88014.95						
88.00	4397.72	26.50	4.66	15976.00	0.16		
3424.99	186.53	18.36		176.68	6.67	0.000124	
0.14164	88339.54						
89.00	4397.93	26.71	4.43	15244.62	0.15		
3440.40	186.95	18.40		177.38	6.64	0.000112	

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HYCHAN.OUT									
	0.12909	88689.07							
3450.21	90.00	4398.09	26.87	18.42	4.22	14544.69	0.14	0.000194	
	0.22322	88951.35							
3450.21	91.00	4398.15	26.93	18.41	4.13	14232.45	0.14	0.000189	
	0.21763	89042.38							
3454.06	92.00	4398.12	26.90	18.44	4.15	14325.37	0.14	0.000143	
	0.16455	88992.20							
3448.53	93.00	4397.99	26.77	18.43	4.33	14931.33	0.15	0.000144	
	0.16597	88787.42							
3437.33	94.00	4397.91	26.69	18.39	4.37	15026.79	0.15	0.000124	
	0.14229	88643.95							
3427.09	95.00	4397.81	26.59	18.35	4.44	15227.13	0.15	0.000154	
	0.17653	88490.20							
3412.14	96.00	4397.69	26.47	18.30	4.52	15417.30	0.15	0.000110	
	0.12579	88280.45							
3396.21	97.00	4397.52	26.30	18.25	4.65	15798.16	0.16	0.000092	
	0.10447	87993.32							
3381.64	98.00	4397.35	26.13	18.20	4.71	15921.51	0.16	0.000145	
	0.16515	87721.34							
3360.05	99.00	4397.13	25.91	18.13	4.77	16020.71	0.17	0.000147	
	0.16593	87348.41							
3332.08	100.00	4396.87	25.65	18.03	4.90	16314.07	0.17	0.000147	
	0.16509	86902.87							
3298.70	101.00	4396.61	25.39	17.90	5.02	16571.03	0.18	0.000133	
	0.14817	86467.58							
3261.56	102.00	4396.34	25.12	17.75	5.13	16720.12	0.18	0.000183	
	0.20271	86004.12							
3222.03	103.00	4395.97	24.75	17.60	5.15	16599.73	0.18	0.000184	
	0.20212	85380.22							
3158.51	104.00	4395.45	24.23	17.36	4.99	15748.26	0.18	0.000220	
	0.23775	84478.20							
3063.49	105.00	4394.75	23.53	16.96	4.66	14288.49	0.17	0.000171	
	0.18066	83250.70							
2979.14	106.00	4394.18	22.96	16.60	4.27	12725.98	0.16	0.000131	
	0.13562	82233.80							
2947.39	107.00	4393.97	22.75	16.46	4.10	12094.11	0.15	0.000146	
	0.14981	81858.73							
2912.96	108.00	4393.74	22.52	16.31	3.95	11498.83	0.15	0.000153	
	0.15583	81448.14							
2857.88	109.00	4393.38	22.16	16.07	3.64	10393.92	0.14	0.000105	
	0.10493	80792.16							
2789.65	110.00	4392.91	21.69	15.77	3.31	9223.72	0.13	0.000076	
		176.91							

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HYCHAN.OUT									
	0.07441	79933.65							
2736.22	111.00	4392.56	21.34	15.53	3.25	8893.16	0.12	0.000090	
	0.08750	79286.02							
2697.64	112.00	4392.31	21.09	15.35	3.30	8891.95	0.13	0.000082	
	0.07847	78829.87							
2670.25	113.00	4392.14	20.92	15.23	3.32	8876.63	0.13	0.000108	
	0.10245	78499.30							
2637.13	114.00	4391.92	20.70	15.08	3.29	8671.71	0.13	0.000122	
	0.11488	78094.75							
2599.91	115.00	4391.72	20.50	14.91	3.29	8565.51	0.13	0.000096	
	0.08903	77705.32							
2586.26	116.00	4391.66	20.44	14.85	3.39	8759.04	0.13	0.000127	
	0.11751	77595.46							
2577.56	117.00	4391.62	20.40	14.82	3.42	8809.83	0.13	0.000132	
	0.12211	77524.95							
2549.87	118.00	4391.49	20.27	14.71	3.41	8683.17	0.13	0.000142	
	0.13073	77279.98							
2528.44	119.00	4391.39	20.17	14.62	3.41	8627.03	0.13	0.000101	
	0.09180	77089.48							
2518.31	120.00	4391.35	20.13	14.58	3.44	8667.25	0.14	0.000129	
	0.11775	77001.03							
2517.02	121.00	4391.34	20.12	14.58	3.48	8748.20	0.14	0.000132	
	0.12036	76990.61							
2509.97	122.00	4391.31	20.09	14.55	3.49	8748.30	0.14	0.000150	
	0.13605	76926.16							
2492.01	123.00	4391.22	20.00	14.48	3.48	8668.23	0.14	0.000129	
	0.11640	76758.62							
2470.99	124.00	4391.12	19.90	14.40	3.46	8556.14	0.14	0.000160	
	0.14336	76562.56							
2453.87	125.00	4391.03	19.81	14.33	3.45	8460.47	0.14	0.000142	
	0.12702	76401.92							
2433.51	126.00	4390.93	19.71	14.25	3.43	8351.46	0.14	0.000117	
	0.10367	76209.81							
2423.20	127.00	4390.88	19.66	14.21	3.44	8329.15	0.14	0.000144	
	0.12730	76112.59							
2409.77	128.00	4390.82	19.60	14.16	3.43	8256.99	0.14	0.000134	
	0.11800	75984.05							
2391.40	129.00	4390.73	19.51	14.08	3.41	8158.46	0.14	0.000139	
	0.12256	75808.96							
2381.80	130.00	4390.68	19.46	14.04	3.42	8142.72	0.14	0.000136	
	0.11912	75716.70							
2368.67	131.00	4390.61	19.39	13.99	3.41	8074.57	0.14	0.000162	
		169.29							

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## HYCHAN.OUT

2350.15	0.14157	75589.76	19.30	3.39	7976.60	0.14	0.000148
	132.00	4390.52	13.92		150.82	7.81	
	0.12813	75411.41					
2353.36	133.00	4390.54	19.32	3.44	8094.57	0.14	0.000149
		168.94	13.93		150.89	7.81	
	0.12930	75442.96					
2371.59	134.00	4390.63	19.41	3.49	8278.85	0.14	0.000162
		169.36	14.00		151.24	7.79	
	0.14126	75619.30					
2373.03	135.00	4390.64	19.41	3.50	8302.61	0.14	0.000154
		169.40	14.01		151.27	7.79	
	0.13479	75633.19					
2369.70	136.00	4390.62	19.40	3.50	8303.45	0.14	0.000149
		169.32	14.00		151.20	7.79	
	0.13043	75601.14					
2365.88	137.00	4390.60	19.38	3.51	8302.77	0.14	0.000144
		169.23	13.98		151.13	7.80	
	0.12588	75564.27					
2362.11	138.00	4390.58	19.36	3.51	8301.44	0.14	0.000130
		169.14	13.97		151.06	7.80	
	0.11339	75527.83					
2358.84	139.00	4390.56	19.34	3.52	8299.18	0.14	0.000136
		169.07	13.95		150.99	7.81	
	0.11800	75496.30					
2355.41	140.00	4390.55	19.33	3.52	8297.85	0.14	0.000130
		168.99	13.94		150.93	7.81	
	0.11298	75463.01					
2345.87	141.00	4390.50	19.28	3.51	8229.02	0.14	0.000126
		168.77	13.90		150.74	7.82	
	0.10886	75369.91					
2330.83	142.00	4390.43	19.20	3.49	8133.76	0.14	0.000154
		168.41	13.84		150.45	7.83	
	0.13318	75223.65					
2324.88	143.00	4390.40	19.18	3.49	8118.68	0.14	0.000178
		168.28	13.82		150.33	7.84	
	0.15381	75165.89					
2321.08	144.00	4390.38	19.16	3.50	8116.43	0.14	0.000137
		168.19	13.80		150.26	7.84	
	0.11817	75128.69					
2317.88	145.00	4390.36	19.14	3.50	8114.24	0.14	0.000150
		168.11	13.79		150.19	7.85	
	0.12890	75097.17					
2309.00	146.00	4390.32	19.10	3.48	8046.85	0.14	0.000177
		167.90	13.75		150.02	7.86	
	0.15151	75009.86					
2293.95	147.00	4390.24	19.02	3.47	7953.33	0.14	0.000139
		167.55	13.69		149.72	7.87	
	0.11863	74861.77					
2287.63	148.00	4390.21	18.99	3.47	7939.53	0.14	0.000170
		167.40	13.67		149.60	7.88	
	0.14470	74799.55					
2283.45	149.00	4390.19	18.97	3.48	7937.17	0.14	0.000150
		167.30	13.65		149.52	7.88	
	0.12799	74758.26					
2279.93	150.00	4390.17	18.95	3.48	7934.08	0.14	0.000173
		167.21	13.63		149.45	7.89	
	0.14747	74723.22					
2277.48	151.00	4390.16	18.94	3.48	7932.11	0.14	0.000141
		167.16	13.62		149.40	7.89	
	0.11951	74699.23					
2270.74	152.00	4390.12	18.90	3.47	7888.61	0.14	0.000165
		166.99	13.60		149.26	7.90	

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	0.14016	74631.73							
2258.12	153.00	4390.06	18.84	13.55	3.46	7806.58	0.14	0.000139	
	0.11783	74505.98							
2249.00	154.00	4390.01	18.79	13.51	3.45	7765.20	0.14	0.000142	
	0.11994	74415.15							
2244.43	155.00	4389.99	18.77	13.49	3.46	7757.52	0.14	0.000168	
	0.14123	74369.37							
2235.53	156.00	4389.95	18.72	13.45	3.44	7693.82	0.14	0.000165	
	0.13887	74279.55							
2232.30	157.00	4389.93	18.71	13.44	3.46	7729.98	0.14	0.000151	
	0.12652	74247.74							
2251.56	158.00	4390.03	18.81	13.52	3.51	7899.19	0.14	0.000171	
	0.14457	74441.35							
2257.12	159.00	4390.05	18.83	13.54	3.51	7924.10	0.14	0.000164	
	0.13819	74496.37							
2257.61	160.00	4390.06	18.84	13.54	3.51	7926.13	0.14	0.000178	
	0.15023	74501.48							
2256.94	161.00	4390.05	18.83	13.54	3.51	7927.42	0.14	0.000156	
	0.13158	74494.56							
2256.18	162.00	4390.05	18.83	13.54	3.51	7926.64	0.14	0.000176	
	0.14835	74487.05							
2255.23	163.00	4390.05	18.83	13.53	3.51	7926.59	0.14	0.000148	
	0.12525	74477.62							
2254.37	164.00	4390.04	18.82	13.53	3.52	7925.78	0.14	0.000176	
	0.14844	74468.95							
2253.57	165.00	4390.04	18.82	13.53	3.52	7923.64	0.14	0.000155	
	0.13073	74461.00							
2246.95	166.00	4390.00	18.78	13.50	3.50	7859.58	0.14	0.000167	
	0.14104	74394.42							
2233.34	167.00	4389.93	18.71	13.45	3.48	7767.51	0.14	0.000176	
	0.14753	74257.73							
2227.92	168.00	4389.91	18.69	13.42	3.48	7754.06	0.14	0.000143	
	0.11974	74203.48							
2226.24	169.00	4389.90	18.68	13.42	3.48	7750.20	0.14	0.000163	
	0.13613	74186.59							
2225.04	170.00	4389.89	18.67	13.41	3.48	7750.86	0.14	0.000182	
	0.15231	74174.33							
2224.12	171.00	4389.89	18.67	13.41	3.48	7749.54	0.14	0.000159	
	0.13265	74165.27							
2223.34	172.00	4389.88	18.66	13.41	3.49	7748.95	0.14	0.000167	
	0.13949	74157.36							
2222.42	173.00	4389.88	18.66	13.40	3.49	7748.44	0.14	0.000175	
	0.16583								

## HYCHAN.OUT

0.14624	74147.84						
174.00	4389.84	18.62	3.47	7683.10	0.14		
2215.68	165.67	13.37		148.16	7.96	0.000174	
0.14553	74079.41						
175.00	4389.77	18.55	3.45	7591.95	0.14		
2201.72	165.33	13.32		147.88	7.97	0.000158	
0.13109	73938.04						
176.00	4389.75	18.53	3.45	7575.74	0.14		
2196.29	165.20	13.29		147.77	7.98	0.000158	
0.13144	73883.20						
177.00	4389.73	18.51	3.45	7573.33	0.14		
2194.22	165.15	13.29		147.72	7.98	0.000145	
0.12004	73862.03						
178.00	4389.73	18.51	3.45	7572.05	0.14		
2193.00	165.12	13.28		147.70	7.98	0.000169	
0.13992	73849.69						
179.00	4389.72	18.50	3.45	7572.56	0.14		
2192.05	165.09	13.28		147.68	7.98	0.000171	
0.14150	73839.88						
180.00	4389.72	18.50	3.46	7574.46	0.14		
2191.06	165.07	13.27		147.66	7.98	0.000180	
0.14880	73829.94						
181.00	4389.78	18.56	3.50	7703.07	0.14		
2202.50	165.35	13.32		147.89	7.97	0.000180	
0.14955	73946.41						
182.00	4389.91	18.69	3.54	7886.45	0.14		
2228.09	165.97	13.42		148.41	7.94	0.000178	
0.14912	74205.69						
183.00	4389.98	18.76	3.56	7978.87	0.14		
2242.90	166.33	13.48		148.71	7.93	0.000157	
0.13223	74354.38						
184.00	4390.06	18.84	3.58	8073.70	0.15		
2257.98	166.69	13.55		149.01	7.91	0.000188	
0.15875	74505.41						
185.00	4390.09	18.87	3.57	8088.67	0.15		
2263.18	166.81	13.57		149.11	7.90	0.000158	
0.13412	74557.11						
186.00	4390.09	18.87	3.57	8090.92	0.14		
2265.06	166.86	13.57		149.15	7.90	0.000176	
0.14895	74575.65						
187.00	4390.10	18.88	3.57	8091.63	0.14		
2265.85	166.88	13.58		149.17	7.90	0.000165	
0.13939	74583.67						
188.00	4390.10	18.88	3.57	8092.97	0.14		
2266.47	166.89	13.58		149.18	7.90	0.000155	
0.13119	74589.60						
189.00	4390.10	18.88	3.57	8091.80	0.14		
2266.65	166.90	13.58		149.18	7.90	0.000173	
0.14621	74591.59						
190.00	4390.10	18.88	3.57	8092.52	0.14		
2266.77	166.90	13.58		149.19	7.90	0.000152	
0.12885	74592.77						
191.00	4390.10	18.88	3.57	8091.36	0.14		
2266.82	166.90	13.58		149.19	7.90	0.000169	
0.14321	74593.10						
192.00	4390.07	18.85	3.55	8026.62	0.14		
2260.93	166.76	13.56		149.07	7.91	0.000159	
0.13493	74534.09						
193.00	4390.01	18.79	3.53	7935.59	0.14		
2247.83	166.45	13.50		148.81	7.92	0.000169	
0.14224	74403.22						
194.00	4389.98	18.76	3.53	7922.51	0.14		
2242.91	166.33	13.48		148.71	7.93	0.000167	

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0.14015	74354.29							
195.00	4389.97	18.75	3.53	7919.71	0.14			
2241.05	166.28	13.48		148.67	7.93	0.000181		
0.15219	74335.51							
196.00	4389.97	18.75	3.54	7919.71	0.14			
2240.26	166.26	13.47		148.66	7.93	0.000169		
0.14215	74327.74							
197.00	4389.97	18.75	3.54	7919.00	0.14			
2239.52	166.25	13.47		148.64	7.93	0.000168		
0.14147	74320.03							
198.00	4389.96	18.74	3.54	7918.82	0.14			
2239.07	166.24	13.47		148.63	7.93	0.000154		
0.12914	74315.77							
199.00	4389.96	18.74	3.54	7919.00	0.14			
2238.69	166.23	13.47		148.62	7.93	0.000186		
0.15604	74311.88							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4870

MAXIMUM DISCHARGE (CFS) = 16977.65 AT TIME = 81.39  
 MAXIMUM STAGE = 4397.29 AT TIME = 91.47

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(HRS)	(FT)	(FT^2)	(FT)	(FPS)	(CFS)	
(LB/FT^2)							
0.00	0.00	4370.95	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4370.95	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4370.95	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4370.95	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4370.98	0.03	-0.11	-12.88	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
1116.07	5.00	4383.18	12.23	-4.10	-4570.42	0.21	0.000748
	0.39373	132.31	8.44	120.13	9.82		
1488.45	6.00	4385.61	14.66	-3.51	-5223.20	0.16	0.000597
	0.38055	145.77	10.21	131.49	8.97		
1585.85	7.00	4386.22	15.27	-3.31	-5255.86	0.15	0.000532
	0.35354	148.99	10.64	134.20	8.79		
1615.38	8.00	4386.41	15.46	-3.21	-5178.35	0.14	0.000506
	0.34032	149.95	10.77	135.01	8.73		
1608.72	9.00	4386.38	15.43	-3.14	-5056.76	0.14	0.000489
	0.32799	149.78	10.74	134.86	8.74		
1594.87	10.00	4386.30	15.35	-3.08	-4911.41	0.14	0.000464
	0.30934	149.40	10.68	134.54	8.76		
		80724.62					



		HYCHAN.OUT					
11.00	4386.23	15.28	-3.04	-4801.83	0.14		
1581.32	149.01	10.61		134.21	8.79	0.000464	
0.30708	80528.51						
12.00	4386.17	15.22	-3.02	-4753.81	0.14		
1571.81	148.73	10.57		133.98	8.80	0.000455	
0.29974	80386.98						
13.00	4386.07	15.12	-2.98	-4627.54	0.14		
1553.01	148.16	10.48		133.50	8.83	0.000438	
0.28677	80101.66						
14.00	4385.93	14.98	-2.95	-4506.13	0.13		
1529.93	147.45	10.38		132.90	8.87	0.000435	
0.28143	79742.80						
15.00	4385.85	14.90	-2.95	-4479.05	0.13		
1516.84	147.03	10.32		132.55	8.90	0.000459	
0.29520	79531.26						
16.00	4385.82	14.87	-2.96	-4473.63	0.14		
1511.58	146.86	10.29		132.40	8.91	0.000449	
0.28866	79442.79						
17.00	4385.80	14.85	-2.96	-4470.51	0.14		
1509.13	146.78	10.28		132.34	8.91	0.000467	
0.29967	79401.94						
18.00	4385.79	14.84	-2.96	-4468.05	0.14		
1507.94	146.73	10.28		132.30	8.91	0.000458	
0.29366	79380.73						
19.00	4385.80	14.85	-2.98	-4491.63	0.14		
1509.52	146.77	10.28		132.34	8.91	0.000465	
0.29858	79401.35						
20.00	4385.89	14.94	-3.03	-4616.82	0.14		
1525.03	147.23	10.36		132.72	8.88	0.000476	
0.30765	79630.52						
21.00	4386.03	15.08	-3.08	-4766.71	0.14		
1549.53	147.98	10.47		133.35	8.84	0.000485	
0.31704	80011.12						
22.00	4386.17	15.22	-3.11	-4888.35	0.14		
1573.76	148.72	10.58		133.97	8.80	0.000500	
0.33022	80382.89						
23.00	4386.25	15.30	-3.10	-4914.98	0.14		
1586.73	149.14	10.64		134.32	8.78	0.000472	
0.31305	80593.19						
24.00	4386.30	15.35	-3.10	-4950.73	0.14		
1595.19	149.40	10.68		134.54	8.76	0.000507	
0.33784	80725.34						
25.00	4386.43	15.48	-3.17	-5123.99	0.14		
1617.39	150.04	10.78		135.08	8.73	0.000510	
0.34333	81047.66						
26.00	4386.65	15.70	-3.27	-5412.49	0.15		
1657.73	151.20	10.96		136.05	8.67	0.000524	
0.35865	81630.93						
27.00	4386.90	15.95	-3.36	-5718.54	0.15		
1703.27	152.50	11.17		137.14	8.60	0.000552	
0.38483	82286.09						
28.00	4387.14	16.19	-3.40	-5934.12	0.15		
1744.27	153.69	11.35		138.14	8.53	0.000551	
0.39050	82884.30						
29.00	4387.24	16.29	-3.39	-5971.78	0.15		
1761.98	154.21	11.43		138.58	8.51	0.000550	
0.39191	83146.34						
30.00	4387.31	16.36	-3.40	-6028.19	0.15		
1774.25	154.56	11.48		138.87	8.49	0.000556	
0.39839	83320.42						
31.00	4387.40	16.45	-3.42	-6129.39	0.15		
1791.30	155.03	11.55		139.27	8.47	0.000554	
0.39917	83561.34						

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1799.56	32.00	4387.45	16.50	-3.41	-6145.41	0.15	0.000551
	0.39841	155.27	11.59		139.47	8.45	
1808.75	33.00	4387.50	16.55	-3.43	-6200.97	0.15	0.000560
	0.40654	155.53	11.63		139.68	8.44	
1824.55	34.00	4387.59	16.64	-3.46	-6304.48	0.15	0.000561
	0.40943	155.96	11.70		140.04	8.42	
1831.72	35.00	4387.63	16.68	-3.45	-6319.52	0.15	0.000550
	0.40268	156.17	11.73		140.22	8.41	
1834.33	36.00	4387.65	16.70	-3.41	-6260.31	0.15	0.000526
	0.38538	156.27	11.74		140.31	8.40	
1830.18	37.00	4387.63	16.68	-3.37	-6163.60	0.15	0.000548
	0.40056	156.18	11.72		140.23	8.41	
1825.00	38.00	4387.60	16.65	-3.34	-6102.28	0.14	0.000509
	0.37119	156.05	11.70		140.12	8.41	
1811.61	39.00	4387.53	16.58	-3.31	-6004.52	0.14	0.000531
	0.38550	155.69	11.64		139.82	8.43	
1805.34	40.00	4387.50	16.55	-3.32	-5990.65	0.14	0.000526
	0.38117	155.51	11.61		139.66	8.44	
1801.84	41.00	4387.47	16.52	-3.32	-5987.96	0.14	0.000516
	0.37320	155.40	11.59		139.57	8.45	
1799.93	42.00	4387.46	16.51	-3.33	-5987.26	0.14	0.000520
	0.37587	155.35	11.59		139.53	8.45	
1798.76	43.00	4387.46	16.51	-3.33	-5986.06	0.14	0.000506
	0.36573	155.32	11.58		139.51	8.45	
1802.75	44.00	4387.48	16.53	-3.35	-6037.30	0.15	0.000515
	0.37309	155.42	11.60		139.59	8.45	
1813.92	45.00	4387.54	16.59	-3.38	-6134.02	0.15	0.000525
	0.38183	155.72	11.65		139.84	8.43	
1824.59	46.00	4387.60	16.65	-3.40	-6200.58	0.15	0.000565
	0.41199	156.02	11.69		140.09	8.42	
1845.65	47.00	4387.71	16.76	-3.45	-6361.59	0.15	0.000556
	0.40925	156.58	11.79		140.56	8.39	
1871.15	48.00	4387.85	16.90	-3.49	-6531.45	0.15	0.000569
	0.42233	157.26	11.90		141.14	8.35	
1898.25	49.00	4387.99	17.04	-3.53	-6706.92	0.15	0.000574
	0.43003	157.99	12.01		141.75	8.32	
1925.81	50.00	4388.14	17.19	-3.57	-6871.69	0.15	0.000595
	0.45083	158.73	12.13		142.36	8.28	
1954.70	51.00	4388.30	17.35	-3.61	-7052.18	0.15	0.000582
	0.44515	159.49	12.26		143.00	8.24	
1988.22	52.00	4388.47	17.52	-3.66	-7281.59	0.15	0.000610
	0.47231	160.36	12.40		143.73	8.20	
		86236.03					

HYCHAN.OUT							
2023.18	53.00	4388.66	17.71	-3.71	-7499.55	0.16	0.000614
	0.48103	161.27	12.55	144.49	8.16		
	54.00	86691.71	17.84	-3.71	-7596.19	0.15	
2046.97		4388.79	12.64	145.01	8.13	0.000627	
	0.49481	161.89	18.05	-3.79	-7912.11	0.16	
2087.76	55.00	87003.55	12.82	145.85	8.08	0.000681	
	0.54454	162.90	18.37	-3.98	-8565.98	0.16	
2152.66	56.00	87509.66	13.09	147.13	8.01	0.000726	
	0.59324	164.44	18.90	-4.19	-9473.77	0.17	
2259.58	57.00	88280.41	13.53	149.26	7.90	0.000787	
	0.66441	166.99	19.56	-4.42	-10559.65	0.18	
2391.75	58.00	89558.20	14.06	151.82	7.76	0.000848	
	0.74406	170.07	20.17	-4.59	-11551.13	0.18	
2516.83	59.00	91094.52	14.56	154.18	7.64	0.000891	
	0.80975	172.90	20.60	-4.71	-12256.15	0.18	
2603.70	60.00	92508.05	14.90	155.81	7.56	0.000927	
	0.86154	174.73	20.88	-4.79	-12699.28	0.18	
2649.18	61.00	93484.94	15.11	156.85	7.51	0.000937	
	0.88403	175.28	21.05	-4.82	-12895.42	0.19	
2675.89	62.00	94110.27	15.24	157.51	7.48	0.000921	
	0.87543	175.63	21.14	-4.81	-12937.75	0.18	
2688.73	63.00	94506.23	15.29	157.84	7.47	0.000915	
	0.87337	175.81	21.22	-4.80	-12968.52	0.18	
2700.48	64.00	94701.34	15.35	158.13	7.45	0.000896	
	0.85773	175.97	21.30	-4.77	-12923.42	0.18	
2711.71	65.00	94879.67	15.40	158.42	7.44	0.000885	
	0.85017	176.12	21.38	-4.73	-12878.18	0.18	
2723.50	66.00	95053.91	15.45	158.73	7.42	0.000858	
	0.82716	176.29	21.45	-4.69	-12828.21	0.18	
2733.28	67.00	95235.72	15.49	158.98	7.41	0.000847	
	0.81921	176.42	21.51	-4.66	-12768.80	0.18	
2742.24	68.00	95385.39	15.53	159.21	7.40	0.000792	
	0.76726	176.55	21.64	-4.58	-12627.79	0.17	
2758.12	69.00	95528.67	15.60	159.68	7.38	0.000771	
	0.75011	176.80	21.79	-4.49	-12487.89	0.17	
2782.31	70.00	95807.64	15.71	160.25	7.35	0.000768	
	0.75274	177.11	21.99	-4.44	-12488.80	0.17	
2814.80	71.00	96148.84	15.86	160.97	7.32	0.000749	
	0.74065	177.51	22.22	-4.39	-12515.55	0.16	
2849.60	72.00	96584.98	16.01	161.79	7.28	0.000792	
	0.79135	177.96	22.52	-4.62	-13383.16	0.17	
2899.26	73.00	97073.93	16.24	162.89	7.23	0.000839	
	0.85034	178.56					
		97733.25					

HYCHAN.OUT							
2931.23	74.00	4393.67	22.72	-4.71	-13808.23	0.17	0.000867
	0.88583	178.97	16.38	163.62	7.20		
		98172.55					
2961.33	75.00	4393.87	22.92	-4.80	-14200.24	0.18	0.000885
	0.91138	179.36	16.51	164.32	7.17		
		98589.08					
2997.71	76.00	4394.11	23.16	-4.86	-14554.20	0.18	0.000877
	0.91221	179.84	16.67	165.17	7.13		
		99100.78					
3027.31	77.00	4394.32	23.37	-4.93	-14935.32	0.18	0.000857
	0.89753	180.27	16.79	165.94	7.10		
		99562.90					
3050.86	78.00	4394.48	23.53	-4.99	-15215.78	0.18	0.000914
	0.96389	180.59	16.89	166.50	7.08		
		99898.02					
3108.06	79.00	4394.87	23.92	-5.26	-16343.10	0.19	0.000947
	1.01289	181.36	17.14	167.86	7.02		
		100713.02					
3151.39	80.00	4395.17	24.22	-5.35	-16862.36	0.19	0.000820
	0.88626	181.97	17.32	168.92	6.97		
		101352.64					
3202.31	81.00	4395.54	24.59	-5.45	-17437.06	0.19	0.000756
	0.82697	182.71	17.53	170.21	6.92		
		102124.14					
3246.87	82.00	4395.89	24.94	-5.55	-18004.10	0.20	0.000635
	0.70183	183.41	17.70	171.41	6.87		
		102845.75					
3289.79	83.00	4396.23	25.28	-5.44	-17908.10	0.19	0.000378
	0.42192	184.09	17.87	172.57	6.83		
		103542.87					
3342.41	84.00	4396.51	25.56	-5.19	-17356.84	0.18	0.000155
	0.17467	184.65	18.10	173.52	6.79		
		104111.52					
3372.63	85.00	4396.72	25.77	-5.01	-16883.60	0.17	0.000081
	0.09252	185.07	18.22	174.23	6.76		
		104540.90					
3394.34	86.00	4396.89	25.94	-4.91	-16673.37	0.17	0.000000
	0.00000	185.41	18.31	174.81	6.74		
		104884.83					
3410.37	87.00	4397.02	26.07	-4.85	-16526.70	0.17	0.000000
	0.00000	185.66	18.37	175.22	6.72		
		105133.11					
3424.99	88.00	4397.12	26.17	-4.66	-15976.00	0.16	0.000000
	0.00000	185.87	18.43	175.57	6.71		
		105344.41					
3440.40	89.00	4397.22	26.27	-4.43	-15244.62	0.15	0.000000
	0.00000	186.07	18.49	175.91	6.70		
		105543.80					
3450.21	90.00	4397.28	26.33	-4.22	-14544.69	0.14	0.000000
	0.00000	186.19	18.53	176.10	6.69		
		105662.67					
3450.21	91.00	4397.28	26.33	-4.13	-14232.45	0.14	0.000000
	0.00000	186.18	18.53	176.10	6.69		
		105661.10					
3454.06	92.00	4397.30	26.35	-4.15	-14325.37	0.14	0.000000
	0.00000	186.23	18.55	176.18	6.69		
		105705.64					
3448.53	93.00	4397.27	26.32	-4.33	-14931.33	0.15	0.000000
	0.00000	186.17	18.52	176.08	6.69		
		105646.20					
3437.33	94.00	4397.20	26.25	-4.37	-15026.79	0.15	0.000000
	0.00000	186.02	18.48	175.83	6.70		
		105496.27					

HYCHAN.OUT							
3427.09	95.00	4397.13	26.18	-4.44	-15227.13	0.15	0.000000
	0.00000	185.88	18.44	175.60	6.71		
		105357.41					
3412.14	96.00	4397.03	26.08	-4.52	-15417.30	0.16	0.000000
	0.00000	185.69	18.38	175.27	6.72		
		105159.98					
3396.21	97.00	4396.92	25.97	-4.65	-15798.16	0.16	0.000000
	0.00000	185.46	18.31	174.89	6.73		
		104935.16					
3381.64	98.00	4396.80	25.85	-4.71	-15921.51	0.16	0.000025
	0.02854	185.23	18.26	174.50	6.75		
		104701.53					
3360.05	99.00	4396.64	25.69	-4.77	-16020.71	0.17	0.000070
	0.07943	184.91	18.17	173.97	6.77		
		104379.44					
3332.08	100.00	4396.46	25.51	-4.90	-16314.07	0.17	0.000227
	0.25531	184.54	18.06	173.33	6.80		
		103997.45					
3298.70	101.00	4396.27	25.32	-5.02	-16571.03	0.18	0.000414
	0.46218	184.17	17.91	172.71	6.82		
		103623.04					
3261.56	102.00	4396.05	25.10	-5.13	-16720.12	0.18	0.000553
	0.61232	183.72	17.75	171.94	6.85		
		103166.07					
3222.03	103.00	4395.72	24.77	-5.15	-16599.73	0.18	0.000669
	0.73448	183.06	17.60	170.81	6.90		
		102483.46					
3158.51	104.00	4395.23	24.28	-4.99	-15748.26	0.18	0.000733
	0.79380	182.09	17.35	169.12	6.97		
		101474.49					
3063.49	105.00	4394.57	23.62	-4.66	-14288.49	0.17	0.000644
	0.68104	180.77	16.95	166.81	7.06		
		100088.05					
2979.14	106.00	4394.03	23.07	-4.27	-12725.98	0.16	0.000587
	0.60739	179.68	16.58	164.88	7.15		
		98928.40					
2947.39	107.00	4393.83	22.88	-4.10	-12094.11	0.15	0.000599
	0.61431	179.28	16.44	164.18	7.18		
		98505.05					
2912.96	108.00	4393.61	22.66	-3.95	-11498.83	0.15	0.000509
	0.51761	178.85	16.29	163.39	7.21		
		98036.19					
2857.88	109.00	4393.27	22.32	-3.64	-10393.92	0.14	0.000412
	0.41281	178.16	16.04	162.16	7.27		
		97294.63					
2789.65	110.00	4392.83	21.88	-3.31	-9223.72	0.12	0.000375
	0.36831	177.28	15.74	160.55	7.34		
		96328.66					
2736.22	111.00	4392.48	21.53	-3.25	-8893.16	0.12	0.000387
	0.37448	176.58	15.50	159.28	7.40		
		95565.11					
2697.64	112.00	4392.23	21.28	-3.30	-8891.95	0.13	0.000428
	0.40869	176.09	15.32	158.35	7.44		
		95011.09					
2670.25	113.00	4392.05	21.10	-3.32	-8876.63	0.13	0.000417
	0.39554	175.73	15.20	157.68	7.47		
		94610.11					
2637.13	114.00	4391.84	20.89	-3.29	-8671.71	0.13	0.000404
	0.37963	175.30	15.04	156.88	7.51		
		94130.73					
2599.91	115.00	4391.62	20.67	-3.29	-8565.51	0.13	0.000450
	0.41736	174.86	14.87	156.06	7.55		
		93633.31					

HYCHAN.OUT							
116.00	4391.55	20.60	-3.39	-8759.04	0.13		
2586.26	174.72	14.80	155.79	7.56	0.000465		
0.42959	93476.12						
117.00	4391.51	20.56	-3.42	-8809.83	0.13		
2577.56	174.64	14.76	155.64	7.57	0.000446		
0.41051	93386.62						
118.00	4391.38	20.43	-3.41	-8683.17	0.13		
2549.87	174.07	14.65	155.15	7.60	0.000451		
0.41185	93092.90						
119.00	4391.28	20.33	-3.41	-8627.03	0.13		
2528.44	173.60	14.56	154.77	7.61	0.000457		
0.41502	92860.59						
120.00	4391.23	20.27	-3.44	-8667.25	0.13		
2518.31	173.37	14.53	154.57	7.62	0.000475		
0.43017	92743.91						
121.00	4391.22	20.27	-3.48	-8748.20	0.14		
2517.02	173.34	14.52	154.55	7.63	0.000462		
0.41874	92727.81						
122.00	4391.18	20.23	-3.49	-8748.30	0.14		
2509.97	173.18	14.49	154.41	7.63	0.000471		
0.42614	92648.34						
123.00	4391.10	20.15	-3.48	-8668.23	0.14		
2492.01	172.78	14.42	154.08	7.65	0.000478		
0.43005	92447.66						
124.00	4390.99	20.04	-3.46	-8556.14	0.14		
2470.99	172.30	14.34	153.69	7.67	0.000461		
0.41260	92211.42						
125.00	4390.91	19.96	-3.45	-8460.47	0.14		
2453.87	171.92	14.27	153.37	7.68	0.000453		
0.40341	92019.82						
126.00	4390.81	19.86	-3.43	-8351.46	0.14		
2433.51	171.46	14.19	152.98	7.70	0.000470		
0.41607	91789.34						
127.00	4390.76	19.81	-3.44	-8329.15	0.14		
2423.20	171.22	14.15	152.78	7.71	0.000446		
0.39399	91669.82						
128.00	4390.69	19.74	-3.43	-8256.99	0.14		
2409.77	170.91	14.10	152.53	7.73	0.000465		
0.40885	91516.05						
129.00	4390.60	19.65	-3.41	-8158.46	0.14		
2391.40	170.49	14.03	152.18	7.74	0.000482		
0.42164	91306.62						
130.00	4390.55	19.60	-3.42	-8142.72	0.14		
2381.80	170.26	13.99	151.99	7.75	0.000451		
0.39356	91193.30						
131.00	4390.49	19.54	-3.41	-8074.57	0.14		
2368.67	169.96	13.94	151.73	7.77	0.000447		
0.38866	91040.67						
132.00	4390.39	19.44	-3.39	-7976.60	0.14		
2350.15	169.53	13.86	151.38	7.79	0.000447		
0.38681	90827.30						
133.00	4390.41	19.46	-3.44	-8094.57	0.14		
2353.36	169.59	13.88	151.43	7.78	0.000464		
0.40159	90857.16						
134.00	4390.49	19.54	-3.49	-8278.85	0.14		
2371.59	170.00	13.95	151.77	7.77	0.000482		
0.41915	91061.41						
135.00	4390.50	19.55	-3.50	-8302.61	0.14		
2373.03	170.03	13.96	151.79	7.76	0.000482		
0.41959	91075.91						
136.00	4390.48	19.53	-3.50	-8303.45	0.14		
2369.70	169.95	13.94	151.73	7.77	0.000479		
0.41660	91036.50						

HYCHAN.OUT							
2365.88	137.00	4390.46	19.51	-3.51	-8302.77	0.14	0.000476
	0.41386	169.86	13.93	151.65	7.77		
		90991.25					
2362.11	138.00	4390.45	19.49	-3.51	-8301.44	0.14	0.000479
	0.41615	169.77	13.91	151.58	7.78		
		90946.31					
2358.84	139.00	4390.43	19.48	-3.52	-8299.18	0.14	0.000475
	0.41179	169.69	13.90	151.51	7.78		
		90906.36					
2355.41	140.00	4390.41	19.46	-3.52	-8297.85	0.14	0.000472
	0.40891	169.61	13.89	151.44	7.78		
		90865.45					
2345.87	141.00	4390.36	19.41	-3.51	-8229.02	0.14	0.000488
	0.42137	169.39	13.85	151.26	7.79		
		90754.83					
2330.83	142.00	4390.29	19.34	-3.49	-8133.76	0.14	0.000511
	0.43975	169.04	13.79	150.97	7.81		
		90580.97					
2324.88	143.00	4390.26	19.31	-3.49	-8118.68	0.14	0.000519
	0.44592	168.90	13.77	150.85	7.81		
		90510.03					
2321.08	144.00	4390.24	19.29	-3.50	-8116.43	0.14	0.000480
	0.41214	168.81	13.75	150.78	7.82		
		90465.55					
2317.88	145.00	4390.22	19.27	-3.50	-8114.24	0.14	0.000513
	0.44007	168.73	13.74	150.71	7.82		
		90424.62					
2309.00	146.00	4390.18	19.23	-3.48	-8046.85	0.14	0.000508
	0.43444	168.52	13.70	150.54	7.83		
		90321.75					
2293.95	147.00	4390.10	19.15	-3.47	-7953.33	0.14	0.000475
	0.40451	168.17	13.64	150.24	7.84		
		90145.67					
2287.63	148.00	4390.07	19.12	-3.47	-7939.53	0.14	0.000515
	0.43738	168.01	13.62	150.11	7.85		
		90068.27					
2283.45	149.00	4390.05	19.10	-3.48	-7937.17	0.14	0.000478
	0.40535	167.91	13.60	150.03	7.86		
		90017.97					
2279.93	150.00	4390.03	19.08	-3.48	-7934.08	0.14	0.000522
	0.44260	167.83	13.58	149.96	7.86		
		89976.01					
2277.48	151.00	4390.02	19.07	-3.48	-7932.11	0.14	0.000477
	0.40383	167.77	13.58	149.91	7.86		
		89945.56					
2270.74	152.00	4389.98	19.03	-3.47	-7888.61	0.14	0.000506
	0.42792	167.61	13.55	149.77	7.87		
		89864.45					
2258.12	153.00	4389.92	18.97	-3.46	-7806.58	0.14	0.000502
	0.42284	167.31	13.50	149.52	7.88		
		89714.80					
2249.00	154.00	4389.87	18.92	-3.45	-7765.20	0.14	0.000466
	0.39142	167.09	13.46	149.34	7.89		
		89605.81					
2244.43	155.00	4389.85	18.90	-3.46	-7757.52	0.14	0.000502
	0.42139	166.97	13.44	149.25	7.90		
		89548.52					
2235.53	156.00	4389.80	18.85	-3.44	-7693.82	0.14	0.000500
	0.41826	166.76	13.41	149.07	7.91		
		89441.46					
2232.30	157.00	4389.79	18.84	-3.46	-7729.98	0.14	0.000515
	0.43044	166.68	13.39	149.00	7.91		
		89398.73					



HYCHAN.OUT							
2251.56	158.00	4389.88	18.93	-3.51	-7899.19	0.14	0.000502
	0.42206	167.13	13.47		149.38	7.89	
		89625.06					
2257.12	159.00	4389.91	18.96	-3.51	-7924.10	0.14	0.000515
	0.43399	167.26	13.49		149.49	7.88	
		89693.10					
2257.61	160.00	4389.91	18.96	-3.51	-7926.13	0.14	0.000512
	0.43148	167.28	13.50		149.50	7.88	
		89699.59					
2256.94	161.00	4389.91	18.96	-3.51	-7927.42	0.14	0.000504
	0.42433	167.26	13.49		149.48	7.88	
		89690.41					
2256.18	162.00	4389.91	18.96	-3.51	-7926.64	0.14	0.000517
	0.43528	167.24	13.49		149.47	7.89	
		89681.19					
2255.23	163.00	4389.90	18.95	-3.51	-7926.59	0.14	0.000499
	0.42014	167.22	13.49		149.45	7.89	
		89669.80					
2254.37	164.00	4389.90	18.95	-3.52	-7925.78	0.14	0.000530
	0.44556	167.19	13.48		149.43	7.89	
		89658.73					
2253.57	165.00	4389.89	18.94	-3.52	-7923.64	0.14	0.000500
	0.42090	167.18	13.48		149.42	7.89	
		89649.80					
2246.95	166.00	4389.86	18.91	-3.50	-7859.58	0.14	0.000499
	0.41920	167.02	13.45		149.29	7.89	
		89573.02					
2233.34	167.00	4389.79	18.84	-3.48	-7767.51	0.14	0.000528
	0.44131	166.70	13.40		149.02	7.91	
		89409.85					
2227.92	168.00	4389.76	18.81	-3.48	-7754.06	0.14	0.000496
	0.41434	166.57	13.38		148.91	7.92	
		89344.14					
2226.24	169.00	4389.75	18.80	-3.48	-7750.20	0.14	0.000486
	0.40524	166.52	13.37		148.87	7.92	
		89321.63					
2225.04	170.00	4389.75	18.80	-3.48	-7750.86	0.14	0.000527
	0.43988	166.49	13.36		148.84	7.92	
		89306.28					
2224.12	171.00	4389.74	18.79	-3.48	-7749.54	0.14	0.000497
	0.41415	166.47	13.36		148.83	7.92	
		89296.09					
2223.34	172.00	4389.74	18.79	-3.49	-7748.95	0.14	0.000495
	0.41236	166.45	13.36		148.81	7.92	
		89285.34					
2222.42	173.00	4389.73	18.78	-3.49	-7748.44	0.14	0.000518
	0.43169	166.42	13.35		148.79	7.92	
		89273.35					
2215.68	174.00	4389.70	18.75	-3.47	-7683.10	0.14	0.000511
	0.42519	166.27	13.33		148.66	7.93	
		89193.96					
2201.72	175.00	4389.63	18.68	-3.45	-7591.95	0.14	0.000510
	0.42199	165.93	13.27		148.38	7.94	
		89027.85					
2196.29	176.00	4389.60	18.65	-3.45	-7575.74	0.14	0.000488
	0.40340	165.80	13.25		148.27	7.95	
		88960.51					
2194.22	177.00	4389.59	18.64	-3.45	-7573.33	0.14	0.000473
	0.39107	165.75	13.24		148.22	7.95	
		88934.17					
2193.00	178.00	4389.58	18.63	-3.45	-7572.05	0.14	0.000481
	0.39746	165.71	13.23		148.20	7.95	
		88917.95					

HYCHAN.OUT							
2192.05	179.00	4389.58	18.63	-3.45	-7572.56	0.14	0.000503
	0.41565	165.69	13.23		148.18	7.95	
		88905.38					
2191.06	180.00	4389.57	18.62	-3.46	-7574.46	0.14	0.000514
	0.42426	165.66	13.23		148.16	7.96	
		88893.12					
2202.50	181.00	4389.63	18.68	-3.50	-7703.07	0.14	0.000526
	0.43589	165.93	13.27		148.38	7.94	
		89025.89					
2228.09	182.00	4389.76	18.81	-3.54	-7886.45	0.14	0.000534
	0.44539	166.54	13.38		148.89	7.92	
		89332.97					
2242.90	183.00	4389.83	18.88	-3.56	-7978.87	0.14	0.000515
	0.43174	166.90	13.44		149.18	7.90	
		89510.50					
2257.98	184.00	4389.91	18.96	-3.58	-8073.70	0.14	0.000548
	0.46179	167.26	13.50		149.48	7.88	
		89690.87					
2263.18	185.00	4389.94	18.99	-3.57	-8088.67	0.14	0.000509
	0.42967	167.39	13.52		149.59	7.88	
		89755.20					
2265.06	186.00	4389.95	19.00	-3.57	-8090.92	0.14	0.000546
	0.46066	167.43	13.53		149.63	7.88	
		89777.06					
2265.85	187.00	4389.95	19.00	-3.57	-8091.63	0.14	0.000526
	0.44380	167.45	13.53		149.65	7.88	
		89788.39					
2266.47	188.00	4389.95	19.00	-3.57	-8092.97	0.14	0.000537
	0.45317	167.47	13.53		149.66	7.88	
		89794.73					
2266.65	189.00	4389.96	19.00	-3.57	-8091.80	0.14	0.000532
	0.44901	167.47	13.53		149.66	7.88	
		89797.79					
2266.77	190.00	4389.96	19.01	-3.57	-8092.52	0.14	0.000502
	0.42356	167.48	13.53		149.67	7.87	
		89799.67					
2266.82	191.00	4389.96	19.01	-3.57	-8091.36	0.14	0.000545
	0.46022	167.48	13.54		149.67	7.87	
		89799.54					
2260.93	192.00	4389.93	18.98	-3.55	-8026.62	0.14	0.000494
	0.41643	167.34	13.51		149.55	7.88	
		89731.85					
2247.83	193.00	4389.86	18.91	-3.53	-7935.59	0.14	0.000538
	0.45198	167.03	13.46		149.29	7.89	
		89575.63					
2242.91	194.00	4389.84	18.89	-3.53	-7922.51	0.14	0.000502
	0.42053	166.91	13.44		149.19	7.90	
		89516.72					
2241.05	195.00	4389.83	18.88	-3.53	-7919.71	0.14	0.000538
	0.45079	166.86	13.43		149.16	7.90	
		89493.03					
2240.26	196.00	4389.82	18.87	-3.54	-7919.71	0.14	0.000505
	0.42322	166.85	13.43		149.14	7.90	
		89485.50					
2239.52	197.00	4389.82	18.87	-3.54	-7919.00	0.14	0.000542
	0.45424	166.83	13.42		149.12	7.90	
		89473.87					
2239.07	198.00	4389.82	18.87	-3.54	-7918.82	0.14	0.000495
	0.41422	166.82	13.42		149.11	7.90	
		89468.86					
2238.69	199.00	4389.81	18.86	-3.54	-7919.00	0.14	0.000561
	0.46986	166.81	13.42		149.11	7.90	
		89463.93					

## HYCHAN.OUT

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4800

MAXIMUM DISCHARGE (CFS) = 1179.62 AT TIME = 91.54  
 MAXIMUM STAGE = 4398.15 AT TIME = 91.54

AREA (FT^2)	TIME (HRS)	ELEV. SURFACE (FT)	THALWEG HYDRAULIC RADIUS (FT)	DEPTH (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY	NO. SLOPE	FLOW
0.00	0.00	4379.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4379.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4379.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4379.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4379.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
53.44	5.00	4381.63	2.63	1.97	-0.39	-21.06	0.04	0.000576	
	0.07069	27.17			25.54	9.71			
151.17	6.00	4384.94	5.94	3.90	-0.04	-5.98	0.00	0.000463	
	0.11265	38.81			35.41	5.96			
178.83	7.00	4385.65	6.65	4.38	-0.01	-2.55	0.00	0.000411	
	0.11240	40.79			37.06	5.57			
0.00	8.00	4385.88	6.88	0.00	0.00	0.00	0.00	0.000394	
	0.00000	41.40			37.57	5.46			
0.00	9.00	4385.87	6.87	0.00	0.00	0.00	0.00	0.000372	
	0.00000	41.36			37.54	5.46			
0.00	10.00	4385.82	6.82	0.00	0.00	0.00	0.00	0.000359	
	0.00000	41.23			37.42	5.49			
0.00	11.00	4385.75	6.75	0.00	0.00	0.00	0.00	0.000362	
	0.00000	41.06			37.29	5.52			
0.00	12.00	4385.70	6.70	0.00	0.00	0.00	0.00	0.000347	
	0.00000	40.93			37.17	5.54			
0.00	13.00	4385.61	6.61	0.00	0.00	0.00	0.00	0.000349	
	0.00000	40.67			36.96	5.59			
0.00	14.00	4385.48	6.48	0.00	0.00	0.00	0.00	0.000353	
	0.00000	40.32			36.67	5.66			
0.00	15.00	4385.40	6.40	0.00	0.00	0.00	0.00	0.000344	
	0.00000	40.09			36.48	5.70			
0.00	16.00	4385.36	6.36	0.00	0.00	0.00	0.00		

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HYCHAN.OUT						
0.00		39.99	0.00	36.40	5.72	0.000343
	0.00000	21837.95				
	17.00	4385.34	6.34	0.00	0.00	0.00
0.00		39.94	0.00	36.36	5.73	0.000340
	0.00000	21813.90				
	18.00	4385.33	6.33	0.00	0.00	0.00
0.00		39.92	0.00	36.34	5.74	0.000333
	0.00000	21801.78				
	19.00	4385.34	6.34	0.00	0.00	0.00
0.00		39.93	0.00	36.35	5.73	0.000353
	0.00000	21807.78				
	20.00	4385.41	6.41	0.00	0.00	0.00
0.00		40.12	0.00	36.51	5.70	0.000356
	0.00000	21903.91				
	21.00	4385.54	6.54	0.00	0.00	0.00
0.00		40.48	0.00	36.80	5.63	0.000360
	0.00000	22081.54				
	22.00	4385.67	6.67	0.00	0.00	0.00
0.00		40.84	0.00	37.11	5.56	0.000378
	0.00000	22264.00				
	23.00	4385.76	6.76	0.00	0.00	0.00
0.00		41.07	0.00	37.30	5.52	0.000380
	0.00000	22377.35				
	24.00	4385.81	6.81	0.00	0.00	0.00
0.00		41.20	0.00	37.40	5.49	0.000365
	0.00000	22442.08				
	25.00	4385.91	6.91	0.00	0.00	0.00
0.00		41.48	0.00	37.63	5.44	0.000389
	0.00000	22580.45				
	26.00	4386.11	7.11	0.00	0.00	0.00
0.00		41.99	0.00	38.06	5.35	0.000408
	0.00000	22834.22				
	27.00	4386.34	7.34	0.00	0.00	0.00
0.00		42.57	0.00	38.54	5.25	0.000433
	0.00000	23125.70				
	28.00	4386.56	7.56	0.00	0.00	0.00
0.00		43.14	0.00	39.01	5.16	0.000437
	0.00000	23406.73				
	29.00	4386.67	7.67	0.00	0.00	0.00
0.00		43.41	0.00	39.24	5.12	0.000432
	0.00000	23542.34				
	30.00	4386.74	7.74	0.00	0.00	0.00
0.00		43.58	0.00	39.37	5.09	0.000434
	0.00000	23623.90				
	31.00	4386.83	7.83	0.00	0.00	0.00
0.00		43.80	0.00	39.56	5.05	0.000440
	0.00000	23733.63				
	32.00	4386.88	7.88	0.00	0.00	0.00
0.00		43.93	0.00	39.66	5.03	0.000437
	0.00000	23796.56				
	33.00	4386.92	7.92	0.00	0.00	0.00
0.00		44.04	0.00	39.75	5.02	0.000444
	0.00000	23851.46				
	34.00	4387.00	8.00	0.00	0.00	0.00
0.00		44.23	0.00	39.91	4.99	0.000443
	0.00000	23947.72				
	35.00	4387.05	8.05	0.00	0.00	0.00
0.00		44.34	0.00	40.00	4.97	0.000444
	0.00000	24000.51				
	36.00	4387.08	8.09	0.00	0.00	0.00
0.00		44.42	0.00	40.07	4.96	0.000428
	0.00000	24043.97				
	37.00	4387.08	8.08	0.00	0.00	0.00

HYCHAN.OUT						
0.00		44.42	0.00	40.07	4.96	0.000383
	0.00000	24040.44				
38.00		4387.06	8.06	0.00	0.00	0.00
0.00		44.37	0.00	40.03	4.96	0.000429
	0.00000	24018.32				
39.00		4387.00	8.00	0.00	0.00	0.00
0.00		44.22	0.00	39.90	4.99	0.000386
	0.00000	23940.88				
40.00		4386.96	7.96	0.00	0.00	0.00
0.00		44.12	0.00	39.83	5.00	0.000409
	0.00000	23895.22				
41.00		4386.94	7.94	0.00	0.00	0.00
0.00		44.07	0.00	39.78	5.01	0.000404
	0.00000	23867.12				
42.00		4386.93	7.93	0.00	0.00	0.00
0.00		44.04	0.00	39.75	5.02	0.000419
	0.00000	23852.38				
43.00		4386.92	7.92	0.00	0.00	0.00
0.00		44.02	0.00	39.74	5.02	0.000440
	0.00000	23845.51				
44.00		4386.93	7.93	0.00	0.00	0.00
0.00		44.05	0.00	39.77	5.01	0.000444
	0.00000	23860.82				
45.00		4386.98	7.98	0.00	0.00	0.00
0.00		44.17	0.00	39.87	4.99	0.000434
	0.00000	23919.78				
46.00		4387.04	8.04	0.00	0.00	0.00
0.00		44.31	0.00	39.98	4.97	0.000424
	0.00000	23987.15				
47.00		4387.13	8.13	0.00	0.00	0.00
0.00		44.54	0.00	40.17	4.94	0.000467
	0.00000	24103.36				
48.00		4387.26	8.26	0.00	0.00	0.00
0.00		44.84	0.00	40.42	4.89	0.000462
	0.00000	24250.89				
49.00		4387.40	8.40	0.00	0.00	0.00
0.00		45.16	0.00	40.68	4.85	0.000477
	0.00000	24410.68				
50.00		4387.54	8.54	0.00	0.00	0.00
0.00		45.49	0.00	40.95	4.80	0.000455
	0.00000	24572.29				
51.00		4387.68	8.68	0.00	0.00	0.00
0.00		45.83	0.00	41.23	4.75	0.000496
	0.00000	24738.40				
52.00		4387.84	8.84	0.00	0.00	0.00
0.00		46.20	0.00	41.54	4.70	0.000481
	0.00000	24922.69				
53.00		4388.02	9.02	0.00	0.00	0.00
0.00		46.60	0.00	41.86	4.64	0.000488
	0.00000	25118.91				
54.00		4388.15	9.15	0.00	0.00	0.00
0.00		46.89	0.00	42.11	4.60	0.000467
	0.00000	25263.92				
55.00		4388.33	9.33	0.00	0.00	0.00
0.00		47.30	0.00	42.44	4.55	0.000540
	0.00000	25466.57				
56.00		4388.58	9.58	0.00	0.00	0.00
0.00		47.86	0.00	42.90	4.48	0.000598
	0.00000	25741.79				
57.00		4389.05	10.05	-0.01	-3.60	0.00
313.09		48.87	6.41	43.73	4.35	0.000655
	0.26184	26240.04				
58.00		4389.64	10.64	-0.01	-4.10	0.00

		HYCHAN.OUT					
337.10	50.09	6.73	44.73	4.21	0.000715		
0.30042	26838.25						
59.00	4390.19	11.19	-0.01	-3.81	0.00		
361.61	51.22	7.06	45.65	4.08	0.000759		
0.33438	27391.07						
60.00	4390.58	11.58	-0.06	-21.92	0.00		
380.22	52.00	7.31	46.28	4.00	0.000791		
0.36099	27768.94						
61.00	4390.84	11.84	-0.16	-64.68	0.01		
392.69	52.52	7.48	46.70	3.94	0.000800		
0.37312	28017.81						
62.00	4391.02	12.02	-0.11	-45.12	0.01		
397.27	52.89	7.51	46.99	3.91	0.000786		
0.36857	28191.34						
63.00	4391.12	12.12	0.06	24.78	0.00		
400.77	53.07	7.55	47.13	3.89	0.000779		
0.36714	28278.96						
64.00	4391.19	12.19	0.18	71.85	0.01		
405.98	53.23	7.63	47.25	3.87	0.000778		
0.37019	28351.60						
65.00	4391.29	12.29	0.20	84.10	0.01		
410.61	53.41	7.69	47.39	3.86	0.000753		
0.36141	28436.69						
66.00	4391.39	12.39	0.21	86.44	0.01		
415.37	53.61	7.75	47.55	3.84	0.000759		
0.36682	28529.18						
67.00	4391.47	12.47	0.21	87.62	0.01		
419.18	53.78	7.79	47.67	3.82	0.000735		
0.35757	28604.99						
68.00	4391.55	12.55	0.20	86.41	0.01		
422.82	53.94	7.84	47.80	3.81	0.000691		
0.33812	28681.01						
69.00	4391.72	12.72	0.19	82.16	0.01		
430.69	54.29	7.93	48.06	3.78	0.000696		
0.34476	28837.62						
70.00	4391.91	12.91	0.19	81.63	0.01		
439.24	54.66	8.04	48.34	3.75	0.000638		
0.31998	29005.15						
71.00	4392.12	13.12	0.19	87.11	0.01		
448.84	55.08	8.15	48.66	3.71	0.000645		
0.32796	29194.72						
72.00	4392.36	13.36	0.19	87.95	0.01		
459.65	55.56	8.27	49.01	3.67	0.000691		
0.35673	29407.79						
73.00	4392.58	13.58	0.20	92.25	0.01		
469.64	55.99	8.39	49.33	3.63	0.000740		
0.38728	29599.43						
74.00	4392.75	13.75	0.19	90.09	0.01		
477.47	56.33	8.48	49.58	3.61	0.000762		
0.40324	29746.09						
75.00	4392.91	13.91	0.21	103.67	0.01		
485.24	56.66	8.56	49.81	3.58	0.000748		
0.39975	29888.56						
76.00	4393.14	14.14	0.35	171.11	0.02		
494.84	57.12	8.66	50.14	3.55	0.000766		
0.41390	30084.51						
77.00	4393.34	14.34	0.45	225.66	0.02		
503.11	57.52	8.75	50.43	3.52	0.000751		
0.40984	30255.17						
78.00	4393.48	14.48	0.50	253.57	0.02		
509.41	57.80	8.81	50.62	3.50	0.000794		
0.43674	30373.57						
79.00	4393.77	14.77	0.51	266.66	0.02		

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HYCHAN.OUT									
523.01		58.38		8.96		51.02		3.46	0.000821
	0.45918	30613.98							
	80.00	4394.11	15.11		0.71	387.05		0.03	
541.35		59.05		9.17		51.49		3.41	0.000722
	0.41285	30893.78							
	81.00	4394.54	15.54		0.94	529.26		0.04	
561.73		59.91		9.38		52.07		3.35	0.000675
	0.39506	31242.58							
	82.00	4394.96	15.96		1.06	617.31		0.05	
582.56		60.76		9.59		52.64		3.30	0.000559
	0.33459	31584.06							
	83.00	4395.53	16.53		1.17	712.65		0.05	
610.02		61.90		9.85		53.39		3.23	0.000364
	0.22371	32031.47							
	84.00	4396.06	17.06		1.25	794.79		0.05	
635.24		62.96		10.09		54.06		3.17	0.000186
	0.11739	32437.72							
	85.00	4396.45	17.45		1.28	837.18		0.05	
653.39		63.73		10.25		54.55		3.13	0.000140
	0.08939	32729.47							
	86.00	4396.73	17.73		1.27	849.50		0.05	
666.63		64.30		10.37		54.90		3.10	0.000049
	0.03171	32941.61							
	87.00	4396.92	17.92		1.31	884.89		0.05	
676.16		64.68		10.45		55.14		3.08	0.000000
	0.00000	33084.98							
	88.00	4397.18	18.18		1.42	976.01		0.06	
689.57		65.20		10.58		55.46		3.05	0.000000
	0.00000	33276.27							
	89.00	4397.44	18.44		1.47	1030.94		0.06	
702.66		65.72		10.69		55.78		3.02	0.000000
	0.00000	33466.45							
	90.00	4397.64	18.64		1.51	1078.82		0.06	
712.76		66.12		10.78		56.02		3.01	0.000000
	0.00000	33611.06							
	91.00	4397.68	18.68		1.51	1076.44		0.06	
714.76		66.20		10.80		56.07		3.00	0.000000
	0.00000	33639.94							
	92.00	4397.70	18.70		1.52	1083.63		0.06	
715.15		66.23		10.80		56.08		3.00	0.000000
	0.00000	33650.76							
	93.00	4397.53	18.53		1.46	1030.95		0.06	
706.34		65.90		10.72		55.88		3.02	0.000000
	0.00000	33529.25							
	94.00	4397.42	18.42		1.45	1017.69		0.06	
701.52		65.69		10.68		55.75		3.03	0.000000
	0.00000	33452.79							
	95.00	4397.29	18.29		1.41	979.48		0.06	
694.91		65.41		10.62		55.59		3.04	0.000000
	0.00000	33353.71							
	96.00	4397.12	18.12		1.37	943.50		0.06	
686.82		65.08		10.55		55.38		3.06	0.000000
	0.00000	33229.59							
	97.00	4396.88	17.88		1.30	878.73		0.05	
675.05		64.60		10.45		55.09		3.08	0.000000
	0.00000	33053.96							
	98.00	4396.69	17.69		1.26	839.54		0.05	
665.76		64.22		10.37		54.85		3.10	0.000070
	0.04525	32911.11							
	99.00	4396.43	17.43		1.21	790.78		0.05	
653.50		63.71		10.26		54.54		3.13	0.000112
	0.07142	32721.04							
100.00		4396.08	17.08		1.11	704.01		0.05	

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HYCHAN.OUT							
636.22	63.01	10.10	54.09	3.17	0.000243		
0.15332	32454.97						
101.00	4395.75	16.75	1.04	643.52	0.04		
619.86	62.33	9.94	53.66	3.20	0.000383		
0.23783	32197.10						
102.00	4395.38	16.38	1.04	628.70	0.05		
602.82	61.60	9.79	53.18	3.25	0.000488		
0.29831	31910.90						
103.00	4394.92	15.92	0.99	576.55	0.04		
581.26	60.68	9.58	52.59	3.30	0.000589		
0.35203	31552.23						
104.00	4394.38	15.38	0.86	476.25	0.04		
554.99	59.59	9.31	51.86	3.37	0.000628		
0.36511	31113.96						
105.00	4393.73	14.73	0.65	339.42	0.03		
524.90	58.30	9.00	50.97	3.46	0.000559		
0.31396	30582.36						
106.00	4393.31	14.31	0.59	295.85	0.03		
502.81	57.46	8.75	50.38	3.52	0.000531		
0.28999	30228.07						
107.00	4393.15	14.15	0.54	268.27	0.03		
495.19	57.15	8.66	50.16	3.54	0.000497		
0.26892	30097.88						
108.00	4392.99	13.99	0.54	263.97	0.03		
487.76	56.83	8.58	49.93	3.57	0.000404		
0.21639	29960.58						
109.00	4392.76	13.76	0.54	258.47	0.03		
476.73	56.35	8.46	49.59	3.61	0.000345		
0.18201	29754.93						
110.00	4392.41	13.41	0.56	257.40	0.03		
460.89	55.66	8.28	49.09	3.66	0.000331		
0.17122	29452.80						
111.00	4392.06	13.06	0.53	236.92	0.03		
444.46	54.96	8.09	48.57	3.72	0.000347		
0.17492	29141.30						
112.00	4391.78	12.78	0.50	217.92	0.02		
433.59	54.40	7.97	48.15	3.77	0.000375		
0.18669	28888.08						
113.00	4391.59	12.59	0.48	203.75	0.02		
425.40	54.02	7.88	47.86	3.80	0.000350		
0.17195	28716.04						
114.00	4391.39	12.39	0.48	198.49	0.02		
416.04	53.61	7.76	47.55	3.84	0.000343		
0.16627	28530.47						
115.00	4391.16	12.16	0.45	181.60	0.02		
405.86	53.16	7.63	47.20	3.88	0.000359		
0.17090	28320.01						
116.00	4391.07	12.07	0.38	153.51	0.02		
401.23	52.97	7.57	47.05	3.90	0.000371		
0.17543	28230.68						
117.00	4391.02	12.02	0.38	152.20	0.02		
398.95	52.88	7.54	46.98	3.91	0.000392		
0.18451	28186.69						
118.00	4390.89	11.89	0.40	157.98	0.02		
393.34	52.63	7.47	46.78	3.93	0.000380		
0.17706	28068.04						
119.00	4390.79	11.79	0.39	152.85	0.02		
388.78	52.42	7.42	46.62	3.95	0.000390		
0.18038	27972.85						
120.00	4390.73	11.73	0.37	143.46	0.02		
385.98	52.30	7.38	46.52	3.97	0.000352		
0.16225	27914.86						
121.00	4390.71	11.71	0.35	135.43	0.02		

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HYCHAN.OUT									
385.00	52.27	7.37	46.50	3.97	0.000405				
0.18625	27898.27								
122.00	4390.68	11.68	0.35	133.44	0.02				
383.35	52.19	7.35	46.44	3.98	0.000424				
0.19432	27861.54								
123.00	4390.59	11.59	0.36	135.24	0.02				
379.48	52.02	7.29	46.30	3.99	0.000358				
0.16295	27780.07								
124.00	4390.49	11.49	0.35	131.34	0.02				
374.81	51.82	7.23	46.14	4.02	0.000386				
0.17406	27684.45								
125.00	4390.41	11.41	0.34	125.50	0.02				
371.25	51.66	7.19	46.01	4.03	0.000419				
0.18782	27607.36								
126.00	4390.32	11.32	0.32	117.48	0.02				
366.72	51.47	7.12	45.86	4.05	0.000370				
0.16456	27515.21								
127.00	4390.26	11.26	0.30	109.46	0.02				
364.28	51.37	7.09	45.77	4.06	0.000436				
0.19284	27462.45								
128.00	4390.20	11.20	0.30	107.06	0.02				
361.50	51.24	7.05	45.67	4.08	0.000347				
0.15259	27401.69								
129.00	4390.11	11.11	0.29	103.67	0.02				
357.69	51.07	7.00	45.52	4.10	0.000364				
0.15925	27314.92								
130.00	4390.06	11.06	0.28	100.10	0.01				
355.36	50.96	6.97	45.44	4.11	0.000441				
0.19201	27264.96								
131.00	4390.00	11.00	0.27	96.38	0.01				
353.10	50.84	6.95	45.34	4.12	0.000398				
0.17238	27204.95								
132.00	4389.91	10.91	0.27	94.42	0.01				
349.37	50.66	6.90	45.19	4.14	0.000442				
0.19025	27114.88								
133.00	4389.91	10.91	0.27	93.17	0.01				
349.25	50.65	6.89	45.19	4.14	0.000464				
0.19955	27113.06								
134.00	4389.98	10.98	0.26	92.93	0.01				
352.27	50.80	6.93	45.31	4.13	0.000432				
0.18710	27186.40								
135.00	4389.98	10.98	0.26	91.56	0.01				
352.39	50.81	6.94	45.31	4.13	0.000453				
0.19627	27188.19								
136.00	4389.97	10.97	0.26	90.67	0.01				
351.48	50.77	6.92	45.28	4.13	0.000473				
0.20445	27169.26								
137.00	4389.94	10.94	0.26	90.17	0.01				
350.55	50.72	6.91	45.25	4.13	0.000487				
0.21006	27147.95								
138.00	4389.92	10.92	0.26	89.79	0.01				
349.50	50.68	6.90	45.21	4.14	0.000502				
0.21590	27125.58								
139.00	4389.90	10.90	0.26	89.14	0.01				
348.82	50.64	6.89	45.18	4.14	0.000508				
0.21813	27107.56								
140.00	4389.88	10.88	0.26	89.19	0.01				
347.98	50.60	6.88	45.15	4.15	0.000507				
0.21778	27087.52								
141.00	4389.84	10.84	0.26	89.87	0.01				
346.04	50.51	6.85	45.07	4.16	0.000438				
0.18720	27044.41								
142.00	4389.77	10.77	0.26	89.69	0.01				

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		HYCHAN.OUT					
343.13	50.37	6.81	44.96	4.17	0.000370		
0.15708	26974.55						
143.00	4389.74	10.74	0.26	89.08	0.01		
341.74	50.31	6.79	44.90	4.18	0.000355		
0.15034	26942.85						
144.00	4389.72	10.72	0.26	88.58	0.01		
340.87	50.26	6.78	44.87	4.19	0.000493		
0.20864	26920.73						
145.00	4389.70	10.70	0.26	89.75	0.01		
340.06	50.22	6.77	44.84	4.19	0.000372		
0.15702	26901.53						
146.00	4389.66	10.66	0.26	89.36	0.01		
338.39	50.14	6.75	44.77	4.20	0.000355		
0.14945	26862.18						
147.00	4389.59	10.59	0.27	89.01	0.01		
335.52	49.99	6.71	44.65	4.22	0.000448		
0.18765	26790.17						
148.00	4389.55	10.55	0.27	89.60	0.01		
333.99	49.92	6.69	44.59	4.23	0.000368		
0.15342	26755.68						
149.00	4389.53	10.53	0.27	88.67	0.01		
333.16	49.87	6.68	44.55	4.23	0.000474		
0.19774	26731.23						
150.00	4389.51	10.51	0.27	89.76	0.01		
332.30	49.84	6.67	44.52	4.24	0.000340		
0.14152	26712.15						
151.00	4389.50	10.50	0.27	88.42	0.01		
331.69	49.80	6.66	44.49	4.24	0.000483		
0.20081	26696.96						
152.00	4389.46	10.46	0.27	89.78	0.01		
330.33	49.74	6.64	44.44	4.25	0.000388		
0.16088	26664.18						
153.00	4389.41	10.41	0.27	89.37	0.01		
327.94	49.61	6.61	44.34	4.26	0.000404		
0.16674	26603.72						
154.00	4389.36	10.36	0.27	88.74	0.01		
325.85	49.52	6.58	44.26	4.27	0.000495		
0.20340	26557.91						
155.00	4389.33	10.33	0.28	89.54	0.02		
324.86	49.47	6.57	44.22	4.28	0.000405		
0.16580	26530.61						
156.00	4389.29	10.29	0.28	89.58	0.02		
323.04	49.38	6.54	44.15	4.29	0.000372		
0.15193	26487.77						
157.00	4389.27	10.27	0.28	88.59	0.02		
322.06	49.33	6.53	44.10	4.30	0.000386		
0.15730	26462.85						
158.00	4389.35	10.35	0.27	88.31	0.01		
325.57	49.50	6.58	44.25	4.27	0.000438		
0.17957	26548.99						
159.00	4389.38	10.38	0.27	89.22	0.01		
326.73	49.56	6.59	44.29	4.27	0.000395		
0.16266	26576.42						
160.00	4389.38	10.38	0.27	88.91	0.01		
326.85	49.57	6.59	44.30	4.27	0.000410		
0.16858	26579.85						
161.00	4389.38	10.38	0.27	88.98	0.01		
326.84	49.56	6.60	44.29	4.27	0.000424		
0.17461	26574.46						
162.00	4389.37	10.37	0.27	89.18	0.01		
326.45	49.55	6.59	44.28	4.27	0.000382		
0.15696	26570.62						
163.00	4389.37	10.37	0.27	88.82	0.01		

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		HYCHAN.OUT					
326.34	49.54	6.59	44.27	4.27	0.000459		
0.18889	26564.64						
164.00	4389.36	10.36	0.27	89.37	0.02		
326.09	49.53	6.58	44.27	4.27	0.000381		
0.15661	26560.18						
165.00	4389.36	10.36	0.27	88.80	0.01		
325.86	49.52	6.58	44.26	4.27	0.000427		
0.17514	26555.07						
166.00	4389.33	10.33	0.27	89.28	0.02		
324.79	49.46	6.57	44.21	4.28	0.000447		
0.18327	26528.29						
167.00	4389.27	10.27	0.28	89.76	0.02		
322.15	49.33	6.53	44.10	4.30	0.000354		
0.14433	26462.21						
168.00	4389.24	10.24	0.28	88.77	0.02		
321.03	49.27	6.52	44.05	4.30	0.000440		
0.17890	26432.35						
169.00	4389.23	10.23	0.28	88.83	0.02		
320.55	49.25	6.51	44.04	4.30	0.000467		
0.18984	26422.95						
170.00	4389.22	10.22	0.28	89.56	0.02		
320.21	49.23	6.50	44.02	4.31	0.000333		
0.13507	26414.75						
171.00	4389.22	10.22	0.28	88.60	0.02		
320.05	49.22	6.50	44.02	4.31	0.000436		
0.17711	26409.15						
172.00	4389.21	10.21	0.28	88.96	0.02		
319.82	49.21	6.50	44.01	4.31	0.000454		
0.18401	26405.08						
173.00	4389.21	10.21	0.28	89.51	0.02		
319.51	49.20	6.49	44.00	4.31	0.000384		
0.15565	26398.36						
174.00	4389.18	10.18	0.28	89.44	0.02		
318.50	49.14	6.48	43.95	4.32	0.000344		
0.13908	26369.60						
175.00	4389.11	10.11	0.28	89.35	0.02		
315.90	49.00	6.45	43.84	4.33	0.000368		
0.14788	26302.10						
176.00	4389.08	10.08	0.28	88.78	0.02		
314.63	48.94	6.43	43.79	4.34	0.000425		
0.17060	26272.18						
177.00	4389.07	10.07	0.28	88.93	0.02		
314.08	48.91	6.42	43.77	4.34	0.000473		
0.18962	26259.74						
178.00	4389.07	10.07	0.28	88.99	0.02		
313.75	48.90	6.42	43.75	4.35	0.000462		
0.18506	26251.76						
179.00	4389.06	10.06	0.29	89.36	0.02		
313.51	48.89	6.41	43.74	4.35	0.000416		
0.16637	26245.74						
180.00	4389.05	10.05	0.28	89.08	0.02		
313.20	48.87	6.41	43.73	4.35	0.000401		
0.16018	26239.60						
181.00	4389.10	10.10	0.28	88.23	0.02		
314.89	48.96	6.43	43.81	4.34	0.000425		
0.17053	26283.03						
182.00	4389.21	10.21	0.28	88.54	0.02		
319.79	49.21	6.50	44.01	4.31	0.000398		
0.16121	26406.27						
183.00	4389.28	10.28	0.27	88.19	0.02		
322.82	49.36	6.54	44.13	4.29	0.000483		
0.19708	26479.39						
184.00	4389.36	10.36	0.27	88.97	0.01		

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HYCHAN.OUT									
325.72	0.15867	49.51	6.58	44.26	4.27	0.000387			
185.00		26553.57							
327.12	0.20549	4389.38	10.38	0.27	88.44	0.01			
186.00		49.57	6.60	44.30	4.27	0.000499			
327.23	0.20549	26582.03							
186.00		4389.39	10.39	0.27	89.44	0.01			
327.23	0.16192	49.59	6.60	44.32	4.26	0.000393			
187.00		26592.00							
327.58	0.19756	4389.40	10.40	0.27	88.65	0.01			
188.00		49.60	6.60	44.33	4.26	0.000479			
327.74	0.16916	26597.93							
188.00		4389.40	10.40	0.27	89.26	0.01			
327.74	0.16916	49.61	6.61	44.33	4.26	0.000410			
189.00		26600.57							
327.74	0.17024	4389.40	10.40	0.27	88.92	0.01			
190.00		49.61	6.61	44.34	4.26	0.000413			
327.86	0.20434	26603.00							
191.00		4389.41	10.41	0.27	88.63	0.01			
327.86	0.20434	49.61	6.61	44.34	4.26	0.000496			
191.00		26603.56							
327.69	0.15698	4389.40	10.40	0.27	89.57	0.01			
192.00		49.61	6.60	44.34	4.26	0.000381			
326.93	0.20245	26602.95							
193.00		4389.38	10.38	0.27	88.79	0.01			
324.42	0.14999	49.57	6.60	44.30	4.27	0.000492			
194.00		26579.88							
323.23	0.19541	4389.32	10.32	0.28	89.92	0.02			
195.00		49.44	6.56	44.20	4.28	0.000366			
322.78	0.14088	26517.90							
196.00		4389.30	10.30	0.27	88.55	0.02			
322.76	0.19602	49.38	6.55	44.15	4.29	0.000478			
197.00		26490.62							
322.33	0.15104	4389.29	10.29	0.28	89.55	0.02			
198.00		49.36	6.54	44.13	4.29	0.000345			
322.35	0.14088	26480.22							
199.00		4389.28	10.28	0.27	88.53	0.02			
322.23	0.19602	49.36	6.54	44.13	4.29	0.000480			
200.00		26476.54							
322.33	0.15104	4389.28	10.28	0.28	89.60	0.02			
201.00		49.34	6.53	44.12	4.29	0.000371			
322.35	0.19507	26470.71							
202.00		4389.27	10.27	0.27	88.40	0.02			
322.23	0.14593	49.34	6.53	44.11	4.29	0.000478			
203.00		26468.39							
322.23	0.14593	4389.27	10.27	0.28	89.54	0.02			
204.00		49.34	6.53	44.11	4.29	0.000358			
205.00		26466.77							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4838

MAXIMUM DISCHARGE (CFS) = 2252.58 AT TIME = 91.19  
 MAXIMUM STAGE = 4398.05 AT TIME = 91.18

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4378.65	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	

HYCHAN.OUT									
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4378.65	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4378.65	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4378.65	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4378.65	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
73.19	5.00	4381.72	3.07	-0.58	-42.46	0.06	0.00	0.00	0.000000
		29.08	2.52	27.18	8.85				
166.83	6.00	4384.94	6.29	-0.07	-11.62	0.00	0.00	0.00	0.000000
		39.79	4.19	36.23	5.76				
197.06	7.00	4385.65	7.00	-0.03	-5.01	0.00	0.00	0.00	0.000000
		41.72	4.72	37.83	5.40				
0.00	8.00	4385.88	7.23	0.00	0.00	0.00	0.00	0.00	0.000000
		42.31	0.00	38.32	5.30				
0.00	9.00	4385.87	7.22	0.00	0.00	0.00	0.00	0.00	0.000000
		42.27	0.00	38.29	5.30				
0.00	10.00	4385.82	7.17	0.00	0.00	0.00	0.00	0.00	0.000021
		42.14	0.00	38.18	5.33				
0.00	11.00	4385.75	7.10	0.00	0.00	0.00	0.00	0.00	0.000000
		41.98	0.00	38.05	5.36				
0.00	12.00	4385.70	7.05	0.00	0.00	0.00	0.00	0.00	0.000006
		41.85	0.00	37.94	5.38				
0.00	13.00	4385.61	6.96	0.00	0.00	0.00	0.00	0.00	0.000000
		41.60	0.00	37.73	5.42				
0.00	14.00	4385.48	6.83	0.00	0.00	0.00	0.00	0.00	0.000000
		41.26	0.00	37.45	5.48				
0.00	15.00	4385.40	6.75	0.00	0.00	0.00	0.00	0.00	0.000000
		41.04	0.00	37.27	5.52				
0.00	16.00	4385.36	6.71	0.00	0.00	0.00	0.00	0.00	0.000009
		40.94	0.00	37.19	5.54				
0.00	17.00	4385.34	6.69	0.00	0.00	0.00	0.00	0.00	0.000017
		40.89	0.00	37.15	5.55				
0.00	18.00	4385.33	6.68	0.00	0.00	0.00	0.00	0.00	0.000013
		40.87	0.00	37.13	5.55				
0.00	19.00	4385.34	6.69	0.00	0.00	0.00	0.00	0.00	0.000000
		40.88	0.00	37.14	5.55				
0.00	20.00	4385.41	6.76	0.00	0.00	0.00	0.00	0.00	0.000000
		41.07	0.00	37.29	5.52				
0.00	21.00	4385.54	6.89	0.00	0.00	0.00	0.00	0.00	0.000000
		41.41	0.00	37.58	5.46				

HYCHAN.OUT							
0.00000	19541.58						
22.00	4385.67	7.02	0.00	0.00	0.00	0.00	
0.00	41.77	0.00	37.87	5.39	0.00	0.000006	
0.00000	19694.13						
23.00	4385.76	7.11	0.00	0.00	0.00	0.00	
0.00	41.99	0.00	38.06	5.35	0.00	0.000000	
0.00000	19789.75						
24.00	4385.81	7.16	0.00	0.00	0.00	0.00	
0.00	42.12	0.00	38.16	5.33	0.00	0.000010	
0.00000	19844.69						
25.00	4385.91	7.26	0.00	0.00	0.00	0.00	
0.00	42.38	0.00	38.39	5.29	0.00	0.000000	
0.00000	19960.63						
26.00	4386.11	7.46	-0.01	-2.66	0.00		
229.73	42.88	5.36	38.80	5.20	0.00	0.000007	
0.00219	20174.10						
27.00	4386.34	7.69	-0.01	-2.67	0.00		
230.12	43.45	5.30	39.27	5.11	0.00	0.000000	
0.00000	20419.92						
28.00	4386.56	7.91	0.00	0.00	0.00		
0.00	44.00	0.00	39.72	5.02	0.00	0.000000	
0.00000	20656.81						
29.00	4386.67	8.02	0.00	0.00	0.00		
0.00	44.27	0.00	39.94	4.98	0.00	0.000000	
0.00000	20771.27						
30.00	4386.74	8.09	0.00	0.00	0.00		
0.00	44.43	0.00	40.08	4.96	0.00	0.000000	
0.00000	20840.37						
31.00	4386.83	8.18	0.00	0.00	0.00		
0.00	44.64	0.00	40.26	4.92	0.00	0.000000	
0.00000	20932.72						
32.00	4386.88	8.23	0.00	0.00	0.00		
0.00	44.77	0.00	40.36	4.90	0.00	0.000000	
0.00000	20985.72						
33.00	4386.92	8.27	0.00	0.00	0.00		
0.00	44.88	0.00	40.45	4.89	0.00	0.000000	
0.00000	21032.40						
34.00	4387.00	8.35	0.00	0.00	0.00		
0.00	45.07	0.00	40.60	4.86	0.00	0.000000	
0.00000	21113.50						
35.00	4387.05	8.40	0.00	0.00	0.00		
0.00	45.17	0.00	40.69	4.84	0.00	0.000010	
0.00000	21158.10						
36.00	4387.08	8.43	0.00	0.00	0.00		
0.00	45.25	0.00	40.76	4.83	0.00	0.000000	
0.00000	21194.56						
37.00	4387.08	8.43	0.00	0.00	0.00		
0.00	45.25	0.00	40.75	4.83	0.00	0.000006	
0.00000	21192.43						
38.00	4387.06	8.41	0.00	0.00	0.00		
0.00	45.20	0.00	40.72	4.84	0.00	0.000000	
0.00000	21172.59						
39.00	4387.00	8.35	0.00	0.00	0.00		
0.00	45.05	0.00	40.59	4.86	0.00	0.000029	
0.00000	21108.17						
40.00	4386.96	8.31	0.00	0.00	0.00		
0.00	44.96	0.00	40.52	4.88	0.00	0.000000	
0.00000	21069.51						
41.00	4386.94	8.29	0.00	0.00	0.00		
0.00	44.91	0.00	40.47	4.88	0.00	0.000000	
0.00000	21045.70						
42.00	4386.93	8.28	0.00	0.00	0.00		
0.00	44.88	0.00	40.45	4.89	0.00	0.000000	



HYCHAN.OUT									
0.00000	21033.22								
43.00	4386.92	8.27	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	44.86	0.00	40.44	4.89					
0.00000	21026.49								
44.00	4386.93	8.28	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	44.89	0.00	40.46	4.89					
0.00000	21040.18								
45.00	4386.98	8.33	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	45.01	0.00	40.56	4.87					
0.00000	21090.19								
46.00	4387.04	8.39	0.00	0.00	0.00	0.00	0.00	0.000014	
0.00	45.14	0.00	40.67	4.85					
0.00000	21147.06								
47.00	4387.13	8.48	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	45.37	0.00	40.85	4.82					
0.00000	21244.47								
48.00	4387.26	8.61	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	45.66	0.00	41.10	4.77					
0.00000	21370.27								
49.00	4387.40	8.75	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	45.98	0.00	41.35	4.73					
0.00000	21504.31								
50.00	4387.54	8.89	0.00	0.00	0.00	0.00	0.00	0.000030	
0.00	46.30	0.00	41.62	4.68					
0.00000	21641.98								
51.00	4387.68	9.03	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	46.63	0.00	41.89	4.64					
0.00000	21781.78								
52.00	4387.84	9.19	0.00	0.00	0.00	0.00	0.00	0.000047	
0.00	46.99	0.00	42.19	4.59					
0.00000	21938.29								
53.00	4388.02	9.37	0.00	0.00	0.00	0.00	0.00	0.000023	
0.00	47.38	0.00	42.51	4.54					
0.00000	22104.66								
54.00	4388.15	9.50	0.00	0.00	0.00	0.00	0.00	0.000037	
0.00	47.67	0.00	42.74	4.50					
0.00000	22227.30								
55.00	4388.33	9.68	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	48.07	0.00	43.08	4.45					
0.00000	22399.20								
56.00	4388.58	9.93	-0.01	-4.48	0.00				
330.96	48.62	6.81	43.52	4.38				0.000000	
0.00000	22632.20								
57.00	4389.05	10.40	-0.02	-6.99	0.00				
345.73	49.61	6.97	44.34	4.26				0.000000	
0.00000	23055.31								
58.00	4389.64	10.99	-0.02	-7.95	0.00				
371.97	50.81	7.32	45.31	4.13				0.000000	
0.00000	23563.47								
59.00	4390.20	11.55	-0.06	-22.63	0.00				
403.02	51.93	7.76	46.23	4.00				0.000000	
0.00000	24038.42								
60.00	4390.59	11.94	-0.17	-75.19	0.01				
431.07	52.72	8.18	46.86	3.92				0.000000	
0.00000	24366.29								
61.00	4390.85	12.20	-0.35	-153.84	0.02				
444.34	53.24	8.35	47.26	3.87				0.000000	
0.00000	24577.47								
62.00	4391.03	12.38	-0.27	-121.81	0.01				
449.31	53.59	8.38	47.53	3.84				0.000000	
0.00000	24718.17								
63.00	4391.12	12.47	-0.04	-16.30	0.00				
441.35	53.77	8.21	47.67	3.82				0.000000	

HYCHAN.OUT									
	0.00000	24789.47							
450.17	64.00	4391.19	12.54	0.13	57.47	0.01			
		53.92	8.35		47.79	3.81	0.000000		
	0.00000	24850.06							
454.68	65.00	4391.29	12.64	0.17	79.15	0.01			
		54.11	8.40		47.93	3.79	0.000000		
	0.00000	24923.54							
459.92	66.00	4391.38	12.73	0.18	83.61	0.01			
		54.31	8.47		48.08	3.78	0.000000		
	0.00000	25001.85							
463.59	67.00	4391.47	12.82	0.18	85.18	0.01			
		54.48	8.51		48.21	3.76	0.000006		
	0.00334	25067.58							
468.57	68.00	4391.55	12.90	0.18	83.37	0.01			
		54.64	8.58		48.33	3.75	0.000000		
	0.00000	25131.41							
476.21	69.00	4391.72	13.07	0.15	73.59	0.01			
		54.98	8.66		48.59	3.72	0.000000		
	0.00000	25265.57							
485.76	70.00	4391.91	13.26	0.15	72.76	0.01			
		55.36	8.78		48.86	3.69	0.000023		
	0.01242	25409.49							
496.50	71.00	4392.12	13.47	0.17	85.31	0.01			
		55.78	8.90		49.17	3.65	0.000029		
	0.01602	25569.58							
509.19	72.00	4392.36	13.71	0.17	87.36	0.01			
		56.26	9.05		49.52	3.61	0.000000		
	0.00000	25751.22							
520.12	73.00	4392.58	13.93	0.18	95.65	0.01			
		56.69	9.17		49.84	3.58	0.000000		
	0.00000	25914.35							
529.09	74.00	4392.74	14.09	0.17	91.34	0.01			
		57.03	9.28		50.08	3.55	0.000000		
	0.00000	26040.23							
538.24	75.00	4392.91	14.26	0.22	117.15	0.01			
		57.35	9.38		50.31	3.53	0.000000		
	0.00000	26160.49							
547.02	76.00	4393.13	14.48	0.46	249.13	0.02			
		57.80	9.46		50.62	3.50	0.000000		
	0.00000	26321.92							
553.78	77.00	4393.32	14.67	0.64	356.28	0.03			
		58.19	9.52		50.89	3.47	0.000010		
	0.00579	26464.38							
557.84	78.00	4393.46	14.81	0.74	412.87	0.03			
		58.46	9.54		51.08	3.45	0.000010		
	0.00587	26563.22							
574.15	79.00	4393.75	15.10	0.77	439.49	0.03			
		59.03	9.73		51.48	3.41	0.000023		
	0.01423	26767.64							
594.34	80.00	4394.07	15.42	1.13	673.33	0.05			
		59.68	9.96		51.91	3.37	0.000041		
	0.02568	26994.75							
617.02	81.00	4394.47	15.82	1.56	960.74	0.07			
		60.49	10.20		52.46	3.32	0.000054		
	0.03451	27277.02							
640.92	82.00	4394.88	16.23	1.82	1163.28	0.08			
		61.29	10.46		52.99	3.27	0.000068		
	0.04459	27553.37							
672.34	83.00	4395.43	16.78	2.03	1364.10	0.09			
		62.39	10.78		53.70	3.20	0.000082		
	0.05521	27924.82							
701.51	84.00	4395.95	17.30	2.14	1504.33	0.09			
		63.44	11.06		54.37	3.14	0.000091		

HYCHAN.OUT							
0.06309	28271.25						
722.66	85.00	4396.34	17.69	2.17	1565.53	0.09	
		64.22	11.25		54.85	3.10	0.000085
0.05987	28524.28						
738.26	86.00	4396.64	17.99	2.10	1548.20	0.09	
		64.82	11.39		55.22	3.07	0.000088
0.06243	28716.12						
749.23	87.00	4396.83	18.17	2.16	1619.18	0.09	
		65.19	11.49		55.45	3.05	0.000097
0.06931	28835.42						
764.25	88.00	4397.07	18.42	2.36	1802.14	0.10	
		65.67	11.64		55.75	3.03	0.000126
0.09163	28988.39						
779.29	89.00	4397.31	18.66	2.49	1943.96	0.10	
		66.15	11.78		56.04	3.00	0.000128
0.09427	29138.75						
790.80	90.00	4397.48	18.83	2.62	2073.95	0.11	
		66.51	11.89		56.25	2.99	0.000120
0.08901	29249.65						
793.21	91.00	4397.51	18.86	2.65	2098.65	0.11	
		66.56	11.92		56.28	2.98	0.000121
0.08964	29267.93						
793.60	92.00	4397.54	18.89	2.63	2085.40	0.11	
		66.61	11.91		56.31	2.98	0.000122
0.09061	29283.21						
783.66	93.00	4397.40	18.75	2.47	1933.17	0.10	
		66.34	11.81		56.15	2.99	0.000132
0.09744	29196.58						
778.06	94.00	4397.29	18.64	2.45	1907.90	0.10	
		66.13	11.77		56.02	3.00	0.000109
0.08006	29131.16						
770.60	95.00	4397.16	18.51	2.39	1841.57	0.10	
		65.86	11.70		55.86	3.02	0.000113
0.08249	29047.99						
761.35	96.00	4397.00	18.35	2.32	1766.36	0.10	
		65.54	11.62		55.66	3.03	0.000098
0.07122	28945.44						
748.01	97.00	4396.77	18.12	2.19	1639.89	0.09	
		65.08	11.49		55.39	3.06	0.000095
0.06789	28801.08						
737.36	98.00	4396.58	17.93	2.12	1565.66	0.09	
		64.71	11.40		55.16	3.08	0.000078
0.05539	28681.27						
723.28	99.00	4396.34	17.69	2.02	1460.41	0.08	
		64.22	11.26		54.86	3.10	0.000071
0.05011	28524.88						
703.63	100.00	4396.01	17.36	1.81	1275.44	0.08	
		63.56	11.07		54.44	3.14	0.000059
0.04109	28309.25						
684.66	101.00	4395.68	17.02	1.71	1172.46	0.07	
		62.89	10.89		54.02	3.17	0.000061
0.04165	28089.38						
664.65	102.00	4395.29	16.64	1.79	1189.33	0.08	
		62.11	10.70		53.52	3.22	0.000057
0.03830	27831.19						
639.71	103.00	4394.83	16.18	1.72	1102.14	0.08	
		61.21	10.45		52.93	3.27	0.000047
0.03036	27523.60						
609.62	104.00	4394.31	15.66	1.45	881.05	0.06	
		60.16	10.13		52.24	3.34	0.000044
0.02789	27165.24						
578.58	105.00	4393.70	15.05	1.02	592.92	0.05	
		58.93	9.82		51.41	3.42	0.000030

HYCHAN.OUT									
0.01844	26730.80								
106.00	4393.28	14.63	0.91	504.13	0.04				
551.01	58.10	9.48		50.83	3.47	0.000018			
0.01074	26430.80								
107.00	4393.13	14.48	0.83	446.87	0.04				
540.51	57.80	9.35		50.62	3.50	0.000013			
0.00780	26323.05								
108.00	4392.97	14.32	0.83	438.93	0.04				
531.77	57.48	9.25		50.40	3.52	0.000014			
0.00782	26205.46								
109.00	4392.73	14.08	0.82	427.69	0.04				
519.38	57.00	9.11		50.06	3.56	0.000011			
0.00618	26029.86								
110.00	4392.38	13.73	0.85	426.62	0.04				
501.50	56.31	8.91		49.56	3.61	0.000012			
0.00685	25770.76								
111.00	4392.04	13.39	0.79	383.96	0.04				
485.67	55.61	8.73		49.05	3.66	0.000013			
0.00721	25507.32								
112.00	4391.76	13.11	0.72	345.09	0.03				
480.59	55.06	8.73		48.64	3.71	0.000000			
0.00000	25293.62								
113.00	4391.57	12.92	0.67	316.50	0.03				
471.13	54.68	8.62		48.36	3.74	0.000000			
0.00000	25148.53								
114.00	4391.37	12.72	0.66	306.23	0.03				
460.68	54.28	8.49		48.06	3.78	0.000000			
0.00000	24990.43								
115.00	4391.15	12.50	0.60	271.38	0.03				
449.51	53.83	8.35		47.72	3.82	0.000035			
0.01798	24813.55								
116.00	4391.06	12.40	0.49	216.96	0.02				
444.70	53.65	8.29		47.58	3.84	0.000054			
0.02787	24740.35								
117.00	4391.01	12.36	0.49	215.26	0.02				
441.80	53.55	8.25		47.50	3.84	0.000020			
0.01012	24702.06								
118.00	4390.88	12.23	0.52	227.20	0.03				
435.93	53.30	8.18		47.31	3.87	0.000039			
0.02001	24600.24								
119.00	4390.78	12.13	0.51	218.06	0.03				
431.28	53.10	8.12		47.15	3.89	0.000062			
0.03153	24519.19								
120.00	4390.72	12.07	0.47	200.03	0.02				
428.49	52.98	8.09		47.06	3.90	0.000062			
0.03108	24470.51								
121.00	4390.70	12.05	0.43	185.36	0.02				
427.09	52.95	8.07		47.03	3.90	0.000000			
0.00000	24456.93								
122.00	4390.67	12.02	0.43	181.10	0.02				
425.18	52.87	8.04		46.97	3.91	0.000000			
0.00000	24426.67								
123.00	4390.58	11.93	0.44	183.62	0.02				
421.08	52.70	7.99		46.84	3.93	0.000082			
0.04087	24356.67								
124.00	4390.48	11.83	0.43	178.21	0.02				
416.39	52.50	7.93		46.68	3.95	0.000000			
0.00000	24274.34								
125.00	4390.40	11.75	0.41	168.89	0.02				
411.80	52.34	7.87		46.56	3.96	0.000000			
0.00000	24209.90								
126.00	4390.30	11.65	0.39	159.34	0.02				
407.51	52.15	7.81		46.40	3.98	0.000000			

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HYCHAN.OUT									
	0.00000	24129.05							
404.59	127.00	4390.25	11.60	0.37	150.21	0.02			
		52.04	7.78		46.31	3.99	0.000000		
	0.00000	24082.58							
402.03	128.00	4390.19	11.54	0.36	145.43	0.02			
		51.91	7.74		46.21	4.01	0.000020		
	0.00986	24030.02							
397.23	129.00	4390.10	11.45	0.36	141.76	0.02			
		51.74	7.68		46.07	4.02	0.000065		
	0.03098	23956.87							
394.62	130.00	4390.05	11.40	0.35	136.50	0.02			
		51.63	7.64		45.99	4.04	0.000000		
	0.00000	23912.83							
391.02	131.00	4389.98	11.33	0.33	128.18	0.02			
		51.51	7.59		45.88	4.05	0.000000		
	0.00000	23859.97							
386.93	132.00	4389.89	11.24	0.32	125.16	0.02			
		51.33	7.54		45.74	4.07	0.000000		
	0.00000	23783.95							
386.71	133.00	4389.89	11.24	0.31	120.30	0.02			
		51.33	7.53		45.74	4.07	0.000000		
	0.00000	23783.49							
390.02	134.00	4389.97	11.32	0.30	118.00	0.02			
		51.47	7.58		45.86	4.05	0.000000		
	0.00000	23846.74							
390.33	135.00	4389.97	11.32	0.29	114.19	0.02			
		51.48	7.58		45.86	4.05	0.000000		
	0.00000	23849.27							
389.35	136.00	4389.95	11.30	0.28	110.22	0.01			
		51.45	7.57		45.83	4.06	0.000000		
	0.00000	23834.12							
388.14	137.00	4389.93	11.28	0.28	107.33	0.01			
		51.40	7.55		45.80	4.06	0.000000		
	0.00000	23816.50							
387.77	138.00	4389.91	11.26	0.27	105.20	0.01			
		51.36	7.55		45.77	4.06	0.000000		
	0.00000	23798.25							
386.87	139.00	4389.89	11.24	0.27	102.79	0.01			
		51.32	7.54		45.74	4.07	0.000000		
	0.00000	23783.06							
385.79	140.00	4389.87	11.22	0.26	101.51	0.01			
		51.29	7.52		45.71	4.07	0.000000		
	0.00000	23766.73							
383.75	141.00	4389.83	11.18	0.26	100.69	0.01			
		51.20	7.49		45.64	4.08	0.000000		
	0.00000	23730.71							
380.57	142.00	4389.76	11.11	0.26	99.50	0.01			
		51.06	7.45		45.52	4.10	0.000000		
	0.00000	23670.29							
379.38	143.00	4389.73	11.08	0.26	98.79	0.01			
		50.99	7.44		45.47	4.10	0.000012		
	0.00548	23643.17							
377.86	144.00	4389.71	11.06	0.26	98.97	0.01			
		50.95	7.42		45.43	4.11	0.000000		
	0.00000	23625.87							
377.25	145.00	4389.69	11.04	0.26	96.80	0.01			
		50.92	7.41		45.40	4.11	0.000011		
	0.00510	23610.41							
375.42	146.00	4389.65	11.00	0.26	97.48	0.01			
		50.83	7.39		45.34	4.12	0.000009		
	0.00397	23574.88							
371.51	147.00	4389.58	10.93	0.26	96.90	0.01			
		50.70	7.33		45.22	4.14	0.000022		

HYCHAN.OUT									
0.01014	23516.28								
148.00	4389.54	10.89	0.26	94.92	0.01				
370.15	50.62	7.31		45.16	4.15	0.000000			
0.00000	23484.71								
149.00	4389.52	10.87	0.25	92.64	0.01				
368.54	50.58	7.29		45.13	4.15	0.000010			
0.00447	23466.82								
150.00	4389.50	10.85	0.25	91.19	0.01				
367.72	50.54	7.28		45.10	4.15	0.000011			
0.00510	23450.09								
151.00	4389.49	10.84	0.25	92.38	0.01				
367.28	50.51	7.27		45.07	4.16	0.000007			
0.00326	23437.25								
152.00	4389.46	10.81	0.25	91.51	0.01				
365.54	50.44	7.25		45.02	4.17	0.000000			
0.00000	23409.01								
153.00	4389.40	10.75	0.25	91.83	0.01				
362.59	50.33	7.20		44.92	4.18	0.000000			
0.00000	23359.45								
154.00	4389.35	10.70	0.25	91.76	0.01				
361.04	50.23	7.19		44.84	4.19	0.000000			
0.00000	23317.88								
155.00	4389.33	10.68	0.25	90.72	0.01				
359.90	50.18	7.17		44.80	4.20	0.000000			
0.00000	23295.62								
156.00	4389.29	10.64	0.26	91.32	0.01				
357.92	50.09	7.15		44.73	4.21	0.000000			
0.00000	23260.14								
157.00	4389.26	10.61	0.25	89.58	0.01				
356.58	50.04	7.13		44.69	4.21	0.000027			
0.01186	23239.08								
158.00	4389.34	10.69	0.25	89.97	0.01				
360.59	50.21	7.18		44.82	4.19	0.000023			
0.01015	23308.96								
159.00	4389.37	10.72	0.25	89.94	0.01				
361.67	50.27	7.19		44.88	4.19	0.000014			
0.00649	23336.69								
160.00	4389.37	10.72	0.25	90.38	0.01				
362.00	50.27	7.20		44.88	4.19	0.000012			
0.00519	23336.61								
161.00	4389.37	10.72	0.25	90.11	0.01				
361.29	50.27	7.19		44.88	4.19	0.000017			
0.00767	23335.07								
162.00	4389.36	10.71	0.25	89.95	0.01				
361.43	50.25	7.19		44.86	4.19	0.000020			
0.00896	23328.82								
163.00	4389.36	10.71	0.25	90.49	0.01				
360.94	50.25	7.18		44.86	4.19	0.000010			
0.00465	23326.55								
164.00	4389.35	10.70	0.25	89.67	0.01				
361.12	50.24	7.19		44.85	4.19	0.000009			
0.00395	23320.44								
165.00	4389.35	10.70	0.25	89.90	0.01				
360.29	50.23	7.17		44.84	4.19	0.000016			
0.00700	23318.28								
166.00	4389.32	10.67	0.25	90.93	0.01				
359.23	50.17	7.16		44.79	4.20	0.000000			
0.00000	23293.04								
167.00	4389.26	10.61	0.25	89.79	0.01				
356.89	50.04	7.13		44.69	4.21	0.000000			
0.00000	23238.57								
168.00	4389.23	10.58	0.25	90.19	0.01				
355.17	49.98	7.11		44.64	4.22	0.000000			

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HYCHAN.OUT									
0.00000	23213.71								
169.00	4389.22	10.57	0.25	89.86	0.01				
354.96	49.96	7.10		44.62	4.22	0.000000			
0.00000	23203.54								
170.00	4389.22	10.57	0.25	88.93	0.01				
354.55	49.95	7.10		44.61	4.22	0.000018			
0.00808	23198.35								
171.00	4389.21	10.56	0.25	90.06	0.01				
354.17	49.94	7.09		44.60	4.22	0.000010			
0.00450	23193.81								
172.00	4389.20	10.55	0.25	89.59	0.01				
354.13	49.92	7.09		44.59	4.23	0.000000			
0.00000	23188.36								
173.00	4389.20	10.55	0.25	89.02	0.01				
353.40	49.91	7.08		44.58	4.23	0.000000			
0.00000	23184.18								
174.00	4389.17	10.52	0.26	89.80	0.01				
352.11	49.86	7.06		44.54	4.23	0.000017			
0.00759	23160.23								
175.00	4389.11	10.46	0.26	90.18	0.01				
349.09	49.72	7.02		44.43	4.25	0.000013			
0.00587	23102.79								
176.00	4389.08	10.43	0.26	89.65	0.01				
348.11	49.66	7.01		44.38	4.26	0.000009			
0.00384	23076.62								
177.00	4389.07	10.42	0.26	89.58	0.01				
347.71	49.64	7.01		44.36	4.26	0.000008			
0.00352	23065.51								
178.00	4389.06	10.41	0.26	89.39	0.01				
347.39	49.62	7.00		44.34	4.26	0.000006			
0.00273	23058.36								
179.00	4389.05	10.40	0.26	89.02	0.01				
347.07	49.61	7.00		44.33	4.26	0.000000			
0.00000	23053.76								
180.00	4389.05	10.40	0.26	89.11	0.01				
346.68	49.60	6.99		44.32	4.26	0.000000			
0.00000	23048.75								
181.00	4389.09	10.44	0.25	87.78	0.01				
348.77	49.69	7.02		44.40	4.25	0.000015			
0.00645	23086.60								
182.00	4389.21	10.56	0.25	87.80	0.01				
353.89	49.93	7.09		44.60	4.22	0.000000			
0.00000	23191.32								
183.00	4389.28	10.63	0.25	88.67	0.01				
357.41	50.08	7.14		44.72	4.21	0.000000			
0.00000	23253.96								
184.00	4389.35	10.70	0.24	87.91	0.01				
361.01	50.22	7.19		44.84	4.19	0.000017			
0.00773	23315.60								
185.00	4389.38	10.73	0.25	89.40	0.01				
361.83	50.28	7.20		44.89	4.18	0.000000			
0.00000	23340.60								
186.00	4389.39	10.74	0.24	88.35	0.01				
362.38	50.30	7.20		44.90	4.18	0.000000			
0.00000	23349.35								
187.00	4389.39	10.74	0.25	89.59	0.01				
362.75	50.31	7.21		44.91	4.18	0.000000			
0.00000	23353.51								
188.00	4389.40	10.75	0.24	88.46	0.01				
362.47	50.32	7.20		44.92	4.18	0.000014			
0.00608	23357.71								
189.00	4389.40	10.75	0.25	88.98	0.01				
362.99	50.32	7.21		44.92	4.18	0.000018			

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## HYCHAN.OUT

0.00789	23356.85								
190.00	4389.40	10.75	0.25	89.35	0.01				
363.15	50.33	7.22		44.92	4.18	0.000013			
0.00603	23359.24								
191.00	4389.40	10.75	0.24	88.60	0.01				
362.76	50.33	7.21		44.92	4.18	0.000013			
0.00595	23359.05								
192.00	4389.38	10.73	0.25	90.33	0.01				
361.49	50.28	7.19		44.88	4.18	0.000006			
0.00279	23338.31								
193.00	4389.32	10.67	0.25	88.92	0.01				
358.95	50.16	7.16		44.78	4.20	0.000014			
0.00606	23286.74								
194.00	4389.29	10.64	0.25	89.80	0.01				
358.12	50.10	7.15		44.73	4.21	0.000000			
0.00000	23261.87								
195.00	4389.28	10.63	0.25	88.21	0.01				
357.46	50.08	7.14		44.72	4.21	0.000021			
0.00918	23254.61								
196.00	4389.27	10.62	0.25	89.98	0.01				
357.39	50.07	7.14		44.71	4.21	0.000000			
0.00000	23249.80								
197.00	4389.27	10.62	0.25	88.35	0.01				
357.23	50.06	7.14		44.70	4.21	0.000013			
0.00598	23246.13								
198.00	4389.27	10.62	0.25	89.51	0.01				
357.16	50.06	7.14		44.70	4.21	0.000020			
0.00892	23244.00								
199.00	4389.27	10.61	0.25	88.53	0.01				
356.69	50.05	7.13		44.70	4.21	0.000000			
0.00000	23241.80								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4873

MAXIMUM DISCHARGE (CFS) = 2676.86 AT TIME = 91.19  
 MAXIMUM STAGE = 4397.83 AT TIME = 91.55

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)			
(LB/FT^2)	(FT^2)					
0.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4381.71	4.06	-0.78	-71.14	0.07	0.000000
91.79	33.42	2.75	31.35	7.71		
0.00000	18807.56					

HYCHAN.OUT							
208.27	6.00	4384.94	7.29	-0.09	-18.91	0.01	0.000000
	0.00000	46.54	4.48	42.94	5.89		
		25766.86					
241.26	7.00	4385.65	8.00	-0.03	-8.17	0.00	0.000000
	0.00000	49.08	4.92	45.17	5.64		
		27101.70					
0.00	8.00	4385.88	8.23	0.00	0.00	0.00	0.000000
	0.00000	49.87	0.00	45.86	5.57		
		27515.26					
0.00	9.00	4385.87	8.22	0.00	0.00	0.00	0.000000
	0.00000	49.82	0.00	45.82	5.57		
		27492.15					
0.00	10.00	4385.82	8.17	0.00	0.00	0.00	0.000000
	0.00000	49.64	0.00	45.66	5.59		
		27397.60					
0.00	11.00	4385.75	8.10	0.00	0.00	0.00	0.000036
	0.00000	49.43	0.00	45.47	5.61		
		27284.31					
0.00	12.00	4385.70	8.05	0.00	0.00	0.00	0.000000
	0.00000	49.25	0.00	45.32	5.63		
		27192.47					
219.07	13.00	4385.61	7.96	0.01	2.24	0.00	0.000020
	0.00566	48.92	4.48	45.03	5.66		
		27020.05					
0.00	14.00	4385.48	7.83	0.00	0.00	0.00	0.000034
	0.00000	48.47	0.00	44.64	5.70		
		26781.88					
0.00	15.00	4385.40	7.75	0.00	0.00	0.00	0.000039
	0.00000	48.17	0.00	44.38	5.73		
		26627.26					
0.00	16.00	4385.36	7.71	0.00	0.00	0.00	0.000000
	0.00000	48.05	0.00	44.27	5.74		
		26559.69					
0.00	17.00	4385.34	7.69	0.00	0.00	0.00	0.000000
	0.00000	47.98	0.00	44.21	5.75		
		26526.42					
0.00	18.00	4385.33	7.68	0.00	0.00	0.00	0.000000
	0.00000	47.96	0.00	44.19	5.75		
		26512.61					
0.00	19.00	4385.34	7.69	0.00	0.00	0.00	0.000027
	0.00000	47.97	0.00	44.20	5.75		
		26519.24					
0.00	20.00	4385.41	7.76	0.00	0.00	0.00	0.000047
	0.00000	48.21	0.00	44.41	5.73		
		26648.23					
0.00	21.00	4385.54	7.89	0.00	0.00	0.00	0.000008
	0.00000	48.67	0.00	44.82	5.68		
		26889.65					
0.00	22.00	4385.67	8.02	0.00	0.00	0.00	0.000000
	0.00000	49.15	0.00	45.23	5.64		
		27138.05					
0.00	23.00	4385.76	8.11	0.00	0.00	0.00	0.000025
	0.00000	49.44	0.00	45.49	5.61		
		27292.29					
0.00	24.00	4385.81	8.16	0.00	0.00	0.00	0.000000
	0.00000	49.61	0.00	45.63	5.59		
		27380.78					
285.76	25.00	4385.91	8.26	-0.01	-3.30	0.00	0.000026
	0.00945	49.97	5.72	45.95	5.56		
		27570.56					
279.56	26.00	4386.11	8.46	-0.02	-4.23	0.00	0.000017
	0.00569	50.64	5.52	46.53	5.50		
		27919.80					

HYCHAN.OUT									
279.97	27.00	4386.34	8.69	-0.02	47.21	-4.43	0.00	0.000000	
	0.00000	51.41	5.45		5.43				
		28324.35							
290.55	28.00	4386.56	8.91	-0.01	47.86	-3.17	0.00	0.000000	
	0.00000	52.16	5.57		5.37				
		28715.39							
0.00	29.00	4386.67	9.02	0.00	48.18	0.00	0.00	0.000000	
	0.00000	52.52	0.00		5.34				
		28906.26							
0.00	30.00	4386.74	9.09	0.00	48.37	0.00	0.00	0.000007	
	0.00000	52.74	0.00		5.32				
		29021.54							
0.00	31.00	4386.83	9.18	0.00	48.63	0.00	0.00	0.000000	
	0.00000	53.04	0.00		5.30				
		29175.04							
0.00	32.00	4386.88	9.23	0.00	48.77	0.00	0.00	0.000000	
	0.00000	53.21	0.00		5.28				
		29263.70							
0.00	33.00	4386.93	9.27	0.00	48.90	0.00	0.00	0.000000	
	0.00000	53.36	0.00		5.27				
		29342.30							
0.00	34.00	4387.00	9.35	0.00	49.13	0.00	0.00	0.000000	
	0.00000	53.61	0.00		5.25				
		29477.32							
0.00	35.00	4387.05	9.40	0.00	49.25	0.00	0.00	0.000000	
	0.00000	53.76	0.00		5.24				
		29552.43							
0.00	36.00	4387.09	9.44	0.00	49.36	0.00	0.00	0.000000	
	0.00000	53.88	0.00		5.23				
		29614.62							
0.00	37.00	4387.08	9.43	0.00	49.34	0.00	0.00	0.000000	
	0.00000	53.86	0.00		5.23				
		29606.95							
0.00	38.00	4387.06	9.41	0.00	49.30	0.00	0.00	0.000051	
	0.00000	53.81	0.00		5.24				
		29578.72							
0.00	39.00	4387.00	9.35	0.00	49.11	0.00	0.00	0.000000	
	0.00000	53.60	0.00		5.25				
		29467.56							
0.00	40.00	4386.96	9.31	0.00	49.00	0.00	0.00	0.000006	
	0.00000	53.47	0.00		5.26				
		29402.82							
0.00	41.00	4386.94	9.29	0.00	48.94	0.00	0.00	0.000042	
	0.00000	53.40	0.00		5.27				
		29364.14							
0.00	42.00	4386.93	9.28	0.00	48.91	0.00	0.00	0.000022	
	0.00000	53.36	0.00		5.27				
		29343.45							
0.00	43.00	4386.92	9.27	0.00	48.89	0.00	0.00	0.000028	
	0.00000	53.34	0.00		5.27				
		29332.59							
0.00	44.00	4386.93	9.28	0.00	48.93	0.00	0.00	0.000000	
	0.00000	53.38	0.00		5.27				
		29355.15							
0.00	45.00	4386.98	9.33	0.00	49.06	0.00	0.00	0.000034	
	0.00000	53.54	0.00		5.26				
		29437.36							
0.00	46.00	4387.04	9.39	0.00	49.22	0.00	0.00	0.000000	
	0.00000	53.72	0.00		5.24				
		29532.61							
0.00	47.00	4387.14	9.49	0.00	49.50	0.00	0.00	0.000000	
	0.00000	54.04	0.00		5.22				
		29699.44							

HYCHAN.OUT							
0.00	48.00	4387.26	9.61	0.00	0.00	0.00	0.00
	0.00000	54.44	0.00	49.85	5.19	0.000042	
	49.00	29909.14	9.74	0.00	0.00	0.00	
0.00	0.00000	54.87	0.00	50.22	5.15	0.000011	
	50.00	30134.74	9.88	0.00	0.00	0.00	
0.00	0.00000	55.32	0.00	50.61	5.12	0.000000	
	51.00	30367.55	10.03	0.00	0.00	0.00	
0.00	0.00000	55.78	0.00	51.01	5.09	0.000032	
	52.00	30606.17	10.19	0.00	0.00	0.00	
0.00	0.00000	56.28	0.00	51.45	5.05	0.000000	
	53.00	30871.04	10.37	0.00	0.00	0.00	
0.00	0.00000	56.83	0.00	51.93	5.01	0.000000	
	54.00	31156.24	10.50	0.00	0.00	0.00	
0.00	0.00000	57.24	0.00	52.28	4.98	0.000000	
	55.00	31367.34	10.68	-0.01	-4.55	0.00	
427.08	0.00000	57.80	7.39	52.77	4.94	0.000000	
	56.00	31661.46	10.93	-0.02	-7.39	0.00	
400.11	0.00000	58.58	6.83	53.44	4.89	0.000000	
	57.00	32065.65	11.40	-0.03	-11.63	0.00	
421.71	0.00000	59.99	7.03	54.66	4.79	0.000000	
	58.00	32798.68	11.98	-0.03	-13.23	0.00	
454.16	0.00000	61.70	7.36	56.15	4.69	0.000000	
	59.00	33689.58	12.54	-0.05	-26.83	0.00	
490.87	0.00000	63.31	7.75	57.54	4.59	0.000000	
	60.00	34521.84	12.93	-0.15	-77.82	0.01	
519.67	0.00000	64.40	8.07	58.48	4.52	0.000000	
	61.00	35090.42	13.17	-0.29	-155.80	0.01	
535.28	0.00000	65.10	8.22	59.09	4.49	0.000000	
	62.00	35452.98	13.35	-0.23	-123.06	0.01	
542.39	0.00000	65.60	8.27	59.51	4.46	0.000000	
	63.00	35708.93	13.45	-0.03	-16.99	0.00	
537.56	0.00000	65.87	8.16	59.75	4.44	0.000000	
	64.00	35851.59	13.54	0.10	56.36	0.00	
548.60	0.00000	66.11	8.30	59.96	4.43	0.000000	
	65.00	35975.59	13.63	0.14	78.53	0.01	
554.42	0.00000	66.38	8.35	60.19	4.41	0.000000	
	66.00	36112.61	13.73	0.15	82.46	0.01	
560.78	0.00000	66.66	8.41	60.43	4.40	0.000000	
	67.00	36256.57	13.82	0.15	84.71	0.01	
565.82	0.00000	66.88	8.46	60.62	4.39	0.000000	
	68.00	36373.02	13.90	0.14	81.35	0.01	
569.98	0.01813	67.11	8.49	60.82	4.38	0.000034	
		36491.51					

HYCHAN.OUT									
580.04	69.00	4391.72	14.07	0.13	61.22	72.78	4.35	0.01	0.000034
	0.01817	67.57	8.58						
	70.00	36729.74	14.25	0.12	69.91		4.33	0.01	0.000000
592.92	0.00000	68.08	8.71		61.65				
	71.00	36990.34	14.47	0.12	75.19		4.30	0.01	0.000000
606.37	0.00000	68.53	8.85		62.15				
	72.00	37290.92	14.71	0.09	57.34		4.26	0.00	0.000018
621.51	0.01009	69.02	9.01		62.72				
	73.00	37629.39	14.94	0.09	54.42		4.23	0.00	0.000000
638.16	0.00000	69.46	9.19		63.22				
	74.00	37933.03	15.10	0.09	56.91		4.21	0.00	0.000000
649.05	0.00000	69.79	9.30		63.60				
	75.00	38161.87	15.26	0.18	119.29		4.19	0.01	0.000021
660.25	0.01252	70.11	9.42		63.96				
	76.00	38375.73	15.47	0.50	337.38		4.16	0.02	0.000027
675.96	0.01634	70.54	9.58		64.44				
	77.00	38665.88	15.67	0.74	508.31		4.14	0.03	0.000022
687.20	0.01304	70.93	9.69		64.88				
	78.00	38928.93	15.81	0.85	588.05		4.12	0.04	0.000031
695.47	0.01914	71.21	9.77		65.19				
	79.00	39116.24	16.10	0.87	625.37		4.09	0.04	0.000000
715.01	0.00000	71.78	9.96		65.83				
	80.00	39496.13	16.42	1.28	938.64		4.05	0.06	0.000053
733.84	0.03332	72.42	10.13		66.53				
	81.00	39915.99	16.81	1.78	1348.65		4.01	0.08	0.000061
756.10	0.03957	73.21	10.33		67.39				
	82.00	40432.91	17.21	2.09	1634.17		3.97	0.09	0.000090
783.61	0.05974	74.01	10.59		68.24				
	83.00	40946.02	17.76	2.33	1911.07		3.91	0.10	0.000106
820.74	0.07204	75.11	10.93		69.41				
	84.00	41644.57	18.30	2.39	2041.50		3.86	0.10	0.000112
855.71	0.07879	76.18	11.23		70.53				
	85.00	42317.39	18.71	2.30	2024.88		3.82	0.09	0.000101
881.80	0.07191	77.01	11.45		71.38				
	86.00	42830.50	19.03	2.14	1931.63		3.79	0.09	0.000100
901.71	0.07266	77.64	11.61		72.03				
	87.00	43219.94	19.22	2.19	2006.28		3.77	0.09	0.000115
914.64	0.08379	78.02	11.72		72.43				
	88.00	43455.49	19.47	2.37	2203.17		3.75	0.09	0.000144
931.51	0.10678	78.53	11.86		72.93				
	89.00	43760.23	19.72	2.49	2360.18		3.72	0.10	0.000145
948.73	0.10861	79.04	12.00		73.45				
		44068.07							

HYCHAN.OUT							
90.00	4397.57	19.92	2.60	2497.29	0.10		
961.60	79.42	12.11	73.83	3.71	0.000147		
0.11083	44299.10						
91.00	4397.61	19.96	2.62	2523.09	0.10		
964.28	79.50	12.13	73.91	3.70	0.000151		
0.11422	44346.07						
92.00	4397.62	19.97	2.61	2515.26	0.10		
965.05	79.52	12.14	73.94	3.70	0.000144		
0.10896	44361.48						
93.00	4397.46	19.81	2.47	2354.70	0.10		
954.49	79.21	12.05	73.62	3.72	0.000145		
0.10881	44174.69						
94.00	4397.36	19.71	2.46	2326.64	0.10		
947.65	79.00	11.99	73.42	3.73	0.000138		
0.10309	44049.15						
95.00	4397.23	19.58	2.41	2260.01	0.10		
939.07	78.74	11.93	73.15	3.74	0.000136		
0.10153	43890.59						
96.00	4397.06	19.41	2.35	2181.43	0.09		
928.24	78.41	11.84	72.82	3.75	0.000116		
0.08539	43690.38						
97.00	4396.83	19.18	2.24	2042.17	0.09		
912.89	77.95	11.71	72.35	3.77	0.000110		
0.08074	43410.00						
98.00	4396.65	18.99	2.17	1949.66	0.09		
900.33	77.58	11.61	71.97	3.79	0.000098		
0.07101	43181.76						
99.00	4396.40	18.75	2.07	1828.92	0.08		
883.81	77.08	11.47	71.46	3.81	0.000084		
0.06015	42877.22						
100.00	4396.06	18.41	1.89	1623.41	0.08		
861.18	76.40	11.27	70.76	3.84	0.000065		
0.04599	42454.80						
101.00	4395.71	18.06	1.81	1521.34	0.08		
838.28	75.71	11.07	70.05	3.88	0.000070		
0.04863	42027.12						
102.00	4395.30	17.65	2.01	1631.60	0.08		
813.05	74.90	10.86	69.19	3.92	0.000075		
0.05110	41511.23						
103.00	4394.84	17.19	1.98	1552.42	0.08		
782.85	73.97	10.58	68.20	3.97	0.000061		
0.04002	40918.67						
104.00	4394.31	16.66	1.70	1274.22	0.07		
747.63	72.91	10.25	67.06	4.02	0.000041		
0.02604	40237.45						
105.00	4393.69	16.04	1.25	890.17	0.06		
712.35	71.67	9.94	65.71	4.10	0.000027		
0.01694	39423.61						
106.00	4393.28	15.63	1.08	737.24	0.05		
684.14	70.84	9.66	64.78	4.15	0.000014		
0.00873	38870.79						
107.00	4393.13	15.48	0.95	642.58	0.04		
673.18	70.55	9.54	64.46	4.16	0.000028		
0.01640	38675.08						
108.00	4392.97	15.32	0.95	630.65	0.04		
662.49	70.23	9.43	64.10	4.18	0.000022		
0.01317	38457.84						
109.00	4392.73	15.08	0.95	611.06	0.04		
646.41	69.75	9.27	63.56	4.21	0.000036		
0.02060	38133.02						
110.00	4392.39	14.74	0.94	586.89	0.04		
623.69	69.07	9.03	62.77	4.26	0.000031		
0.01721	37664.29						

HYCHAN.OUT							
111.00	4392.05	14.40	0.80	483.76	0.04		
603.58	68.39	8.83	61.99	4.30	0.000028		
0.01528	37195.62						
112.00	4391.79	14.14	0.64	373.60	0.03		
587.72	67.76	8.67	61.38	4.34	0.000038		
0.02056	36828.95						
113.00	4391.60	13.95	0.56	321.35	0.03		
575.46	67.26	8.56	60.95	4.37	0.000032		
0.01712	36569.02						
114.00	4391.40	13.75	0.55	309.36	0.03		
562.90	66.70	8.44	60.47	4.40	0.000047		
0.02454	36279.73						
115.00	4391.17	13.52	0.50	274.70	0.02		
548.18	66.07	8.30	59.92	4.43	0.000038		
0.01954	35954.48						
116.00	4391.07	13.42	0.40	217.41	0.02		
542.86	65.80	8.25	59.69	4.45	0.000000		
0.00000	35813.43						
117.00	4391.03	13.38	0.40	215.47	0.02		
539.08	65.66	8.21	59.57	4.45	0.000000		
0.00000	35743.26						
118.00	4390.90	13.25	0.43	228.64	0.02		
531.69	65.32	8.14	59.27	4.47	0.000000		
0.00000	35562.80						
119.00	4390.80	13.15	0.42	219.20	0.02		
525.99	65.03	8.09	59.03	4.49	0.000009		
0.00452	35416.24						
120.00	4390.74	13.09	0.38	200.54	0.02		
521.78	64.86	8.04	58.88	4.50	0.000000		
0.00000	35327.40						
121.00	4390.72	13.07	0.35	183.69	0.02		
520.89	64.81	8.04	58.83	4.50	0.000072		
0.03593	35299.92						
122.00	4390.68	13.03	0.35	181.54	0.02		
518.57	64.70	8.02	58.74	4.51	0.000030		
0.01509	35242.30						
123.00	4390.59	12.94	0.36	186.63	0.02		
513.31	64.46	7.96	58.53	4.52	0.000000		
0.00000	35118.16						
124.00	4390.50	12.84	0.35	177.21	0.02		
507.11	64.18	7.90	58.29	4.54	0.000016		
0.00783	34972.32						
125.00	4390.41	12.76	0.34	169.92	0.02		
502.58	63.94	7.86	58.09	4.55	0.000000		
0.00000	34852.60						
126.00	4390.32	12.67	0.32	160.77	0.02		
496.29	63.67	7.79	57.85	4.57	0.000069		
0.03374	34712.29						
127.00	4390.26	12.61	0.30	149.58	0.02		
492.92	63.51	7.76	57.71	4.58	0.000009		
0.00434	34626.58						
128.00	4390.20	12.55	0.30	147.37	0.02		
488.94	63.33	7.72	57.56	4.59	0.000023		
0.01102	34535.15						
129.00	4390.11	12.46	0.30	142.95	0.01		
484.02	63.07	7.67	57.33	4.60	0.000000		
0.00000	34400.86						
130.00	4390.06	12.41	0.28	135.54	0.01		
480.72	62.92	7.64	57.21	4.61	0.000000		
0.00000	34323.59						
131.00	4389.99	12.34	0.27	129.22	0.01		
476.56	62.74	7.60	57.05	4.62	0.000000		
0.00000	34230.21						



		HYCHAN.OUT						
471.52	132.00	4389.90	12.25	0.27	125.56	0.01	0.000000	
	0.00000	62.48	7.55		56.82	4.64		
		34092.00						
471.45	133.00	4389.90	12.25	0.25	119.58	0.01	0.000000	
	0.00000	62.47	7.55		56.82	4.64		
		34089.77						
475.78	134.00	4389.98	12.32	0.25	117.87	0.01	0.000000	
	0.00000	62.69	7.59		57.00	4.63		
		34201.45						
475.17	135.00	4389.98	12.33	0.24	114.14	0.01	0.000000	
	0.00000	62.69	7.58		57.01	4.62		
		34204.50						
473.96	136.00	4389.96	12.31	0.23	110.38	0.01	0.000000	
	0.00000	62.64	7.57		56.96	4.63		
		34175.66						
473.26	137.00	4389.94	12.29	0.23	107.65	0.01	0.000000	
	0.00000	62.58	7.56		56.90	4.63		
		34142.96						
472.44	138.00	4389.91	12.26	0.22	105.46	0.01	0.000000	
	0.00000	62.51	7.56		56.85	4.64		
		34109.84						
471.16	139.00	4389.90	12.25	0.22	102.81	0.01	0.000000	
	0.00000	62.46	7.54		56.80	4.64		
		34082.46						
469.88	140.00	4389.88	12.23	0.22	101.83	0.01	0.000000	
	0.00000	62.40	7.53		56.75	4.64		
		34052.30						
467.61	141.00	4389.83	12.18	0.22	101.80	0.01	0.000019	
	0.00880	62.28	7.51		56.65	4.65		
		33987.94						
463.34	142.00	4389.76	12.11	0.22	100.22	0.01	0.000068	
	0.03161	62.07	7.46		56.47	4.66		
		33882.63						
461.36	143.00	4389.73	12.08	0.22	99.21	0.01	0.000027	
	0.01248	61.98	7.44		56.39	4.67		
		33835.04						
460.24	144.00	4389.71	12.06	0.21	98.17	0.01	0.000000	
	0.00000	61.92	7.43		56.34	4.67		
		33801.59						
459.11	145.00	4389.69	12.04	0.21	98.02	0.01	0.000045	
	0.02072	61.86	7.42		56.29	4.68		
		33773.83						
456.95	146.00	4389.65	12.00	0.21	97.91	0.01	0.000044	
	0.02032	61.75	7.40		56.19	4.68		
		33714.20						
452.97	147.00	4389.58	11.93	0.21	97.13	0.01	0.000000	
	0.00000	61.54	7.36		56.01	4.70		
		33606.01						
450.71	148.00	4389.55	11.90	0.21	95.26	0.01	0.000071	
	0.03265	61.44	7.34		55.92	4.70		
		33554.36						
449.61	149.00	4389.52	11.87	0.21	92.46	0.01	0.000000	
	0.00000	61.37	7.33		55.86	4.71		
		33517.38						
448.37	150.00	4389.50	11.85	0.21	92.19	0.01	0.000057	
	0.02618	61.31	7.31		55.81	4.71		
		33488.79						
447.59	151.00	4389.49	11.84	0.20	91.57	0.01	0.000000	
	0.00000	61.27	7.30		55.78	4.71		
		33466.26						
445.78	152.00	4389.46	11.81	0.21	92.42	0.01	0.000037	
	0.01692	61.18	7.29		55.70	4.72		
		33417.94						

		HYCHAN.OUT							
153.00	4389.40	11.75	0.21	92.27	0.01				
442.21	61.00	7.25		55.54	4.73	0.000057			
0.02575	33326.71								
154.00	4389.35	11.70	0.21	91.33	0.01				
439.62	60.87	7.22		55.43	4.74	0.000000			
0.00000	33258.20								
155.00	4389.33	11.68	0.21	91.41	0.01				
438.46	60.79	7.21		55.36	4.74	0.000038			
0.01704	33218.50								
156.00	4389.28	11.63	0.21	92.07	0.01				
436.00	60.67	7.19		55.26	4.75	0.000055			
0.02454	33154.22								
157.00	4389.26	11.61	0.21	89.51	0.01				
434.29	60.60	7.17		55.19	4.75	0.000031			
0.01369	33115.18								
158.00	4389.34	11.69	0.20	89.02	0.01				
439.08	60.84	7.22		55.41	4.74	0.000000			
0.00000	33243.88								
159.00	4389.37	11.72	0.20	90.14	0.01				
440.78	60.92	7.23		55.48	4.73	0.000014			
0.00612	33285.90								
160.00	4389.37	11.72	0.20	90.21	0.01				
440.98	60.93	7.24		55.49	4.73	0.000000			
0.00000	33291.27								
161.00	4389.37	11.72	0.20	90.19	0.01				
440.87	60.92	7.24		55.47	4.73	0.000000			
0.00000	33282.82								
162.00	4389.36	11.71	0.20	90.21	0.01				
440.65	60.91	7.23		55.46	4.73	0.000025			
0.01130	33277.21								
163.00	4389.36	11.71	0.20	90.14	0.01				
440.12	60.89	7.23		55.45	4.74	0.000000			
0.00000	33268.54								
164.00	4389.35	11.70	0.20	90.11	0.01				
439.81	60.88	7.22		55.44	4.74	0.000021			
0.00966	33261.92								
165.00	4389.35	11.70	0.20	89.77	0.01				
439.71	60.86	7.22		55.42	4.74	0.000000			
0.00000	33254.37								
166.00	4389.32	11.67	0.21	91.06	0.01				
438.08	60.79	7.21		55.36	4.74	0.000000			
0.00000	33214.54								
167.00	4389.26	11.61	0.21	90.79	0.01				
434.58	60.60	7.17		55.19	4.75	0.000092			
0.04095	33116.01								
168.00	4389.23	11.58	0.21	89.92	0.01				
433.03	60.51	7.16		55.12	4.76	0.000015			
0.00681	33070.68								
169.00	4389.22	11.57	0.21	89.60	0.01				
432.41	60.48	7.15		55.10	4.76	0.000000			
0.00000	33057.05								
170.00	4389.21	11.56	0.21	89.89	0.01				
431.99	60.46	7.15		55.07	4.76	0.000055			
0.02443	33044.75								
171.00	4389.21	11.56	0.21	89.43	0.01				
431.78	60.44	7.14		55.06	4.76	0.000000			
0.00000	33036.82								
172.00	4389.20	11.55	0.21	89.26	0.01				
431.48	60.43	7.14		55.05	4.76	0.000000			
0.00000	33030.46								
173.00	4389.20	11.55	0.21	89.87	0.01				
431.22	60.41	7.14		55.03	4.77	0.000030			
0.01325	33020.96								

		HYCHAN.OUT							
429.15	174.00	4389.17	11.52	0.21	54.96	90.58	4.77	0.01	0.000080
	0.03539	60.33	7.11						
426.10	175.00	32977.75	11.45	0.21	54.80	90.57	4.78	0.01	0.000050
	0.02218	60.14	7.09						
424.15	176.00	32877.38	11.43	0.21	54.72	89.32	4.79	0.01	0.000000
	0.00000	60.05	7.06						
423.52	177.00	32832.75	11.41	0.21	54.69	89.47	4.79	0.01	0.000000
	0.00000	60.02	7.06						
423.02	178.00	32814.21	11.41	0.21	54.67	89.35	4.79	0.01	0.000000
	0.00000	59.99	7.05						
422.66	179.00	32802.62	11.40	0.21	54.66	89.25	4.79	0.01	0.000020
	0.00866	59.98	7.05						
422.19	180.00	32793.51	11.39	0.21	54.64	89.31	4.80	0.01	0.000025
	0.01085	59.96	7.04						
424.55	181.00	32784.20	11.44	0.21	54.75	87.05	4.79	0.01	0.000000
	0.00000	60.09	7.07						
431.67	182.00	32850.31	11.56	0.20	55.06	87.02	4.76	0.01	0.000073
	0.03276	60.44	7.14						
435.77	183.00	33034.47	11.62	0.20	55.23	87.58	4.75	0.01	0.000000
	0.00000	60.64	7.19						
439.52	184.00	33140.83	11.70	0.20	55.42	88.12	4.74	0.01	0.000027
	0.01221	60.86	7.22						
440.81	185.00	33252.73	11.73	0.20	55.49	88.35	4.73	0.01	0.000000
	0.00000	60.94	7.23						
441.73	186.00	33294.55	11.74	0.20	55.52	88.94	4.73	0.01	0.000081
	0.03642	60.97	7.24						
441.73	187.00	33310.43	11.74	0.20	55.53	88.97	4.73	0.01	0.000000
	0.00000	60.99	7.24						
442.32	188.00	33318.43	11.74	0.20	55.54	89.24	4.73	0.01	0.000045
	0.02019	60.99	7.25						
442.13	189.00	33322.37	11.75	0.20	55.54	88.94	4.73	0.01	0.000027
	0.01234	61.00	7.25						
442.09	190.00	33326.12	11.75	0.20	55.54	88.84	4.73	0.01	0.000000
	0.00000	61.00	7.25						
442.08	191.00	33326.86	11.75	0.20	55.54	89.32	4.73	0.01	0.000054
	0.02446	61.00	7.25						
440.78	192.00	33326.45	11.72	0.20	55.49	89.96	4.73	0.01	0.000000
	0.00000	60.94	7.23						
437.19	193.00	33292.33	11.66	0.21	55.33	90.23	4.74	0.01	0.000060
	0.02712	60.76	7.20						
435.89	194.00	33199.33	11.64	0.20	55.26	89.05	4.75	0.01	0.000000
	0.00000	60.68	7.18						
		33158.55							

HYCHAN.OUT								
195.00	4389.28	11.63	0.21	89.23	0.01			
434.95	60.65	7.17	55.24	4.75	0.000077			
0.03466	33142.80							
196.00	4389.27	11.62	0.20	89.07	0.01			
435.03	60.64	7.17	55.23	4.75	0.000000			
0.00000	33136.76							
197.00	4389.27	11.62	0.21	89.30	0.01			
435.15	60.62	7.18	55.21	4.75	0.000087			
0.03907	33128.81							
198.00	4389.27	11.61	0.20	88.84	0.01			
434.58	60.61	7.17	55.21	4.75	0.000000			
0.00000	33124.90							
199.00	4389.26	11.61	0.21	89.18	0.01			
434.26	60.61	7.16	55.20	4.75	0.000047			
0.02118	33122.35							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4872

MAXIMUM DISCHARGE (CFS) = 2941.45 AT TIME = 91.20  
 MAXIMUM STAGE = 4397.73 AT TIME = 91.56

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE	
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	4376.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4376.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4376.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4376.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4376.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4381.87	4.97	-0.86	-102.16	0.07	0.000000
119.09	40.36	2.95	37.61	7.57	0.01	0.000000
0.00000	18807.17					
6.00	4384.94	8.04	-0.11	-26.33	0.01	0.000000
243.58	53.82	4.53	49.44	6.15	0.00	0.000000
0.00000	24718.28					
7.00	4385.65	8.75	-0.04	-11.42	0.00	0.000000
278.39	56.64	4.92	51.89	5.93	0.00	0.000000
0.00000	25945.03					
8.00	4385.88	8.98	0.00	0.00	0.00	0.000000
0.00000	57.52	0.00	52.66	5.86	0.00	0.000000
9.00	26327.78					
0.00000	4385.87	8.97	0.00	0.00	0.00	0.000000
0.00000	57.47	0.00	52.61	5.87	0.00	0.000000
10.00	26306.94					
0.00000	4385.82	8.92	0.00	0.00	0.00	0.000018
0.00000	57.27	0.00	52.44	5.88	0.00	0.000018
11.00	26218.49					
0.00000	4385.75	8.86	0.00	0.00	0.00	0.000018

HYCHAN.OUT							
0.00		57.03	0.00	52.23	5.90		0.000000
	0.00000	26115.84					
	12.00	4385.71	8.81	0.00	0.00	0.00	
0.00		56.84	0.00	52.06	5.91		0.000009
	0.00000	26031.85					
	13.00	4385.61	8.71	0.01	3.46	0.00	
247.44		56.46	4.38	51.74	5.94		0.000000
	0.00000	25867.74					
	14.00	4385.48	8.58	0.01	3.14	0.00	
248.19		55.97	4.43	51.31	5.98		0.000000
	0.00000	25652.57					
	15.00	4385.40	8.50	0.00	0.00	0.00	
0.00		55.64	0.00	51.02	6.00		0.000000
	0.00000	25508.56					
	16.00	4385.36	8.46	0.00	0.00	0.00	
0.00		55.49	0.00	50.89	6.02		0.000016
	0.00000	25446.94					
	17.00	4385.34	8.44	0.00	0.00	0.00	
0.00		55.43	0.00	50.84	6.02		0.000040
	0.00000	25418.65					
	18.00	4385.33	8.43	0.00	0.00	0.00	
0.00		55.40	0.00	50.81	6.02		0.000015
	0.00000	25404.26					
	19.00	4385.34	8.44	0.00	0.00	0.00	
0.00		55.41	0.00	50.82	6.02		0.000000
	0.00000	25408.78					
	20.00	4385.41	8.51	0.00	0.00	0.00	
0.00		55.68	0.00	51.06	6.00		0.000000
	0.00000	25529.02					
	21.00	4385.54	8.64	-0.01	-4.01	0.00	
313.09		56.20	5.57	51.50	5.96		0.000000
	0.00000	25752.06					
	22.00	4385.67	8.77	0.00	0.00	0.00	
0.00		56.71	0.00	51.96	5.92		0.000051
	0.00000	25978.30					
	23.00	4385.76	8.86	0.00	0.00	0.00	
0.00		57.05	0.00	52.24	5.90		0.000000
	0.00000	26122.34					
	24.00	4385.81	8.91	0.00	0.00	0.00	
0.00		57.24	0.00	52.41	5.88		0.000044
	0.00000	26206.09					
	25.00	4385.91	9.01	-0.01	-3.44	0.00	
332.29		57.64	5.77	52.76	5.85		0.000000
	0.00000	26379.74					
	26.00	4386.11	9.21	-0.02	-6.10	0.00	
320.66		58.38	5.49	53.40	5.80		0.000007
	0.00242	26701.77					
	27.00	4386.34	9.44	-0.02	-6.36	0.00	
318.00		59.24	5.37	54.15	5.74		0.000000
	0.00000	27076.96					
	28.00	4386.56	9.66	-0.01	-4.43	0.00	
328.35		60.08	5.47	54.88	5.68		0.000000
	0.00000	27440.08					
	29.00	4386.67	9.77	0.00	0.00	0.00	
0.00		60.49	0.00	55.23	5.65		0.000000
	0.00000	27617.48					
	30.00	4386.74	9.84	0.00	0.00	0.00	
0.00		60.74	0.00	55.45	5.64		0.000000
	0.00000	27725.04					
	31.00	4386.83	9.93	0.00	0.00	0.00	
0.00		61.07	0.00	55.73	5.61		0.000000
	0.00000	27867.37					
	32.00	4386.88	9.98	0.00	0.00	0.00	

HYCHAN.OUT							
0.00		61.26	0.00	55.90	5.60		0.000000
	0.00000	27949.95					
	33.00	4386.93	10.03	0.00	0.00	0.00	
0.00		61.42	0.00	56.05	5.59		0.000000
	0.00000	28023.31					
	34.00	4387.00	10.10	0.00	0.00	0.00	
0.00		61.71	0.00	56.30	5.57		0.000000
	0.00000	28148.96					
	35.00	4387.05	10.15	0.00	0.00	0.00	
0.00		61.88	0.00	56.44	5.56		0.000000
	0.00000	28218.95					
	36.00	4387.08	10.18	0.00	0.00	0.00	
0.00		62.01	0.00	56.55	5.55		0.000000
	0.00000	28275.08					
	37.00	4387.08	10.18	0.00	0.00	0.00	
0.00		62.00	0.00	56.55	5.55		0.000043
	0.00000	28273.02					
	38.00	4387.06	10.16	0.00	0.00	0.00	
0.00		61.93	0.00	56.48	5.56		0.000000
	0.00000	28240.65					
	39.00	4387.00	10.10	0.00	0.00	0.00	
0.00		61.70	0.00	56.28	5.57		0.000055
	0.00000	28141.07					
	40.00	4386.96	10.06	0.00	0.00	0.00	
0.00		61.56	0.00	56.16	5.58		0.000000
	0.00000	28081.01					
	41.00	4386.94	10.04	0.00	0.00	0.00	
0.00		61.47	0.00	56.09	5.59		0.000000
	0.00000	28042.98					
	42.00	4386.93	10.03	0.00	0.00	0.00	
0.00		61.43	0.00	56.05	5.59		0.000000
	0.00000	28024.17					
	43.00	4386.92	10.02	0.00	0.00	0.00	
0.00		61.40	0.00	56.02	5.59		0.000000
	0.00000	28012.28					
	44.00	4386.93	10.03	0.00	0.00	0.00	
0.00		61.45	0.00	56.07	5.59		0.000000
	0.00000	28034.45					
	45.00	4386.98	10.08	0.00	0.00	0.00	
0.00		61.63	0.00	56.23	5.58		0.000000
	0.00000	28113.57					
	46.00	4387.04	10.14	0.00	0.00	0.00	
0.00		61.84	0.00	56.40	5.56		0.000026
	0.00000	28201.13					
	47.00	4387.13	10.23	0.00	0.00	0.00	
0.00		62.19	0.00	56.71	5.54		0.000000
	0.00000	28353.14					
	48.00	4387.26	10.36	0.00	0.00	0.00	
0.00		62.65	0.00	57.10	5.51		0.000000
	0.00000	28552.37					
	49.00	4387.40	10.50	-0.01	-4.16	0.00	
411.98		63.13	6.53	57.52	5.48		0.000000
	0.00000	28762.23					
	50.00	4387.54	10.64	-0.01	-4.55	0.00	
415.57		63.64	6.53	57.96	5.45		0.000014
	0.00556	28981.35					
	51.00	4387.68	10.78	0.00	0.00	0.00	
0.00		64.15	0.00	58.40	5.42		0.000000
	0.00000	29202.14					
	52.00	4387.84	10.94	-0.01	-6.10	0.00	
428.34		64.73	6.62	58.90	5.38		0.000016
	0.00657	29451.68					
	53.00	4388.02	11.12	0.00	0.00	0.00	

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HYCHAN.OUT									
0.00		65.34	0.00	59.44	5.35	0.000000			
	0.00000	29718.21							
	54.00	4388.15	11.25	-0.01	-4.73	0.00			
457.72		65.80	6.96	59.83	5.32	0.000019			
	0.00807	29914.86							
	55.00	4388.33	11.43	-0.01	-5.44	0.00			
483.23		66.44	7.27	60.39	5.28	0.000000			
	0.00000	30192.63							
	56.00	4388.58	11.69	-0.02	-10.20	0.00			
439.51		67.32	6.53	61.14	5.23	0.000000			
	0.00000	30571.08							
	57.00	4389.05	12.15	-0.04	-16.39	0.00			
461.32		68.92	6.69	62.52	5.14	0.000000			
	0.00000	31260.77							
	58.00	4389.63	12.73	-0.04	-18.65	0.00			
493.59		70.87	6.96	64.20	5.04	0.000000			
	0.00000	32101.71							
	59.00	4390.19	13.29	-0.06	-31.22	0.00			
529.53		72.70	7.28	65.78	4.95	0.000000			
	0.00000	32889.30							
	60.00	4390.58	13.68	-0.14	-80.54	0.01			
559.76		73.96	7.57	66.86	4.89	0.000000			
	0.00000	33430.77							
	61.00	4390.83	13.93	-0.27	-157.85	0.01			
574.43		74.77	7.68	67.55	4.85	0.000000			
	0.00000	33776.57							
	62.00	4391.00	14.10	-0.21	-124.35	0.01			
581.39		75.33	7.72	68.04	4.82	0.000000			
	0.00000	34017.60							
	63.00	4391.10	14.20	-0.03	-17.80	0.00			
578.17		75.64	7.64	68.30	4.81	0.000000			
	0.00000	34149.77							
	64.00	4391.19	14.29	0.09	55.67	0.00			
590.34		75.92	7.78	68.54	4.80	0.000022			
	0.01088	34268.64							
	65.00	4391.28	14.38	0.13	77.39	0.01			
595.98		76.22	7.82	68.80	4.78	0.000000			
	0.00000	34400.51							
	66.00	4391.38	14.48	0.14	81.44	0.01			
602.41		76.54	7.87	69.07	4.77	0.000051			
	0.02493	34535.85							
	67.00	4391.47	14.57	0.14	83.88	0.01			
607.41		76.80	7.91	69.30	4.76	0.000040			
	0.01998	34648.25							
	68.00	4391.55	14.65	0.13	80.21	0.01			
611.97		77.06	7.94	69.52	4.75	0.000000			
	0.00000	34758.97							
	69.00	4391.72	14.82	0.11	69.49	0.01			
619.68		77.59	7.99	69.97	4.72	0.000000			
	0.00000	34984.50							
	70.00	4391.91	15.01	0.09	58.05	0.00			
629.78		78.06	8.07	70.48	4.70	0.000045			
	0.02289	35240.30							
	71.00	4392.12	15.22	0.08	52.16	0.00			
641.14		78.49	8.17	71.05	4.67	0.000016			
	0.00804	35524.58							
	72.00	4392.37	15.47	0.02	12.98	0.00			
630.35		78.99	7.98	71.70	4.64	0.000000			
	0.00000	35850.84							
	73.00	4392.59	15.69	0.02	10.36	0.00			
669.99		79.42	8.44	72.28	4.61	0.000012			
	0.00623	36137.82							
	74.00	4392.75	15.85	0.03	22.54	0.00			

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		HYCHAN.OUT					
688.74	79.76	8.64	72.71	4.59	0.000000		
0.00000	36355.43						
75.00	4392.91	16.01	0.17	122.06	0.01		
699.86	80.07	8.74	73.11	4.57	0.000000		
0.00000	36557.38						
76.00	4393.12	16.22	0.59	419.00	0.03		
712.69	80.48	8.85	73.66	4.54	0.000000		
0.00000	36827.66						
77.00	4393.31	16.41	0.89	646.46	0.04		
724.52	80.86	8.96	74.14	4.52	0.000037		
0.02087	37071.39						
78.00	4393.44	16.54	1.02	749.19	0.04		
733.15	81.14	9.04	74.49	4.50	0.000000		
0.00000	37247.43						
79.00	4393.73	16.83	1.06	796.39	0.05		
751.06	81.71	9.19	75.22	4.47	0.000069		
0.03936	37610.16						
80.00	4394.03	17.13	1.57	1199.91	0.07		
765.59	82.30	9.30	75.97	4.44	0.000102		
0.05942	37985.88						
81.00	4394.40	17.50	2.21	1738.28	0.09		
785.26	83.05	9.46	76.91	4.39	0.000127		
0.07502	38454.10						
82.00	4394.77	17.87	2.62	2125.43	0.11		
810.49	83.79	9.67	77.83	4.35	0.000165		
0.09983	38917.38						
83.00	4395.29	18.39	2.97	2507.45	0.12		
844.54	84.83	9.96	79.11	4.30	0.000138		
0.08552	39552.94						
84.00	4395.85	18.95	2.92	2564.25	0.12		
878.22	85.94	10.22	80.45	4.25	0.000028		
0.01755	40227.36						
85.00	4396.31	19.41	2.63	2378.55	0.11		
904.95	86.86	10.42	81.56	4.20	0.000000		
0.00000	40780.66						
86.00	4396.64	19.74	2.36	2187.09	0.09		
924.84	87.53	10.57	82.36	4.17	0.000000		
0.00000	41178.06						
87.00	4396.83	19.93	2.41	2256.83	0.10		
937.09	87.92	10.66	82.81	4.15	0.000000		
0.00000	41405.82						
88.00	4397.08	20.18	2.57	2450.06	0.10		
952.71	88.41	10.78	83.39	4.13	0.000000		
0.00000	41695.72						
89.00	4397.33	20.43	2.70	2613.71	0.11		
968.84	88.91	10.90	83.98	4.11	0.000000		
0.00000	41990.12						
90.00	4397.52	20.62	2.81	2752.60	0.11		
980.84	89.29	10.99	84.42	4.09	0.000000		
0.00000	42209.81						
91.00	4397.56	20.66	2.83	2780.99	0.11		
983.36	89.37	11.00	84.51	4.09	0.000000		
0.00000	42254.33						
92.00	4397.57	20.67	2.82	2774.33	0.11		
984.20	89.40	11.01	84.54	4.09	0.000000		
0.00000	42271.36						
93.00	4397.42	20.52	2.68	2611.72	0.10		
974.51	89.09	10.94	84.19	4.10	0.000000		
0.00000	42095.56						
94.00	4397.32	20.42	2.67	2584.63	0.10		
967.93	88.88	10.89	83.95	4.11	0.000000		
0.00000	41973.29						
95.00	4397.19	20.29	2.63	2522.37	0.10		

HYCHAN.OUT						
959.87	88.62	10.83	83.64	4.12	0.000000	
0.00000	41821.88					
96.00	4397.02	20.12	2.58	2446.30	0.10	
949.65	88.30	10.76	83.26	4.14	0.000000	
0.00000	41630.07					
97.00	4396.80	19.90	2.47	2306.13	0.10	
935.27	87.84	10.65	82.72	4.16	0.000000	
0.00000	41362.23					
98.00	4396.61	19.71	2.39	2208.64	0.09	
923.46	87.47	10.56	82.28	4.17	0.000000	
0.00000	41142.21					
99.00	4396.37	19.47	2.29	2081.43	0.09	
907.87	86.98	10.44	81.70	4.20	0.000000	
0.00000	40850.59					
100.00	4396.03	19.13	2.11	1870.50	0.09	
886.70	86.31	10.27	80.90	4.23	0.000000	
0.00000	40448.50					
101.00	4395.69	18.79	2.06	1783.43	0.08	
864.71	85.62	10.10	80.07	4.26	0.000020	
0.01249	40033.41					
102.00	4395.24	18.34	2.43	2037.58	0.10	
839.26	84.73	9.90	78.99	4.31	0.000100	
0.06183	39494.29					
103.00	4394.75	17.85	2.50	2023.63	0.10	
809.80	83.75	9.67	77.78	4.36	0.000116	
0.07028	38891.93					
104.00	4394.24	17.34	2.18	1691.35	0.09	
777.11	82.73	9.39	76.51	4.41	0.000022	
0.01267	38256.02					
105.00	4393.66	16.76	1.59	1180.10	0.07	
742.64	81.57	9.10	75.04	4.48	0.000045	
0.02530	37519.49					
106.00	4393.25	16.35	1.34	960.18	0.06	
719.14	80.76	8.91	74.01	4.53	0.000052	
0.02901	37002.72					
107.00	4393.11	16.21	1.17	830.64	0.05	
712.58	80.47	8.86	73.64	4.54	0.000008	
0.00429	36818.71					
108.00	4392.95	16.05	1.17	821.62	0.05	
700.64	80.15	8.74	73.22	4.56	0.000028	
0.01541	36609.10					
109.00	4392.71	15.81	1.17	802.40	0.05	
685.35	79.66	8.60	72.59	4.59	0.000008	
0.00424	36294.95					
110.00	4392.36	15.46	1.16	773.04	0.05	
663.63	78.97	8.40	71.68	4.64	0.000000	
0.00000	35841.09					
111.00	4392.03	15.13	0.96	619.47	0.04	
643.51	78.31	8.22	70.80	4.68	0.000017	
0.00855	35402.09					
112.00	4391.77	14.87	0.72	450.82	0.03	
628.71	77.75	8.09	70.11	4.72	0.000000	
0.00000	35055.52					
113.00	4391.59	14.69	0.57	351.29	0.03	
618.02	77.20	8.01	69.64	4.74	0.000028	
0.01414	34817.66					
114.00	4391.39	14.49	0.54	323.69	0.02	
604.93	76.57	7.90	69.10	4.77	0.000064	
0.03180	34548.87					
115.00	4391.17	14.27	0.48	281.04	0.02	
591.19	75.86	7.79	68.48	4.80	0.000000	
0.00000	34242.48					
116.00	4391.07	14.17	0.38	220.97	0.02	

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HYCHAN.OUT									
584.29	75.55	7.73	68.22	4.81	0.000000				
0.00000	34110.22								
117.00	4391.02	14.12	0.38	219.41	0.02				
581.12	75.39	7.71	68.09	4.82	0.000106				
0.05075	34044.37								
118.00	4390.90	14.00	0.40	231.65	0.02				
573.03	74.99	7.64	67.74	4.84	0.000127				
0.06043	33870.57								
119.00	4390.79	13.89	0.39	223.41	0.02				
567.15	74.66	7.60	67.46	4.86	0.000000				
0.00000	33728.69								
120.00	4390.73	13.83	0.36	201.30	0.02				
563.23	74.46	7.56	67.29	4.86	0.000059				
0.02785	33645.45								
121.00	4390.71	13.81	0.34	188.06	0.02				
561.13	74.41	7.54	67.24	4.87	0.000000				
0.00000	33620.67								
122.00	4390.68	13.78	0.33	183.21	0.02				
559.60	74.28	7.53	67.14	4.87	0.000000				
0.00000	33567.77								
123.00	4390.59	13.69	0.34	186.15	0.02				
553.85	74.00	7.48	66.90	4.89	0.000033				
0.01532	33448.14								
124.00	4390.49	13.59	0.33	180.63	0.02				
548.16	73.68	7.44	66.62	4.90	0.000171				
0.07928	33309.82								
125.00	4390.41	13.51	0.32	171.24	0.02				
543.59	73.42	7.40	66.40	4.91	0.000064				
0.02946	33199.32								
126.00	4390.31	13.41	0.30	162.32	0.01				
537.15	73.10	7.35	66.12	4.93	0.000000				
0.00000	33061.10								
127.00	4390.26	13.36	0.28	150.68	0.01				
533.38	72.93	7.31	65.97	4.94	0.000000				
0.00000	32985.66								
128.00	4390.19	13.29	0.28	147.18	0.01				
530.04	72.72	7.29	65.79	4.95	0.000046				
0.02074	32894.50								
129.00	4390.11	13.21	0.27	142.50	0.01				
524.16	72.43	7.24	65.54	4.96	0.000000				
0.00000	32771.71								
130.00	4390.05	13.15	0.26	137.58	0.01				
520.99	72.26	7.21	65.40	4.97	0.000000				
0.00000	32698.28								
131.00	4389.99	13.09	0.25	129.37	0.01				
517.26	72.05	7.18	65.22	4.98	0.000147				
0.06590	32608.26								
132.00	4389.90	13.00	0.25	126.64	0.01				
511.66	71.75	7.13	64.96	5.00	0.000000				
0.00000	32480.83								
133.00	4389.90	13.00	0.23	118.97	0.01				
511.39	71.75	7.13	64.96	5.00	0.000013				
0.00595	32478.42								
134.00	4389.97	13.07	0.23	117.12	0.01				
515.45	71.99	7.16	65.17	4.98	0.000121				
0.05400	32584.44								
135.00	4389.98	13.08	0.22	114.94	0.01				
516.18	72.00	7.17	65.17	4.98	0.000021				
0.00927	32586.58								
136.00	4389.96	13.06	0.21	110.66	0.01				
515.47	71.94	7.17	65.12	4.99	0.000000				
0.00000	32559.72								
137.00	4389.93	13.03	0.21	107.50	0.01				

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HYCHAN.OUT									
513.54	71.87	7.15	65.06	4.99	0.000000				
0.00000	32529.23								
138.00	4389.91	13.01	0.21	105.66	0.01				
512.74	71.79	7.14	65.00	4.99	0.000000				
0.00000	32498.69								
139.00	4389.89	12.99	0.20	102.90	0.01				
511.54	71.73	7.13	64.95	5.00	0.000011				
0.00482	32472.57								
140.00	4389.88	12.98	0.20	102.00	0.01				
509.89	71.67	7.11	64.89	5.00	0.000000				
0.00000	32445.26								
141.00	4389.83	12.93	0.20	102.58	0.01				
507.78	71.53	7.10	64.77	5.01	0.000000				
0.00000	32383.87								
142.00	4389.76	12.86	0.20	100.60	0.01				
503.85	71.29	7.07	64.57	5.02	0.000000				
0.00000	32283.96								
143.00	4389.73	12.83	0.20	98.79	0.01				
501.95	71.19	7.05	64.48	5.03	0.000029				
0.01296	32238.31								
144.00	4389.71	12.81	0.20	98.90	0.01				
500.54	71.12	7.04	64.42	5.03	0.000000				
0.00000	32207.76								
145.00	4389.69	12.79	0.20	97.85	0.01				
499.64	71.06	7.03	64.36	5.03	0.000000				
0.00000	32182.07								
146.00	4389.65	12.75	0.20	98.70	0.01				
497.80	70.92	7.02	64.25	5.04	0.000000				
0.00000	32123.87								
147.00	4389.58	12.68	0.20	97.20	0.01				
492.69	70.69	6.97	64.05	5.05	0.000050				
0.02195	32023.76								
148.00	4389.54	12.64	0.20	96.33	0.01				
490.94	70.57	6.96	63.95	5.06	0.000000				
0.00000	31973.07								
149.00	4389.52	12.62	0.19	91.47	0.01				
489.36	70.49	6.94	63.88	5.06	0.000141				
0.06115	31939.59								
150.00	4389.50	12.60	0.19	92.89	0.01				
487.45	70.43	6.92	63.82	5.06	0.000000				
0.00000	31912.11								
151.00	4389.49	12.59	0.19	91.69	0.01				
487.67	70.38	6.93	63.78	5.07	0.000027				
0.01166	31890.88								
152.00	4389.46	12.56	0.19	93.29	0.01				
485.36	70.27	6.91	63.69	5.07	0.000000				
0.00000	31844.92								
153.00	4389.40	12.50	0.19	93.04	0.01				
482.36	70.07	6.88	63.52	5.08	0.000000				
0.00000	31758.92								
154.00	4389.35	12.45	0.19	91.45	0.01				
479.60	69.92	6.86	63.39	5.09	0.000007				
0.00283	31693.79								
155.00	4389.33	12.43	0.19	91.78	0.01				
478.03	69.84	6.84	63.31	5.10	0.000000				
0.00000	31656.48								
156.00	4389.28	12.38	0.19	92.47	0.01				
476.39	69.70	6.84	63.19	5.10	0.000000				
0.00000	31596.33								
157.00	4389.26	12.36	0.19	88.48	0.01				
474.52	69.61	6.82	63.12	5.11	0.000000				
0.00000	31559.04								
158.00	4389.34	12.44	0.18	88.10	0.01				

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		HYCHAN.OUT					
479.35	69.89	6.86	63.36	5.09	0.000093		
0.03968	31678.80						
159.00	4389.37	12.47	0.19	90.43	0.01		
481.04	69.99	6.87	63.44	5.09	0.000033		
0.01398	31720.79						
160.00	4389.37	12.47	0.19	89.99	0.01		
481.40	70.00	6.88	63.45	5.09	0.000071		
0.03036	31724.90						
161.00	4389.37	12.47	0.19	90.34	0.01		
481.35	69.98	6.88	63.44	5.09	0.000075		
0.03226	31718.04						
162.00	4389.36	12.46	0.19	90.45	0.01		
480.98	69.96	6.87	63.42	5.09	0.000000		
0.00000	31711.71						
163.00	4389.36	12.46	0.19	90.10	0.01		
480.82	69.95	6.87	63.41	5.09	0.000067		
0.02890	31704.16						
164.00	4389.35	12.45	0.19	90.15	0.01		
480.32	69.93	6.87	63.39	5.09	0.000000		
0.00000	31696.92						
165.00	4389.35	12.45	0.19	89.71	0.01		
480.24	69.92	6.87	63.38	5.09	0.000072		
0.03082	31690.97						
166.00	4389.32	12.42	0.19	91.58	0.01		
477.90	69.83	6.84	63.30	5.10	0.000092		
0.03918	31652.04						
167.00	4389.26	12.36	0.19	92.09	0.01		
475.11	69.61	6.83	63.12	5.11	0.000000		
0.00000	31559.87						
168.00	4389.23	12.33	0.19	89.94	0.01		
473.32	69.51	6.81	63.04	5.11	0.000000		
0.00000	31517.62						
169.00	4389.22	12.32	0.19	89.07	0.01		
472.58	69.48	6.80	63.01	5.11	0.000077		
0.03271	31503.89						
170.00	4389.21	12.31	0.19	89.83	0.01		
472.43	69.46	6.80	62.98	5.12	0.000009		
0.00389	31492.25						
171.00	4389.21	12.31	0.19	89.65	0.01		
471.79	69.44	6.79	62.97	5.12	0.000029		
0.01221	31485.22						
172.00	4389.20	12.30	0.19	89.86	0.01		
471.70	69.42	6.79	62.96	5.12	0.000000		
0.00000	31478.24						
173.00	4389.20	12.30	0.19	89.55	0.01		
470.73	69.41	6.78	62.94	5.12	0.000000		
0.00000	31471.14						
174.00	4389.17	12.27	0.19	91.38	0.01		
469.47	69.31	6.77	62.86	5.12	0.000000		
0.00000	31428.98						
175.00	4389.10	12.20	0.19	90.73	0.01		
465.90	69.09	6.74	62.67	5.14	0.000000		
0.00000	31335.84						
176.00	4389.07	12.17	0.19	89.37	0.01		
464.19	68.99	6.73	62.58	5.14	0.000026		
0.01086	31291.94						
177.00	4389.06	12.16	0.19	89.61	0.01		
463.64	68.95	6.72	62.55	5.14	0.000044		
0.01839	31275.64						
178.00	4389.05	12.15	0.19	89.08	0.01		
463.25	68.92	6.72	62.53	5.14	0.000104		
0.04345	31263.22						
179.00	4389.05	12.15	0.19	90.08	0.01		

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HYCHAN.OUT							
462.78	68.91	6.72	62.51	5.15	0.000000		
0.00000	31255.72						
180.00	4389.04	12.14	0.19	89.24	0.01		
462.48	68.89	6.71	62.49	5.15	0.000000		
0.00000	31246.61						
181.00	4389.09	12.19	0.18	85.24	0.01		
464.70	69.03	6.73	62.62	5.14	0.000079		
0.03315	31310.18						
182.00	4389.21	12.31	0.19	87.44	0.01		
471.45	69.43	6.79	62.96	5.12	0.000000		
0.00000	31482.38						
183.00	4389.28	12.38	0.18	86.03	0.01		
475.47	69.67	6.82	63.17	5.10	0.000101		
0.04301	31584.32						
184.00	4389.35	12.45	0.18	87.75	0.01		
479.62	69.91	6.86	63.38	5.09	0.000000		
0.00000	31688.29						
185.00	4389.37	12.47	0.18	88.42	0.01		
481.24	70.00	6.87	63.46	5.09	0.000043		
0.01850	31728.02						
186.00	4389.39	12.49	0.19	89.43	0.01		
481.85	70.04	6.88	63.49	5.08	0.000000		
0.00000	31743.72						
187.00	4389.39	12.49	0.18	88.75	0.01		
482.07	70.06	6.88	63.50	5.08	0.000000		
0.00000	31750.85						
188.00	4389.39	12.49	0.18	88.95	0.01		
482.14	70.07	6.88	63.51	5.08	0.000000		
0.00000	31755.75						
189.00	4389.40	12.50	0.18	88.88	0.01		
482.39	70.07	6.88	63.52	5.08	0.000000		
0.00000	31757.55						
190.00	4389.40	12.50	0.18	88.51	0.01		
482.56	70.07	6.89	63.52	5.08	0.000046		
0.01994	31759.06						
191.00	4389.40	12.50	0.19	89.52	0.01		
482.42	70.07	6.88	63.52	5.08	0.000000		
0.00000	31759.06						
192.00	4389.37	12.47	0.19	90.27	0.01		
482.12	70.00	6.89	63.45	5.09	0.000076		
0.03255	31726.18						
193.00	4389.31	12.41	0.19	90.81	0.01		
478.58	69.80	6.86	63.28	5.10	0.000000		
0.00000	31638.79						
194.00	4389.29	12.39	0.19	89.01	0.01		
476.66	69.71	6.84	63.20	5.10	0.000083		
0.03537	31599.95						
195.00	4389.28	12.38	0.19	89.46	0.01		
475.68	69.67	6.83	63.17	5.10	0.000000		
0.00000	31584.73						
196.00	4389.27	12.37	0.19	88.91	0.01		
475.57	69.66	6.83	63.16	5.10	0.000081		
0.03440	31579.23						
197.00	4389.27	12.37	0.19	89.92	0.01		
474.85	69.64	6.82	63.15	5.11	0.000000		
0.00000	31572.62						
198.00	4389.26	12.36	0.19	88.08	0.01		
475.04	69.63	6.82	63.14	5.11	0.000081		
0.03463	31568.62						
199.00	4389.26	12.36	0.19	89.39	0.01		
474.65	69.62	6.82	63.13	5.11	0.000016		
0.00669	31564.86						

## HYCHAN.OUT

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4871

MAXIMUM DISCHARGE (CFS) = 10778.61 AT TIME = 91.19  
 MAXIMUM STAGE = 4397.58 AT TIME = 91.56

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
SHEAR STRESS	WETTED PERIMETER	SURFACE AREA	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)			(FT)			
0.00	0.00	4376.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4376.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4376.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4376.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4376.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
329.43	5.00	4382.02	6.02	8.07	-0.41	-135.47	0.03	0.000000
	0.00000	40.84			36.41	6.05		
572.50	6.00	4384.94	8.94	11.43	-0.06	-32.81	0.00	0.000000
	0.00000	50.08			43.63	4.88		
635.85	7.00	4385.65	9.65	12.20	-0.02	-14.23	0.00	0.000000
	0.00000	52.11			45.19	4.68		
0.00	8.00	4385.88	9.88	0.00	0.00	0.00	0.00	0.000000
	0.00000	52.75			45.68	4.62		
0.00	9.00	4385.87	9.87	0.00	0.00	0.00	0.00	0.000000
	0.00000	52.71			45.65	4.63		
0.00	10.00	4385.82	9.82	0.00	0.00	0.00	0.00	0.000000
	0.00000	52.57			45.54	4.64		
0.00	11.00	4385.75	9.75	0.00	0.00	0.00	0.00	0.000000
	0.00000	52.39			45.41	4.66		
0.00	12.00	4385.70	9.70	0.00	0.00	0.00	0.00	0.000000
	0.00000	52.25			45.30	4.67		
0.00	13.00	4385.61	9.61	0.00	0.00	0.00	0.00	0.000000
	0.00000	51.99			45.10	4.69		
0.00	14.00	4385.48	9.48	0.00	0.00	0.00	0.00	0.000000
	0.00000	51.63			44.82	4.73		
0.00	15.00	4385.40	9.40	0.00	0.00	0.00	0.00	0.000000
	0.00000	51.39			44.64	4.75		
0.00	16.00	4385.36	9.36	0.00	0.00	0.00	0.00	0.000000
		51.29			44.56	4.76		

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HYCHAN.OUT							
0.00000	22279.25						
17.00	4385.34	9.34	0.00	0.00	0.00	0.00	
0.00	51.24	0.00	44.52	4.77	0.00	0.000013	
0.00000	22259.92						
18.00	4385.33	9.33	0.00	0.00	0.00	0.00	
0.00	51.22	0.00	44.50	4.77	0.00	0.000000	
0.00000	22251.74						
19.00	4385.34	9.34	0.00	0.00	0.00	0.00	
0.00	51.23	0.00	44.51	4.77	0.00	0.000000	
0.00000	22256.04						
20.00	4385.41	9.41	0.00	0.00	0.00	0.00	
0.00	51.42	0.00	44.66	4.75	0.00	0.000000	
0.00000	22332.12						
21.00	4385.54	9.54	0.00	0.00	0.00	0.00	
0.00	51.79	0.00	44.95	4.71	0.00	0.000000	
0.00000	22473.73						
22.00	4385.67	9.68	0.00	0.00	0.00	0.00	
0.00	52.17	0.00	45.24	4.68	0.00	0.000000	
0.00000	22619.44						
23.00	4385.76	9.76	0.00	0.00	0.00	0.00	
0.00	52.41	0.00	45.42	4.65	0.00	0.000000	
0.00000	22709.31						
24.00	4385.81	9.81	0.00	0.00	0.00	0.00	
0.00	52.54	0.00	45.52	4.64	0.00	0.000009	
0.00000	22760.43						
25.00	4385.91	9.91	0.00	0.00	0.00	0.00	
0.00	52.83	0.00	45.74	4.61	0.00	0.000000	
0.00000	22872.19						
26.00	4386.11	10.11	0.00	0.00	0.00	0.00	
0.00	53.37	0.00	46.16	4.57	0.00	0.000000	
0.00000	23077.79						
27.00	4386.34	10.34	-0.01	-7.93	0.00	0.00	
716.59	53.98	13.27	46.63	4.51	0.00	0.000000	
0.00000	23313.64						
28.00	4386.56	10.56	0.00	0.00	0.00	0.00	
0.00	54.58	0.00	47.09	4.46	0.00	0.000000	
0.00000	23543.35						
29.00	4386.67	10.67	0.00	0.00	0.00	0.00	
0.00	54.88	0.00	47.31	4.43	0.00	0.000000	
0.00000	23655.27						
30.00	4386.74	10.74	0.00	0.00	0.00	0.00	
0.00	55.06	0.00	47.45	4.42	0.00	0.000000	
0.00000	23723.31						
31.00	4386.83	10.83	0.00	0.00	0.00	0.00	
0.00	55.29	0.00	47.63	4.40	0.00	0.000000	
0.00000	23813.02						
32.00	4386.88	10.88	0.00	0.00	0.00	0.00	
0.00	55.43	0.00	47.73	4.39	0.00	0.000000	
0.00000	23864.61						
33.00	4386.93	10.93	0.00	0.00	0.00	0.00	
0.00	55.55	0.00	47.82	4.38	0.00	0.000000	
0.00000	23911.20						
34.00	4387.00	11.00	0.00	0.00	0.00	0.00	
0.00	55.76	0.00	47.98	4.36	0.00	0.000000	
0.00000	23990.39						
35.00	4387.05	11.05	0.00	0.00	0.00	0.00	
0.00	55.87	0.00	48.07	4.35	0.00	0.000000	
0.00000	24034.42						
36.00	4387.09	11.09	0.00	0.00	0.00	0.00	
0.00	55.97	0.00	48.14	4.34	0.00	0.000000	
0.00000	24070.73						
37.00	4387.08	11.08	0.00	0.00	0.00	0.00	
0.00	55.95	0.00	48.13	4.34	0.00	0.000000	

HYCHAN.OUT							
0.00000	24065.95						
38.00	4387.06	11.06	0.00	0.00	0.00	0.00	
0.00	55.91	0.00	48.10	4.35	0.00	0.000000	
0.00000	24050.22						
39.00	4387.00	11.00	0.00	0.00	0.00	0.00	
0.00	55.74	0.00	47.97	4.36	0.00	0.000016	
0.00000	23984.34						
40.00	4386.96	10.96	0.00	0.00	0.00	0.00	
0.00	55.64	0.00	47.89	4.37	0.00	0.000000	
0.00000	23946.60						
41.00	4386.94	10.94	0.00	0.00	0.00	0.00	
0.00	55.58	0.00	47.85	4.37	0.00	0.000000	
0.00000	23923.77						
42.00	4386.93	10.93	0.00	0.00	0.00	0.00	
0.00	55.55	0.00	47.82	4.38	0.00	0.000000	
0.00000	23911.49						
43.00	4386.92	10.92	0.00	0.00	0.00	0.00	
0.00	55.54	0.00	47.81	4.38	0.00	0.000000	
0.00000	23906.15						
44.00	4386.93	10.93	0.00	0.00	0.00	0.00	
0.00	55.57	0.00	47.84	4.38	0.00	0.000000	
0.00000	23918.75						
45.00	4386.98	10.98	0.00	0.00	0.00	0.00	
0.00	55.69	0.00	47.93	4.37	0.00	0.000000	
0.00000	23966.60						
46.00	4387.04	11.04	0.00	0.00	0.00	0.00	
0.00	55.84	0.00	48.05	4.35	0.00	0.000000	
0.00000	24022.71						
47.00	4387.14	11.14	0.00	0.00	0.00	0.00	
0.00	56.10	0.00	48.24	4.33	0.00	0.000000	
0.00000	24121.11						
48.00	4387.26	11.26	0.00	0.00	0.00	0.00	
0.00	56.42	0.00	48.49	4.31	0.00	0.000000	
0.00000	24243.82						
49.00	4387.40	11.40	0.00	0.00	0.00	0.00	
0.00	56.77	0.00	48.75	4.28	0.00	0.000000	
0.00000	24376.83						
50.00	4387.54	11.54	0.00	0.00	0.00	0.00	
0.00	57.13	0.00	49.02	4.25	0.00	0.000000	
0.00000	24512.29						
51.00	4387.68	11.68	0.00	0.00	0.00	0.00	
0.00	57.50	0.00	49.31	4.22	0.00	0.000000	
0.00000	24652.53						
52.00	4387.84	11.84	0.00	0.00	0.00	0.00	
0.00	57.91	0.00	49.62	4.19	0.00	0.000000	
0.00000	24807.89						
53.00	4388.02	12.02	0.00	0.00	0.00	0.00	
0.00	58.35	0.00	49.95	4.16	0.00	0.000000	
0.00000	24975.18						
54.00	4388.15	12.15	0.00	0.00	0.00	0.00	
0.00	58.67	0.00	50.20	4.13	0.00	0.000000	
0.00000	25098.74						
55.00	4388.33	12.33	0.00	0.00	0.00	0.00	
0.00	59.13	0.00	50.54	4.10	0.00	0.000000	
0.00000	25271.16						
56.00	4388.59	12.59	-0.01	51.02	-12.63	0.00	
966.71	59.76	16.18			4.05	0.000000	
0.00000	25508.83						
57.00	4389.05	13.05	-0.02	51.87	-20.30	0.00	
999.38	60.89	16.41			3.97	0.000000	
0.00000	25936.54						
58.00	4389.63	13.63	-0.02	52.92	-23.13	0.00	
1043.41	62.27	16.75			3.88	0.000000	

HYCHAN.OUT									
	0.00000	26458.35							
1125.25	59.00	4390.19	14.19	17.70	-0.03	-34.82	0.00	0.000000	
	0.00000	63.57				53.89	3.80		
	0.00000	26945.63							
1179.99	60.00	4390.58	14.58	18.30	-0.07	-82.76	0.00	0.000000	
	0.00000	64.47				54.56	3.74		
	0.00000	27281.13							
1209.30	61.00	4390.83	14.83	18.59	-0.13	-159.54	0.01	0.000000	
	0.00000	65.04				54.99	3.71		
	0.00000	27495.85							
1222.39	62.00	4391.00	15.00	18.68	-0.10	-125.33	0.00	0.000000	
	0.00000	65.43				55.28	3.68		
	0.00000	27642.02							
1204.33	63.00	4391.10	15.10	18.35	-0.02	-18.31	0.00	0.000000	
	0.00000	65.64				55.44	3.67		
	0.00000	27721.09							
1216.97	64.00	4391.19	15.19	18.48	0.05	54.91	0.00	0.000000	
	0.00000	65.84				55.59	3.66		
	0.00000	27794.68							
1231.07	65.00	4391.28	15.28	18.64	0.06	76.76	0.00	0.000000	
	0.00000	66.05				55.75	3.65		
	0.00000	27875.18							
1248.69	66.00	4391.38	15.38	18.84	0.07	85.15	0.00	0.000000	
	0.00000	66.27				55.92	3.64		
	0.00000	27957.66							
1258.52	67.00	4391.46	15.46	18.94	0.07	91.95	0.00	0.000000	
	0.00000	66.46				56.05	3.62		
	0.00000	28025.69							
1262.56	68.00	4391.55	15.55	18.95	0.07	85.74	0.00	0.000000	
	0.00000	66.64				56.19	3.61		
	0.00000	28094.98							
1219.67	69.00	4391.71	15.71	18.21	0.06	71.80	0.00	0.000000	
	0.00000	66.99				56.46	3.59		
	0.00000	28229.20							
1248.26	70.00	4391.90	15.90	18.53	0.05	56.29	0.00	0.000000	
	0.00000	67.37				56.77	3.57		
	0.00000	28383.79							
1263.96	71.00	4392.12	16.12	18.64	0.03	44.21	0.00	0.000000	
	0.00000	67.81				57.13	3.54		
	0.00000	28562.72							
1105.94	72.00	4392.36	16.36	16.20	0.01	11.98	0.00	0.000000	
	0.00000	68.29				57.51	3.52		
	0.00000	28754.73							
0.00	73.00	4392.58	16.58	0.00	0.00	0.00	0.00	0.000000	
	0.00000	68.72				57.86	3.49		
	0.00000	28928.83							
1411.53	74.00	4392.74	16.74	20.44	0.02	22.87	0.00	0.000000	
	0.00000	69.06				58.13	3.47		
	0.00000	29063.72							
1445.18	75.00	4392.90	16.90	20.83	0.11	154.69	0.00	0.000000	
	0.00000	69.37				58.37	3.45		
	0.00000	29185.49							
1484.53	76.00	4393.09	17.09	21.29	0.38	559.41	0.02	0.000000	
	0.00000	69.74				58.67	3.43		
	0.00000	29332.65							
1512.62	77.00	4393.26	17.26	21.58	0.56	849.53	0.02	0.000000	
	0.00000	70.10				58.94	3.41		
	0.00000	29469.75							
1531.14	78.00	4393.39	17.39	21.76	0.64	979.45	0.03	0.000000	
	0.00000	70.36				59.14	3.40		
	0.00000	29571.23							
1565.44	79.00	4393.67	17.67	22.07	0.67	1042.60	0.03	0.000000	
	0.00000	70.92				59.58	3.37		

HYCHAN.OUT									
	0.00000	29788.29							
1516.30	80.00	4393.90	17.90	21.25	1.08	1630.38	0.04	0.000000	
	0.00000	29962.72							
1482.17	81.00	4394.17	18.17	20.61	1.66	2463.88	0.07	0.000000	
	0.00000	30165.73							
1523.07	82.00	4394.39	18.39	21.05	2.16	3285.14	0.09	0.000000	
	0.00000	30335.66							
1587.97	83.00	4394.56	18.56	21.85	3.03	4810.21	0.12	0.000006	
	0.00883	30461.24							
1660.66	84.00	4394.66	18.66	22.78	3.87	6423.15	0.16	0.000081	
	0.11519	30540.19							
1720.63	85.00	4394.73	18.73	23.56	4.43	7614.79	0.18	0.000108	
	0.15922	30591.18							
1757.85	86.00	4394.80	18.80	24.02	4.74	8330.66	0.19	0.000161	
	0.24150	30643.37							
1777.72	87.00	4394.88	18.88	24.24	4.89	8689.46	0.20	0.000184	
	0.27883	30703.10							
1802.62	88.00	4394.96	18.96	24.53	5.16	9295.45	0.21	0.000242	
	0.37056	30758.81							
1828.70	89.00	4395.01	19.01	24.85	5.41	9896.58	0.22	0.000314	
	0.48647	30796.22							
1847.82	90.00	4395.04	19.04	25.09	5.61	10361.07	0.23	0.000355	
	0.55595	30823.54							
1851.83	91.00	4395.02	19.02	25.16	5.65	10463.81	0.23	0.000351	
	0.55132	30806.98							
1853.50	92.00	4395.11	19.11	25.12	5.64	10462.18	0.23	0.000337	
	0.52873	30870.28							
1838.41	93.00	4395.11	19.11	24.91	5.44	9993.48	0.22	0.000283	
	0.44022	30875.57							
1827.31	94.00	4395.01	19.01	24.83	5.38	9835.53	0.22	0.000297	
	0.45975	30801.92							
1814.23	95.00	4394.92	18.92	24.71	5.28	9587.96	0.21	0.000263	
	0.40533	30731.57							
1797.37	96.00	4394.80	18.80	24.56	5.16	9278.54	0.21	0.000207	
	0.31798	30644.03							
1774.20	97.00	4394.68	18.68	24.33	4.94	8760.80	0.20	0.000177	
	0.26910	30553.08							
1755.06	98.00	4394.57	18.57	24.14	4.78	8382.77	0.20	0.000138	
	0.20825	30467.85							
1729.79	99.00	4394.43	18.43	23.88	4.56	7881.85	0.19	0.000118	
	0.17645	30367.35							
1689.83	100.00	4394.28	18.28	23.43	4.20	7102.51	0.17	0.000043	
		72.13							

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HYCHAN.OUT									
	0.06229	30251.54							
101.00	4394.19	18.19	3.78	6217.75	0.16				
1645.00	71.95	22.86		60.36	3.32	0.000000			
	0.00000	30181.37							
102.00	4394.21	18.21	3.17	5028.39	0.13				
1586.75	72.00	22.04		60.40	3.32	0.000000			
	0.00000	30201.30							
103.00	4394.15	18.15	2.47	3759.91	0.10				
1524.36	71.87	21.21		60.30	3.32	0.000000			
	0.00000	30151.44							
104.00	4393.91	17.91	1.80	2659.87	0.07				
1479.93	71.40	20.73		59.95	3.35	0.000000			
	0.00000	29972.98							
105.00	4393.49	17.49	1.12	1717.46	0.05				
1530.32	70.56	21.69		59.30	3.39	0.000000			
	0.00000	29649.29							
106.00	4393.14	17.14	0.90	1347.26	0.04				
1501.95	69.85	21.50		58.75	3.43	0.000000			
	0.00000	29372.75							
107.00	4393.02	17.02	0.77	1139.75	0.03				
1485.29	69.62	21.33		58.57	3.44	0.000000			
	0.00000	29283.68							
108.00	4392.85	16.85	0.78	1148.24	0.03				
1466.05	69.28	21.16		58.30	3.46	0.000000			
	0.00000	29149.17							
109.00	4392.61	16.61	0.80	1140.13	0.03				
1430.64	68.78	20.80		57.91	3.49	0.000000			
	0.00000	28953.25							
110.00	4392.26	16.26	0.80	1111.88	0.03				
1390.01	68.09	20.41		57.35	3.53	0.000000			
	0.00000	28675.33							
111.00	4391.96	15.96	0.63	855.47	0.03				
1356.75	67.50	20.10		56.87	3.56	0.000000			
	0.00000	28434.22							
112.00	4391.73	15.73	0.45	592.72	0.02				
1311.65	67.03	19.57		56.49	3.59	0.000000			
	0.00000	28244.76							
113.00	4391.57	15.57	0.34	431.47	0.02				
1276.63	66.68	19.15		56.22	3.61	0.000000			
	0.00000	28110.22							
114.00	4391.37	15.37	0.29	364.81	0.01				
1250.59	66.26	18.88		55.90	3.64	0.000000			
	0.00000	27950.85							
115.00	4391.16	15.16	0.24	299.01	0.01				
1225.08	65.77	18.63		55.54	3.66	0.000000			
	0.00000	27768.76							
116.00	4391.06	15.06	0.19	233.45	0.01				
1205.32	65.56	18.38		55.38	3.68	0.000000			
	0.00000	27692.24							
117.00	4391.01	15.01	0.19	230.52	0.01				
1203.53	65.45	18.39		55.30	3.68	0.000000			
	0.00000	27650.10							
118.00	4390.89	14.89	0.20	238.41	0.01				
1188.51	65.17	18.24		55.09	3.70	0.000000			
	0.00000	27544.38							
119.00	4390.79	14.79	0.19	224.85	0.01				
1165.01	64.94	17.94		54.92	3.71	0.000000			
	0.00000	27458.49							
120.00	4390.72	14.72	0.18	209.27	0.01				
1152.58	64.80	17.79		54.81	3.72	0.000000			
	0.00000	27405.49							
121.00	4390.71	14.71	0.17	189.95	0.01				
1146.56	64.76	17.70		54.78	3.72	0.000000			

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HYCHAN.OUT									
	0.00000	27391.19							
1145.98	122.00	4390.67	14.67	17.72	0.16	54.72	187.38	0.01	0.000000
		64.68							
	0.00000	27359.88							
1133.49	123.00	4390.58	14.58	17.58	0.17	54.57	192.60	0.01	0.000007
		64.47							
	0.00774	27284.51							
1125.82	124.00	4390.48	14.48	17.52	0.16	54.40	184.67	0.01	0.000000
		64.25							
	0.00000	27198.84							
1111.32	125.00	4390.40	14.40	17.35	0.16	54.26	174.01	0.01	0.000000
		64.07							
	0.00000	27130.96							
1099.57	126.00	4390.31	14.31	17.22	0.15	54.10	164.05	0.01	0.000000
		63.84							
	0.00000	27047.97							
1093.85	127.00	4390.25	14.25	17.17	0.14	54.00	154.23	0.01	0.000000
		63.72							
	0.00000	27000.11							
1083.97	128.00	4390.19	14.19	17.05	0.14	53.89	152.14	0.01	0.000000
		63.57							
	0.00000	26944.70							
1072.20	129.00	4390.10	14.10	16.92	0.14	53.74	145.58	0.01	0.000000
		63.37							
	0.00000	26870.04							
1070.53	130.00	4390.05	14.05	16.93	0.13	53.65	138.45	0.01	0.000000
		63.25							
	0.00000	26823.29							
1061.75	131.00	4389.98	13.98	16.83	0.13	53.53	134.71	0.01	0.000000
		63.10							
	0.00000	26767.30							
1045.83	132.00	4389.90	13.90	16.63	0.12	53.38	127.43	0.01	0.000000
		62.89							
	0.00000	26690.30							
1050.25	133.00	4389.90	13.90	16.70	0.11	53.38	120.75	0.01	0.000000
		62.89							
	0.00000	26690.54							
1065.13	134.00	4389.97	13.97	16.89	0.11	53.51	120.31	0.01	0.000000
		63.06							
	0.00000	26752.63							
1065.06	135.00	4389.97	13.97	16.89	0.11	53.51	115.66	0.01	0.000000
		63.07							
	0.00000	26756.76							
1064.83	136.00	4389.95	13.95	16.90	0.11	53.48	112.53	0.00	0.000000
		63.02							
	0.00000	26740.45							
1061.25	137.00	4389.93	13.93	16.85	0.10	53.44	109.42	0.00	0.000000
		62.97							
	0.00000	26721.68							
1057.93	138.00	4389.91	13.91	16.81	0.10	53.41	107.53	0.00	0.000000
		62.92							
	0.00000	26702.86							
1052.15	139.00	4389.89	13.89	16.73	0.10	53.37	105.05	0.00	0.000000
		62.88							
	0.00000	26686.49							
1053.07	140.00	4389.87	13.87	16.76	0.10	53.34	103.70	0.00	0.000000
		62.84							
	0.00000	26669.15							
1046.14	141.00	4389.83	13.83	16.68	0.10	53.26	104.45	0.00	0.000000
		62.74							
	0.00000	26631.58							
1039.55	142.00	4389.76	13.76	16.61	0.10	53.14	102.83	0.00	0.000000
		62.57							

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HYCHAN.OUT									
	0.00000	26569.26							
1036.75	143.00	4389.73	13.73	0.10	101.47	0.00			
		62.50	16.59		53.08	3.87	0.000000		
	0.00000	26541.84							
1033.45	144.00	4389.71	13.71	0.10	99.24	0.00			
		62.45	16.55		53.05	3.87	0.000000		
	0.00000	26523.07							
1035.83	145.00	4389.69	13.69	0.10	100.24	0.00			
		62.40	16.60		53.01	3.87	0.000000		
	0.00000	26506.34							
1027.21	146.00	4389.65	13.65	0.10	99.98	0.00			
		62.31	16.49		52.94	3.88	0.000000		
	0.00000	26471.36							
1023.32	147.00	4389.58	13.58	0.10	99.64	0.00			
		62.14	16.47		52.82	3.89	0.000000		
	0.00000	26407.81							
1014.85	148.00	4389.54	13.54	0.09	96.12	0.00			
		62.06	16.35		52.76	3.90	0.000000		
	0.00000	26378.09							
1012.70	149.00	4389.52	13.52	0.09	95.25	0.00			
		62.00	16.33		52.71	3.90	0.000000		
	0.00000	26356.13							
1005.04	150.00	4389.50	13.50	0.09	93.21	0.00			
		61.96	16.22		52.68	3.90	0.000000		
	0.00000	26339.51							
1014.91	151.00	4389.49	13.49	0.09	92.59	0.00			
		61.92	16.39		52.65	3.90	0.000000		
	0.00000	26326.51							
1006.67	152.00	4389.45	13.45	0.09	94.14	0.00			
		61.85	16.28		52.60	3.91	0.000000		
	0.00000	26297.88							
1003.19	153.00	4389.40	13.40	0.09	93.94	0.00			
		61.71	16.26		52.49	3.92	0.000000		
	0.00000	26246.15							
994.94	154.00	4389.35	13.35	0.09	93.32	0.00			
		61.60	16.15		52.41	3.93	0.000000		
	0.00000	26203.62							
991.22	155.00	4389.32	13.32	0.09	92.55	0.00			
		61.54	16.11		52.36	3.93	0.000000		
	0.00000	26180.77							
987.56	156.00	4389.28	13.28	0.10	94.21	0.00			
		61.44	16.07		52.29	3.94	0.000000		
	0.00000	26143.55							
983.06	157.00	4389.26	13.26	0.09	89.72	0.00			
		61.38	16.02		52.24	3.94	0.000000		
	0.00000	26121.19							
989.21	158.00	4389.34	13.34	0.09	89.53	0.00			
		61.58	16.06		52.39	3.93	0.000000		
	0.00000	26195.19							
991.49	159.00	4389.37	13.37	0.09	90.74	0.00			
		61.65	16.08		52.44	3.92	0.000000		
	0.00000	26222.06							
995.73	160.00	4389.37	13.37	0.09	91.13	0.00			
		61.65	16.15		52.45	3.92	0.000000		
	0.00000	26222.56							
995.62	161.00	4389.37	13.37	0.09	91.23	0.00			
		61.64	16.15		52.44	3.92	0.000000		
	0.00000	26220.34							
995.90	162.00	4389.36	13.36	0.09	90.54	0.00			
		61.63	16.16		52.43	3.92	0.000000		
	0.00000	26214.82							
991.36	163.00	4389.36	13.36	0.09	91.35	0.00			
		61.62	16.09		52.42	3.92	0.000000		



HYCHAN.OUT							
0.00000	26211.55						
164.00	4389.35	13.35	0.09	90.48	0.00		
996.31	61.60	16.17		52.41	3.93	0.000000	
0.00000	26205.97						
165.00	4389.35	13.35	0.09	90.94	0.00		
988.29	61.60	16.04		52.41	3.93	0.000000	
0.00000	26203.65						
166.00	4389.32	13.32	0.09	92.73	0.00		
986.90	61.53	16.04		52.36	3.93	0.000000	
0.00000	26178.74						
167.00	4389.26	13.26	0.09	91.34	0.00		
979.39	61.38	15.96		52.24	3.94	0.000000	
0.00000	26121.72						
168.00	4389.23	13.23	0.09	90.81	0.00		
976.32	61.31	15.92		52.19	3.95	0.000000	
0.00000	26094.88						
169.00	4389.22	13.22	0.09	91.08	0.00		
977.21	61.28	15.95		52.17	3.95	0.000000	
0.00000	26085.32						
170.00	4389.21	13.21	0.09	90.59	0.00		
974.70	61.27	15.91		52.16	3.95	0.000000	
0.00000	26080.13						
171.00	4389.21	13.21	0.09	89.90	0.00		
971.92	61.26	15.87		52.15	3.95	0.000000	
0.00000	26076.28						
172.00	4389.20	13.20	0.09	89.67	0.00		
977.08	61.24	15.95		52.14	3.95	0.000000	
0.00000	26069.90						
173.00	4389.19	13.19	0.09	90.58	0.00		
974.63	61.23	15.92		52.13	3.95	0.000000	
0.00000	26065.45						
174.00	4389.17	13.17	0.09	91.85	0.00		
966.95	61.17	15.81		52.08	3.96	0.000000	
0.00000	26041.75						
175.00	4389.10	13.10	0.10	91.99	0.00		
961.68	61.01	15.76		51.96	3.97	0.000000	
0.00000	25981.09						
176.00	4389.07	13.07	0.09	90.15	0.00		
955.49	60.94	15.68		51.91	3.97	0.000000	
0.00000	25956.44						
177.00	4389.06	13.06	0.09	90.14	0.00		
960.30	60.91	15.77		51.89	3.97	0.000000	
0.00000	25943.26						
178.00	4389.05	13.05	0.09	90.32	0.00		
957.11	60.89	15.72		51.88	3.97	0.000000	
0.00000	25937.94						
179.00	4389.05	13.05	0.09	88.84	0.00		
961.02	60.88	15.79		51.86	3.98	0.000000	
0.00000	25931.58						
180.00	4389.04	13.04	0.09	89.94	0.00		
954.89	60.87	15.69		51.86	3.98	0.000000	
0.00000	25927.51						
181.00	4389.08	13.08	0.09	86.41	0.00		
959.13	60.97	15.73		51.93	3.97	0.000000	
0.00000	25965.96						
182.00	4389.20	13.20	0.09	85.05	0.00		
974.69	61.25	15.91		52.15	3.95	0.000000	
0.00000	26073.89						
183.00	4389.27	13.27	0.09	87.97	0.00		
978.17	61.42	15.93		52.27	3.94	0.000000	
0.00000	26136.44						
184.00	4389.35	13.35	0.09	86.81	0.00		
990.79	61.59	16.09		52.40	3.93	0.000000	

HYCHAN.OUT

0.00000	26201.67							
185.00	4389.37	13.37	0.09	88.68	0.00			
997.19	61.66	16.17		52.45	3.92	0.000000		
0.00000	26226.54							
186.00	4389.38	13.38	0.09	88.59	0.00			
995.89	61.68	16.15		52.47	3.92	0.000000		
0.00000	26235.52							
187.00	4389.39	13.39	0.09	89.60	0.00			
999.19	61.69	16.20		52.48	3.92	0.000000		
0.00000	26239.62							
188.00	4389.39	13.39	0.09	89.28	0.00			
993.08	61.70	16.09		52.49	3.92	0.000000		
0.00000	26242.92							
189.00	4389.39	13.39	0.09	89.31	0.00			
996.28	61.70	16.15		52.49	3.92	0.000000		
0.00000	26243.71							
190.00	4389.40	13.39	0.09	89.46	0.00			
996.06	61.71	16.14		52.49	3.92	0.000000		
0.00000	26245.27							
191.00	4389.40	13.40	0.09	89.45	0.00			
993.30	61.71	16.10		52.49	3.92	0.000000		
0.00000	26245.41							
192.00	4389.37	13.37	0.09	91.64	0.00			
996.48	61.65	16.16		52.45	3.92	0.000000		
0.00000	26224.25							
193.00	4389.31	13.31	0.09	90.69	0.00			
989.09	61.51	16.08		52.34	3.93	0.000000		
0.00000	26170.82							
194.00	4389.28	13.28	0.09	90.19	0.00			
988.43	61.45	16.09		52.29	3.94	0.000000		
0.00000	26146.10							
195.00	4389.28	13.28	0.09	89.06	0.00			
978.93	61.42	15.94		52.28	3.94	0.000000		
0.00000	26138.40							
196.00	4389.27	13.27	0.09	89.86	0.00			
989.25	61.41	16.11		52.27	3.94	0.000000		
0.00000	26133.48							
197.00	4389.27	13.27	0.09	88.43	0.00			
977.66	61.40	15.92		52.26	3.94	0.000000		
0.00000	26128.89							
198.00	4389.26	13.26	0.09	90.31	0.00			
981.44	61.39	15.99		52.25	3.94	0.000000		
0.00000	26126.67							
199.00	4389.26	13.26	0.09	89.46	0.00			
982.49	61.39	16.00		52.25	3.94	0.000000		
0.00000	26125.04							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4905

MAXIMUM DISCHARGE (CFS) = 24298.49 AT TIME = 88.06  
 MAXIMUM STAGE = 4396.67 AT TIME = 91.67

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	SURFACE AREA						
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	4370.65	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00	1.00	4370.65	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4370.65	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4370.65	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4370.65	0.00	0.00	0.00	0.00	0.00	0.00	0.000412
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1015.11	5.00	4381.86	11.21	3.92	3981.52	0.21			
		126.26	8.04		115.00	10.26			0.000116
	0.05836	68999.48							
1516.40	6.00	4384.94	14.29	3.39	5134.48	0.16			
		143.76	10.55		129.80	9.09			0.000068
	0.04506	77880.01							
1656.37	7.00	4385.65	15.00	3.15	5217.69	0.14			
		147.57	11.22		133.00	8.87			0.000046
	0.03206	79802.38							
1702.74	8.00	4385.88	15.23	3.04	5173.09	0.14			
		148.78	11.44		134.02	8.80			0.000042
	0.02972	80410.88							
1700.33	9.00	4385.87	15.22	2.98	5063.08	0.13			
		148.71	11.43		133.96	8.80			0.000040
	0.02852	80377.26							
1689.76	10.00	4385.82	15.17	2.91	4916.21	0.13			
		148.43	11.38		133.73	8.82			0.000024
	0.01673	80238.15							
1677.28	11.00	4385.75	15.10	2.87	4805.87	0.13			
		148.11	11.32		133.46	8.84			0.000098
	0.06923	80073.80							
1667.24	12.00	4385.70	15.05	2.86	4761.46	0.13			
		147.84	11.28		133.23	8.85			0.000000
	0.00000	79938.62							
1648.50	13.00	4385.61	14.96	2.81	4637.45	0.13			
		147.34	11.19		132.81	8.88			0.000098
	0.06815	79687.20							
1623.04	14.00	4385.48	14.83	2.78	4515.88	0.13			
		146.66	11.07		132.24	8.92			0.000119
	0.08213	79343.40							
1606.64	15.00	4385.40	14.75	2.79	4484.37	0.13			
		146.22	10.99		131.87	8.94			0.000120
	0.08252	79119.21							
1599.54	16.00	4385.36	14.71	2.80	4476.46	0.13			
		146.02	10.95		131.70	8.95			0.000039
	0.02644	79021.61							
1596.19	17.00	4385.34	14.69	2.80	4472.68	0.13			
		145.93	10.94		131.63	8.96			0.000000
	0.00000	78975.93							
1594.58	18.00	4385.33	14.68	2.80	4468.25	0.13			
		145.89	10.93		131.59	8.96			0.000000
	0.00000	78954.25							
1595.30	19.00	4385.34	14.69	2.81	4486.66	0.13			
		145.91	10.93		131.61	8.96			0.000109
	0.07461	78964.62							
1608.96	20.00	4385.41	14.76	2.86	4607.52	0.13			
		146.28	11.00		131.92	8.94			0.000089
	0.06082	79151.77							
1634.64	21.00	4385.54	14.89	2.91	4754.36	0.13			
		146.97	11.12		132.50	8.90			0.000011
	0.00796	79501.81							

HYCHAN.OUT							
22.00	4385.67	15.02	2.94	4878.61	0.13		
1661.32	147.69	11.25		133.10	8.86	0.000000	
0.00000	79861.03						
23.00	4385.76	15.11	2.92	4908.28	0.13		
1678.21	148.13	11.33		133.48	8.83	0.000133	
0.09402	80086.63						
24.00	4385.81	15.16	2.93	4947.92	0.13		
1687.95	148.39	11.38		133.69	8.82	0.000000	
0.00000	80214.64						
25.00	4385.91	15.26	2.99	5107.20	0.13		
1708.92	148.94	11.47		134.15	8.79	0.000031	
0.02224	80491.91						
26.00	4386.11	15.46	3.08	5391.68	0.14		
1748.54	149.96	11.66		135.01	8.73	0.000046	
0.03312	81006.09						
27.00	4386.34	15.69	3.17	5695.50	0.14		
1794.86	151.13	11.88		136.00	8.67	0.000042	
0.03129	81598.25						
28.00	4386.56	15.91	3.21	5918.30	0.14		
1841.07	152.29	12.09		136.96	8.61	0.000038	
0.02835	82178.58						
29.00	4386.67	16.02	3.20	5965.58	0.14		
1864.05	152.85	12.20		137.44	8.58	0.000039	
0.02974	82462.09						
30.00	4386.74	16.09	3.21	6019.94	0.14		
1878.13	153.19	12.26		137.72	8.56	0.000037	
0.02820	82634.86						
31.00	4386.83	16.18	3.23	6122.67	0.14		
1896.81	153.65	12.35		138.10	8.54	0.000039	
0.02975	82862.85						
32.00	4386.88	16.23	3.22	6142.19	0.14		
1907.65	153.91	12.39		138.32	8.52	0.000031	
0.02434	82994.02						
33.00	4386.93	16.28	3.23	6193.59	0.14		
1917.45	154.14	12.44		138.52	8.51	0.000036	
0.02779	83112.51						
34.00	4387.00	16.35	3.26	6298.28	0.14		
1934.28	154.54	12.52		138.86	8.49	0.000034	
0.02684	83314.98						
35.00	4387.05	16.40	3.25	6316.87	0.14		
1943.68	154.77	12.56		139.05	8.48	0.000028	
0.02224	83427.16						
36.00	4387.09	16.44	3.20	6255.98	0.14		
1953.12	154.95	12.60		139.20	8.47	0.000094	
0.07408	83519.51						
37.00	4387.08	16.43	3.15	6169.22	0.14		
1956.18	154.93	12.63		139.18	8.47	0.000000	
0.00000	83508.62						
38.00	4387.06	16.41	3.12	6103.06	0.14		
1953.65	154.84	12.62		139.11	8.47	0.000150	
0.11796	83465.80						
39.00	4387.00	16.35	3.10	6014.37	0.14		
1939.82	154.51	12.55		138.83	8.49	0.000000	
0.00000	83299.66						
40.00	4386.96	16.31	3.10	5991.33	0.14		
1931.02	154.32	12.51		138.67	8.50	0.000000	
0.00000	83203.06						
41.00	4386.94	16.29	3.11	5989.21	0.14		
1923.60	154.20	12.47		138.57	8.51	0.000030	
0.02374	83143.92						
42.00	4386.93	16.28	3.12	5988.03	0.14		
1921.17	154.14	12.46		138.52	8.51	0.000039	
0.03008	83113.48						

HYCHAN.OUT							
1920.76	43.00	4386.92	16.27	3.12	5983.99	0.14	0.000153
	0.11882	154.12	12.46		138.50	8.51	
		83099.14					
1923.28	44.00	4386.93	16.28	3.14	6033.76	0.14	0.000108
		154.18	12.47		138.55	8.51	
	0.08395	83131.13					
1933.64	45.00	4386.98	16.33	3.17	6129.98	0.14	0.000104
		154.43	12.52		138.76	8.50	
	0.08155	83254.77					
1947.08	46.00	4387.04	16.39	3.18	6196.13	0.14	0.000000
		154.71	12.59		139.00	8.48	
	0.00000	83397.37					
1965.70	47.00	4387.14	16.49	3.23	6347.77	0.14	0.000074
		155.21	12.67		139.41	8.46	
	0.05886	83647.64					
1988.78	48.00	4387.26	16.61	3.28	6517.41	0.14	0.000132
		155.83	12.76		139.94	8.42	
	0.10543	83962.77					
2018.10	49.00	4387.40	16.75	3.32	6693.89	0.14	0.000092
		156.51	12.89		140.51	8.39	
	0.07402	84304.08					
2048.33	50.00	4387.54	16.89	3.35	6860.38	0.14	0.000000
		157.21	13.03		141.09	8.36	
	0.00000	84653.27					
2079.81	51.00	4387.68	17.03	3.38	7034.40	0.14	0.000099
		157.93	13.17		141.69	8.32	
	0.08130	85014.41					
2115.59	52.00	4387.84	17.19	3.43	7265.46	0.15	0.000000
		158.73	13.33		142.36	8.28	
	0.00000	85416.78					
2154.33	53.00	4388.02	17.37	3.47	7485.08	0.15	0.000000
		159.59	13.50		143.08	8.24	
	0.00000	85850.30					
2186.54	54.00	4388.15	17.50	3.47	7583.07	0.15	0.000000
		160.23	13.65		143.62	8.21	
	0.00000	86170.73					
2230.08	55.00	4388.33	17.68	3.54	7887.96	0.15	0.000000
		161.13	13.84		144.37	8.16	
	0.00000	86621.30					
2282.91	56.00	4388.59	17.94	3.74	8527.42	0.16	0.000015
		162.37	14.06		145.40	8.11	
	0.01330	87241.97					
2390.69	57.00	4389.05	18.40	3.94	9415.52	0.16	0.000014
		164.61	14.52		147.28	8.00	
	0.01236	88365.66					
2528.10	58.00	4389.63	18.98	4.15	10493.12	0.17	0.000008
		167.37	15.10		149.58	7.88	
	0.00768	89748.07					
2662.19	59.00	4390.19	19.54	4.31	11481.87	0.17	0.000000
		169.98	15.66		151.75	7.77	
	0.00000	91049.20					
2758.20	60.00	4390.58	19.93	4.40	12149.34	0.17	0.000000
		171.78	16.06		153.25	7.69	
	0.00000	91951.31					
2817.36	61.00	4390.83	20.18	4.44	12505.38	0.17	0.000000
		172.94	16.29		154.22	7.64	
	0.00000	92529.18					
2853.38	62.00	4391.00	20.35	4.45	12703.00	0.17	0.000000
		173.46	16.45		154.87	7.61	
	0.00000	92923.05					
2871.98	63.00	4391.10	20.45	4.46	12820.93	0.17	0.000000
		173.65	16.54		155.23	7.59	
	0.00000	93137.26					

HYCHAN.OUT							
2889.15	64.00	4391.19	20.54	4.46	12899.46	0.17	0.000000
	0.00000	173.83	16.62		155.56	7.58	
		93335.98					
2908.31	65.00	4391.28	20.63	4.42	12854.01	0.17	0.000000
	0.00000	174.02	16.71		155.93	7.56	
		93556.49					
2927.98	66.00	4391.38	20.73	4.37	12799.79	0.17	0.000000
	0.00000	174.22	16.81		156.30	7.54	
		93782.88					
2944.35	67.00	4391.47	20.82	4.33	12755.08	0.17	0.000000
	0.00000	174.39	16.88		156.62	7.52	
		93971.23					
2961.36	68.00	4391.55	20.90	4.28	12667.63	0.16	0.000147
	0.15534	174.56	16.97		156.93	7.51	
		94159.38					
3004.14	69.00	4391.71	21.06	4.15	12481.89	0.16	0.000134
	0.14354	174.88	17.18		157.54	7.48	
		94523.56					
3041.22	70.00	4391.89	21.24	4.11	12498.91	0.16	0.000000
	0.00000	175.24	17.35		158.20	7.45	
		94921.94					
3081.37	71.00	4392.09	21.44	4.15	12776.19	0.16	0.000000
	0.00000	175.64	17.54		158.95	7.41	
		95368.54					
3128.64	72.00	4392.32	21.67	4.13	12912.80	0.16	0.000095
	0.10572	176.10	17.77		159.80	7.37	
		95879.77					
3163.47	73.00	4392.54	21.89	4.35	13774.25	0.16	0.000000
	0.00000	176.53	17.92		160.59	7.34	
		96354.94					
3196.32	74.00	4392.71	22.06	4.42	14128.50	0.17	0.000000
	0.00000	176.88	18.07		161.22	7.31	
		96734.37					
3228.39	75.00	4392.88	22.23	4.51	14566.17	0.17	0.000000
	0.00000	177.21	18.22		161.83	7.28	
		97098.00					
3271.80	76.00	4393.10	22.45	4.65	15206.12	0.17	0.000013
	0.01465	177.66	18.42		162.65	7.24	
		97587.15					
3309.92	77.00	4393.30	22.65	4.74	15698.46	0.18	0.000000
	0.00000	178.06	18.59		163.37	7.21	
		98019.12					
3337.43	78.00	4393.44	22.79	4.80	16028.71	0.18	0.000015
	0.01741	178.34	18.71		163.87	7.19	
		98322.84					
3393.33	79.00	4393.73	23.08	5.00	16955.65	0.18	0.000000
	0.00000	178.92	18.97		164.90	7.14	
		98940.16					
3447.94	80.00	4394.01	23.36	5.19	17891.36	0.19	0.000032
	0.03868	179.48	19.21		165.90	7.10	
		99539.86					
3514.94	81.00	4394.36	23.71	5.43	19088.57	0.20	0.000079
	0.09642	180.18	19.51		167.13	7.05	
		100276.66					
3574.42	82.00	4394.69	24.04	5.64	20155.59	0.20	0.000176
	0.21754	180.83	19.77		168.28	7.00	
		100968.30					
3643.32	83.00	4395.09	24.44	5.87	21399.51	0.21	0.000357
	0.44656	181.64	20.06		169.68	6.94	
		101805.32					
3707.58	84.00	4395.47	24.82	6.06	22475.23	0.21	0.000604
	0.76568	182.39	20.33		170.98	6.89	
		102587.20					

HYCHAN.OUT							
85.00	4395.75	25.10	6.18	23205.31	0.22		
3756.78	182.96	20.53	171.96	6.85	0.000721		
0.92334	103177.07						
86.00	4395.96	25.31	6.23	23633.03	0.22		
3794.13	183.38	20.69	172.68	6.82	0.000828		
1.06847	103606.17						
87.00	4396.11	25.46	6.23	23825.79	0.22		
3821.77	183.68	20.81	173.18	6.80	0.000876		
1.13792	103906.86						
88.00	4396.28	25.63	6.23	24015.12	0.22		
3852.30	184.01	20.93	173.75	6.78	0.000961		
1.25603	104248.61						
89.00	4396.45	25.80	6.20	24093.69	0.22		
3885.02	184.37	21.07	174.34	6.76	0.001054		
1.38528	104604.56						
90.00	4396.58	25.93	6.15	24042.49	0.21		
3909.18	184.62	21.17	174.77	6.74	0.001078		
1.42497	104862.91						
91.00	4396.61	25.96	6.11	23902.67	0.21		
3914.64	184.67	21.20	174.86	6.74	0.001087		
1.43817	104915.37						
92.00	4396.63	25.98	6.11	23947.58	0.21		
3918.06	184.71	21.21	174.92	6.73	0.001069		
1.41454	104950.41						
93.00	4396.54	25.89	6.13	23907.03	0.21		
3902.72	184.53	21.15	174.62	6.75	0.000998		
1.31640	104774.49						
94.00	4396.45	25.80	6.13	23833.84	0.21		
3885.48	184.36	21.08	174.32	6.76	0.001011		
1.32931	104594.48						
95.00	4396.35	25.70	6.14	23752.94	0.21		
3867.52	184.17	21.00	174.00	6.77	0.000940		
1.23120	104401.38						
96.00	4396.23	25.58	6.13	23581.13	0.21		
3843.90	183.91	20.90	173.58	6.79	0.000886		
1.15580	104146.14						
97.00	4396.07	25.42	6.13	23379.52	0.21		
3814.73	183.59	20.78	173.03	6.81	0.000830		
1.07596	103820.98						
98.00	4395.93	25.28	6.12	23181.98	0.21		
3788.99	183.32	20.67	172.56	6.83	0.000762		
0.98287	103537.02						
99.00	4395.75	25.10	6.07	22780.18	0.21		
3755.66	182.95	20.53	171.94	6.85	0.000703		
0.90025	103161.43						
100.00	4395.51	24.86	5.97	22168.65	0.21		
3713.52	182.47	20.35	171.12	6.88	0.000585		
0.74245	102672.15						
101.00	4395.28	24.63	5.85	21500.70	0.21		
3673.42	182.01	20.18	170.32	6.92	0.000399		
0.50207	102192.64						
102.00	4395.01	24.36	5.69	20635.81	0.20		
3628.94	181.48	20.00	169.40	6.95	0.000234		
0.29229	101639.56						
103.00	4394.65	24.00	5.48	19547.91	0.20		
3566.97	180.76	19.73	168.15	7.01	0.000109		
0.13428	100891.91						
104.00	4394.21	23.56	5.17	18021.19	0.19		
3487.52	179.88	19.39	166.61	7.07	0.000088		
0.10638	99965.55						
105.00	4393.66	23.01	4.73	15983.10	0.17		
3381.22	178.77	18.91	164.64	7.16	0.000000		
0.00000	98784.11						



HYCHAN.OUT							
3301.03	106.00	4393.25	22.60	4.32	14268.07	0.16	0.000008
	0.00973	177.95	18.55		163.17	7.22	
		97901.62					
3272.71	107.00	4393.11	22.46	4.12	13468.19	0.15	0.000000
	0.00000	177.67	18.42		162.66	7.24	
		97593.71					
3240.61	108.00	4392.94	22.29	3.99	12936.03	0.15	0.000000
	0.00000	177.33	18.27		162.05	7.27	
		97230.33					
3192.94	109.00	4392.69	22.04	3.74	11934.80	0.14	0.000011
	0.01291	176.83	18.06		161.13	7.31	
		96680.30					
3124.60	110.00	4392.33	21.68	3.51	10962.57	0.13	0.000044
	0.04817	176.11	17.74		159.82	7.37	
		95891.91					
3058.58	111.00	4392.00	21.35	3.39	10357.16	0.13	0.000000
	0.00000	175.45	17.43		158.60	7.43	
		95162.84					
3006.38	112.00	4391.74	21.09	3.33	10013.74	0.13	0.000034
	0.03671	174.94	17.19		157.65	7.47	
		94587.20					
2970.06	113.00	4391.56	20.91	3.30	9799.55	0.13	0.000015
	0.01567	174.57	17.01		156.96	7.51	
		94173.31					
2931.50	114.00	4391.35	20.70	3.25	9518.93	0.13	0.000000
	0.00000	174.16	16.83		156.20	7.54	
		93717.60					
2886.43	115.00	4391.14	20.49	3.21	9266.33	0.13	0.000108
	0.11199	173.73	16.61		155.37	7.58	
		93224.97					
2865.95	116.00	4391.05	20.40	3.25	9303.31	0.13	0.000000
	0.00000	173.55	16.51		155.03	7.60	
		93020.55					
2856.40	117.00	4391.00	20.35	3.26	9306.69	0.13	0.000000
	0.00000	173.46	16.47		154.86	7.61	
		92915.94					
2832.62	118.00	4390.88	20.23	3.22	9126.74	0.13	0.000000
	0.00000	173.16	16.36		154.40	7.63	
		92640.11					
2812.76	119.00	4390.78	20.13	3.20	9006.78	0.13	0.000129
	0.13099	172.70	16.29		154.02	7.65	
		92409.61					
2799.12	120.00	4390.72	20.07	3.21	8981.96	0.13	0.000000
	0.00000	172.44	16.23		153.80	7.66	
		92279.80					
2795.48	121.00	4390.71	20.06	3.23	9015.99	0.13	0.000012
	0.01259	172.37	16.22		153.74	7.67	
		92242.55					
2786.62	122.00	4390.67	20.02	3.23	8998.29	0.13	0.000000
	0.00000	172.19	16.18		153.59	7.67	
		92154.23					
2765.49	123.00	4390.58	19.93	3.22	8917.59	0.13	0.000000
	0.00000	171.80	16.10		153.27	7.69	
		91959.57					
2741.52	124.00	4390.48	19.83	3.21	8792.80	0.13	0.000000
	0.00000	171.34	16.00		152.88	7.71	
		91729.00					
2720.85	125.00	4390.40	19.75	3.19	8691.56	0.13	0.000000
	0.00000	170.96	15.91		152.57	7.72	
		91541.52					
2697.88	126.00	4390.31	19.66	3.17	8564.63	0.13	0.000088
	0.08651	170.52	15.82		152.20	7.74	
		91320.51					

HYCHAN.OUT							
127.00	4390.25	19.60	3.18	8530.85	0.13		
2682.36	170.26	15.75	151.99	7.75	0.000000		
0.00000	91191.88						
128.00	4390.19	19.54	3.17	8452.50	0.13		
2667.80	169.97	15.70	151.75	7.77	0.000000		
0.00000	91047.06						
129.00	4390.10	19.45	3.16	8351.20	0.13		
2645.37	169.56	15.60	151.40	7.78	0.000000		
0.00000	90838.74						
130.00	4390.05	19.40	3.16	8325.24	0.13		
2632.44	169.32	15.55	151.20	7.79	0.000008		
0.00787	90719.22						
131.00	4389.99	19.34	3.15	8248.69	0.13		
2617.67	169.02	15.49	150.96	7.81	0.000000		
0.00000	90573.76						
132.00	4389.90	19.25	3.14	8147.96	0.13		
2596.18	168.60	15.40	150.61	7.83	0.000000		
0.00000	90363.10						
133.00	4389.89	19.24	3.18	8244.31	0.13		
2595.43	168.60	15.39	150.60	7.83	0.000000		
0.00000	90361.27						
134.00	4389.97	19.32	3.23	8428.62	0.13		
2612.19	168.95	15.46	150.89	7.81	0.000000		
0.00000	90535.12						
135.00	4389.97	19.32	3.24	8454.44	0.13		
2610.57	168.96	15.45	150.90	7.81	0.000000		
0.00000	90541.03						
136.00	4389.95	19.30	3.24	8450.61	0.13		
2605.97	168.87	15.43	150.83	7.81	0.000000		
0.00000	90496.93						
137.00	4389.93	19.28	3.25	8444.91	0.13		
2600.68	168.77	15.41	150.75	7.82	0.000000		
0.00000	90447.20						
138.00	4389.91	19.26	3.25	8440.38	0.13		
2595.69	168.67	15.39	150.66	7.82	0.000000		
0.00000	90397.85						
139.00	4389.89	19.24	3.25	8434.44	0.13		
2591.68	168.58	15.37	150.59	7.83	0.000000		
0.00000	90353.67						
140.00	4389.87	19.22	3.26	8430.89	0.13		
2586.21	168.50	15.35	150.52	7.83	0.000000		
0.00000	90309.23						
141.00	4389.83	19.18	3.25	8365.19	0.13		
2576.45	168.29	15.31	150.35	7.84	0.000051		
0.04838	90207.54						
142.00	4389.76	19.11	3.23	8267.04	0.13		
2558.79	167.96	15.23	150.07	7.85	0.000012		
0.01147	90042.55						
143.00	4389.73	19.08	3.23	8249.45	0.13		
2550.67	167.81	15.20	149.94	7.86	0.000000		
0.00000	89966.49						
144.00	4389.71	19.06	3.24	8246.65	0.13		
2545.92	167.71	15.18	149.86	7.86	0.000000		
0.00000	89917.94						
145.00	4389.69	19.04	3.24	8238.69	0.13		
2540.96	167.63	15.16	149.79	7.87	0.000000		
0.00000	89876.24						
146.00	4389.65	19.00	3.23	8178.85	0.13		
2531.46	167.43	15.12	149.63	7.88	0.000000		
0.00000	89778.46						
147.00	4389.58	18.93	3.21	8081.98	0.13		
2514.81	167.11	15.05	149.36	7.89	0.000000		
0.00000	89614.94						

HYCHAN.OUT							
2506.39	148.00	4389.54	18.89	3.22	8061.29	0.13	0.000040
	0.03768	166.94	15.01	149.22	7.90		
2500.63	149.00	4389.52	18.87	3.22	8057.15	0.13	0.000000
	0.00000	166.83	14.99	149.13	7.90		
2495.93	150.00	4389.50	18.85	3.22	8048.71	0.13	0.000000
	0.00000	166.74	14.97	149.05	7.91		
2492.52	151.00	4389.48	18.83	3.23	8050.56	0.13	0.000000
	0.00000	166.67	14.95	148.99	7.91		
2484.87	152.00	4389.45	18.80	3.22	8006.70	0.13	0.000000
	0.00000	166.52	14.92	148.87	7.92		
2470.95	153.00	4389.39	18.74	3.21	7923.95	0.13	0.000109
	0.10082	166.24	14.86	148.64	7.93		
2459.97	154.00	4389.35	18.70	3.20	7883.17	0.13	0.000000
	0.00000	166.02	14.82	148.45	7.94		
2453.94	155.00	4389.32	18.67	3.21	7870.74	0.13	0.000016
	0.01435	165.90	14.79	148.35	7.94		
2444.31	156.00	4389.28	18.63	3.20	7810.30	0.13	0.000008
	0.00696	165.70	14.75	148.19	7.95		
2438.29	157.00	4389.26	18.61	3.21	7832.27	0.13	0.000000
	0.00000	165.58	14.73	148.09	7.96		
2457.59	158.00	4389.34	18.69	3.26	8002.51	0.13	0.000000
	0.00000	165.97	14.81	148.41	7.94		
2464.63	159.00	4389.37	18.72	3.26	8029.01	0.13	0.000000
	0.00000	166.12	14.84	148.53	7.94		
2465.06	160.00	4389.37	18.72	3.26	8035.45	0.13	0.000000
	0.00000	166.12	14.84	148.54	7.93		
2464.23	161.00	4389.37	18.72	3.26	8032.42	0.13	0.000000
	0.00000	166.11	14.84	148.52	7.94		
2463.03	162.00	4389.36	18.71	3.26	8032.12	0.13	0.000000
	0.00000	166.08	14.83	148.50	7.94		
2461.96	163.00	4389.36	18.71	3.26	8030.13	0.13	0.000000
	0.00000	166.06	14.83	148.49	7.94		
2460.56	164.00	4389.35	18.70	3.26	8028.57	0.13	0.000000
	0.00000	166.03	14.82	148.46	7.94		
2459.80	165.00	4389.35	18.70	3.26	8025.45	0.13	0.000000
	0.00000	166.02	14.82	148.45	7.94		
2453.19	166.00	4389.32	18.67	3.25	7968.76	0.13	0.000000
	0.00000	165.88	14.79	148.34	7.95		
2438.30	167.00	4389.26	18.61	3.23	7872.02	0.13	0.000059
	0.05442	165.58	14.73	148.09	7.96		
2431.56	168.00	4389.23	18.58	3.23	7856.54	0.13	0.000071
	0.06555	165.45	14.70	147.97	7.97		
		88784.34					

HYCHAN.OUT							
2429.05	169.00	4389.22	18.57	3.23	7852.41	0.13	0.000000
	0.00000	165.40	14.69		147.93	7.97	
		88759.36					
2427.39	170.00	4389.21	18.56	3.23	7848.39	0.13	0.000000
	0.00000	165.37	14.68		147.91	7.97	
		88743.37					
2426.28	171.00	4389.21	18.56	3.24	7849.62	0.13	0.000000
	0.00000	165.34	14.67		147.89	7.97	
		88731.12					
2425.01	172.00	4389.20	18.55	3.24	7849.49	0.13	0.000000
	0.00000	165.32	14.67		147.86	7.97	
		88718.26					
2423.94	173.00	4389.20	18.55	3.24	7845.96	0.13	0.000000
	0.00000	165.29	14.66		147.85	7.97	
		88708.00					
2417.26	174.00	4389.17	18.52	3.22	7785.82	0.13	0.000043
	0.03962	165.16	14.64		147.73	7.98	
		88639.58					
2402.19	175.00	4389.10	18.45	3.20	7695.26	0.13	0.000012
	0.01081	164.85	14.57		147.48	7.99	
		88485.30					
2395.19	176.00	4389.07	18.42	3.20	7674.27	0.13	0.000008
	0.00755	164.71	14.54		147.36	8.00	
		88414.16					
2392.45	177.00	4389.06	18.41	3.21	7672.84	0.13	0.000000
	0.00000	164.65	14.53		147.31	8.00	
		88385.67					
2390.59	178.00	4389.05	18.40	3.21	7668.70	0.13	0.000000
	0.00000	164.61	14.52		147.28	8.00	
		88367.55					
2389.31	179.00	4389.05	18.40	3.21	7668.44	0.13	0.000006
	0.00542	164.59	14.52		147.26	8.00	
		88353.94					
2387.84	180.00	4389.04	18.39	3.21	7667.76	0.13	0.000000
	0.00000	164.56	14.51		147.23	8.01	
		88339.70					
2398.11	181.00	4389.09	18.44	3.25	7784.59	0.13	0.000000
	0.00000	164.77	14.55		147.41	8.00	
		88445.24					
2425.70	182.00	4389.20	18.55	3.29	7969.43	0.13	0.000065
	0.05971	165.33	14.67		147.88	7.97	
		88726.95					
2442.38	183.00	4389.27	18.62	3.30	8064.10	0.13	0.000000
	0.00000	165.67	14.74		148.16	7.96	
		88895.90					
2459.04	184.00	4389.34	18.69	3.32	8160.72	0.14	0.000000
	0.00000	166.01	14.81		148.44	7.94	
		89064.34					
2465.92	185.00	4389.37	18.72	3.32	8180.56	0.14	0.000000
	0.00000	166.14	14.84		148.55	7.93	
		89132.68					
2468.30	186.00	4389.38	18.73	3.31	8181.13	0.14	0.000082
	0.07626	166.19	14.85		148.60	7.93	
		89157.17					
2469.48	187.00	4389.39	18.74	3.31	8185.86	0.14	0.000000
	0.00000	166.21	14.86		148.61	7.93	
		89168.25					
2470.37	188.00	4389.39	18.74	3.31	8183.05	0.13	0.000052
	0.04781	166.23	14.86		148.63	7.93	
		89177.88					
2470.50	189.00	4389.39	18.74	3.31	8184.57	0.13	0.000000
	0.00000	166.24	14.86		148.63	7.93	
		89178.95					

HYCHAN.OUT							
2470.81	190.00	4389.39	18.74	3.31	8184.93	0.13	0.000000
	0.00000	166.24	14.86		148.64	7.93	
2470.86	191.00	4389.40	18.74	3.31	8181.54	0.13	0.000000
	0.00000	166.24	14.86		148.64	7.93	
2465.40	192.00	4389.37	18.72	3.30	8126.43	0.13	0.000000
	0.00000	166.13	14.84		148.54	7.93	
2451.08	193.00	4389.31	18.66	3.28	8029.21	0.13	0.000000
	0.00000	165.85	14.78		148.31	7.95	
2444.83	194.00	4389.28	18.63	3.28	8017.76	0.13	0.000000
	0.00000	165.72	14.75		148.20	7.95	
2442.33	195.00	4389.27	18.62	3.28	8008.36	0.13	0.000007
	0.00600	165.67	14.74		148.16	7.96	
2441.45	196.00	4389.27	18.62	3.28	8013.56	0.13	0.000000
	0.00000	165.65	14.74		148.14	7.96	
2440.30	197.00	4389.27	18.62	3.28	8008.78	0.13	0.000072
	0.06635	165.63	14.73		148.12	7.96	
2439.74	198.00	4389.26	18.61	3.28	8011.20	0.13	0.000000
	0.00000	165.62	14.73		148.11	7.96	
2439.08	199.00	4389.26	18.61	3.28	8008.30	0.13	0.000000
	0.00000	165.60	14.73		148.11	7.96	
		88863.12					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4937

MAXIMUM DISCHARGE (CFS) = 19965.37 AT TIME = 88.06  
 MAXIMUM STAGE = 4395.89 AT TIME = 91.71

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4370.31	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4370.31	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4370.31	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4370.31	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4370.31	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
988.25	5.00	4381.06	10.75	6.38	3.23	3194.05	0.17	0.000327
	0.13026	154.90			145.34	13.52		
	6.00	4384.66	14.35		2.82	4458.96	0.13	

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				HYCHAN.OUT			
1579.05		196.55		8.03	183.19	12.76	0.000248
	0.12443	109915.73					
	7.00	4385.43	15.12	2.83	4945.36	0.13	
1747.73		205.20		8.52	191.03	12.63	0.000225
	0.11955	114619.71					
	8.00	4385.68	15.37	2.82	5076.62	0.13	
1803.08		207.99		8.67	193.55	12.59	0.000222
	0.12003	116132.72					
	9.00	4385.68	15.37	2.79	5032.85	0.13	
1801.12		207.93		8.66	193.50	12.59	0.000219
	0.11847	116098.12					
	10.00	4385.64	15.33	2.74	4898.67	0.12	
1784.96		207.53		8.60	193.14	12.60	0.000222
	0.11890	115884.64					
	11.00	4385.59	15.28	2.73	4830.45	0.12	
1769.14		206.94		8.55	192.60	12.61	0.000287
	0.15318	115561.12					
	12.00	4385.54	15.23	2.72	4785.76	0.12	
1757.28		206.37		8.52	192.08	12.62	0.000288
	0.15291	115250.05					
	13.00	4385.44	15.13	2.70	4694.00	0.12	
1736.55		205.31		8.46	191.13	12.63	0.000231
	0.12196	114679.80					
	14.00	4385.32	15.01	2.68	4571.33	0.12	
1708.12		203.90		8.38	189.86	12.65	0.000265
	0.13875	113913.25					
	15.00	4385.23	14.92	2.67	4516.90	0.12	
1689.65		202.91		8.33	188.96	12.67	0.000238
	0.12384	113375.23					
	16.00	4385.19	14.88	2.67	4491.99	0.12	
1681.69		202.49		8.31	188.58	12.67	0.000220
	0.11422	113145.48					
	17.00	4385.17	14.86	2.67	4477.07	0.12	
1678.09		202.30		8.29	188.41	12.68	0.000261
	0.13510	113044.03					
	18.00	4385.16	14.85	2.67	4473.01	0.12	
1676.22		202.20		8.29	188.32	12.68	0.000274
	0.14175	112990.64					
	19.00	4385.17	14.86	2.67	4484.42	0.12	
1677.00		202.22		8.29	188.33	12.68	0.000268
	0.13851	112998.27					
	20.00	4385.23	14.92	2.70	4563.26	0.12	
1692.07		202.95		8.34	188.99	12.67	0.000264
	0.13729	113396.87					
	21.00	4385.36	15.05	2.73	4690.09	0.12	
1720.74		204.40		8.42	190.30	12.64	0.000276
	0.14492	114180.80					
	22.00	4385.49	15.18	2.75	4814.06	0.12	
1751.56		205.89		8.51	191.65	12.62	0.000243
	0.12914	114992.64					
	23.00	4385.58	15.27	2.75	4869.91	0.12	
1769.82		206.90		8.55	192.56	12.61	0.000232
	0.12396	115538.48					
	24.00	4385.63	15.32	2.76	4911.87	0.12	
1780.73		207.45		8.58	193.06	12.60	0.000246
	0.13160	115837.29					
	25.00	4385.73	15.42	2.79	5038.50	0.13	
1804.14		208.57		8.65	194.08	12.58	0.000285
	0.15367	116446.41					
	26.00	4385.92	15.61	2.86	5289.01	0.13	
1850.48		210.62		8.79	195.94	12.55	0.000232
	0.12722	117561.86					
	27.00	4386.13	15.82	2.92	5561.21	0.13	

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				HYCHAN.OUT			
1905.98		212.97		8.95	198.05	12.52	0.000225
	0.12570	118832.02					
28.00	4386.35		16.04	2.95	5784.33	0.13	
1959.54		215.45		9.09	200.30	12.48	0.000222
	0.12607	120181.43					
29.00	4386.47		16.16	2.96	5878.61	0.13	
1986.73		216.72		9.17	201.45	12.47	0.000218
	0.12455	120869.20					
30.00	4386.54		16.23	2.97	5950.91	0.13	
2003.00		217.48		9.21	202.13	12.46	0.000221
	0.12706	121280.96					
31.00	4386.63		16.32	2.99	6047.25	0.13	
2024.22		218.46		9.27	203.02	12.44	0.000219
	0.12667	121810.27					
32.00	4386.68		16.37	2.99	6095.17	0.13	
2036.98		219.05		9.30	203.55	12.44	0.000217
	0.12601	122129.60					
33.00	4386.73		16.42	3.00	6150.39	0.13	
2048.07		219.56		9.33	204.01	12.43	0.000221
	0.12865	122406.73					
34.00	4386.80		16.49	3.02	6239.36	0.13	
2067.17		220.43		9.38	204.79	12.42	0.000220
	0.12890	122876.05					
35.00	4386.85		16.54	3.02	6280.83	0.13	
2078.30		220.93		9.41	205.25	12.41	0.000217
	0.12766	123150.73					
36.00	4386.90		16.59	2.99	6226.61	0.13	
2082.87		221.50		9.40	205.76	12.40	0.000237
	0.13915	123456.07					
37.00	4386.91		16.60	2.97	6159.86	0.13	
2077.27		221.62		9.37	205.87	12.40	0.000288
	0.16866	123523.76					
38.00	4386.90		16.59	2.96	6137.30	0.13	
2072.45		221.43		9.36	205.70	12.40	0.000269
	0.15689	123422.14					
39.00	4386.83		16.52	2.95	6058.54	0.13	
2057.17		220.74		9.32	205.07	12.41	0.000251
	0.14594	123044.71					
40.00	4386.79		16.48	2.94	6022.22	0.13	
2047.61		220.32		9.29	204.70	12.42	0.000302
	0.17524	122818.72					
41.00	4386.77		16.46	2.94	6005.38	0.13	
2041.76		220.03		9.28	204.43	12.42	0.000302
	0.17462	122660.53					
42.00	4386.75		16.45	2.94	5997.36	0.13	
2038.87		219.89		9.27	204.31	12.42	0.000293
	0.16963	122584.18					
43.00	4386.75		16.44	2.94	5991.37	0.13	
2037.26		219.81		9.27	204.24	12.42	0.000268
	0.15481	122545.22					
44.00	4386.76		16.45	2.95	6019.17	0.13	
2040.32		219.94		9.28	204.35	12.42	0.000244
	0.14151	122610.74					
45.00	4386.81		16.50	2.96	6080.50	0.13	
2053.05		220.47		9.31	204.83	12.42	0.000282
	0.16368	122900.91					
46.00	4386.86		16.55	2.97	6141.93	0.13	
2065.94		221.07		9.35	205.38	12.41	0.000290
	0.16895	123227.30					
47.00	4386.96		16.65	3.00	6275.37	0.13	
2089.85		222.10		9.41	206.30	12.39	0.000226
	0.13274	123782.80					
48.00	4387.08		16.77	3.03	6416.82	0.13	

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				HYCHAN.OUT			
2120.91		223.47		9.49	207.54	12.38	0.000264
	0.15635	124526.33					
49.00		4387.21	16.90	3.05	6580.85	0.13	
2154.63		224.93		9.58	208.86	12.36	0.000233
	0.13936	125315.80					
50.00		4387.35	17.04	3.08	6734.37	0.13	
2189.16		226.47		9.67	210.25	12.34	0.000259
	0.15650	126148.09					
51.00		4387.50	17.19	3.11	6909.71	0.13	
2225.26		228.04		9.76	211.67	12.31	0.000281
	0.17133	127002.37					
52.00		4387.66	17.35	3.14	7109.61	0.13	
2266.01		229.79		9.86	213.25	12.29	0.000293
	0.18055	127949.19					
53.00		4387.83	17.52	3.17	7323.71	0.13	
2311.99		231.71		9.98	214.98	12.27	0.000299
	0.18640	128986.59					
54.00		4387.97	17.66	3.18	7451.03	0.13	
2343.25		233.16	10.05		216.28	12.25	0.000263
	0.16520	129769.78					
55.00		4388.15	17.84	3.22	7704.51	0.13	
2389.06		235.14	10.16		218.07	12.22	0.000264
	0.16755	130840.27					
56.00		4388.39	18.08	3.34	8255.56	0.14	
2468.86		237.72	10.39		220.40	12.19	0.000227
	0.14680	132237.19					
57.00		4388.84	18.53	3.44	8919.48	0.14	
2592.53		242.67	10.68		224.85	12.13	0.000233
	0.15515	134911.27					
58.00		4389.42	19.11	3.55	9768.44	0.14	
2751.63		248.85	11.06		230.42	12.06	0.000236
	0.16274	138252.75					
59.00		4389.97	19.66	3.63	10574.99	0.14	
2909.32		254.79	11.42		235.77	11.99	0.000233
	0.16615	141460.09					
60.00		4390.37	20.06	3.68	11122.28	0.14	
3023.28		258.83	11.68		239.55	11.94	0.000228
	0.16634	143730.33					
61.00		4390.63	20.32	3.72	11500.08	0.15	
3089.17		259.35	11.91		242.05	11.91	0.000224
	0.16618	145231.80					
62.00		4390.81	20.50	3.75	11746.60	0.15	
3130.96		259.70	12.06		243.72	11.89	0.000226
	0.16976	146232.28					
63.00		4390.90	20.59	3.77	11871.63	0.15	
3152.56		259.88	12.13		244.57	11.88	0.000229
	0.17340	146744.80					
64.00		4390.98	20.67	3.78	12008.09	0.15	
3172.90		260.06	12.20		245.40	11.87	0.000235
	0.17861	147237.22					
65.00		4391.09	20.78	3.81	12165.00	0.15	
3196.64		260.26	12.28		246.38	11.86	0.000219
	0.16794	147827.41					
66.00		4391.19	20.88	3.82	12317.94	0.15	
3221.15		260.48	12.37		247.39	11.85	0.000216
	0.16703	148435.34					
67.00		4391.28	20.97	3.83	12429.44	0.15	
3241.62		260.65	12.44		248.23	11.84	0.000229
	0.17769	148938.31					
68.00		4391.37	21.06	3.84	12513.09	0.15	
3260.61		260.83	12.50		249.09	11.83	0.000231
	0.18039	149454.86					
69.00		4391.55	21.24	3.77	12378.69	0.14	

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3279.28	0.20330	261.19	12.56	250.76	11.81	0.000259	
70.00	4391.73	150454.94	21.42	3.80	12619.90	0.14	
3322.51	0.29934	261.56	12.70	252.52	11.79	0.000378	
71.00	4391.93	151510.83	21.62	3.83	12929.70	0.15	
3377.74	0.21964	261.95	12.89	254.36	11.77	0.000273	
72.00	4392.17	152615.55	21.86	3.85	13224.52	0.15	
3435.81	0.19707	262.43	13.09	256.60	11.74	0.000241	
73.00	4392.37	153961.95	22.06	3.98	13938.31	0.15	
3505.24	0.17039	262.82	13.34	258.47	11.72	0.000205	
74.00	4392.54	155084.00	22.23	3.99	14170.17	0.15	
3549.43	0.17293	263.17	13.49	260.07	11.70	0.000205	
75.00	4392.69	156043.36	22.38	4.02	14429.70	0.15	
3587.28	0.18097	263.48	13.62	261.53	11.68	0.000213	
76.00	4392.89	156919.72	22.58	4.07	14789.68	0.15	
3635.16	0.18875	263.87	13.78	263.37	11.66	0.000220	
77.00	4393.07	158021.80	22.76	4.09	15055.24	0.15	
3678.41	0.20276	264.23	13.92	265.04	11.65	0.000233	
78.00	4393.20	159021.03	22.89	4.12	15304.23	0.15	
3710.66	0.19827	264.50	14.03	266.29	11.63	0.000226	
79.00	4393.47	159771.94	23.16	4.19	15843.42	0.15	
3777.14	0.24546	265.04	14.25	268.81	11.60	0.000276	
80.00	4393.73	161287.78	23.42	4.26	16354.01	0.16	
3838.53	0.25242	265.54	14.46	271.15	11.58	0.000280	
81.00	4394.02	162688.58	23.71	4.35	16991.83	0.16	
3909.98	0.28996	266.13	14.69	273.86	11.55	0.000316	
82.00	4394.29	164315.70	23.98	4.43	17629.01	0.16	
3976.00	0.34383	266.67	14.91	276.37	11.53	0.000370	
83.00	4394.59	165820.16	24.28	4.55	18412.02	0.16	
4049.91	0.40378	267.28	15.15	279.18	11.50	0.000427	
84.00	4394.87	167505.19	24.56	4.64	19123.26	0.17	
4117.40	0.46316	267.83	15.37	281.73	11.47	0.000483	
85.00	4395.09	169038.97	24.78	4.69	19550.78	0.17	
4170.15	0.49712	268.27	15.54	283.71	11.45	0.000513	
86.00	4395.26	170226.12	24.95	4.69	19743.28	0.17	
4212.17	0.50890	268.61	15.68	285.28	11.43	0.000520	
87.00	4395.39	171167.45	25.08	4.66	19793.44	0.16	
4244.50	0.52965	268.88	15.79	286.50	11.42	0.000538	
88.00	4395.53	171900.33	25.22	4.63	19830.88	0.16	
4279.25	0.54237	269.16	15.90	287.80	11.41	0.000547	
89.00	4395.69	172682.72	25.38	4.56	19695.37	0.16	
4318.00	0.55748	269.47	16.02	289.23	11.40	0.000558	
90.00	4395.81	173539.73	25.50	4.49	19506.28	0.16	

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4346.93		269.71		16.12	290.30	11.39	0.000538
	0.54098	174178.34					
	91.00	4395.84	25.53	4.45	19362.04	0.16	
4354.07		269.76		16.14	290.56	11.38	0.000539
	0.54244	174335.38					
	92.00	4395.85	25.54	4.45	19394.93	0.16	
4358.37		269.80		16.15	290.72	11.38	0.000532
	0.53634	174431.94					
	93.00	4395.79	25.48	4.49	19480.78	0.16	
4341.23		269.66		16.10	290.10	11.39	0.000525
	0.52707	174059.69					
	94.00	4395.70	25.39	4.52	19532.84	0.16	
4319.94		269.49		16.03	289.31	11.39	0.000542
	0.54221	173588.55					
	95.00	4395.61	25.30	4.55	19549.96	0.16	
4298.46		269.32		15.96	288.51	11.40	0.000516
	0.51359	173108.81					
	96.00	4395.50	25.19	4.57	19518.00	0.16	
4270.42		269.09		15.87	287.47	11.41	0.000523
	0.51826	172482.66					
	97.00	4395.36	25.05	4.61	19514.33	0.16	
4236.98		268.81		15.76	286.21	11.43	0.000520
	0.51122	171727.30					
	98.00	4395.24	24.93	4.63	19471.28	0.16	
4207.01		268.57		15.66	285.08	11.44	0.000497
	0.48613	171049.03					
	99.00	4395.08	24.77	4.63	19291.72	0.16	
4168.59		268.25		15.54	283.65	11.45	0.000474
	0.45950	170191.17					
	100.00	4394.89	24.58	4.60	18958.15	0.16	
4121.67		267.87		15.39	281.90	11.47	0.000458
	0.43971	169142.36					
	101.00	4394.71	24.40	4.54	18535.29	0.16	
4078.60		267.52		15.25	280.28	11.49	0.000409
	0.38907	168168.47					
	102.00	4394.52	24.21	4.45	17936.46	0.16	
4032.98		267.14		15.10	278.53	11.50	0.000364
	0.34271	167115.25					
	103.00	4394.24	23.93	4.34	17200.43	0.16	
3965.88		266.58		14.88	275.94	11.53	0.000312
	0.28933	165565.08					
	104.00	4393.88	23.57	4.21	16308.17	0.15	
3878.18		265.85		14.59	272.58	11.56	0.000241
	0.21897	163549.81					
	105.00	4393.40	23.09	4.05	15253.19	0.15	
3762.01		264.90		14.20	268.17	11.61	0.000221
	0.19601	160904.34					
	106.00	4393.04	22.73	3.94	14443.16	0.15	
3662.46		264.17		13.86	264.78	11.65	0.000282
	0.24375	158870.36					
	107.00	4392.92	22.61	3.85	13884.78	0.14	
3608.46		263.93		13.67	263.66	11.66	0.000315
	0.26879	158198.92					
	108.00	4392.76	22.45	3.81	13582.58	0.14	
3566.50		263.61		13.53	262.17	11.68	0.000351
	0.29600	157303.83					
	109.00	4392.53	22.22	3.71	12979.06	0.14	
3497.77		263.15		13.29	259.98	11.70	0.000369
	0.30620	155986.66					
	110.00	4392.18	21.87	3.69	12603.34	0.14	
3419.15		262.45		13.03	256.73	11.74	0.000326
	0.26465	154039.83					
	111.00	4391.87	21.56	3.66	12260.37	0.14	

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3345.69	261.83	12.78	253.77	11.77	0.000305		
0.24323	152264.42						
112.00	4391.62	21.31	3.65	12002.99	0.14		
3286.44	261.33	12.58	251.41	11.80	0.000288		
0.22623	150848.91						
113.00	4391.44	21.13	3.64	11797.39	0.14		
3243.57	260.97	12.43	249.71	11.82	0.000322		
0.24985	149825.61						
114.00	4391.24	20.93	3.61	11533.89	0.14		
3196.49	260.57	12.27	247.81	11.84	0.000316		
0.24197	148687.16						
115.00	4391.02	20.71	3.58	11269.21	0.14		
3144.66	260.13	12.09	245.74	11.87	0.000278		
0.20961	147442.64						
116.00	4390.93	20.62	3.59	11190.33	0.14		
3121.00	259.94	12.01	244.86	11.88	0.000341		
0.25582	146916.50						
117.00	4390.88	20.57	3.57	11112.79	0.14		
3109.38	259.85	11.97	244.42	11.88	0.000346		
0.25845	146653.11						
118.00	4390.76	20.45	3.55	10937.71	0.14		
3080.60	259.61	11.87	243.25	11.90	0.000342		
0.25310	145952.62						
119.00	4390.66	20.35	3.54	10810.61	0.14		
3056.79	259.41	11.78	242.30	11.91	0.000270		
0.19885	145382.23						
120.00	4390.60	20.29	3.53	10752.18	0.14		
3042.42	259.29	11.73	241.76	11.91	0.000317		
0.23177	145058.09						
121.00	4390.59	20.28	3.53	10734.34	0.14		
3037.89	259.27	11.72	241.63	11.92	0.000263		
0.19246	144980.08						
122.00	4390.55	20.24	3.52	10667.58	0.14		
3027.38	259.19	11.68	241.27	11.92	0.000293		
0.21347	144761.42						
123.00	4390.46	20.15	3.51	10527.39	0.14		
3002.43	259.01	11.59	240.43	11.93	0.000328		
0.23722	144259.08						
124.00	4390.36	20.05	3.50	10394.87	0.14		
2973.86	258.82	11.49	239.50	11.94	0.000317		
0.22732	143698.14						
125.00	4390.28	19.97	3.48	10273.78	0.14		
2950.98	258.07	11.43	238.72	11.95	0.000309		
0.22058	143231.59						
126.00	4390.19	19.88	3.47	10145.72	0.14		
2924.12	257.06	11.38	237.81	11.96	0.000261		
0.18521	142684.02						
127.00	4390.13	19.82	3.46	10065.46	0.14		
2907.79	256.47	11.34	237.27	11.97	0.000281		
0.19906	142364.50						
128.00	4390.07	19.76	3.45	9972.92	0.14		
2890.23	255.78	11.30	236.66	11.98	0.000301		
0.21226	141996.34						
129.00	4389.98	19.67	3.44	9842.31	0.14		
2865.15	254.84	11.24	235.81	11.99	0.000323		
0.22653	141484.67						
130.00	4389.93	19.62	3.43	9773.89	0.14		
2849.91	254.28	11.21	235.31	12.00	0.000283		
0.19793	141184.00						
131.00	4389.86	19.55	3.42	9680.16	0.14		
2832.49	253.61	11.17	234.70	12.00	0.000311		
0.21653	140820.20						
132.00	4389.77	19.46	3.40	9555.16	0.14		

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2807.71		252.65		11.11	233.84	12.01	0.000269
	0.18637	140304.31					
	133.00	4389.77	19.46	3.41	9574.13	0.14	
2805.26		252.61		11.11	233.80	12.01	0.000298
	0.20657	140280.69					
	134.00	4389.84	19.53	3.42	9663.02	0.14	
2823.92		253.37		11.15	234.49	12.01	0.000321
	0.22323	140691.12					
	135.00	4389.84	19.53	3.42	9649.68	0.14	
2824.44		253.39		11.15	234.51	12.01	0.000300
	0.20861	140704.00					
	136.00	4389.82	19.51	3.41	9617.79	0.14	
2818.76		253.18		11.13	234.32	12.01	0.000295
	0.20512	140589.64					
	137.00	4389.80	19.49	3.41	9584.28	0.14	
2812.43		252.94		11.12	234.10	12.01	0.000308
	0.21386	140462.17					
	138.00	4389.78	19.47	3.40	9553.03	0.14	
2806.13		252.71		11.10	233.89	12.01	0.000312
	0.21598	140335.88					
	139.00	4389.76	19.45	3.40	9524.12	0.14	
2800.68		252.51		11.09	233.71	12.02	0.000317
	0.21947	140226.55					
	140.00	4389.74	19.43	3.40	9498.24	0.14	
2794.94		252.29		11.08	233.52	12.02	0.000315
	0.21785	140110.78					
	141.00	4389.70	19.39	3.39	9430.67	0.14	
2783.34		251.83		11.05	233.11	12.02	0.000306
	0.21109	139863.23					
	142.00	4389.63	19.32	3.38	9337.30	0.14	
2764.31		251.09		11.01	232.44	12.03	0.000300
	0.20635	139463.73					
	143.00	4389.60	19.28	3.37	9294.58	0.14	
2754.77		250.73		10.99	232.11	12.04	0.000332
	0.22786	139267.98					
	144.00	4389.57	19.26	3.37	9266.60	0.14	
2748.78		250.50		10.97	231.91	12.04	0.000315
	0.21574	139143.05					
	145.00	4389.55	19.24	3.37	9244.74	0.14	
2743.40		250.30		10.96	231.73	12.04	0.000324
	0.22129	139035.06					
	146.00	4389.52	19.20	3.36	9177.63	0.14	
2732.60		249.87		10.94	231.34	12.05	0.000319
	0.21793	138804.73					
	147.00	4389.44	19.13	3.35	9082.87	0.13	
2713.61		249.11		10.89	230.65	12.05	0.000328
	0.22273	138392.17					
	148.00	4389.41	19.10	3.34	9043.53	0.13	
2703.70		248.74		10.87	230.33	12.06	0.000302
	0.20483	138195.31					
	149.00	4389.38	19.07	3.34	9012.67	0.13	
2696.82		248.47		10.85	230.08	12.06	0.000344
	0.23330	138047.38					
	150.00	4389.37	19.06	3.34	8991.50	0.13	
2691.55		248.28		10.84	229.91	12.06	0.000326
	0.22050	137943.98					
	151.00	4389.35	19.04	3.34	8962.06	0.13	
2686.88		248.09		10.83	229.74	12.07	0.000318
	0.21485	137843.69					
	152.00	4389.32	19.01	3.33	8917.12	0.13	
2678.49		247.76		10.81	229.44	12.07	0.000301
	0.20307	137666.55					
153.00		4389.26	18.95	3.32	8837.57	0.13	

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2662.79		247.12		10.78	228.87	12.08	0.000304
	0.20465	137319.45					
154.00		4389.21	18.90	3.31	8777.51	0.13	
2650.00		246.63		10.74	228.42	12.08	0.000315
	0.21126	137052.28					
155.00		4389.19	18.88	3.31	8748.43	0.13	
2642.78		246.35		10.73	228.17	12.09	0.000298
	0.19963	136902.28					
156.00		4389.15	18.84	3.30	8684.71	0.13	
2631.99		245.90		10.70	227.77	12.09	0.000298
	0.19935	136661.64					
157.00		4389.12	18.81	3.30	8667.34	0.13	
2623.89		245.60		10.68	227.50	12.10	0.000331
	0.22097	136499.75					
158.00		4389.20	18.89	3.32	8774.18	0.13	
2644.51		246.48		10.73	228.28	12.09	0.000350
	0.23441	136970.84					
159.00		4389.23	18.92	3.32	8803.30	0.13	
2652.91		246.80		10.75	228.57	12.08	0.000349
	0.23409	137143.77					
160.00		4389.23	18.92	3.32	8798.32	0.13	
2653.34		246.82		10.75	228.60	12.08	0.000343
	0.23019	137158.06					
161.00		4389.23	18.92	3.32	8795.78	0.13	
2652.22		246.77		10.75	228.55	12.08	0.000351
	0.23535	137128.58					
162.00		4389.22	18.91	3.31	8786.87	0.13	
2650.97		246.73		10.74	228.52	12.08	0.000328
	0.21994	137109.44					
163.00		4389.22	18.91	3.31	8781.00	0.13	
2649.49		246.66		10.74	228.45	12.08	0.000344
	0.23041	137071.66					
164.00		4389.21	18.90	3.31	8774.04	0.13	
2648.05		246.62		10.74	228.41	12.08	0.000329
	0.22015	137048.59					
165.00		4389.21	18.90	3.31	8768.53	0.13	
2647.02		246.57		10.74	228.37	12.08	0.000348
	0.23317	137019.58					
166.00		4389.18	18.87	3.30	8722.80	0.13	
2640.16		246.29		10.72	228.11	12.09	0.000346
	0.23128	136868.59					
167.00		4389.12	18.81	3.30	8645.50	0.13	
2623.67		245.62		10.68	227.51	12.10	0.000312
	0.20766	136505.75					
168.00		4389.09	18.78	3.29	8611.57	0.13	
2615.31		245.28		10.66	227.21	12.10	0.000313
	0.20846	136326.28					
169.00		4389.08	18.77	3.29	8598.21	0.13	
2612.36		245.18		10.65	227.11	12.10	0.000328
	0.21788	136268.56					
170.00		4389.07	18.76	3.29	8593.54	0.13	
2610.46		245.10		10.65	227.05	12.10	0.000338
	0.22494	136227.73					
171.00		4389.06	18.75	3.29	8582.75	0.13	
2608.94		245.04		10.65	226.99	12.10	0.000345
	0.22939	136192.92					
172.00		4389.06	18.75	3.29	8575.21	0.13	
2607.47		244.99		10.64	226.95	12.10	0.000318
	0.21135	136167.81					
173.00		4389.06	18.75	3.29	8571.81	0.13	
2606.16		244.93		10.64	226.90	12.10	0.000319
	0.21167	136137.83					
174.00		4389.03	18.72	3.28	8524.99	0.13	

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		HYCHAN.OUT					
2599.23	244.64	10.62	226.63	12.11	0.000324		
0.21450	135976.03						
175.00	4388.96	18.65	3.27	8441.63	0.13		
2582.23	243.94	10.59	226.00	12.12	0.000317		
0.20918	135600.78						
176.00	4388.93	18.62	3.27	8410.75	0.13		
2574.07	243.62	10.57	225.71	12.12	0.000341		
0.22501	135426.62						
177.00	4388.92	18.61	3.27	8395.57	0.13		
2570.59	243.49	10.56	225.59	12.12	0.000326		
0.21445	135355.23						
178.00	4388.91	18.60	3.26	8385.49	0.13		
2568.58	243.41	10.55	225.52	12.12	0.000349		
0.22964	135312.78						
179.00	4388.91	18.60	3.26	8379.29	0.13		
2566.83	243.34	10.55	225.46	12.12	0.000302		
0.19851	135277.50						
180.00	4388.90	18.59	3.26	8370.72	0.13		
2565.08	243.27	10.54	225.40	12.12	0.000322		
0.21193	135237.42						
181.00	4388.94	18.63	3.28	8443.40	0.13		
2575.13	243.71	10.57	225.80	12.12	0.000357		
0.23555	135477.98						
182.00	4389.06	18.75	3.30	8594.32	0.13		
2605.76	244.98	10.64	226.94	12.10	0.000317		
0.21032	136161.69						
183.00	4389.13	18.82	3.30	8672.97	0.13		
2624.39	245.72	10.68	227.61	12.09	0.000359		
0.23939	136563.62						
184.00	4389.20	18.89	3.31	8762.14	0.13		
2643.38	246.50	10.72	228.31	12.09	0.000351		
0.23505	136983.67						
185.00	4389.23	18.92	3.32	8790.67	0.13		
2651.51	246.81	10.74	228.58	12.08	0.000350		
0.23482	137148.81						
186.00	4389.24	18.93	3.32	8806.99	0.13		
2654.57	246.93	10.75	228.69	12.08	0.000325		
0.21778	137216.62						
187.00	4389.25	18.94	3.32	8808.93	0.13		
2655.82	246.98	10.75	228.73	12.08	0.000328		
0.21979	137240.56						
188.00	4389.25	18.94	3.32	8818.66	0.13		
2657.00	247.02	10.76	228.77	12.08	0.000326		
0.21906	137263.16						
189.00	4389.25	18.94	3.32	8816.17	0.13		
2657.28	247.04	10.76	228.79	12.08	0.000322		
0.21585	137273.52						
190.00	4389.25	18.94	3.32	8817.01	0.13		
2657.57	247.04	10.76	228.79	12.08	0.000340		
0.22831	137274.22						
191.00	4389.25	18.94	3.32	8820.39	0.13		
2657.68	247.05	10.76	228.80	12.08	0.000328		
0.22018	137279.11						
192.00	4389.23	18.92	3.31	8774.60	0.13		
2651.64	246.79	10.74	228.56	12.08	0.000339		
0.22700	137138.78						
193.00	4389.17	18.86	3.30	8702.42	0.13		
2636.03	246.16	10.71	228.00	12.09	0.000326		
0.21757	136797.03						
194.00	4389.14	18.83	3.30	8671.53	0.13		
2628.56	245.87	10.69	227.73	12.09	0.000338		
0.22546	136640.41						
195.00	4389.13	18.82	3.30	8665.09	0.13		

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HYCHAN.OUT						
2625.82	245.76	10.68	227.64	12.09	0.000339	
0.22612	136582.78					
196.00	4389.13	18.82	3.30	8652.83	0.13	
2624.59	245.71	10.68	227.60	12.09	0.000352	
0.23455	136557.14					
197.00	4389.12	18.81	3.30	8653.83	0.13	
2623.33	245.67	10.68	227.55	12.10	0.000309	
0.20599	136532.55					
198.00	4389.12	18.81	3.30	8644.12	0.13	
2622.45	245.62	10.68	227.52	12.10	0.000347	
0.23145	136510.41					
199.00	4389.12	18.81	3.30	8644.81	0.13	
2621.76	245.61	10.67	227.50	12.10	0.000348	
0.23185	136500.88					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4969

MAXIMUM DISCHARGE (CFS) = 19955.97 AT TIME = 87.52  
 MAXIMUM STAGE = 4395.91 AT TIME = 91.72

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)			
0.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4380.34	10.04	3.10	2928.71	0.17	0.000271
944.06	146.44	6.45	137.62	13.71		
0.10884	92202.91					
6.00	4384.47	14.17	2.88	4411.69	0.13	0.000224
1532.93	194.50	7.88	181.34	12.80		
0.11001	121495.31					
7.00	4385.24	14.94	2.90	4925.69	0.13	0.000221
1700.95	203.16	8.37	189.18	12.66		
0.11523	126750.15					
8.00	4385.48	15.18	2.89	5073.81	0.13	0.000226
1755.66	205.86	8.53	191.62	12.62		
0.12050	128387.12					
9.00	4385.47	15.17	2.87	5035.59	0.13	0.000224
1753.22	205.71	8.52	191.49	12.63		
0.11901	128301.10					
10.00	4385.36	15.06	2.84	4902.11	0.13	0.000239
1728.88	204.51	8.45	190.41	12.64		
0.12621	127574.05					
11.00	4385.27	14.97	2.83	4834.55	0.13	0.000292
1709.50	203.54	8.40	189.53	12.66		

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## HYCHAN.OUT

1697.41	12.00	0.15296	4385.22	126984.76	14.92	8.36	2.82	4790.88	0.13	0.000324
		0.16894	202.93	126615.47				188.98	12.67	
1677.11	13.00	0.12542	4385.13	125984.98	14.83	8.31	2.80	4693.97	0.13	0.000242
		0.14160	201.89	125102.19				188.04	12.68	
1649.21	14.00	0.12381	4385.00	124564.75	14.70	8.23	2.78	4577.13	0.13	0.000276
		0.12338	200.44	124330.20				186.72	12.70	
1631.78	15.00	0.15161	4384.92	124219.88	14.62	8.18	2.77	4518.10	0.13	0.000243
		0.15930	199.55	124162.98				185.92	12.72	
1624.29	16.00	0.14597	4384.88	124202.35	14.58	8.16	2.77	4493.77	0.13	0.000242
		0.14313	199.17	124696.66				185.57	12.72	
1620.91	17.00	0.15578	4384.87	125589.86	14.57	8.15	2.76	4481.30	0.13	0.000298
		0.13268	198.99	126562.67				185.40	12.73	
1619.00	18.00	0.12218	4384.86	127054.83	14.56	8.14	2.76	4473.11	0.13	0.000314
		0.12182	198.89	127381.48				185.32	12.73	
1620.12	19.00	0.12440	4384.86	129597.23	14.57	8.14	2.77	4480.39	0.13	0.000287
		0.16052	198.96	128102.53				185.38	12.73	
1635.65	20.00	0.12346	4384.94	133747.66	14.64	8.19	2.79	4559.04	0.13	0.000280
		0.12443	199.77	134203.33				186.11	12.71	
1663.91	21.00	0.12211	4385.07	131414.03	14.77	8.27	2.82	4685.85	0.13	0.000302
		0.12182	201.24	132978.89				187.45	12.69	
1694.91	22.00	0.12182	4385.21	132978.89	14.91	8.36	2.84	4808.21	0.13	0.000254
		0.12182	202.85	132978.89				188.90	12.67	
1711.29	23.00	0.12182	4385.28	132978.89	14.98	8.40	2.84	4864.78	0.13	0.000233
		0.12182	203.66	132978.89				189.63	12.66	
1722.05	24.00	0.12182	4385.33	132978.89	15.03	8.43	2.85	4913.68	0.13	0.000281
		0.12182	204.20	132978.89				190.12	12.65	
1745.45	25.00	0.12182	4385.44	132978.89	15.14	8.50	2.88	5031.76	0.13	0.000303
		0.12182	205.39	132978.89				191.20	12.63	
1794.90	26.00	0.12182	4385.66	132978.89	15.36	8.64	2.94	5276.23	0.13	0.000231
		0.12182	207.85	132978.89				193.43	12.59	
1856.75	27.00	0.12182	4385.93	132978.89	15.63	8.81	2.99	5549.94	0.13	0.000222
		0.12182	210.85	132978.89				196.14	12.55	
1910.76	28.00	0.12182	4386.16	132978.89	15.86	8.95	3.02	5776.55	0.13	0.000218
		0.12182	213.43	132978.89				198.48	12.51	
1937.84	29.00	0.12182	4386.28	132978.89	15.98	9.03	3.03	5875.38	0.13	0.000219
		0.12182	214.70	132978.89				199.62	12.50	
1953.78	30.00	0.12182	4386.34	132978.89	16.04	9.07	3.04	5947.37	0.13	0.000220
		0.12182	215.46	132978.89				200.30	12.48	
1974.83	31.00	0.12182	4386.43	132978.89	16.13	9.12	3.06	6043.97	0.13	0.000218
		0.12182	216.44	132978.89				201.19	12.47	
1987.46	32.00	0.12182	4386.49	132978.89	16.19	9.16	3.07	6093.48	0.13	0.000219
		0.12182	217.02	132978.89				201.72	12.46	

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1998.24	0.12524	135152.86	16.23	9.19	3.08	6147.29	0.13	0.000218
	33.00	4386.53						
		217.53				202.18	12.46	
2017.23	0.12520	135459.22	16.31	9.24	3.09	6236.43	0.13	0.000218
	34.00	4386.61						
		218.41				202.97	12.44	
2028.27	0.12549	135990.58	16.36	9.27	3.10	6279.26	0.13	0.000220
	35.00	4386.66						
		218.91				203.43	12.44	
2024.84	0.12693	136295.62	16.34	9.26	3.08	6226.40	0.13	0.000241
	36.00	4386.64						
		218.76				203.29	12.44	
2010.87	0.13934	136206.00	16.29	9.22	3.07	6167.52	0.13	0.000345
	37.00	4386.59						
		218.13				202.72	12.45	
2005.04	0.19820	135825.41	16.26	9.20	3.06	6132.98	0.13	0.000260
	38.00	4386.56						
		217.87				202.49	12.45	
1990.32	0.14923	135667.52	16.20	9.16	3.05	6065.80	0.13	0.000301
	39.00	4386.50						
		217.18				201.87	12.46	
1980.49	0.17228	135249.73	16.16	9.14	3.04	6023.80	0.13	0.000349
	40.00	4386.46						
		216.73				201.45	12.47	
1975.13	0.19892	134972.25	16.14	9.12	3.04	6005.56	0.13	0.000339
	41.00	4386.44						
		216.49				201.23	12.47	
1972.44	0.19288	134827.22	16.13	9.12	3.04	5996.73	0.13	0.000321
	42.00	4386.43						
		216.36				201.12	12.47	
1970.71	0.18285	134752.38	16.12	9.11	3.04	5988.30	0.13	0.000265
	43.00	4386.42						
		216.28				201.05	12.47	
1974.12	0.15064	134705.39	16.13	9.12	3.05	6016.88	0.13	0.000242
	44.00	4386.43						
		216.45				201.20	12.47	
1987.89	0.13749	134805.20	16.19	9.16	3.06	6080.30	0.13	0.000291
	45.00	4386.49						
		217.08				201.77	12.46	
2000.17	0.16614	135186.16	16.24	9.19	3.07	6143.43	0.13	0.000345
	46.00	4386.54						
		217.66				202.29	12.45	
2024.66	0.19759	135536.39	16.35	9.25	3.09	6263.21	0.13	0.000240
	47.00	4386.65						
		218.80				203.33	12.44	
2055.99	0.13884	136228.05	16.48	9.34	3.12	6410.92	0.14	0.000259
	48.00	4386.78						
		220.23				204.62	12.42	
2090.00	0.15084	137093.20	16.62	9.42	3.15	6573.63	0.14	0.000234
	49.00	4386.92						
		221.78				206.02	12.40	
2124.03	0.13766	138033.98	16.76	9.51	3.17	6733.47	0.14	0.000289
	50.00	4387.06						
		223.31				207.40	12.38	
2159.59	0.17133	138955.09	16.90	9.60	3.19	6899.40	0.14	0.000281
	51.00	4387.20						
		224.89				208.83	12.36	
2200.10	0.16847	139913.73	17.06	9.71	3.23	7105.78	0.14	0.000310
	52.00	4387.36						
		226.69				210.45	12.33	
2246.80	0.18757	140999.22	17.25	9.82	3.26	7317.59	0.14	0.000323
	53.00	4387.55						
		228.72				212.28	12.31	

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HYCHAN.OUT									
	0.19772	142228.47							
2274.69	54.00	4387.66	17.36	9.89	3.27	7444.05	0.14	0.000304	
		229.93				213.37	12.29		
	0.18750	142961.11							
2318.37	55.00	4387.83	17.53	10.00	3.32	7691.43	0.14	0.000274	
		231.81				215.07	12.27		
	0.17107	144094.80							
2414.75	56.00	4388.20	17.90	10.24	3.41	8233.17	0.14	0.000214	
		235.85				218.71	12.22		
	0.13658	146533.45							
2538.33	57.00	4388.67	18.37	10.54	3.50	8892.35	0.14	0.000208	
		240.91				223.27	12.15		
	0.13678	149594.19							
2697.46	58.00	4389.26	18.96	10.91	3.61	9736.69	0.15	0.000202	
		247.24				228.97	12.08		
	0.13772	153409.97							
2855.85	59.00	4389.83	19.53	11.27	3.69	10548.90	0.15	0.000194	
		253.32				234.44	12.01		
	0.13659	157077.42							
2971.76	60.00	4390.23	19.93	11.53	3.74	11105.95	0.15	0.000189	
		257.64				238.33	11.96		
	0.13592	159678.30							
3045.28	61.00	4390.49	20.19	11.75	3.77	11483.27	0.15	0.000191	
		259.10				240.83	11.93		
	0.14007	161357.28							
3087.76	62.00	4390.67	20.37	11.90	3.80	11737.91	0.15	0.000191	
		259.45				242.49	11.91		
	0.14149	162469.53							
3109.43	63.00	4390.76	20.46	11.98	3.82	11867.71	0.15	0.000190	
		259.63				243.35	11.90		
	0.14176	163045.41							
3129.42	64.00	4390.84	20.54	12.05	3.84	12002.78	0.15	0.000191	
		259.79				244.15	11.89		
	0.14376	163580.19							
3152.14	65.00	4390.94	20.64	12.12	3.86	12159.23	0.15	0.000200	
		259.98				245.06	11.87		
	0.15140	164187.12							
3175.61	66.00	4391.03	20.73	12.21	3.88	12312.42	0.15	0.000207	
		260.18				245.99	11.86		
	0.15796	164813.39							
3195.42	67.00	4391.12	20.82	12.27	3.89	12425.56	0.15	0.000207	
		260.35				246.77	11.85		
	0.15822	165339.20							
3211.74	68.00	4391.19	20.89	12.33	3.89	12508.49	0.15	0.000220	
		260.48				247.42	11.85		
	0.16963	165773.34							
3206.23	69.00	4391.16	20.86	12.31	3.87	12410.63	0.15	0.000229	
		260.44				247.21	11.85		
	0.17555	165633.81							
3245.72	70.00	4391.33	21.03	12.45	3.92	12725.11	0.15	0.000429	
		260.77				248.76	11.83		
	0.33358	166670.83							
3305.80	71.00	4391.58	21.28	12.65	3.96	13095.81	0.15	0.000284	
		261.27				251.13	11.80		
	0.22439	168258.78							
3362.85	72.00	4391.81	21.51	12.85	4.00	13459.13	0.15	0.000256	
		261.74				253.35	11.78		
	0.20558	169746.27							
3454.57	73.00	4392.19	21.89	13.16	4.10	14165.73	0.15	0.000195	
		262.49				256.92	11.74		
	0.16050	172134.12							
3503.05	74.00	4392.39	22.09	13.33	4.11	14412.66	0.15	0.000189	
		262.89				258.79	11.72		

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HYCHAN.OUT									
0.15727	173387.19								
75.00	4392.55	22.25	4.15	14680.69	0.15				
3541.75	263.21	13.46		260.30	11.70			0.000185	
0.15573	174402.31								
76.00	4392.76	22.46	4.19	15046.62	0.16				
3590.80	263.63	13.62		262.22	11.68			0.000181	
0.15377	175688.89								
77.00	4392.94	22.64	4.21	15316.32	0.16				
3635.41	264.00	13.77		263.96	11.66			0.000182	
0.15648	176852.62								
78.00	4393.08	22.78	4.24	15561.99	0.16				
3667.88	264.27	13.88		265.23	11.64			0.000176	
0.15202	177704.84								
79.00	4393.36	23.06	4.31	16100.41	0.16				
3735.99	264.84	14.11		267.89	11.61			0.000160	
0.14078	179489.11								
80.00	4393.63	23.33	4.37	16586.08	0.16				
3798.97	265.37	14.32		270.36	11.59			0.000154	
0.13788	181138.20								
81.00	4393.94	23.64	4.44	17187.66	0.16				
3872.69	265.99	14.56		273.24	11.56			0.000146	
0.13277	183071.39								
82.00	4394.23	23.93	4.51	17782.66	0.16				
3940.11	266.56	14.78		275.88	11.53			0.000144	
0.13309	184839.62								
83.00	4394.55	24.25	4.61	18506.41	0.17				
4015.29	267.20	15.03		278.83	11.50			0.000145	
0.13574	186815.12								
84.00	4394.84	24.54	4.70	19177.06	0.17				
4083.75	267.78	15.25		281.50	11.47			0.000138	
0.13085	188605.33								
85.00	4395.06	24.76	4.73	19583.90	0.17				
4138.12	268.24	15.43		283.60	11.45			0.000135	
0.13041	190009.20								
86.00	4395.25	24.95	4.72	19760.57	0.17				
4182.28	268.61	15.57		285.28	11.43			0.000120	
0.11652	191134.94								
87.00	4395.39	25.09	4.70	19805.12	0.17				
4216.60	268.89	15.68		286.57	11.42			0.000128	
0.12536	191999.30								
88.00	4395.54	25.24	4.66	19834.44	0.16				
4252.27	269.18	15.80		287.91	11.41			0.000120	
0.11837	192897.56								
89.00	4395.70	25.40	4.59	19696.05	0.16				
4292.99	269.51	15.93		289.41	11.39			0.000098	
0.09717	193907.78								
90.00	4395.82	25.52	4.51	19507.73	0.16				
4323.84	269.76	16.03		290.55	11.38			0.000100	
0.09987	194665.69								
91.00	4395.85	25.55	4.47	19369.44	0.16				
4331.61	269.82	16.05		290.82	11.38			0.000107	
0.10710	194849.27								
92.00	4395.87	25.57	4.47	19400.57	0.16				
4336.09	269.86	16.07		290.99	11.38			0.000099	
0.09917	194962.61								
93.00	4395.80	25.50	4.51	19487.69	0.16				
4317.44	269.71	16.01		290.31	11.39			0.000104	
0.10339	194505.48								
94.00	4395.71	25.41	4.55	19541.14	0.16				
4295.03	269.53	15.94		289.47	11.39			0.000110	
0.10950	193945.50								
95.00	4395.62	25.32	4.58	19562.33	0.16				
4272.79	269.34	15.86		288.64	11.40			0.000106	

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0.10517	193389.00						
96.00	4395.50	25.20	4.60	19535.11	0.16		
4244.04	269.11	15.77		287.56	11.41	0.000119	
0.11760	192665.42						
97.00	4395.35	25.05	4.64	19547.00	0.16		
4208.87	268.82	15.66		286.24	11.43	0.000123	
0.12014	191779.59						
98.00	4395.22	24.92	4.67	19517.16	0.17		
4176.96	268.55	15.55		285.03	11.44	0.000134	
0.12988	190971.55						
99.00	4395.05	24.75	4.68	19353.04	0.17		
4136.82	268.22	15.42		283.50	11.45	0.000125	
0.12022	189945.80						
100.00	4394.85	24.55	4.65	19029.58	0.17		
4088.40	267.81	15.27		281.64	11.47	0.000143	
0.13605	188698.69						
101.00	4394.67	24.37	4.61	18627.49	0.16		
4044.45	267.44	15.12		279.93	11.49	0.000142	
0.13403	187554.17						
102.00	4394.47	24.17	4.52	18078.39	0.16		
3998.79	267.05	14.97		278.12	11.51	0.000138	
0.12911	186337.25						
103.00	4394.18	23.88	4.43	17405.16	0.16		
3930.92	266.47	14.75		275.44	11.53	0.000141	
0.12954	184543.86						
104.00	4393.80	23.50	4.32	16581.93	0.16		
3841.39	265.71	14.46		271.91	11.57	0.000137	
0.12382	182177.95						
105.00	4393.29	22.99	4.18	15574.85	0.15		
3721.62	264.69	14.06		267.20	11.62	0.000173	
0.15175	179027.14						
106.00	4392.82	22.52	4.10	14781.88	0.15		
3609.18	263.76	13.68		262.84	11.67	0.000308	
0.26308	176101.34						
107.00	4392.49	22.19	4.05	14285.91	0.15		
3529.20	263.10	13.41		259.77	11.70	0.000329	
0.27534	174042.73						
108.00	4392.30	22.00	4.01	13976.93	0.15		
3482.92	262.71	13.26		257.95	11.72	0.000382	
0.31565	172827.16						
109.00	4391.95	21.65	3.94	13397.12	0.15		
3400.11	262.02	12.98		254.69	11.76	0.000416	
0.33663	170644.69						
110.00	4391.64	21.34	3.90	12958.78	0.15		
3324.24	261.39	12.72		251.73	11.80	0.000344	
0.27302	168657.38						
111.00	4391.35	21.05	3.85	12530.64	0.15		
3253.72	260.81	12.48		248.98	11.83	0.000388	
0.30170	166816.88						
112.00	4391.11	20.81	3.82	12210.69	0.15		
3196.15	260.34	12.28		246.73	11.85	0.000335	
0.25688	165307.52						
113.00	4390.94	20.64	3.79	11965.41	0.15		
3154.00	259.99	12.13		245.07	11.87	0.000313	
0.23712	164197.92						
114.00	4390.75	20.45	3.75	11670.82	0.15		
3108.21	259.61	11.97		243.26	11.90	0.000385	
0.28748	162982.88						
115.00	4390.54	20.24	3.72	11369.27	0.15		
3057.45	259.19	11.80		241.26	11.92	0.000311	
0.22871	161642.28						
116.00	4390.44	20.14	3.71	11258.27	0.15		
3031.80	258.99	11.71		240.30	11.93	0.000336	

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	0.24537	161001.05							
3017.86	117.00	4390.39	20.09	11.66	3.70	11174.73	0.15	0.000428	
	0.31159	160691.41							
2984.35	118.00	4390.27	19.97	11.56	3.68	10986.80	0.15	0.000413	
	0.29765	159956.64							
2956.37	119.00	4390.18	19.88	11.50	3.67	10845.36	0.15	0.000338	
	0.24225	159341.98							
2939.50	120.00	4390.12	19.82	11.46	3.66	10772.89	0.15	0.000301	
	0.21559	158971.53							
2934.27	121.00	4390.10	19.80	11.45	3.66	10748.86	0.15	0.000392	
	0.28030	158855.59							
2923.67	122.00	4390.07	19.77	11.43	3.66	10686.49	0.14	0.000435	
	0.31022	158612.72							
2899.09	123.00	4389.98	19.68	11.37	3.64	10542.51	0.14	0.000305	
	0.21632	158061.77							
2871.09	124.00	4389.88	19.58	11.31	3.62	10396.80	0.14	0.000389	
	0.27430	157430.27							
2849.30	125.00	4389.80	19.50	11.26	3.61	10284.93	0.14	0.000429	
	0.30127	156927.41							
2822.98	126.00	4389.71	19.41	11.20	3.60	10148.87	0.14	0.000331	
	0.23142	156334.45							
2806.91	127.00	4389.65	19.35	11.16	3.59	10070.74	0.14	0.000457	
	0.31866	155959.19							
2789.75	128.00	4389.59	19.29	11.12	3.58	9976.16	0.14	0.000317	
	0.21991	155569.73							
2765.62	129.00	4389.51	19.21	11.07	3.56	9852.05	0.14	0.000313	
	0.21619	155004.36							
2750.25	130.00	4389.45	19.15	11.03	3.56	9778.94	0.14	0.000416	
	0.28625	154648.20							
2733.31	131.00	4389.39	19.09	10.99	3.54	9682.43	0.14	0.000437	
	0.29963	154253.95							
2709.29	132.00	4389.30	19.00	10.94	3.53	9562.10	0.14	0.000451	
	0.30808	153691.66							
2705.42	133.00	4389.29	18.99	10.93	3.54	9573.57	0.14	0.000435	
	0.29660	153609.59							
2722.56	134.00	4389.35	19.05	10.97	3.55	9661.55	0.14	0.000448	
	0.30663	154011.84							
2723.08	135.00	4389.35	19.05	10.97	3.54	9652.67	0.14	0.000452	
	0.30914	154019.52							
2717.40	136.00	4389.33	19.03	10.96	3.54	9621.23	0.14	0.000440	
	0.30074	153886.20							
2711.07	137.00	4389.31	19.01	10.94	3.54	9588.06	0.14	0.000416	

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	0.28396	153737.48						
2704.72	138.00	4389.29	18.99	10.93	3.53	9556.19	0.14	0.000392
		247.53				229.24	12.07	
	0.26707	153588.61						
2699.27	139.00	4389.27	18.97	10.91	3.53	9526.53	0.14	0.000396
		247.32				229.04	12.08	
	0.26961	153459.98						
2693.44	140.00	4389.25	18.95	10.90	3.53	9500.98	0.14	0.000370
		247.10				228.84	12.08	
	0.25187	153324.66						
2682.48	141.00	4389.21	18.91	10.88	3.52	9433.80	0.14	0.000333
		246.66				228.45	12.08	
	0.22567	153063.16						
2664.11	142.00	4389.14	18.84	10.83	3.51	9338.31	0.14	0.000368
		245.94				227.80	12.09	
	0.24900	152628.36						
2654.74	143.00	4389.10	18.80	10.81	3.50	9298.21	0.14	0.000428
		245.57				227.47	12.10	
	0.28857	152403.19						
2648.70	144.00	4389.08	18.78	10.80	3.50	9272.99	0.14	0.000390
		245.33				227.26	12.10	
	0.26251	152261.53						
2643.15	145.00	4389.06	18.76	10.78	3.50	9243.21	0.14	0.000341
		245.12				227.06	12.10	
	0.22922	152133.05						
2633.11	146.00	4389.02	18.72	10.76	3.49	9181.59	0.14	0.000423
		244.71				226.69	12.11	
	0.28378	151884.62						
2614.92	147.00	4388.96	18.66	10.72	3.48	9090.63	0.14	0.000338
		243.99				226.05	12.12	
	0.22579	151451.52						
2604.75	148.00	4388.92	18.62	10.69	3.47	9041.99	0.14	0.000423
		243.59				225.69	12.12	
	0.28200	151210.50						
2598.09	149.00	4388.90	18.60	10.68	3.47	9019.54	0.14	0.000369
		243.32				225.44	12.12	
	0.24591	151047.97						
2592.51	150.00	4388.88	18.58	10.66	3.47	8988.92	0.14	0.000386
		243.11				225.25	12.13	
	0.25684	150917.97						
2588.17	151.00	4388.86	18.56	10.65	3.47	8969.30	0.14	0.000371
		242.92				225.09	12.13	
	0.24683	150807.25						
2580.01	152.00	4388.83	18.53	10.63	3.46	8917.64	0.14	0.000441
		242.60				224.79	12.13	
	0.29250	150610.69						
2565.03	153.00	4388.77	18.47	10.60	3.45	8841.85	0.14	0.000323
		242.00				224.25	12.14	
	0.21364	150248.16						
2552.53	154.00	4388.73	18.43	10.57	3.44	8782.95	0.14	0.000387
		241.49				223.79	12.15	
	0.25555	149941.56						
2545.19	155.00	4388.70	18.40	10.55	3.44	8748.01	0.14	0.000436
		241.20				223.53	12.15	
	0.28681	149766.62						
2535.04	156.00	4388.66	18.36	10.53	3.43	8688.29	0.14	0.000411
		240.79				223.16	12.15	
	0.26998	149516.22						
2526.42	157.00	4388.63	18.33	10.51	3.43	8668.04	0.14	0.000334
		240.45				222.85	12.16	
	0.21885	149311.00						
2545.49	158.00	4388.70	18.40	10.55	3.45	8772.68	0.14	0.000424
		241.22				223.55	12.15	

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	0.27916	149776.91							
159.00	4388.73	18.43	3.45	8802.26	0.14				
2553.74	241.55	10.57	223.85	12.14	0.000331				
	0.21867	149980.66							
160.00	4388.73	18.43	3.45	8800.12	0.14				
2554.29	241.57	10.57	223.86	12.14	0.000436				
	0.28749	149988.33							
161.00	4388.73	18.43	3.45	8797.71	0.14				
2553.16	241.53	10.57	223.83	12.15	0.000331				
	0.21820	149964.16							
162.00	4388.72	18.42	3.44	8786.76	0.14				
2551.91	241.47	10.57	223.78	12.15	0.000434				
	0.28631	149931.06							
163.00	4388.72	18.42	3.44	8784.42	0.14				
2550.50	241.42	10.56	223.73	12.15	0.000346				
	0.22798	149898.36							
164.00	4388.71	18.41	3.44	8773.10	0.14				
2548.95	241.35	10.56	223.67	12.15	0.000438				
	0.28856	149859.98							
165.00	4388.71	18.41	3.44	8770.88	0.14				
2548.06	241.32	10.56	223.64	12.15	0.000332				
	0.21843	149838.88							
166.00	4388.69	18.39	3.43	8727.05	0.14				
2541.91	241.06	10.54	223.41	12.15	0.000406				
	0.26737	149681.98							
167.00	4388.63	18.33	3.42	8645.36	0.14				
2525.91	240.42	10.51	222.83	12.16	0.000393				
	0.25791	149296.84							
168.00	4388.60	18.30	3.42	8615.93	0.14				
2517.74	240.09	10.49	222.53	12.16	0.000336				
	0.21964	149095.80							
169.00	4388.58	18.28	3.42	8600.79	0.14				
2514.79	239.97	10.48	222.42	12.16	0.000417				
	0.27285	149021.38							
170.00	4388.58	18.28	3.42	8591.34	0.14				
2512.65	239.89	10.47	222.35	12.17	0.000385				
	0.25195	148975.11							
171.00	4388.57	18.27	3.42	8586.57	0.14				
2511.35	239.83	10.47	222.30	12.17	0.000325				
	0.21211	148939.22							
172.00	4388.57	18.27	3.42	8576.07	0.14				
2509.82	239.77	10.47	222.24	12.17	0.000426				
	0.27835	148900.88							
173.00	4388.56	18.26	3.42	8570.79	0.14				
2508.50	239.72	10.46	222.19	12.17	0.000431				
	0.28134	148870.31							
174.00	4388.54	18.24	3.41	8527.20	0.14				
2502.29	239.45	10.45	221.96	12.17	0.000355				
	0.23181	148713.23							
175.00	4388.48	18.18	3.40	8446.18	0.14				
2486.03	238.79	10.41	221.36	12.18	0.000347				
	0.22513	148312.75							
176.00	4388.45	18.15	3.40	8413.84	0.14				
2477.88	238.46	10.39	221.06	12.18	0.000322				
	0.20889	148112.03							
177.00	4388.43	18.13	3.39	8397.88	0.14				
2474.40	238.31	10.38	220.93	12.18	0.000365				
	0.23664	148024.91							
178.00	4388.42	18.12	3.39	8386.24	0.14				
2472.32	238.23	10.38	220.86	12.19	0.000402				
	0.26003	147975.25							
179.00	4388.42	18.12	3.39	8378.52	0.14				
2470.52	238.16	10.37	220.79	12.19	0.000443				

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	0.28667	147930.64							
2468.84	180.00	4388.41	18.11	10.37	3.39	8371.64	12.19	0.14	0.000422
	0.27314	147888.70				220.73			
2477.61	181.00	4388.45	18.15	10.39	3.41	8440.71	12.18	0.14	0.000421
	0.27312	148111.36				221.06			
2506.63	182.00	4388.56	18.26	10.46	3.43	8588.03	12.17	0.14	0.000409
	0.26723	148829.05				222.13			
2524.79	183.00	4388.62	18.32	10.50	3.44	8673.31	12.16	0.14	0.000358
	0.23450	149272.70				222.80			
2542.91	184.00	4388.69	18.39	10.55	3.44	8758.25	12.15	0.14	0.000420
	0.27664	149715.34				223.46			
2551.25	185.00	4388.72	18.42	10.57	3.45	8792.97	12.15	0.14	0.000370
	0.24420	149915.02				223.75			
2554.08	186.00	4388.73	18.43	10.57	3.45	8803.71	12.14	0.14	0.000384
	0.25356	149987.36				223.86			
2555.60	187.00	4388.74	18.44	10.58	3.45	8812.16	12.14	0.14	0.000426
	0.28086	150019.48				223.91			
2556.64	188.00	4388.74	18.44	10.58	3.45	8817.94	12.14	0.14	0.000348
	0.22999	150049.28				223.95			
2556.96	189.00	4388.74	18.44	10.58	3.45	8816.50	12.14	0.14	0.000441
	0.29091	150053.55				223.96			
2557.33	190.00	4388.74	18.44	10.58	3.45	8820.41	12.14	0.14	0.000395
	0.26061	150063.55				223.98			
2557.35	191.00	4388.74	18.44	10.58	3.45	8817.53	12.14	0.14	0.000375
	0.24768	150065.48				223.98			
2552.19	192.00	4388.72	18.42	10.57	3.44	8781.38	12.15	0.14	0.000403
	0.26606	149931.59				223.78			
2537.03	193.00	4388.67	18.37	10.53	3.43	8701.37	12.15	0.14	0.000374
	0.24583	149568.91				223.24			
2529.76	194.00	4388.64	18.34	10.52	3.43	8676.27	12.16	0.14	0.000421
	0.27633	149387.16				222.97			
2526.78	195.00	4388.63	18.33	10.51	3.43	8662.13	12.16	0.14	0.000373
	0.24453	149320.39				222.87			
2525.76	196.00	4388.63	18.33	10.51	3.43	8657.17	12.16	0.14	0.000408
	0.26760	149290.69				222.82			
2524.26	197.00	4388.62	18.32	10.50	3.43	8651.13	12.16	0.14	0.000397
	0.26012	149258.73				222.77			
2523.61	198.00	4388.62	18.32	10.50	3.43	8648.80	12.16	0.14	0.000368
	0.24122	149239.14				222.74			
2522.70	199.00	4388.61	18.32	10.50	3.43	8641.84	12.16	0.14	0.000393
	0.25724	149219.45				222.72			

HYCHAN.OUT  
CHANNEL HYDROGRAPH FOR ELEMENT NO: 4998

MAXIMUM DISCHARGE (CFS) = 20114.62 AT TIME = 87.04  
MAXIMUM STAGE = 4395.69 AT TIME = 91.73

AREA BED SHEAR (FT <sup>2</sup> )	TIME WETTED PERIMETER (HRS) (LB/FT <sup>2</sup> )	ELEV. SURFACE AREA (FT) (FT <sup>2</sup> )	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW
0.00	0.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
872.64	5.00	4379.58	9.28	3.10	2701.70	0.18	0.000333
	0.13223	137.26	6.36	129.23	13.92		
1476.33	6.00	4384.21	13.91	2.96	4368.37	0.14	0.000277
	0.13340	191.59	7.71	178.70	12.84		
1645.41	7.00	4385.00	14.70	2.98	4907.84	0.14	0.000264
	0.13537	200.48	8.21	186.75	12.70		
1701.37	8.00	4385.25	14.95	2.98	5071.36	0.14	0.000261
	0.13645	203.29	8.37	189.30	12.66		
1699.55	9.00	4385.24	14.94	2.96	5037.78	0.14	0.000257
	0.13436	203.17	8.37	189.19	12.66		
1674.60	10.00	4385.13	14.83	2.93	4905.63	0.13	0.000305
	0.15796	201.91	8.29	188.05	12.68		
1654.90	11.00	4385.04	14.74	2.92	4839.57	0.13	0.000249
	0.12811	200.92	8.24	187.16	12.70		
1642.95	12.00	4384.98	14.68	2.92	4791.49	0.13	0.000220
	0.11280	200.30	8.20	186.60	12.71		
1623.38	13.00	4384.89	14.59	2.89	4698.91	0.13	0.000300
	0.15248	199.27	8.15	185.66	12.72		
1596.15	14.00	4384.77	14.47	2.87	4582.49	0.13	0.000269
	0.13554	197.84	8.07	184.37	12.74		
1578.62	15.00	4384.68	14.38	2.86	4519.15	0.13	0.000293
	0.14649	196.93	8.02	183.54	12.76		
1571.05	16.00	4384.65	14.35	2.86	4492.87	0.13	0.000298
	0.14873	196.53	7.99	183.18	12.77		
		109908.34					

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HYCHAN.OUT									
1567.66	17.00	4384.63	14.33	7.98	2.86	4481.34	0.13	0.000240	
	0.11971	196.36				183.02	12.77		
		109812.88							
1565.79	18.00	4384.62	14.33	7.98	2.86	4473.99	0.13	0.000230	
	0.11462	196.25				182.93	12.77		
		109756.93							
1566.86	19.00	4384.63	14.33	7.98	2.86	4481.65	0.13	0.000258	
	0.12826	196.31				182.98	12.77		
		109787.20							
1581.73	20.00	4384.70	14.40	8.02	2.88	4554.47	0.13	0.000254	
	0.12725	197.12				183.71	12.76		
		110226.99							
1609.23	21.00	4384.83	14.53	8.10	2.91	4680.11	0.13	0.000236	
	0.11940	198.57				185.03	12.73		
		111017.91							
1639.50	22.00	4384.97	14.67	8.19	2.93	4802.26	0.13	0.000286	
	0.14614	200.15				186.46	12.71		
		111875.94							
1656.11	23.00	4385.05	14.75	8.24	2.94	4864.58	0.13	0.000313	
	0.16098	201.00				187.23	12.70		
		112336.66							
1666.57	24.00	4385.10	14.80	8.27	2.95	4909.21	0.14	0.000258	
	0.13293	201.55				187.72	12.69		
		112633.91							
1689.36	25.00	4385.20	14.90	8.33	2.98	5028.35	0.14	0.000238	
	0.12396	202.72				188.78	12.67		
		113268.84							
1737.78	26.00	4385.42	15.12	8.47	3.03	5265.35	0.14	0.000266	
	0.14080	205.18				191.01	12.63		
		114604.11							
1799.82	27.00	4385.69	15.39	8.64	3.08	5540.08	0.14	0.000269	
	0.14509	208.23				193.77	12.59		
		116265.00							
1853.40	28.00	4385.93	15.63	8.79	3.11	5769.54	0.14	0.000266	
	0.14591	210.84				196.13	12.55		
		117679.41							
1880.60	29.00	4386.04	15.74	8.87	3.12	5872.61	0.14	0.000267	
	0.14755	212.14				197.30	12.53		
		118382.02							
1896.21	30.00	4386.11	15.81	8.91	3.13	5944.21	0.14	0.000266	
	0.14803	212.89				197.98	12.52		
		118788.56							
1917.00	31.00	4386.20	15.90	8.96	3.15	6040.99	0.14	0.000265	
	0.14818	213.87				198.87	12.51		
		119324.95							
1929.63	32.00	4386.25	15.95	9.00	3.16	6092.00	0.14	0.000266	
	0.14925	214.47				199.41	12.50		
		119646.29							
1940.06	33.00	4386.30	16.00	9.02	3.17	6144.58	0.14	0.000267	
	0.15031	214.97				199.86	12.49		
		119916.30							
1958.80	34.00	4386.38	16.08	9.08	3.18	6233.71	0.14	0.000265	
	0.14991	215.85				200.66	12.48		
		120393.88							
1969.87	35.00	4386.43	16.13	9.10	3.19	6277.99	0.14	0.000266	
	0.15134	216.36				201.12	12.47		
		120671.63							
1965.92	36.00	4386.41	16.11	9.09	3.17	6229.10	0.14	0.000325	
	0.18432	216.17				200.95	12.47		
		120571.79							
1950.86	37.00	4386.35	16.05	9.05	3.16	6167.76	0.14	0.000223	
	0.12608	215.51				200.35	12.48		
		120209.52							

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HYCHAN.OUT							
1945.27	38.00	4386.32	16.02	9.04	3.16	6137.46	0.14
	0.17058	215.23				200.10	12.49
		120060.81					0.000302
1930.66	39.00	4386.26	15.96	9.00	3.14	6064.05	0.14
	0.14935	214.55				199.49	12.50
		119692.17					0.000266
1921.13	40.00	4386.22	15.92	8.97	3.14	6028.46	0.14
	0.13017	214.09				199.07	12.50
		119444.21					0.000232
1915.69	41.00	4386.20	15.90	8.96	3.14	6006.32	0.14
	0.13207	213.84				198.84	12.51
		119305.30					0.000236
1913.03	42.00	4386.19	15.89	8.95	3.13	5997.03	0.14
	0.13887	213.71				198.73	12.51
		119236.55					0.000249
1911.32	43.00	4386.18	15.88	8.95	3.13	5988.92	0.14
	0.16707	213.63				198.65	12.51
		119191.37					0.000299
1914.39	44.00	4386.19	15.89	8.95	3.14	6013.64	0.14
	0.18563	213.78				198.79	12.51
		119275.78					0.000332
1927.98	45.00	4386.25	15.95	8.99	3.15	6079.90	0.14
	0.14938	214.43				199.38	12.50
		119628.65					0.000266
1939.94	46.00	4386.30	16.00	9.02	3.16	6137.73	0.14
	0.12855	215.00				199.89	12.49
		119934.81					0.000228
1963.92	47.00	4386.40	16.10	9.09	3.19	6259.18	0.14
	0.18574	216.13				200.91	12.48
		120547.33					0.000328
1994.70	48.00	4386.53	16.23	9.17	3.21	6407.50	0.14
	0.16794	217.57				202.21	12.46
		121327.95					0.000294
2028.11	49.00	4386.67	16.37	9.26	3.24	6566.33	0.14
	0.18550	219.11				203.61	12.43
		122163.72					0.000321
2061.65	50.00	4386.81	16.51	9.34	3.26	6725.70	0.14
	0.15841	220.65				205.00	12.41
		122997.09					0.000272
2096.77	51.00	4386.96	16.66	9.43	3.29	6897.34	0.14
	0.16206	222.24				206.43	12.39
		123858.92					0.000275
2136.28	52.00	4387.12	16.82	9.54	3.32	7094.29	0.14
	0.14104	224.02				208.04	12.37
		124824.62					0.000237
2182.77	53.00	4387.31	17.01	9.66	3.35	7312.11	0.14
	0.14267	226.07				209.89	12.34
		125935.06					0.000237
2210.15	54.00	4387.42	17.12	9.72	3.37	7437.88	0.14
	0.16451	227.27				210.97	12.32
		126583.17					0.000271
2252.70	55.00	4387.59	17.29	9.83	3.41	7680.79	0.14
	0.15958	229.13				212.65	12.30
		127590.87					0.000260
2349.29	56.00	4387.96	17.66	10.07	3.50	8216.29	0.15
	0.17716	233.24				216.36	12.25
		129815.16					0.000282
2470.77	57.00	4388.43	18.13	10.37	3.59	8868.31	0.15
	0.18286	238.30				220.92	12.18
		132552.98					0.000283
2627.86	58.00	4389.02	18.72	10.74	3.69	9708.67	0.15
	0.18931	244.64				226.63	12.11
		135976.62					0.000282

HYCHAN.OUT							
2785.22	59.00	4389.59	19.29	3.78	10525.67	0.15	0.000277
	0.19216	250.76	11.11		232.14	12.04	
	60.00	139285.67	19.70	3.82	11090.99	0.15	0.000272
2901.05		4390.00	11.37		236.07	11.99	
	0.19277	255.13	19.96	3.85	11472.72	0.15	0.000269
2976.94		4390.26	11.54		238.60	11.95	
	0.19403	257.94	20.13	3.87	11730.68	0.15	0.000270
3027.65		4390.43	11.69		240.27	11.93	
	0.19679	258.98	20.23	3.89	11865.17	0.15	0.000268
3051.21		4390.52	11.77		241.13	11.92	
	0.19725	259.16	20.31	3.91	12005.25	0.15	0.000270
3071.07		4390.61	11.84		241.93	11.91	
	0.19983	259.33	20.40	3.93	12164.36	0.15	0.000270
3093.64		4390.70	11.92		242.83	11.90	
	0.20053	259.52	20.50	3.95	12320.34	0.15	0.000269
3116.99		4390.80	12.00		243.76	11.89	
	0.20129	259.71	20.58	3.97	12439.42	0.15	0.000269
3136.80		4390.88	12.07		244.54	11.88	
	0.20260	259.88	20.65	3.97	12531.77	0.15	0.000362
3153.08		4390.95	12.13		245.18	11.87	
	0.27429	260.01	20.62	3.96	12449.23	0.15	0.000372
3145.19		4390.92	12.10		244.90	11.88	
	0.28059	259.95	20.78	4.02	12786.03	0.16	0.000198
3183.55		4391.08	12.23		246.44	11.86	
	0.15132	260.28	21.03	4.07	13209.13	0.16	0.000314
3242.76		4391.33	12.44		248.77	11.83	
	0.24359	260.77	21.26	4.13	13630.86	0.16	0.000355
3299.11		4391.56	12.63		250.99	11.80	
	0.27943	261.24	21.65	4.24	14390.35	0.16	0.000272
3393.49		4391.95	12.95		254.64	11.76	
	0.21992	262.01	21.85	4.27	14693.20	0.16	0.000270
3443.18		4392.15	13.12		256.55	11.74	
	0.22129	262.41	22.01	4.31	14993.69	0.16	0.000276
3481.59		4392.31	13.25		258.04	11.72	
	0.22814	262.73	22.21	4.36	15395.70	0.16	0.000274
3530.22		4392.51	13.42		259.94	11.70	
	0.22965	263.14	22.40	4.39	15703.53	0.16	0.000273
3574.83		4392.70	13.57		261.68	11.68	
	0.23088	263.51	22.53	4.43	15966.65	0.16	0.000281
3606.76		4392.83	13.67		262.93	11.67	
	0.24001	263.78	22.81	4.50	16538.03	0.17	0.000281
3673.03		4393.11	13.90		265.56	11.64	
	0.24385	264.34					
		159335.92					



HYCHAN.OUT							
3733.73	80.00	4393.38	23.08	4.56	17036.39	0.17	0.000297
	0.26086	264.86	14.10	267.99	11.61		
		160793.12					
3806.99	81.00	4393.68	23.38	4.63	17637.00	0.17	0.000295
	0.26442	265.48	14.34	270.84	11.58		
		162506.97					
3873.74	82.00	4393.96	23.66	4.70	18210.21	0.17	0.000300
	0.27263	266.04	14.56	273.45	11.56		
		164068.73					
3948.15	83.00	4394.28	23.98	4.78	18873.65	0.17	0.000306
	0.28233	266.67	14.81	276.36	11.53		
		165815.62					
4016.59	84.00	4394.57	24.27	4.85	19483.88	0.17	0.000302
	0.28314	267.24	15.03	279.01	11.50		
		167405.81					
4073.67	85.00	4394.80	24.50	4.87	19841.77	0.17	0.000300
	0.28491	267.70	15.22	281.13	11.48		
		168679.03					
4119.10	86.00	4394.99	24.69	4.85	19972.50	0.17	0.000284
	0.27202	268.08	15.37	282.87	11.46		
		169722.30					
4154.94	87.00	4395.13	24.83	4.81	19990.48	0.17	0.000287
	0.27715	268.38	15.48	284.22	11.45		
		170533.47					
4192.25	88.00	4395.29	24.99	4.77	19978.34	0.17	0.000276
	0.26825	268.69	15.60	285.64	11.43		
		171381.97					
4235.74	89.00	4395.46	25.16	4.68	19819.29	0.16	0.000245
	0.24115	269.04	15.74	287.25	11.42		
		172351.92					
4268.97	90.00	4395.60	25.30	4.60	19622.68	0.16	0.000251
	0.24828	269.31	15.85	288.47	11.40		
		173084.28					
4277.75	91.00	4395.63	25.33	4.56	19487.27	0.16	0.000253
	0.25085	269.37	15.88	288.78	11.40		
		173270.73					
4282.39	92.00	4395.65	25.35	4.55	19503.85	0.16	0.000246
	0.24383	269.41	15.90	288.97	11.40		
		173380.33					
4262.27	93.00	4395.57	25.27	4.59	19584.80	0.16	0.000259
	0.25542	269.25	15.83	288.24	11.41		
		172941.72					
4238.63	94.00	4395.47	25.17	4.64	19656.65	0.16	0.000265
	0.26031	269.06	15.75	287.35	11.41		
		172408.41					
4215.24	95.00	4395.38	25.08	4.67	19699.45	0.16	0.000266
	0.26032	268.87	15.68	286.47	11.42		
		171879.50					
4185.29	96.00	4395.25	24.95	4.71	19695.79	0.17	0.000278
	0.27025	268.62	15.58	285.33	11.43		
		171198.94					
4148.22	97.00	4395.10	24.80	4.77	19766.89	0.17	0.000276
	0.26599	268.31	15.46	283.92	11.45		
		170352.36					
4114.91	98.00	4394.96	24.66	4.81	19778.73	0.17	0.000291
	0.27922	268.03	15.35	282.65	11.46		
		169588.73					
4073.45	99.00	4394.79	24.49	4.82	19651.38	0.17	0.000288
	0.27343	267.69	15.22	281.07	11.48		
		168641.20					
4024.55	100.00	4394.58	24.29	4.81	19347.38	0.17	0.000288
	0.27043	267.28	15.06	279.19	11.50		
		167513.44					

HYCHAN.OUT							
3980.72	101.00	4394.40	24.10	4.77	18982.53	0.17	0.000288
	0.26770	266.91	14.91	277.48	11.51		
		166488.48					
3933.88	102.00	4394.21	23.91	4.70	18497.49	0.17	0.000289
	0.26655	266.53	14.76	275.71	11.53		
		165423.80					
3866.64	103.00	4393.92	23.62	4.63	17883.68	0.17	0.000287
	0.26020	265.96	14.54	273.07	11.56		
		163839.33					
3778.31	104.00	4393.55	23.25	4.52	17094.01	0.17	0.000282
	0.25101	265.21	14.25	269.60	11.60		
		161758.56					
3660.00	105.00	4393.05	22.75	4.39	16068.93	0.16	0.000274
	0.23669	264.21	13.85	264.97	11.65		
		158979.34					
3547.23	106.00	4392.58	22.28	4.29	15218.13	0.16	0.000327
	0.27466	263.27	13.47	260.58	11.70		
		156345.31					
3464.98	107.00	4392.24	21.94	4.23	14663.85	0.16	0.000288
	0.23724	262.60	13.20	257.39	11.73		
		154436.81					
3419.37	108.00	4392.05	21.75	4.19	14325.35	0.16	0.000254
	0.20702	262.21	13.04	255.60	11.75		
		153359.80					
3337.78	109.00	4391.71	21.41	4.10	13691.71	0.16	0.000253
	0.20173	261.53	12.76	252.38	11.79		
		151426.56					
3262.91	110.00	4391.40	21.10	4.04	13170.50	0.15	0.000279
	0.21796	260.91	12.51	249.44	11.82		
		149666.55					
3192.80	111.00	4391.11	20.81	3.97	12676.35	0.15	0.000322
	0.24605	260.33	12.26	246.71	11.86		
		148024.53					
3135.52	112.00	4390.87	20.57	3.92	12302.74	0.15	0.000296
	0.22312	259.86	12.07	244.47	11.88		
		146679.00					
3093.70	113.00	4390.70	20.40	3.89	12030.88	0.15	0.000309
	0.23003	259.51	11.92	242.81	11.90		
		145685.67					
3047.93	114.00	4390.51	20.21	3.85	11721.35	0.15	0.000316
	0.23200	259.13	11.76	241.00	11.92		
		144601.52					
2989.01	115.00	4390.30	20.00	3.81	11391.64	0.15	0.000275
	0.19853	258.39	11.57	239.00	11.95		
		143400.03					
2959.15	116.00	4390.20	19.90	3.81	11265.30	0.15	0.000239
	0.17120	257.30	11.50	238.02	11.96		
		142814.36					
2945.21	117.00	4390.15	19.85	3.80	11183.77	0.15	0.000229
	0.16362	256.78	11.47	237.56	11.97		
		142535.61					
2912.26	118.00	4390.04	19.74	3.77	10992.49	0.15	0.000229
	0.16286	255.55	11.40	236.45	11.98		
		141870.27					
2884.25	119.00	4389.94	19.64	3.76	10848.02	0.15	0.000247
	0.17489	254.51	11.33	235.51	11.99		
		141308.92					
2867.45	120.00	4389.88	19.58	3.76	10773.95	0.15	0.000291
	0.20522	253.88	11.29	234.95	12.00		
		140968.22					
2862.33	121.00	4389.86	19.56	3.76	10753.12	0.15	0.000323
	0.22760	253.68	11.28	234.77	12.00		
		140862.52					

HYCHAN.OUT							
2851.93	122.00	4389.82	19.52	3.75	10691.18	0.15	0.000259
	0.18174	253.29	11.26		234.42	12.01	
		140650.95					
2827.64	123.00	4389.74	19.44	3.73	10542.98	0.15	0.000263
	0.18421	252.37	11.20		233.59	12.02	
		140153.06					
2800.06	124.00	4389.64	19.34	3.72	10403.65	0.15	0.000319
	0.22164	251.31	11.14		232.64	12.03	
		139583.00					
2778.53	125.00	4389.56	19.26	3.70	10289.83	0.15	0.000237
	0.16382	250.49	11.09		231.90	12.04	
		139140.55					
2752.35	126.00	4389.47	19.17	3.69	10149.32	0.15	0.000310
	0.21325	249.49	11.03		230.99	12.05	
		138595.83					
2736.43	127.00	4389.41	19.11	3.68	10076.18	0.15	0.000254
	0.17409	248.88	11.00		230.45	12.06	
		138267.14					
2719.45	128.00	4389.35	19.05	3.67	9976.49	0.15	0.000313
	0.21392	248.21	10.96		229.85	12.07	
		137907.86					
2695.64	129.00	4389.26	18.96	3.66	9855.15	0.15	0.000256
	0.17422	247.29	10.90		229.02	12.08	
		137409.97					
2680.46	130.00	4389.21	18.91	3.65	9783.52	0.15	0.000235
	0.15945	246.70	10.87		228.48	12.08	
		137088.69					
2663.76	131.00	4389.15	18.85	3.64	9687.37	0.15	0.000287
	0.19356	246.03	10.83		227.89	12.09	
		136732.03					
2639.86	132.00	4389.06	18.76	3.62	9565.25	0.15	0.000256
	0.17182	245.10	10.77		227.04	12.10	
		136225.70					
2635.67	133.00	4389.05	18.75	3.63	9570.87	0.15	0.000253
	0.16995	244.94	10.76		226.90	12.10	
		136140.88					
2652.70	134.00	4389.11	18.81	3.64	9660.21	0.15	0.000273
	0.18428	245.61	10.80		227.50	12.10	
		136502.80					
2653.43	135.00	4389.11	18.81	3.64	9653.34	0.15	0.000261
	0.17611	245.63	10.80		227.53	12.10	
		136515.72					
2647.81	136.00	4389.09	18.79	3.63	9621.90	0.15	0.000254
	0.17073	245.41	10.79		227.33	12.10	
		136396.61					
2641.64	137.00	4389.07	18.77	3.63	9588.22	0.15	0.000242
	0.16256	245.17	10.77		227.11	12.10	
		136263.48					
2635.35	138.00	4389.04	18.74	3.63	9556.39	0.15	0.000240
	0.16138	244.92	10.76		226.88	12.10	
		136129.08					
2629.95	139.00	4389.02	18.72	3.62	9527.74	0.15	0.000243
	0.16315	244.71	10.75		226.69	12.11	
		136014.12					
2624.15	140.00	4389.00	18.70	3.62	9500.61	0.15	0.000248
	0.16642	244.48	10.73		226.48	12.11	
		135889.62					
2613.43	141.00	4388.96	18.66	3.61	9435.84	0.15	0.000276
	0.18440	244.05	10.71		226.10	12.11	
		135658.53					
2595.37	142.00	4388.90	18.60	3.60	9342.27	0.15	0.000320
	0.21300	243.32	10.67		225.45	12.12	
		135267.56					

HYCHAN.OUT							
143.00	4388.86	18.56	3.60	9301.31	0.15		
2586.04	242.96	10.64		225.12	12.13	0.000291	
	0.19316						
144.00	4388.84	18.54	3.59	9272.00	0.15		
2579.89	242.72	10.63		224.90	12.13	0.000242	
	0.16071						
145.00	4388.82	18.52	3.59	9242.88	0.15		
2574.56	242.49	10.62		224.70	12.13	0.000307	
	0.20332						
146.00	4388.78	18.48	3.58	9187.55	0.15		
2564.82	242.10	10.59		224.35	12.14	0.000290	
	0.19175						
147.00	4388.72	18.42	3.57	9089.51	0.15		
2546.71	241.38	10.55		223.69	12.15	0.000265	
	0.17429						
148.00	4388.68	18.38	3.57	9046.99	0.15		
2536.57	240.97	10.53		223.32	12.15	0.000299	
	0.19615						
149.00	4388.65	18.35	3.56	9017.90	0.15		
2529.90	240.71	10.51		223.09	12.16	0.000245	
	0.16037						
150.00	4388.63	18.33	3.56	8990.57	0.15		
2524.50	240.48	10.50		222.88	12.16	0.000316	
	0.20710						
151.00	4388.62	18.32	3.56	8969.31	0.15		
2520.04	240.31	10.49		222.73	12.16	0.000248	
	0.16219						
152.00	4388.59	18.29	3.55	8921.80	0.15		
2512.24	239.98	10.47		222.44	12.16	0.000277	
	0.18086						
153.00	4388.53	18.23	3.54	8840.98	0.15		
2497.35	239.38	10.43		221.89	12.17	0.000299	
	0.19469						
154.00	4388.48	18.18	3.54	8786.52	0.15		
2485.09	238.88	10.40		221.44	12.18	0.000241	
	0.15672						
155.00	4388.46	18.16	3.53	8750.81	0.15		
2477.80	238.58	10.39		221.17	12.18	0.000279	
	0.18050						
156.00	4388.42	18.12	3.52	8690.20	0.15		
2467.90	238.17	10.36		220.80	12.19	0.000300	
	0.19397						
157.00	4388.39	18.09	3.52	8664.10	0.15		
2458.97	237.82	10.34		220.48	12.19	0.000297	
	0.19146						
158.00	4388.46	18.16	3.54	8773.14	0.15		
2477.79	238.59	10.39		221.18	12.18	0.000254	
	0.16467						
159.00	4388.49	18.19	3.54	8799.17	0.15		
2486.06	238.92	10.41		221.48	12.18	0.000309	
	0.20072						
160.00	4388.49	18.19	3.54	8803.09	0.15		
2486.75	238.95	10.41		221.50	12.18	0.000269	
	0.17500						
161.00	4388.49	18.19	3.54	8794.60	0.15		
2485.56	238.90	10.40		221.46	12.18	0.000288	
	0.18724						
162.00	4388.48	18.18	3.54	8789.96	0.15		
2484.49	238.85	10.40		221.41	12.18	0.000284	
	0.18463						
163.00	4388.48	18.18	3.54	8781.89	0.15		
2482.87	238.79	10.40		221.36	12.18	0.000274	
	0.17752						
	132817.48						

HYCHAN.OUT							
2481.50	164.00	4388.47	18.17	3.54	8776.40	0.15	0.000287
	0.18586	238.73	10.39		221.31	12.18	
		132783.55					
2480.49	165.00	4388.47	18.17	3.53	8767.79	0.15	0.000284
	0.18402	238.69	10.39		221.27	12.18	
		132764.81					
2474.78	166.00	4388.44	18.14	3.53	8732.04	0.15	0.000248
	0.16068	238.45	10.38		221.05	12.18	
		132632.45					
2458.87	167.00	4388.38	18.08	3.52	8647.83	0.15	0.000310
	0.19987	237.80	10.34		220.46	12.19	
		132278.59					
2450.61	168.00	4388.35	18.05	3.52	8613.99	0.15	0.000286
	0.18386	237.46	10.32		220.17	12.20	
		132099.70					
2447.81	169.00	4388.34	18.04	3.51	8603.25	0.15	0.000242
	0.15598	237.35	10.31		220.06	12.20	
		132035.22					
2445.57	170.00	4388.33	18.03	3.51	8591.13	0.15	0.000310
	0.19930	237.25	10.31		219.98	12.20	
		131985.30					
2444.31	171.00	4388.33	18.03	3.51	8585.12	0.15	0.000282
	0.18103	237.20	10.30		219.93	12.20	
		131958.95					
2442.88	172.00	4388.32	18.02	3.51	8579.15	0.15	0.000258
	0.16582	237.14	10.30		219.88	12.20	
		131925.11					
2441.62	173.00	4388.32	18.02	3.51	8570.64	0.15	0.000289
	0.18586	237.09	10.30		219.83	12.20	
		131896.11					
2435.57	174.00	4388.30	18.00	3.50	8528.39	0.15	0.000315
	0.20215	236.84	10.28		219.60	12.20	
		131760.95					
2419.49	175.00	4388.23	17.93	3.49	8447.12	0.15	0.000309
	0.19771	236.17	10.24		219.00	12.21	
		131399.53					
2411.40	176.00	4388.20	17.90	3.49	8413.99	0.15	0.000280
	0.17865	235.84	10.22		218.70	12.22	
		131218.64					
2407.92	177.00	4388.19	17.89	3.49	8399.42	0.15	0.000257
	0.16385	235.69	10.22		218.57	12.22	
		131141.84					
2405.90	178.00	4388.18	17.88	3.49	8387.92	0.15	0.000249
	0.15849	235.61	10.21		218.49	12.22	
		131094.52					
2404.17	179.00	4388.18	17.88	3.49	8380.06	0.15	0.000268
	0.17097	235.53	10.21		218.42	12.22	
		131054.88					
2402.45	180.00	4388.17	17.87	3.48	8371.47	0.15	0.000273
	0.17384	235.46	10.20		218.36	12.22	
		131017.93					
2410.75	181.00	4388.20	17.90	3.50	8436.53	0.15	0.000261
	0.16658	235.82	10.22		218.68	12.22	
		131210.30					
2439.51	182.00	4388.31	18.01	3.52	8583.77	0.15	0.000303
	0.19467	237.01	10.29		219.76	12.20	
		131853.81					
2457.32	183.00	4388.38	18.08	3.53	8668.31	0.15	0.000274
	0.17665	237.75	10.34		220.42	12.19	
		132254.14					
2475.40	184.00	4388.45	18.15	3.54	8758.21	0.15	0.000285
	0.18460	238.48	10.38		221.09	12.18	
		132651.30					

HYCHAN.OUT									
2483.61	185.00	4388.48	18.18	3.54	8790.66	0.15	0.000256		
	0.16615	238.83	10.40	221.39	12.18				
		132836.08							
2486.55	186.00	4388.49	18.19	3.54	8804.00	0.15	0.000311		
	0.20215	238.94	10.41	221.49	12.18				
		132895.50							
2488.02	187.00	4388.50	18.20	3.54	8812.95	0.15	0.000257		
	0.16690	239.00	10.41	221.55	12.18				
		132930.62							
2489.00	188.00	4388.50	18.20	3.54	8815.09	0.15	0.000302		
	0.19611	239.04	10.41	221.59	12.18				
		132951.94							
2489.45	189.00	4388.50	18.20	3.54	8819.21	0.15	0.000282		
	0.18346	239.06	10.41	221.60	12.18				
		132959.89							
2489.63	190.00	4388.50	18.20	3.54	8818.93	0.15	0.000248		
	0.16134	239.07	10.41	221.61	12.18				
		132967.39							
2489.86	191.00	4388.50	18.20	3.54	8817.17	0.15	0.000311		
	0.20228	239.07	10.41	221.61	12.18				
		132968.20							
2484.89	192.00	4388.48	18.18	3.54	8784.08	0.15	0.000241		
	0.15645	238.87	10.40	221.43	12.18				
		132858.23							
2469.93	193.00	4388.43	18.13	3.52	8702.88	0.15	0.000313		
	0.20249	238.25	10.37	220.87	12.19				
		132523.56							
2462.55	194.00	4388.40	18.10	3.52	8678.28	0.15	0.000243		
	0.15712	237.96	10.35	220.61	12.19				
		132365.55							
2459.61	195.00	4388.39	18.09	3.52	8661.67	0.15	0.000315		
	0.20337	237.83	10.34	220.50	12.19				
		132298.16							
2458.47	196.00	4388.38	18.08	3.52	8658.17	0.15	0.000255		
	0.16462	237.79	10.34	220.46	12.19				
		132277.22							
2457.11	197.00	4388.38	18.08	3.52	8650.79	0.15	0.000310		
	0.19965	237.73	10.34	220.40	12.19				
		132242.80							
2456.36	198.00	4388.38	18.08	3.52	8647.80	0.15	0.000260		
	0.16782	237.70	10.33	220.38	12.19				
		132229.62							
2455.63	199.00	4388.37	18.07	3.52	8643.16	0.15	0.000307		
	0.19773	237.67	10.33	220.35	12.19				
		132208.66							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5023

MAXIMUM DISCHARGE (CFS) = 20065.81 AT TIME = 87.54  
 MAXIMUM STAGE = 4395.46 AT TIME = 91.74

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00		

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
933.61	5.00	4378.70	8.40	2.62	2448.05	0.16	0.000285
	0.13117	126.40	7.39	119.27	14.20		
1705.01	6.00	4383.92	13.62	2.53	4316.05	0.12	0.000229
	0.12921	188.31	9.05	175.72	12.90		
1916.10	7.00	4384.73	14.43	2.55	4886.63	0.12	0.000217
	0.13169	197.45	9.70	184.01	12.75		
1986.82	8.00	4384.99	14.69	2.55	5068.25	0.12	0.000212
	0.13130	200.38	9.92	186.67	12.71		
1985.05	9.00	4384.98	14.68	2.54	5040.29	0.12	0.000212
	0.13086	200.30	9.91	186.59	12.71		
1953.87	10.00	4384.87	14.57	2.51	4912.64	0.12	0.000232
	0.14217	198.99	9.82	185.41	12.73		
1928.99	11.00	4384.78	14.48	2.51	4840.03	0.12	0.000196
	0.11937	197.96	9.74	184.47	12.74		
1914.40	12.00	4384.72	14.42	2.50	4794.12	0.12	0.000227
	0.13726	197.34	9.70	183.91	12.75		
1890.64	13.00	4384.63	14.33	2.49	4705.17	0.12	0.000198
	0.11915	196.33	9.63	183.00	12.77		
1857.12	14.00	4384.51	14.21	2.47	4586.33	0.12	0.000186
	0.11063	194.90	9.53	181.70	12.79		
1835.40	15.00	4384.42	14.12	2.46	4521.94	0.12	0.000198
	0.11663	193.97	9.46	180.85	12.81		
1825.92	16.00	4384.39	14.09	2.46	4494.75	0.12	0.000222
	0.13075	193.56	9.43	180.48	12.81		
1821.64	17.00	4384.37	14.07	2.46	4481.15	0.12	0.000242
	0.14219	193.37	9.42	180.32	12.82		
1819.35	18.00	4384.36	14.06	2.46	4473.46	0.12	0.000237
	0.13924	193.27	9.41	180.23	12.82		
1820.59	19.00	4384.37	14.07	2.46	4480.08	0.12	0.000194
	0.11386	193.33	9.42	180.28	12.82		
1838.46	20.00	4384.44	14.14	2.47	4549.84	0.12	0.000209
	0.12375	194.11	9.47	180.99	12.80		
1872.12	21.00	4384.56	14.26	2.50	4674.18	0.12	0.000217
	0.12987	195.56	9.57	182.30	12.78		
	22.00	4384.70	14.40	2.51	4799.57	0.12	

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		HYCHAN.OUT					
1909.46	197.15	9.69	183.74	12.76	0.000236		
0.14268	129902.26						
23.00	4384.78	14.48	2.52	4861.88	0.12		
1930.07	198.01	9.75	184.52	12.74	0.000205		
0.12493	130458.04						
24.00	4384.83	14.53	2.53	4906.36	0.12		
1942.88	198.55	9.79	185.01	12.73	0.000249		
0.15191	130800.79						
25.00	4384.93	14.63	2.55	5020.43	0.12		
1970.68	199.72	9.87	186.07	12.72	0.000218		
0.13409	131548.02						
26.00	4385.15	14.85	2.59	5254.11	0.12		
2030.12	202.16	10.04	188.28	12.68	0.000216		
0.13550	133114.97						
27.00	4385.43	15.13	2.62	5528.70	0.12		
2107.56	205.29	10.27	191.11	12.63	0.000216		
0.13863	135114.77						
28.00	4385.67	15.37	2.65	5761.29	0.12		
2174.20	207.92	10.46	193.49	12.59	0.000214		
0.13944	136799.06						
29.00	4385.78	15.48	2.66	5869.34	0.12		
2208.32	209.25	10.55	194.69	12.57	0.000212		
0.13988	137646.62						
30.00	4385.85	15.55	2.67	5940.52	0.12		
2227.60	209.99	10.61	195.37	12.56	0.000212		
0.14047	138124.11						
31.00	4385.94	15.64	2.68	6037.48	0.12		
2253.44	210.99	10.68	196.27	12.55	0.000211		
0.14067	138760.00						
32.00	4386.00	15.70	2.68	6090.33	0.12		
2269.25	211.59	10.72	196.81	12.54	0.000211		
0.14139	139145.64						
33.00	4386.04	15.74	2.69	6141.48	0.12		
2282.04	212.08	10.76	197.25	12.53	0.000212		
0.14237	139458.58						
34.00	4386.12	15.82	2.70	6230.49	0.12		
2305.35	212.97	10.82	198.05	12.52	0.000211		
0.14248	140024.23						
35.00	4386.17	15.87	2.71	6276.51	0.12		
2319.24	213.49	10.86	198.53	12.51	0.000211		
0.14287	140358.44						
36.00	4386.15	15.85	2.69	6233.89	0.12		
2314.20	213.29	10.85	198.35	12.52	0.000212		
0.14331	140230.58						
37.00	4386.08	15.78	2.69	6167.00	0.12		
2294.53	212.55	10.80	197.68	12.53	0.000238		
0.16042	139758.25						
38.00	4386.06	15.76	2.68	6140.15	0.12		
2287.75	212.29	10.78	197.44	12.53	0.000186		
0.12541	139592.52						
39.00	4386.00	15.70	2.67	6067.56	0.12		
2269.59	211.60	10.73	196.81	12.54	0.000249		
0.16671	139147.67						
40.00	4385.96	15.66	2.67	6028.03	0.12		
2257.74	211.15	10.69	196.41	12.55	0.000207		
0.13810	138861.39						
41.00	4385.93	15.63	2.67	6006.95	0.12		
2250.98	210.89	10.67	196.18	12.55	0.000203		
0.13531	138696.05						
42.00	4385.92	15.62	2.67	5997.42	0.12		
2247.73	210.76	10.66	196.06	12.55	0.000204		
0.13564	138615.88						
43.00	4385.91	15.61	2.67	5990.08	0.12		

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2245.62		210.68		10.66	195.99	12.55	0.000190
	0.12657	138564.00					
44.00		4385.93	15.63	2.67	6013.60	0.12	
2249.23		210.82		10.67	196.12	12.55	0.000206
	0.13693	138654.02					
45.00		4385.98	15.68	2.68	6074.69	0.12	
2265.85		211.46		10.72	196.70	12.54	0.000195
	0.13043	139064.14					
46.00		4386.03	15.73	2.69	6135.51	0.12	
2280.82		212.03		10.76	197.21	12.53	0.000236
	0.15814	139426.89					
47.00		4386.14	15.84	2.71	6255.11	0.12	
2310.36		213.16		10.84	198.23	12.52	0.000211
	0.14275	140146.66					
48.00		4386.27	15.97	2.72	6399.09	0.12	
2348.40		214.59		10.94	199.52	12.50	0.000189
	0.12928	141063.11					
49.00		4386.41	16.11	2.75	6560.89	0.12	
2390.10		216.14		11.06	200.92	12.48	0.000208
	0.14343	142053.38					
50.00		4386.54	16.24	2.76	6719.97	0.12	
2431.77		217.68		11.17	202.31	12.45	0.000238
	0.16571	143034.61					
51.00		4386.69	16.39	2.78	6888.26	0.12	
2475.33		219.27		11.29	203.75	12.43	0.000186
	0.13106	144052.89					
52.00		4386.85	16.55	2.81	7086.16	0.12	
2524.50		221.04		11.42	205.35	12.41	0.000235
	0.16770	145183.19					
53.00		4387.04	16.74	2.83	7305.32	0.12	
2582.82		223.12		11.58	207.23	12.38	0.000235
	0.16996	146510.72					
54.00		4387.15	16.85	2.84	7433.16	0.12	
2617.09		224.33		11.67	208.32	12.36	0.000241
	0.17539	147281.34					
55.00		4387.32	17.02	2.87	7666.63	0.12	
2669.82		226.17		11.80	209.98	12.34	0.000243
	0.17928	148458.72					
56.00		4387.70	17.40	2.94	8195.11	0.12	
2791.44		230.35		12.12	213.75	12.28	0.000213
	0.16136	151120.23					
57.00		4388.16	17.86	3.00	8840.33	0.13	
2942.76		235.40		12.50	218.31	12.22	0.000212
	0.16545	154342.78					
58.00		4388.75	18.45	3.12	9676.04	0.13	
3101.47		241.75		12.83	224.03	12.14	0.000213
	0.17078	158390.06					
59.00		4389.32	19.02	3.24	10498.37	0.13	
3241.19		247.93		13.07	229.60	12.07	0.000210
	0.17133	162324.80					
60.00		4389.74	19.44	3.31	11073.34	0.13	
3343.32		252.37		13.25	233.59	12.02	0.000206
	0.17054	165144.89					
61.00		4390.00	19.70	3.36	11460.01	0.13	
3409.70		255.21		13.36	236.14	11.98	0.000204
	0.17029	166952.05					
62.00		4390.18	19.88	3.39	11723.50	0.13	
3454.03		257.09		13.44	237.84	11.96	0.000205
	0.17157	168149.77					
63.00		4390.27	19.97	3.41	11861.01	0.13	
3476.96		258.06		13.47	238.71	11.95	0.000204
	0.17135	168764.47					
64.00		4390.35	20.05	3.43	12000.34	0.14	

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3497.86		258.82		13.51	239.50	11.94	0.000203
	0.17094	169324.08					
65.00	4390.45	20.15	3.45	12156.42	0.14		
3520.23		259.01	13.59	240.40	11.93	0.000205	
	0.17359	169960.00					
66.00	4390.54	20.25	3.48	12310.41	0.14		
3542.34		259.20	13.67	241.33	11.92	0.000204	
	0.17438	170618.17					
67.00	4390.63	20.33	3.49	12429.42	0.14		
3561.12		259.37	13.73	242.12	11.91	0.000207	
	0.17734	171176.05					
68.00	4390.70	20.40	3.50	12526.27	0.14		
3576.67		259.50	13.78	242.76	11.90	0.000194	
	0.16711	171633.98					
69.00	4390.66	20.36	3.49	12441.88	0.14		
3567.94		259.43	13.75	242.40	11.91	0.000205	
	0.17575	171375.27					
70.00	4390.82	20.52	3.54	12753.95	0.14		
3603.71		259.74	13.87	243.91	11.89	0.000224	
	0.19404	172443.55					
71.00	4391.06	20.76	3.60	13176.35	0.14		
3659.61		260.24	14.06	246.25	11.86	0.000245	
	0.21489	174099.56					
72.00	4391.30	21.00	3.66	13582.32	0.14		
3712.52		260.70	14.24	248.47	11.83	0.000192	
	0.17030	175666.34					
73.00	4391.70	21.40	3.76	14316.75	0.14		
3803.16		261.50	14.54	252.25	11.79	0.000212	
	0.19226	178343.95					
74.00	4391.91	21.61	3.80	14634.49	0.14		
3850.88		261.92	14.70	254.23	11.77	0.000211	
	0.19373	179740.47					
75.00	4392.07	21.77	3.84	14926.16	0.15		
3887.15		262.24	14.82	255.74	11.75	0.000215	
	0.19848	180806.38					
76.00	4392.27	21.97	3.89	15306.09	0.15		
3933.05		262.65	14.97	257.64	11.73	0.000214	
	0.19990	182154.86					
77.00	4392.45	22.15	3.93	15610.12	0.15		
3975.36		263.02	15.11	259.39	11.71	0.000214	
	0.20137	183390.44					
78.00	4392.59	22.29	3.96	15858.10	0.15		
4005.29		263.29	15.21	260.63	11.69	0.000218	
	0.20703	184266.84					
79.00	4392.86	22.56	4.03	16393.35	0.15		
4066.75		263.83	15.41	263.18	11.67	0.000234	
	0.22530	186066.34					
80.00	4393.10	22.81	4.09	16860.44	0.15		
4122.49		264.32	15.60	265.47	11.64	0.000238	
	0.23128	187690.81					
81.00	4393.41	23.11	4.16	17428.44	0.15		
4191.97		264.94	15.82	268.33	11.61	0.000237	
	0.23366	189712.64					
82.00	4393.69	23.39	4.22	17963.20	0.15		
4255.21		265.50	16.03	270.93	11.58	0.000236	
	0.23601	191549.03					
83.00	4394.00	23.70	4.30	18581.38	0.16		
4325.85		266.12	16.26	273.83	11.55	0.000236	
	0.23984	193596.41					
84.00	4394.29	23.99	4.36	19151.64	0.16		
4391.43		266.70	16.47	276.51	11.52	0.000229	
	0.23488	195490.83					
85.00	4394.54	24.24	4.39	19543.77	0.16		

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4448.21		267.20		16.65	278.80	11.50	0.000228
	0.23647	197108.27					
86.00	4394.73	24.43	4.40	19758.07	0.16		
4492.03	267.57	16.79	280.54	11.48	0.000214		
	0.22445	198339.31					
87.00	4394.88	24.58	4.39	19875.79	0.16		
4526.79	267.87	16.90	281.90	11.47	0.000211		
	0.22238	199304.05					
88.00	4395.04	24.74	4.37	19956.14	0.16		
4563.14	268.18	17.02	283.33	11.45	0.000201		
	0.21369	200312.22					
89.00	4395.22	24.92	4.31	19867.36	0.15		
4606.36	268.55	17.15	285.02	11.44	0.000185		
	0.19848	201508.47					
90.00	4395.36	25.06	4.26	19768.96	0.15		
4639.33	268.83	17.26	286.29	11.42	0.000183		
	0.19694	202405.81					
91.00	4395.39	25.09	4.23	19677.43	0.15		
4648.21	268.90	17.29	286.62	11.42	0.000178		
	0.19233	202640.72					
92.00	4395.41	25.11	4.23	19702.22	0.15		
4652.75	268.94	17.30	286.80	11.42	0.000177		
	0.19096	202768.53					
93.00	4395.33	25.03	4.26	19713.08	0.15		
4632.85	268.77	17.24	286.04	11.43	0.000188		
	0.20250	202229.55					
94.00	4395.23	24.93	4.28	19729.46	0.15		
4609.64	268.58	17.16	285.13	11.44	0.000199		
	0.21355	201588.73					
95.00	4395.13	24.83	4.30	19730.29	0.15		
4586.65	268.38	17.09	284.23	11.45	0.000203		
	0.21614	200952.05					
96.00	4395.01	24.71	4.32	19701.49	0.15		
4557.32	268.13	17.00	283.07	11.46	0.000212		
	0.22473	200131.16					
97.00	4394.85	24.55	4.36	19693.99	0.15		
4520.88	267.82	16.88	281.64	11.47	0.000211		
	0.22189	199122.81					
98.00	4394.71	24.42	4.37	19605.52	0.16		
4488.59	267.54	16.78	280.38	11.48	0.000219		
	0.22940	198231.42					
99.00	4394.54	24.24	4.36	19394.87	0.16		
4448.45	267.20	16.65	278.80	11.50	0.000227		
	0.23583	197108.91					
100.00	4394.34	24.04	4.33	19065.16	0.16		
4401.67	266.79	16.50	276.91	11.52	0.000224		
	0.23077	195776.23					
101.00	4394.15	23.85	4.29	18718.64	0.15		
4359.84	266.42	16.36	275.21	11.54	0.000225		
	0.22976	194572.11					
102.00	4393.95	23.65	4.24	18275.01	0.15		
4313.44	266.01	16.22	273.30	11.56	0.000229		
	0.23173	193224.00					
103.00	4393.66	23.36	4.17	17707.74	0.15		
4249.53	265.44	16.01	270.67	11.59	0.000231		
	0.23087	191366.56					
104.00	4393.29	22.99	4.08	16977.03	0.15		
4166.04	264.70	15.74	267.23	11.62	0.000235		
	0.23124	188931.22					
105.00	4392.80	22.50	3.95	16019.55	0.15		
4054.42	263.71	15.37	262.61	11.67	0.000221		
	0.21190	185665.34					
106.00	4392.33	22.03	3.85	15196.23	0.14		

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3947.71		262.77		15.02	258.20	11.72	0.000156
	0.14643	182550.28					
107.00	4391.99	21.69		3.78	14641.21	0.14	
3869.62		262.08	14.76		254.98	11.76	0.000273
	0.25124	180273.45					
108.00	4391.80	21.50		3.74	14311.16	0.14	
3826.72		261.70	14.62		253.20	11.78	0.000253
	0.23091	179012.25					
109.00	4391.46	21.16		3.65	13701.78	0.14	
3750.45		261.03	14.37		250.01	11.82	0.000218
	0.19522	176760.16					
110.00	4391.15	20.85		3.58	13183.47	0.14	
3680.12		260.41	14.13		247.08	11.85	0.000235
	0.20762	174682.77					
111.00	4390.86	20.56		3.51	12690.05	0.14	
3613.66		259.83	13.91		244.30	11.88	0.000201
	0.17433	172717.94					
112.00	4390.62	20.32		3.46	12313.08	0.14	
3559.37		259.35	13.72		242.02	11.91	0.000241
	0.20682	171110.39					
113.00	4390.44	20.14		3.42	12043.95	0.13	
3519.72		259.00	13.59		240.36	11.93	0.000235
	0.19918	169935.30					
114.00	4390.26	19.96		3.38	11732.86	0.13	
3473.58		257.90	13.47		238.56	11.95	0.000190
	0.15973	168663.39					
115.00	4390.04	19.74		3.33	11401.16	0.13	
3419.79		255.62	13.38		236.51	11.98	0.000248
	0.20683	167214.16					
116.00	4389.94	19.64		3.32	11266.90	0.13	
3393.66		254.51	13.33		235.52	11.99	0.000244
	0.20277	166510.78					
117.00	4389.89	19.59		3.31	11187.23	0.13	
3381.48		253.99	13.31		235.05	12.00	0.000195
	0.16178	166178.20					
118.00	4389.77	19.48		3.28	10999.50	0.13	
3353.03		252.77	13.27		233.94	12.01	0.000207
	0.17148	165398.62					
119.00	4389.68	19.38		3.26	10853.47	0.13	
3328.40		251.71	13.22		232.99	12.02	0.000244
	0.20158	164724.67					
120.00	4389.62	19.32		3.25	10777.18	0.13	
3313.68		251.07	13.20		232.42	12.03	0.000241
	0.19851	164322.02					
121.00	4389.60	19.30		3.25	10754.85	0.13	
3309.18		250.88	13.19		232.25	12.03	0.000190
	0.15609	164199.59					
122.00	4389.56	19.26		3.24	10691.66	0.13	
3300.05		250.48	13.17		231.89	12.04	0.000174
	0.14341	163947.73					
123.00	4389.48	19.18		3.22	10550.45	0.13	
3278.94		249.56	13.14		231.06	12.05	0.000249
	0.20403	163359.53					
124.00	4389.38	19.08		3.20	10408.44	0.13	
3254.64		248.51	13.10		230.11	12.06	0.000182
	0.14877	162689.78					
125.00	4389.30	19.00		3.18	10292.38	0.13	
3235.64		247.68	13.06		229.37	12.07	0.000190
	0.15455	162161.33					
126.00	4389.21	18.91		3.16	10156.54	0.13	
3212.69		246.67	13.02		228.46	12.08	0.000229
	0.18634	161518.45					
127.00	4389.15	18.85		3.15	10076.38	0.13	

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3198.30		246.04		13.00	227.90	12.09	0.000175
	0.14161	161121.78					
128.00	4389.09	18.79		3.14	9983.88	0.13	
3183.62	245.39		12.97		227.30	12.10	0.000223
	0.18090	160704.50					
129.00	4389.00	18.70		3.12	9856.98	0.13	
3162.33	244.45		12.94		226.46	12.11	0.000247
	0.19931	160109.12					
130.00	4388.95	18.65		3.11	9784.52	0.13	
3148.81	243.86		12.91		225.93	12.12	0.000203
	0.16394	159729.72					
131.00	4388.88	18.58		3.09	9693.53	0.13	
3134.12	243.20		12.89		225.33	12.12	0.000166
	0.13382	159311.61					
132.00	4388.80	18.50		3.07	9567.94	0.13	
3112.78	242.25		12.85		224.48	12.14	0.000175
	0.14012	158708.75					
133.00	4388.78	18.48		3.08	9568.01	0.13	
3108.89	242.09		12.84		224.33	12.14	0.000186
	0.14872	158601.50					
134.00	4388.84	18.54		3.09	9659.09	0.13	
3124.10	242.76		12.87		224.94	12.13	0.000171
	0.13699	159032.52					
135.00	4388.85	18.55		3.09	9653.98	0.13	
3124.86	242.79		12.87		224.97	12.13	0.000179
	0.14367	159052.86					
136.00	4388.83	18.53		3.08	9622.90	0.13	
3119.84	242.57		12.86		224.77	12.13	0.000184
	0.14806	158910.45					
137.00	4388.80	18.50		3.08	9589.19	0.13	
3114.44	242.33		12.85		224.55	12.14	0.000203
	0.16275	158756.98					
138.00	4388.78	18.48		3.07	9557.77	0.13	
3108.84	242.08		12.84		224.33	12.14	0.000221
	0.17738	158597.95					
139.00	4388.76	18.46		3.07	9528.68	0.13	
3103.97	241.86		12.83		224.13	12.14	0.000215
	0.17198	158460.22					
140.00	4388.74	18.44		3.07	9502.54	0.13	
3098.85	241.63		12.82		223.92	12.14	0.000232
	0.18529	158314.20					
141.00	4388.70	18.40		3.06	9440.15	0.13	
3089.31	241.21		12.81		223.54	12.15	0.000243
	0.19410	158040.94					
142.00	4388.63	18.33		3.04	9346.21	0.13	
3073.22	240.49		12.78		222.89	12.16	0.000209
	0.16651	157583.12					
143.00	4388.60	18.30		3.03	9301.12	0.13	
3064.73	240.11		12.76		222.55	12.16	0.000175
	0.13955	157342.94					
144.00	4388.57	18.28		3.03	9272.06	0.12	
3059.22	239.86		12.75		222.33	12.17	0.000219
	0.17445	157183.94					
145.00	4388.56	18.26		3.03	9246.36	0.12	
3054.62	239.65		12.75		222.14	12.17	0.000228
	0.18152	157051.72					
146.00	4388.52	18.22		3.02	9189.49	0.12	
3045.80	239.26		12.73		221.78	12.17	0.000173
	0.13737	156799.88					
147.00	4388.45	18.15		3.00	9092.76	0.12	
3029.65	238.53		12.70		221.12	12.18	0.000242
	0.19193	156333.64					
148.00	4388.41	18.11		3.00	9048.18	0.12	

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				HYCHAN.OUT			
3020.35		238.11		12.68	220.75	12.19	0.000169
	0.13405	156069.67					
149.00		4388.39	18.09	2.99	9017.99	0.12	
3014.36		237.84		12.67	220.50	12.19	0.000230
	0.18150	155895.59					
150.00		4388.37	18.07	2.99	8993.85	0.12	
3009.58		237.62		12.67	220.31	12.19	0.000194
	0.15353	155759.05					
151.00		4388.35	18.05	2.98	8968.05	0.12	
3005.25		237.43		12.66	220.14	12.20	0.000226
	0.17820	155637.44					
152.00		4388.32	18.02	2.98	8924.66	0.12	
2996.39		237.12		12.64	219.86	12.20	0.000182
	0.14343	155438.53					
153.00		4388.27	17.97	2.97	8845.33	0.12	
2977.79		236.51		12.59	219.31	12.21	0.000229
	0.17993	155048.94					
154.00		4388.22	17.92	2.97	8785.99	0.12	
2962.28		236.01		12.55	218.85	12.21	0.000218
	0.17102	154730.33					
155.00		4388.19	17.89	2.96	8752.51	0.12	
2953.09		235.71		12.53	218.58	12.22	0.000184
	0.14373	154539.39					
156.00		4388.15	17.85	2.96	8694.63	0.12	
2940.84		235.30		12.50	218.22	12.22	0.000187
	0.14619	154280.42					
157.00		4388.12	17.82	2.96	8663.04	0.12	
2929.30		234.93		12.47	217.88	12.23	0.000230
	0.17934	154041.45					
158.00		4388.19	17.89	2.97	8767.12	0.12	
2952.81		235.71		12.53	218.58	12.22	0.000194
	0.15138	154536.86					
159.00		4388.22	17.92	2.97	8801.57	0.12	
2963.58		236.05		12.55	218.89	12.21	0.000218
	0.17052	154756.38					
160.00		4388.23	17.93	2.97	8800.81	0.12	
2964.33		236.08		12.56	218.92	12.21	0.000186
	0.14609	154774.88					
161.00		4388.22	17.92	2.97	8796.65	0.12	
2963.01		236.03		12.55	218.87	12.21	0.000228
	0.17868	154743.62					
162.00		4388.22	17.92	2.97	8789.19	0.12	
2961.57		235.99		12.55	218.84	12.21	0.000185
	0.14514	154717.20					
163.00		4388.21	17.91	2.97	8782.74	0.12	
2959.54		235.92		12.54	218.77	12.21	0.000230
	0.18006	154671.50					
164.00		4388.21	17.91	2.97	8776.17	0.12	
2957.77		235.86		12.54	218.72	12.21	0.000180
	0.14113	154638.06					
165.00		4388.20	17.90	2.97	8769.05	0.12	
2956.55		235.82		12.54	218.68	12.22	0.000231
	0.18103	154609.58					
166.00		4388.18	17.88	2.96	8732.16	0.12	
2949.45		235.59		12.52	218.48	12.22	0.000201
	0.15704	154462.89					
167.00		4388.12	17.82	2.95	8652.68	0.12	
2929.54		234.93		12.47	217.89	12.23	0.000185
	0.14357	154045.30					
168.00		4388.09	17.79	2.95	8614.71	0.12	
2919.04		234.59		12.44	217.57	12.23	0.000232
	0.18003	153824.83					
169.00		4388.08	17.78	2.95	8601.56	0.12	

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				HYCHAN.OUT			
2915.43		234.47		12.43	217.47	12.23	0.000206
	0.15976	153752.02					
	170.00	4388.07	17.77	2.95	8593.73	0.12	
2912.70		234.38		12.43	217.39	12.23	0.000198
	0.15335	153692.62					
	171.00	4388.06	17.76	2.95	8585.02	0.12	
2911.10		234.33		12.42	217.34	12.23	0.000231
	0.17928	153658.77					
	172.00	4388.06	17.76	2.95	8577.84	0.12	
2909.24		234.27		12.42	217.29	12.23	0.000196
	0.15151	153621.88					
	173.00	4388.05	17.75	2.95	8572.75	0.12	
2907.76		234.22		12.41	217.24	12.24	0.000186
	0.14383	153589.62					
	174.00	4388.03	17.73	2.94	8532.04	0.12	
2900.21		233.97		12.40	217.01	12.24	0.000199
	0.15372	153427.95					
	175.00	4387.97	17.67	2.93	8449.85	0.12	
2880.08		233.30		12.35	216.41	12.25	0.000216
	0.16653	153002.89					
	176.00	4387.94	17.64	2.93	8414.29	0.12	
2869.83		232.96		12.32	216.11	12.25	0.000231
	0.17790	152787.55					
	177.00	4387.93	17.63	2.93	8399.05	0.12	
2865.35		232.81		12.31	215.97	12.25	0.000227
	0.17438	152692.94					
	178.00	4387.92	17.62	2.93	8387.12	0.12	
2862.87		232.73		12.30	215.90	12.25	0.000205
	0.15760	152641.12					
	179.00	4387.91	17.61	2.93	8380.79	0.12	
2860.74		232.66		12.30	215.84	12.26	0.000182
	0.13986	152595.59					
	180.00	4387.90	17.60	2.93	8372.09	0.12	
2858.54		232.59		12.29	215.77	12.26	0.000190
	0.14537	152548.22					
	181.00	4387.94	17.64	2.94	8431.66	0.12	
2868.67		232.93		12.32	216.08	12.25	0.000196
	0.15066	152766.11					
	182.00	4388.05	17.75	2.95	8580.55	0.12	
2904.89		234.13		12.41	217.16	12.24	0.000186
	0.14426	153531.36					
	183.00	4388.11	17.81	2.96	8664.35	0.12	
2927.22		234.86		12.46	217.82	12.23	0.000225
	0.17468	153999.14					
	184.00	4388.18	17.88	2.97	8755.15	0.12	
2949.99		235.61		12.52	218.50	12.22	0.000183
	0.14288	154477.44					
	185.00	4388.21	17.91	2.97	8789.08	0.12	
2960.32		235.95		12.55	218.80	12.21	0.000222
	0.17393	154689.61					
	186.00	4388.23	17.93	2.97	8805.56	0.12	
2964.20		236.07		12.56	218.91	12.21	0.000194
	0.15229	154770.89					
	187.00	4388.23	17.93	2.97	8810.48	0.12	
2965.92		236.13		12.56	218.96	12.21	0.000198
	0.15501	154807.23					
	188.00	4388.23	17.93	2.97	8817.38	0.12	
2967.27		236.17		12.56	219.00	12.21	0.000224
	0.17532	154833.30					
	189.00	4388.24	17.94	2.97	8817.77	0.12	
2967.76		236.19		12.57	219.02	12.21	0.000185
	0.14496	154846.20					
190.00		4388.24	17.94	2.97	8818.22	0.12	

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		HYCHAN.OUT					
2967.97	236.19	12.57	219.02	12.21	0.000219		
0.17142	154848.28						
191.00	4388.24	17.94	2.97	8819.27	0.12		
2968.40	236.21	12.57	219.03	12.21	0.000207		
0.16255	154857.67						
192.00	4388.22	17.92	2.97	8783.88	0.12		
2962.16	236.00	12.55	218.85	12.21	0.000215		
0.16847	154726.98						
193.00	4388.16	17.86	2.96	8708.14	0.12		
2943.51	235.39	12.50	218.30	12.22	0.000206		
0.16109	154337.25						
194.00	4388.13	17.83	2.96	8676.15	0.12		
2933.91	235.08	12.48	218.02	12.22	0.000205		
0.15928	154139.03						
195.00	4388.12	17.82	2.96	8664.87	0.12		
2930.35	234.96	12.47	217.91	12.23	0.000194		
0.15104	154063.20						
196.00	4388.12	17.82	2.96	8656.38	0.12		
2928.67	234.91	12.47	217.86	12.23	0.000205		
0.15936	154029.19						
197.00	4388.11	17.81	2.96	8652.59	0.12		
2927.19	234.86	12.46	217.82	12.23	0.000192		
0.14940	153997.44						
198.00	4388.11	17.81	2.96	8646.97	0.12		
2926.13	234.82	12.46	217.79	12.23	0.000228		
0.17737	153975.08						
199.00	4388.11	17.81	2.95	8644.19	0.12		
2925.34	234.80	12.46	217.76	12.23	0.000199		
0.15448	153959.50						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5045

MAXIMUM DISCHARGE (CFS) = 20083.76 AT TIME = 89.85  
 MAXIMUM STAGE = 4395.33 AT TIME = 91.74

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	AREA	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4378.04	7.74	2.35	2161.99	0.15				
919.69	122.91	7.48	112.74	14.56	0.000152				
0.07084	67646.46								
6.00	4383.78	13.48	2.57	4249.55	0.12				
1652.24	190.29	8.68	173.30	12.85	0.000108				

## HYCHAN.OUT

	0.05875	103981.76						
1849.51	7.00	4384.61	14.31	9.28	2.63	4859.77	0.12	0.000097
	0.05606	108867.87						
1915.70	8.00	4384.87	14.57	9.47	2.64	5064.25	0.12	0.000093
	0.05485	110433.33						
1914.28	9.00	4384.87	14.57	9.47	2.63	5043.42	0.12	0.000094
	0.05542	110394.29						
1885.55	10.00	4384.75	14.45	9.38	2.61	4920.04	0.12	0.000077
	0.04497	109711.02						
1862.37	11.00	4384.66	14.36	9.31	2.60	4843.48	0.12	0.000119
	0.06946	109161.59						
1848.87	12.00	4384.60	14.30	9.28	2.59	4797.68	0.12	0.000113
	0.06535	108838.14						
1826.88	13.00	4384.51	14.21	9.21	2.58	4710.25	0.12	0.000093
	0.05363	108305.45						
1795.88	14.00	4384.38	14.08	9.12	2.56	4592.65	0.12	0.000114
	0.06486	107549.38						
1775.60	15.00	4384.30	14.00	9.06	2.55	4524.75	0.12	0.000107
	0.06059	107054.70						
1766.77	16.00	4384.26	13.96	9.03	2.54	4495.84	0.12	0.000084
	0.04708	106838.19						
1762.82	17.00	4384.25	13.95	9.02	2.54	4482.70	0.12	0.000094
	0.05293	106739.98						
1760.65	18.00	4384.24	13.94	9.01	2.54	4474.01	0.12	0.000111
	0.06250	106686.62						
1761.69	19.00	4384.24	13.94	9.02	2.54	4478.00	0.12	0.000119
	0.06696	106714.23						
1778.17	20.00	4384.31	14.01	9.07	2.56	4544.58	0.12	0.000125
	0.07058	107123.22						
1809.33	21.00	4384.44	14.14	9.16	2.58	4666.53	0.12	0.000114
	0.06496	107887.66						
1843.98	22.00	4384.58	14.28	9.26	2.60	4793.30	0.12	0.000080
	0.04646	108726.69						
1863.15	23.00	4384.66	14.36	9.32	2.61	4858.73	0.12	0.000091
	0.05281	109185.05						
1875.04	24.00	4384.71	14.41	9.35	2.62	4903.80	0.12	0.000089
	0.05168	109469.05						
1900.59	25.00	4384.81	14.51	9.43	2.64	5012.11	0.12	0.000111
	0.06525	110077.93						
1955.36	26.00	4385.03	14.73	9.58	2.68	5238.41	0.12	0.000091
	0.05420	111364.95						
2026.95	27.00	4385.31	15.01	9.79	2.72	5514.29	0.12	0.000088
		207.11						

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HYCHAN.OUT									
2088.56	0.05348	113012.93	15.25	2.75	5750.78	0.12	0.000084		
	28.00	4385.55		9.96	190.67	12.50			
	0.05209	114401.73							
2120.20	29.00	4385.67	15.37	2.77	5865.16	0.12	0.000083		
		211.01		10.05	191.84	12.48			
	0.05177	115102.62							
2137.94	30.00	4385.74	15.44	2.78	5935.85	0.12	0.000082		
		211.74		10.10	192.49	12.47			
	0.05135	115494.98							
2161.75	31.00	4385.83	15.53	2.79	6033.00	0.12	0.000081		
		212.71		10.16	193.36	12.45			
	0.05106	116018.12							
2176.38	32.00	4385.88	15.58	2.80	6088.18	0.12	0.000080		
		213.31		10.20	193.89	12.44			
	0.05070	116336.48							
2188.09	33.00	4385.93	15.63	2.80	6137.58	0.13	0.000079		
		213.78		10.24	194.32	12.43			
	0.05052	116592.53							
2209.54	34.00	4386.01	15.71	2.82	6226.36	0.13	0.000078		
		214.65		10.29	195.10	12.42			
	0.04980	117057.69							
2222.39	35.00	4386.06	15.76	2.82	6274.61	0.13	0.000077		
		215.16		10.33	195.56	12.41			
	0.04967	117333.52							
2217.75	36.00	4386.04	15.74	2.81	6238.48	0.13	0.000072		
		214.98		10.32	195.39	12.41			
	0.04629	117232.36							
2199.44	37.00	4385.97	15.67	2.80	6169.20	0.12	0.000093		
		214.25		10.27	194.74	12.43			
	0.05973	116842.05							
2193.20	38.00	4385.95	15.65	2.80	6141.96	0.12	0.000089		
		213.99		10.25	194.51	12.43			
	0.05697	116705.83							
2176.56	39.00	4385.89	15.59	2.79	6071.50	0.12	0.000067		
		213.32		10.20	193.91	12.44			
	0.04239	116343.33							
2165.46	40.00	4385.84	15.54	2.78	6029.88	0.12	0.000099		
		212.87		10.17	193.51	12.45			
	0.06316	116104.27							
2159.41	41.00	4385.82	15.52	2.78	6007.71	0.12	0.000103		
		212.62		10.16	193.28	12.45			
	0.06524	115967.72							
2156.47	42.00	4385.81	15.51	2.78	5997.93	0.12	0.000105		
		212.50		10.15	193.17	12.45			
	0.06634	115902.51							
2154.45	43.00	4385.80	15.50	2.78	5990.15	0.12	0.000094		
		212.42		10.14	193.10	12.46			
	0.05978	115859.71							
2157.78	44.00	4385.81	15.52	2.79	6010.81	0.12	0.000059		
		212.55		10.15	193.22	12.45			
	0.03752	115932.84							
2173.00	45.00	4385.87	15.57	2.79	6072.25	0.12	0.000109		
		213.18		10.19	193.78	12.44			
	0.06917	116267.39							
2186.62	46.00	4385.92	15.63	2.80	6131.37	0.13	0.000076		
		213.74		10.23	194.28	12.43			
	0.04857	116568.36							
2213.95	47.00	4386.03	15.73	2.82	6247.44	0.13	0.000061		
		214.83		10.31	195.26	12.42			
	0.03941	117155.98							
2248.69	48.00	4386.16	15.86	2.84	6391.12	0.13	0.000097		
		216.23		10.40	196.51	12.39			

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HYCHAN.OUT									
0.06304	117907.39								
49.00	4386.30	16.00	2.86	6552.37	0.13				
2287.19	217.76	10.50		197.87	12.37			0.000071	
0.04678	118724.04								
50.00	4386.44	16.14	2.89	6711.84	0.13				
2325.50	219.26	10.61		199.22	12.34			0.000050	
0.03286	119530.51								
51.00	4386.58	16.28	2.91	6878.80	0.13				
2365.43	220.81	10.71		200.61	12.32			0.000084	
0.05602	120363.27								
52.00	4386.75	16.45	2.93	7074.55	0.13				
2410.61	222.55	10.83		202.16	12.29			0.000060	
0.04049	121294.64								
53.00	4386.94	16.64	2.96	7297.49	0.13				
2464.00	224.59	10.97		203.98	12.26			0.000057	
0.03934	122385.30								
54.00	4387.05	16.75	2.98	7425.39	0.13				
2495.04	225.77	11.05		205.03	12.24			0.000047	
0.03234	123017.80								
55.00	4387.22	16.92	3.01	7650.54	0.13				
2543.19	227.56	11.18		206.63	12.21			0.000062	
0.04291	123979.80								
56.00	4387.60	17.30	3.08	8166.80	0.13				
2654.73	231.63	11.46		210.27	12.15			0.000051	
0.03634	126160.94								
57.00	4388.07	17.77	3.15	8805.69	0.13				
2793.51	236.57	11.81		214.67	12.08			0.000042	
0.03098	128802.48								
58.00	4388.66	18.36	3.27	9629.64	0.13				
2942.60	239.67	12.28		220.14	11.99			0.000045	
0.03452	132082.91								
59.00	4389.23	18.93	3.41	10455.11	0.14				
3062.92	240.80	12.72		225.41	11.91			0.000046	
0.03648	135245.70								
60.00	4389.64	19.34	3.51	11045.35	0.14				
3149.39	241.62	13.03		229.18	11.85			0.000058	
0.04698	137510.88								
61.00	4389.90	19.60	3.57	11440.46	0.14				
3204.72	242.15	13.23		231.60	11.82			0.000059	
0.04849	138960.97								
62.00	4390.08	19.78	3.61	11711.72	0.14				
3240.69	242.50	13.36		233.20	11.79			0.000060	
0.04990	139921.19								
63.00	4390.17	19.87	3.64	11853.73	0.14				
3258.14	242.68	13.43		234.03	11.78			0.000060	
0.05033	140415.52								
64.00	4390.25	19.95	3.66	11990.99	0.14				
3274.02	242.85	13.48		234.78	11.77			0.000060	
0.05070	140866.86								
65.00	4390.34	20.04	3.69	12142.85	0.15				
3292.06	243.03	13.55		235.63	11.76			0.000061	
0.05156	141379.22								
66.00	4390.44	20.14	3.71	12295.69	0.15				
3310.71	243.23	13.61		236.51	11.74			0.000062	
0.05229	141907.03								
67.00	4390.52	20.22	3.73	12418.71	0.15				
3326.56	243.39	13.67		237.26	11.73			0.000063	
0.05338	142353.42								
68.00	4390.59	20.29	3.75	12520.17	0.15				
3339.77	243.53	13.71		237.87	11.72			0.000029	
0.02453	142723.67								
69.00	4390.55	20.25	3.73	12436.99	0.15				
3332.40	243.45	13.69		237.52	11.73			0.000021	

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0.01829	142513.17						
70.00	4390.71	20.41	3.79	12734.74	0.15		
3362.46	243.76	13.79		238.95	11.71	0.000089	
0.07664	143367.06						
71.00	4390.95	20.65	3.86	13155.53	0.15		
3409.56	244.25	13.96		241.16	11.68	0.000023	
0.02032	144695.95						
72.00	4391.18	20.88	3.93	13560.43	0.15		
3454.11	244.71	14.12		243.24	11.65	0.000057	
0.04981	145946.08						
73.00	4391.58	21.28	4.05	14285.58	0.15		
3530.58	245.51	14.38		246.82	11.60	0.000068	
0.06070	148091.81						
74.00	4391.79	21.49	4.09	14616.79	0.16		
3570.91	245.92	14.52		248.69	11.57	0.000068	
0.06125	149212.86						
75.00	4391.95	21.65	4.14	14904.96	0.16		
3601.50	246.24	14.63		250.11	11.55	0.000068	
0.06202	150066.05						
76.00	4392.15	21.85	4.20	15273.01	0.16		
3640.25	246.64	14.76		251.91	11.53	0.000069	
0.06355	151146.34						
77.00	4392.33	22.03	4.24	15577.50	0.16		
3676.10	247.01	14.88		253.56	11.51	0.000070	
0.06488	152138.84						
78.00	4392.46	22.16	4.27	15817.05	0.16		
3701.35	247.27	14.97		254.73	11.49	0.000068	
0.06346	152840.02						
79.00	4392.73	22.43	4.35	16331.91	0.16		
3753.24	247.81	15.15		257.13	11.46	0.000075	
0.07067	154280.50						
80.00	4392.98	22.68	4.42	16780.66	0.16		
3800.31	248.30	15.31		259.30	11.43	0.000071	
0.06749	155580.56						
81.00	4393.28	22.98	4.49	17331.31	0.17		
3859.19	248.91	15.50		262.01	11.40	0.000070	
0.06803	157203.09						
82.00	4393.56	23.26	4.56	17844.17	0.17		
3912.72	249.47	15.68		264.46	11.37	0.000068	
0.06628	158674.91						
83.00	4393.87	23.57	4.64	18434.89	0.17		
3972.49	250.09	15.88		267.19	11.34	0.000070	
0.06905	160315.91						
84.00	4394.16	23.86	4.71	18979.10	0.17		
4028.08	250.67	16.07		269.73	11.30	0.000069	
0.06945	161836.47						
85.00	4394.41	24.11	4.76	19391.31	0.17		
4076.20	251.16	16.23		271.89	11.28	0.000070	
0.07098	163135.62						
86.00	4394.60	24.30	4.78	19654.18	0.17		
4113.23	251.54	16.35		273.54	11.26	0.000069	
0.07033	164121.73						
87.00	4394.74	24.44	4.79	19831.34	0.17		
4142.58	251.84	16.45		274.82	11.24	0.000066	
0.06792	164894.62						
88.00	4394.90	24.60	4.78	19951.11	0.17		
4173.65	252.15	16.55		276.19	11.23	0.000063	
0.06522	165712.44						
89.00	4395.09	24.79	4.74	19949.91	0.17		
4211.18	252.52	16.68		277.80	11.21	0.000062	
0.06438	166678.61						
90.00	4395.22	24.92	4.71	19959.04	0.17		
4239.46	252.79	16.77		278.99	11.19	0.000057	

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	0.05973	167393.30							
4247.13	91.00	4395.26	24.96	16.80	4.69	19912.12	0.17		0.000058
		252.87				279.30	11.19		
	0.06087	167579.03							
4250.98	92.00	4395.28	24.98	16.81	4.69	19945.86	0.17		0.000057
		252.91				279.47	11.19		
	0.06024	167682.00							
4234.11	93.00	4395.20	24.90	16.75	4.70	19880.44	0.17		0.000062
		252.74				278.76	11.20		
	0.06431	167256.94							
4214.26	94.00	4395.10	24.80	16.69	4.71	19836.80	0.17		0.000061
		252.55				277.91	11.21		
	0.06379	166746.00							
4194.54	95.00	4395.00	24.70	16.62	4.72	19786.32	0.17		0.000065
		252.35				277.06	11.22		
	0.06781	166236.61							
4169.26	96.00	4394.87	24.57	16.54	4.73	19718.33	0.17		0.000071
		252.10				275.96	11.23		
	0.07366	165576.16							
4137.82	97.00	4394.72	24.42	16.43	4.75	19673.27	0.17		0.000068
		251.78				274.59	11.25		
	0.06963	164753.36							
4110.55	98.00	4394.58	24.28	16.34	4.75	19531.26	0.17		0.000067
		251.51				273.40	11.26		
	0.06836	164037.33							
4076.72	99.00	4394.41	24.11	16.23	4.73	19273.42	0.17		0.000073
		251.17				271.90	11.28		
	0.07380	163138.36							
4037.20	100.00	4394.21	23.91	16.10	4.69	18930.63	0.17		0.000070
		250.76				270.12	11.30		
	0.06995	162071.06							
4001.70	101.00	4394.02	23.72	15.98	4.65	18595.67	0.17		0.000071
		250.39				268.51	11.32		
	0.07039	161103.62							
3962.46	102.00	4393.82	23.52	15.85	4.59	18179.11	0.17		0.000065
		249.98				266.70	11.34		
	0.06451	160022.80							
3908.34	103.00	4393.53	23.23	15.67	4.51	17640.36	0.17		0.000068
		249.42				264.22	11.37		
	0.06678	158533.17							
3837.77	104.00	4393.17	22.87	15.43	4.41	16943.22	0.16		0.000076
		248.68				260.97	11.41		
	0.07296	156584.23							
3743.42	105.00	4392.67	22.38	15.11	4.28	16020.19	0.16		0.000070
		247.70				256.62	11.47		
	0.06565	153969.45							
3653.17	106.00	4392.21	21.91	14.80	4.16	15203.87	0.16		0.000071
		246.76				252.45	11.52		
	0.06541	151472.92							
3587.13	107.00	4391.87	21.57	14.58	4.08	14646.78	0.16		0.000043
		246.08				249.41	11.56		
	0.03875	149648.06							
3550.88	108.00	4391.68	21.38	14.45	4.03	14317.41	0.15		0.000062
		245.71				247.73	11.59		
	0.05567	148636.06							
3486.62	109.00	4391.35	21.05	14.23	3.93	13714.60	0.15		0.000077
		245.04				244.73	11.63		
	0.06871	146835.62							
3427.30	110.00	4391.04	20.74	14.02	3.85	13196.17	0.15		0.000059
		244.43				241.95	11.67		
	0.05143	145172.30							
3371.22	111.00	4390.75	20.45	13.83	3.77	12700.91	0.15		0.000030
		243.85				239.33	11.70		

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HYCHAN.OUT									
	0.02574	143596.53							
112.00	4390.51	20.21	3.71	12323.18	0.15				
3325.41	243.37	13.66		237.18	11.73	0.000046			
	0.03938	142305.95							
113.00	4390.34	20.04	3.66	12050.58	0.14				
3291.96	243.03	13.55		235.60	11.76	0.000034			
	0.02880	141362.86							
114.00	4390.15	19.85	3.61	11742.22	0.14				
3255.81	242.65	13.42		233.89	11.78	0.000035			
	0.02924	140336.41							
115.00	4389.94	19.64	3.55	11417.30	0.14				
3213.52	242.23	13.27		231.95	11.81	0.000050			
	0.04165	139170.64							
116.00	4389.84	19.54	3.53	11272.13	0.14				
3191.28	242.02	13.19		231.01	11.82	0.000074			
	0.06077	138605.44							
117.00	4389.79	19.49	3.52	11192.22	0.14				
3180.98	241.92	13.15		230.57	11.83	0.000089			
	0.07269	138339.33							
118.00	4389.67	19.38	3.49	11009.54	0.14				
3156.84	241.70	13.06		229.53	11.85	0.000085			
	0.06901	137715.58							
119.00	4389.58	19.28	3.46	10861.79	0.14				
3135.89	241.50	12.98		228.62	11.86	0.000066			
	0.05371	137174.72							
120.00	4389.52	19.22	3.45	10780.55	0.14				
3123.33	241.38	12.94		228.09	11.87	0.000036			
	0.02917	136851.98							
121.00	4389.50	19.20	3.45	10755.82	0.14				
3119.53	241.35	12.93		227.92	11.87	0.000029			
	0.02339	136752.61							
122.00	4389.46	19.16	3.44	10695.33	0.14				
3111.83	241.28	12.90		227.58	11.88	0.000081			
	0.06517	136549.97							
123.00	4389.38	19.08	3.41	10559.97	0.14				
3093.88	241.11	12.83		226.80	11.89	0.000046			
	0.03705	136081.33							
124.00	4389.28	18.98	3.39	10414.20	0.14				
3073.05	240.91	12.76		225.90	11.90	0.000033			
	0.02636	135540.88							
125.00	4389.20	18.90	3.37	10299.92	0.14				
3056.88	240.76	12.70		225.19	11.91	0.000084			
	0.06651	135116.44							
126.00	4389.11	18.81	3.35	10164.59	0.14				
3037.24	240.57	12.63		224.34	11.93	0.000021			
	0.01690	134603.44							
127.00	4389.05	18.75	3.33	10079.70	0.14				
3024.88	240.46	12.58		223.80	11.93	0.000076			
	0.05974	134280.44							
128.00	4388.99	18.69	3.32	9990.63	0.14				
3012.37	240.34	12.53		223.25	11.94	0.000022			
	0.01690	133950.22							
129.00	4388.91	18.61	3.29	9864.29	0.13				
2994.13	240.16	12.47		222.45	11.95	0.000060			
	0.04692	133468.69							
130.00	4388.85	18.55	3.28	9788.22	0.13				
2982.42	240.05	12.42		221.94	11.96	0.000085			
	0.06589	133163.41							
131.00	4388.79	18.49	3.27	9698.97	0.13				
2969.83	239.93	12.38		221.38	11.97	0.000055			
	0.04264	132829.67							
132.00	4388.71	18.41	3.24	9574.58	0.13				
2951.52	239.76	12.31		220.57	11.98	0.000073			

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	0.05618	132343.39							
2948.09	133.00	4388.69	18.39	12.30	3.25	9567.50	0.13		0.000076
	0.05813	132257.03				220.43	11.99		
2961.18	134.00	4388.75	18.45	12.35	3.26	9656.20	0.13		0.000061
	0.04688	132604.53				221.01	11.98		
2961.91	135.00	4388.75	18.46	12.35	3.26	9654.42	0.13		0.000070
	0.05372	132621.00				221.04	11.98		
2957.60	136.00	4388.73	18.43	12.33	3.25	9623.91	0.13		0.000070
	0.05384	132506.84				220.84	11.98		
2952.98	137.00	4388.71	18.41	12.32	3.25	9591.11	0.13		0.000076
	0.05810	132383.52				220.64	11.98		
2948.16	138.00	4388.69	18.39	12.30	3.24	9559.82	0.13		0.000069
	0.05273	132255.72				220.43	11.99		
2943.92	139.00	4388.67	18.37	12.28	3.24	9530.21	0.13		0.000070
	0.05387	132144.41				220.24	11.99		
2939.56	140.00	4388.65	18.35	12.27	3.23	9504.79	0.13		0.000058
	0.04453	132027.33				220.05	11.99		
2931.35	141.00	4388.61	18.31	12.24	3.22	9444.46	0.13		0.000041
	0.03130	131808.61				219.68	12.00		
2917.45	142.00	4388.54	18.24	12.18	3.20	9350.31	0.13		0.000019
	0.01410	131439.38				219.07	12.01		
2910.14	143.00	4388.51	18.21	12.16	3.20	9303.11	0.13		0.000051
	0.03860	131245.00				218.74	12.01		
2905.39	144.00	4388.49	18.19	12.14	3.19	9275.01	0.13		0.000067
	0.05043	131118.62				218.53	12.02		
2901.42	145.00	4388.47	18.17	12.13	3.19	9248.06	0.13		0.000022
	0.01644	131013.30				218.36	12.02		
2893.82	146.00	4388.43	18.13	12.10	3.18	9192.40	0.13		0.000052
	0.03962	130808.48				218.01	12.02		
2879.11	147.00	4388.36	18.06	12.04	3.16	9098.47	0.13		0.000045
	0.03381	130436.20				217.39	12.03		
2867.94	148.00	4388.33	18.03	12.00	3.15	9047.78	0.13		0.000047
	0.03537	130221.42				217.04	12.04		
2860.80	149.00	4388.30	18.00	11.97	3.15	9020.94	0.13		0.000056
	0.04219	130083.12				216.81	12.04		
2854.74	150.00	4388.28	17.98	11.96	3.15	8993.21	0.13		0.000036
	0.02672	129971.80				216.62	12.05		
2849.59	151.00	4388.26	17.96	11.94	3.15	8970.65	0.13		0.000052
	0.03847	129875.17				216.46	12.05		
2840.70	152.00	4388.23	17.93	11.92	3.14	8926.60	0.13		0.000061
	0.04503	129711.21				216.19	12.05		
2823.85	153.00	4388.18	17.88	11.88	3.13	8849.95	0.13		0.000026
		237.67				215.66	12.06		

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	0.01936	129396.12							
2809.78	154.00	4388.13	17.83	11.85	3.13	8788.78	0.13		
		237.18				215.22	12.07	0.000063	
	0.04650	129130.98							
2801.35	155.00	4388.10	17.80	11.83	3.12	8753.08	0.13		
		236.88				214.96	12.07	0.000062	
	0.04555	128973.49							
2790.34	156.00	4388.07	17.77	11.80	3.12	8698.30	0.13		
		236.49				214.61	12.08	0.000043	
	0.03165	128764.62							
2779.86	157.00	4388.03	17.73	11.77	3.12	8661.68	0.13		
		236.13				214.28	12.09	0.000028	
	0.02067	128567.59							
2801.12	158.00	4388.10	17.80	11.83	3.13	8762.82	0.13		
		236.88				214.95	12.07	0.000072	
	0.05346	128969.38							
2810.96	159.00	4388.14	17.84	11.85	3.13	8800.45	0.13		
		237.22				215.26	12.07	0.000025	
	0.01831	129154.34							
2811.70	160.00	4388.14	17.84	11.85	3.13	8801.12	0.13		
		237.24				215.28	12.07	0.000064	
	0.04699	129165.60							
2810.53	161.00	4388.13	17.83	11.85	3.13	8797.24	0.13		
		237.20				215.24	12.07	0.000028	
	0.02065	129144.98							
2809.04	162.00	4388.13	17.83	11.84	3.13	8788.89	0.13		
		237.16				215.20	12.07	0.000055	
	0.04076	129118.44							
2807.40	163.00	4388.12	17.82	11.84	3.13	8784.05	0.13		
		237.09				215.14	12.07	0.000036	
	0.02653	129085.70							
2805.70	164.00	4388.12	17.82	11.84	3.13	8775.51	0.13		
		237.03				215.09	12.07	0.000053	
	0.03947	129053.50							
2804.60	165.00	4388.11	17.81	11.83	3.13	8770.10	0.13		
		237.00				215.06	12.07	0.000033	
	0.02436	129034.62							
2798.17	166.00	4388.09	17.79	11.82	3.12	8735.72	0.13		
		236.77				214.85	12.08	0.000066	
	0.04881	128911.41							
2780.03	167.00	4388.03	17.73	11.77	3.11	8654.63	0.13		
		236.13				214.28	12.09	0.000041	
	0.03015	128570.12							
2770.71	168.00	4388.00	17.70	11.75	3.11	8617.10	0.13		
		235.80				213.99	12.09	0.000041	
	0.02985	128391.27							
2767.24	169.00	4387.99	17.69	11.74	3.11	8602.44	0.13		
		235.68				213.88	12.09	0.000071	
	0.05220	128327.81							
2764.86	170.00	4387.98	17.68	11.74	3.11	8593.08	0.13		
		235.59				213.80	12.09	0.000045	
	0.03319	128281.09							
2763.35	171.00	4387.97	17.68	11.73	3.11	8586.19	0.13		
		235.54				213.76	12.09	0.000041	
	0.03015	128254.28							
2761.62	172.00	4387.97	17.67	11.73	3.11	8578.46	0.13		
		235.48				213.70	12.09	0.000067	
	0.04926	128221.12							
2760.26	173.00	4387.96	17.66	11.72	3.11	8571.86	0.13		
		235.43				213.66	12.10	0.000051	
	0.03747	128195.75							
2753.47	174.00	4387.94	17.64	11.71	3.10	8535.04	0.13		
		235.19				213.44	12.10	0.000035	

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HYCHAN.OUT									
	0.02591	128065.41							
2735.21	175.00	4387.88	17.58	11.66	3.09	8453.74	0.13		
		234.54				212.86	12.11	0.000031	
	0.02243	127717.11							
2725.77	176.00	4387.85	17.55	11.64	3.09	8416.14	0.13		
		234.21				212.56	12.11	0.000044	
	0.03209	127538.95							
2721.82	177.00	4387.83	17.53	11.63	3.09	8399.99	0.13		
		234.06				212.43	12.12	0.000050	
	0.03638	127460.72							
2719.42	178.00	4387.83	17.53	11.62	3.08	8387.52	0.13		
		233.98				212.36	12.12	0.000072	
	0.05190	127417.21							
2717.51	179.00	4387.82	17.52	11.62	3.08	8380.35	0.13		
		233.91				212.30	12.12	0.000071	
	0.05128	127380.09							
2715.58	180.00	4387.81	17.51	11.61	3.08	8372.73	0.13		
		233.84				212.24	12.12	0.000063	
	0.04546	127341.87							
2724.86	181.00	4387.84	17.54	11.64	3.09	8425.83	0.13		
		234.17				212.53	12.11	0.000068	
	0.04930	127518.72							
2757.70	182.00	4387.96	17.66	11.72	3.11	8573.60	0.13		
		235.34				213.58	12.10	0.000048	
	0.03484	128147.07							
2777.92	183.00	4388.02	17.72	11.77	3.12	8660.94	0.13		
		236.06				214.22	12.09	0.000042	
	0.03064	128531.99							
2798.56	184.00	4388.09	17.79	11.82	3.13	8750.50	0.13		
		236.79				214.87	12.08	0.000057	
	0.04219	128921.26							
2807.94	185.00	4388.12	17.83	11.84	3.13	8789.64	0.13		
		237.12				215.16	12.07	0.000057	
	0.04191	129098.70							
2811.50	186.00	4388.14	17.84	11.85	3.13	8803.41	0.13		
		237.24				215.27	12.07	0.000035	
	0.02591	129164.02							
2813.23	187.00	4388.14	17.84	11.86	3.13	8811.34	0.13		
		237.30				215.32	12.07	0.000067	
	0.04928	129193.52							
2814.46	188.00	4388.15	17.85	11.86	3.13	8816.74	0.13		
		237.34				215.36	12.07	0.000032	
	0.02368	129217.10							
2814.80	189.00	4388.15	17.85	11.86	3.13	8817.21	0.13		
		237.35				215.37	12.07	0.000060	
	0.04416	129224.47							
2815.05	190.00	4388.15	17.85	11.86	3.13	8819.43	0.13		
		237.36				215.38	12.07	0.000058	
	0.04256	129228.92							
2815.26	191.00	4388.15	17.85	11.86	3.13	8818.28	0.13		
		237.37				215.39	12.07	0.000035	
	0.02563	129235.67							
2809.77	192.00	4388.13	17.83	11.85	3.13	8788.11	0.13		
		237.18				215.22	12.07	0.000069	
	0.05099	129129.17							
2792.69	193.00	4388.07	17.77	11.80	3.12	8710.09	0.13		
		236.58				214.68	12.08	0.000035	
	0.02605	128810.10							
2784.07	194.00	4388.04	17.74	11.78	3.12	8678.24	0.13		
		236.27				214.41	12.08	0.000067	
	0.04939	128645.88							
2780.90	195.00	4388.03	17.73	11.78	3.12	8663.65	0.13		
		236.16				214.31	12.08	0.000036	

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## HYCHAN.OUT

0.02620	128584.75							
196.00	4388.03	17.73	3.12	8658.45	0.13			
2779.37	236.10	11.77		214.26	12.09	0.000062		
0.04581	128555.86							
197.00	4388.02	17.72	3.11	8651.17	0.13			
2778.02	236.06	11.77		214.22	12.09	0.000039		
0.02885	128530.68							
198.00	4388.02	17.72	3.11	8648.96	0.13			
2777.26	236.02	11.77		214.19	12.09	0.000049		
0.03572	128512.49							
199.00	4388.02	17.72	3.11	8643.28	0.13			
2776.31	236.00	11.76		214.16	12.09	0.000040		
0.02960	128498.39							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5063

MAXIMUM DISCHARGE (CFS) = 20330.92 AT TIME = 91.63  
 MAXIMUM STAGE = 4395.09 AT TIME = 91.75

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	1.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	2.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	3.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	4.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	5.00	4377.53	7.23	2.46	1983.05	0.16			
806.60	0.11296	107.74	7.49	103.93	14.37	0.000242			
1332.86	6.00	4383.65	13.35	3.16	4215.60	0.15			
0.11652	7.00	4384.48	14.18	3.29	4846.48	0.15			
1473.87	0.12226	154.72	9.53	146.67	10.35	0.000206			
1520.92	8.00	4384.75	14.45	3.33	5062.22	0.15			
0.12283	9.00	4384.74	14.44	3.32	5044.96	0.15			
1520.13	0.12273	156.27	9.73	148.06	10.25	0.000202			
1500.16	10.00	4384.62	14.33	3.28	4923.51	0.15			
0.12472	11.00	4384.53	14.23	3.27	4845.60	0.15			
1483.80	0.12125	155.04	9.57	146.95	10.33	0.000203			
		77885.88							

HYCHAN.OUT							
12.00	4384.48	14.18	3.26	4799.10	0.15		
1474.28	154.72	9.53	146.66	10.35	0.000188		
0.11164	77731.55						
13.00	4384.39	14.09	3.23	4712.99	0.15		
1458.89	154.18	9.46	146.18	10.38	0.000213		
0.12557	77477.73						
14.00	4384.26	13.96	3.20	4595.90	0.15		
1437.07	153.43	9.37	145.50	10.42	0.000209		
0.12201	77116.77						
15.00	4384.17	13.87	3.18	4526.13	0.15		
1422.65	152.93	9.30	145.05	10.46	0.000214		
0.12416	76878.28						
16.00	4384.14	13.84	3.17	4496.01	0.15		
1416.35	152.71	9.27	144.86	10.47	0.000212		
0.12245	76773.89						
17.00	4384.12	13.82	3.17	4483.18	0.15		
1413.55	152.62	9.26	144.77	10.47	0.000190		
0.10960	76727.02						
18.00	4384.11	13.81	3.17	4474.46	0.15		
1412.02	152.56	9.26	144.72	10.48	0.000190		
0.10998	76701.15						
19.00	4384.12	13.82	3.17	4477.25	0.15		
1412.71	152.59	9.26	144.74	10.48	0.000199		
0.11499	76713.54						
20.00	4384.18	13.88	3.19	4542.05	0.15		
1424.25	153.00	9.31	145.11	10.45	0.000200		
0.11629	76908.61						
21.00	4384.31	14.01	3.22	4662.55	0.15		
1446.16	153.76	9.41	145.80	10.40	0.000195		
0.11429	77274.05						
22.00	4384.46	14.16	3.26	4790.16	0.15		
1470.60	154.60	9.51	146.56	10.35	0.000210		
0.12436	77675.34						
23.00	4384.53	14.23	3.27	4857.48	0.15		
1484.17	155.06	9.57	146.97	10.32	0.000215		
0.12829	77895.05						
24.00	4384.58	14.28	3.28	4902.12	0.15		
1492.48	155.34	9.61	147.23	10.31	0.000200		
0.11992	78030.29						
25.00	4384.69	14.39	3.32	5008.35	0.15		
1510.25	155.94	9.68	147.77	10.27	0.000194		
0.11752	78318.34						
26.00	4384.90	14.60	3.38	5230.78	0.16		
1548.31	157.22	9.85	148.92	10.20	0.000206		
0.12638	78926.11						
27.00	4385.19	14.89	3.45	5507.39	0.16		
1598.13	158.84	10.06	150.38	10.10	0.000207		
0.13001	79703.95						
28.00	4385.43	15.13	3.50	5745.73	0.16		
1640.89	160.21	10.24	151.62	10.02	0.000206		
0.13168	80357.88						
29.00	4385.55	15.25	3.53	5863.16	0.16		
1662.89	160.91	10.33	152.24	9.98	0.000206		
0.13296	80688.34						
30.00	4385.62	15.32	3.54	5933.63	0.16		
1675.10	161.29	10.39	152.59	9.96	0.000207		
0.13401	80871.45						
31.00	4385.71	15.41	3.57	6030.89	0.16		
1691.49	161.80	10.45	153.05	9.93	0.000207		
0.13510	81115.87						
32.00	4385.76	15.46	3.58	6087.15	0.16		
1701.60	162.11	10.50	153.33	9.92	0.000206		
0.13506	81265.12						

HYCHAN.OUT							
1709.60	33.00	4385.81	15.51	3.59	6135.73	0.16	0.000207
	0.13620	162.36	10.53		153.55	9.90	
		81383.77					
1724.31	34.00	4385.89	15.59	3.61	6224.41	0.16	0.000207
	0.13671	162.82	10.59		153.96	9.88	
		81600.28					
1733.17	35.00	4385.94	15.64	3.62	6273.71	0.16	0.000207
	0.13720	163.09	10.63		154.21	9.86	
		81729.29					
1730.07	36.00	4385.92	15.62	3.61	6240.94	0.16	0.000218
	0.14464	162.99	10.61		154.11	9.87	
		81680.54					
1717.34	37.00	4385.85	15.55	3.59	6169.92	0.16	0.000196
	0.12925	162.60	10.56		153.77	9.89	
		81495.52					
1713.12	38.00	4385.82	15.52	3.59	6143.19	0.16	0.000215
	0.14156	162.47	10.54		153.65	9.90	
		81432.61					
1701.69	39.00	4385.76	15.46	3.57	6072.65	0.16	0.000205
	0.13458	162.11	10.50		153.33	9.92	
		81263.82					
1693.95	40.00	4385.72	15.42	3.56	6031.21	0.16	0.000192
	0.12521	161.87	10.46		153.11	9.93	
		81149.46					
1689.94	41.00	4385.70	15.40	3.56	6008.12	0.16	0.000204
	0.13299	161.75	10.45		153.00	9.94	
		81090.11					
1687.92	42.00	4385.69	15.39	3.55	5998.24	0.16	0.000204
	0.13300	161.69	10.44		152.94	9.94	
		81060.44					
1686.49	43.00	4385.68	15.38	3.55	5990.24	0.16	0.000213
	0.13871	161.64	10.43		152.90	9.94	
		81039.16					
1688.73	44.00	4385.69	15.39	3.56	6009.22	0.16	0.000214
	0.13929	161.71	10.44		152.97	9.94	
		81074.04					
1699.15	45.00	4385.75	15.45	3.57	6071.44	0.16	0.000211
	0.13801	162.04	10.49		153.26	9.92	
		81228.32					
1708.32	46.00	4385.80	15.50	3.59	6128.75	0.16	0.000193
	0.12642	162.32	10.52		153.52	9.90	
		81365.20					
1727.24	47.00	4385.90	15.60	3.62	6244.16	0.16	0.000212
	0.14055	162.91	10.60		154.04	9.87	
		81643.45					
1750.83	48.00	4386.03	15.73	3.65	6387.81	0.16	0.000221
	0.14759	163.63	10.70		154.69	9.83	
		81987.68					
1777.20	49.00	4386.17	15.88	3.68	6548.04	0.16	0.000218
	0.14713	164.43	10.81		155.41	9.79	
		82368.94					
1803.31	50.00	4386.32	16.02	3.72	6707.54	0.16	0.000204
	0.13874	165.21	10.92		156.12	9.75	
		82742.31					
1830.47	51.00	4386.46	16.16	3.76	6875.07	0.16	0.000214
	0.14742	166.02	11.03		156.84	9.70	
		83126.16					
1861.08	52.00	4386.62	16.32	3.80	7068.84	0.17	0.000214
	0.14922	166.92	11.15		157.65	9.66	
		83555.55					
1897.13	53.00	4386.82	16.52	3.84	7293.49	0.17	0.000203
	0.14275	167.96	11.29		158.59	9.60	
		84053.70					



HYCHAN.OUT							
1917.86	54.00	4386.92	16.62	3.87	7421.97	0.17	0.000213
	0.15105	168.56	11.38		159.13	9.57	
		84336.95					
1950.10	55.00	4387.09	16.79	3.92	7643.20	0.17	0.000204
	0.14665	169.48	11.51		159.95	9.52	
		84775.70					
2024.91	56.00	4387.48	17.18	4.03	8154.07	0.17	0.000214
	0.15786	171.58	11.80		161.84	9.42	
		85773.72					
2117.14	57.00	4387.95	17.65	4.15	8789.38	0.17	0.000217
	0.16436	174.09	12.16		164.09	9.30	
		86966.51					
2233.84	58.00	4388.53	18.23	4.30	9611.34	0.18	0.000221
	0.17419	177.15	12.61		166.83	9.15	
		88422.09					
2349.65	59.00	4389.10	18.80	4.44	10439.87	0.18	0.000224
	0.18227	180.08	13.05		169.46	9.01	
		89811.71					
2432.68	60.00	4389.49	19.19	4.54	11036.20	0.18	0.000238
	0.19877	182.11	13.36		171.28	8.92	
		90777.83					
2485.37	61.00	4389.74	19.44	4.60	11433.48	0.18	0.000241
	0.20357	183.38	13.55		172.41	8.87	
		91379.23					
2522.12	62.00	4389.92	19.62	4.64	11708.03	0.18	0.000242
	0.20673	184.25	13.69		173.19	8.83	
		91792.56					
2541.13	63.00	4390.00	19.70	4.66	11850.23	0.19	0.000243
	0.20904	184.44	13.78		173.59	8.81	
		92004.62					
2558.37	64.00	4390.08	19.78	4.69	11986.53	0.19	0.000244
	0.21132	184.60	13.86		173.96	8.79	
		92197.03					
2576.73	65.00	4390.18	19.88	4.71	12140.15	0.19	0.000246
	0.21418	184.79	13.94		174.37	8.77	
		92415.16					
2595.00	66.00	4390.27	19.97	4.74	12294.03	0.19	0.000248
	0.21715	184.98	14.03		174.79	8.75	
		92640.23					
2610.57	67.00	4390.35	20.05	4.76	12420.09	0.19	0.000250
	0.22020	185.14	14.10		175.15	8.74	
		92830.58					
2623.67	68.00	4390.42	20.12	4.77	12525.46	0.19	0.000266
	0.23527	185.27	14.16		175.45	8.72	
		92989.12					
2616.49	69.00	4390.38	20.08	4.76	12446.51	0.19	0.000267
	0.23538	185.20	14.13		175.28	8.73	
		92899.87					
2645.84	70.00	4390.53	20.23	4.81	12732.73	0.19	0.000226
	0.20156	185.50	14.26		175.97	8.70	
		93261.49					
2692.24	71.00	4390.77	20.47	4.89	13152.54	0.19	0.000255
	0.23044	185.98	14.48		177.03	8.65	
		93824.20					
2736.31	72.00	4391.00	20.70	4.96	13559.55	0.19	0.000298
	0.27284	186.43	14.68		178.02	8.60	
		94352.21					
2806.08	73.00	4391.39	21.09	5.09	14279.30	0.20	0.000278
	0.26033	187.21	14.99		179.73	8.52	
		95254.88					
2841.67	74.00	4391.59	21.29	5.14	14618.28	0.20	0.000282
	0.26673	187.62	15.15		180.62	8.48	
		95727.73					

HYCHAN.OUT							
2868.44	75.00	4391.75	21.45	5.20	14904.71	0.20	0.000286
	0.27278	187.93	15.26		181.29	8.45	
		96084.92					
2902.40	76.00	4391.94	21.64	5.26	15268.43	0.20	0.000293
	0.28181	188.32	15.41		182.14	8.42	
		96536.04					
2934.07	77.00	4392.13	21.83	5.31	15574.93	0.20	0.000294
	0.28509	188.69	15.55		182.93	8.38	
		96951.97					
2956.19	78.00	4392.25	21.95	5.35	15812.67	0.20	0.000300
	0.29274	188.94	15.65		183.48	8.36	
		97243.21					
3001.60	79.00	4392.52	22.22	5.44	16325.35	0.20	0.000300
	0.29655	189.47	15.84		184.60	8.31	
		97839.57					
3042.93	80.00	4392.76	22.46	5.51	16770.66	0.21	0.000310
	0.30968	189.95	16.02		185.62	8.27	
		98377.31					
3094.82	81.00	4393.06	22.76	5.60	17319.81	0.21	0.000315
	0.31886	190.55	16.24		186.88	8.21	
		99048.21					
3141.94	82.00	4393.33	23.03	5.67	17827.42	0.21	0.000318
	0.32585	191.10	16.44		188.03	8.16	
		99654.06					
3194.53	83.00	4393.63	23.34	5.76	18410.68	0.21	0.000326
	0.33890	191.70	16.66		189.30	8.11	
		100327.01					
3243.56	84.00	4393.92	23.62	5.84	18946.34	0.21	0.000327
	0.34457	192.27	16.87		190.47	8.06	
		100949.77					
3286.22	85.00	4394.16	23.86	5.89	19364.54	0.21	0.000327
	0.34835	192.76	17.05		191.48	8.02	
		101484.00					
3319.22	86.00	4394.35	24.05	5.92	19642.06	0.21	0.000331
	0.35495	193.14	17.19		192.25	7.99	
		101891.08					
3345.58	87.00	4394.50	24.20	5.93	19828.52	0.21	0.000326
	0.35165	193.43	17.30		192.86	7.97	
		102213.33					
3373.88	88.00	4394.66	24.36	5.92	19976.32	0.21	0.000319
	0.34660	193.75	17.41		193.50	7.94	
		102552.65					
3408.12	89.00	4394.84	24.54	5.90	20098.55	0.21	0.000317
	0.34677	194.11	17.56		194.23	7.92	
		102944.42					
3433.64	90.00	4394.97	24.67	5.88	20202.92	0.21	0.000312
	0.34394	194.38	17.66		194.78	7.89	
		103234.91					
3440.73	91.00	4395.01	24.71	5.87	20194.89	0.21	0.000318
	0.35120	194.45	17.69		194.93	7.89	
		103310.79					
3444.08	92.00	4395.03	24.73	5.88	20234.69	0.21	0.000312
	0.34527	194.49	17.71		195.01	7.89	
		103353.09					
3429.28	93.00	4394.95	24.65	5.86	20110.62	0.21	0.000317
	0.34867	194.33	17.65		194.68	7.90	
		103182.73					
3411.44	94.00	4394.85	24.55	5.87	20013.85	0.21	0.000312
	0.34168	194.14	17.57		194.29	7.91	
		102974.65					
3393.73	95.00	4394.76	24.46	5.87	19910.25	0.21	0.000317
	0.34585	193.95	17.50		193.90	7.93	
		102767.88					

HYCHAN.OUT							
3370.92	96.00	4394.63	24.33	5.87	19780.05	0.21	0.000322
	0.34982	193.70	17.40		193.40	7.95	
		102500.55					
3342.02	97.00	4394.48	24.18	5.89	19680.28	0.21	0.000324
	0.34965	193.39	17.28		192.76	7.97	
		102161.20					
3317.43	98.00	4394.34	24.04	5.89	19531.79	0.21	0.000323
	0.34596	193.11	17.18		192.19	8.00	
		101861.12					
3287.38	99.00	4394.17	23.87	5.86	19264.49	0.21	0.000326
	0.34672	192.77	17.05		191.49	8.02	
		101489.20					
3252.41	100.00	4393.96	23.67	5.82	18917.62	0.21	0.000321
	0.33814	192.37	16.91		190.66	8.06	
		101051.16					
3221.03	101.00	4393.78	23.48	5.77	18585.37	0.21	0.000323
	0.33816	192.00	16.78		189.91	8.09	
		100654.62					
3186.61	102.00	4393.58	23.28	5.70	18177.28	0.21	0.000310
	0.32121	191.60	16.63		189.08	8.12	
		100213.79					
3139.03	103.00	4393.31	23.01	5.62	17645.16	0.21	0.000307
	0.31512	191.05	16.43		187.93	8.17	
		99603.44					
3077.11	104.00	4392.95	22.65	5.51	16953.95	0.20	0.000299
	0.30189	190.33	16.17		186.42	8.23	
		98803.27					
2994.33	105.00	4392.47	22.17	5.36	16037.17	0.20	0.000289
	0.28561	189.37	15.81		184.38	8.32	
		97723.48					
2914.88	106.00	4392.01	21.71	5.22	15227.80	0.20	0.000324
	0.31312	188.45	15.47		182.42	8.40	
		96681.05					
2856.58	107.00	4391.67	21.37	5.13	14667.42	0.20	0.000239
	0.22691	187.78	15.21		180.97	8.47	
		95915.25					
2824.78	108.00	4391.49	21.19	5.08	14344.53	0.19	0.000238
	0.22405	187.41	15.07		180.17	8.50	
		95489.23					
2767.95	109.00	4391.16	20.86	4.97	13762.68	0.19	0.000258
	0.23873	186.75	14.82		178.73	8.57	
		94728.56					
2710.33	110.00	4390.86	20.56	4.89	13244.98	0.19	0.000231
	0.21029	186.15	14.56		177.41	8.63	
		94025.01					
2654.98	111.00	4390.57	20.27	4.80	12742.83	0.19	0.000249
	0.22235	185.58	14.31		176.15	8.69	
		93358.02					
2609.88	112.00	4390.34	20.04	4.73	12354.74	0.19	0.000211
	0.18551	185.12	14.10		175.11	8.74	
		92810.75					
2577.01	113.00	4390.17	19.87	4.68	12073.19	0.19	0.000218
	0.18963	184.78	13.95		174.36	8.77	
		92408.84					
2539.15	114.00	4389.99	19.69	4.63	11761.32	0.18	0.000252
	0.21639	184.42	13.77		173.53	8.81	
		91972.09					
2494.68	115.00	4389.78	19.48	4.58	11423.75	0.18	0.000208
	0.17677	183.59	13.59		172.60	8.86	
		91476.57					
2472.77	116.00	4389.68	19.38	4.56	11273.81	0.18	0.000213
	0.17973	183.07	13.51		172.13	8.88	
		91230.62					

HYCHAN.OUT							
2462.85	117.00	4389.63	19.33	4.55	11194.98	0.18	0.000247
	0.20748	182.83	13.47		171.92	8.89	
		91116.79					
2439.39	118.00	4389.52	19.22	4.51	11013.19	0.18	0.000234
	0.19568	182.26	13.38		171.41	8.92	
		90847.94					
2419.09	119.00	4389.43	19.13	4.49	10864.07	0.18	0.000204
	0.16957	181.77	13.31		170.97	8.94	
		90614.91					
2406.87	120.00	4389.37	19.07	4.48	10780.75	0.18	0.000210
	0.17399	181.47	13.26		170.71	8.95	
		90474.56					
2403.29	121.00	4389.35	19.05	4.48	10756.07	0.18	0.000247
	0.20461	181.38	13.25		170.63	8.96	
		90432.81					
2395.94	122.00	4389.32	19.02	4.47	10698.25	0.18	0.000252
	0.20768	181.20	13.22		170.47	8.96	
		90346.53					
2378.58	123.00	4389.23	18.93	4.44	10562.58	0.18	0.000197
	0.16196	180.78	13.16		170.08	8.98	
		90143.95					
2358.50	124.00	4389.14	18.84	4.42	10416.24	0.18	0.000250
	0.20437	180.28	13.08		169.64	9.01	
		89908.69					
2342.98	125.00	4389.06	18.76	4.40	10303.73	0.18	0.000244
	0.19809	179.89	13.02		169.29	9.02	
		89725.20					
2323.99	126.00	4388.97	18.67	4.37	10165.79	0.18	0.000209
	0.16888	179.42	12.95		168.87	9.04	
		89501.67					
2312.21	127.00	4388.91	18.61	4.36	10081.90	0.18	0.000248
	0.19980	179.13	12.91		168.61	9.06	
		89360.73					
2300.17	128.00	4388.85	18.56	4.34	9991.92	0.18	0.000220
	0.17650	178.82	12.86		168.33	9.07	
		89217.36					
2282.78	129.00	4388.77	18.47	4.32	9867.77	0.18	0.000198
	0.15772	178.38	12.80		167.94	9.09	
		89008.13					
2271.47	130.00	4388.71	18.42	4.31	9790.17	0.18	0.000229
	0.18205	178.10	12.75		167.68	9.11	
		88872.53					
2259.45	131.00	4388.66	18.36	4.29	9700.58	0.18	0.000252
	0.20003	177.79	12.71		167.41	9.12	
		88726.94					
2242.00	132.00	4388.57	18.27	4.27	9577.01	0.18	0.000246
	0.19383	177.35	12.64		167.01	9.14	
		88515.02					
2238.58	133.00	4388.55	18.25	4.27	9566.17	0.18	0.000240
	0.18937	177.26	12.63		166.93	9.14	
		88475.48					
2251.09	134.00	4388.62	18.32	4.29	9654.71	0.18	0.000250
	0.19764	177.58	12.68		167.22	9.13	
		88627.75					
2251.89	135.00	4388.62	18.32	4.29	9655.18	0.18	0.000239
	0.18891	177.60	12.68		167.24	9.13	
		88636.41					
2247.78	136.00	4388.60	18.30	4.28	9624.54	0.18	0.000238
	0.18777	177.50	12.66		167.14	9.13	
		88586.40					
2243.38	137.00	4388.58	18.28	4.28	9591.99	0.18	0.000224
	0.17676	177.38	12.65		167.04	9.14	
		88532.84					

HYCHAN.OUT							
2238.78	138.00	4388.56	18.26	4.27	9560.30	0.18	0.000208
	0.16391	177.26	12.63		166.94	9.14	
		88476.88					
2234.70	139.00	4388.54	18.24	4.26	9530.93	0.18	0.000213
	0.16740	177.16	12.61		166.84	9.15	
		88427.05					
2230.55	140.00	4388.52	18.22	4.26	9505.11	0.18	0.000205
	0.16116	177.05	12.60		166.75	9.15	
		88376.97					
2222.76	141.00	4388.48	18.18	4.25	9446.02	0.18	0.000196
	0.15394	176.85	12.57		166.57	9.16	
		88280.73					
2209.53	142.00	4388.41	18.11	4.23	9351.27	0.18	0.000222
	0.17352	176.51	12.52		166.26	9.18	
		88118.24					
2202.57	143.00	4388.38	18.08	4.22	9304.57	0.18	0.000240
	0.18699	176.33	12.49		166.10	9.19	
		88032.70					
2197.99	144.00	4388.35	18.05	4.22	9276.03	0.18	0.000209
	0.16272	176.21	12.47		165.99	9.19	
		87976.84					
2194.23	145.00	4388.34	18.04	4.21	9247.54	0.17	0.000204
	0.15856	176.11	12.46		165.91	9.20	
		87930.60					
2187.11	146.00	4388.30	18.00	4.20	9194.84	0.17	0.000244
	0.18892	175.93	12.43		165.74	9.21	
		87841.05					
2173.78	147.00	4388.23	17.93	4.19	9100.29	0.17	0.000197
	0.15220	175.58	12.38		165.43	9.22	
		87675.95					
2165.88	148.00	4388.19	17.89	4.18	9048.22	0.17	0.000247
	0.19005	175.37	12.35		165.24	9.23	
		87577.27					
2161.29	149.00	4388.17	17.87	4.17	9021.73	0.17	0.000200
	0.15388	175.25	12.33		165.13	9.24	
		87520.34					
2157.34	150.00	4388.15	17.85	4.17	8993.63	0.17	0.000231
	0.17792	175.15	12.32		165.04	9.24	
		87470.38					
2153.92	151.00	4388.13	17.83	4.17	8971.28	0.17	0.000207
	0.15923	175.06	12.30		164.96	9.25	
		87427.70					
2148.05	152.00	4388.10	17.81	4.16	8928.27	0.17	0.000230
	0.17646	174.90	12.28		164.82	9.26	
		87352.67					
2136.90	153.00	4388.05	17.75	4.14	8850.92	0.17	0.000213
	0.16255	174.60	12.24		164.55	9.27	
		87212.17					
2127.70	154.00	4388.00	17.70	4.13	8790.43	0.17	0.000206
	0.15703	174.36	12.20		164.33	9.28	
		87095.18					
2122.10	155.00	4387.97	17.67	4.13	8753.97	0.17	0.000223
	0.16926	174.21	12.18		164.20	9.29	
		87024.41					
2114.89	156.00	4387.94	17.64	4.11	8699.86	0.17	0.000229
	0.17372	174.01	12.15		164.02	9.30	
		86931.89					
2107.90	157.00	4387.90	17.60	4.11	8660.48	0.17	0.000215
	0.16293	173.83	12.13		163.86	9.31	
		86844.23					
2121.92	158.00	4387.97	17.67	4.13	8761.56	0.17	0.000221
	0.16783	174.21	12.18		164.20	9.29	
		87023.36					

HYCHAN.OUT							
2128.42	159.00	4388.01	17.71	4.13	8799.43	0.17	0.000221
	0.16857	174.38	12.21		164.35	9.28	
		87105.67					
2129.01	160.00	4388.01	17.71	4.13	8801.70	0.17	0.000222
	0.16901	174.39	12.21		164.36	9.28	
		87112.47					
2128.17	161.00	4388.01	17.71	4.13	8796.77	0.17	0.000214
	0.16296	174.37	12.20		164.34	9.28	
		87102.36					
2127.16	162.00	4388.00	17.70	4.13	8789.63	0.17	0.000227
	0.17306	174.34	12.20		164.32	9.28	
		87088.91					
2126.12	163.00	4388.00	17.70	4.13	8783.77	0.17	0.000210
	0.15951	174.32	12.20		164.29	9.28	
		87076.18					
2125.03	164.00	4387.99	17.69	4.13	8776.01	0.17	0.000227
	0.17304	174.29	12.19		164.27	9.29	
		87061.93					
2124.21	165.00	4387.99	17.69	4.13	8769.86	0.17	0.000212
	0.16104	174.27	12.19		164.25	9.29	
		87051.96					
2120.09	166.00	4387.96	17.66	4.12	8737.52	0.17	0.000212
	0.16073	174.15	12.17		164.15	9.29	
		86998.16					
2108.07	167.00	4387.90	17.60	4.11	8656.02	0.17	0.000227
	0.17199	173.83	12.13		163.86	9.31	
		86844.98					
2101.97	168.00	4387.87	17.57	4.10	8617.68	0.17	0.000214
	0.16140	173.67	12.10		163.71	9.32	
		86767.54					
2099.60	169.00	4387.86	17.56	4.10	8602.83	0.17	0.000208
	0.15682	173.60	12.09		163.66	9.32	
		86737.30					
2098.10	170.00	4387.85	17.55	4.10	8593.28	0.17	0.000228
	0.17226	173.56	12.09		163.62	9.32	
		86717.98					
2097.00	171.00	4387.85	17.55	4.09	8586.14	0.17	0.000210
	0.15818	173.54	12.08		163.59	9.32	
		86704.31					
2095.89	172.00	4387.84	17.54	4.09	8578.81	0.17	0.000210
	0.15865	173.50	12.08		163.57	9.32	
		86689.77					
2094.99	173.00	4387.84	17.54	4.09	8571.85	0.17	0.000223
	0.16820	173.48	12.08		163.54	9.33	
		86678.20					
2090.55	174.00	4387.81	17.51	4.08	8536.41	0.17	0.000226
	0.17018	173.36	12.06		163.43	9.33	
		86620.26					
2078.46	175.00	4387.75	17.45	4.07	8455.13	0.17	0.000224
	0.16771	173.03	12.01		163.14	9.35	
		86464.60					
2072.11	176.00	4387.72	17.42	4.06	8416.80	0.17	0.000211
	0.15808	172.86	11.99		162.99	9.36	
		86383.15					
2069.61	177.00	4387.71	17.41	4.06	8400.25	0.17	0.000203
	0.15136	172.79	11.98		162.93	9.36	
		86350.79					
2067.93	178.00	4387.70	17.40	4.06	8388.06	0.17	0.000212
	0.15832	172.75	11.97		162.88	9.36	
		86328.92					
2066.69	179.00	4387.69	17.39	4.06	8380.60	0.17	0.000222
	0.16585	172.71	11.97		162.85	9.36	
		86313.05					

HYCHAN.OUT							
2065.43	180.00	4387.69	17.39	4.05	8372.67	0.17	0.000215
	0.16022	172.68	11.96		162.82	9.36	
		86296.87					
2071.58	181.00	4387.72	17.42	4.07	8423.32	0.17	0.000217
	0.16231	172.85	11.98		162.98	9.36	
		86377.91					
2093.25	182.00	4387.83	17.53	4.09	8570.71	0.17	0.000235
	0.17667	173.44	12.07		163.50	9.33	
		86657.61					
2106.52	183.00	4387.90	17.60	4.11	8658.68	0.17	0.000211
	0.15947	173.79	12.12		163.83	9.31	
		86827.66					
2120.23	184.00	4387.97	17.67	4.13	8749.30	0.17	0.000234
	0.17746	174.16	12.17		164.15	9.29	
		87001.91					
2126.34	185.00	4388.00	17.70	4.13	8789.00	0.17	0.000207
	0.15754	174.32	12.20		164.30	9.28	
		87079.55					
2128.80	186.00	4388.01	17.71	4.14	8802.95	0.17	0.000228
	0.17381	174.39	12.21		164.36	9.28	
		87110.36					
2130.02	187.00	4388.01	17.71	4.14	8811.67	0.17	0.000213
	0.16259	174.42	12.21		164.39	9.28	
		87125.61					
2130.83	188.00	4388.02	17.72	4.14	8816.25	0.17	0.000219
	0.16666	174.44	12.22		164.41	9.28	
		87136.09					
2131.03	189.00	4388.02	17.72	4.14	8817.62	0.17	0.000231
	0.17618	174.45	12.22		164.41	9.28	
		87138.37					
2131.15	190.00	4388.02	17.72	4.14	8819.15	0.17	0.000206
	0.15671	174.45	12.22		164.42	9.28	
		87140.37					
2131.24	191.00	4388.02	17.72	4.14	8818.19	0.17	0.000228
	0.17412	174.45	12.22		164.42	9.28	
		87141.13					
2127.72	192.00	4388.00	17.70	4.13	8789.85	0.17	0.000207
	0.15748	174.36	12.20		164.33	9.28	
		87095.53					
2116.40	193.00	4387.95	17.65	4.12	8711.17	0.17	0.000223
	0.16940	174.05	12.16		164.06	9.30	
		86951.38					
2110.72	194.00	4387.92	17.62	4.11	8678.75	0.17	0.000208
	0.15785	173.90	12.14		163.92	9.30	
		86879.68					
2108.72	195.00	4387.91	17.61	4.11	8663.70	0.17	0.000229
	0.17357	173.85	12.13		163.88	9.31	
		86854.05					
2107.65	196.00	4387.90	17.60	4.11	8658.91	0.17	0.000207
	0.15681	173.82	12.13		163.85	9.31	
		86840.59					
2106.79	197.00	4387.90	17.60	4.11	8650.93	0.17	0.000232
	0.17543	173.80	12.12		163.83	9.31	
		86829.51					
2106.37	198.00	4387.90	17.60	4.11	8649.21	0.17	0.000198
	0.15006	173.79	12.12		163.82	9.31	
		86824.28					
2105.66	199.00	4387.89	17.59	4.10	8643.28	0.17	0.000219
	0.16586	173.77	12.12		163.80	9.31	
		86814.91					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 5068

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## HYCHAN.OUT

MAXIMUM DISCHARGE (CFS) = 20550.77 AT TIME = 91.64  
 MAXIMUM STAGE = 4394.60 AT TIME = 91.75

AREA BED SHEAR (FT^2)	TIME WETTED PERIMETER (HRS)	ELEV. SURFACE AREA (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FOUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4370.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
774.71	5.00	4377.00	6.70	2.35	1817.87	0.16	0.000332
	0.15545	103.35	7.50		99.90	14.92	
1287.92	6.00	4383.36	13.06	3.25	4183.02	0.16	0.000300
	0.16278	148.07	8.70		140.66	10.77	
1427.27	7.00	4384.19	13.89	3.39	4834.00	0.16	0.000298
	0.17327	153.05	9.33		145.16	10.45	
1474.02	8.00	4384.46	14.16	3.43	5060.27	0.16	0.000295
	0.17527	154.64	9.53		146.59	10.35	
1473.54	9.00	4384.46	14.16	3.42	5046.38	0.16	0.000293
	0.17453	154.61	9.53		146.57	10.35	
1454.01	10.00	4384.35	14.05	3.39	4927.02	0.16	0.000303
	0.17848	153.95	9.44		145.97	10.39	
1437.80	11.00	4384.25	13.95	3.37	4847.13	0.16	0.000277
	0.16194	153.40	9.37		145.48	10.43	
1428.47	12.00	4384.20	13.90	3.36	4800.13	0.16	0.000287
	0.16688	153.08	9.33		145.19	10.45	
1413.62	13.00	4384.11	13.81	3.34	4716.21	0.16	0.000288
	0.16667	152.56	9.27		144.72	10.48	
1392.34	14.00	4383.99	13.69	3.30	4598.70	0.16	0.000280
	0.16010	151.82	9.17		144.05	10.52	
1378.20	15.00	4383.90	13.60	3.29	4527.56	0.16	0.000285
	0.16183	151.32	9.11		143.60	10.56	
1371.99	16.00	4383.87	13.57	3.28	4496.39	0.16	0.000303
	0.17165	151.10	9.08		143.40	10.57	
	17.00	4383.85	13.55	3.27	4483.13	0.16	

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1369.24		151.00		9.07	143.31	10.58	0.000297
	0.16796	73088.55					
18.00		4383.84	13.54	3.27	4474.74	0.16	
1367.82		150.95		9.06	143.26	10.58	0.000291
	0.16468	73063.95					
19.00		4383.85	13.55	3.27	4476.64	0.16	
1368.47		150.97		9.06	143.28	10.58	0.000288
	0.16270	73074.96					
20.00		4383.91	13.61	3.29	4539.64	0.16	
1379.66		151.37		9.11	143.64	10.55	0.000289
	0.16427	73258.39					
21.00		4384.04	13.74	3.33	4658.85	0.16	
1400.90		152.12		9.21	144.32	10.51	0.000294
	0.16877	73604.91					
22.00		4384.18	13.88	3.36	4787.79	0.16	
1424.79		152.96		9.32	145.07	10.45	0.000300
	0.17463	73988.02					
23.00		4384.26	13.96	3.38	4856.27	0.16	
1438.07		153.41		9.37	145.49	10.43	0.000292
	0.17101	74199.36					
24.00		4384.30	14.00	3.39	4900.34	0.16	
1446.14		153.69		9.41	145.74	10.41	0.000305
	0.17936	74327.54					
25.00		4384.40	14.10	3.42	5004.44	0.16	
1463.36		154.28		9.48	146.27	10.37	0.000296
	0.17498	74599.18					
26.00		4384.62	14.32	3.48	5224.08	0.16	
1500.27		155.53		9.65	147.40	10.30	0.000303
	0.18243	75173.27					
27.00		4384.89	14.59	3.55	5500.97	0.16	
1548.88		157.14		9.86	148.85	10.20	0.000305
	0.18770	75914.30					
28.00		4385.13	14.83	3.61	5741.00	0.17	
1590.68		158.50		10.04	150.07	10.12	0.000306
	0.19154	76538.12					
29.00		4385.25	14.95	3.64	5861.30	0.17	
1612.34		159.19		10.13	150.70	10.08	0.000306
	0.19313	76855.11					
30.00		4385.31	15.01	3.65	5931.60	0.17	
1624.22		159.57		10.18	151.04	10.06	0.000307
	0.19512	77029.19					
31.00		4385.40	15.10	3.68	6028.90	0.17	
1640.19		160.07		10.25	151.49	10.03	0.000308
	0.19688	77261.42					
32.00		4385.46	15.16	3.69	6086.17	0.17	
1650.12		160.38		10.29	151.77	10.01	0.000307
	0.19740	77404.20					
33.00		4385.50	15.20	3.70	6134.06	0.17	
1657.85		160.63		10.32	151.99	10.00	0.000309
	0.19902	77516.37					
34.00		4385.58	15.28	3.72	6222.57	0.17	
1672.17		161.08		10.38	152.40	9.97	0.000308
	0.19964	77721.91					
35.00		4385.63	15.33	3.73	6272.88	0.17	
1680.88		161.35		10.42	152.64	9.96	0.000309
	0.20107	77845.39					
36.00		4385.61	15.31	3.72	6243.36	0.17	
1677.92		161.25		10.41	152.55	9.96	0.000307
	0.19958	77802.83					
37.00		4385.54	15.24	3.71	6170.10	0.17	
1665.17		160.87		10.35	152.21	9.99	0.000309
	0.19967	77625.61					
38.00		4385.52	15.22	3.70	6144.70	0.17	

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1661.16	0.19035	160.74	10.33	152.09	9.99	0.000295	
39.00	4385.46	77566.59	15.16	3.68	6073.92	0.17	
1650.03	0.20693	160.39	10.29	151.78	10.01	0.000322	
40.00	4385.42	77406.35	15.12	3.67	6031.63	0.17	
1642.40	0.19011	160.15	10.26	151.56	10.03	0.000297	
41.00	4385.39	77297.30	15.09	3.67	6008.91	0.17	
1638.54	0.19198	160.03	10.24	151.45	10.03	0.000300	
42.00	4385.38	77240.61	15.08	3.67	5998.49	0.17	
1636.56	0.19005	159.97	10.23	151.40	10.04	0.000298	
43.00	4385.38	77211.95	15.08	3.66	5990.57	0.17	
1635.18	0.18803	159.92	10.22	151.36	10.04	0.000295	
44.00	4385.39	77191.67	15.09	3.67	6007.97	0.17	
1637.29	0.19873	159.99	10.23	151.42	10.04	0.000311	
45.00	4385.44	77222.87	15.14	3.68	6070.31	0.17	
1647.39	0.18818	160.31	10.28	151.71	10.02	0.000293	
46.00	4385.49	77369.91	15.19	3.70	6126.18	0.17	
1656.24	0.20355	160.59	10.31	151.96	10.00	0.000316	
47.00	4385.59	77498.09	15.29	3.73	6241.57	0.17	
1674.71	0.19938	161.16	10.39	152.48	9.97	0.000307	
48.00	4385.72	77762.51	15.42	3.76	6384.68	0.17	
1697.63	0.19905	161.88	10.49	153.12	9.93	0.000304	
49.00	4385.86	78088.96	15.56	3.80	6544.15	0.17	
1723.26	0.20663	162.66	10.59	153.82	9.89	0.000313	
50.00	4386.00	78450.54	15.70	3.83	6703.38	0.17	
1748.69	0.22026	163.44	10.70	154.52	9.84	0.000330	
51.00	4386.14	78804.93	15.84	3.87	6871.52	0.17	
1775.16	0.21215	164.23	10.81	155.24	9.80	0.000315	
52.00	4386.30	79170.05	16.00	3.91	7063.77	0.17	
1804.85	0.23069	165.12	10.93	156.03	9.75	0.000338	
53.00	4386.49	79576.27	16.19	3.96	7289.60	0.17	
1840.03	0.22900	166.15	11.07	156.96	9.70	0.000331	
54.00	4386.59	80050.09	16.29	3.99	7419.03	0.17	
1860.29	0.23193	166.74	11.16	157.49	9.67	0.000333	
55.00	4386.76	80319.37	16.46	4.04	7636.04	0.18	
1891.49	0.23480	167.64	11.28	158.30	9.62	0.000333	
56.00	4387.13	80732.09	16.83	4.15	8142.51	0.18	
1964.17	0.24241	169.69	11.57	160.15	9.51	0.000336	
57.00	4387.59	81674.23	17.29	4.27	8774.35	0.18	
2053.68	0.25550	172.16	11.93	162.36	9.39	0.000343	
58.00	4388.16	82802.14	17.86	4.43	9594.19	0.18	
2167.50	0.26683	175.19	12.37	165.08	9.24	0.000346	
59.00	4388.72	84188.55	18.42	4.57	10425.51	0.19	

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2281.19	0.27565	178.11	12.81	167.70	9.11	0.000345	
60.00	4389.11	85524.57	18.81	4.67	11027.59	0.19	
2362.90	0.28177	180.15	13.12	169.52	9.01	0.000344	
61.00	4389.36	86455.53	19.06	4.73	11426.92	0.19	
2414.67	0.28575	181.41	13.31	170.65	8.95	0.000344	
62.00	4389.53	87033.49	19.23	4.78	11704.34	0.19	
2450.91	0.28789	182.29	13.45	171.44	8.92	0.000343	
63.00	4389.62	87432.41	19.32	4.80	11848.08	0.19	
2469.67	0.28924	182.74	13.51	171.84	8.90	0.000343	
64.00	4389.70	87637.36	19.40	4.82	11983.86	0.19	
2486.64	0.29093	183.14	13.58	172.20	8.88	0.000343	
65.00	4389.79	87822.38	19.49	4.84	12137.46	0.19	
2505.84	0.29309	183.60	13.65	172.61	8.86	0.000344	
66.00	4389.88	88030.64	19.58	4.87	12291.20	0.19	
2525.65	0.29541	184.07	13.72	173.03	8.84	0.000345	
67.00	4389.96	88244.49	19.66	4.88	12418.03	0.19	
2542.60	0.29718	184.47	13.78	173.38	8.82	0.000346	
68.00	4390.02	88426.05	19.72	4.90	12526.08	0.19	
2556.90	0.30835	184.80	13.84	173.68	8.81	0.000357	
69.00	4389.99	88578.84	19.69	4.88	12444.81	0.19	
2547.66	0.31861	184.62	13.80	173.52	8.81	0.000370	
70.00	4390.14	88496.01	19.84	4.93	12725.08	0.20	
2579.54	0.30348	185.36	13.92	174.19	8.78	0.000349	
71.00	4390.37	88834.79	20.07	5.00	13146.44	0.20	
2630.44	0.33976	186.53	14.10	175.23	8.73	0.000386	
72.00	4390.59	89367.55	20.29	5.06	13552.24	0.20	
2678.69	0.32267	187.63	14.28	176.21	8.69	0.000362	
73.00	4390.96	89869.05	20.66	5.17	14273.59	0.20	
2762.18	0.33177	189.36	14.59	177.87	8.61	0.000364	
74.00	4391.16	90714.17	20.86	5.22	14632.10	0.20	
2804.72	0.34031	189.75	14.78	178.75	8.57	0.000369	
75.00	4391.31	91160.69	21.01	5.26	14921.84	0.20	
2834.67	0.34911	190.05	14.92	179.40	8.54	0.000375	
76.00	4391.50	91494.99	21.20	5.33	15302.14	0.20	
2872.73	0.35665	190.43	15.09	180.22	8.50	0.000379	
77.00	4391.68	91914.70	21.38	5.38	15631.50	0.20	
2907.83	0.36018	190.78	15.24	180.99	8.47	0.000379	
78.00	4391.80	92305.85	21.50	5.42	15868.94	0.21	
2929.86	0.37158	191.03	15.34	181.53	8.44	0.000388	
79.00	4392.06	92579.26	21.76	5.50	16370.75	0.21	
2974.93	0.37310	191.54	15.53	182.63	8.39	0.000385	
80.00	4392.29	93139.98	21.99	5.57	16810.19	0.21	

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3016.14		192.01		15.71	183.62	8.35	0.000399
	0.39093	93647.40					
81.00		4392.58	22.28	5.66	17353.63	0.21	
3068.09		192.59		15.93	184.87	8.30	0.000402
	0.39935	94283.58					
82.00		4392.85	22.55	5.73	17855.04	0.21	
3115.20		193.12		16.13	185.99	8.25	0.000405
	0.40786	94856.80					
83.00		4393.14	22.84	5.82	18431.97	0.21	
3167.76		193.71		16.35	187.24	8.20	0.000412
	0.42002	95492.55					
84.00		4393.42	23.12	5.89	18960.51	0.22	
3216.90		194.27		16.56	188.40	8.15	0.000413
	0.42651	96082.92					
85.00		4393.66	23.36	5.95	19381.95	0.22	
3260.05		194.75		16.74	189.40	8.11	0.000410
	0.42832	96594.93					
86.00		4393.85	23.55	5.97	19670.43	0.22	
3293.66		195.12		16.88	190.17	8.08	0.000414
	0.43555	96989.12					
87.00		4394.00	23.70	5.99	19876.67	0.22	
3320.83		195.42		16.99	190.79	8.05	0.000408
	0.43286	97302.99					
88.00		4394.15	23.85	5.99	20068.25	0.22	
3350.22		195.74		17.12	191.44	8.03	0.000394
	0.42032	97636.41					
89.00		4394.34	24.04	5.98	20260.92	0.22	
3385.73		196.12		17.26	192.22	7.99	0.000385
	0.41425	98032.24					
90.00		4394.49	24.19	5.98	20405.45	0.21	
3412.00		196.40		17.37	192.80	7.97	0.000384
	0.41630	98327.27					
91.00		4394.52	24.22	5.97	20416.08	0.21	
3419.40		196.48		17.40	192.96	7.97	0.000395
	0.42897	98408.50					
92.00		4394.54	24.24	5.98	20457.23	0.21	
3422.81		196.52		17.42	193.04	7.96	0.000380
	0.41258	98448.37					
93.00		4394.46	24.16	5.96	20320.51	0.21	
3408.09		196.36		17.36	192.70	7.98	0.000385
	0.41742	98279.27					
94.00		4394.36	24.06	5.96	20202.98	0.21	
3389.78		196.16		17.28	192.30	7.99	0.000388
	0.41823	98070.78					
95.00		4394.26	23.96	5.96	20078.13	0.21	
3371.64		195.96		17.21	191.89	8.01	0.000393
	0.42189	97864.22					
96.00		4394.14	23.84	5.95	19914.63	0.21	
3348.22		195.70		17.11	191.37	8.03	0.000396
	0.42324	97598.44					
97.00		4393.98	23.68	5.95	19753.83	0.22	
3317.99		195.38		16.98	190.71	8.05	0.000402
	0.42579	97260.34					
98.00		4393.84	23.54	5.95	19579.53	0.22	
3292.63		195.10		16.88	190.13	8.08	0.000402
	0.42309	96968.18					
99.00		4393.67	23.37	5.92	19302.12	0.22	
3262.09		194.76		16.75	189.43	8.11	0.000401
	0.41929	96609.91					
100.00		4393.47	23.17	5.87	18953.65	0.22	
3226.83		194.37		16.60	188.61	8.14	0.000400
	0.41427	96191.05					
101.00		4393.29	22.99	5.83	18624.75	0.21	

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3195.30		194.02		16.47	187.87	8.17	0.000406
	0.41710	95813.52					
102.00		4393.10	22.80	5.77	18228.71	0.21	
3161.03		193.63		16.33	187.05	8.20	0.000393
	0.40086	95397.93					
103.00		4392.83	22.53	5.69	17711.26	0.21	
3113.53		193.09		16.12	185.92	8.25	0.000393
	0.39590	94820.07					
104.00		4392.48	22.18	5.58	17040.08	0.21	
3051.86		192.39		15.86	184.44	8.32	0.000371
	0.36759	94063.67					
105.00		4392.01	21.71	5.44	16159.26	0.21	
2969.31		191.45		15.51	182.43	8.40	0.000369
	0.35679	93040.66					
106.00		4391.56	21.26	5.32	15348.19	0.20	
2887.29		190.56		15.15	180.50	8.49	0.000366
	0.34585	92056.07					
107.00		4391.24	20.94	5.23	14745.60	0.20	
2820.99		189.91		14.85	179.09	8.55	0.000392
	0.36311	91337.26					
108.00		4391.06	20.76	5.17	14403.64	0.20	
2784.99		189.56		14.69	178.32	8.59	0.000366
	0.33563	90942.17					
109.00		4390.75	20.45	5.08	13798.41	0.20	
2716.15		188.44		14.41	176.94	8.65	0.000340
	0.30572	90237.74					
110.00		4390.46	20.16	5.00	13256.11	0.20	
2651.03		186.98		14.18	175.63	8.71	0.000354
	0.31322	89573.20					
111.00		4390.18	19.88	4.92	12752.15	0.19	
2589.83		185.59		13.95	174.39	8.77	0.000383
	0.33344	88940.38					
112.00		4389.95	19.65	4.87	12361.00	0.19	
2540.40		184.45		13.77	173.37	8.82	0.000358
	0.30740	88418.79					
113.00		4389.79	19.49	4.82	12079.22	0.19	
2504.73		183.61		13.64	172.62	8.86	0.000369
	0.31388	88035.62					
114.00		4389.61	19.31	4.77	11768.98	0.19	
2466.39		182.69		13.50	171.80	8.90	0.000375
	0.31569	87617.57					
115.00		4389.40	19.10	4.72	11428.71	0.19	
2422.71		181.64		13.34	170.86	8.94	0.000352
	0.29295	87137.94					
116.00		4389.30	19.00	4.70	11275.82	0.19	
2401.11		181.12		13.26	170.39	8.97	0.000329
	0.27194	86899.24					
117.00		4389.25	18.95	4.68	11198.56	0.19	
2391.45		180.88		13.22	170.18	8.98	0.000325
	0.26834	86790.73					
118.00		4389.14	18.84	4.65	11016.63	0.19	
2368.54		180.32		13.14	169.67	9.00	0.000323
	0.26455	86533.22					
119.00		4389.05	18.75	4.63	10866.14	0.19	
2348.67		179.83		13.06	169.23	9.03	0.000337
	0.27487	86308.73					
120.00		4388.99	18.69	4.61	10781.70	0.19	
2336.59		179.53		13.02	168.97	9.04	0.000361
	0.29338	86172.77					
121.00		4388.97	18.67	4.61	10757.66	0.19	
2333.16		179.44		13.00	168.89	9.04	0.000373
	0.30224	86132.88					
122.00		4388.94	18.64	4.60	10700.30	0.19	

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				HYCHAN.OUT			
2325.98		179.26		12.98	168.73	9.05	0.000326
	0.26383	86051.23					
123.00	4388.86	18.56		4.58	10564.56	0.19	
2309.04		178.84	12.91		168.35	9.07	0.000347
	0.27954	85856.88					
124.00	4388.76	18.46		4.55	10419.53	0.19	
2289.42		178.34	12.84		167.90	9.09	0.000364
	0.29141	85631.06					
125.00	4388.69	18.39		4.53	10306.54	0.19	
2274.19		177.96	12.78		167.56	9.11	0.000323
	0.25746	85455.61					
126.00	4388.60	18.30		4.51	10166.90	0.19	
2255.60		177.49	12.71		167.14	9.13	0.000374
	0.29683	85239.56					
127.00	4388.54	18.24		4.49	10084.10	0.19	
2244.04		177.19	12.66		166.87	9.15	0.000332
	0.26233	85105.35					
128.00	4388.48	18.18		4.48	9993.57	0.19	
2232.33		176.89	12.62		166.60	9.16	0.000372
	0.29293	84967.12					
129.00	4388.40	18.10		4.46	9869.68	0.18	
2215.33		176.45	12.55		166.21	9.18	0.000332
	0.25980	84767.28					
130.00	4388.35	18.05		4.44	9792.23	0.18	
2204.24		176.17	12.51		165.95	9.20	0.000312
	0.24376	84636.42					
131.00	4388.29	17.99		4.43	9703.00	0.18	
2192.57		175.86	12.47		165.68	9.21	0.000339
	0.26383	84496.89					
132.00	4388.20	17.90		4.40	9578.95	0.18	
2175.49		175.42	12.40		165.28	9.23	0.000329
	0.25491	84293.80					
133.00	4388.19	17.89		4.40	9564.81	0.18	
2171.97		175.33	12.39		165.20	9.24	0.000323
	0.24990	84253.18					
134.00	4388.25	17.95		4.42	9653.60	0.18	
2184.31		175.65	12.44		165.49	9.22	0.000340
	0.26414	84399.31					
135.00	4388.25	17.95		4.42	9655.48	0.18	
2185.16		175.67	12.44		165.51	9.22	0.000329
	0.25545	84408.81					
136.00	4388.23	17.93		4.41	9625.24	0.18	
2181.20		175.57	12.42		165.41	9.22	0.000324
	0.25149	84360.99					
137.00	4388.21	17.91		4.41	9592.39	0.18	
2176.85		175.45	12.41		165.31	9.23	0.000318
	0.24611	84309.80					
138.00	4388.19	17.89		4.40	9560.59	0.18	
2172.46		175.34	12.39		165.21	9.24	0.000324
	0.25044	84255.95					
139.00	4388.17	17.87		4.40	9531.60	0.18	
2168.41		175.23	12.37		165.11	9.24	0.000324
	0.25030	84208.23					
140.00	4388.15	17.85		4.39	9505.57	0.18	
2164.55		175.12	12.36		165.02	9.25	0.000328
	0.25273	84159.12					
141.00	4388.11	17.81		4.38	9447.51	0.18	
2156.97		174.92	12.33		164.84	9.26	0.000347
	0.26664	84068.03					
142.00	4388.05	17.75		4.36	9353.22	0.18	
2143.87		174.58	12.28		164.53	9.27	0.000364
	0.27912	83912.34					
143.00	4388.01	17.71		4.35	9305.51	0.18	

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				HYCHAN.OUT			
2137.02		174.40		12.25	164.37	9.28	0.000342
	0.26124	83830.21					
	144.00	4387.99	17.69	4.35	9276.26	0.18	
2132.63		174.29		12.24	164.27	9.29	0.000322
	0.24613	83775.73					
	145.00	4387.97	17.67	4.34	9247.67	0.18	
2128.92		174.19		12.22	164.18	9.29	0.000363
	0.27677	83731.16					
	146.00	4387.94	17.64	4.33	9197.40	0.18	
2122.13		174.00		12.20	164.01	9.30	0.000340
	0.25885	83646.79					
	147.00	4387.87	17.57	4.32	9101.11	0.18	
2108.86		173.66		12.14	163.70	9.32	0.000329
	0.24967	83488.33					
	148.00	4387.83	17.53	4.31	9049.81	0.18	
2101.26		173.45		12.11	163.52	9.33	0.000348
	0.26333	83394.32					
	149.00	4387.81	17.51	4.30	9021.54	0.18	
2096.96		173.33		12.10	163.41	9.33	0.000336
	0.25388	83339.48					
	150.00	4387.79	17.49	4.30	8994.63	0.18	
2093.35		173.23		12.08	163.32	9.34	0.000342
	0.25808	83292.55					
	151.00	4387.77	17.47	4.29	8971.41	0.18	
2089.97		173.14		12.07	163.24	9.34	0.000337
	0.25394	83251.61					
	152.00	4387.74	17.45	4.28	8929.97	0.18	
2084.37		172.99		12.05	163.10	9.35	0.000329
	0.24772	83181.62					
	153.00	4387.69	17.39	4.27	8852.05	0.18	
2073.49		172.70		12.01	162.84	9.36	0.000351
	0.26276	83048.10					
	154.00	4387.65	17.35	4.26	8791.51	0.18	
2064.53		172.45		11.97	162.62	9.38	0.000329
	0.24540	82937.58					
	155.00	4387.62	17.32	4.25	8754.84	0.18	
2059.12		172.31		11.95	162.49	9.38	0.000325
	0.24241	82870.09					
	156.00	4387.58	17.28	4.24	8701.64	0.18	
2052.16		172.12		11.92	162.32	9.39	0.000334
	0.24831	82783.09					
	157.00	4387.55	17.25	4.23	8659.35	0.18	
2045.22		171.93		11.90	162.15	9.40	0.000346
	0.25684	82698.33					
	158.00	4387.62	17.32	4.25	8760.11	0.18	
2058.83		172.30		11.95	162.49	9.38	0.000327
	0.24352	82867.50					
	159.00	4387.65	17.35	4.26	8798.89	0.18	
2065.21		172.47		11.97	162.64	9.37	0.000346
	0.25879	82946.00					
	160.00	4387.65	17.35	4.26	8801.91	0.18	
2065.83		172.49		11.98	162.65	9.37	0.000329
	0.24571	82953.29					
	161.00	4387.65	17.35	4.26	8796.60	0.18	
2065.00		172.47		11.97	162.63	9.38	0.000349
	0.26076	82943.08					
	162.00	4387.64	17.34	4.26	8790.13	0.18	
2064.02		172.44		11.97	162.61	9.38	0.000332
	0.24766	82931.05					
	163.00	4387.64	17.34	4.26	8783.53	0.18	
2063.00		172.41		11.97	162.59	9.38	0.000344
	0.25713	82918.37					
	164.00	4387.63	17.33	4.26	8776.49	0.18	

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				HYCHAN.OUT			
2061.95		172.38		11.96	162.56	9.38	0.000333
	0.24821	82905.32					
	165.00	4387.63	17.33	4.25	8769.71	0.18	
2061.13		172.36		11.96	162.54	9.38	0.000347
	0.25880	82895.42					
	166.00	4387.61	17.31	4.25	8739.01	0.18	
2057.18		172.25		11.94	162.44	9.39	0.000330
	0.24617	82845.95					
	167.00	4387.55	17.25	4.23	8657.48	0.18	
2045.56		171.94		11.90	162.16	9.40	0.000337
	0.25010	82700.62					
	168.00	4387.52	17.22	4.23	8618.13	0.18	
2039.55		171.77		11.87	162.01	9.41	0.000338
	0.25056	82626.53					
	169.00	4387.51	17.21	4.22	8602.98	0.18	
2037.24		171.71		11.86	161.96	9.41	0.000322
	0.23871	82597.80					
	170.00	4387.50	17.20	4.22	8593.72	0.18	
2035.80		171.67		11.86	161.92	9.41	0.000335
	0.24783	82579.51					
	171.00	4387.49	17.19	4.22	8585.91	0.18	
2034.68		171.64		11.85	161.89	9.42	0.000336
	0.24833	82566.16					
	172.00	4387.49	17.19	4.22	8579.13	0.18	
2033.63		171.61		11.85	161.87	9.42	0.000324
	0.23994	82552.69					
	173.00	4387.48	17.18	4.22	8572.03	0.18	
2032.76		171.59		11.85	161.85	9.42	0.000332
	0.24543	82541.73					
	174.00	4387.46	17.16	4.21	8537.83	0.18	
2028.51		171.47		11.83	161.74	9.42	0.000339
	0.25031	82487.90					
	175.00	4387.40	17.10	4.19	8456.57	0.18	
2016.77		171.15		11.78	161.45	9.44	0.000341
	0.25104	82340.33					
	176.00	4387.37	17.07	4.19	8417.14	0.18	
2010.53		170.98		11.76	161.30	9.45	0.000335
	0.24598	82262.38					
	177.00	4387.36	17.06	4.18	8400.38	0.18	
2008.09		170.91		11.75	161.24	9.45	0.000334
	0.24466	82231.79					
	178.00	4387.35	17.05	4.18	8388.56	0.18	
2006.46		170.87		11.74	161.20	9.45	0.000326
	0.23897	82211.14					
	179.00	4387.34	17.04	4.18	8380.88	0.18	
2005.28		170.83		11.74	161.17	9.46	0.000322
	0.23565	82195.97					
	180.00	4387.34	17.04	4.18	8372.62	0.18	
2004.02		170.80		11.73	161.14	9.46	0.000326
	0.23834	82180.39					
	181.00	4387.37	17.07	4.19	8420.92	0.18	
2009.93		170.96		11.76	161.29	9.45	0.000325
	0.23814	82255.38					
	182.00	4387.47	17.17	4.22	8568.51	0.18	
2031.00		171.54		11.84	161.80	9.42	0.000339
	0.25061	82519.86					
	183.00	4387.54	17.24	4.24	8656.28	0.18	
2043.88		171.89		11.89	162.12	9.40	0.000341
	0.25325	82681.23					
	184.00	4387.61	17.31	4.25	8748.32	0.18	
2057.24		172.26		11.94	162.45	9.39	0.000335
	0.24930	82847.12					
	185.00	4387.64	17.34	4.26	8788.13	0.18	

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2063.21		172.42		11.97		162.59	9.38	0.000335	
	0.24979	82920.67							
186.00		4387.65	17.35		4.26	8802.90	0.18		
2065.65		172.48		11.98		162.65	9.37	0.000346	
	0.25825	82950.62							
187.00		4387.66	17.36		4.26	8811.53	0.18		
2066.80		172.51		11.98		162.68	9.37	0.000324	
	0.24216	82965.23							
188.00		4387.66	17.36		4.26	8816.09	0.18		
2067.62		172.54		11.98		162.70	9.37	0.000341	
	0.25516	82975.05							
189.00		4387.66	17.36		4.26	8817.95	0.18		
2067.83		172.54		11.98		162.70	9.37	0.000332	
	0.24861	82977.37							
190.00		4387.66	17.36		4.26	8818.64	0.18		
2067.89		172.54		11.98		162.70	9.37	0.000333	
	0.24874	82978.77							
191.00		4387.66	17.36		4.26	8818.66	0.18		
2068.03		172.55		11.99		162.71	9.37	0.000339	
	0.25362	82979.95							
192.00		4387.65	17.35		4.26	8790.77	0.18		
2064.59		172.45		11.97		162.62	9.38	0.000326	
	0.24373	82937.80							
193.00		4387.59	17.29		4.24	8712.63	0.18		
2053.64		172.16		11.93		162.36	9.39	0.000335	
	0.24950	82801.41							
194.00		4387.56	17.26		4.24	8679.04	0.18		
2048.08		172.01		11.91		162.22	9.40	0.000332	
	0.24632	82732.34							
195.00		4387.55	17.25		4.23	8664.05	0.18		
2046.18		171.95		11.90		162.17	9.40	0.000339	
	0.25169	82708.36							
196.00		4387.55	17.25		4.23	8658.90	0.18		
2045.10		171.92		11.90		162.15	9.40	0.000323	
	0.23975	82695.30							
197.00		4387.54	17.24		4.23	8651.30	0.18		
2044.26		171.90		11.89		162.13	9.40	0.000344	
	0.25524	82684.95							
198.00		4387.54	17.24		4.23	8648.71	0.18		
2043.80		171.89		11.89		162.12	9.40	0.000330	
	0.24469	82679.91							
199.00		4387.54	17.24		4.23	8643.71	0.18		
2043.18		171.87		11.89		162.10	9.40	0.000337	
	0.25008	82671.34							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5072

MAXIMUM DISCHARGE (CFS) = 21011.67 AT TIME = 91.65  
 MAXIMUM STAGE = 4394.29 AT TIME = 91.76

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4370.30	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4370.30	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT

0.00000	0.00							
2.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00							
3.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00							
4.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00							
5.00	4376.45	6.15	2.31	1631.37	0.16			
707.56	98.76	7.16	95.67	15.55	0.000353			
0.15792	57403.71							
6.00	4383.10	12.80	3.55	4144.52	0.18			
1166.93	146.45	7.97	139.20	10.87	0.000322			
0.16013	83518.75							
7.00	4383.94	13.64	3.73	4819.37	0.18			
1293.04	151.52	8.53	143.78	10.54	0.000317			
0.16882	86267.91							
8.00	4384.21	13.91	3.79	5057.91	0.18			
1335.61	153.15	8.72	145.25	10.44	0.000314			
0.17081	87149.52							
9.00	4384.21	13.91	3.78	5048.02	0.18			
1335.42	153.13	8.72	145.24	10.44	0.000313			
0.17036	87142.06							
10.00	4384.09	13.79	3.74	4931.23	0.18			
1317.90	152.46	8.64	144.63	10.48	0.000310			
0.16739	86775.97							
11.00	4384.00	13.70	3.72	4848.39	0.18			
1303.17	151.90	8.58	144.12	10.52	0.000312			
0.16692	86471.25							
12.00	4383.95	13.65	3.71	4802.02	0.18			
1294.80	151.57	8.54	143.83	10.54	0.000322			
0.17154	86295.50							
13.00	4383.86	13.56	3.68	4719.39	0.18			
1281.63	151.06	8.48	143.36	10.57	0.000304			
0.16088	86015.88							
14.00	4383.73	13.43	3.64	4601.86	0.18			
1262.62	150.31	8.40	142.68	10.62	0.000311			
0.16315	85610.01							
15.00	4383.65	13.35	3.62	4529.31	0.17			
1249.91	149.81	8.34	142.23	10.65	0.000305			
0.15900	85338.85							
16.00	4383.61	13.31	3.61	4497.30	0.17			
1244.31	149.59	8.32	142.03	10.67	0.000310			
0.16079	85218.64							
17.00	4383.60	13.30	3.61	4483.33	0.17			
1241.83	149.49	8.31	141.94	10.67	0.000317			
0.16458	85165.53							
18.00	4383.59	13.29	3.61	4474.98	0.17			
1240.62	149.44	8.30	141.90	10.68	0.000318			
0.16497	85139.11							
19.00	4383.59	13.29	3.61	4475.72	0.17			
1241.18	149.46	8.30	141.92	10.67	0.000319			
0.16543	85152.14							
20.00	4383.66	13.36	3.63	4536.93	0.17			
1251.15	149.86	8.35	142.28	10.65	0.000319			
0.16620	85369.18							
21.00	4383.79	13.49	3.66	4654.69	0.18			
1270.04	150.61	8.43	142.96	10.60	0.000323			
0.17022	85775.41							
22.00	4383.92	13.62	3.70	4784.68	0.18			
1291.43	151.45	8.53	143.71	10.55	0.000311			

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## HYCHAN.OUT

1303.35	0.16562	86228.69	13.70	8.58	3.72	4854.59	0.18	0.000309
	23.00	4384.00						
		151.91				144.13	10.52	
1310.55	0.16569	86478.09	13.75	8.61	3.74	4898.98	0.18	0.000315
	24.00	4384.05						
		152.19				144.38	10.50	
1325.84	0.16954	86628.61	13.85	8.68	3.77	4999.90	0.18	0.000330
	25.00	4384.15						
		152.78				144.91	10.46	
1358.62	0.17848	86948.84	14.06	8.82	3.84	5216.10	0.18	0.000320
	26.00	4384.36						
		154.03				146.04	10.39	
1402.08	0.17621	87624.52	14.33	9.01	3.92	5493.50	0.18	0.000320
	27.00	4384.63						
		155.64				147.50	10.29	
1439.46	0.17961	88500.20	14.57	9.17	3.98	5735.51	0.18	0.000319
	28.00	4384.87						
		157.01				148.73	10.21	
1458.97	0.18233	89238.58	14.69	9.25	4.02	5859.10	0.18	0.000318
	29.00	4384.99						
		157.71				149.36	10.17	
1469.54	0.18367	89617.15	14.76	9.30	4.03	5929.24	0.19	0.000319
	30.00	4385.06						
		158.09				149.70	10.15	
1483.78	0.18492	89821.79	14.84	9.36	4.06	6026.63	0.19	0.000319
	31.00	4385.14						
		158.59				150.16	10.12	
1492.69	0.18614	90096.16	14.90	9.39	4.08	6085.04	0.19	0.000318
	32.00	4385.20						
		158.91				150.44	10.10	
1499.53	0.18666	90265.95	14.94	9.42	4.09	6132.10	0.19	0.000319
	33.00	4385.24						
		159.15				150.66	10.08	
1512.27	0.18765	90397.00	15.02	9.48	4.11	6220.39	0.19	0.000318
	34.00	4385.32						
		159.60				151.07	10.06	
1520.10	0.18800	90639.34	15.07	9.51	4.13	6271.96	0.19	0.000319
	35.00	4385.37						
		159.87				151.31	10.04	
1517.47	0.18904	90786.59	15.05	9.50	4.12	6246.06	0.19	0.000310
	36.00	4385.35						
		159.77				151.22	10.05	
1505.82	0.18398	90733.93	14.98	9.45	4.10	6170.85	0.19	0.000329
	37.00	4385.28						
		159.37				150.86	10.07	
1502.31	0.19381	90514.88	14.96	9.43	4.09	6145.53	0.19	0.000310
	38.00	4385.26						
		159.25				150.75	10.08	
1492.44	0.18251	90448.14	14.90	9.39	4.07	6076.31	0.19	0.000321
	39.00	4385.20						
		158.89				150.43	10.10	
1485.53	0.18822	90258.46	14.85	9.36	4.06	6031.91	0.19	0.000328
	40.00	4385.15						
		158.65				150.21	10.11	
1482.14	0.19142	90127.66	14.83	9.35	4.05	6009.55	0.19	0.000324
	41.00	4385.13						
		158.53				150.10	10.12	
1480.36	0.18885	90062.41	14.82	9.34	4.05	5998.70	0.19	0.000323
	42.00	4385.12						
		158.47				150.05	10.12	
1479.14	0.18816	90028.77	14.81	9.34	4.05	5990.68	0.19	0.000311
	43.00	4385.11						
		158.43				150.01	10.13	

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1480.98	0.18122	90005.51	14.83	9.34	4.06	6006.90	0.19	0.000315
	44.00	4385.13				150.07	10.12	
		158.49						
1489.91	0.18352	90041.73	14.88	9.38	4.07	6068.66	0.19	0.000314
	45.00	4385.18				150.36	10.10	
		158.81						
1497.75	0.18380	90213.55	14.93	9.41	4.09	6124.19	0.19	0.000331
	46.00	4385.23				150.61	10.09	
		159.09						
1514.21	0.19463	90363.88	15.03	9.48	4.12	6237.75	0.19	0.000318
	47.00	4385.33				151.13	10.05	
		159.67						
1534.56	0.18809	90677.30	15.16	9.57	4.16	6380.90	0.19	0.000314
	48.00	4385.46				151.77	10.01	
		160.38						
1557.33	0.18753	91061.15	15.29	9.66	4.20	6539.83	0.19	0.000311
	49.00	4385.59				152.48	9.97	
		161.17						
1580.01	0.18766	91486.65	15.43	9.76	4.24	6699.38	0.19	0.000327
	50.00	4385.73				153.18	9.93	
		161.94						
1603.51	0.19890	91905.25	15.57	9.85	4.28	6866.77	0.19	0.000326
	51.00	4385.87				153.89	9.88	
		162.74						
1629.86	0.20070	92335.86	15.73	9.96	4.33	7058.56	0.19	0.000329
	52.00	4386.03				154.69	9.83	
		163.62						
1661.16	0.20425	92812.95	15.92	10.09	4.39	7284.97	0.19	0.000329
	53.00	4386.22				155.62	9.78	
		164.66						
1679.26	0.20719	93373.18	16.02	10.16	4.42	7415.49	0.19	0.000322
	54.00	4386.32				156.15	9.75	
		165.25						
1706.84	0.20425	93692.86	16.19	10.27	4.47	7628.00	0.20	0.000330
	55.00	4386.49				156.96	9.70	
		166.15						
1771.27	0.21124	94178.29	16.56	10.53	4.59	8128.75	0.20	0.000327
	56.00	4386.86				158.82	9.59	
		168.22						
1850.47	0.21483	95290.49	17.01	10.84	4.73	8756.93	0.20	0.000327
	57.00	4387.31				161.03	9.46	
		170.68						
1951.27	0.22147	96617.05	17.58	11.23	4.91	9574.33	0.21	0.000328
	58.00	4387.88				163.75	9.31	
		173.71						
2052.10	0.22962	98251.85	18.14	11.62	5.07	10408.82	0.21	0.000325
	59.00	4388.44				166.39	9.17	
		176.65						
2124.65	0.23570	99831.51	18.53	11.89	5.19	11017.58	0.21	0.000323
	60.00	4388.83				168.22	9.08	
		178.70						
2170.53	0.23982	100934.66	18.78	12.06	5.26	11419.28	0.21	0.000322
	61.00	4389.08				169.36	9.02	
		179.97						
2202.70	0.24232	101618.74	18.95	12.18	5.31	11700.04	0.22	0.000321
	62.00	4389.25				170.15	8.98	
		180.86						
2219.31	0.24382	102092.25	19.04	12.24	5.34	11845.58	0.22	0.000321
	63.00	4389.34				170.56	8.96	
		181.31						
2234.30	0.24502	102334.86	19.12	12.30	5.36	11980.75	0.22	0.000321
	64.00	4389.42				170.92	8.94	
		181.71						

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	0.24621	102553.33							
2251.26	65.00	4389.51	19.21	12.36	5.39	12134.31	0.22	0.000320	
	0.24691	102799.09							
2268.74	66.00	4389.60	19.30	12.42	5.42	12287.91	0.22	0.000320	
	0.24787	103051.30							
2283.74	67.00	4389.68	19.38	12.48	5.44	12415.62	0.22	0.000319	
	0.24827	103266.23							
2296.37	68.00	4389.74	19.44	12.52	5.46	12526.75	0.22	0.000306	
	0.23889	103445.56							
2286.81	69.00	4389.69	19.39	12.49	5.44	12443.16	0.22	0.000313	
	0.24428	103310.82							
2314.93	70.00	4389.84	19.54	12.59	5.49	12717.40	0.22	0.000354	
	0.27839	103712.98							
2360.06	71.00	4390.08	19.78	12.75	5.57	13139.11	0.22	0.000331	
	0.26363	104349.71							
2402.56	72.00	4390.29	20.00	12.91	5.64	13542.08	0.22	0.000304	
	0.24460	104941.09							
2476.90	73.00	4390.68	20.38	13.17	5.76	14260.30	0.22	0.000317	
	0.26033	105958.82							
2516.69	74.00	4390.88	20.58	13.31	5.81	14626.64	0.23	0.000317	
	0.26320	106492.13							
2546.08	75.00	4391.02	20.72	13.42	5.86	14916.49	0.23	0.000319	
	0.26722	106883.07							
2583.43	76.00	4391.21	20.91	13.55	5.92	15294.11	0.23	0.000316	
	0.26729	107376.05							
2619.03	77.00	4391.39	21.09	13.67	5.97	15645.67	0.23	0.000317	
	0.27004	107838.27							
2643.55	78.00	4391.51	21.21	13.76	6.01	15896.56	0.23	0.000318	
	0.27341	108153.19							
2693.71	79.00	4391.76	21.46	13.98	6.10	16422.94	0.23	0.000318	
	0.27735	108797.51							
2735.42	80.00	4391.98	21.68	14.17	6.18	16900.81	0.23	0.000324	
	0.28635	109381.60							
2787.20	81.00	4392.27	21.97	14.39	6.27	17488.50	0.24	0.000323	
	0.28990	110117.02							
2832.30	82.00	4392.53	22.23	14.59	6.36	18015.69	0.24	0.000327	
	0.29760	110781.19							
2879.56	83.00	4392.82	22.52	14.79	6.46	18608.54	0.24	0.000328	
	0.30296	111520.81							
2924.12	84.00	4393.09	22.79	14.97	6.54	19130.20	0.24	0.000325	
	0.30346	112213.05							
2963.56	85.00	4393.33	23.03	15.14	6.60	19560.23	0.24	0.000318	
		195.78							



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0.30062	112817.81						
86.00	4393.52	23.22	6.64	19874.37	0.24		
2994.34	196.15	15.27		188.81	8.13	0.000317	
0.30191	113283.60						
87.00	4393.67	23.37	6.66	20116.64	0.24		
3019.36	196.45	15.37		189.43	8.11	0.000311	
0.29872	113657.38						
88.00	4393.83	23.53	6.69	20370.41	0.24		
3046.38	196.77	15.48		190.09	8.08	0.000297	
0.28693	114055.77						
89.00	4394.02	23.72	6.71	20655.22	0.24		
3079.14	197.15	15.62		190.89	8.05	0.000281	
0.27376	114532.09						
90.00	4394.16	23.86	6.72	20853.64	0.24		
3103.40	197.44	15.72		191.47	8.02	0.000280	
0.27480	114884.21						
91.00	4394.20	23.90	6.72	20889.38	0.24		
3110.31	197.52	15.75		191.63	8.02	0.000286	
0.28072	114980.05						
92.00	4394.22	23.92	6.72	20927.52	0.24		
3113.49	197.56	15.76		191.72	8.01	0.000275	
0.27037	115031.49						
93.00	4394.14	23.84	6.70	20780.54	0.24		
3100.18	197.40	15.71		191.39	8.03	0.000284	
0.27800	114834.66						
94.00	4394.04	23.74	6.69	20636.37	0.24		
3083.25	197.20	15.64		190.97	8.04	0.000292	
0.28478	114584.43						
95.00	4393.94	23.64	6.68	20484.39	0.24		
3066.52	197.00	15.57		190.56	8.06	0.000297	
0.28858	114336.49						
96.00	4393.81	23.51	6.66	20281.58	0.24		
3044.98	196.74	15.48		190.03	8.08	0.000303	
0.29271	114016.80						
97.00	4393.65	23.35	6.64	20039.88	0.24		
3017.09	196.41	15.36		189.35	8.11	0.000310	
0.29757	113608.10						
98.00	4393.51	23.21	6.62	19822.32	0.24		
2993.85	196.13	15.26		188.77	8.13	0.000311	
0.29630	113261.57						
99.00	4393.34	23.04	6.58	19525.57	0.24		
2965.92	195.79	15.15		188.06	8.16	0.000313	
0.29574	112837.61						
100.00	4393.14	22.84	6.53	19171.46	0.24		
2933.79	195.40	15.01		187.24	8.20	0.000314	
0.29374	112344.17						
101.00	4392.97	22.67	6.49	18844.81	0.24		
2905.11	195.05	14.89		186.50	8.23	0.000324	
0.30106	111900.47						
102.00	4392.78	22.48	6.42	18460.22	0.24		
2874.17	194.67	14.76		185.69	8.26	0.000320	
0.29479	111415.80						
103.00	4392.51	22.21	6.34	17937.69	0.24		
2831.32	194.14	14.58		184.57	8.31	0.000321	
0.29231	110744.98						
104.00	4392.17	21.87	6.22	17235.26	0.23		
2771.78	193.46	14.33		183.12	8.37	0.000302	
0.26961	109874.72						
105.00	4391.72	21.42	6.06	16293.60	0.23		
2687.51	192.55	13.96		181.17	8.46	0.000308	
0.26801	108701.75						
106.00	4391.28	20.98	5.92	15391.88	0.23		
2598.48	191.05	13.60		179.27	8.54	0.000295	

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	0.24996	107559.46							
2531.76	107.00	4390.95	20.65	13.37	5.83	14753.21	0.23	8.61	0.000341
	0.28418	106689.23							
2497.38	108.00	4390.78	20.48	13.24	5.77	14411.13	0.22	8.65	0.000335
	0.27668	106228.86							
2436.64	109.00	4390.47	20.17	13.03	5.67	13810.57	0.22	8.71	0.000316
	0.25710	105400.65							
2379.04	110.00	4390.17	19.87	12.82	5.58	13267.17	0.22	8.77	0.000341
	0.27275	104605.20							
2324.27	111.00	4389.89	19.59	12.62	5.49	12762.16	0.22	8.84	0.000331
	0.26111	103838.15							
2280.30	112.00	4389.66	19.36	12.46	5.42	12367.08	0.22	8.89	0.000356
	0.27690	103214.30							
2248.71	113.00	4389.49	19.19	12.35	5.37	12085.41	0.22	8.92	0.000348
	0.26820	102759.96							
2214.93	114.00	4389.31	19.01	12.22	5.32	11776.40	0.21	8.97	0.000320
	0.24418	102267.80							
2176.34	115.00	4389.11	18.81	12.08	5.25	11434.09	0.21	9.01	0.000353
	0.26608	101700.73							
2157.14	116.00	4389.01	18.71	12.01	5.23	11276.98	0.21	9.04	0.000344
	0.25751	101418.91							
2148.65	117.00	4388.96	18.66	11.98	5.21	11201.42	0.21	9.05	0.000318
	0.23792	101291.57							
2128.52	118.00	4388.85	18.55	11.90	5.18	11020.47	0.21	9.07	0.000328
	0.24328	100989.01							
2111.00	119.00	4388.76	18.46	11.84	5.15	10869.13	0.21	9.10	0.000349
	0.25796	100725.46							
2100.23	120.00	4388.70	18.40	11.80	5.13	10783.13	0.21	9.11	0.000350
	0.25794	100563.76							
2097.23	121.00	4388.68	18.38	11.79	5.13	10758.86	0.21	9.11	0.000318
	0.23401	100518.62							
2090.91	122.00	4388.65	18.35	11.76	5.12	10701.24	0.21	9.12	0.000313
	0.22954	100422.17							
2076.06	123.00	4388.57	18.27	11.71	5.09	10568.21	0.21	9.14	0.000353
	0.25765	100194.01							
2058.69	124.00	4388.47	18.17	11.64	5.06	10422.58	0.21	9.16	0.000316
	0.22938	99928.98							
2045.20	125.00	4388.40	18.10	11.59	5.04	10308.94	0.21	9.18	0.000314
	0.22717	99721.23							
2028.85	126.00	4388.31	18.01	11.53	5.01	10170.30	0.21	9.21	0.000344
	0.24753	99467.58							
2018.52	127.00	4388.25	17.95	11.49	5.00	10085.06	0.21	9.22	0.000316

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	0.22686	99308.59						
2008.33	128.00	4388.20	17.90	11.45	4.98	9996.96	0.21	0.000336
	0.23983	99147.93						
1993.26	129.00	4388.11	17.81	11.39	4.95	9871.17	0.21	0.000345
	0.24544	98912.74						
1983.40	130.00	4388.06	17.76	11.36	4.94	9793.30	0.21	0.000321
	0.22717	98758.28						
1973.21	131.00	4388.00	17.70	11.32	4.92	9706.34	0.21	0.000306
	0.21590	98596.11						
1958.11	132.00	4387.92	17.62	11.26	4.89	9581.11	0.21	0.000313
	0.21974	98356.86						
1954.86	133.00	4387.90	17.60	11.25	4.89	9562.95	0.21	0.000315
	0.22131	98307.59						
1965.87	134.00	4387.96	17.66	11.29	4.91	9652.86	0.21	0.000311
	0.21923	98481.91						
1966.67	135.00	4387.97	17.67	11.29	4.91	9655.79	0.21	0.000313
	0.22023	98493.93						
1963.23	136.00	4387.95	17.65	11.28	4.90	9625.65	0.21	0.000315
	0.22168	98439.09						
1959.33	137.00	4387.93	17.63	11.26	4.90	9592.99	0.21	0.000323
	0.22727	98377.11						
1955.58	138.00	4387.90	17.60	11.25	4.89	9561.37	0.21	0.000338
	0.23692	98317.12						
1951.91	139.00	4387.88	17.58	11.24	4.88	9532.32	0.21	0.000337
	0.23637	98259.08						
1948.74	140.00	4387.87	17.57	11.22	4.88	9506.12	0.21	0.000337
	0.23619	98208.26						
1942.05	141.00	4387.83	17.53	11.20	4.87	9450.16	0.20	0.000346
	0.24172	98100.53						
1930.28	142.00	4387.76	17.46	11.15	4.85	9355.24	0.20	0.000327
	0.22744	97912.55						
1924.17	143.00	4387.73	17.43	11.13	4.84	9306.08	0.20	0.000311
	0.21597	97815.11						
1920.43	144.00	4387.71	17.41	11.11	4.83	9276.28	0.20	0.000335
	0.23263	97754.70						
1917.13	145.00	4387.69	17.39	11.10	4.82	9249.20	0.20	0.000341
	0.23629	97701.02						
1911.21	146.00	4387.66	17.36	11.08	4.81	9199.24	0.20	0.000307
	0.21245	97605.41						
1899.29	147.00	4387.59	17.29	11.03	4.79	9102.20	0.20	0.000343
	0.23590	97412.11						
1892.58	148.00	4387.55	17.25	11.01	4.78	9051.54	0.20	0.000308
		171.95						

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	0.21145	97303.80							
1889.03	149.00	4387.53	17.23	10.99	4.78	9021.58	0.20	0.000335	
	0.22950	97245.70				162.08	9.41		
1886.01	150.00	4387.51	17.21	10.98	4.77	8995.61	0.20	0.000315	
	0.21567	97196.15				161.99	9.41		
1883.01	151.00	4387.50	17.20	10.97	4.76	8971.56	0.20	0.000332	
	0.22719	97147.23				161.91	9.41		
1878.12	152.00	4387.47	17.17	10.95	4.76	8931.62	0.20	0.000316	
	0.21612	97066.71				161.78	9.42		
1868.48	153.00	4387.42	17.11	10.91	4.74	8853.97	0.20	0.000330	
	0.22465	96908.44				161.51	9.44		
1860.51	154.00	4387.37	17.07	10.88	4.73	8792.19	0.20	0.000332	
	0.22537	96778.04				161.30	9.45		
1855.74	155.00	4387.34	17.04	10.86	4.72	8755.63	0.20	0.000319	
	0.21630	96699.70				161.17	9.46		
1849.63	156.00	4387.31	17.01	10.84	4.71	8703.75	0.20	0.000317	
	0.21414	96597.87				161.00	9.47		
1843.38	157.00	4387.27	16.97	10.81	4.70	8658.55	0.20	0.000328	
	0.22130	96495.94				160.83	9.48		
1855.40	158.00	4387.34	17.04	10.86	4.72	8757.84	0.20	0.000323	
	0.21861	96695.67				161.16	9.46		
1861.10	159.00	4387.37	17.07	10.88	4.73	8798.72	0.20	0.000325	
	0.22050	96788.52				161.31	9.45		
1861.67	160.00	4387.38	17.08	10.89	4.73	8801.72	0.20	0.000323	
	0.21936	96797.76				161.33	9.45		
1860.95	161.00	4387.37	17.07	10.88	4.73	8797.00	0.20	0.000329	
	0.22328	96785.66				161.31	9.45		
1860.05	162.00	4387.37	17.07	10.88	4.73	8790.20	0.20	0.000320	
	0.21703	96771.21				161.29	9.45		
1859.19	163.00	4387.36	17.06	10.88	4.72	8783.74	0.20	0.000331	
	0.22478	96756.63				161.26	9.45		
1858.23	164.00	4387.36	17.06	10.87	4.72	8776.59	0.20	0.000316	
	0.21408	96741.16				161.24	9.45		
1857.52	165.00	4387.35	17.05	10.87	4.72	8770.03	0.20	0.000332	
	0.22509	96729.09				161.22	9.45		
1854.02	166.00	4387.33	17.03	10.86	4.71	8740.21	0.20	0.000325	
	0.22015	96671.04				161.12	9.46		
1843.80	167.00	4387.27	16.97	10.82	4.70	8659.34	0.20	0.000320	
	0.21571	96501.75				160.84	9.47		
1838.43	168.00	4387.24	16.94	10.80	4.69	8618.75	0.20	0.000326	
	0.21935	96413.30				160.69	9.48		
1836.36	169.00	4387.23	16.93	10.79	4.68	8602.74	0.20	0.000328	
		170.24				160.63	9.49		

HYCHAN.OUT

	0.22071	96379.31						
1835.10	170.00	4387.23	16.93	10.78	4.68	8594.54	0.20	0.000316
	0.21233	96358.16						
1834.08	171.00	4387.22	16.92	10.78	4.68	8585.79	0.20	0.000329
	0.22131	96341.35						
1833.16	172.00	4387.21	16.91	10.77	4.68	8579.07	0.20	0.000324
	0.21790	96326.15						
1832.40	173.00	4387.21	16.91	10.77	4.68	8572.56	0.20	0.000320
	0.21495	96313.27						
1828.68	174.00	4387.19	16.89	10.76	4.67	8539.61	0.20	0.000321
	0.21522	96250.50						
1818.30	175.00	4387.13	16.83	10.72	4.65	8458.23	0.20	0.000320
	0.21384	96077.25						
1812.72	176.00	4387.10	16.80	10.69	4.64	8417.59	0.20	0.000326
	0.21742	95984.64						
1810.55	177.00	4387.08	16.79	10.69	4.64	8400.53	0.20	0.000333
	0.22204	95948.38						
1809.10	178.00	4387.08	16.78	10.68	4.64	8388.81	0.20	0.000325
	0.21684	95924.07						
1808.07	179.00	4387.07	16.77	10.68	4.64	8380.99	0.20	0.000318
	0.21190	95906.82						
1806.94	180.00	4387.06	16.76	10.67	4.63	8372.73	0.20	0.000323
	0.21493	95887.99						
1812.12	181.00	4387.09	16.79	10.69	4.65	8418.20	0.20	0.000318
	0.21249	95976.27						
1830.80	182.00	4387.20	16.90	10.77	4.68	8566.03	0.20	0.000318
	0.21337	96288.33						
1842.18	183.00	4387.27	16.97	10.81	4.70	8653.84	0.20	0.000329
	0.22210	96477.32						
1854.03	184.00	4387.33	17.03	10.86	4.72	8746.79	0.20	0.000317
	0.21461	96672.82						
1859.37	185.00	4387.36	17.06	10.88	4.73	8787.31	0.20	0.000328
	0.22288	96760.33						
1861.55	186.00	4387.38	17.08	10.89	4.73	8803.03	0.20	0.000322
	0.21849	96795.89						
1862.55	187.00	4387.38	17.08	10.89	4.73	8810.80	0.20	0.000326
	0.22174	96812.47						
1863.30	188.00	4387.39	17.09	10.89	4.73	8816.44	0.20	0.000323
	0.21986	96824.33						
1863.49	189.00	4387.39	17.09	10.89	4.73	8818.02	0.20	0.000316
	0.21502	96827.66						
1863.51	190.00	4387.39	17.09	10.89	4.73	8818.23	0.20	0.000331
		171.07						

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## HYCHAN.OUT

1863.65	0.22533	96828.27	17.09	4.73	8819.00	0.20	0.000317
	191.00	4387.39	10.89	161.38	9.44		
	0.21530	96830.31					
1860.61	192.00	4387.37	17.07	4.73	8791.94	0.20	0.000328
		170.98	10.88	161.30	9.45		
	0.22306	96779.51					
1850.95	193.00	4387.32	17.02	4.71	8714.33	0.20	0.000318
		170.68	10.84	161.03	9.46		
	0.21510	96619.96					
1846.00	194.00	4387.29	16.99	4.70	8679.34	0.20	0.000327
		170.53	10.82	160.90	9.47		
	0.22082	96539.03					
1844.35	195.00	4387.28	16.98	4.70	8664.54	0.20	0.000319
		170.48	10.82	160.85	9.47		
	0.21540	96511.55					
1843.36	196.00	4387.27	16.97	4.70	8658.57	0.20	0.000325
		170.45	10.81	160.83	9.48		
	0.21946	96495.46					
1842.62	197.00	4387.27	16.97	4.70	8652.12	0.20	0.000320
		170.43	10.81	160.80	9.48		
	0.21565	96482.89					
1842.17	198.00	4387.27	16.97	4.69	8648.17	0.20	0.000331
		170.42	10.81	160.79	9.48		
	0.22348	96475.87					
1841.66	199.00	4387.26	16.96	4.69	8644.16	0.20	0.000321
		170.40	10.81	160.78	9.48		
	0.21640	96467.12					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5076

MAXIMUM DISCHARGE (CFS) = 22071.76 AT TIME = 91.66  
 MAXIMUM STAGE = 4393.67 AT TIME = 91.77

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)		(FT^2)			(FT)			
0.00	0.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	1.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	2.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	3.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	4.00	4370.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	5.00	4375.80	5.50	2.26	1447.19	0.17		
640.86		85.39	7.51	81.62	14.85		0.000500	
	0.23438	57134.92						
1039.64	6.00	4382.69	12.39	3.95	4107.12	0.20		
		126.11	8.24	116.70	9.42		0.000483	
	0.24857	81687.28						

HYCHAN.OUT									
1151.51	7.00	4383.52	13.22	8.85	4.17	4805.44	0.20	0.000487	
	0.26898	130.11				120.08	9.08		
	8.00	4383.79	13.49	9.05	4.25	5055.62	0.20	0.000486	
	0.27449	131.39				121.17	8.98		
1189.29	9.00	4383.79	13.49	9.05	4.25	5049.54	0.20	0.000484	
	0.27360	131.39				121.16	8.98		
	10.00	4383.68	13.38	8.97	4.20	4934.99	0.20	0.000480	
1174.18	0.26849	130.87				120.72	9.02		
	11.00	4383.59	13.29	8.90	4.18	4850.06	0.20	0.000488	
1161.21	0.27116	130.43				120.35	9.06		
	12.00	4383.54	13.24	8.86	4.16	4803.67	0.20	0.000479	
1153.86	0.26495	130.18				120.14	9.08		
	13.00	4383.45	13.15	8.80	4.13	4722.11	0.20	0.000481	
1142.41	0.26415	129.78				119.80	9.11		
	14.00	4383.33	13.03	8.71	4.09	4605.22	0.20	0.000482	
1125.87	0.26210	129.20				119.31	9.16		
	15.00	4383.25	12.95	8.65	4.06	4530.66	0.20	0.000478	
1114.65	0.25803	128.81				118.98	9.19		
	16.00	4383.21	12.91	8.63	4.05	4497.94	0.20	0.000471	
1109.73	0.25349	128.63				118.83	9.20		
	17.00	4383.19	12.89	8.62	4.05	4483.63	0.20	0.000468	
1107.53	0.25158	128.56				118.77	9.21		
	18.00	4383.19	12.89	8.61	4.04	4475.31	0.20	0.000467	
1106.48	0.25100	128.52				118.73	9.21		
	19.00	4383.19	12.89	8.61	4.04	4475.02	0.20	0.000471	
1106.95	0.25332	128.54				118.75	9.21		
	20.00	4383.25	12.95	8.66	4.06	4534.33	0.20	0.000474	
1115.57	0.25583	128.84				119.01	9.19		
	21.00	4383.38	13.08	8.75	4.11	4650.81	0.20	0.000477	
1132.00	0.26056	129.42				119.50	9.14		
	22.00	4383.51	13.21	8.85	4.16	4781.54	0.20	0.000482	
1150.72	0.26595	130.07				120.05	9.09		
	23.00	4383.59	13.29	8.90	4.18	4853.15	0.20	0.000487	
1161.21	0.27028	130.43				120.35	9.06		
	24.00	4383.64	13.34	8.94	4.19	4897.37	0.20	0.000476	
1167.48	0.26564	130.65				120.54	9.04		
	25.00	4383.73	13.43	9.01	4.23	4996.22	0.20	0.000492	
1180.69	0.27671	131.10				120.92	9.00		
	26.00	4383.94	13.64	9.16	4.31	5208.38	0.21	0.000496	
1209.05	0.28316	132.06				121.73	8.93		
	27.00	4384.21	13.91	9.35	4.40	5486.45	0.21	0.000499	
1246.99	0.29153	133.31				122.79	8.83		
		85952.84							



HYCHAN.OUT									
1279.62	28.00	4384.44	14.14	9.52	4.48	5730.32	0.21	8.75	0.000501
	0.29785	134.37				123.68			
		86577.55							
1296.73	29.00	4384.56	14.26	9.61	4.52	5857.05	0.21	8.71	0.000503
	0.30149	134.92				124.14			
		86899.38							
1305.93	30.00	4384.62	14.32	9.66	4.54	5927.04	0.21	8.68	0.000505
	0.30449	135.21				124.39			
		87071.83							
1318.30	31.00	4384.71	14.41	9.72	4.57	6024.49	0.21	8.65	0.000505
	0.30660	135.60				124.72			
		87302.69							
1326.08	32.00	4384.76	14.46	9.76	4.59	6083.96	0.21	8.64	0.000505
	0.30779	135.84				124.92			
		87446.51							
1332.00	33.00	4384.81	14.51	9.79	4.60	6130.31	0.21	8.62	0.000508
	0.31064	136.03				125.08			
		87556.19							
1343.05	34.00	4384.88	14.58	9.85	4.63	6218.34	0.21	8.60	0.000509
	0.31289	136.38				125.37			
		87759.84							
1349.90	35.00	4384.93	14.63	9.88	4.65	6271.08	0.21	8.58	0.000510
	0.31421	136.59				125.55			
		87884.55							
1347.76	36.00	4384.91	14.61	9.87	4.64	6248.37	0.21	8.59	0.000506
	0.31176	136.52				125.49			
		87842.88							
1337.55	37.00	4384.84	14.54	9.82	4.61	6171.89	0.21	8.61	0.000505
	0.30959	136.20				125.22			
		87657.02							
1334.54	38.00	4384.82	14.52	9.81	4.61	6146.27	0.21	8.62	0.000512
	0.31326	136.11				125.14			
		87601.12							
1326.00	39.00	4384.76	14.46	9.76	4.58	6078.28	0.21	8.64	0.000500
	0.30434	135.84				124.92			
		87442.89							
1319.94	40.00	4384.72	14.42	9.73	4.57	6032.60	0.21	8.65	0.000507
	0.30780	135.65				124.76			
		87331.23							
1317.01	41.00	4384.70	14.40	9.72	4.56	6010.21	0.21	8.66	0.000506
	0.30695	135.56				124.68			
		87276.69							
1315.42	42.00	4384.69	14.39	9.71	4.56	5998.90	0.21	8.66	0.000505
	0.30593	135.51				124.64			
		87247.68							
1314.34	43.00	4384.68	14.38	9.70	4.56	5990.54	0.21	8.66	0.000506
	0.30623	135.47				124.61			
		87227.71							
1315.87	44.00	4384.69	14.39	9.71	4.56	6005.77	0.21	8.66	0.000509
	0.30864	135.52				124.65			
		87257.28							
1323.59	45.00	4384.75	14.45	9.75	4.58	6067.36	0.21	8.64	0.000508
	0.30884	135.77				124.86			
		87401.12							
1330.35	46.00	4384.79	14.49	9.78	4.60	6122.27	0.21	8.63	0.000508
	0.31026	135.98				125.04			
		87526.95							
1344.65	47.00	4384.89	14.59	9.86	4.64	6234.23	0.21	8.59	0.000521
	0.32035	136.43				125.41			
		87789.95							
1362.26	48.00	4385.02	14.72	9.95	4.68	6377.33	0.22	8.55	0.000515
	0.31934	136.97				125.87			
		88112.11							

HYCHAN.OUT							
49.00	4385.15	14.85	4.73	6535.52	0.22		
1382.00	137.58	10.05		126.38	8.51	0.000514	
0.32241	88468.95						
50.00	4385.29	14.99	4.78	6695.64	0.22		
1401.70	138.18	10.14		126.89	8.47	0.000513	
0.32483	88821.05						
51.00	4385.43	15.12	4.83	6862.80	0.22		
1422.07	138.79	10.25		127.40	8.42	0.000524	
0.33517	89181.68						
52.00	4385.58	15.28	4.88	7053.26	0.22		
1444.87	139.47	10.36		127.97	8.38	0.000519	
0.33561	89581.31						
53.00	4385.76	15.46	4.95	7280.84	0.22		
1471.99	140.26	10.49		128.64	8.32	0.000525	
0.34351	90050.61						
54.00	4385.87	15.57	4.98	7411.99	0.22		
1487.71	140.72	10.57		129.03	8.29	0.000526	
0.34722	90319.02						
55.00	4386.03	15.73	5.04	7620.67	0.22		
1511.41	141.40	10.69		129.60	8.24	0.000534	
0.35622	90722.27						
56.00	4386.39	16.09	5.18	8116.18	0.23		
1566.89	142.98	10.96		130.93	8.14	0.000548	
0.37463	91647.55						
57.00	4386.84	16.54	5.35	8740.85	0.23		
1635.13	144.86	11.29		132.50	8.01	0.000560	
0.39429	92751.41						
58.00	4387.39	17.09	5.55	9556.05	0.24		
1721.90	147.17	11.70		134.44	7.87	0.000572	
0.41724	94109.61						
59.00	4387.94	17.64	5.75	10393.44	0.24		
1808.76	149.41	12.11		136.32	7.73	0.000579	
0.43747	95421.75						
60.00	4388.33	18.02	5.88	11008.38	0.24		
1871.29	150.98	12.39		137.63	7.64	0.000584	
0.45157	96337.94						
61.00	4388.57	18.27	5.97	11412.27	0.25		
1910.72	151.95	12.57		138.43	7.58	0.000588	
0.46108	96904.28						
62.00	4388.74	18.44	6.03	11696.08	0.25		
1938.39	152.62	12.70		138.99	7.54	0.000589	
0.46712	97296.43						
63.00	4388.82	18.52	6.07	11843.29	0.25		
1952.67	152.96	12.77		139.28	7.52	0.000590	
0.47034	97497.20						
64.00	4388.90	18.60	6.09	11977.94	0.25		
1965.50	153.27	12.82		139.54	7.50	0.000593	
0.47461	97677.23						
65.00	4388.99	18.69	6.13	12131.43	0.25		
1980.01	153.62	12.89		139.83	7.48	0.000594	
0.47813	97879.75						
66.00	4389.08	18.78	6.16	12284.89	0.25		
1994.96	153.97	12.96		140.12	7.46	0.000596	
0.48179	98087.35						
67.00	4389.16	18.85	6.18	12413.40	0.25		
2007.84	154.28	13.01		140.38	7.45	0.000597	
0.48479	98264.84						
68.00	4389.22	18.92	6.21	12526.83	0.25		
2018.71	154.53	13.06		140.59	7.43	0.000598	
0.48786	98413.41						
69.00	4389.17	18.87	6.19	12441.82	0.25		
2010.39	154.34	13.03		140.43	7.44	0.000601	
0.48848	98300.12						

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HYCHAN.OUT							
2034.23	70.00	4389.31	19.01	6.25	12711.41	0.25	0.000606
	0.49637	154.90	13.13		140.90	7.41	
		98628.84					
2072.75	71.00	4389.54	19.24	6.34	13131.64	0.25	0.000612
	0.50824	155.80	13.30		141.65	7.36	
		99151.92					
2109.01	72.00	4389.76	19.46	6.42	13532.86	0.26	0.000618
	0.51967	156.63	13.46		142.34	7.31	
		99637.26					
2172.42	73.00	4390.13	19.83	6.56	14248.40	0.26	0.000620
	0.53207	158.06	13.74		143.53	7.24	
		100472.52					
2206.69	74.00	4390.33	20.03	6.63	14621.66	0.26	0.000623
	0.53971	158.82	13.89		144.16	7.20	
		100914.59					
2231.82	75.00	4390.48	20.18	6.68	14911.65	0.26	0.000625
	0.54642	159.38	14.00		144.62	7.17	
		101237.18					
2263.69	76.00	4390.66	20.36	6.75	15286.76	0.26	0.000629
	0.55477	160.07	14.14		145.20	7.13	
		101642.88					
2294.08	77.00	4390.83	20.53	6.82	15641.45	0.27	0.000631
	0.56205	160.73	14.27		145.75	7.10	
		102025.34					
2315.00	78.00	4390.96	20.65	6.86	15890.73	0.27	0.000634
	0.56865	161.18	14.36		146.12	7.07	
		102286.88					
2358.15	79.00	4391.20	20.90	6.96	16414.58	0.27	0.000640
	0.58097	162.10	14.55		146.89	7.03	
		102821.10					
2397.09	80.00	4391.42	21.12	7.05	16895.27	0.27	0.000648
	0.59495	162.91	14.71		147.56	6.99	
		103295.08					
2446.83	81.00	4391.70	21.40	7.16	17510.25	0.27	0.000653
	0.60832	163.94	14.93		148.41	6.94	
		103890.44					
2492.11	82.00	4391.95	21.65	7.25	18076.97	0.27	0.000663
	0.62537	164.85	15.12		149.18	6.89	
		104422.91					
2542.81	83.00	4392.22	21.92	7.36	18726.87	0.28	0.000668
	0.64005	165.72	15.34		150.01	6.84	
		105005.53					
2590.82	84.00	4392.48	22.18	7.47	19348.44	0.28	0.000676
	0.65724	166.24	15.58		150.78	6.80	
		105549.37					
2630.14	85.00	4392.71	22.41	7.56	19895.95	0.28	0.000681
	0.67086	166.69	15.78		151.46	6.76	
		106025.32					
2659.88	86.00	4392.89	22.59	7.64	20320.22	0.28	0.000690
	0.68532	167.05	15.92		151.99	6.73	
		106391.43					
2683.99	87.00	4393.03	22.73	7.70	20669.69	0.28	0.000696
	0.69666	167.33	16.04		152.41	6.71	
		106684.26					
2709.84	88.00	4393.18	22.88	7.77	21054.06	0.29	0.000703
	0.70895	167.63	16.17		152.85	6.68	
		106994.41					
2741.16	89.00	4393.36	23.06	7.85	21519.20	0.29	0.000706
	0.71871	167.99	16.32		153.38	6.65	
		107363.52					
2764.62	90.00	4393.49	23.19	7.91	21859.81	0.29	0.000713
	0.73089	168.26	16.43		153.77	6.63	
		107635.84					

HYCHAN.OUT							
91.00	4393.53	23.23	7.92	21948.00	0.29		
2771.41	168.33	16.46	153.87	6.62	0.000707		
0.72677	107710.02						
92.00	4393.55	23.25	7.93	21996.14	0.29		
2774.49	168.37	16.48	153.93	6.62	0.000707		
0.72651	107752.62						
93.00	4393.48	23.18	7.89	21794.41	0.29		
2761.73	168.23	16.42	153.72	6.63	0.000706		
0.72351	107603.47						
94.00	4393.38	23.08	7.85	21559.23	0.29		
2745.26	168.03	16.34	153.44	6.65	0.000704		
0.71815	107407.00						
95.00	4393.29	22.98	7.81	21323.28	0.29		
2729.10	167.84	16.26	153.16	6.66	0.000696		
0.70587	107212.90						
96.00	4393.16	22.86	7.76	21016.68	0.29		
2708.39	167.60	16.16	152.80	6.68	0.000693		
0.69883	106963.00						
97.00	4393.01	22.71	7.69	20628.44	0.28		
2681.73	167.29	16.03	152.35	6.71	0.000692		
0.69258	106642.76						
98.00	4392.88	22.58	7.64	20306.91	0.28		
2659.43	167.03	15.92	151.96	6.73	0.000680		
0.67600	106371.78						
99.00	4392.72	22.42	7.57	19915.64	0.28		
2632.48	166.71	15.79	151.49	6.76	0.000674		
0.66379	106039.87						
100.00	4392.53	22.23	7.49	19469.24	0.28		
2601.08	166.34	15.64	150.93	6.79	0.000662		
0.64576	105653.88						
101.00	4392.37	22.07	7.42	19066.44	0.28		
2570.57	166.01	15.48	150.44	6.82	0.000666		
0.64309	105307.05						
102.00	4392.19	21.89	7.34	18618.47	0.28		
2537.23	165.65	15.32	149.90	6.85	0.000657		
0.62835	104930.44						
103.00	4391.94	21.64	7.24	18030.83	0.27		
2491.35	164.82	15.12	149.15	6.89	0.000653		
0.61605	104405.64						
104.00	4391.61	21.31	7.11	17285.66	0.27		
2432.31	163.62	14.87	148.15	6.95	0.000632		
0.58664	103708.22						
105.00	4391.17	20.87	6.93	16314.13	0.27		
2353.63	161.98	14.53	146.79	7.03	0.000627		
0.56877	102754.46						
106.00	4390.73	20.43	6.77	15406.07	0.26		
2276.91	160.34	14.20	145.43	7.12	0.000633		
0.56078	101801.22						
107.00	4390.40	20.10	6.65	14760.16	0.26		
2219.69	159.10	13.95	144.40	7.18	0.000605		
0.52638	101079.28						
108.00	4390.23	19.93	6.58	14418.28	0.26		
2190.39	158.45	13.82	143.86	7.22	0.000607		
0.52373	100700.25						
109.00	4389.93	19.63	6.46	13821.72	0.26		
2138.81	157.29	13.60	142.89	7.28	0.000614		
0.52083	100023.33						
110.00	4389.64	19.34	6.35	13277.49	0.25		
2089.61	156.17	13.38	141.96	7.34	0.000599		
0.50034	99370.23						
111.00	4389.36	19.06	6.25	12770.44	0.25		
2042.67	155.09	13.17	141.05	7.40	0.000583		
0.47884	98737.95						

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HYCHAN.OUT							
2004.95	112.00	4389.14	18.84	6.17	12373.72	0.25	0.000592
	0.47990	154.20	13.00		140.32	7.45	
		98222.54					
1977.82	113.00	4388.97	18.67	6.11	12090.53	0.25	0.000576
	0.46306	153.56	12.88		139.78	7.49	
		97847.59					
1948.97	114.00	4388.80	18.50	6.05	11782.28	0.25	0.000570
	0.45316	152.87	12.75		139.20	7.53	
		97442.71					
1915.93	115.00	4388.60	18.30	5.97	11440.34	0.25	0.000582
	0.45790	152.07	12.60		138.54	7.57	
		96974.76					
1899.27	116.00	4388.50	18.20	5.94	11277.99	0.25	0.000596
	0.46599	151.67	12.52		138.20	7.59	
		96739.49					
1892.01	117.00	4388.45	18.15	5.92	11203.50	0.25	0.000595
	0.46341	151.49	12.49		138.05	7.61	
		96634.85					
1874.85	118.00	4388.35	18.05	5.88	11024.22	0.24	0.000592
	0.45885	151.06	12.41		137.69	7.63	
		96386.21					
1859.79	119.00	4388.25	17.95	5.85	10872.13	0.24	0.000583
	0.44894	150.69	12.34		137.38	7.65	
		96168.20					
1850.45	120.00	4388.20	17.90	5.83	10784.11	0.24	0.000571
	0.43806	150.46	12.30		137.19	7.67	
		96033.30					
1847.84	121.00	4388.18	17.88	5.82	10758.82	0.24	0.000566
	0.43389	150.39	12.29		137.14	7.67	
		95995.58					
1842.49	122.00	4388.15	17.85	5.81	10702.79	0.24	0.000590
	0.45168	150.26	12.26		137.02	7.68	
		95916.18					
1829.85	123.00	4388.07	17.77	5.78	10572.11	0.24	0.000572
	0.43563	149.94	12.20		136.76	7.70	
		95729.30					
1814.84	124.00	4387.97	17.67	5.74	10424.37	0.24	0.000565
	0.42761	149.56	12.13		136.44	7.72	
		95508.95					
1803.28	125.00	4387.90	17.60	5.72	10311.61	0.24	0.000581
	0.43826	149.27	12.08		136.20	7.74	
		95336.74					
1789.24	126.00	4387.81	17.51	5.69	10173.30	0.24	0.000551
	0.41287	148.91	12.02		135.90	7.76	
		95127.55					
1780.31	127.00	4387.76	17.46	5.67	10086.03	0.24	0.000581
	0.43421	148.68	11.97		135.71	7.77	
		94994.31					
1771.62	128.00	4387.70	17.40	5.64	9999.73	0.24	0.000551
	0.41011	148.46	11.93		135.52	7.79	
		94862.95					
1758.66	129.00	4387.62	17.32	5.61	9873.38	0.24	0.000567
	0.42032	148.13	11.87		135.24	7.81	
		94666.98					
1750.12	130.00	4387.57	17.27	5.60	9794.30	0.24	0.000579
	0.42756	147.91	11.83		135.05	7.82	
		94538.36					
1741.40	131.00	4387.51	17.21	5.58	9708.57	0.24	0.000567
	0.41746	147.68	11.79		134.86	7.83	
		94405.10					
1728.44	132.00	4387.43	17.13	5.54	9583.43	0.24	0.000570
	0.41735	147.34	11.73		134.58	7.86	
		94206.51					

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HYCHAN.OUT							
1725.49	133.00	4387.41	17.11	5.54	9561.53	0.24	0.000579
	0.42321	147.27	11.72		134.52	7.86	
		94163.30					
1734.98	134.00	4387.47	17.17	5.56	9651.70	0.24	0.000568
	0.41664	147.51	11.76		134.73	7.84	
		94308.65					
1735.74	135.00	4387.48	17.18	5.56	9656.09	0.24	0.000570
	0.41818	147.53	11.77		134.74	7.84	
		94319.33					
1732.81	136.00	4387.46	17.16	5.56	9626.38	0.24	0.000573
	0.42030	147.46	11.75		134.68	7.85	
		94274.16					
1729.46	137.00	4387.44	17.14	5.55	9593.94	0.24	0.000578
	0.42313	147.37	11.74		134.60	7.85	
		94222.81					
1726.25	138.00	4387.42	17.12	5.54	9562.25	0.24	0.000575
	0.42056	147.28	11.72		134.53	7.86	
		94173.45					
1723.07	139.00	4387.40	17.10	5.53	9533.01	0.24	0.000573
	0.41886	147.20	11.71		134.46	7.86	
		94124.87					
1720.35	140.00	4387.38	17.08	5.53	9506.76	0.24	0.000573
	0.41837	147.13	11.69		134.40	7.87	
		94082.99					
1714.63	141.00	4387.34	17.04	5.51	9452.31	0.24	0.000555
	0.40423	146.98	11.67		134.28	7.88	
		93994.36					
1704.47	142.00	4387.28	16.98	5.49	9356.41	0.23	0.000544
	0.39408	146.71	11.62		134.05	7.90	
		93837.68					
1699.19	143.00	4387.25	16.95	5.48	9306.34	0.23	0.000557
	0.40323	146.57	11.59		133.94	7.90	
		93756.16					
1695.97	144.00	4387.23	16.93	5.47	9277.46	0.23	0.000571
	0.41240	146.49	11.58		133.87	7.91	
		93705.97					
1693.12	145.00	4387.21	16.91	5.46	9249.96	0.23	0.000543
	0.39188	146.41	11.56		133.80	7.91	
		93662.03					
1688.07	146.00	4387.17	16.87	5.45	9200.31	0.23	0.000555
	0.39964	146.28	11.54		133.69	7.92	
		93582.57					
1677.83	147.00	4387.11	16.81	5.43	9104.48	0.23	0.000560
	0.40143	146.00	11.49		133.46	7.94	
		93422.12					
1671.95	148.00	4387.07	16.77	5.41	9051.83	0.23	0.000549
	0.39241	145.85	11.46		133.33	7.95	
		93331.35					
1668.97	149.00	4387.05	16.75	5.41	9022.51	0.23	0.000554
	0.39600	145.77	11.45		133.26	7.95	
		93283.70					
1666.40	150.00	4387.04	16.74	5.40	8995.83	0.23	0.000550
	0.39245	145.70	11.44		133.20	7.96	
		93243.18					
1663.84	151.00	4387.02	16.72	5.39	8972.40	0.23	0.000553
	0.39452	145.63	11.43		133.15	7.96	
		93202.45					
1659.64	152.00	4386.99	16.69	5.38	8932.74	0.23	0.000555
	0.39502	145.51	11.41		133.05	7.97	
		93136.04					
1651.35	153.00	4386.94	16.64	5.36	8855.89	0.23	0.000543
	0.38545	145.29	11.37		132.86	7.99	
		93004.84					

HYCHAN.OUT							
154.00	4386.89	16.59	5.35	8793.23	0.23		
1644.46	145.10	11.33		132.71	8.00	0.000553	
0.39129	92895.62						
155.00	4386.87	16.57	5.34	8756.00	0.23		
1640.31	144.99	11.31		132.61	8.00	0.000556	
0.39245	92830.23						
156.00	4386.83	16.53	5.32	8705.55	0.23		
1635.11	144.85	11.29		132.50	8.01	0.000548	
0.38624	92746.51						
157.00	4386.80	16.50	5.31	8657.90	0.23		
1629.64	144.70	11.26		132.37	8.02	0.000544	
0.38198	92660.36						
158.00	4386.87	16.57	5.34	8755.86	0.23		
1639.94	144.98	11.31		132.61	8.00	0.000551	
0.38887	92825.39						
159.00	4386.90	16.60	5.35	8798.37	0.23		
1644.91	145.12	11.33		132.72	8.00	0.000543	
0.38431	92903.80						
160.00	4386.90	16.60	5.35	8801.77	0.23		
1645.44	145.13	11.34		132.73	8.00	0.000555	
0.39252	92911.61						
161.00	4386.90	16.60	5.35	8797.20	0.23		
1644.81	145.11	11.33		132.72	8.00	0.000545	
0.38555	92901.84						
162.00	4386.89	16.59	5.35	8790.26	0.23		
1644.02	145.09	11.33		132.70	8.00	0.000555	
0.39258	92889.31						
163.00	4386.89	16.59	5.35	8784.08	0.23		
1643.29	145.07	11.33		132.68	8.00	0.000547	
0.38660	92877.76						
164.00	4386.88	16.58	5.34	8776.36	0.23		
1642.45	145.05	11.32		132.66	8.00	0.000548	
0.38754	92864.42						
165.00	4386.88	16.58	5.34	8770.59	0.23		
1641.85	145.03	11.32		132.65	8.00	0.000547	
0.38638	92854.78						
166.00	4386.86	16.56	5.33	8741.42	0.23		
1638.87	144.95	11.31		132.58	8.01	0.000549	
0.38747	92806.73						
167.00	4386.80	16.50	5.31	8660.73	0.23		
1630.06	144.71	11.26		132.38	8.02	0.000549	
0.38560	92666.20						
168.00	4386.77	16.47	5.30	8619.49	0.23		
1625.41	144.59	11.24		132.27	8.03	0.000541	
0.37976	92592.11						
169.00	4386.76	16.46	5.30	8602.95	0.23		
1623.62	144.54	11.23		132.23	8.03	0.000560	
0.39230	92563.46						
170.00	4386.75	16.45	5.30	8594.54	0.23		
1622.49	144.51	11.23		132.21	8.04	0.000543	
0.38023	92545.94						
171.00	4386.75	16.45	5.29	8586.17	0.23		
1621.62	144.48	11.22		132.19	8.04	0.000547	
0.38322	92531.79						
172.00	4386.74	16.44	5.29	8579.09	0.23		
1620.84	144.46	11.22		132.17	8.04	0.000552	
0.38637	92519.08						
173.00	4386.74	16.44	5.29	8572.65	0.23		
1620.18	144.44	11.22		132.16	8.04	0.000552	
0.38655	92508.58						
174.00	4386.72	16.42	5.28	8541.11	0.23		
1617.04	144.36	11.20		132.08	8.05	0.000540	
0.37778	92457.23						



HYCHAN.OUT							
1608.08	175.00	4386.66	16.36	5.26	8459.84	0.23	0.000539
	0.37496	144.11	11.16		131.88	8.06	
		92312.93					
1603.23	176.00	4386.63	16.33	5.25	8418.15	0.23	0.000541
	0.37606	143.98	11.14		131.76	8.07	
		92235.09					
1601.36	177.00	4386.62	16.32	5.25	8400.93	0.23	0.000545
	0.37830	143.93	11.13		131.72	8.07	
		92204.80					
1600.10	178.00	4386.61	16.31	5.24	8389.00	0.23	0.000549
	0.38129	143.89	11.12		131.69	8.08	
		92184.53					
1599.20	179.00	4386.60	16.30	5.24	8380.91	0.23	0.000547
	0.37909	143.87	11.12		131.67	8.08	
		92170.10					
1598.23	180.00	4386.60	16.29	5.24	8372.89	0.23	0.000547
	0.37930	143.84	11.11		131.65	8.08	
		92154.38					
1602.59	181.00	4386.62	16.32	5.25	8415.51	0.23	0.000548
	0.38100	143.96	11.13		131.75	8.07	
		92226.31					
1618.69	182.00	4386.73	16.43	5.29	8563.64	0.23	0.000547
	0.38253	144.41	11.21		132.12	8.04	
		92486.12					
1628.52	183.00	4386.79	16.49	5.31	8651.83	0.23	0.000546
	0.38319	144.67	11.26		132.35	8.02	
		92643.48					
1638.74	184.00	4386.86	16.56	5.34	8745.16	0.23	0.000550
	0.38818	144.95	11.31		132.58	8.01	
		92806.47					
1643.39	185.00	4386.89	16.59	5.35	8786.87	0.23	0.000551
	0.38931	145.08	11.33		132.69	8.00	
		92879.84					
1645.29	186.00	4386.90	16.60	5.35	8802.69	0.23	0.000544
	0.38479	145.13	11.34		132.73	8.00	
		92909.91					
1646.16	187.00	4386.91	16.61	5.35	8810.76	0.23	0.000562
	0.39778	145.15	11.34		132.75	7.99	
		92923.46					
1646.81	188.00	4386.91	16.61	5.35	8816.28	0.23	0.000544
	0.38539	145.17	11.34		132.76	7.99	
		92933.87					
1646.98	189.00	4386.91	16.61	5.35	8817.94	0.23	0.000545
	0.38600	145.17	11.34		132.77	7.99	
		92936.41					
1646.98	190.00	4386.91	16.61	5.35	8818.36	0.23	0.000552
	0.39075	145.17	11.34		132.77	7.99	
		92936.62					
1647.10	191.00	4386.91	16.61	5.35	8818.94	0.23	0.000549
	0.38868	145.18	11.35		132.77	7.99	
		92938.53					
1644.55	192.00	4386.90	16.59	5.35	8793.34	0.23	0.000551
	0.38969	145.11	11.33		132.71	8.00	
		92897.05					
1636.22	193.00	4386.84	16.54	5.33	8715.48	0.23	0.000548
	0.38590	144.88	11.29		132.52	8.01	
		92764.59					
1631.92	194.00	4386.81	16.51	5.32	8679.97	0.23	0.000550
	0.38697	144.76	11.27		132.42	8.02	
		92696.42					
1630.50	195.00	4386.80	16.50	5.31	8664.64	0.23	0.000546
	0.38413	144.73	11.27		132.39	8.02	
		92673.82					

HYCHAN.OUT							
196.00	4386.80	16.50	5.31	8658.73	0.23		
1629.64	144.70	11.26	132.37	8.02	0.000553		
0.38859	92659.98						
197.00	4386.79	16.49	5.31	8652.32	0.23		
1628.99	144.69	11.26	132.36	8.02	0.000544		
0.38201	92649.82						
198.00	4386.79	16.49	5.31	8648.16	0.23		
1628.61	144.68	11.26	132.35	8.02	0.000549		
0.38574	92643.66						
199.00	4386.79	16.49	5.31	8644.16	0.23		
1628.19	144.66	11.26	132.34	8.03	0.000546		
0.38373	92636.77						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5080

MAXIMUM DISCHARGE (CFS) = 22079.37 AT TIME = 91.76  
 MAXIMUM STAGE = 4392.69 AT TIME = 91.69

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4370.25	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	1.00	4370.25	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	2.00	4370.25	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	3.00	4370.25	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	4.00	4370.25	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	5.00	4375.11	4.86	2.04	1300.41	0.16		
637.44	0.28842	80.45	7.92	77.29	15.91	0.000583		
0.00	6.00	4382.14	11.89	3.88	4075.64	0.20		
1050.19	0.29906	123.66	8.49	114.61	9.64	0.000564		
0.00	7.00	4382.97	12.72	4.11	4793.97	0.20		
1165.75	0.32487	127.70	9.13	118.04	9.28	0.000570		
0.00	8.00	4383.24	12.99	4.19	5053.71	0.21		
1205.02	0.33112	128.99	9.34	119.13	9.17	0.000568		
0.00	9.00	4383.24	12.99	4.19	5050.77	0.20		
1205.39	0.32921	128.99	9.34	119.14	9.17	0.000565		
0.00	10.00	4383.13	12.88	4.15	4938.14	0.20		
1190.22	0.32544	128.48	9.26	118.71	9.22	0.000563		
0.00	11.00	4383.04	12.79	4.12	4851.39	0.20		
1176.92	0.32192	128.05	9.19	118.33	9.25	0.000561		
0.00	12.00	4382.99	12.74	4.11	4804.84	0.20		

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				HYCHAN.OUT			
1169.40		127.79		9.15	118.12	9.27	0.000558
	0.31843	70871.94					
	13.00	4382.90	12.65	4.08	4724.65	0.20	
1157.94		127.40		9.09	117.79	9.31	0.000562
	0.31891	70672.16					
	14.00	4382.79	12.54	4.04	4607.82	0.20	
1141.15		126.83		9.00	117.30	9.36	0.000551
	0.30917	70381.52					
	15.00	4382.71	12.46	4.01	4531.85	0.20	
1129.67		126.44		8.93	116.97	9.39	0.000555
	0.30954	70182.02					
	16.00	4382.67	12.42	4.00	4498.40	0.20	
1124.59		126.26		8.91	116.82	9.41	0.000555
	0.30868	70094.21					
	17.00	4382.65	12.40	3.99	4483.70	0.20	
1122.34		126.19		8.89	116.76	9.41	0.000553
	0.30706	70054.85					
	18.00	4382.65	12.40	3.99	4475.47	0.20	
1121.30		126.15		8.89	116.73	9.42	0.000549
	0.30433	70036.16					
	19.00	4382.65	12.40	3.99	4474.44	0.20	
1121.73		126.17		8.89	116.74	9.41	0.000553
	0.30656	70044.73					
	20.00	4382.71	12.46	4.01	4532.25	0.20	
1130.29		126.47		8.94	117.00	9.39	0.000553
	0.30831	70198.01					
	21.00	4382.83	12.58	4.05	4647.66	0.20	
1146.86		127.04		9.03	117.48	9.34	0.000560
	0.31566	70488.52					
	22.00	4382.96	12.71	4.10	4779.22	0.20	
1165.88		127.68		9.13	118.03	9.28	0.000562
	0.32006	70816.63					
	23.00	4383.04	12.79	4.12	4852.03	0.20	
1176.64		128.04		9.19	118.33	9.25	0.000563
	0.32307	70999.28					
	24.00	4383.08	12.83	4.14	4895.90	0.20	
1183.00		128.26		9.22	118.51	9.24	0.000568
	0.32701	71107.34					
	25.00	4383.17	12.92	4.17	4993.26	0.20	
1196.24		128.70		9.29	118.89	9.20	0.000564
	0.32712	71332.95					
	26.00	4383.37	13.12	4.25	5202.18	0.21	
1224.68		129.64		9.45	119.69	9.12	0.000578
	0.34063	71811.41					
	27.00	4383.64	13.39	4.34	5480.68	0.21	
1263.10		130.89		9.65	120.74	9.02	0.000587
	0.35358	72442.62					
	28.00	4383.86	13.61	4.42	5726.06	0.21	
1296.28		131.93		9.83	121.62	8.94	0.000589
	0.36132	72974.45					
	29.00	4383.98	13.73	4.46	5855.37	0.21	
1313.85		132.48		9.92	122.08	8.89	0.000590
	0.36526	73249.90					
	30.00	4384.04	13.79	4.48	5925.29	0.21	
1323.17		132.77		9.97	122.33	8.87	0.000594
	0.36949	73396.62					
	31.00	4384.12	13.87	4.51	6022.70	0.21	
1335.68		133.15		10.03	122.65	8.84	0.000595
	0.37215	73592.25					
	32.00	4384.18	13.93	4.53	6083.06	0.21	
1343.65		133.40		10.07	122.86	8.82	0.000595
	0.37423	73715.14					
	33.00	4384.22	13.97	4.54	6128.90	0.21	

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				HYCHAN.OUT			
1349.59		133.58		10.10	123.01	8.81	0.000598
	0.37686	73807.73					
	34.00	4384.29	14.04	4.57	6216.65	0.21	
1360.75		133.92		10.16	123.30	8.78	0.000600
	0.38051	73980.34					
	35.00	4384.34	14.09	4.58	6270.36	0.22	
1367.77		134.13		10.20	123.48	8.77	0.000601
	0.38215	74086.83					
	36.00	4384.32	14.07	4.58	6250.37	0.22	
1365.86		134.07		10.19	123.42	8.77	0.000594
	0.37754	74053.79					
	37.00	4384.25	14.00	4.55	6172.40	0.21	
1355.46		133.75		10.13	123.16	8.79	0.000594
	0.37540	73894.63					
	38.00	4384.23	13.98	4.55	6147.20	0.21	
1352.34		133.66		10.12	123.08	8.80	0.000599
	0.37842	73848.07					
	39.00	4384.18	13.93	4.52	6079.67	0.21	
1343.77		133.39		10.07	122.86	8.82	0.000587
	0.36921	73714.23					
	40.00	4384.14	13.89	4.51	6033.11	0.21	
1337.57		133.21		10.04	122.70	8.84	0.000599
	0.37511	73618.79					
	41.00	4384.12	13.87	4.50	6010.74	0.21	
1334.55		133.12		10.03	122.62	8.84	0.000585
	0.36594	73572.62					
	42.00	4384.10	13.85	4.50	5999.00	0.21	
1332.94		133.07		10.02	122.58	8.85	0.000588
	0.36763	73547.30					
	43.00	4384.10	13.85	4.50	5990.56	0.21	
1331.87		133.03		10.01	122.55	8.85	0.000597
	0.37313	73530.15					
	44.00	4384.11	13.86	4.50	6005.14	0.21	
1333.35		133.08		10.02	122.59	8.85	0.000593
	0.37077	73553.82					
	45.00	4384.16	13.91	4.52	6065.98	0.21	
1341.21		133.32		10.06	122.79	8.83	0.000595
	0.37367	73675.29					
	46.00	4384.20	13.95	4.54	6120.75	0.21	
1348.10		133.53		10.10	122.97	8.81	0.000599
	0.37748	73781.02					
	47.00	4384.30	14.05	4.57	6231.69	0.22	
1362.30		133.97		10.17	123.34	8.78	0.000606
	0.38466	74004.83					
	48.00	4384.42	14.17	4.62	6374.16	0.22	
1380.16		134.51		10.26	123.79	8.74	0.000606
	0.38812	74276.57					
	49.00	4384.55	14.30	4.67	6532.03	0.22	
1400.13		135.10		10.36	124.30	8.69	0.000615
	0.39789	74579.16					
	50.00	4384.68	14.43	4.71	6692.49	0.22	
1420.05		135.69		10.47	124.80	8.65	0.000616
	0.40246	74878.10					
	51.00	4384.82	14.57	4.76	6859.55	0.22	
1440.63		136.30		10.57	125.31	8.60	0.000613
	0.40417	75184.05					
	52.00	4384.96	14.71	4.82	7048.98	0.22	
1463.58		136.97		10.69	125.87	8.55	0.000617
	0.41127	75522.34					
	53.00	4385.14	14.89	4.88	7277.45	0.22	
1491.10		137.76		10.82	126.53	8.50	0.000620
	0.41859	75920.26					
	54.00	4385.24	14.99	4.92	7409.23	0.22	

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				HYCHAN.OUT			
1507.03		138.21		10.90	126.91	8.46	0.000629
	0.42817	76148.84					
55.00		4385.40	15.15	4.97	7614.67	0.23	
1530.73		138.88		11.02	127.48	8.42	0.000644
	0.44280	76488.35					
56.00		4385.75	15.50	5.11	8106.10	0.23	
1586.44		140.43		11.30	128.78	8.31	0.000653
	0.46059	77268.84					
57.00		4386.18	15.93	5.27	8727.85	0.23	
1655.10		142.28		11.63	130.34	8.18	0.000670
	0.48650	78202.20					
58.00		4386.71	16.46	5.48	9541.21	0.24	
1742.61		144.56		12.05	132.25	8.03	0.000688
	0.51719	79350.72					
59.00		4387.24	16.99	5.67	10380.93	0.24	
1830.47		146.77		12.47	134.10	7.89	0.000698
	0.54331	80462.66					
60.00		4387.62	17.37	5.81	11000.91	0.25	
1893.92		148.32		12.77	135.40	7.80	0.000705
	0.56182	81240.41					
61.00		4387.85	17.60	5.90	11406.58	0.25	
1933.81		149.27		12.95	136.20	7.74	0.000711
	0.57443	81720.03					
62.00		4388.02	17.77	5.96	11692.85	0.25	
1961.88		149.94		13.08	136.75	7.70	0.000713
	0.58198	82052.41					
63.00		4388.10	17.85	5.99	11841.42	0.25	
1976.38		150.28		13.15	137.04	7.68	0.000715
	0.58680	82222.48					
64.00		4388.18	17.93	6.02	11975.68	0.25	
1989.30		150.58		13.21	137.29	7.66	0.000718
	0.59149	82374.51					
65.00		4388.26	18.01	6.05	12129.08	0.25	
2003.92		150.92		13.28	137.58	7.64	0.000720
	0.59661	82545.45					
66.00		4388.35	18.10	6.08	12282.43	0.25	
2018.98		151.27		13.35	137.87	7.62	0.000722
	0.60131	82720.52					
67.00		4388.42	18.17	6.11	12411.60	0.25	
2031.99		151.57		13.41	138.12	7.60	0.000725
	0.60633	82870.84					
68.00		4388.48	18.23	6.13	12527.32	0.25	
2043.06		151.82		13.46	138.33	7.59	0.000724
	0.60801	82997.05					
69.00		4388.44	18.19	6.11	12440.62	0.25	
2034.87		151.63		13.42	138.17	7.60	0.000739
	0.61851	82900.10					
70.00		4388.57	18.32	6.17	12705.95	0.25	
2058.61		152.18		13.53	138.62	7.57	0.000721
	0.60884	83174.64					
71.00		4388.79	18.54	6.26	13126.30	0.26	
2097.47		153.06		13.70	139.36	7.51	0.000739
	0.63173	83615.17					
72.00		4389.00	18.75	6.34	13525.38	0.26	
2133.76		153.87		13.87	140.04	7.47	0.000753
	0.65121	84024.62					
73.00		4389.36	19.11	6.48	14238.45	0.26	
2197.36		155.28		14.15	141.21	7.39	0.000759
	0.66992	84728.19					
74.00		4389.55	19.30	6.55	14617.62	0.26	
2232.01		156.03		14.30	141.84	7.35	0.000761
	0.67935	85104.54					
75.00		4389.69	19.44	6.60	14907.72	0.26	

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				HYCHAN.OUT			
2257.31	156.58		14.42	142.29	7.32	0.000768	
0.69050	85376.43						
76.00	4389.87	19.62	6.68	15280.85	0.27		
2289.22	157.26	14.56	142.86	7.28	0.000773		
0.70173	85717.60						
77.00	4390.04	19.79	6.74	15638.03	0.27		
2319.93	157.90	14.69	143.40	7.25	0.000776		
0.71127	86040.20						
78.00	4390.16	19.91	6.79	15886.05	0.27		
2340.88	158.34	14.78	143.77	7.22	0.000784		
0.72288	86260.26						
79.00	4390.39	20.14	6.88	16407.82	0.27		
2384.12	159.24	14.97	144.52	7.18	0.000789		
0.73724	86709.46						
80.00	4390.60	20.35	6.97	16887.29	0.27		
2423.40	160.05	15.14	145.18	7.13	0.000798		
0.75430	87110.66						
81.00	4390.87	20.62	7.08	17503.16	0.27		
2473.44	161.06	15.36	146.03	7.08	0.000807		
0.77323	87617.12						
82.00	4391.12	20.87	7.17	18069.34	0.28		
2518.94	161.97	15.55	146.78	7.03	0.000816		
0.79207	88070.98						
83.00	4391.39	21.14	7.28	18718.96	0.28		
2570.00	162.98	15.77	147.62	6.98	0.000823		
0.80952	88572.61						
84.00	4391.64	21.39	7.39	19340.96	0.28		
2618.24	163.92	15.97	148.40	6.94	0.000830		
0.82714	89040.30						
85.00	4391.86	21.61	7.48	19890.68	0.28		
2660.24	164.72	16.15	149.07	6.90	0.000840		
0.84629	89439.85						
86.00	4392.03	21.78	7.55	20317.38	0.29		
2692.62	165.34	16.29	149.57	6.87	0.000858		
0.87159	89744.94						
87.00	4392.17	21.91	7.60	20668.53	0.29		
2718.87	165.83	16.40	149.98	6.84	0.000863		
0.88266	89989.43						
88.00	4392.31	22.06	7.66	21050.21	0.29		
2746.62	166.35	16.51	150.41	6.82	0.000876		
0.90219	90248.30						
89.00	4392.48	22.23	7.74	21513.33	0.29		
2780.28	166.97	16.65	150.93	6.79	0.000891		
0.92555	90558.86						
90.00	4392.61	22.36	7.79	21857.22	0.29		
2805.67	167.44	16.76	151.32	6.77	0.000898		
0.93942	90790.58						
91.00	4392.65	22.40	7.80	21949.25	0.29		
2813.14	167.57	16.79	151.43	6.76	0.000892		
0.93463	90857.27						
92.00	4392.67	22.42	7.81	21996.28	0.29		
2816.42	167.63	16.80	151.48	6.76	0.000896		
0.93985	90887.94						
93.00	4392.59	22.34	7.78	21798.71	0.29		
2802.67	167.38	16.74	151.27	6.77	0.000890		
0.92971	90761.61						
94.00	4392.50	22.25	7.74	21561.88	0.29		
2784.79	167.05	16.67	151.00	6.79	0.000881		
0.91691	90598.55						
95.00	4392.41	22.16	7.71	21326.12	0.29		
2767.37	166.73	16.60	150.73	6.80	0.000873		
0.90408	90437.73						
96.00	4392.30	22.05	7.66	21021.14	0.29		

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				HYCHAN.OUT			
2745.02		166.31		16.51	150.38	6.82	0.000865
	0.89094	90230.72					
	97.00	4392.15	21.90	7.60	20632.68	0.29	
2716.33		165.78		16.39	149.94	6.85	0.000857
	0.87582	89963.86					
	98.00	4392.03	21.78	7.54	20310.85	0.29	
2692.24		165.32		16.28	149.56	6.87	0.000842
	0.85537	89738.31					
	99.00	4391.87	21.62	7.48	19920.40	0.28	
2663.03		164.77		16.16	149.10	6.90	0.000829
	0.83597	89461.53					
	100.00	4391.70	21.45	7.41	19474.86	0.28	
2629.27		164.12		16.02	148.56	6.93	0.000821
	0.82104	89138.70					
	101.00	4391.53	21.28	7.34	19071.34	0.28	
2598.35		163.52		15.89	148.07	6.96	0.000815
	0.80837	88840.48					
	102.00	4391.36	21.11	7.26	18624.83	0.28	
2565.02		162.87		15.75	147.53	6.99	0.000809
	0.79460	88516.02					
	103.00	4391.11	20.86	7.16	18039.52	0.28	
2519.12		161.96		15.55	146.77	7.04	0.000802
	0.77813	88062.08					
	104.00	4390.79	20.54	7.03	17296.17	0.27	
2459.80		160.77		15.30	145.78	7.10	0.000790
	0.75449	87468.45					
	105.00	4390.37	20.12	6.86	16328.23	0.27	
2380.97		159.15		14.96	144.43	7.18	0.000775
	0.72340	86660.34					
	106.00	4389.94	19.69	6.69	15418.32	0.27	
2303.81		157.54		14.62	143.09	7.27	0.000764
	0.69733	85856.19					
	107.00	4389.63	19.38	6.57	14764.58	0.26	
2246.16		156.31		14.37	142.07	7.33	0.000754
	0.67616	85244.23					
	108.00	4389.46	19.21	6.51	14424.14	0.26	
2216.59		155.67		14.24	141.54	7.37	0.000746
	0.66239	84925.98					
	109.00	4389.17	18.92	6.39	13831.21	0.26	
2164.68		154.54		14.01	140.60	7.43	0.000738
	0.64462	84358.43					
	110.00	4388.89	18.64	6.28	13285.21	0.26	
2115.12		153.44		13.78	139.68	7.49	0.000723
	0.62231	83807.31					
	111.00	4388.62	18.37	6.18	12777.38	0.25	
2067.98		152.37		13.57	138.79	7.55	0.000723
	0.61239	83272.22					
	112.00	4388.40	18.15	6.10	12378.88	0.25	
2030.00		151.50		13.40	138.06	7.60	0.000705
	0.58976	82835.95					
	113.00	4388.25	18.00	6.04	12094.61	0.25	
2002.69		150.87		13.27	137.53	7.64	0.000703
	0.58231	82518.04					
	114.00	4388.08	17.83	5.97	11787.52	0.25	
1973.58		150.19		13.14	136.96	7.68	0.000711
	0.58308	82177.34					
	115.00	4387.88	17.63	5.90	11445.19	0.25	
1940.23		149.40		12.99	136.30	7.73	0.000689
	0.55843	81782.42					
	116.00	4387.79	17.54	5.86	11279.25	0.25	
1923.26		149.00		12.91	135.97	7.75	0.000693
	0.55855	81581.12					
	117.00	4387.74	17.49	5.85	11205.62	0.25	

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1916.00		148.82		12.87	135.82	7.76	0.000699
	0.56172	81492.78					
118.00		4387.64	17.39	5.81	11027.06	0.25	
1898.67		148.41		12.79	135.47	7.79	0.000692
	0.55224	81284.27					
119.00		4387.55	17.30	5.77	10874.10	0.24	
1883.42		148.04		12.72	135.17	7.81	0.000680
	0.54007	81099.62					
120.00		4387.50	17.25	5.75	10784.61	0.24	
1873.96		147.81		12.68	134.97	7.83	0.000683
	0.54071	80984.37					
121.00		4387.48	17.23	5.75	10759.32	0.24	
1871.34		147.74		12.67	134.92	7.83	0.000701
	0.55397	80951.88					
122.00		4387.45	17.20	5.74	10704.63	0.24	
1865.93		147.61		12.64	134.81	7.84	0.000694
	0.54705	80886.13					
123.00		4387.37	17.12	5.71	10574.17	0.24	
1853.21		147.30		12.58	134.55	7.86	0.000677
	0.53131	80729.52					
124.00		4387.28	17.03	5.67	10426.40	0.24	
1838.10		146.93		12.51	134.24	7.88	0.000691
	0.53956	80541.84					
125.00		4387.21	16.96	5.65	10314.14	0.24	
1826.50		146.64		12.46	133.99	7.90	0.000680
	0.52820	80396.81					
126.00		4387.13	16.88	5.61	10174.67	0.24	
1812.28		146.29		12.39	133.70	7.92	0.000674
	0.52116	80219.86					
127.00		4387.07	16.82	5.59	10087.86	0.24	
1803.23		146.06		12.35	133.51	7.94	0.000680
	0.52398	80106.71					
128.00		4387.02	16.77	5.57	10000.89	0.24	
1794.44		145.84		12.30	133.33	7.95	0.000677
	0.51943	79996.45					
129.00		4386.94	16.69	5.54	9875.53	0.24	
1781.38		145.51		12.24	133.05	7.97	0.000665
	0.50786	79831.05					
130.00		4386.89	16.64	5.53	9795.74	0.24	
1772.79		145.30		12.20	132.87	7.98	0.000675
	0.51373	79721.21					
131.00		4386.84	16.59	5.50	9710.45	0.24	
1763.95		145.07		12.16	132.68	8.00	0.000681
	0.51678	79608.97					
132.00		4386.76	16.51	5.47	9585.26	0.24	
1750.84		144.74		12.10	132.40	8.02	0.000671
	0.50660	79441.63					
133.00		4386.74	16.49	5.47	9560.53	0.24	
1747.74		144.66		12.08	132.34	8.03	0.000675
	0.50912	79403.01					
134.00		4386.80	16.55	5.49	9650.59	0.24	
1757.25		144.91		12.13	132.54	8.01	0.000677
	0.51258	79526.03					
135.00		4386.80	16.55	5.49	9656.39	0.24	
1758.10		144.93		12.13	132.56	8.01	0.000680
	0.51490	79536.20					
136.00		4386.78	16.53	5.48	9626.86	0.24	
1755.14		144.85		12.12	132.50	8.01	0.000678
	0.51255	79498.59					
137.00		4386.76	16.51	5.48	9594.65	0.24	
1751.74		144.77		12.10	132.42	8.02	0.000668
	0.50401	79454.84					
138.00		4386.74	16.49	5.47	9562.79	0.24	

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1748.48		144.68		12.08	132.36	8.02	0.000660
	0.49792	79413.57					
139.00		4386.73	16.47	5.46	9533.54	0.24	
1745.28		144.60		12.07	132.29	8.03	0.000661
	0.49812	79372.16					
140.00		4386.71	16.46	5.46	9507.13	0.24	
1742.54		144.53		12.06	132.23	8.03	0.000659
	0.49593	79336.80					
141.00		4386.67	16.42	5.44	9453.53	0.24	
1736.82		144.38		12.03	132.10	8.04	0.000658
	0.49385	79262.09					
142.00		4386.61	16.36	5.42	9357.39	0.24	
1726.56		144.12		11.98	131.88	8.06	0.000665
	0.49706	79129.38					
143.00		4386.58	16.33	5.41	9307.36	0.24	
1721.20		143.98		11.95	131.77	8.07	0.000674
	0.50300	79060.23					
144.00		4386.56	16.31	5.40	9278.20	0.24	
1717.96		143.90		11.94	131.70	8.08	0.000656
	0.48854	79017.95					
145.00		4386.54	16.29	5.39	9249.77	0.24	
1715.02		143.82		11.92	131.63	8.08	0.000657
	0.48920	78980.23					
146.00		4386.51	16.26	5.38	9202.15	0.24	
1709.98		143.69		11.90	131.52	8.09	0.000670
	0.49783	78913.84					
147.00		4386.45	16.20	5.36	9105.68	0.23	
1699.66		143.42		11.85	131.30	8.11	0.000653
	0.48279	78778.71					
148.00		4386.41	16.16	5.34	9052.55	0.23	
1693.73		143.27		11.82	131.17	8.12	0.000666
	0.49132	78699.99					
149.00		4386.39	16.14	5.34	9022.93	0.23	
1690.60		143.19		11.81	131.10	8.12	0.000656
	0.48338	78661.32					
150.00		4386.38	16.13	5.33	8996.31	0.23	
1687.90		143.12		11.79	131.05	8.13	0.000665
	0.48940	78627.20					
151.00		4386.36	16.11	5.32	8972.78	0.23	
1685.26		143.06		11.78	130.99	8.13	0.000656
	0.48191	78593.37					
152.00		4386.33	16.08	5.31	8934.01	0.23	
1681.05		142.94		11.76	130.90	8.14	0.000662
	0.48550	78537.29					
153.00		4386.28	16.03	5.29	8856.96	0.23	
1672.72		142.72		11.72	130.71	8.15	0.000657
	0.48044	78426.42					
154.00		4386.24	15.99	5.28	8794.19	0.23	
1665.71		142.54		11.69	130.56	8.17	0.000651
	0.47472	78334.04					
155.00		4386.21	15.96	5.27	8756.71	0.23	
1661.51		142.43		11.67	130.46	8.17	0.000659
	0.47943	78277.95					
156.00		4386.18	15.93	5.26	8706.86	0.23	
1656.30		142.29		11.64	130.35	8.18	0.000657
	0.47699	78207.93					
157.00		4386.15	15.90	5.24	8657.08	0.23	
1650.63		142.14		11.61	130.22	8.19	0.000657
	0.47591	78134.18					
158.00		4386.21	15.96	5.27	8754.45	0.23	
1660.99		142.42		11.66	130.45	8.17	0.000654
	0.47591	78272.94					
159.00		4386.24	15.99	5.28	8797.94	0.23	

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1666.11		142.55		11.69	130.57	8.16	0.000659
	0.48069	78339.74					
160.00		4386.25	16.00	5.28	8802.07	0.23	
1666.67		142.57		11.69	130.58	8.16	0.000656
	0.47865	78347.10					
161.00		4386.24	15.99	5.28	8797.11	0.23	
1666.01		142.55		11.69	130.56	8.16	0.000655
	0.47757	78338.51					
162.00		4386.24	15.99	5.28	8790.71	0.23	
1665.24		142.53		11.68	130.55	8.17	0.000658
	0.47973	78327.90					
163.00		4386.23	15.98	5.28	8783.93	0.23	
1664.46		142.51		11.68	130.53	8.17	0.000653
	0.47559	78318.23					
164.00		4386.23	15.98	5.28	8776.44	0.23	
1663.63		142.49		11.68	130.51	8.17	0.000660
	0.48118	78306.84					
165.00		4386.22	15.97	5.27	8770.84	0.23	
1663.04		142.47		11.67	130.50	8.17	0.000649
	0.47248	78298.77					
166.00		4386.20	15.95	5.27	8742.42	0.23	
1660.09		142.39		11.66	130.43	8.18	0.000651
	0.47334	78258.74					
167.00		4386.15	15.90	5.25	8662.15	0.23	
1651.18		142.15		11.62	130.23	8.19	0.000658
	0.47694	78139.59					
168.00		4386.12	15.87	5.24	8619.66	0.23	
1646.44		142.03		11.59	130.13	8.20	0.000652
	0.47176	78076.73					
169.00		4386.11	15.86	5.23	8603.56	0.23	
1644.60		141.98		11.58	130.09	8.20	0.000652
	0.47105	78052.45					
170.00		4386.10	15.85	5.23	8594.47	0.23	
1643.49		141.95		11.58	130.06	8.20	0.000654
	0.47240	78037.02					
171.00		4386.10	15.85	5.23	8586.28	0.23	
1642.61		141.93		11.57	130.04	8.21	0.000652
	0.47073	78025.26					
172.00		4386.09	15.84	5.23	8579.20	0.23	
1641.79		141.91		11.57	130.02	8.21	0.000650
	0.46921	78014.73					
173.00		4386.09	15.84	5.22	8573.01	0.23	
1641.12		141.89		11.57	130.01	8.21	0.000653
	0.47142	78005.62					
174.00		4386.07	15.82	5.21	8542.00	0.23	
1638.02		141.80		11.55	129.94	8.21	0.000650
	0.46834	77963.16					
175.00		4386.01	15.76	5.19	8460.99	0.23	
1628.98		141.56		11.51	129.73	8.23	0.000652
	0.46811	77840.94					
176.00		4385.98	15.73	5.18	8418.62	0.23	
1624.06		141.43		11.48	129.62	8.24	0.000648
	0.46455	77774.73					
177.00		4385.97	15.72	5.18	8401.25	0.23	
1622.11		141.38		11.47	129.58	8.24	0.000644
	0.46081	77748.98					
178.00		4385.96	15.71	5.18	8389.42	0.23	
1620.84		141.34		11.47	129.55	8.25	0.000643
	0.46035	77731.68					
179.00		4385.96	15.71	5.17	8380.81	0.23	
1619.93		141.32		11.46	129.53	8.25	0.000650
	0.46503	77719.54					
180.00		4385.95	15.70	5.17	8373.01	0.23	

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1618.95	141.29	11.46	129.51	8.25	0.000647		
0.46233	77705.98						
181.00	4385.98	15.73	5.18	8413.42	0.23		
1623.20	141.41	11.48	129.61	8.24	0.000655		
0.46950	77765.61						
182.00	4386.08	15.83	5.22	8561.69	0.23		
1639.48	141.85	11.56	129.97	8.21	0.000653		
0.47068	77984.91						
183.00	4386.14	15.89	5.24	8649.91	0.23		
1649.48	142.11	11.61	130.20	8.19	0.000655		
0.47416	78118.41						
184.00	4386.20	15.95	5.27	8744.12	0.23		
1659.83	142.39	11.66	130.43	8.18	0.000651		
0.47382	78256.52						
185.00	4386.23	15.98	5.28	8786.31	0.23		
1664.61	142.51	11.68	130.53	8.17	0.000653		
0.47572	78319.15						
186.00	4386.24	15.99	5.28	8802.44	0.23		
1666.52	142.56	11.69	130.57	8.16	0.000655		
0.47779	78344.91						
187.00	4386.25	16.00	5.28	8810.98	0.23		
1667.40	142.59	11.69	130.59	8.16	0.000654		
0.47717	78356.66						
188.00	4386.25	16.00	5.29	8815.73	0.23		
1668.03	142.60	11.70	130.61	8.16	0.000658		
0.48051	78365.32						
189.00	4386.25	16.00	5.29	8818.04	0.23		
1668.24	142.61	11.70	130.61	8.16	0.000656		
0.47854	78367.70						
190.00	4386.25	16.00	5.29	8818.38	0.23		
1668.27	142.61	11.70	130.61	8.16	0.000654		
0.47729	78367.48						
191.00	4386.26	16.01	5.29	8818.99	0.23		
1668.39	142.61	11.70	130.61	8.16	0.000658		
0.48055	78368.99						
192.00	4386.24	15.99	5.28	8794.41	0.23		
1665.87	142.54	11.69	130.56	8.17	0.000654		
0.47708	78335.24						
193.00	4386.19	15.94	5.26	8716.60	0.23		
1657.42	142.32	11.65	130.37	8.18	0.000659		
0.47864	78222.91						
194.00	4386.16	15.91	5.25	8680.39	0.23		
1653.06	142.20	11.62	130.27	8.19	0.000652		
0.47325	78164.79						
195.00	4386.15	15.90	5.25	8664.81	0.23		
1651.58	142.17	11.62	130.24	8.19	0.000656		
0.47566	78145.55						
196.00	4386.15	15.90	5.25	8658.79	0.23		
1650.72	142.14	11.61	130.22	8.19	0.000654		
0.47382	78134.02						
197.00	4386.14	15.89	5.24	8652.54	0.23		
1650.09	142.13	11.61	130.21	8.19	0.000651		
0.47185	78125.09						
198.00	4386.14	15.89	5.24	8647.99	0.23		
1649.64	142.12	11.61	130.20	8.19	0.000652		
0.47240	78120.08						
199.00	4386.14	15.89	5.24	8644.37	0.23		
1649.22	142.10	11.61	130.19	8.19	0.000655		
0.47446	78114.41						

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HYCHAN.OUT

MAXIMUM DISCHARGE (CFS) = 22067.01 AT TIME = 91.71  
 MAXIMUM STAGE = 4392.00 AT TIME = 91.77

AREA	TIME WETTED PERIMETER BED SHEAR STRESS (FT^2) (HRS) (LB/FT^2)	ELEV. SURFACE AREA (FT) (FT) (FT^2)	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4370.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4370.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4370.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4370.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4370.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
638.57	5.00	4374.47	4.27	1.79	1142.71	0.15	0.000598
	0.26268	90.68	7.04	88.80	20.82		
1049.20	6.00	4381.63	11.43	3.85	4040.36	0.20	0.000564
	0.24734	149.31	7.03	143.21	12.53		
1168.27	7.00	4382.45	12.25	4.09	4781.38	0.21	0.000564
	0.26607	154.65	7.55	148.12	12.09		
1209.34	8.00	4382.72	12.52	4.18	5051.51	0.21	0.000558
	0.26929	156.39	7.73	149.71	11.96		
1210.27	9.00	4382.73	12.53	4.17	5052.01	0.21	0.000556
	0.26850	156.41	7.74	149.73	11.95		
1195.19	10.00	4382.62	12.42	4.13	4941.53	0.21	0.000552
	0.26422	155.76	7.67	149.14	12.00		
1181.47	11.00	4382.53	12.33	4.11	4852.88	0.21	0.000552
	0.26231	155.18	7.61	148.61	12.05		
1173.86	12.00	4382.48	12.28	4.09	4806.17	0.21	0.000552
	0.26125	154.85	7.58	148.30	12.08		
1162.49	13.00	4382.40	12.20	4.07	4727.39	0.21	0.000545
	0.25627	154.35	7.53	147.85	12.12		
1145.49	14.00	4382.29	12.09	4.02	4610.42	0.20	0.000543
	0.25261	153.61	7.46	147.16	12.17		
1133.75	15.00	4382.21	12.01	4.00	4533.30	0.20	0.000545
	0.25197	153.10	7.41	146.69	12.22		
1128.46	16.00	4382.17	11.97	3.99	4499.00	0.20	0.000545
	0.25102	152.87	7.38	146.48	12.24		
1126.16	17.00	4382.16	11.96	3.98	4483.84	0.20	0.000552
		152.77	7.37	146.39	12.24		

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1125.11	0.25384	87833.69	11.95	7.37	3.98	4475.60	0.20	0.000548
	18.00	4382.15				146.35	12.25	
1125.48	0.25209	87808.25	11.95	7.37	3.98	4473.98	0.20	0.000552
	19.00	4382.15				146.36	12.25	
1133.83	0.25396	87818.19	12.01	7.40	4.00	4529.84	0.20	0.000553
	20.00	4382.21				146.71	12.21	
1150.45	0.25549	88027.27	12.13	7.48	4.04	4644.42	0.20	0.000558
	21.00	4382.33				147.39	12.16	
1169.72	0.26057	88431.91	12.26	7.56	4.08	4776.37	0.21	0.000555
	22.00	4382.46				148.16	12.09	
1180.79	0.26193	88893.79	12.33	7.61	4.11	4850.78	0.21	0.000553
	23.00	4382.53				148.59	12.05	
1187.24	0.26273	89154.00	12.37	7.64	4.12	4894.62	0.21	0.000562
	24.00	4382.57				148.84	12.03	
1200.36	0.26774	89306.47	12.46	7.69	4.16	4989.67	0.21	0.000558
	25.00	4382.66				149.37	11.98	
1228.72	0.26786	89619.90	12.65	7.82	4.23	5195.67	0.21	0.000568
	26.00	4382.85				150.47	11.89	
1267.48	0.27681	90283.28	12.91	7.98	4.32	5474.63	0.21	0.000577
	27.00	4383.11				151.95	11.77	
1301.18	0.28715	91168.70	13.13	8.12	4.40	5721.38	0.21	0.000578
	28.00	4383.33				153.20	11.67	
1319.34	0.29283	91921.20	13.25	8.20	4.44	5853.51	0.21	0.000576
	29.00	4383.45				153.86	11.61	
1328.73	0.29485	92317.21	13.31	8.24	4.46	5923.44	0.22	0.000580
	30.00	4383.51				154.21	11.59	
1341.36	0.29818	92523.41	13.39	8.29	4.49	6020.74	0.22	0.000580
	31.00	4383.59				154.66	11.55	
1349.55	0.29983	92798.99	13.44	8.33	4.51	6082.11	0.22	0.000581
	32.00	4383.64				154.96	11.53	
1355.47	0.30190	92974.74	13.48	8.35	4.52	6127.37	0.22	0.000582
	33.00	4383.68				155.17	11.51	
1366.71	0.30345	93103.84	13.56	8.40	4.55	6214.87	0.22	0.000583
	34.00	4383.76				155.58	11.48	
1373.94	0.30545	93346.40	13.60	8.43	4.56	6269.58	0.22	0.000583
	35.00	4383.80				155.83	11.46	
1372.35	0.30647	93499.35	13.59	8.42	4.56	6252.18	0.22	0.000577
	36.00	4383.79				155.77	11.46	
1361.79	0.30320	93460.70	13.52	8.38	4.53	6173.31	0.22	0.000580
	37.00	4383.72				155.39	11.49	
1358.55	0.30314	93235.52	13.50	8.36	4.53	6148.18	0.22	0.000578
	38.00	4383.70				155.28	11.50	

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0.30171	93165.33						
39.00	4383.65	13.45	8.33	4.50	6080.92	0.22	
1349.97	162.12				154.97	11.53	0.000574
0.29826	92979.35						
40.00	4383.61	13.41	8.30	4.49	6034.26	0.22	
1343.66	161.87				154.74	11.54	0.000582
0.30154	92842.82						
41.00	4383.59	13.39	8.29	4.48	6010.76	0.22	
1340.49	161.75				154.63	11.55	0.000577
0.29860	92775.78						
42.00	4383.58	13.37	8.28	4.48	5999.33	0.22	
1338.90	161.68				154.57	11.56	0.000579
0.29925	92740.66						
43.00	4383.57	13.37	8.28	4.48	5990.85	0.22	
1337.82	161.64				154.53	11.56	0.000581
0.29989	92717.83						
44.00	4383.58	13.38	8.28	4.48	6003.84	0.22	
1339.22	161.70				154.58	11.56	0.000577
0.29822	92750.38						
45.00	4383.63	13.43	8.32	4.50	6064.93	0.22	
1347.22	162.02				154.87	11.53	0.000580
0.30109	92924.30						
46.00	4383.68	13.47	8.34	4.52	6119.14	0.22	
1354.23	162.29				155.13	11.51	0.000581
0.30276	93076.71						
47.00	4383.77	13.57	8.40	4.55	6228.78	0.22	
1368.16	162.84				155.63	11.47	0.000584
0.30636	93379.06						
48.00	4383.88	13.68	8.48	4.60	6370.86	0.22	
1386.32	163.55				156.28	11.42	0.000590
0.31209	93766.74						
49.00	4384.01	13.81	8.56	4.64	6528.51	0.22	
1406.43	164.32				156.99	11.37	0.000594
0.31721	94193.12						
50.00	4384.14	13.94	8.64	4.69	6689.10	0.22	
1426.55	165.09				157.69	11.31	0.000597
0.32183	94614.20						
51.00	4384.27	14.07	8.73	4.74	6855.78	0.22	
1447.29	165.87				158.41	11.26	0.000596
0.32437	95044.84						
52.00	4384.41	14.21	8.82	4.79	7044.26	0.22	
1470.32	166.74				159.20	11.20	0.000600
0.32991	95519.02						
53.00	4384.59	14.39	8.93	4.85	7273.73	0.23	
1498.28	167.77				160.14	11.13	0.000603
0.33627	96084.77						
54.00	4384.69	14.49	9.00	4.89	7406.51	0.23	
1514.42	168.36				160.68	11.09	0.000605
0.33977	96407.70						
55.00	4384.83	14.63	9.09	4.95	7608.59	0.23	
1537.93	169.22				161.47	11.03	0.000620
0.35140	96880.44						
56.00	4385.18	14.98	9.31	5.08	8095.06	0.23	
1593.68	171.22				163.29	10.90	0.000622
0.36138	97976.36						
57.00	4385.60	15.40	9.58	5.24	8713.91	0.24	
1662.56	173.61				165.48	10.75	0.000635
0.37971	99290.65						
58.00	4386.12	15.92	9.91	5.44	9525.32	0.24	
1750.79	176.58				168.20	10.56	0.000646
0.39945	100918.84						
59.00	4386.64	16.44	10.25	5.64	10367.40	0.25	
1839.77	179.48				170.84	10.39	0.000650

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HYCHAN.OUT									
	0.41547	102504.10							
1904.35	60.00	4387.01	16.81	10.49	5.77	10992.88	0.25	0.000652	
		181.52				172.70	10.27		
	0.42659	103619.48							
1944.82	61.00	4387.24	17.04	10.64	5.86	11400.47	0.25	0.000654	
		182.77				173.84	10.20		
	0.43410	104305.55							
1973.48	62.00	4387.40	17.20	10.75	5.92	11689.36	0.25	0.000654	
		183.65				174.64	10.15		
	0.43876	104784.05							
1988.32	63.00	4387.49	17.29	10.80	5.95	11839.42	0.25	0.000656	
		184.09				175.05	10.13		
	0.44181	105029.31							
2001.30	64.00	4387.56	17.36	10.85	5.98	11973.24	0.25	0.000657	
		184.49				175.41	10.10		
	0.44439	105245.30							
2016.06	65.00	4387.64	17.44	10.90	6.01	12126.58	0.25	0.000658	
		184.93				175.81	10.08		
	0.44758	105488.93							
2031.30	66.00	4387.73	17.53	10.96	6.05	12279.76	0.25	0.000661	
		185.39				176.23	10.05		
	0.45174	105738.84							
2044.47	67.00	4387.80	17.60	11.00	6.07	12409.72	0.26	0.000660	
		185.79				176.59	10.03		
	0.45340	105954.01							
2055.81	68.00	4387.86	17.66	11.05	6.09	12527.29	0.26	0.000646	
		186.12				176.89	10.01		
	0.44529	106136.66							
2047.78	69.00	4387.82	17.62	11.02	6.07	12440.22	0.26	0.000659	
		185.88				176.68	10.03		
	0.45326	106006.41							
2071.38	70.00	4387.95	17.75	11.10	6.13	12699.62	0.26	0.000658	
		186.59				177.32	9.99		
	0.45615	106393.61							
2110.76	71.00	4388.17	17.97	11.24	6.22	13120.37	0.26	0.000657	
		187.75				178.38	9.93		
	0.46113	107025.63							
2147.08	72.00	4388.37	18.17	11.37	6.30	13517.69	0.26	0.000672	
		188.80				179.34	9.87		
	0.47719	107602.92							
2210.91	73.00	4388.72	18.52	11.60	6.44	14227.98	0.26	0.000679	
		190.63				181.00	9.77		
	0.49141	108602.91							
2246.10	74.00	4388.91	18.71	11.72	6.51	14613.25	0.27	0.000680	
		191.62				181.90	9.72		
	0.49726	109140.93							
2271.65	75.00	4389.05	18.85	11.81	6.56	14903.65	0.27	0.000685	
		192.33				182.55	9.68		
	0.50501	109530.19							
2303.60	76.00	4389.22	19.02	11.92	6.63	15274.48	0.27	0.000686	
		193.22				183.36	9.64		
	0.51020	110015.27							
2334.90	77.00	4389.39	19.19	12.03	6.70	15634.34	0.27	0.000688	
		194.07				184.14	9.60		
	0.51654	110481.06							
2355.88	78.00	4389.50	19.30	12.10	6.74	15881.21	0.27	0.000694	
		194.65				184.66	9.57		
	0.52391	110794.20							
2399.29	79.00	4389.73	19.53	12.25	6.84	16400.57	0.27	0.000695	
		195.82				185.72	9.51		
	0.53107	111434.91							
2438.96	80.00	4389.94	19.74	12.39	6.92	16878.86	0.27	0.000700	
		196.88				186.69	9.46		

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	0.54093	112012.20							
2489.40	81.00	4390.20	20.00	12.56	7.03	17495.68	0.28	0.000704	
	0.55139	112736.75							
2535.24	82.00	4390.44	20.24	12.71	7.12	18061.36	0.28	0.000709	
	0.56275	113386.92							
2586.77	83.00	4390.71	20.51	12.89	7.23	18710.49	0.28	0.000715	
	0.57492	114108.09							
2635.41	84.00	4390.96	20.76	13.05	7.34	19332.64	0.28	0.000712	
	0.57956	114780.09							
2678.20	85.00	4391.18	20.98	13.19	7.42	19885.06	0.29	0.000711	
	0.58510	115362.14							
2711.06	86.00	4391.34	21.14	13.30	7.49	20313.74	0.29	0.000722	
	0.59912	115805.66							
2737.84	87.00	4391.48	21.28	13.39	7.55	20666.17	0.29	0.000718	
	0.59987	116164.29							
2765.83	88.00	4391.62	21.42	13.48	7.61	21045.80	0.29	0.000719	
	0.60464	116538.46							
2799.84	89.00	4391.79	21.59	13.59	7.68	21507.10	0.29	0.000718	
	0.60905	116989.73							
2825.91	90.00	4391.92	21.72	13.68	7.73	21853.98	0.29	0.000722	
	0.61650	117327.89							
2833.74	91.00	4391.96	21.76	13.70	7.75	21949.69	0.29	0.000714	
	0.61087	117427.53							
2837.02	92.00	4391.98	21.77	13.71	7.75	21995.60	0.29	0.000719	
	0.61507	117470.21							
2823.33	93.00	4391.91	21.70	13.67	7.72	21802.95	0.29	0.000718	
	0.61233	117287.50							
2805.03	94.00	4391.81	21.61	13.61	7.69	21564.64	0.29	0.000716	
	0.60801	117049.45							
2787.42	95.00	4391.73	21.53	13.55	7.65	21329.44	0.29	0.000715	
	0.60497	116817.40							
2764.86	96.00	4391.61	21.41	13.48	7.60	21025.92	0.29	0.000712	
	0.59902	116517.18							
2735.80	97.00	4391.47	21.27	13.38	7.54	20637.10	0.29	0.000713	
	0.59577	116129.65							
2711.39	98.00	4391.34	21.14	13.30	7.49	20315.10	0.29	0.000705	
	0.58554	115802.23							
2681.98	99.00	4391.19	20.99	13.20	7.43	19925.37	0.29	0.000707	
	0.58249	115403.21							
2648.01	100.00	4391.02	20.82	13.09	7.36	19481.15	0.28	0.000708	
	0.57828	114938.91							
2616.80	101.00	4390.86	20.66	12.99	7.29	19076.37	0.28	0.000705	
		201.47							

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HYCHAN.OUT									
	0.57176	114511.33							
102.00	4390.69	20.49	7.21	18631.78	0.28				
2583.17	200.61	12.88	190.07	9.28	0.000703				
	0.56454	114044.28							
103.00	4390.45	20.25	7.11	18048.75	0.28				
2537.13	199.42	12.72	189.00	9.33	0.000693				
	0.55054	113397.31							
104.00	4390.13	19.93	6.99	17307.59	0.28				
2477.43	197.86	12.52	187.58	9.41	0.000686				
	0.53563	112546.63							
105.00	4389.72	19.52	6.81	16343.16	0.27				
2398.35	195.75	12.25	185.66	9.51	0.000681				
	0.52042	111396.45							
106.00	4389.30	19.10	6.65	15430.67	0.27				
2320.40	193.64	11.98	183.74	9.62	0.000665				
	0.49750	110245.88							
107.00	4388.99	18.79	6.53	14770.28	0.27				
2261.98	192.04	11.78	182.29	9.70	0.000677				
	0.49737	109372.84							
108.00	4388.83	18.63	6.47	14430.29	0.26				
2232.05	191.20	11.67	181.52	9.74	0.000672				
	0.48982	108913.20							
109.00	4388.54	18.34	6.35	13841.02	0.26				
2179.71	189.71	11.49	180.16	9.82	0.000661				
	0.47377	108097.17							
110.00	4388.27	18.07	6.24	13293.89	0.26				
2129.66	188.27	11.31	178.85	9.90	0.000661				
	0.46675	107310.02							
111.00	4388.01	17.81	6.14	12784.81	0.26				
2082.18	186.88	11.14	177.59	9.97	0.000657				
	0.45700	106552.85							
112.00	4387.79	17.59	6.06	12384.12	0.25				
2043.79	185.75	11.00	176.56	10.03	0.000653				
	0.44805	105933.59							
113.00	4387.64	17.44	6.00	12099.14	0.25				
2016.27	184.92	10.90	175.81	10.08	0.000657				
	0.44694	105483.49							
114.00	4387.48	17.27	5.94	11793.38	0.25				
1986.83	184.03	10.80	174.99	10.13	0.000648				
	0.43675	104994.73							
115.00	4387.28	17.08	5.86	11449.82	0.25				
1953.08	183.00	10.67	174.05	10.19	0.000645				
	0.42953	104430.68							
116.00	4387.19	16.99	5.83	11280.53	0.25				
1935.65	182.47	10.61	173.57	10.22	0.000640				
	0.42366	104141.78							
117.00	4387.15	16.95	5.81	11207.79	0.25				
1928.46	182.25	10.58	173.36	10.23	0.000636				
	0.41979	104018.23							
118.00	4387.04	16.84	5.77	11030.14	0.25				
1910.91	181.70	10.52	172.86	10.26	0.000636				
	0.41733	103718.02							
119.00	4386.96	16.76	5.74	10876.29	0.25				
1895.43	181.21	10.46	172.42	10.29	0.000638				
	0.41672	103454.03							
120.00	4386.90	16.70	5.72	10785.64	0.25				
1885.79	180.91	10.42	172.15	10.31	0.000642				
	0.41778	103289.95							
121.00	4386.89	16.69	5.71	10760.14	0.25				
1883.18	180.83	10.41	172.08	10.31	0.000642				
	0.41710	103245.08							
122.00	4386.85	16.65	5.70	10705.75	0.25				
1877.67	180.66	10.39	171.92	10.32	0.000628				

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	0.40707	103149.27							
1864.93	123.00	4386.78	16.58	10.35	5.67	10576.95	0.25		0.000638
	0.41195	102926.18				171.54	10.35		
1849.69	124.00	4386.69	16.49	10.29	5.64	10428.59	0.24		0.000636
	0.40841	102661.87				171.10	10.37		
1838.05	125.00	4386.63	16.43	10.25	5.61	10316.14	0.24		0.000625
	0.39984	102457.77				170.76	10.40		
1823.64	126.00	4386.54	16.34	10.19	5.58	10177.04	0.24		0.000638
	0.40578	102204.18				170.34	10.42		
1814.41	127.00	4386.49	16.29	10.16	5.56	10089.08	0.24		0.000621
	0.39348	102042.41				170.07	10.44		
1805.56	128.00	4386.44	16.24	10.12	5.54	10003.26	0.24		0.000636
	0.40155	101884.10				169.81	10.46		
1792.35	129.00	4386.36	16.16	10.07	5.51	9877.04	0.24		0.000630
	0.39583	101649.47				169.42	10.48		
1783.71	130.00	4386.31	16.11	10.04	5.49	9797.08	0.24		0.000625
	0.39167	101495.76				169.16	10.50		
1774.79	131.00	4386.26	16.06	10.01	5.47	9712.71	0.24		0.000622
	0.38831	101334.38				168.89	10.52		
1761.48	132.00	4386.18	15.98	9.96	5.44	9586.90	0.24		0.000619
	0.38484	101095.40				168.49	10.55		
1758.12	133.00	4386.16	15.96	9.94	5.44	9559.47	0.24		0.000621
	0.38560	101038.55				168.40	10.55		
1767.67	134.00	4386.22	16.02	9.98	5.46	9649.56	0.24		0.000622
	0.38730	101210.70				168.68	10.53		
1768.64	135.00	4386.22	16.02	9.98	5.46	9656.84	0.24		0.000625
	0.38929	101226.21				168.71	10.53		
1765.65	136.00	4386.20	16.00	9.97	5.45	9627.49	0.24		0.000625
	0.38900	101172.02				168.62	10.54		
1762.21	137.00	4386.18	15.98	9.96	5.44	9594.93	0.24		0.000621
	0.38581	101110.27				168.52	10.54		
1758.87	138.00	4386.16	15.96	9.95	5.44	9563.31	0.24		0.000618
	0.38365	101049.83				168.42	10.55		
1755.68	139.00	4386.14	15.94	9.93	5.43	9534.20	0.24		0.000620
	0.38434	100991.77				168.32	10.56		
1752.88	140.00	4386.13	15.93	9.92	5.42	9507.56	0.24		0.000620
	0.38396	100941.73				168.24	10.56		
1747.25	141.00	4386.09	15.89	9.90	5.41	9455.40	0.24		0.000627
	0.38753	100837.37				168.06	10.57		
1736.85	142.00	4386.03	15.83	9.86	5.39	9358.80	0.24		0.000630
	0.38767	100648.89				167.75	10.59		
1731.36	143.00	4386.00	15.80	9.84	5.38	9308.07	0.24		0.000621
		175.91				167.58	10.61		

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1728.09	0.38117	100549.59	15.78	9.83	5.37	9278.45	0.24	0.000615
	144.00	4385.98				167.48	10.61	
		175.80						
1725.11	0.37744	100490.17	15.76	9.82	5.36	9250.42	0.24	0.000629
	145.00	4385.96				167.39	10.62	
		175.70						
1720.10	0.38536	100435.28	15.73	9.80	5.35	9203.79	0.24	0.000617
	146.00	4385.93				167.24	10.63	
		175.53						
1709.69	0.37722	100341.93	15.67	9.76	5.33	9107.02	0.24	0.000622
	147.00	4385.87				166.92	10.65	
		175.18						
1703.72	0.37859	100150.44	15.64	9.74	5.31	9053.31	0.24	0.000620
	148.00	4385.84				166.74	10.66	
		174.98						
1700.35	0.37638	100041.63	15.62	9.72	5.31	9023.38	0.24	0.000623
	149.00	4385.82				166.63	10.67	
		174.87						
1697.50	0.37792	99979.52	15.60	9.71	5.30	8996.92	0.24	0.000621
	150.00	4385.80				166.54	10.68	
		174.77						
1694.78	0.37639	99926.89	15.58	9.70	5.29	8973.14	0.24	0.000622
	151.00	4385.78				166.46	10.68	
		174.68						
1690.57	0.37654	99876.40	15.56	9.69	5.29	8935.32	0.24	0.000615
	152.00	4385.76				166.33	10.69	
		174.54						
1682.24	0.37148	99797.32	15.51	9.65	5.27	8858.42	0.24	0.000623
	153.00	4385.71				166.07	10.71	
		174.25						
1675.03	0.37548	99641.52	15.47	9.63	5.25	8794.96	0.24	0.000620
	154.00	4385.67				165.85	10.72	
		174.01						
1670.81	0.37224	99508.52	15.44	9.61	5.24	8757.39	0.24	0.000614
	155.00	4385.64				165.72	10.73	
		173.87						
1665.63	0.36840	99429.80	15.41	9.59	5.23	8708.38	0.23	0.000615
	156.00	4385.61				165.55	10.74	
		173.69						
1659.65	0.36793	99331.02	15.37	9.57	5.22	8656.47	0.23	0.000626
	157.00	4385.57				165.37	10.76	
		173.49						
1670.00	0.37387	99221.85	15.44	9.61	5.24	8752.60	0.24	0.000619
	158.00	4385.64				165.70	10.73	
		173.85						
1675.39	0.37101	99418.21	15.47	9.63	5.25	8797.79	0.24	0.000625
	159.00	4385.67				165.86	10.72	
		174.02						
1675.96	0.37523	99516.41	15.47	9.63	5.25	8802.06	0.24	0.000615
	160.00	4385.67				165.88	10.72	
		174.04						
1675.32	0.36943	99527.08	15.47	9.63	5.25	8797.16	0.24	0.000622
	161.00	4385.67				165.86	10.72	
		174.02						
1674.51	0.37347	99514.31	15.46	9.62	5.25	8790.96	0.24	0.000612
	162.00	4385.66				165.83	10.72	
		173.99						
1673.70	0.36778	99499.88	15.46	9.62	5.25	8783.93	0.24	0.000619
	163.00	4385.66				165.81	10.73	
		173.97						
1672.88	0.37179	99484.56	15.45	9.62	5.25	8776.60	0.24	0.000619
	164.00	4385.65				165.78	10.73	
		173.94						

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1672.32	0.37178	99469.37	15.45	9.62	5.24	165.00	4385.65	173.92	8770.83	0.24	0.000617
1669.42	0.37021	99458.54	15.43	9.60	5.24	166.00	4385.63	173.82	8743.64	0.24	0.000617
1660.46	0.36960	99402.99	15.38	9.57	5.22	167.00	4385.58	173.51	8663.72	0.23	0.000615
1655.57	0.36731	99233.95	15.35	9.55	5.21	168.00	4385.55	173.34	8620.09	0.23	0.000619
1653.64	0.36894	99143.77	15.34	9.54	5.20	169.00	4385.54	173.28	8603.72	0.23	0.000611
1652.59	0.36372	99107.87	15.33	9.54	5.20	170.00	4385.53	173.24	8594.54	0.23	0.000616
1651.67	0.36658	99087.84	15.33	9.54	5.20	171.00	4385.53	173.21	8586.54	0.23	0.000616
1650.82	0.36647	99070.75	15.32	9.53	5.20	172.00	4385.52	173.18	8579.15	0.23	0.000617
1650.13	0.36723	99054.70	15.32	9.53	5.20	173.00	4385.52	173.16	8573.22	0.23	0.000610
1647.13	0.36293	99041.66	15.30	9.52	5.19	174.00	4385.50	173.05	8543.23	0.23	0.000616
1638.02	0.36569	98982.87	15.24	9.48	5.17	175.00	4385.44	172.74	8462.51	0.23	0.000615
1632.97	0.36375	98810.37	15.21	9.46	5.16	176.00	4385.41	172.56	8419.04	0.23	0.000616
1630.93	0.36355	98715.88	15.20	9.45	5.15	177.00	4385.40	172.49	8401.40	0.23	0.000614
1629.67	0.36241	98677.48	15.19	9.45	5.15	178.00	4385.39	172.45	8389.57	0.23	0.000609
1628.74	0.35905	98653.31	15.19	9.45	5.15	179.00	4385.39	172.42	8381.08	0.23	0.000615
1627.74	0.36258	98635.73	15.18	9.44	5.14	180.00	4385.38	172.38	8372.98	0.23	0.000613
1631.77	0.36145	98616.93	15.21	9.46	5.15	181.00	4385.41	172.53	8411.37	0.23	0.000620
1648.27	0.36615	98696.84	15.31	9.52	5.19	182.00	4385.51	173.10	8559.36	0.23	0.000613
1658.49	0.36421	99009.88	15.37	9.56	5.21	183.00	4385.57	173.45	8648.12	0.23	0.000623
1668.92	0.37198	99201.37	15.43	9.60	5.24	184.00	4385.63	173.81	8742.45	0.24	0.000616
1673.91	0.36904	99397.59	15.46	9.62	5.25	185.00	4385.66	173.97	8786.01	0.24	0.000621

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	0.37262	99489.08						
1675.82	186.00	4385.67	15.47	9.63	5.25	8802.27	0.24	0.000620
	0.37276	99524.63						
1676.70	187.00	4385.68	15.48	9.63	5.25	8810.91	0.24	0.000613
	0.36872	99541.07						
1677.31	188.00	4385.68	15.48	9.63	5.26	8815.76	0.24	0.000621
	0.37332	99552.56						
1677.57	189.00	4385.68	15.48	9.64	5.26	8817.88	0.24	0.000620
	0.37259	99557.02						
1677.67	190.00	4385.68	15.48	9.64	5.26	8818.40	0.24	0.000621
	0.37366	99558.68						
1677.76	191.00	4385.68	15.48	9.64	5.26	8819.05	0.24	0.000620
	0.37269	99560.70						
1675.30	192.00	4385.67	15.47	9.63	5.25	8795.63	0.24	0.000619
	0.37203	99512.79						
1666.74	193.00	4385.62	15.42	9.59	5.23	8717.82	0.23	0.000617
	0.36954	99352.69						
1662.31	194.00	4385.59	15.39	9.58	5.22	8680.72	0.23	0.000619
	0.36962	99270.38						
1660.73	195.00	4385.58	15.38	9.57	5.22	8665.04	0.23	0.000616
	0.36777	99241.27						
1659.87	196.00	4385.57	15.37	9.57	5.22	8658.87	0.23	0.000618
	0.36885	99225.15						
1659.28	197.00	4385.57	15.37	9.57	5.21	8652.61	0.23	0.000616
	0.36772	99213.87						
1658.75	198.00	4385.57	15.37	9.56	5.21	8647.98	0.23	0.000620
	0.36995	99203.98						
1658.32	199.00	4385.57	15.37	9.56	5.21	8644.54	0.23	0.000617
	0.36830	99196.12						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5083

MAXIMUM DISCHARGE (CFS) = 22065.72 AT TIME = 91.72  
 MAXIMUM STAGE = 4391.17 AT TIME = 91.79

AREA	TIME WETTED PERIMETER BED SHEAR STRESS (FT^2)	ELEV. PERIMETER SURFACE AREA (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW
	(LB/FT^2)	(FT)	(FT)	(FT)			
0.00	0.00	4370.19	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4370.19	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	



HYCHAN.OUT									
0.00	2.00	4370.19	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4370.19	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4370.19	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
555.98	5.00	4373.90	3.71	1.80	998.58	0.16			
		84.47	6.58	82.96	22.38				0.000713
	0.29299	49776.26							
910.64	6.00	4381.05	10.86	4.40	4005.60	0.24			
		145.51	6.26	139.72	12.86				0.000682
	0.26630	83831.96							
1019.97	7.00	4381.87	11.68	4.68	4769.19	0.24			
		150.96	6.76	144.73	12.39				0.000684
	0.28851	86838.30							
1058.02	8.00	4382.14	11.95	4.77	5049.20	0.24			
		152.75	6.93	146.38	12.24				0.000680
	0.29377	87825.07							
1059.29	9.00	4382.15	11.96	4.77	5053.24	0.24			
		152.80	6.93	146.42	12.24				0.000679
	0.29357	87852.14							
1045.94	10.00	4382.05	11.86	4.73	4944.69	0.24			
		152.16	6.87	145.84	12.29				0.000674
	0.28926	87502.12							
1033.39	11.00	4381.96	11.77	4.70	4854.32	0.24			
		151.58	6.82	145.30	12.34				0.000674
	0.28653	87177.12							
1026.51	12.00	4381.91	11.72	4.68	4807.43	0.24			
		151.25	6.79	145.00	12.37				0.000672
	0.28457	86997.63							
1016.41	13.00	4381.84	11.65	4.65	4729.82	0.24			
		150.76	6.74	144.55	12.41				0.000665
	0.27984	86728.52							
1001.14	14.00	4381.73	11.54	4.61	4613.06	0.24			
		150.02	6.67	143.87	12.47				0.000667
	0.27779	86320.17							
990.47	15.00	4381.65	11.46	4.58	4534.67	0.24			
		149.50	6.63	143.39	12.52				0.000666
	0.27544	86035.16							
985.59	16.00	4381.61	11.42	4.57	4499.48	0.24			
		149.27	6.60	143.17	12.54				0.000663
	0.27331	85904.57							
983.51	17.00	4381.60	11.41	4.56	4484.19	0.24			
		149.17	6.59	143.08	12.54				0.000668
	0.27496	85848.26							
982.57	18.00	4381.59	11.40	4.56	4475.64	0.24			
		149.12	6.59	143.04	12.55				0.000667
	0.27409	85822.48							
982.91	19.00	4381.59	11.40	4.55	4473.51	0.24			
		149.14	6.59	143.05	12.55				0.000666
	0.27379	85831.38							
990.16	20.00	4381.65	11.46	4.57	4527.66	0.24			
		149.50	6.62	143.38	12.52				0.000672
	0.27767	86030.70							
1004.98	21.00	4381.76	11.57	4.62	4641.31	0.24			
		150.22	6.69	144.05	12.45				0.000673
	0.28099	86430.99							
1022.35	22.00	4381.88	11.69	4.67	4773.76	0.24			
		151.06	6.77	144.82	12.38				0.000678
	0.28630	86892.63							

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1032.47	23.00	4381.96	11.77	6.81	4.70	4849.49	0.24
	0.28758	151.54				145.26	12.34
		87157.48					0.000676
1038.27	24.00	4382.00	11.81	6.84	4.71	4893.42	0.24
	0.28934	151.82				145.52	12.32
		87309.66					0.000678
1049.80	25.00	4382.08	11.89	6.89	4.75	4986.39	0.24
	0.29507	152.37				146.02	12.28
		87613.05					0.000686
1075.01	26.00	4382.27	12.08	7.00	4.83	5189.46	0.24
	0.30169	153.55				147.11	12.18
		88265.90					0.000691
1109.89	27.00	4382.52	12.33	7.15	4.93	5468.92	0.25
	0.31085	155.15				148.58	12.05
		89147.78					0.000696
1140.38	28.00	4382.73	12.54	7.29	5.01	5716.91	0.25
	0.31781	156.52				149.84	11.94
		89901.80					0.000699
1157.06	29.00	4382.85	12.66	7.36	5.06	5851.67	0.25
	0.32061	157.26				150.51	11.89
		90305.99					0.000698
1165.53	30.00	4382.91	12.72	7.39	5.08	5921.74	0.25
	0.32349	157.63				150.85	11.86
		90510.95					0.000701
1176.88	31.00	4382.99	12.80	7.44	5.11	6018.82	0.25
	0.32522	158.13				151.31	11.82
		90785.01					0.000700
1184.37	32.00	4383.04	12.85	7.47	5.13	6081.23	0.25
	0.32706	158.45				151.61	11.80
		90963.26					0.000701
1189.65	33.00	4383.08	12.89	7.50	5.15	6125.91	0.25
	0.32951	158.68				151.82	11.78
		91089.91					0.000704
1199.74	34.00	4383.15	12.96	7.54	5.18	6213.14	0.25
	0.33124	159.12				152.22	11.75
		91330.37					0.000704
1206.38	35.00	4383.19	13.00	7.57	5.20	6268.80	0.25
	0.33233	159.40				152.48	11.72
		91486.24					0.000704
1205.19	36.00	4383.19	13.00	7.56	5.19	6254.01	0.25
	0.33283	159.34				152.42	11.73
		91454.47					0.000705
1195.60	37.00	4383.12	12.93	7.52	5.16	6174.07	0.25
	0.32919	158.93				152.05	11.76
		91228.65					0.000701
1192.70	38.00	4383.10	12.91	7.51	5.16	6149.04	0.25
	0.32716	158.81				151.93	11.77
		91159.52					0.000698
1185.01	39.00	4383.04	12.86	7.48	5.13	6082.22	0.25
	0.32775	158.47				151.63	11.79
		90975.22					0.000702
1179.29	40.00	4383.01	12.82	7.45	5.12	6035.15	0.25
	0.32298	158.22				151.40	11.81
		90839.05					0.000694
1176.36	41.00	4382.99	12.80	7.44	5.11	6011.10	0.25
	0.32629	158.10				151.28	11.82
		90769.33					0.000703
1174.92	42.00	4382.98	12.79	7.43	5.11	5999.52	0.25
	0.32481	158.04				151.23	11.83
		90735.15					0.000700
1173.93	43.00	4382.97	12.78	7.43	5.10	5990.97	0.25
	0.32265	157.99				151.19	11.83
		90711.21					0.000696

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1175.08	44.00	4382.98	12.79	5.11	6002.97	0.25	0.000705
	0.32716	158.04	7.44	151.23	11.83		
		90740.48					
1182.26	45.00	4383.03	12.84	5.13	6063.65	0.25	0.000700
	0.32602	158.36	7.47	151.52	11.80		
		90913.29					
1188.54	46.00	4383.07	12.88	5.15	6117.58	0.25	0.000701
	0.32788	158.63	7.49	151.77	11.78		
		91063.73					
1200.96	47.00	4383.16	12.97	5.18	6226.21	0.25	0.000707
	0.33280	159.17	7.55	152.27	11.74		
		91360.30					
1217.30	48.00	4383.27	13.08	5.23	6367.71	0.25	0.000709
	0.33691	159.87	7.61	152.91	11.69		
		91746.40					
1235.38	49.00	4383.40	13.21	5.28	6525.05	0.26	0.000710
	0.34058	160.64	7.69	153.61	11.63		
		92168.91					
1253.56	50.00	4383.52	13.33	5.33	6685.89	0.26	0.000713
	0.34540	161.41	7.77	154.32	11.58		
		92589.08					
1272.25	51.00	4383.65	13.46	5.39	6852.29	0.26	0.000719
	0.35188	162.18	7.84	155.03	11.52		
		93017.04					
1292.94	52.00	4383.79	13.60	5.44	7039.93	0.26	0.000726
	0.35923	163.04	7.93	155.81	11.46		
		93486.30					
1318.29	53.00	4383.96	13.77	5.51	7270.26	0.26	0.000728
	0.36524	164.07	8.03	156.75	11.39		
		94052.93					
1332.93	54.00	4384.06	13.87	5.55	7403.74	0.26	0.000728
	0.36758	164.66	8.10	157.29	11.34		
		94376.35					
1353.84	55.00	4384.20	14.01	5.62	7602.93	0.26	0.000734
	0.37483	165.50	8.18	158.06	11.29		
		94837.42					
1403.78	56.00	4384.53	14.34	5.76	8084.53	0.27	0.000742
	0.38829	167.46	8.38	159.86	11.15		
		95917.24					
1465.74	57.00	4384.93	14.74	5.94	8700.80	0.27	0.000755
	0.40687	169.83	8.63	162.03	10.99		
		97217.21					
1545.48	58.00	4385.44	15.25	6.15	9510.18	0.28	0.000764
	0.42637	172.78	8.94	164.73	10.80		
		98835.21					
1626.34	59.00	4385.95	15.76	6.37	10354.43	0.28	0.000769
	0.44439	175.67	9.26	167.36	10.62		
		100417.73					
1685.34	60.00	4386.31	16.12	6.52	10985.16	0.29	0.000771
	0.45646	177.71	9.48	169.23	10.50		
		101537.06					
1722.25	61.00	4386.54	16.35	6.62	11394.61	0.29	0.000774
	0.46451	178.97	9.62	170.37	10.42		
		102223.27					
1748.53	62.00	4386.70	16.51	6.68	11685.98	0.29	0.000774
	0.46977	179.85	9.72	171.18	10.37		
		102705.07					
1762.16	63.00	4386.78	16.59	6.72	11837.52	0.29	0.000775
	0.47268	180.30	9.77	171.59	10.34		
		102952.72					
1773.91	64.00	4386.85	16.66	6.75	11970.92	0.29	0.000777
	0.47583	180.69	9.82	171.94	10.32		
		103166.34					

HYCHAN.OUT							
1787.31	65.00	4386.93	16.74	9.87	6.78	12124.19	0.29
	0.47886	181.13				172.35	10.29
		103408.61					0.000778
1801.18	66.00	4387.01	16.82	9.92	6.82	12277.30	0.29
	0.48340	181.59				172.76	10.27
		103658.12					0.000781
1813.16	67.00	4387.09	16.90	9.96	6.84	12407.82	0.29
	0.48444	181.98				173.12	10.25
		103872.33					0.000779
1823.60	68.00	4387.15	16.96	10.00	6.87	12527.03	0.29
	0.48172	182.32				173.43	10.23
		104057.02					0.000772
1816.31	69.00	4387.10	16.91	9.98	6.85	12439.72	0.29
	0.48165	182.08				173.21	10.24
		103926.86					0.000774
1837.38	70.00	4387.23	17.04	10.05	6.91	12693.90	0.30
	0.49193	182.77				173.84	10.20
		104304.58					0.000784
1873.22	71.00	4387.44	17.25	10.18	7.00	13114.71	0.30
	0.50021	183.92				174.89	10.14
		104934.44					0.000787
1906.10	72.00	4387.64	17.45	10.31	7.09	13510.53	0.30
	0.50925	184.97				175.84	10.08
		105505.88					0.000792
1963.85	73.00	4387.98	17.79	10.51	7.24	14217.96	0.30
	0.52374	186.77				177.49	9.98
		106493.88					0.000798
1996.24	74.00	4388.16	17.97	10.63	7.32	14609.12	0.30
	0.53051	187.77				178.39	9.92
		107036.34					0.000800
2019.50	75.00	4388.30	18.11	10.71	7.38	14899.84	0.31
	0.53641	188.47				179.04	9.89
		107423.70					0.000802
2048.35	76.00	4388.47	18.28	10.82	7.45	15268.38	0.31
	0.54342	189.35				179.84	9.84
		107901.23					0.000805
2077.06	77.00	4388.63	18.44	10.92	7.53	15630.85	0.31
	0.54957	190.21				180.62	9.80
		108369.66					0.000807
2096.03	78.00	4388.74	18.55	10.99	7.57	15876.66	0.31
	0.55574	190.77				181.13	9.77
		108678.05					0.000811
2135.36	79.00	4388.96	18.77	11.13	7.68	16393.59	0.31
	0.56389	191.93				182.19	9.71
		109311.47					0.000812
2171.41	80.00	4389.16	18.97	11.25	7.77	16870.81	0.31
	0.57317	192.98				183.14	9.65
		109883.94					0.000816
2217.37	81.00	4389.42	19.23	11.41	7.89	17488.51	0.32
	0.58193	194.30				184.34	9.59
		110604.66					0.000817
2259.10	82.00	4389.65	19.46	11.56	7.99	18053.83	0.32
	0.59252	195.48				185.42	9.53
		111250.19					0.000822
2306.03	83.00	4389.91	19.72	11.72	8.11	18702.55	0.32
	0.60551	196.80				186.61	9.46
		111966.57					0.000828
2350.32	84.00	4390.16	19.97	11.87	8.22	19324.66	0.32
	0.61488	198.02				187.72	9.40
		112633.87					0.000830
2389.47	85.00	4390.37	20.18	12.00	8.32	19879.62	0.33
	0.62187	199.09				188.69	9.35
		113215.77					0.000830

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HYCHAN.OUT							
2419.45	86.00	4390.53	20.34	12.10	8.39	20310.22	0.33
	0.62979	199.90			189.43	9.31	0.000834
		113656.95					
2443.92	87.00	4390.66	20.47	12.19	8.46	20663.77	0.33
	0.63626	200.55			190.02	9.28	0.000837
		114014.57					
2469.30	88.00	4390.80	20.61	12.27	8.52	21041.51	0.33
	0.64155	201.23			190.64	9.25	0.000838
		114384.16					
2500.19	89.00	4390.97	20.78	12.37	8.60	21500.93	0.33
	0.64563	202.05			191.38	9.21	0.000836
		114829.76					
2524.44	90.00	4391.10	20.91	12.46	8.66	21851.10	0.33
	0.65384	202.68			191.96	9.18	0.000841
		115173.22					
2531.91	91.00	4391.13	20.94	12.48	8.67	21949.82	0.33
	0.65062	202.87			192.13	9.17	0.000835
		115276.71					
2534.93	92.00	4391.15	20.96	12.49	8.68	21994.91	0.33
	0.65047	202.95			192.20	9.17	0.000835
		115319.49					
2522.69	93.00	4391.08	20.89	12.45	8.64	21807.07	0.33
	0.64772	202.63			191.91	9.18	0.000834
		115143.31					
2505.73	94.00	4391.00	20.81	12.39	8.61	21567.33	0.33
	0.64583	202.19			191.51	9.20	0.000835
		114903.51					
2489.60	95.00	4390.91	20.72	12.34	8.57	21332.43	0.33
	0.63993	201.76			191.12	9.22	0.000831
		114672.55					
2469.12	96.00	4390.80	20.61	12.27	8.52	21030.37	0.33
	0.63225	201.22			190.63	9.25	0.000826
		114376.48					
2442.67	97.00	4390.66	20.47	12.18	8.45	20641.52	0.33
	0.63012	200.51			189.99	9.28	0.000829
		113992.02					
2420.41	98.00	4390.54	20.35	12.11	8.39	20318.88	0.33
	0.62149	199.92			189.44	9.31	0.000823
		113666.77					
2393.76	99.00	4390.39	20.20	12.02	8.33	19930.43	0.33
	0.62121	199.19			188.79	9.35	0.000828
		113272.97					
2362.93	100.00	4390.22	20.03	11.91	8.25	19487.04	0.32
	0.61245	198.35			188.02	9.39	0.000824
		112814.33					
2334.45	101.00	4390.07	19.88	11.82	8.17	19081.30	0.32
	0.60763	197.57			187.31	9.42	0.000824
		112388.41					
2303.89	102.00	4389.90	19.71	11.71	8.09	18638.29	0.32
	0.59816	196.72			186.54	9.47	0.000819
		111925.16					
2262.09	103.00	4389.67	19.48	11.57	7.98	18057.37	0.32
	0.58559	195.55			185.48	9.52	0.000811
		111285.67					
2207.87	104.00	4389.36	19.17	11.38	7.84	17318.14	0.32
	0.56659	194.01			184.07	9.60	0.000798
		110443.93					
2136.17	105.00	4388.96	18.77	11.13	7.66	16357.68	0.31
	0.55505	191.92			182.18	9.71	0.000799
		109306.68					
2065.07	106.00	4388.56	18.37	10.88	7.48	15442.71	0.31
	0.54201	189.82			180.27	9.82	0.000798
		108160.52					

HYCHAN.OUT							
2011.44	107.00	4388.25	18.06	7.35	14775.54	0.30	0.000792
	0.52833	188.22	10.69		178.80	9.90	
		107282.88					
1984.34	108.00	4388.09	17.90	7.28	14436.19	0.30	0.000791
	0.52237	187.39	10.59		178.05	9.95	
		106828.78					
1937.06	109.00	4387.82	17.63	7.15	13850.39	0.30	0.000784
	0.51001	185.91	10.42		176.71	10.03	
		106024.52					
1891.52	110.00	4387.55	17.36	7.03	13302.06	0.30	0.000778
	0.49792	184.48	10.25		175.40	10.10	
		105241.44					
1848.24	111.00	4387.29	17.10	6.92	12791.88	0.30	0.000774
	0.48728	183.10	10.09		174.14	10.18	
		104486.02					
1813.15	112.00	4387.08	16.89	6.83	12389.29	0.29	0.000773
	0.48090	181.97	9.96		173.11	10.25	
		103865.84					
1788.09	113.00	4386.93	16.74	6.77	12103.55	0.29	0.000774
	0.47644	181.15	9.87		172.36	10.29	
		103417.06					
1761.42	114.00	4386.77	16.58	6.70	11798.59	0.29	0.000763
	0.46548	180.26	9.77		171.55	10.35	
		102932.99					
1730.75	115.00	4386.59	16.40	6.62	11454.65	0.29	0.000770
	0.46388	179.24	9.66		170.62	10.41	
		102371.20					
1714.59	116.00	4386.49	16.30	6.58	11281.71	0.29	0.000770
	0.46132	178.70	9.59		170.13	10.44	
		102076.22					
1708.16	117.00	4386.45	16.26	6.56	11209.80	0.29	0.000766
	0.45757	178.48	9.57		169.93	10.45	
		101956.03					
1692.33	118.00	4386.35	16.16	6.52	11033.16	0.29	0.000767
	0.45494	177.94	9.51		169.43	10.48	
		101659.36					
1678.20	119.00	4386.27	16.08	6.48	10878.45	0.29	0.000769
	0.45353	177.45	9.46		168.99	10.51	
		101394.93					
1669.35	120.00	4386.21	16.02	6.46	10786.38	0.28	0.000763
	0.44878	177.15	9.42		168.72	10.53	
		101229.21					
1666.97	121.00	4386.20	16.01	6.46	10760.75	0.28	0.000760
	0.44626	177.07	9.41		168.64	10.54	
		101184.34					
1662.02	122.00	4386.17	15.98	6.44	10706.94	0.28	0.000761
	0.44641	176.90	9.40		168.48	10.55	
		101090.05					
1650.62	123.00	4386.10	15.91	6.41	10579.62	0.28	0.000760
	0.44329	176.50	9.35		168.12	10.57	
		100871.72					
1636.73	124.00	4386.01	15.82	6.37	10430.64	0.28	0.000758
	0.43970	176.01	9.30		167.68	10.60	
		100607.13					
1626.21	125.00	4385.94	15.75	6.35	10318.29	0.28	0.000762
	0.44014	175.65	9.26		167.34	10.62	
		100404.62					
1613.12	126.00	4385.86	15.67	6.31	10179.08	0.28	0.000756
	0.43413	175.19	9.21		166.92	10.65	
		100152.54					
1604.70	127.00	4385.81	15.62	6.29	10090.28	0.28	0.000757
	0.43338	174.89	9.18		166.65	10.67	
		99989.84					

HYCHAN.OUT									
1596.76	128.00	4385.76	15.57	9.14	6.27	10005.28	0.28	0.000750	
	0.42778	174.60				166.39	10.69		
		99834.58							
1584.78	129.00	4385.68	15.49	9.10	6.23	9878.85	0.28	0.000755	
	0.42889	174.18				166.00	10.71		
		99600.59							
1576.89	130.00	4385.64	15.45	9.07	6.21	9798.36	0.28	0.000754	
	0.42668	173.90				165.74	10.73		
		99446.30							
1568.88	131.00	4385.58	15.39	9.04	6.19	9714.62	0.28	0.000749	
	0.42222	173.61				165.48	10.75		
		99288.05							
1556.80	132.00	4385.51	15.32	8.99	6.16	9588.71	0.28	0.000752	
	0.42188	173.17				165.08	10.78		
		99049.23							
1553.53	133.00	4385.49	15.30	8.98	6.15	9558.49	0.28	0.000754	
	0.42247	173.06				164.98	10.78		
		98986.70							
1562.18	134.00	4385.54	15.35	9.01	6.18	9648.47	0.28	0.000752	
	0.42265	173.37				165.26	10.76		
		99158.34							
1563.17	135.00	4385.55	15.36	9.01	6.18	9657.26	0.28	0.000751	
	0.42229	173.40				165.29	10.76		
		99176.73							
1560.50	136.00	4385.53	15.34	9.00	6.17	9628.03	0.28	0.000750	
	0.42149	173.31				165.21	10.77		
		99123.45							
1557.36	137.00	4385.51	15.32	8.99	6.16	9595.45	0.28	0.000755	
	0.42370	173.19				165.10	10.78		
		99061.44							
1554.35	138.00	4385.49	15.30	8.98	6.15	9563.75	0.28	0.000754	
	0.42258	173.09				165.00	10.78		
		99001.59							
1551.48	139.00	4385.48	15.29	8.97	6.15	9534.79	0.28	0.000751	
	0.42057	172.98				164.91	10.79		
		98944.48							
1548.91	140.00	4385.46	15.27	8.96	6.14	9508.02	0.28	0.000754	
	0.42128	172.89				164.82	10.79		
		98893.59							
1543.91	141.00	4385.43	15.24	8.94	6.13	9457.04	0.28	0.000748	
	0.41708	172.71				164.66	10.81		
		98793.23							
1534.46	142.00	4385.37	15.18	8.90	6.10	9360.01	0.28	0.000746	
	0.41465	172.36				164.34	10.83		
		98604.38							
1529.43	143.00	4385.33	15.15	8.88	6.09	9308.73	0.28	0.000745	
	0.41284	172.18				164.17	10.84		
		98504.33							
1526.45	144.00	4385.32	15.13	8.87	6.08	9278.91	0.28	0.000749	
	0.41463	172.07				164.07	10.85		
		98444.64							
1523.78	145.00	4385.30	15.11	8.86	6.07	9250.96	0.28	0.000747	
	0.41311	171.97				163.98	10.85		
		98390.72							
1519.31	146.00	4385.27	15.08	8.84	6.06	9205.18	0.28	0.000742	
	0.40954	171.81				163.83	10.86		
		98299.93							
1509.91	147.00	4385.21	15.02	8.81	6.03	9108.46	0.27	0.000745	
	0.40955	171.46				163.52	10.89		
		98109.62							
1504.42	148.00	4385.18	14.99	8.78	6.02	9054.01	0.27	0.000745	
	0.40816	171.26				163.33	10.90		
		97999.25							



HYCHAN.OUT									
1501.36	149.00	4385.16	14.97	8.77	6.01	9023.90	0.27	0.000745	
	0.40793	171.14				163.23	10.91		
		97937.31							
1498.77	150.00	4385.14	14.95	8.76	6.00	8997.40	0.27	0.000743	
	0.40632	171.05				163.14	10.91		
		97884.62							
1496.31	151.00	4385.12	14.93	8.75	6.00	8973.56	0.27	0.000744	
	0.40617	170.96				163.06	10.92		
		97834.59							
1492.55	152.00	4385.10	14.91	8.74	5.99	8936.33	0.27	0.000739	
	0.40274	170.82				162.93	10.93		
		97757.40							
1485.06	153.00	4385.05	14.86	8.71	5.97	8859.93	0.27	0.000739	
	0.40146	170.54				162.67	10.95		
		97603.77							
1478.46	154.00	4385.01	14.82	8.68	5.95	8795.82	0.27	0.000742	
	0.40201	170.29				162.45	10.96		
		97469.08							
1474.63	155.00	4384.98	14.79	8.67	5.94	8757.91	0.27	0.000739	
	0.39970	170.15				162.32	10.97		
		97390.55							
1470.04	156.00	4384.95	14.76	8.65	5.92	8709.78	0.27	0.000736	
	0.39711	169.97				162.16	10.98		
		97294.95							
1464.46	157.00	4384.92	14.73	8.63	5.91	8656.12	0.27	0.000742	
	0.39934	169.77				161.97	11.00		
		97181.32							
1473.66	158.00	4384.98	14.79	8.66	5.94	8750.75	0.27	0.000741	
	0.40075	170.12				162.29	10.97		
		97372.99							
1478.72	159.00	4385.01	14.82	8.68	5.95	8797.56	0.27	0.000738	
	0.39996	170.30				162.46	10.96		
		97475.24							
1479.24	160.00	4385.01	14.82	8.68	5.95	8801.99	0.27	0.000738	
	0.40008	170.32				162.48	10.96		
		97485.59							
1478.69	161.00	4385.01	14.82	8.68	5.95	8797.38	0.27	0.000741	
	0.40136	170.30				162.46	10.96		
		97474.29							
1477.92	162.00	4385.01	14.82	8.68	5.95	8791.01	0.27	0.000738	
	0.39973	170.27				162.43	10.96		
		97458.79							
1477.19	163.00	4385.00	14.81	8.68	5.95	8784.09	0.27	0.000742	
	0.40158	170.24				162.41	10.97		
		97443.78							
1476.45	164.00	4385.00	14.81	8.67	5.94	8776.72	0.27	0.000740	
	0.40059	170.22				162.38	10.97		
		97428.45							
1475.97	165.00	4384.99	14.80	8.67	5.94	8770.94	0.27	0.000743	
	0.40206	170.20				162.36	10.97		
		97418.48							
1473.42	166.00	4384.98	14.79	8.66	5.93	8744.71	0.27	0.000739	
	0.39964	170.10				162.28	10.97		
		97365.05							
1465.34	167.00	4384.92	14.73	8.63	5.91	8665.11	0.27	0.000736	
	0.39649	169.80				162.00	10.99		
		97198.28							
1460.82	168.00	4384.90	14.71	8.61	5.90	8620.47	0.27	0.000736	
	0.39529	169.63				161.84	11.01		
		97105.70							
1459.05	169.00	4384.88	14.69	8.60	5.90	8603.98	0.27	0.000738	
	0.39614	169.56				161.78	11.01		
		97069.17							

HYCHAN.OUT									
1458.10	170.00	4384.88	14.69	8.60	5.89	8594.68	11.01	0.27	0.000739
	0.39662	169.53				161.75			
		97049.53							
1457.26	171.00	4384.87	14.68	8.60	5.89	8586.68	11.01	0.27	0.000736
	0.39499	169.49				161.72			
		97032.27							
1456.50	172.00	4384.87	14.68	8.59	5.89	8579.35	11.02	0.27	0.000742
	0.39781	169.47				161.69			
		97016.20							
1455.86	173.00	4384.86	14.67	8.59	5.89	8573.28	11.02	0.27	0.000739
	0.39628	169.44				161.67			
		97003.12							
1453.28	174.00	4384.85	14.66	8.58	5.88	8544.42	11.02	0.27	0.000737
	0.39471	169.34				161.58			
		96948.14							
1445.03	175.00	4384.79	14.60	8.55	5.86	8463.71	11.05	0.27	0.000731
	0.39001	169.03				161.29			
		96776.37							
1440.39	176.00	4384.76	14.57	8.53	5.85	8419.58	11.06	0.27	0.000735
	0.39098	168.85				161.13			
		96680.09							
1438.53	177.00	4384.75	14.56	8.52	5.84	8401.65	11.06	0.27	0.000736
	0.39164	168.78				161.07			
		96641.34							
1437.39	178.00	4384.74	14.55	8.52	5.84	8389.74	11.06	0.27	0.000736
	0.39146	168.74				161.03			
		96617.57							
1436.56	179.00	4384.74	14.55	8.52	5.83	8381.30	11.07	0.27	0.000735
	0.39029	168.71				161.00			
		96600.05							
1435.63	180.00	4384.73	14.54	8.51	5.83	8373.03	11.07	0.27	0.000737
	0.39156	168.67				160.97			
		96580.82							
1439.06	181.00	4384.75	14.56	8.52	5.84	8409.50	11.06	0.27	0.000740
	0.39375	168.81				161.09			
		96654.70							
1453.96	182.00	4384.85	14.66	8.58	5.89	8556.94	11.02	0.27	0.000737
	0.39501	169.37				161.61			
		96966.02							
1463.30	183.00	4384.91	14.72	8.62	5.91	8646.56	11.00	0.27	0.000741
	0.39876	169.73				161.93			
		97158.59							
1472.72	184.00	4384.97	14.78	8.66	5.94	8741.05	10.98	0.27	0.000748
	0.40404	170.08				162.26			
		97353.30							
1477.35	185.00	4385.00	14.81	8.68	5.95	8785.60	10.96	0.27	0.000744
	0.40295	170.25				162.41			
		97447.60							
1479.09	186.00	4385.01	14.82	8.68	5.95	8802.01	10.96	0.27	0.000743
	0.40253	170.32				162.47			
		97483.07							
1479.90	187.00	4385.02	14.83	8.69	5.95	8810.85	10.96	0.27	0.000743
	0.40263	170.35				162.50			
		97499.45							
1480.43	188.00	4385.02	14.83	8.69	5.95	8815.56	10.96	0.27	0.000738
	0.40024	170.37				162.52			
		97510.61							
1480.69	189.00	4385.02	14.83	8.69	5.96	8817.89	10.96	0.27	0.000741
	0.40205	170.38				162.53			
		97515.52							
1480.80	190.00	4385.02	14.83	8.69	5.96	8818.49	10.96	0.27	0.000742
	0.40264	170.38				162.53			
		97517.83							

HYCHAN.OUT							
1480.87	191.00	4385.02	14.83	5.96	8819.08	0.27	0.000742
	0.40222	170.38	8.69	162.53	10.96		
1478.74	192.00	4385.01	14.82	5.95	8796.67	0.27	0.000739
	0.40039	170.30	8.68	162.46	10.96		
1471.00	193.00	4384.96	14.77	5.93	8718.94	0.27	0.000738
	0.39871	170.01	8.65	162.19	10.98		
1466.93	194.00	4384.93	14.74	5.92	8681.17	0.27	0.000739
	0.39843	169.86	8.64	162.05	10.99		
1465.48	195.00	4384.93	14.74	5.91	8665.13	0.27	0.000738
	0.39720	169.80	8.63	162.00	10.99		
1464.69	196.00	4384.92	14.73	5.91	8659.03	0.27	0.000740
	0.39825	169.77	8.63	161.98	11.00		
1464.18	197.00	4384.92	14.73	5.91	8652.74	0.27	0.000742
	0.39928	169.76	8.63	161.96	11.00		
1463.69	198.00	4384.91	14.72	5.91	8648.00	0.27	0.000741
	0.39869	169.74	8.62	161.94	11.00		
1463.28	199.00	4384.91	14.72	5.91	8644.63	0.27	0.000740
	0.39814	169.72	8.62	161.93	11.00		
		97156.60					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5085

MAXIMUM DISCHARGE (CFS) = 22064.45 AT TIME = 91.72  
 MAXIMUM STAGE = 4389.81 AT TIME = 91.79

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4369.76	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4369.76	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4369.76	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4369.76	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4369.76	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
476.54	5.00	4372.98	3.22	1.81	864.86	0.18	0.001066	
	0.49255	64.37	7.40	63.60	19.73			
783.96	6.00	4380.16	10.40	5.06	3969.77	0.28	0.001040	
	0.42935	118.46	6.62	114.74	11.04			
	7.00	4380.96	11.20	5.39	4756.96	0.28		

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HYCHAN.OUT						
882.84		123.14	7.17	119.12	10.64	0.001051
	0.47038	83385.66				
	8.00	4381.23	11.47	5.50	5046.82	0.29
917.17		124.67	7.36	120.56	10.51	0.001051
	0.48269	84390.76				
	9.00	4381.24	11.48	5.50	5054.42	0.29
918.63		124.73	7.37	120.61	10.51	0.001047
	0.48128	84426.16				
	10.00	4381.14	11.38	5.45	4947.80	0.28
907.12		124.20	7.30	120.12	10.55	0.001042
	0.47479	84083.12				
	11.00	4381.06	11.30	5.42	4855.77	0.28
895.94		123.70	7.24	119.65	10.59	0.001041
	0.47027	83756.03				
	12.00	4381.01	11.25	5.40	4808.67	0.28
889.70		123.43	7.21	119.39	10.61	0.001039
	0.46726	83574.36				
	13.00	4380.94	11.18	5.37	4732.19	0.28
880.89		123.02	7.16	119.01	10.65	0.001034
	0.46196	83308.82				
	14.00	4380.83	11.07	5.32	4615.71	0.28
867.53		122.40	7.09	118.43	10.70	0.001031
	0.45579	82903.89				
	15.00	4380.75	10.99	5.29	4536.04	0.28
858.06		121.97	7.04	118.03	10.73	0.001029
	0.45155	82617.70				
	16.00	4380.72	10.96	5.27	4499.94	0.28
853.70		121.76	7.01	117.84	10.75	0.001027
	0.44952	82485.74				
	17.00	4380.70	10.94	5.26	4484.56	0.28
851.85		121.68	7.00	117.76	10.76	0.001028
	0.44913	82429.35				
	18.00	4380.70	10.94	5.26	4475.67	0.28
851.09		121.64	7.00	117.72	10.76	0.001026
	0.44813	82404.52				
	19.00	4380.70	10.94	5.25	4473.02	0.28
851.50		121.66	7.00	117.74	10.76	0.001027
	0.44841	82414.63				
	20.00	4380.75	10.99	5.28	4525.57	0.28
857.67		121.95	7.03	118.01	10.74	0.001034
	0.45391	82608.04				
	21.00	4380.86	11.10	5.33	4638.21	0.28
870.59		122.55	7.10	118.58	10.69	0.001038
	0.46024	83003.52				
	22.00	4380.98	11.22	5.39	4771.20	0.28
885.85		123.26	7.19	119.23	10.63	0.001042
	0.46742	83463.30				
	23.00	4381.05	11.29	5.42	4848.19	0.28
894.86		123.66	7.24	119.61	10.59	0.001044
	0.47138	83729.72				
	24.00	4381.09	11.33	5.44	4892.23	0.28
899.96		123.89	7.26	119.83	10.58	0.001046
	0.47433	83881.22				
	25.00	4381.17	11.41	5.48	4983.26	0.29
909.87		124.35	7.32	120.25	10.54	0.001057
	0.48248	84177.86				
	26.00	4381.34	11.58	5.56	5183.28	0.29
931.68		125.33	7.43	121.17	10.46	0.001066
	0.49431	84819.84				
	27.00	4381.58	11.82	5.68	5463.26	0.29
962.31		126.67	7.60	122.42	10.36	0.001075
	0.50960	85697.33				
	28.00	4381.79	12.03	5.77	5712.43	0.29

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HYCHAN.OUT							
989.18	0.52089	127.82	7.74	123.50	10.27	0.001079	
	29.00	4381.90	12.14	5.83	5849.80	0.29	
1004.08	0.52746	128.44	7.82	124.08	10.22	0.001081	
	30.00	4381.96	12.20	5.85	5920.09	0.30	
1011.54	0.53201	128.75	7.86	124.37	10.20	0.001085	
	31.00	4382.03	12.27	5.89	6016.86	0.30	
1021.47	0.53582	129.17	7.91	124.76	10.16	0.001086	
	32.00	4382.08	12.32	5.91	6080.35	0.30	
1028.12	0.53865	129.44	7.94	125.02	10.14	0.001087	
	33.00	4382.12	12.36	5.93	6124.52	0.30	
1032.72	0.54266	129.64	7.97	125.20	10.13	0.001092	
	34.00	4382.19	12.43	5.96	6211.39	0.30	
1041.54	0.54660	130.00	8.01	125.54	10.10	0.001093	
	35.00	4382.23	12.47	5.98	6268.02	0.30	
1047.45	0.54899	130.24	8.04	125.76	10.08	0.001094	
	36.00	4382.22	12.46	5.98	6255.85	0.30	
1046.63	0.54658	130.20	8.04	125.72	10.09	0.001090	
	37.00	4382.16	12.40	5.95	6174.79	0.30	
1038.13	0.54377	129.85	7.99	125.40	10.11	0.001090	
	38.00	4382.14	12.38	5.94	6149.85	0.30	
1035.59	0.54060	129.75	7.98	125.30	10.12	0.001085	
	39.00	4382.09	12.33	5.91	6083.63	0.30	
1028.91	0.53950	129.47	7.95	125.04	10.14	0.001088	
	40.00	4382.05	12.29	5.90	6035.93	0.30	
1023.84	0.53483	129.26	7.92	124.85	10.16	0.001082	
	41.00	4382.03	12.27	5.89	6011.51	0.30	
1021.22	0.53511	129.15	7.91	124.75	10.17	0.001085	
	42.00	4382.02	12.26	5.88	5999.70	0.30	
1019.93	0.53401	129.10	7.90	124.70	10.17	0.001083	
	43.00	4382.02	12.26	5.88	5991.06	0.30	
1019.06	0.53354	129.06	7.90	124.66	10.17	0.001083	
	44.00	4382.02	12.26	5.88	6002.16	0.30	
1019.96	0.53508	129.11	7.90	124.70	10.17	0.001085	
	45.00	4382.07	12.31	5.91	6062.34	0.30	
1026.25	0.53831	129.37	7.93	124.95	10.15	0.001087	
	46.00	4382.11	12.35	5.93	6116.06	0.30	
1031.74	0.54207	129.59	7.96	125.16	10.13	0.001091	
	47.00	4382.19	12.43	5.97	6223.65	0.30	
1042.52	0.54735	130.04	8.02	125.58	10.10	0.001094	
	48.00	4382.30	12.54	6.02	6364.57	0.30	
1056.81	0.55526	130.63	8.09	126.13	10.06	0.001100	
	49.00	4382.42	12.66	6.08	6521.62	0.30	

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				HYCHAN.OUT			
1072.64		131.27		8.17	126.72	10.01	0.001106
	0.56416	88707.24					
50.00		4382.54	12.78	6.14	6682.68	0.30	
1088.61		131.91		8.25	127.32	9.96	0.001112
	0.57244	89125.59					
51.00		4382.66	12.90	6.20	6848.87	0.30	
1104.98		132.56		8.34	127.93	9.92	0.001119
	0.58184	89550.82					
52.00		4382.79	13.03	6.26	7035.66	0.31	
1123.10		133.27		8.43	128.60	9.87	0.001127
	0.59243	90016.58					
53.00		4382.96	13.20	6.34	7266.72	0.31	
1145.35		134.14		8.54	129.40	9.81	0.001128
	0.60089	90581.18					
54.00		4383.05	13.29	6.39	7401.01	0.31	
1158.28		134.63		8.60	129.86	9.77	0.001135
	0.60908	90904.38					
55.00		4383.18	13.42	6.46	7597.31	0.31	
1176.38		135.33		8.69	130.51	9.72	0.001145
	0.62094	91358.20					
56.00		4383.50	13.74	6.62	8074.05	0.31	
1219.77		136.96		8.91	132.04	9.61	0.001162
	0.64595	92424.53					
57.00		4383.88	14.12	6.82	8687.75	0.32	
1273.81		138.94		9.17	133.88	9.48	0.001184
	0.67757	93713.46					
58.00		4384.36	14.60	7.07	9494.98	0.33	
1343.67		141.40		9.50	136.18	9.33	0.001207
	0.71578	95322.84					
59.00		4384.85	15.09	7.31	10341.34	0.33	
1414.92		143.83		9.84	138.43	9.18	0.001222
	0.75003	96903.99					
60.00		4385.20	15.44	7.48	10977.34	0.34	
1467.06		145.55		10.08	140.04	9.07	0.001231
	0.77429	98026.10					
61.00		4385.41	15.65	7.59	11388.69	0.34	
1499.66		146.60		10.23	141.02	9.01	0.001238
	0.78992	98713.10					
62.00		4385.56	15.80	7.67	11682.56	0.34	
1522.93		147.35		10.34	141.71	8.97	0.001242
	0.80109	99196.74					
63.00		4385.64	15.88	7.71	11835.58	0.34	
1535.02		147.73		10.39	142.07	8.94	0.001244
	0.80652	99445.55					
64.00		4385.71	15.95	7.74	11968.60	0.34	
1545.35		148.06		10.44	142.37	8.93	0.001247
	0.81235	99658.45					
65.00		4385.79	16.03	7.78	12121.77	0.34	
1557.11		148.43		10.49	142.71	8.90	0.001249
	0.81794	99899.83					
66.00		4385.87	16.11	7.82	12274.83	0.34	
1569.26		148.81		10.55	143.07	8.88	0.001254
	0.82511	100148.35					
67.00		4385.93	16.17	7.85	12405.88	0.34	
1579.79		149.14		10.59	143.37	8.86	0.001257
	0.83093	100362.18					
68.00		4385.99	16.23	7.88	12526.54	0.34	
1589.05		149.42		10.63	143.64	8.85	0.001243
	0.82474	100548.09					
69.00		4385.95	16.19	7.86	12439.42	0.34	
1582.76		149.22		10.61	143.46	8.86	0.001260
	0.83379	100419.27					
70.00		4386.07	16.31	7.93	12688.21	0.35	

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				HYCHAN.OUT			
1600.90		149.79		10.69	143.99	8.83	0.001269
	0.84655	100789.92					
	71.00	4386.27	16.51	8.03	13109.00	0.35	
1632.38		150.76	10.83		144.88	8.77	0.001274
	0.86108	101418.14					
	72.00	4386.46	16.70	8.13	13503.26	0.35	
1661.07		151.63	10.95		145.69	8.73	0.001283
	0.87698	101985.67					
	73.00	4386.78	17.02	8.30	14207.92	0.35	
1711.45		153.14	11.18		147.10	8.64	0.001300
	0.90659	102966.62					
	74.00	4386.96	17.20	8.39	14604.90	0.36	
1740.15		153.98	11.30		147.88	8.60	0.001305
	0.92001	103512.60					
	75.00	4387.08	17.32	8.46	14895.97	0.36	
1760.52		154.57	11.39		148.43	8.57	0.001309
	0.93055	103898.62					
	76.00	4387.24	17.48	8.55	15262.25	0.36	
1785.61		155.30	11.50		149.10	8.53	0.001319
	0.94616	104371.95					
	77.00	4387.40	17.64	8.63	15627.28	0.36	
1810.86		156.02	11.61		149.77	8.49	0.001322
	0.95724	104840.67					
	78.00	4387.50	17.74	8.69	15872.12	0.36	
1827.40		156.49	11.68		150.21	8.47	0.001330
	0.96919	105146.91					
	79.00	4387.71	17.95	8.80	16386.50	0.37	
1861.62		157.46	11.82		151.11	8.42	0.001340
	0.98834	105775.27					
	80.00	4387.90	18.14	8.91	16862.70	0.37	
1893.06		158.34	11.96		151.92	8.37	0.001351
	1.00794	106344.57					
	81.00	4388.15	18.39	9.04	17481.21	0.37	
1933.24		159.44	12.13		152.95	8.32	0.001359
	1.02818	107062.87					
	82.00	4388.37	18.61	9.16	18046.21	0.37	
1969.67		160.43	12.28		153.86	8.27	0.001371
	1.04998	107705.48					
	83.00	4388.61	18.85	9.30	18694.56	0.38	
2010.60		161.53	12.45		154.88	8.22	0.001382
	1.07352	108418.43					
	84.00	4388.84	19.08	9.43	19316.58	0.38	
2049.16		162.55	12.61		155.83	8.17	0.001391
	1.09457	109082.15					
	85.00	4389.04	19.28	9.54	19874.06	0.38	
2083.31		163.44	12.75		156.66	8.12	0.001399
	1.11302	109662.41					
	86.00	4389.20	19.44	9.63	20306.42	0.38	
2109.44		164.12	12.85		157.29	8.09	0.001405
	1.12658	110102.05					
	87.00	4389.32	19.56	9.70	20661.17	0.39	
2130.75		164.67	12.94		157.80	8.07	0.001409
	1.13784	110458.34					
	88.00	4389.45	19.69	9.77	21037.11	0.39	
2152.66		165.23	13.03		158.32	8.04	0.001416
	1.15111	110824.04					
	89.00	4389.61	19.85	9.86	21494.64	0.39	
2179.48		165.92	13.14		158.95	8.01	0.001422
	1.16600	111266.50					
	90.00	4389.73	19.97	9.93	21848.16	0.39	
2201.19		166.45	13.22		159.45	7.98	0.001425
	1.17603	111614.52					
	91.00	4389.77	20.01	9.94	21949.89	0.39	

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				HYCHAN.OUT			
2208.19		166.62		13.25	159.60	7.98	0.001424
	1.17780	111722.48					
92.00	4389.78		20.02	9.95	21994.15	0.39	
2210.89		166.69		13.26	159.66	7.97	0.001425
	1.17909	111765.49					
93.00	4389.72		19.96	9.91	21811.30	0.39	
2200.29		166.42		13.22	159.42	7.99	0.001419
	1.17078	111592.06					
94.00	4389.64		19.88	9.87	21570.13	0.39	
2185.05		166.04		13.16	159.07	8.00	0.001417
	1.16391	111348.87					
95.00	4389.55		19.79	9.83	21335.46	0.39	
2170.81		165.69		13.10	158.74	8.02	0.001414
	1.15610	111117.45					
96.00	4389.45		19.69	9.77	21034.79	0.39	
2153.00		165.23		13.03	158.32	8.04	0.001405
	1.14207	110823.35					
97.00	4389.32		19.56	9.69	20646.04	0.39	
2130.07		164.64		12.94	157.77	8.07	0.001401
	1.13100	110441.55					
98.00	4389.20		19.44	9.63	20322.68	0.38	
2110.70		164.15		12.86	157.31	8.09	0.001396
	1.12006	110117.90					
99.00	4389.07		19.31	9.55	19935.67	0.38	
2087.65		163.55		12.76	156.75	8.12	0.001393
	1.10955	109727.86					
100.00	4388.91		19.15	9.46	19492.97	0.38	
2060.91		162.84		12.66	156.10	8.15	0.001387
	1.09528	109272.88					
101.00	4388.76		19.00	9.37	19086.24	0.38	
2036.12		162.19		12.55	155.50	8.18	0.001376
	1.07781	108849.05					
102.00	4388.60		18.84	9.28	18644.81	0.38	
2009.64		161.48		12.44	154.84	8.22	0.001366
	1.06104	108389.96					
103.00	4388.38		18.62	9.16	18066.06	0.37	
1973.23		160.51		12.29	153.94	8.27	0.001354
	1.03869	107754.66					
104.00	4388.10		18.34	9.00	17328.68	0.37	
1925.99		159.22		12.10	152.74	8.33	0.001337
	1.00943	106918.41					
105.00	4387.72		17.96	8.79	16372.49	0.37	
1863.60		157.48		11.83	151.13	8.42	0.001321
	0.97518	105790.15					
106.00	4387.33		17.57	8.58	15454.91	0.36	
1801.31		155.72		11.57	149.50	8.51	0.001305
	0.94170	104647.23					
107.00	4387.04		17.28	8.43	14780.84	0.36	
1754.04		154.37		11.36	148.24	8.58	0.001299
	0.92084	103767.46					
108.00	4386.89		17.13	8.35	14442.15	0.36	
1730.38		153.68		11.26	147.59	8.61	0.001291
	0.90688	103316.30					
109.00	4386.63		16.87	8.20	13859.79	0.35	
1689.22		152.45		11.08	146.46	8.68	0.001276
	0.88222	102519.25					
110.00	4386.38		16.62	8.07	13310.27	0.35	
1649.32		151.25		10.90	145.34	8.75	0.001264
	0.86031	101738.93					
111.00	4386.13		16.37	7.94	12799.02	0.35	
1611.25		150.09		10.74	144.26	8.81	0.001256
	0.84145	100984.78					
112.00	4385.93		16.18	7.84	12394.49	0.34	

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				HYCHAN.OUT			
1580.25		149.14		10.60	143.38	8.86	0.001250
	0.82674	100363.74					
113.00		4385.79	16.03	7.77	12108.01	0.34	
1558.20		148.45		10.50	142.74	8.90	0.001242
	0.81363	99915.58					
114.00		4385.64	15.88	7.69	11803.85	0.34	
1534.82		147.71		10.39	142.05	8.95	0.001237
	0.80196	99433.88					
115.00		4385.46	15.70	7.60	11459.56	0.34	
1507.87		146.85		10.27	141.25	9.00	0.001229
	0.78753	98873.78					
116.00		4385.37	15.61	7.56	11282.95	0.34	
1493.42		146.39		10.20	140.82	9.02	0.001230
	0.78327	98575.20					
117.00		4385.33	15.57	7.54	11211.77	0.34	
1487.81		146.21		10.18	140.65	9.03	0.001224
	0.77719	98456.31					
118.00		4385.24	15.48	7.49	11036.22	0.34	
1474.02		145.76		10.11	140.23	9.06	0.001221
	0.77064	98162.31					
119.00		4385.16	15.40	7.44	10880.68	0.33	
1461.56		145.35		10.06	139.85	9.08	0.001220
	0.76532	97897.89					
120.00		4385.10	15.34	7.42	10787.10	0.33	
1453.69		145.10		10.02	139.62	9.10	0.001220
	0.76266	97730.98					
121.00		4385.09	15.33	7.41	10761.35	0.33	
1451.59		145.03		10.01	139.55	9.10	0.001218
	0.76049	97686.21					
122.00		4385.06	15.30	7.40	10708.15	0.33	
1447.28		144.88		9.99	139.42	9.11	0.001215
	0.75742	97592.93					
123.00		4384.99	15.23	7.36	10582.25	0.33	
1437.41		144.55		9.94	139.11	9.13	0.001212
	0.75216	97377.70					
124.00		4384.91	15.15	7.32	10432.73	0.33	
1425.17		144.15		9.89	138.73	9.16	0.001209
	0.74607	97113.21					
125.00		4384.85	15.09	7.29	10320.49	0.33	
1415.99		143.84		9.84	138.45	9.17	0.001207
	0.74132	96912.31					
126.00		4384.77	15.01	7.25	10181.08	0.33	
1404.48		143.45		9.79	138.09	9.20	0.001204
	0.73573	96660.77					
127.00		4384.72	14.96	7.22	10091.51	0.33	
1397.06		143.20		9.76	137.85	9.21	0.001201
	0.73128	96498.10					
128.00		4384.67	14.92	7.20	10007.23	0.33	
1390.13		142.97		9.72	137.63	9.23	0.001197
	0.72629	96344.35					
129.00		4384.60	14.84	7.16	9880.69	0.33	
1379.66		142.61		9.67	137.30	9.25	0.001195
	0.72125	96111.68					
130.00		4384.56	14.80	7.14	9799.67	0.33	
1372.67		142.37		9.64	137.08	9.26	0.001193
	0.71787	95957.06					
131.00		4384.51	14.75	7.11	9716.52	0.33	
1365.68		142.13		9.61	136.86	9.28	0.001191
	0.71411	95800.33					
132.00		4384.44	14.68	7.08	9590.54	0.33	
1355.10		141.77		9.56	136.52	9.30	0.001189
	0.70921	95562.62					
133.00		4384.42	14.66	7.07	9557.55	0.33	

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1352.06	141.67	9.54	136.42	9.31	0.001193	
0.71038	95497.02					
134.00	4384.47	14.71	7.10	9647.34	0.33	
1359.63	141.93	9.58	136.67	9.29	0.001193	
0.71285	95667.59					
135.00	4384.47	14.71	7.10	9657.64	0.33	
1360.59	141.96	9.58	136.70	9.29	0.001190	
0.71140	95687.73					
136.00	4384.46	14.70	7.09	9628.60	0.33	
1358.28	141.88	9.57	136.62	9.30	0.001189	
0.71012	95635.17					
137.00	4384.44	14.68	7.08	9596.00	0.33	
1355.52	141.79	9.56	136.53	9.30	0.001189	
0.70956	95573.32					
138.00	4384.42	14.66	7.07	9564.18	0.33	
1352.89	141.70	9.55	136.45	9.31	0.001189	
0.70814	95513.83					
139.00	4384.40	14.64	7.06	9535.33	0.33	
1350.37	141.61	9.54	136.37	9.31	0.001186	
0.70586	95457.13					
140.00	4384.39	14.63	7.05	9508.54	0.33	
1348.12	141.53	9.53	136.29	9.32	0.001187	
0.70573	95406.23					
141.00	4384.36	14.60	7.04	9458.58	0.32	
1343.75	141.38	9.50	136.15	9.33	0.001182	
0.70117	95307.23					
142.00	4384.30	14.54	7.01	9361.30	0.32	
1335.46	141.09	9.47	135.88	9.34	0.001185	
0.69968	95119.11					
143.00	4384.27	14.51	6.99	9309.36	0.32	
1331.01	140.94	9.44	135.74	9.35	0.001182	
0.69667	95018.61					
144.00	4384.25	14.49	6.99	9279.38	0.32	
1328.37	140.84	9.43	135.66	9.36	0.001182	
0.69541	94958.87					
145.00	4384.24	14.48	6.98	9251.51	0.32	
1326.03	140.76	9.42	135.58	9.37	0.001181	
0.69411	94905.45					
146.00	4384.21	14.45	6.96	9206.53	0.32	
1322.16	140.63	9.40	135.45	9.37	0.001178	
0.69090	94816.05					
147.00	4384.15	14.39	6.93	9109.93	0.32	
1313.94	140.34	9.36	135.18	9.39	0.001177	
0.68750	94627.08					
148.00	4384.12	14.36	6.92	9054.73	0.32	
1309.09	140.17	9.34	135.02	9.40	0.001175	
0.68502	94516.16					
149.00	4384.10	14.34	6.91	9024.36	0.32	
1306.37	140.07	9.33	134.93	9.41	0.001175	
0.68364	94454.12					
150.00	4384.08	14.32	6.90	8997.88	0.32	
1304.12	139.99	9.32	134.86	9.41	0.001175	
0.68274	94401.79					
151.00	4384.07	14.31	6.89	8973.99	0.32	
1301.93	139.91	9.31	134.79	9.42	0.001173	
0.68089	94351.71					
152.00	4384.05	14.29	6.88	8937.29	0.32	
1298.64	139.80	9.29	134.68	9.43	0.001171	
0.67857	94275.38					
153.00	4384.00	14.24	6.86	8861.42	0.32	
1292.12	139.56	9.26	134.46	9.44	0.001167	
0.67399	94123.25					
154.00	4383.96	14.20	6.84	8796.72	0.32	

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1286.27		139.36		9.23	134.27	9.46	0.001168
	0.67262	93988.16					
155.00		4383.94	14.18	6.83	8758.45	0.32	
1282.90		139.24		9.21	134.16	9.46	0.001166
	0.67055	93909.72					
156.00		4383.91	14.15	6.81	8711.12	0.32	
1278.95		139.09		9.19	134.02	9.47	0.001163
	0.66729	93816.08					
157.00		4383.87	14.11	6.79	8655.82	0.32	
1273.98		138.92		9.17	133.86	9.48	0.001166
	0.66712	93700.93					
158.00		4383.93	14.17	6.82	8748.90	0.32	
1281.91		139.20		9.21	134.13	9.47	0.001168
	0.67129	93889.03					
159.00		4383.96	14.20	6.84	8797.24	0.32	
1286.49		139.36		9.23	134.28	9.45	0.001166
	0.67167	93993.60					
160.00		4383.96	14.20	6.84	8801.99	0.32	
1286.97		139.38		9.23	134.29	9.45	0.001168
	0.67300	94004.23					
161.00		4383.96	14.20	6.84	8797.58	0.32	
1286.49		139.36		9.23	134.28	9.46	0.001167
	0.67234	93993.14					
162.00		4383.96	14.20	6.84	8791.09	0.32	
1285.75		139.34		9.23	134.25	9.46	0.001168
	0.67272	93976.88					
163.00		4383.95	14.19	6.84	8784.29	0.32	
1285.12		139.32		9.22	134.23	9.46	0.001168
	0.67253	93962.13					
164.00		4383.95	14.19	6.83	8776.81	0.32	
1284.46		139.29		9.22	134.21	9.46	0.001168
	0.67190	93946.80					
165.00		4383.94	14.18	6.83	8771.07	0.32	
1284.06		139.28		9.22	134.20	9.46	0.001167
	0.67136	93937.08					
166.00		4383.93	14.17	6.82	8745.75	0.32	
1281.88		139.20		9.21	134.12	9.47	0.001166
	0.67023	93885.08					
167.00		4383.88	14.12	6.80	8666.49	0.32	
1274.80		138.94		9.17	133.88	9.48	0.001164
	0.66612	93719.38					
168.00		4383.85	14.09	6.78	8620.84	0.32	
1270.79		138.80		9.16	133.75	9.49	0.001163
	0.66437	93626.06					
169.00		4383.84	14.08	6.78	8604.29	0.32	
1269.19		138.74		9.15	133.70	9.50	0.001163
	0.66404	93589.14					
170.00		4383.83	14.07	6.78	8594.79	0.32	
1268.37		138.71		9.14	133.67	9.50	0.001162
	0.66322	93569.74					
171.00		4383.83	14.07	6.77	8586.79	0.32	
1267.62		138.69		9.14	133.65	9.50	0.001162
	0.66269	93552.34					
172.00		4383.82	14.07	6.77	8579.62	0.32	
1266.97		138.66		9.14	133.62	9.50	0.001164
	0.66372	93536.66					
173.00		4383.82	14.06	6.77	8573.33	0.32	
1266.38		138.64		9.13	133.60	9.50	0.001163
	0.66299	93523.27					
174.00		4383.81	14.05	6.76	8545.54	0.32	
1264.24		138.56		9.12	133.53	9.51	0.001160
	0.66039	93470.61					
175.00		4383.75	13.99	6.73	8464.87	0.32	

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1257.02		138.30		9.09	133.29	9.52	0.001158
	0.65658	93299.80					
	176.00	4383.73	13.97	6.72	8420.16	0.32	
1252.89		138.15		9.07	133.15	9.53	0.001158
	0.65521	93203.00					
	177.00	4383.71	13.95	6.71	8401.92	0.32	
1251.24		138.09		9.06	133.09	9.54	0.001158
	0.65464	93164.13					
	178.00	4383.71	13.95	6.71	8389.88	0.32	
1250.24		138.06		9.06	133.06	9.54	0.001156
	0.65340	93140.31					
	179.00	4383.70	13.94	6.71	8381.49	0.32	
1249.54		138.03		9.05	133.03	9.54	0.001157
	0.65333	93123.25					
	180.00	4383.70	13.94	6.71	8373.11	0.32	
1248.67		138.00		9.05	133.00	9.54	0.001158
	0.65368	93103.48					
	181.00	4383.72	13.96	6.72	8407.65	0.32	
1251.52		138.11		9.06	133.11	9.54	0.001161
	0.65627	93173.84					
	182.00	4383.81	14.05	6.76	8554.47	0.32	
1264.56		138.58		9.13	133.55	9.51	0.001163
	0.66233	93482.89					
	183.00	4383.87	14.11	6.79	8645.03	0.32	
1272.87		138.88		9.17	133.82	9.49	0.001165
	0.66647	93676.49					
	184.00	4383.92	14.16	6.82	8739.72	0.32	
1281.09		139.17		9.20	134.10	9.47	0.001172
	0.67294	93869.83					
	185.00	4383.95	14.19	6.84	8785.13	0.32	
1285.21		139.32		9.22	134.24	9.46	0.001167
	0.67179	93964.99					
	186.00	4383.96	14.20	6.84	8801.75	0.32	
1286.79		139.38		9.23	134.29	9.45	0.001169
	0.67320	94000.97					
	187.00	4383.97	14.21	6.84	8810.82	0.32	
1287.49		139.40		9.24	134.31	9.45	0.001170
	0.67437	94017.44					
	188.00	4383.97	14.21	6.84	8815.30	0.32	
1287.96		139.42		9.24	134.33	9.45	0.001170
	0.67418	94028.27					
	189.00	4383.97	14.21	6.85	8817.90	0.32	
1288.20		139.43		9.24	134.33	9.45	0.001169
	0.67406	94033.59					
	190.00	4383.97	14.21	6.85	8818.59	0.32	
1288.30		139.43		9.24	134.34	9.45	0.001168
	0.67321	94035.96					
	191.00	4383.97	14.21	6.85	8819.11	0.32	
1288.38		139.43		9.24	134.34	9.45	0.001170
	0.67454	94037.38					
	192.00	4383.96	14.20	6.84	8797.68	0.32	
1286.56		139.37		9.23	134.28	9.45	0.001166
	0.67164	93994.27					
	193.00	4383.91	14.15	6.81	8720.10	0.32	
1279.80		139.12		9.20	134.05	9.47	0.001166
	0.66957	93835.74					
	194.00	4383.89	14.13	6.80	8681.57	0.32	
1276.16		138.99		9.18	133.93	9.48	0.001163
	0.66639	93751.94					
	195.00	4383.88	14.12	6.80	8665.25	0.32	
1274.90		138.95		9.18	133.89	9.48	0.001165
	0.66693	93722.10					
	196.00	4383.88	14.12	6.80	8659.23	0.32	

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1274.17	138.92	9.17	133.87	9.48	0.001165		
0.66678	93705.66						
197.00	4383.87	14.11	6.79	8652.90	0.32		
1273.76	138.91	9.17	133.85	9.48	0.001166		
0.66717	93695.39						
198.00	4383.87	14.11	6.79	8647.96	0.32		
1273.32	138.89	9.17	133.84	9.49	0.001165		
0.66618	93685.30						
199.00	4383.87	14.11	6.79	8644.73	0.32		
1272.95	138.88	9.17	133.82	9.49	0.001166		
0.66691	93676.70						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5087

MAXIMUM DISCHARGE (CFS) = 22064.47 AT TIME = 91.74  
 MAXIMUM STAGE = 4387.80 AT TIME = 91.79

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4368.96	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4368.96	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4368.96	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4368.96	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4368.96	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4371.68	2.72	1.67	743.67	0.18			
444.07	58.86	7.54	58.33	21.48	0.001462			
0.68820	40832.59							
6.00	4378.84	9.88	5.29	3934.40	0.30			
744.04	115.34	6.45	111.82	11.32	0.001415			
0.56949	78274.95							
7.00	4379.62	10.66	5.62	4745.60	0.30			
844.27	120.03	7.03	116.21	10.90	0.001440			
0.63188	81348.96							
8.00	4379.88	10.92	5.74	5044.54	0.31			
878.65	121.55	7.23	117.64	10.77	0.001441			
0.65001	82346.02							
9.00	4379.90	10.93	5.74	5055.42	0.31			
880.54	121.62	7.24	117.70	10.76	0.001435			
0.64841	82391.56							
10.00	4379.81	10.85	5.69	4950.61	0.30			
869.73	121.13	7.18	117.24	10.81	0.001425			
0.63836	82069.30							
11.00	4379.73	10.77	5.66	4857.15	0.30			
858.77	120.64	7.12	116.79	10.85	0.001423			
0.63204	81750.01							
12.00	4379.68	10.72	5.64	4809.86	0.30			
852.75	120.36	7.08	116.52	10.87	0.001418			

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		HYCHAN.OUT					
	0.62668	81566.99					
844.45	13.00	4379.61	10.65	5.61	4734.31	0.30	
		119.98	7.04		116.16	10.90	0.001411
	0.61963	81313.20					
831.63	14.00	4379.51	10.55	5.55	4618.16	0.30	
		119.38	6.97		115.61	10.96	0.001402
	0.60950	80925.95					
822.35	15.00	4379.44	10.48	5.52	4537.27	0.30	
		118.96	6.91		115.21	10.99	0.001399
	0.60344	80647.28					
818.03	16.00	4379.41	10.45	5.50	4500.38	0.30	
		118.76	6.89		115.03	11.01	0.001399
	0.60110	80517.73					
816.22	17.00	4379.39	10.43	5.49	4484.90	0.30	
		118.68	6.88		114.95	11.02	0.001397
	0.59954	80462.75					
815.44	18.00	4379.39	10.43	5.49	4475.63	0.30	
		118.65	6.87		114.92	11.02	0.001398
	0.59966	80442.43					
815.73	19.00	4379.39	10.43	5.48	4472.59	0.30	
		118.67	6.87		114.94	11.02	0.001400
	0.60054	80457.37					
821.49	20.00	4379.44	10.48	5.51	4523.76	0.30	
		118.94	6.91		115.20	10.99	0.001409
	0.60708	80636.56					
833.77	21.00	4379.54	10.58	5.56	4635.40	0.30	
		119.52	6.98		115.73	10.94	0.001418
	0.61722	81013.27					
848.50	22.00	4379.65	10.69	5.62	4768.81	0.30	
		120.19	7.06		116.36	10.89	0.001424
	0.62724	81455.43					
857.36	23.00	4379.72	10.76	5.65	4847.01	0.30	
		120.59	7.11		116.74	10.85	0.001427
	0.63307	81715.38					
862.29	24.00	4379.76	10.80	5.67	4891.15	0.30	
		120.81	7.14		116.94	10.83	0.001432
	0.63757	81861.05					
871.61	25.00	4379.83	10.87	5.71	4980.52	0.31	
		121.24	7.19		117.34	10.80	0.001445
	0.64813	82139.03					
892.22	26.00	4379.99	11.03	5.80	5177.69	0.31	
		122.16	7.30		118.21	10.72	0.001465
	0.66748	82744.58					
921.72	27.00	4380.21	11.25	5.92	5458.09	0.31	
		123.44	7.47		119.41	10.61	0.001480
	0.68966	83586.05					
947.69	28.00	4380.41	11.45	6.02	5708.26	0.31	
		124.55	7.61		120.44	10.52	0.001491
	0.70793	84311.34					
962.35	29.00	4380.51	11.55	6.08	5848.09	0.32	
		125.16	7.69		121.01	10.47	0.001495
	0.71729	84710.36					
969.56	30.00	4380.57	11.61	6.10	5918.62	0.32	
		125.46	7.73		121.30	10.45	0.001501
	0.72367	84907.18					
979.06	31.00	4380.64	11.68	6.14	6015.05	0.32	
		125.86	7.78		121.67	10.42	0.001506
	0.73102	85166.41					
985.56	32.00	4380.69	11.73	6.17	6079.57	0.32	
		126.12	7.81		121.91	10.40	0.001507
	0.73497	85339.95					
989.94	33.00	4380.72	11.76	6.19	6123.27	0.32	
		126.30	7.84		122.08	10.38	0.001513

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HYCHAN.OUT							
0.74016	85458.95						
34.00	4380.78	11.82	6.22	6209.78	0.32		
998.35	126.65	7.88	122.41	10.36	0.001518		
0.74687	85686.00						
35.00	4380.82	11.86	6.24	6267.29	0.32		
1004.13	126.88	7.91	122.63	10.34	0.001520		
0.75052	85838.48						
36.00	4380.82	11.86	6.23	6257.46	0.32		
1003.64	126.86	7.91	122.60	10.34	0.001513		
0.74689	85819.75						
37.00	4380.76	11.80	6.20	6175.54	0.32		
995.36	126.52	7.87	122.29	10.37	0.001512		
0.74221	85600.69						
38.00	4380.74	11.78	6.19	6150.47	0.32		
992.92	126.42	7.85	122.19	10.37	0.001508		
0.73899	85535.53						
39.00	4380.69	11.73	6.17	6085.01	0.32		
986.59	126.16	7.82	121.95	10.39	0.001505		
0.73453	85363.41						
40.00	4380.66	11.70	6.15	6036.57	0.32		
981.64	125.96	7.79	121.76	10.41	0.001501		
0.72984	85231.23						
41.00	4380.64	11.68	6.14	6011.94	0.32		
979.08	125.85	7.78	121.66	10.42	0.001500		
0.72820	85162.18						
42.00	4380.63	11.67	6.14	5999.80	0.32		
977.82	125.80	7.77	121.61	10.42	0.001500		
0.72741	85128.31						
43.00	4380.62	11.66	6.13	5991.19	0.32		
976.98	125.76	7.77	121.58	10.43	0.001501		
0.72751	85105.68						
44.00	4380.63	11.67	6.14	6001.42	0.32		
977.74	125.80	7.77	121.61	10.42	0.001502		
0.72870	85127.70						
45.00	4380.67	11.71	6.16	6061.17	0.32		
983.74	126.05	7.80	121.84	10.40	0.001508		
0.73435	85291.47						
46.00	4380.71	11.75	6.18	6114.75	0.32		
988.97	126.26	7.83	122.05	10.39	0.001513		
0.73965	85433.36						
47.00	4380.79	11.83	6.23	6221.26	0.32		
999.19	126.69	7.89	122.44	10.35	0.001521		
0.74869	85709.71						
48.00	4380.89	11.93	6.28	6361.73	0.32		
1012.85	127.24	7.96	122.96	10.31	0.001530		
0.76001	86074.39						
49.00	4381.00	12.04	6.34	6518.60	0.32		
1028.03	127.86	8.04	123.54	10.26	0.001542		
0.77370	86474.86						
50.00	4381.11	12.15	6.40	6679.74	0.32		
1043.37	128.47	8.12	124.11	10.22	0.001552		
0.78644	86875.19						
51.00	4381.22	12.26	6.46	6845.80	0.33		
1059.07	129.09	8.20	124.69	10.17	0.001563		
0.79997	87281.02						
52.00	4381.34	12.38	6.53	7031.91	0.33		
1076.36	129.77	8.29	125.32	10.12	0.001576		
0.81563	87725.16						
53.00	4381.50	12.54	6.62	7263.36	0.33		
1097.79	130.59	8.41	126.09	10.06	0.001583		
0.83056	88264.48						
54.00	4381.58	12.62	6.66	7398.65	0.33		
1110.31	131.07	8.47	126.54	10.02	0.001594		

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0.84269	88575.25						
55.00	4381.70	12.74	6.73	7592.30	0.33		
1127.35	131.72	8.56		127.15	9.98	0.001614	
0.86223	89001.75						
56.00	4381.99	13.03	6.90	8064.63	0.34		
1168.42	133.26	8.77		128.58	9.87	0.001649	
0.90212	90007.41						
57.00	4382.34	13.38	7.11	8676.12	0.34		
1219.95	135.13	9.03		130.32	9.74	0.001691	
0.95240	91227.30						
58.00	4382.79	13.83	7.37	9481.35	0.35		
1286.68	137.47	9.36		132.51	9.58	0.001737	
1.01458	92758.90						
59.00	4383.25	14.29	7.62	10329.50	0.36		
1354.99	139.79	9.69		134.67	9.43	0.001775	
1.07388	94272.48						
60.00	4383.57	14.61	7.81	10970.24	0.36		
1405.18	141.44	9.93		136.21	9.32	0.001799	
1.11507	95349.16						
61.00	4383.77	14.81	7.93	11383.37	0.36		
1436.32	142.45	10.08		137.15	9.26	0.001818	
1.14352	96007.80						
62.00	4383.91	14.95	8.01	11679.48	0.37		
1458.64	143.17	10.19		137.82	9.22	0.001827	
1.16154	96472.65						
63.00	4383.99	15.03	8.05	11833.82	0.37		
1470.27	143.53	10.24		138.16	9.19	0.001833	
1.17144	96712.13						
64.00	4384.05	15.09	8.09	11966.54	0.37		
1480.05	143.84	10.29		138.45	9.17	0.001840	
1.18162	96915.01						
65.00	4384.12	15.16	8.13	12119.59	0.37		
1491.20	144.20	10.34		138.78	9.15	0.001849	
1.19300	97144.41						
66.00	4384.19	15.23	8.17	12272.62	0.37		
1502.78	144.56	10.40		139.11	9.13	0.001855	
1.20313	97380.03						
67.00	4384.26	15.30	8.20	12404.20	0.37		
1512.91	144.87	10.44		139.40	9.11	0.001862	
1.21332	97583.07						
68.00	4384.31	15.35	8.23	12525.57	0.37		
1521.70	145.14	10.48		139.66	9.10	0.001848	
1.20899	97761.97						
69.00	4384.28	15.32	8.21	12439.77	0.37		
1515.93	144.96	10.46		139.49	9.11	0.001867	
1.21835	97642.61						
70.00	4384.38	15.42	8.28	12683.13	0.37		
1532.56	145.49	10.53		139.98	9.08	0.001888	
1.24114	97986.62						
71.00	4384.57	15.61	8.39	13103.81	0.37		
1562.35	146.41	10.67		140.83	9.02	0.001903	
1.26729	98583.48						
72.00	4384.74	15.78	8.49	13496.78	0.38		
1589.44	147.23	10.80		141.60	8.97	0.001928	
1.29901	99118.24						
73.00	4385.03	16.07	8.67	14199.10	0.38		
1636.94	148.64	11.01		142.92	8.89	0.001963	
1.34876	100041.32						
74.00	4385.20	16.24	8.77	14601.16	0.38		
1664.60	149.45	11.14		143.66	8.85	0.001976	
1.37363	100564.49						
75.00	4385.32	16.36	8.84	14892.54	0.39		
1683.89	150.01	11.23		144.18	8.82	0.001989	

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1707.43	1.39314	100929.08	16.50	11.33	8.94	15256.88	0.39	0.002012
	76.00	4385.46				144.82	8.78	
	1.42235	101372.73						
1731.43	77.00	4385.60	16.64	11.44	9.02	15624.04	0.39	0.002020
	1.44178	101817.08				145.45	8.74	
1747.00	78.00	4385.70	16.74	11.51	9.08	15868.21	0.39	0.002039
	1.46431	102104.79				145.86	8.72	
1779.04	79.00	4385.89	16.93	11.65	9.21	16380.25	0.39	0.002063
	1.49955	102693.12				146.70	8.67	
1808.58	80.00	4386.06	17.10	11.78	9.32	16855.57	0.40	0.002092
	1.53755	103227.73				147.47	8.62	
1846.42	81.00	4386.29	17.33	11.94	9.46	17474.79	0.40	0.002117
	1.57817	103903.52				148.43	8.57	
1880.67	82.00	4386.49	17.53	12.09	9.59	18039.58	0.40	0.002146
	1.61929	104507.32				149.30	8.52	
1919.01	83.00	4386.71	17.75	12.26	9.74	18687.56	0.41	0.002173
	1.66259	105175.77				150.25	8.46	
1954.91	84.00	4386.92	17.96	12.41	9.88	19309.54	0.41	0.002203
	1.70623	105796.15				151.14	8.42	
1986.74	85.00	4387.10	18.14	12.55	10.00	19869.23	0.41	0.002224
	1.74123	106339.30				151.91	8.37	
2011.04	86.00	4387.24	18.28	12.65	10.10	20303.24	0.42	0.002242
	1.77009	106750.30				152.50	8.34	
2030.81	87.00	4387.35	18.39	12.73	10.17	20659.02	0.42	0.002257
	1.79318	107083.00				152.98	8.32	
2050.81	88.00	4387.47	18.51	12.82	10.26	21033.35	0.42	0.002275
	1.81935	107420.53				153.46	8.29	
2075.74	89.00	4387.61	18.65	12.92	10.35	21489.08	0.42	0.002295
	1.85065	107832.93				154.05	8.26	
2097.31	90.00	4387.73	18.77	13.01	10.42	21845.44	0.42	0.002298
	1.86664	108170.82				154.53	8.23	
2104.93	91.00	4387.77	18.81	13.05	10.43	21949.93	0.42	0.002298
	1.87082	108282.33				154.69	8.23	
2107.68	92.00	4387.78	18.82	13.06	10.43	21993.42	0.42	0.002297
	1.87204	108324.39				154.75	8.22	
2097.62	93.00	4387.72	18.76	13.02	10.40	21815.13	0.42	0.002288
	1.85857	108162.30				154.52	8.23	
2082.31	94.00	4387.64	18.68	12.95	10.36	21572.64	0.42	0.002280
	1.84283	107924.62				154.18	8.25	
2068.56	95.00	4387.57	18.61	12.89	10.32	21338.18	0.42	0.002272
	1.82812	107703.97				153.86	8.27	
2051.92	96.00	4387.47	18.51	12.82	10.25	21038.54	0.42	0.002252
	160.00					153.47	8.29	

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1.80246	107429.18						
97.00	4387.35	18.39	10.17	20650.01	0.42		
2030.82	159.46	12.74		152.96	8.32	0.002237	
1.77764	107074.82						
98.00	4387.25	18.29	10.10	20325.98	0.42		
2012.85	158.99	12.66		152.53	8.34	0.002223	
1.75616	106772.82						
99.00	4387.13	18.17	10.01	19940.30	0.41		
1991.70	158.44	12.57		152.02	8.37	0.002205	
1.72946	106411.75						
100.00	4386.98	18.02	9.91	19498.21	0.41		
1967.01	157.79	12.47		151.41	8.40	0.002185	
1.69991	105988.92						
101.00	4386.85	17.89	9.82	19090.37	0.41		
1943.96	157.18	12.37		150.85	8.43	0.002161	
1.66801	105593.31						
102.00	4386.71	17.75	9.72	18650.53	0.41		
1919.48	156.52	12.26		150.24	8.47	0.002139	
1.63666	105167.13						
103.00	4386.51	17.55	9.59	18073.66	0.40		
1885.32	155.61	12.12		149.39	8.51	0.002107	
1.59299	104571.97						
104.00	4386.25	17.29	9.42	17337.94	0.40		
1841.07	154.40	11.92		148.27	8.58	0.002072	
1.54180	103788.70						
105.00	4385.90	16.94	9.19	16385.59	0.39		
1782.65	152.78	11.67		146.76	8.66	0.002022	
1.47190	102732.90						
106.00	4385.55	16.59	8.97	15465.69	0.39		
1723.69	151.12	11.41		145.22	8.75	0.001981	
1.40981	101654.32						
107.00	4385.28	16.32	8.81	14785.62	0.38		
1678.54	149.84	11.20		144.03	8.82	0.001966	
1.37419	100817.52						
108.00	4385.14	16.18	8.72	14447.40	0.38		
1656.23	149.18	11.10		143.42	8.86	0.001946	
1.34785	100393.05						
109.00	4384.91	15.95	8.57	13868.09	0.38		
1617.56	148.04	10.93		142.35	8.93	0.001913	
1.30457	99645.29						
110.00	4384.67	15.71	8.43	13317.57	0.37		
1579.68	146.90	10.75		141.30	8.99	0.001886	
1.26557	98907.34						
111.00	4384.45	15.49	8.30	12805.45	0.37		
1543.57	145.80	10.59		140.27	9.06	0.001863	
1.23103	98189.88						
112.00	4384.26	15.30	8.19	12399.23	0.37		
1514.05	144.89	10.45		139.42	9.11	0.001848	
1.20516	97595.18						
113.00	4384.13	15.17	8.11	12111.93	0.37		
1493.02	144.23	10.35		138.81	9.15	0.001832	
1.18333	97168.16						
114.00	4383.99	15.03	8.03	11808.59	0.37		
1470.92	143.53	10.25		138.16	9.19	0.001816	
1.16115	96711.11						
115.00	4383.82	14.86	7.93	11463.90	0.36		
1445.28	142.71	10.13		137.40	9.24	0.001800	
1.13743	96178.23						
116.00	4383.74	14.78	7.88	11284.14	0.36		
1431.21	142.27	10.06		136.98	9.27	0.001798	
1.12859	95887.77						
117.00	4383.70	14.74	7.86	11213.40	0.36		
1425.92	142.10	10.03		136.82	9.28	0.001790	

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## HYCHAN.OUT

1412.91	1.12112	95775.68	14.66	9.97	7.81	11039.04	0.36	0.001780
	118.00	4383.62				136.43	9.31	
1400.98	1.10786	95498.70	14.58	9.92	7.77	10882.64	0.36	0.001774
	119.00	4383.54				136.07	9.33	
1393.34	1.09783	95245.81	14.53	9.88	7.74	10787.84	0.36	0.001774
	120.00	4383.49				135.84	9.35	
1391.30	1.09377	95084.87	14.52	9.87	7.74	10761.84	0.36	0.001771
	121.00	4383.48				135.77	9.35	
1387.26	1.09039	95041.91	14.49	9.85	7.72	10709.18	0.36	0.001766
	122.00	4383.45				135.65	9.36	
1377.98	1.08542	94954.18	14.43	9.81	7.68	10584.69	0.36	0.001758
	123.00	4383.39				135.36	9.38	
1366.28	1.07560	94752.72	14.35	9.75	7.64	10434.58	0.36	0.001751
	124.00	4383.31				135.00	9.41	
1357.51	1.06505	94500.06	14.30	9.71	7.60	10322.51	0.35	0.001743
	125.00	4383.26				134.73	9.42	
1346.55	1.05599	94310.41	14.22	9.65	7.56	10182.88	0.35	0.001739
	126.00	4383.18				134.39	9.45	
1339.37	1.04752	94070.21	14.18	9.62	7.54	10092.54	0.35	0.001734
	127.00	4383.14				134.16	9.46	
1332.83	1.04079	93914.98	14.13	9.59	7.51	10008.97	0.35	0.001728
	128.00	4383.09				133.96	9.48	
1322.83	1.03348	93769.80	14.07	9.54	7.47	9882.38	0.35	0.001723
	129.00	4383.03				133.64	9.50	
1316.09	1.02535	93549.41	14.02	9.51	7.45	9800.87	0.35	0.001718
	130.00	4382.98				133.43	9.51	
1309.49	1.01890	93400.64	13.98	9.47	7.42	9718.17	0.35	0.001712
	131.00	4382.94				133.22	9.53	
1299.39	1.01183	93252.43	13.91	9.42	7.38	9592.23	0.35	0.001706
	132.00	4382.87				132.90	9.55	
1296.21	1.00316	93026.57	13.89	9.41	7.37	9556.81	0.35	0.001711
	133.00	4382.85				132.80	9.56	
1303.39	1.00457	92960.19	13.94	9.44	7.40	9646.27	0.35	0.001714
	134.00	4382.90				133.03	9.54	
1304.46	1.00983	93122.22	13.95	9.45	7.40	9657.89	0.35	0.001712
	135.00	4382.91				133.06	9.54	
1302.28	1.00923	93143.30	13.93	9.44	7.39	9629.07	0.35	0.001711
	136.00	4382.89				132.99	9.54	
1299.64	1.00752	93094.47	13.92	9.42	7.38	9596.58	0.35	0.001709
	137.00	4382.88				132.91	9.55	
1297.12	1.00481	93035.34	13.90	9.41	7.37	9564.57	0.35	0.001707
	138.00	4382.86				132.83	9.56	

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1294.72	1.00284	92979.21	13.88	9.40	7.37	9535.79	0.35	0.001705
	139.00	4382.84						
		137.73				132.75	9.56	
1292.57	1.00018	92925.13	13.87	9.39	7.36	9508.99	0.35	0.001705
	140.00	4382.83						
		137.65				132.68	9.57	
1288.51	0.99886	92876.72	13.84	9.37	7.34	9459.97	0.35	0.001697
	141.00	4382.80						
		137.51				132.55	9.58	
1280.58	0.99226	92782.30	13.79	9.33	7.31	9362.53	0.35	0.001697
	142.00	4382.75						
		137.23				132.29	9.59	
1276.15	0.98821	92603.72	13.76	9.31	7.30	9309.93	0.35	0.001695
	143.00	4382.72						
		137.09				132.15	9.60	
1273.59	0.98455	92507.17	13.74	9.30	7.29	9279.77	0.35	0.001694
	144.00	4382.70						
		137.00				132.07	9.61	
1271.36	0.98257	92449.44	13.73	9.29	7.28	9252.05	0.35	0.001690
	145.00	4382.69						
		136.92				132.00	9.62	
1267.74	0.97945	92398.84	13.70	9.27	7.26	9207.74	0.35	0.001686
	146.00	4382.66						
		136.79				131.88	9.62	
1259.88	0.97473	92314.86	13.65	9.23	7.23	9111.20	0.35	0.001682
	147.00	4382.61						
		136.52				131.62	9.64	
1255.15	0.96889	92136.03	13.62	9.21	7.21	9055.40	0.34	0.001680
	148.00	4382.58						
		136.35				131.47	9.65	
1252.52	0.96479	92029.17	13.60	9.19	7.21	9024.79	0.34	0.001678
	149.00	4382.56						
		136.26				131.38	9.66	
1250.35	0.96256	91969.32	13.59	9.18	7.20	8998.33	0.34	0.001677
	150.00	4382.55						
		136.19				131.31	9.66	
1248.27	0.96059	91920.01	13.57	9.17	7.19	8974.40	0.34	0.001675
	151.00	4382.53						
		136.11				131.25	9.67	
1245.18	0.95856	91871.62	13.55	9.16	7.18	8938.07	0.34	0.001672
	152.00	4382.51						
		136.00				131.14	9.68	
1238.97	0.95534	91799.01	13.51	9.12	7.15	8862.75	0.34	0.001667
	153.00	4382.47						
		135.78				130.94	9.69	
1233.33	0.94929	91655.28	13.47	9.10	7.13	8797.59	0.34	0.001665
	154.00	4382.43						
		135.58				130.75	9.71	
1230.05	0.94526	91525.14	13.45	9.08	7.12	8758.90	0.34	0.001664
	155.00	4382.41						
		135.47				130.64	9.71	
1226.35	0.94303	91450.32	13.42	9.06	7.10	8712.35	0.34	0.001658
	156.00	4382.38						
		135.33				130.52	9.72	
1221.41	0.93769	91363.12	13.39	9.04	7.09	8655.60	0.34	0.001661
	157.00	4382.35						
		135.16				130.36	9.73	
1228.82	0.93677	91251.65	13.44	9.07	7.12	8747.19	0.34	0.001668
	158.00	4382.40						
		135.43				130.61	9.72	
1233.37	0.94425	91426.79	13.47	9.10	7.13	8796.90	0.34	0.001667
	159.00	4382.43						
		135.59				130.76	9.71	

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1233.88	0.94607	91530.34	13.48	9.10	7.13	8802.03	0.34	0.001668
	160.00	4382.44				130.77	9.70	
		135.61						
1233.43	0.94719	91541.33	13.47	9.10	7.13	8797.81	0.34	0.001666
	161.00	4382.43				130.76	9.71	
		135.59						
1232.73	0.94578	91530.27	13.47	9.09	7.13	8791.11	0.34	0.001668
	162.00	4382.43				130.73	9.71	
		135.56						
1232.13	0.94635	91513.19	13.46	9.09	7.13	8784.46	0.34	0.001667
	163.00	4382.42				130.71	9.71	
		135.54						
1231.50	0.94553	91499.10	13.46	9.09	7.13	8776.94	0.34	0.001666
	164.00	4382.42				130.69	9.71	
		135.52						
1231.11	0.94466	91484.66	13.46	9.09	7.12	8771.12	0.34	0.001665
	165.00	4382.42				130.68	9.71	
		135.51						
1229.11	0.94409	91475.78	13.44	9.08	7.12	8746.79	0.34	0.001661
	166.00	4382.40				130.61	9.72	
		135.43						
1222.39	0.94090	91427.64	13.40	9.04	7.09	8667.67	0.34	0.001657
	167.00	4382.36				130.39	9.73	
		135.19						
1218.45	0.93510	91269.66	13.37	9.02	7.08	8621.21	0.34	0.001656
	168.00	4382.33				130.26	9.74	
		135.05						
1216.89	0.93253	91180.13	13.36	9.01	7.07	8604.55	0.34	0.001656
	169.00	4382.32				130.20	9.75	
		135.00						
1216.09	0.93163	91143.35	13.35	9.01	7.07	8594.86	0.34	0.001655
	170.00	4382.31				130.18	9.75	
		134.97						
1215.38	0.93074	91125.46	13.35	9.01	7.07	8586.90	0.34	0.001655
	171.00	4382.31				130.15	9.75	
		134.94						
1214.76	0.93034	91108.41	13.35	9.00	7.06	8579.93	0.34	0.001654
	172.00	4382.31				130.13	9.75	
		134.92						
1214.19	0.92923	91093.93	13.34	9.00	7.06	8573.37	0.34	0.001654
	173.00	4382.30				130.12	9.75	
		134.90						
1212.20	0.92892	91080.52	13.33	8.99	7.05	8546.50	0.34	0.001649
	174.00	4382.29				130.05	9.76	
		134.83						
1205.33	0.92501	91033.77	13.28	8.96	7.02	8465.88	0.34	0.001647
	175.00	4382.24				129.82	9.77	
		134.58						
1201.28	0.92058	90871.30	13.25	8.94	7.01	8420.69	0.34	0.001646
	176.00	4382.21				129.68	9.78	
		134.44						
1199.67	0.91764	90777.47	13.24	8.93	7.00	8402.18	0.34	0.001645
	177.00	4382.20				129.63	9.79	
		134.38						
1198.69	0.91635	90740.28	13.24	8.92	7.00	8389.97	0.34	0.001644
	178.00	4382.20				129.60	9.79	
		134.35						
1198.00	0.91531	90717.50	13.23	8.92	7.00	8381.76	0.34	0.001642
	179.00	4382.19				129.57	9.79	
		134.32						
1197.20	0.91384	90701.94	13.23	8.91	6.99	8373.18	0.34	0.001644
	180.00	4382.19				129.55	9.79	
		134.29						

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	0.91430	90681.80							
1199.74	181.00	4382.20	13.24	8.93	7.01	8406.01	0.34	0.001651	
	0.91997	90744.57							
1212.12	182.00	4382.29	13.33	8.99	7.06	8552.20	0.34	0.001657	
	0.92969	91038.12							
1220.17	183.00	4382.34	13.38	9.03	7.08	8643.71	0.34	0.001661	
	0.93615	91225.72							
1228.10	184.00	4382.40	13.44	9.07	7.12	8738.55	0.34	0.001666	
	0.94261	91408.60							
1232.15	185.00	4382.42	13.46	9.09	7.13	8784.55	0.34	0.001666	
	0.94527	91500.75							
1233.69	186.00	4382.43	13.47	9.10	7.13	8801.57	0.34	0.001667	
	0.94637	91536.35							
1234.38	187.00	4382.44	13.48	9.10	7.14	8810.89	0.34	0.001667	
	0.94689	91551.95							
1234.83	188.00	4382.44	13.48	9.10	7.14	8814.98	0.34	0.001670	
	0.94879	91562.45							
1235.06	189.00	4382.44	13.48	9.10	7.14	8817.92	0.34	0.001668	
	0.94784	91567.71							
1235.16	190.00	4382.44	13.48	9.11	7.14	8818.63	0.34	0.001667	
	0.94734	91570.09							
1235.24	191.00	4382.44	13.48	9.11	7.14	8819.25	0.34	0.001667	
	0.94714	91572.05							
1233.59	192.00	4382.43	13.47	9.10	7.13	8798.43	0.34	0.001663	
	0.94425	91532.22							
1227.16	193.00	4382.39	13.43	9.07	7.11	8721.22	0.34	0.001662	
	0.94028	91382.23							
1223.57	194.00	4382.37	13.41	9.05	7.10	8681.91	0.34	0.001660	
	0.93702	91300.02							
1222.32	195.00	4382.36	13.40	9.04	7.09	8665.43	0.34	0.001660	
	0.93650	91272.52							
1221.63	196.00	4382.35	13.39	9.04	7.09	8659.38	0.34	0.001660	
	0.93615	91255.61							
1221.23	197.00	4382.35	13.39	9.04	7.09	8653.04	0.34	0.001659	
	0.93539	91246.89							
1220.80	198.00	4382.35	13.39	9.03	7.08	8647.94	0.34	0.001659	
	0.93508	91237.09							
1220.46	199.00	4382.34	13.38	9.03	7.08	8644.87	0.34	0.001659	
	0.93473	91228.52							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 5089

MAXIMUM DISCHARGE (CFS) = 22063.94 AT TIME = 91.80

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HYCHAN.OUT  
 MAXIMUM STAGE = 4385.68 AT TIME = 91.85

AREA BED SHEAR (FT^2)	TIME WETTED PERIMETER (HRS)	ELEV. SURFACE AREA (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT)	VELOCITY TOP WIDTH (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
	(LB/FT^2)	(FT)	(FT)	(FT)	(FT)		
0.00	0.00	4368.16	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4368.16	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4368.16	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4368.16	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4368.16	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
449.96	5.00	4370.38	2.22	1.44	646.72	0.17	0.001555
	0.82084	53.17	8.46	52.88	23.87		
865.56	6.00	4377.42	9.26	4.51	3899.48	0.26	0.001366
	0.56291	131.08	6.60	128.33	13.86		
1001.07	7.00	4378.20	10.04	4.73	4735.44	0.26	0.001381
	0.62502	137.98	7.26	134.96	13.44		
1046.76	8.00	4378.46	10.30	4.82	5042.40	0.26	0.001378
	0.64204	140.18	7.47	137.08	13.31		
1049.83	9.00	4378.47	10.31	4.82	5056.25	0.26	0.001373
	0.64124	140.31	7.48	137.20	13.31		
1036.45	10.00	4378.39	10.23	4.78	4953.01	0.26	0.001364
	0.63160	139.65	7.42	136.57	13.34		
1022.27	11.00	4378.31	10.15	4.75	4858.39	0.26	0.001363
	0.62575	138.97	7.36	135.91	13.38		
1014.81	12.00	4378.27	10.11	4.74	4810.77	0.26	0.001359
	0.62069	138.60	7.32	135.56	13.41		
1004.57	13.00	4378.21	10.05	4.71	4736.20	0.26	0.001353
	0.61407	138.09	7.27	135.06	13.44		
988.34	14.00	4378.12	9.96	4.67	4620.22	0.26	0.001347
	0.60497	137.28	7.20	134.28	13.48		
976.34	15.00	4378.05	9.89	4.65	4538.39	0.26	0.001345
	0.59935	136.68	7.14	133.71	13.52		
970.70	16.00	4378.02	9.86	4.64	4500.78	0.26	0.001345
	0.59750	136.40	7.12	133.44	13.54		
968.37	17.00	4378.01	9.85	4.63	4485.19	0.26	0.001342
	0.59525	136.28	7.11	133.33	13.54		
		79997.29					

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		HYCHAN.OUT					
967.20	18.00	4378.00	9.84	4.63	4475.71	0.26	
		136.22	7.10		133.27	13.55	0.001346
	0.59617	79963.43					
967.28	19.00	4378.00	9.84	4.62	4472.22	0.26	
		136.23	7.10		133.28	13.55	0.001349
	0.59748	79967.51					
974.32	20.00	4378.04	9.88	4.64	4522.21	0.26	
		136.60	7.13		133.63	13.52	0.001353
	0.60234	80178.75					
989.64	21.00	4378.13	9.97	4.68	4632.96	0.26	
		137.37	7.20		134.38	13.48	0.001363
	0.61265	80626.83					
1008.41	22.00	4378.24	10.08	4.73	4766.69	0.26	
		138.30	7.29		135.27	13.42	0.001365
	0.62112	81164.52					
1019.96	23.00	4378.30	10.14	4.75	4845.95	0.26	
		138.87	7.34		135.81	13.39	0.001368
	0.62702	81488.85					
1026.25	24.00	4378.34	10.18	4.77	4890.26	0.26	
		139.18	7.37		136.11	13.37	0.001371
	0.63099	81666.53					
1037.81	25.00	4378.41	10.25	4.80	4978.21	0.26	
		139.75	7.43		136.66	13.34	0.001380
	0.63969	81995.94					
1063.53	26.00	4378.55	10.39	4.86	5172.90	0.27	
		141.00	7.54		137.86	13.27	0.001399
	0.65827	82717.56					
1101.24	27.00	4378.76	10.60	4.95	5453.57	0.27	
		142.78	7.71		139.57	13.17	0.001409
	0.67803	83744.45					
1134.59	28.00	4378.94	10.78	5.03	5704.61	0.27	
		144.32	7.86		141.05	13.08	0.001418
	0.69552	84632.25					
1153.83	29.00	4379.04	10.88	5.07	5846.55	0.27	
		145.19	7.95		141.89	13.04	0.001419
	0.70382	85131.56					
1163.12	30.00	4379.09	10.93	5.09	5917.34	0.27	
		145.61	7.99		142.29	13.01	0.001423
	0.70930	85372.87					
1175.23	31.00	4379.16	11.00	5.12	6013.49	0.27	
		146.15	8.04		142.81	12.98	0.001428
	0.71677	85687.48					
1183.74	32.00	4379.20	11.04	5.14	6078.81	0.27	
		146.53	8.08		143.17	12.96	0.001429
	0.72042	85904.75					
1189.28	33.00	4379.23	11.07	5.15	6122.27	0.27	
		146.78	8.10		143.41	12.95	0.001433
	0.72458	86048.00					
1199.96	34.00	4379.29	11.13	5.17	6208.39	0.27	
		147.25	8.15		143.87	12.93	0.001437
	0.73091	86322.10					
1207.53	35.00	4379.33	11.17	5.19	6266.62	0.27	
		147.59	8.18		144.19	12.91	0.001438
	0.73431	86512.68					
1207.33	36.00	4379.33	11.17	5.18	6258.84	0.27	
		147.57	8.18		144.17	12.91	0.001433
	0.73157	86501.42					
1196.56	37.00	4379.27	11.11	5.16	6176.15	0.27	
		147.09	8.13		143.72	12.93	0.001430
	0.72597	86229.36					
1193.41	38.00	4379.25	11.09	5.15	6151.05	0.27	
		146.95	8.12		143.58	12.94	0.001430
	0.72445	86149.01					

			HYCHAN.OUT				
1185.43	39.00	4379.21	11.05	5.13	6086.17	0.27	
		146.60	8.09		143.24	12.96	0.001426
	0.71935	85942.39					
1178.94	40.00	4379.18	11.02	5.12	6037.10	0.27	
		146.31	8.06		142.96	12.98	0.001424
	0.71617	85777.20					
1175.65	41.00	4379.16	11.00	5.11	6012.29	0.27	
		146.16	8.04		142.82	12.98	0.001422
	0.71383	85692.91					
1173.99	42.00	4379.15	10.99	5.11	5999.96	0.27	
		146.09	8.04		142.75	12.99	0.001422
	0.71325	85650.62					
1172.92	43.00	4379.15	10.99	5.11	5991.30	0.27	
		146.04	8.03		142.70	12.99	0.001424
	0.71343	85622.83					
1173.77	44.00	4379.15	10.99	5.11	6000.77	0.27	
		146.08	8.03		142.75	12.99	0.001425
	0.71450	85647.25					
1181.37	45.00	4379.19	11.03	5.13	6060.20	0.27	
		146.42	8.07		143.07	12.97	0.001430
	0.71981	85844.12					
1188.00	46.00	4379.23	11.07	5.15	6113.59	0.27	
		146.72	8.10		143.36	12.95	0.001435
	0.72519	86015.27					
1200.92	47.00	4379.30	11.14	5.18	6219.26	0.27	
		147.30	8.15		143.91	12.92	0.001440
	0.73278	86348.27					
1218.38	48.00	4379.39	11.23	5.22	6359.24	0.27	
		148.07	8.23		144.65	12.88	0.001447
	0.74272	86792.05					
1237.86	49.00	4379.49	11.33	5.26	6515.96	0.28	
		148.92	8.31		145.47	12.84	0.001456
	0.75533	87281.62					
1257.60	50.00	4379.59	11.43	5.31	6677.24	0.28	
		149.77	8.40		146.29	12.79	0.001463
	0.76645	87771.48					
1277.81	51.00	4379.70	11.54	5.36	6843.13	0.28	
		150.63	8.48		147.11	12.75	0.001471
	0.77857	88268.63					
1299.94	52.00	4379.81	11.65	5.41	7028.57	0.28	
		151.57	8.58		148.01	12.70	0.001481
	0.79283	88808.04					
1327.73	53.00	4379.95	11.79	5.47	7260.45	0.28	
		152.73	8.69		149.12	12.64	0.001487
	0.80638	89474.45					
1344.11	54.00	4380.04	11.88	5.50	7396.61	0.28	
		153.40	8.76		149.77	12.61	0.001495
	0.81760	89861.40					
1365.70	55.00	4380.15	11.99	5.56	7588.06	0.28	
		154.29	8.85		150.62	12.57	0.001512
	0.83503	90374.12					
1418.18	56.00	4380.41	12.25	5.68	8056.55	0.29	
		156.41	9.07		152.66	12.46	0.001538
	0.87016	91594.23					
1485.02	57.00	4380.73	12.57	5.84	8666.02	0.29	
		159.02	9.34		155.16	12.34	0.001570
	0.91509	93097.10					
1571.85	58.00	4381.15	12.99	6.02	9469.49	0.29	
		162.31	9.68		158.31	12.19	0.001604
	0.96911	94983.71					
1661.39	59.00	4381.56	13.40	6.21	10319.24	0.30	
		165.56	10.03		161.43	12.04	0.001634
	1.02340	96857.12					

HYCHAN.OUT							
60.00	4381.86	13.70	6.35	10964.11	0.30		
1727.70	167.90	10.29	163.67	11.94	0.001651		
1.05986	98200.41						
61.00	4382.05	13.89	6.43	11378.79	0.30		
1768.59	169.31	10.45	165.02	11.88	0.001666		
1.08577	99011.70						
62.00	4382.18	14.02	6.49	11676.77	0.31		
1798.04	170.32	10.56	165.98	11.84	0.001672		
1.10114	99587.87						
63.00	4382.25	14.09	6.52	11832.31	0.31		
1813.47	170.84	10.62	166.48	11.82	0.001677		
1.11065	99886.55						
64.00	4382.30	14.14	6.55	11964.77	0.31		
1826.17	171.26	10.66	166.89	11.80	0.001683		
1.11974	100133.16						
65.00	4382.37	14.21	6.58	12117.76	0.31		
1840.78	171.76	10.72	167.36	11.78	0.001690		
1.13047	100415.23						
66.00	4382.43	14.27	6.61	12270.63	0.31		
1855.97	172.27	10.77	167.85	11.76	0.001694		
1.13857	100708.01						
67.00	4382.49	14.33	6.63	12402.75	0.31		
1869.44	172.71	10.82	168.28	11.74	0.001699		
1.14734	100965.38						
68.00	4382.54	14.38	6.66	12524.47	0.31		
1880.87	173.09	10.87	168.64	11.73	0.001688		
1.14475	101182.71						
69.00	4382.51	14.35	6.64	12440.37	0.31		
1873.64	172.85	10.84	168.40	11.74	0.001702		
1.15147	101041.95						
70.00	4382.60	14.44	6.69	12678.94	0.31		
1894.55	173.55	10.92	169.08	11.71	0.001719		
1.17127	101445.65						
71.00	4382.77	14.61	6.77	13099.27	0.31		
1933.53	174.82	11.06	170.30	11.66	0.001731		
1.19489	102177.61						
72.00	4382.92	14.76	6.85	13491.25	0.31		
1969.11	175.97	11.19	171.39	11.61	0.001753		
1.22369	102837.00						
73.00	4383.19	15.03	6.99	14191.52	0.32		
2031.50	177.95	11.42	173.29	11.53	0.001777		
1.26599	103974.94						
74.00	4383.34	15.18	7.06	14597.95	0.32		
2068.79	179.11	11.55	174.40	11.49	0.001788		
1.28843	104638.86						
75.00	4383.45	15.29	7.11	14889.57	0.32		
2094.37	179.90	11.64	175.15	11.46	0.001798		
1.30601	105092.09						
76.00	4383.58	15.42	7.18	15252.36	0.32		
2125.30	180.85	11.75	176.06	11.42	0.001816		
1.33135	105637.40						
77.00	4383.71	15.55	7.24	15621.14	0.32		
2157.29	181.82	11.87	176.99	11.38	0.001821		
1.34790	106193.03						
78.00	4383.79	15.63	7.28	15864.98	0.32		
2177.89	182.44	11.94	177.58	11.36	0.001836		
1.36772	106548.94						
79.00	4383.96	15.80	7.38	16374.89	0.33		
2220.11	183.70	12.09	178.79	11.31	0.001854		
1.39808	107272.53						
80.00	4384.12	15.96	7.46	16849.54	0.33		
2259.22	184.85	12.22	179.89	11.27	0.001876		
1.43101	107933.73						

HYCHAN.OUT							
2309.61	81.00	4384.32	16.16	7.56	17469.34	0.33	0.001897
	1.46730	186.32	12.40		181.29	11.22	
		108773.12					
2355.16	82.00	4384.50	16.34	7.66	18033.98	0.33	0.001919
	1.50347	187.62	12.55		182.54	11.17	
		109522.09					
2406.12	83.00	4384.70	16.54	7.76	18681.58	0.34	0.001939
	1.53953	189.06	12.73		183.91	11.12	
		110348.88					
2453.52	84.00	4384.88	16.72	7.87	19303.69	0.34	0.001965
	1.58037	190.39	12.89		185.18	11.07	
		111110.33					
2495.63	85.00	4385.05	16.89	7.96	19865.16	0.34	0.001982
	1.61159	191.56	13.03		186.30	11.03	
		111778.06					
2527.71	86.00	4385.17	17.01	8.03	20301.79	0.34	0.001998
	1.63733	192.43	13.14		187.14	11.00	
		112281.86					
2553.82	87.00	4385.27	17.11	8.09	20658.48	0.34	0.002011
	1.65901	193.14	13.22		187.82	10.98	
		112689.37					
2579.77	88.00	4385.37	17.21	8.15	21030.87	0.35	0.002026
	1.68203	193.85	13.31		188.49	10.95	
		113093.99					
2613.06	89.00	4385.49	17.33	8.22	21484.61	0.35	0.002040
	1.70784	194.74	13.42		189.34	10.92	
		113602.87					
2644.33	90.00	4385.61	17.45	8.26	21843.01	0.35	0.002036
	1.71801	195.54	13.52		190.10	10.90	
		114061.48					
2655.89	91.00	4385.65	17.49	8.26	21950.12	0.35	0.002035
	1.72247	195.84	13.56		190.39	10.89	
		114232.14					
2659.76	92.00	4385.66	17.50	8.27	21992.80	0.35	0.002032
	1.72102	195.94	13.57		190.49	10.88	
		114291.73					
2646.15	93.00	4385.61	17.45	8.25	21818.88	0.35	0.002031
	1.71433	195.58	13.53		190.14	10.89	
		114083.12					
2624.19	94.00	4385.53	17.37	8.22	21575.01	0.35	0.002026
	1.70157	195.00	13.46		189.59	10.91	
		113755.63					
2604.91	95.00	4385.46	17.30	8.19	21340.71	0.35	0.002022
	1.68964	194.50	13.39		189.11	10.93	
		113467.92					
2582.59	96.00	4385.38	17.22	8.15	21041.57	0.35	0.002005
	1.66659	193.91	13.32		188.54	10.95	
		113126.68					
2554.97	97.00	4385.27	17.11	8.08	20653.36	0.34	0.001992
	1.64423	193.16	13.23		187.83	10.98	
		112697.39					
2531.26	98.00	4385.18	17.02	8.03	20328.73	0.34	0.001980
	1.62465	192.51	13.15		187.21	11.00	
		112327.91					
2503.68	99.00	4385.08	16.91	7.97	19944.16	0.34	0.001962
	1.59864	191.75	13.06		186.49	11.03	
		111892.38					
2471.33	100.00	4384.95	16.79	7.89	19502.61	0.34	0.001944
	1.57102	190.86	12.95		185.63	11.06	
		111378.88					
2440.88	101.00	4384.83	16.67	7.82	19093.72	0.34	0.001926
	1.54378	190.01	12.85		184.82	11.09	
		110894.30					

HYCHAN.OUT							
2408.62	102.00	4384.71	16.55	7.75	18655.43	0.34	0.001910
	1.51805	189.11	12.74		183.96	11.12	
		110375.42					
2363.05	103.00	4384.53	16.37	7.65	18080.07	0.33	0.001886
	1.48033	187.82	12.58		182.73	11.16	
		109637.34					
2304.36	104.00	4384.30	16.14	7.53	17345.91	0.33	0.001861
	1.43763	186.14	12.38		181.12	11.22	
		108670.04					
2227.14	105.00	4383.99	15.83	7.36	16396.75	0.33	0.001820
	1.37528	183.87	12.11		178.95	11.31	
		107369.45					
2148.67	106.00	4383.67	15.51	7.20	15474.94	0.32	0.001789
	1.32153	181.53	11.84		176.71	11.39	
		106026.48					
2088.26	107.00	4383.42	15.26	7.08	14789.79	0.32	0.001778
	1.28938	179.70	11.62		174.96	11.46	
		104975.52					
2058.81	108.00	4383.30	15.14	7.02	14451.90	0.32	0.001763
	1.26652	178.78	11.52		174.08	11.50	
		104450.84					
2008.11	109.00	4383.08	14.92	6.91	13875.18	0.32	0.001737
	1.22874	177.18	11.33		172.55	11.56	
		103532.08					
1958.05	110.00	4382.87	14.71	6.80	13323.82	0.31	0.001716
	1.19415	175.59	11.15		171.03	11.63	
		102616.00					
1910.63	111.00	4382.67	14.51	6.71	12810.93	0.31	0.001697
	1.16228	174.05	10.98		169.56	11.69	
		101733.74					
1871.85	112.00	4382.50	14.34	6.63	12403.30	0.31	0.001686
	1.13979	172.78	10.83		168.34	11.74	
		101002.62					
1844.15	113.00	4382.38	14.22	6.57	12115.26	0.31	0.001675
	1.12159	171.86	10.73		167.46	11.78	
		100473.92					
1815.38	114.00	4382.25	14.09	6.51	11812.66	0.31	0.001660
	1.10043	170.89	10.62		166.53	11.82	
		99916.28					
1781.80	115.00	4382.10	13.94	6.44	11467.68	0.30	0.001651
	1.08142	169.75	10.50		165.43	11.86	
		99260.19					
1762.96	116.00	4382.02	13.86	6.40	11285.20	0.30	0.001648
	1.07200	169.11	10.43		164.82	11.89	
		98893.81					
1756.08	117.00	4381.99	13.83	6.39	11214.85	0.30	0.001642
	1.06575	168.87	10.40		164.59	11.90	
		98756.76					
1739.22	118.00	4381.91	13.75	6.35	11041.37	0.30	0.001635
	1.05426	168.28	10.34		164.03	11.93	
		98418.69					
1723.52	119.00	4381.84	13.68	6.32	10884.43	0.30	0.001629
	1.04442	167.74	10.28		163.51	11.95	
		98105.62					
1713.36	120.00	4381.80	13.64	6.30	10788.50	0.30	0.001629
	1.04041	167.38	10.24		163.17	11.97	
		97902.61					
1710.61	121.00	4381.78	13.62	6.29	10762.23	0.30	0.001626
	1.03726	167.29	10.23		163.08	11.97	
		97847.74					
1705.43	122.00	4381.76	13.60	6.28	10710.09	0.30	0.001623
	1.03376	167.10	10.21		162.90	11.98	
		97741.82					



HYCHAN.OUT							
1693.45	123.00	4381.71	13.55	6.25	10586.73	0.30	0.001616
	1.02422	166.68	10.16		162.49	12.00	
		97496.64					
1678.12	124.00	4381.64	13.48	6.22	10436.18	0.30	0.001611
	1.01563	166.13	10.10		161.97	12.02	
		97184.85					
1666.59	125.00	4381.58	13.42	6.19	10324.17	0.30	0.001605
	1.00714	165.72	10.06		161.58	12.04	
		96948.09					
1652.34	126.00	4381.52	13.36	6.16	10184.53	0.30	0.001601
	0.99926	165.21	10.00		161.09	12.06	
		96654.47					
1642.77	127.00	4381.47	13.31	6.14	10093.45	0.30	0.001599
	0.99437	164.87	9.96		160.76	12.08	
		96458.05					
1634.35	128.00	4381.43	13.27	6.13	10010.46	0.30	0.001593
	0.98713	164.56	9.93		160.47	12.09	
		96281.80					
1621.27	129.00	4381.37	13.21	6.10	9883.84	0.30	0.001591
	0.98096	164.09	9.88		160.01	12.11	
		96008.61					
1612.39	130.00	4381.33	13.17	6.08	9801.83	0.30	0.001587
	0.97506	163.77	9.85		159.71	12.12	
		95823.47					
1603.91	131.00	4381.29	13.13	6.06	9719.65	0.29	0.001580
	0.96767	163.45	9.81		159.41	12.14	
		95643.81					
1590.72	132.00	4381.23	13.07	6.03	9593.67	0.29	0.001577
	0.96046	162.97	9.76		158.94	12.16	
		95365.10					
1586.15	133.00	4381.21	13.05	6.02	9556.20	0.29	0.001581
	0.96097	162.81	9.74		158.79	12.17	
		95272.66					
1595.42	134.00	4381.25	13.09	6.05	9645.34	0.29	0.001584
	0.96638	163.15	9.78		159.12	12.15	
		95469.75					
1597.07	135.00	4381.26	13.10	6.05	9658.14	0.29	0.001582
	0.96628	163.21	9.79		159.17	12.15	
		95502.23					
1594.23	136.00	4381.25	13.09	6.04	9629.54	0.29	0.001582
	0.96496	163.10	9.77		159.07	12.15	
		95441.66					
1590.79	137.00	4381.23	13.07	6.03	9596.98	0.29	0.001579
	0.96203	162.98	9.76		158.95	12.16	
		95369.05					
1587.47	138.00	4381.22	13.06	6.03	9564.93	0.29	0.001580
	0.96111	162.85	9.75		158.83	12.16	
		95298.77					
1584.36	139.00	4381.20	13.04	6.02	9536.17	0.29	0.001578
	0.95875	162.74	9.74		158.72	12.17	
		95232.65					
1581.55	140.00	4381.19	13.03	6.01	9509.45	0.29	0.001577
	0.95668	162.63	9.72		158.62	12.17	
		95173.05					
1576.49	141.00	4381.16	13.00	6.00	9461.02	0.29	0.001571
	0.95145	162.44	9.70		158.44	12.18	
		95063.38					
1566.13	142.00	4381.12	12.96	5.98	9363.74	0.29	0.001569
	0.94632	162.06	9.66		158.07	12.20	
		94842.06					
1559.99	143.00	4381.09	12.93	5.97	9310.41	0.29	0.001571
	0.94475	161.84	9.64		157.86	12.21	
		94713.92					

HYCHAN.OUT									
1556.63	144.00	4381.07	12.91	9.63	5.96	157.74	12.22	0.001570	9280.16 0.29
	0.94302	161.71							94642.20
1553.70	145.00	4381.06	12.90	9.61	5.96	157.63	12.22	0.001566	9252.40 0.29
	0.93936	161.60							94579.40
1549.12	146.00	4381.04	12.88	9.60	5.94	157.47	12.23	0.001563	9208.76 0.29
	0.93601	161.43							94479.06
1538.85	147.00	4380.99	12.83	9.56	5.92	157.10	12.25	0.001560	9112.42 0.29
	0.92995	161.04							94257.38
1532.56	148.00	4380.96	12.80	9.53	5.91	156.87	12.26	0.001558	9055.94 0.29
	0.92655	160.81							94122.51
1529.08	149.00	4380.94	12.78	9.52	5.90	156.75	12.26	0.001556	9025.16 0.29
	0.92406	160.68							94047.50
1526.23	150.00	4380.93	12.77	9.51	5.90	156.64	12.27	0.001555	8998.69 0.29
	0.92226	160.57							93985.51
1523.54	151.00	4380.92	12.75	9.49	5.89	156.54	12.27	0.001555	8974.71 0.29
	0.92153	160.47							93926.84
1519.66	152.00	4380.90	12.74	9.48	5.88	156.40	12.28	0.001553	8938.86 0.29
	0.91876	160.32							93841.00
1511.57	153.00	4380.86	12.70	9.45	5.86	156.11	12.29	0.001550	8863.87 0.29
	0.91384	160.01							93663.83
1504.18	154.00	4380.82	12.66	9.42	5.85	155.84	12.31	0.001548	8798.34 0.29
	0.90991	159.73							93502.54
1499.82	155.00	4380.80	12.64	9.40	5.84	155.68	12.32	0.001548	8759.35 0.29
	0.90810	159.56							93407.51
1495.10	156.00	4380.78	12.62	9.38	5.83	155.50	12.32	0.001544	8713.31 0.29
	0.90382	159.38							93302.02
1488.38	157.00	4380.75	12.59	9.35	5.82	155.26	12.34	0.001546	8655.49 0.29
	0.90229	159.13							93156.52
1497.78	158.00	4380.79	12.63	9.39	5.84	155.61	12.32	0.001551	8745.76 0.29
	0.90909	159.49							93367.12
1503.91	159.00	4380.82	12.66	9.42	5.85	155.83	12.31	0.001551	8796.57 0.29
	0.91142	159.72							93499.28
1504.67	160.00	4380.82	12.66	9.42	5.85	155.86	12.31	0.001552	8802.07 0.29
	0.91212	159.75							93514.95
1504.10	161.00	4380.82	12.66	9.42	5.85	155.84	12.31	0.001550	8797.91 0.29
	0.91097	159.73							93502.62
1503.27	162.00	4380.82	12.66	9.41	5.85	155.81	12.31	0.001551	8791.26 0.29
	0.91109	159.70							93484.01
1502.50	163.00	4380.81	12.65	9.41	5.85	155.78	12.31	0.001549	8784.59 0.29
	0.90949	159.67							93466.88
1501.64	164.00	4380.81	12.65	9.41	5.84	155.75	12.31	0.001550	8776.99 0.29
	0.90998	159.64							93448.34

HYCHAN.OUT									
1501.13	165.00	4380.81	12.65	9.40	5.84	8771.21	12.31	0.29	0.001550
	0.90934	159.62				155.73			
		93437.07							
1498.65	166.00	4380.80	12.64	9.39	5.84	8747.54	12.32	0.29	0.001544
	0.90539	159.52				155.64			
		93381.11							
1490.04	167.00	4380.75	12.59	9.36	5.82	8668.77	12.33	0.29	0.001541
	0.90029	159.19				155.32			
		93189.90							
1484.71	168.00	4380.73	12.57	9.34	5.81	8621.51	12.34	0.29	0.001543
	0.89933	158.98				155.12			
		93073.91							
1482.68	169.00	4380.72	12.56	9.33	5.80	8604.80	12.35	0.29	0.001541
	0.89747	158.91				155.05			
		93029.35							
1481.60	170.00	4380.71	12.55	9.33	5.80	8594.94	12.35	0.29	0.001541
	0.89691	158.87				155.01			
		93005.56							
1480.71	171.00	4380.71	12.55	9.32	5.80	8587.00	12.35	0.29	0.001542
	0.89688	158.83				154.98			
		92985.70							
1479.88	172.00	4380.71	12.55	9.32	5.80	8580.10	12.35	0.29	0.001538
	0.89422	158.80				154.95			
		92967.23							
1479.15	173.00	4380.70	12.54	9.32	5.80	8573.44	12.35	0.29	0.001540
	0.89499	158.77				154.92			
		92951.20							
1476.59	174.00	4380.69	12.53	9.31	5.79	8547.29	12.36	0.29	0.001534
	0.89101	158.67				154.82			
		92893.04							
1467.73	175.00	4380.65	12.49	9.27	5.77	8466.89	12.37	0.29	0.001535
	0.88804	158.33				154.49			
		92694.87							
1462.31	176.00	4380.62	12.46	9.25	5.76	8421.16	12.38	0.29	0.001534
	0.88532	158.12				154.29			
		92575.39							
1460.16	177.00	4380.61	12.45	9.24	5.75	8402.39	12.39	0.29	0.001532
	0.88352	158.04				154.21			
		92527.90							
1458.85	178.00	4380.60	12.44	9.23	5.75	8390.06	12.39	0.29	0.001533
	0.88328	157.98				154.16			
		92498.97							
1457.91	179.00	4380.60	12.44	9.23	5.75	8381.85	12.39	0.29	0.001530
	0.88141	157.95				154.13			
		92478.06							
1456.96	180.00	4380.59	12.43	9.23	5.75	8373.33	12.39	0.29	0.001532
	0.88184	157.91				154.09			
		92456.45							
1459.98	181.00	4380.61	12.45	9.24	5.76	8404.66	12.39	0.29	0.001540
	0.88782	158.03				154.21			
		92527.54							
1475.92	182.00	4380.69	12.53	9.30	5.79	8550.20	12.36	0.29	0.001544
	0.89628	158.66				154.81			
		92884.80							
1486.49	183.00	4380.74	12.58	9.35	5.81	8642.49	12.34	0.29	0.001548
	0.90251	159.06				155.20			
		93117.73							
1496.95	184.00	4380.79	12.63	9.39	5.84	8737.51	12.32	0.29	0.001546
	0.90541	159.46				155.58			
		93347.94							
1502.39	185.00	4380.81	12.65	9.41	5.85	8784.14	12.31	0.29	0.001551
	0.91056	159.67				155.78			
		93465.91							

HYCHAN.OUT									
1504.43	186.00	4380.82	12.66	9.42	5.85	8801.36	12.31	0.29	0.001550
	0.91070	159.74				155.85			
		93510.34							
1505.37	187.00	4380.83	12.67	9.42	5.85	8810.86	12.31	0.29	0.001549
	0.91044	159.78				155.88			
		93530.54							
1505.94	188.00	4380.83	12.67	9.42	5.85	8814.90	12.30	0.29	0.001553
	0.91324	159.80				155.91			
		93543.09							
1506.23	189.00	4380.83	12.67	9.43	5.85	8817.85	12.30	0.29	0.001551
	0.91245	159.81				155.92			
		93549.52							
1506.38	190.00	4380.83	12.67	9.43	5.85	8818.67	12.30	0.29	0.001550
	0.91191	159.82				155.92			
		93552.74							
1506.47	191.00	4380.83	12.67	9.43	5.85	8819.26	12.30	0.29	0.001549
	0.91087	159.82				155.92			
		93554.52							
1504.45	192.00	4380.82	12.66	9.42	5.85	8799.18	12.31	0.29	0.001546
	0.90842	159.74				155.85			
		93508.59							
1496.14	193.00	4380.78	12.62	9.38	5.83	8722.25	12.32	0.29	0.001545
	0.90486	159.42				155.54			
		93325.16							
1491.36	194.00	4380.76	12.60	9.37	5.82	8682.17	12.33	0.29	0.001546
	0.90340	159.24				155.37			
		93221.19							
1489.59	195.00	4380.75	12.59	9.36	5.82	8665.56	12.33	0.29	0.001545
	0.90240	159.17				155.31			
		93183.09							
1488.75	196.00	4380.75	12.59	9.35	5.82	8659.54	12.33	0.29	0.001544
	0.90144	159.14				155.27			
		93164.26							
1488.18	197.00	4380.75	12.59	9.35	5.81	8653.15	12.34	0.29	0.001542
	0.89969	159.12				155.25			
		93151.89							
1487.60	198.00	4380.74	12.58	9.35	5.81	8647.91	12.34	0.29	0.001544
	0.90086	159.10				155.23			
		93139.25							
1487.20	199.00	4380.74	12.58	9.35	5.81	8644.94	12.34	0.29	0.001541
	0.89921	159.08				155.22			
		93129.95							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5090

MAXIMUM DISCHARGE (CFS) = 22063.57 AT TIME = 91.80  
 MAXIMUM STAGE = 4384.93 AT TIME = 91.87

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
WETTED PERIMETER	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)			
0.00	0.00	4367.40	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4367.40	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
	2.00	4367.40	0.00	0.00	0.00	0.00	

HYCHAN.OUT									
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4367.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4367.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
511.98	5.00	4369.14	1.74	1.03	525.34	0.14			
	0.64973	51.64	9.91	51.42	29.50				0.001050
	6.00	30849.25							
1119.15		4376.45	9.05	3.43	3838.69	0.20			
	0.28346	205.70	5.44	202.78	22.40				0.000835
	7.00	121669.96							
1288.61		4377.29	9.89	3.66	4719.55	0.21			
	0.30155	221.59	5.82	218.33	22.07				0.000831
	8.00	130996.27							
1345.17		4377.56	10.16	3.75	5038.86	0.21			
	0.30645	226.58	5.94	223.21	21.98				0.000827
	9.00	133926.50							
1349.26		4377.58	10.18	3.75	5057.47	0.21			
	0.30567	226.93	5.95	223.55	21.97				0.000824
	10.00	134131.00							
1333.22		4377.50	10.10	3.72	4956.64	0.21			
	0.30301	225.53	5.91	222.18	22.00				0.000821
	11.00	133306.62							
1315.89		4377.42	10.02	3.69	4860.34	0.21			
	0.30151	224.01	5.87	220.70	22.03				0.000823
	12.00	132417.58							
1306.80		4377.38	9.98	3.68	4812.19	0.21			
	0.30032	223.21	5.85	219.91	22.04				0.000822
	13.00	131948.30							
1294.46		4377.32	9.92	3.66	4739.01	0.20			
	0.29830	222.12	5.83	218.84	22.06				0.000820
	14.00	131305.11							
1274.74		4377.23	9.83	3.63	4623.43	0.20			
	0.29609	220.36	5.78	217.12	22.10				0.000820
	15.00	130273.71							
1260.01		4377.16	9.76	3.60	4540.12	0.20			
	0.29421	219.04	5.75	215.84	22.12				0.000820
	16.00	129501.35							
1253.05		4377.12	9.72	3.59	4501.46	0.20			
	0.29377	218.42	5.74	215.22	22.14				0.000821
	17.00	129134.76							
1250.18		4377.11	9.71	3.59	4485.53	0.20			
	0.29290	218.16	5.73	214.97	22.14				0.000819
	18.00	128983.13							
1248.74		4377.10	9.70	3.58	4475.87	0.20			
	0.29285	218.03	5.73	214.85	22.14				0.000819
	19.00	128907.13							
1248.77		4377.10	9.70	3.58	4471.77	0.20			
	0.29404	218.03	5.73	214.85	22.14				0.000823
	20.00	128909.23							
1257.14		4377.14	9.74	3.60	4519.86	0.20			
	0.29571	218.79	5.75	215.59	22.13				0.000825
	21.00	129353.72							
1275.69		4377.23	9.83	3.63	4629.31	0.20			
	0.29854	220.45	5.79	217.22	22.10				0.000827
	22.00	130330.48							
1298.56		4377.34	9.94	3.67	4763.33	0.21			
	0.30052	222.49	5.84	219.21	22.06				0.000825
	23.00	131524.41							
		4377.41	10.01	3.69	4844.37	0.21			

				HYCHAN.OUT			
1312.75		223.74		5.87	220.43	22.03	0.000826
	0.30234	132259.16					
24.00	4377.44	10.04	3.70	4888.92	0.21		
1320.41		224.41	5.88	221.09	22.02	0.000827	
	0.30370	132654.16					
25.00	4377.51	10.11	3.73	4974.67	0.21		
1334.28		225.63	5.91	222.28	21.99	0.000829	
	0.30576	133368.12					
26.00	4377.65	10.25	3.78	5165.66	0.21		
1365.19		228.32	5.98	224.91	21.94	0.000835	
	0.31154	134944.86					
27.00	4377.86	10.46	3.86	5446.50	0.21		
1410.93		232.24	6.08	228.74	21.87	0.000836	
	0.31680	137244.91					
28.00	4378.04	10.64	3.93	5698.87	0.21		
1451.39		235.65	6.16	232.08	21.80	0.000834	
	0.32045	139249.58					
29.00	4378.15	10.75	3.96	5844.12	0.21		
1474.93		237.62	6.21	234.00	21.77	0.000834	
	0.32315	140402.08					
30.00	4378.20	10.80	3.98	5915.34	0.21		
1486.20		238.55	6.23	234.92	21.75	0.000836	
	0.32481	140950.53					
31.00	4378.27	10.87	4.01	6011.08	0.21		
1500.79		239.76	6.26	236.10	21.73	0.000837	
	0.32678	141658.59					
32.00	4378.31	10.91	4.02	6077.63	0.21		
1511.16		240.61	6.28	236.93	21.71	0.000837	
	0.32812	142158.66					
33.00	4378.34	10.94	4.03	6120.73	0.21		
1517.81		241.16	6.29	237.46	21.70	0.000837	
	0.32878	142478.97					
34.00	4378.40	11.00	4.05	6206.20	0.22		
1530.64		242.21	6.32	238.49	21.69	0.000838	
	0.33044	143095.58					
35.00	4378.44	11.04	4.07	6265.58	0.22		
1539.86		242.96	6.34	239.23	21.67	0.000838	
	0.33128	143535.77					
36.00	4378.44	11.04	4.07	6260.90	0.22		
1539.83		242.95	6.34	239.22	21.67	0.000834	
	0.32999	143531.05					
37.00	4378.38	10.98	4.05	6177.10	0.22		
1526.77		241.89	6.31	238.18	21.69	0.000835	
	0.32905	142907.59					
38.00	4378.36	10.96	4.04	6151.98	0.22		
1522.97		241.58	6.30	237.88	21.70	0.000835	
	0.32859	142725.05					
39.00	4378.32	10.92	4.02	6087.99	0.21		
1513.41		240.79	6.29	237.11	21.71	0.000835	
	0.32738	142264.19					
40.00	4378.29	10.89	4.01	6037.97	0.21		
1505.51		240.14	6.27	236.47	21.72	0.000836	
	0.32690	141884.22					
41.00	4378.27	10.87	4.00	6012.81	0.21		
1501.52		239.82	6.26	236.15	21.73	0.000836	
	0.32671	141691.70					
42.00	4378.26	10.86	4.00	6000.13	0.21		
1499.48		239.65	6.26	235.99	21.73	0.000834	
	0.32546	141593.55					
43.00	4378.25	10.85	4.00	5991.55	0.21		
1498.19		239.54	6.25	235.88	21.73	0.000834	
	0.32561	141530.81					
44.00	4378.26	10.86	4.00	5999.75	0.21		

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				HYCHAN.OUT			
1499.13		239.62		6.26	235.96	21.73	0.000836
	0.32621	141577.14					
45.00	4378.30	10.90	4.02	6058.76	0.21		
1508.28	240.38		6.27	236.70	21.72	0.000837	
	0.32767	142019.64					
46.00	4378.33	10.93	4.03	6111.89	0.21		
1516.25	241.03		6.29	237.34	21.71	0.000839	
	0.32945	142404.02					
47.00	4378.40	11.00	4.06	6216.04	0.22		
1531.73	242.30		6.32	238.58	21.68	0.000839	
	0.33084	143148.19					
48.00	4378.50	11.10	4.09	6355.37	0.22		
1552.75	244.01		6.36	240.25	21.65	0.000841	
	0.33378	144151.36					
49.00	4378.60	11.20	4.13	6511.92	0.22		
1576.20	245.91		6.41	242.10	21.62	0.000843	
	0.33702	145262.89					
50.00	4378.70	11.30	4.17	6673.28	0.22		
1599.99	247.81		6.46	243.97	21.59	0.000843	
	0.33974	146382.19					
51.00	4378.81	11.41	4.21	6838.97	0.22		
1624.31	249.75		6.50	245.86	21.55	0.000844	
	0.34258	147517.73					
52.00	4378.92	11.52	4.25	7023.37	0.22		
1650.89	251.85		6.56	247.92	21.52	0.000847	
	0.34648	148749.23					
53.00	4379.06	11.66	4.31	7255.72	0.22		
1684.34	254.47		6.62	250.47	21.47	0.000845	
	0.34904	150284.95					
54.00	4379.15	11.75	4.34	7393.51	0.22		
1704.12	256.01		6.66	251.98	21.45	0.000847	
	0.35198	151185.70					
55.00	4379.26	11.86	4.38	7581.41	0.22		
1729.80	257.99		6.70	253.91	21.42	0.000851	
	0.35598	152348.09					
56.00	4379.52	12.12	4.49	8043.76	0.23		
1792.39	262.75		6.82	258.57	21.34	0.000855	
	0.36399	155142.70					
57.00	4379.85	12.45	4.62	8649.99	0.23		
1872.37	268.73		6.97	264.41	21.24	0.000861	
	0.37413	158643.25					
58.00	4380.27	12.87	4.78	9450.36	0.24		
1976.23	276.30		7.15	271.80	21.12	0.000863	
	0.38514	163082.47					
59.00	4380.69	13.29	4.95	10302.61	0.24		
2083.35	283.92		7.34	279.25	21.01	0.000864	
	0.39567	167548.09					
60.00	4381.00	13.60	5.07	10954.00	0.24		
2162.66	289.44		7.47	284.64	20.93	0.000863	
	0.40217	170782.42					
61.00	4381.19	13.79	5.14	11371.31	0.24		
2211.49	292.79		7.55	287.90	20.88	0.000863	
	0.40685	172741.62					
62.00	4381.32	13.92	5.20	11672.29	0.25		
2246.67	295.17		7.61	290.23	20.85	0.000863	
	0.40976	174139.97					
63.00	4381.39	13.99	5.22	11829.86	0.25		
2265.11	296.42		7.64	291.45	20.83	0.000863	
	0.41150	174867.98					
64.00	4381.45	14.05	5.25	11961.90	0.25		
2280.18	297.43		7.67	292.44	20.82	0.000864	
	0.41319	175461.34					
65.00	4381.51	14.11	5.27	12114.76	0.25		

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2297.54	0.41485	298.59	7.69	293.57	20.80	0.000864	
66.00	4381.58	176142.64	14.18	5.30	12267.38	0.25	
2315.52	0.41666	299.79	7.72	294.74	20.78	0.000865	
67.00	4381.64	176845.19	14.24	5.32	12400.37	0.25	
2331.49	0.41845	300.85	7.75	295.78	20.77	0.000865	
68.00	4381.69	177466.78	14.29	5.34	12522.19	0.25	
2345.06	0.41534	301.75	7.77	296.66	20.76	0.000856	
69.00	4381.66	177993.14	14.26	5.32	12441.96	0.25	
2336.64	0.41966	301.19	7.76	296.11	20.77	0.000867	
70.00	4381.75	177664.94	14.35	5.37	12672.03	0.25	
2361.07	0.42188	302.81	7.80	297.69	20.74	0.000867	
71.00	4381.92	178613.19	14.52	5.44	13091.72	0.25	
2407.28	0.42570	305.85	7.87	300.65	20.70	0.000867	
72.00	4382.08	180389.70	14.68	5.50	13482.25	0.25	
2449.42	0.43115	308.59	7.94	303.32	20.67	0.000870	
73.00	4382.35	181994.39	14.95	5.62	14178.96	0.26	
2523.25	0.43776	313.33	8.05	307.95	20.60	0.000871	
74.00	4382.51	184771.67	15.11	5.68	14592.58	0.26	
2567.72	0.44131	316.16	8.12	310.71	20.57	0.000871	
75.00	4382.62	186428.81	15.22	5.73	14884.68	0.26	
2598.04	0.44473	318.07	8.17	312.58	20.54	0.000873	
76.00	4382.75	187548.39	15.35	5.79	15244.83	0.26	
2634.56	0.44817	320.36	8.22	314.81	20.51	0.000873	
77.00	4382.88	188888.77	15.48	5.84	15616.19	0.26	
2672.51	0.45033	322.72	8.28	317.12	20.48	0.000871	
78.00	4382.97	190271.42	15.57	5.88	15859.68	0.26	
2696.85	0.45368	324.23	8.32	318.59	20.46	0.000874	
79.00	4383.14	191153.47	15.74	5.96	16365.90	0.26	
2746.67	0.45786	327.29	8.39	321.58	20.42	0.000874	
80.00	4383.31	192945.75	15.91	6.03	16839.43	0.27	
2792.87	0.46227	330.11	8.46	324.32	20.39	0.000876	
81.00	4383.51	194593.38	16.11	6.12	17460.16	0.27	
2852.49	0.46781	333.71	8.55	327.84	20.35	0.000877	
82.00	4383.70	196701.11	16.30	6.20	18024.61	0.27	
2906.30	0.47320	336.93	8.63	330.97	20.31	0.000879	
83.00	4383.90	198583.52	16.50	6.29	18671.31	0.27	
2966.44	0.47702	340.49	8.71	334.45	20.26	0.000877	
84.00	4384.09	200667.17	16.69	6.38	19293.88	0.28	
3023.93	0.48258	343.75	8.80	337.63	20.23	0.000879	
85.00	4384.26	202579.17	16.86	6.45	19858.34	0.28	
3076.59	0.48706	346.63	8.88	340.44	20.19	0.000879	
86.00	4384.39	204264.39	16.99	6.51	20296.92	0.28	

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3116.51		348.81		8.93	342.56	20.17	0.000877
	0.48916	205535.30					
87.00	4384.49	17.09		6.56	20655.31	0.28	
3148.96		350.57		8.98	344.27	20.15	0.000878
	0.49187	206564.73					
88.00	4384.59	17.19		6.61	21025.44	0.28	
3181.00		352.30		9.03	345.96	20.13	0.000879
	0.49519	207577.91					
89.00	4384.72	17.32		6.66	21476.09	0.28	
3222.48		354.53		9.09	348.14	20.10	0.000874
	0.49570	208885.48					
90.00	4384.84	17.44		6.69	21837.85	0.28	
3262.70		356.69		9.15	350.24	20.08	0.000864
	0.49322	210146.44					
91.00	4384.89	17.49		6.70	21950.16	0.28	
3278.34		357.52		9.17	351.06	20.07	0.000865
	0.49482	210633.64					
92.00	4384.91	17.51		6.70	21991.24	0.28	
3283.60		357.80		9.18	351.33	20.07	0.000861
	0.49280	210798.34					
93.00	4384.85	17.45		6.68	21825.44	0.28	
3266.05		356.86		9.15	350.41	20.08	0.000867
	0.49532	210245.92					
94.00	4384.77	17.37		6.67	21579.11	0.28	
3237.49		355.33		9.11	348.92	20.09	0.000871
	0.49545	209352.23					
95.00	4384.69	17.29		6.64	21345.04	0.28	
3213.05		354.02		9.08	347.64	20.11	0.000875
	0.49531	208584.05					
96.00	4384.60	17.20		6.61	21046.59	0.28	
3185.21		352.52		9.04	346.18	20.13	0.000873
	0.49195	207706.22					
97.00	4384.49	17.09		6.56	20659.12	0.28	
3151.05		350.67		8.99	344.38	20.15	0.000874
	0.48996	206626.05					
98.00	4384.40	17.00		6.51	20333.40	0.28	
3121.58		349.07		8.94	342.82	20.16	0.000874
	0.48760	205692.06					
99.00	4384.29	16.89		6.46	19950.59	0.28	
3087.40		347.21		8.89	341.01	20.19	0.000872
	0.48368	204603.20					
100.00	4384.17	16.77		6.40	19510.08	0.28	
3047.15		345.01		8.83	338.86	20.21	0.000872
	0.48037	203316.41					
101.00	4384.04	16.64		6.35	19099.31	0.27	
3009.03		342.93		8.77	336.82	20.24	0.000871
	0.47680	202094.83					
102.00	4383.92	16.52		6.28	18663.86	0.27	
2970.14		340.69		8.72	334.64	20.26	0.000873
	0.47466	200786.89					
103.00	4383.73	16.33		6.20	18090.90	0.27	
2916.26		337.50		8.64	331.53	20.30	0.000871
	0.46967	198919.59					
104.00	4383.49	16.09		6.10	17359.50	0.27	
2847.00		333.35		8.54	327.49	20.35	0.000873
	0.46519	196493.33					
105.00	4383.17	15.77		5.96	16415.37	0.26	
2755.89		327.82		8.41	322.09	20.42	0.000869
	0.45568	193252.88					
106.00	4382.85	15.45		5.82	15490.41	0.26	
2662.95		322.10		8.27	316.51	20.49	0.000868
	0.44767	189906.30					
107.00	4382.59	15.19		5.71	14796.81	0.26	

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2591.17		317.63		8.16	312.15	20.55	0.000869
	0.44213	187288.00					
108.00		4382.47	15.07	5.66	14459.39	0.26	
2556.33		315.42		8.10	310.00	20.58	0.000867
	0.43870	185997.98					
109.00		4382.25	14.85	5.56	13886.84	0.25	
2496.46		311.59		8.01	306.26	20.63	0.000865
	0.43225	183756.28					
110.00		4382.03	14.63	5.47	13334.12	0.25	
2437.08		307.77		7.92	302.52	20.68	0.000863
	0.42627	181514.23					
111.00		4381.82	14.42	5.38	12819.88	0.25	
2380.81		304.09		7.83	298.94	20.73	0.000862
	0.42089	179364.23					
112.00		4381.65	14.25	5.32	12410.13	0.25	
2334.71		301.06		7.76	295.97	20.77	0.000863
	0.41769	177584.89					
113.00		4381.53	14.13	5.27	12120.70	0.25	
2301.76		298.87		7.70	293.84	20.80	0.000861
	0.41383	176301.86					
114.00		4381.40	14.00	5.21	11819.22	0.25	
2267.64		296.58		7.65	291.60	20.83	0.000860
	0.41015	174961.03					
115.00		4381.25	13.85	5.15	11473.98	0.24	
2227.73		293.88		7.58	288.97	20.87	0.000860
	0.40679	173381.47					
116.00		4381.16	13.76	5.12	11286.93	0.24	
2205.11		292.35		7.54	287.47	20.89	0.000860
	0.40495	172484.08					
117.00		4381.13	13.73	5.11	11217.05	0.24	
2196.95		291.79		7.53	286.93	20.90	0.000858
	0.40288	172157.33					
118.00		4381.05	13.65	5.07	11045.26	0.24	
2176.97		290.42		7.50	285.59	20.92	0.000859
	0.40180	171354.06					
119.00		4380.98	13.58	5.04	10887.25	0.24	
2158.23		289.13		7.46	284.33	20.93	0.000856
	0.39888	170599.84					
120.00		4380.93	13.53	5.03	10789.67	0.24	
2146.08		288.29		7.44	283.52	20.95	0.000858
	0.39846	170109.52					
121.00		4380.92	13.52	5.02	10762.78	0.24	
2142.77		288.07		7.44	283.29	20.95	0.000857
	0.39772	169975.80					
122.00		4380.90	13.50	5.01	10711.57	0.24	
2136.65		287.64		7.43	282.88	20.96	0.000857
	0.39736	169727.12					
123.00		4380.84	13.44	4.99	10590.05	0.24	
2122.47		286.65		7.40	281.91	20.97	0.000857
	0.39585	169148.88					
124.00		4380.77	13.37	4.96	10438.82	0.24	
2104.17		285.38		7.37	280.67	20.99	0.000857
	0.39431	168402.66					
125.00		4380.72	13.32	4.94	10326.84	0.24	
2090.43		284.42		7.35	279.73	21.00	0.000856
	0.39266	167839.56					
126.00		4380.65	13.25	4.91	10187.20	0.24	
2073.45		283.23		7.32	278.57	21.02	0.000856
	0.39093	167141.27					
127.00		4380.61	13.21	4.90	10094.96	0.24	
2061.97		282.42		7.30	277.78	21.03	0.000856
	0.39008	166668.67					
128.00		4380.57	13.17	4.88	10012.76	0.24	

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2051.98		281.71		7.28	277.09	21.04	0.000854
	0.38812	166254.78					
129.00		4380.51	13.11	4.85	9886.32	0.24	
2036.39		280.61		7.26	276.01	21.06	0.000855
	0.38716	165607.36					
130.00		4380.46	13.06	4.84	9803.37	0.24	
2025.75		279.86		7.24	275.28	21.07	0.000854
	0.38580	165165.33					
131.00		4380.42	13.02	4.82	9721.94	0.24	
2015.69		279.14		7.22	274.57	21.08	0.000853
	0.38426	164744.86					
132.00		4380.36	12.96	4.80	9596.06	0.23	
1999.96		278.01		7.19	273.48	21.10	0.000854
	0.38356	164086.08					
133.00		4380.34	12.94	4.79	9555.26	0.23	
1994.31		277.61		7.18	273.09	21.11	0.000856
	0.38359	163851.58					
134.00		4380.38	12.98	4.81	9643.84	0.24	
2005.34		278.40		7.20	273.86	21.09	0.000855
	0.38452	164314.70					
135.00		4380.39	12.99	4.81	9658.49	0.24	
2007.42		278.55		7.21	274.00	21.09	0.000855
	0.38434	164400.73					
136.00		4380.38	12.98	4.81	9630.29	0.24	
2004.04		278.31		7.20	273.76	21.09	0.000853
	0.38314	164258.56					
137.00		4380.36	12.96	4.80	9597.62	0.23	
1999.92		278.01		7.19	273.48	21.10	0.000853
	0.38306	164086.17					
138.00		4380.35	12.95	4.79	9565.59	0.23	
1995.96		277.73		7.19	273.20	21.10	0.000854
	0.38318	163919.72					
139.00		4380.33	12.93	4.79	9536.79	0.23	
1992.26		277.46		7.18	272.94	21.11	0.000854
	0.38259	163764.44					
140.00		4380.32	12.92	4.78	9510.11	0.23	
1988.90		277.22		7.17	272.71	21.11	0.000852
	0.38155	163623.19					
141.00		4380.29	12.89	4.77	9462.73	0.23	
1982.94		276.79		7.16	272.29	21.12	0.000853
	0.38113	163371.33					
142.00		4380.24	12.84	4.75	9365.68	0.23	
1970.57		275.90		7.14	271.42	21.13	0.000852
	0.37952	162849.17					
143.00		4380.21	12.81	4.74	9311.32	0.23	
1963.07		275.36		7.13	270.89	21.14	0.000855
	0.38021	162532.61					
144.00		4380.20	12.80	4.74	9280.78	0.23	
1959.02		275.07		7.12	270.60	21.14	0.000854
	0.37937	162361.45					
145.00		4380.18	12.78	4.73	9252.90	0.23	
1955.50		274.82		7.12	270.35	21.15	0.000853
	0.37870	162212.30					
146.00		4380.16	12.76	4.72	9210.45	0.23	
1950.10		274.42		7.11	269.97	21.15	0.000854
	0.37858	161981.97					
147.00		4380.11	12.71	4.70	9114.30	0.23	
1937.82		273.53		7.08	269.10	21.17	0.000852
	0.37649	161459.36					
148.00		4380.08	12.68	4.69	9056.80	0.23	
1930.25		272.98		7.07	268.56	21.18	0.000851
	0.37555	161137.27					
149.00		4380.07	12.67	4.69	9025.79	0.23	

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1926.06		272.68		7.06	268.26	21.18	0.000852
	0.37567	160958.50					
150.00		4380.05	12.65	4.68	8999.29	0.23	
1922.65		272.43		7.06	268.02	21.18	0.000852
	0.37532	160812.48					
151.00		4380.04	12.64	4.68	8975.25	0.23	
1919.42		272.19		7.05	267.79	21.19	0.000852
	0.37509	160674.66					
152.00		4380.02	12.62	4.67	8940.09	0.23	
1914.84		271.86		7.04	267.46	21.19	0.000852
	0.37443	160477.64					
153.00		4379.98	12.58	4.65	8865.67	0.23	
1905.18		271.15		7.03	266.77	21.20	0.000852
	0.37334	160062.81					
154.00		4379.94	12.55	4.64	8799.59	0.23	
1896.31		270.50		7.01	266.14	21.21	0.000851
	0.37247	159681.34					
155.00		4379.92	12.52	4.63	8760.02	0.23	
1891.05		270.11		7.00	265.76	21.22	0.000851
	0.37160	159455.19					
156.00		4379.90	12.50	4.62	8714.89	0.23	
1885.46		269.70		6.99	265.35	21.23	0.000852
	0.37163	159212.92					
157.00		4379.87	12.47	4.61	8655.34	0.23	
1877.28		269.10		6.98	264.77	21.24	0.000852
	0.37101	158860.78					
158.00		4379.91	12.51	4.63	8743.49	0.23	
1888.41		269.92		7.00	265.57	21.22	0.000853
	0.37222	159343.09					
159.00		4379.94	12.54	4.64	8796.05	0.23	
1895.85		270.47		7.01	266.11	21.21	0.000854
	0.37337	159663.06					
160.00		4379.95	12.55	4.64	8802.14	0.23	
1896.82		270.54		7.01	266.17	21.21	0.000853
	0.37339	159704.19					
161.00		4379.94	12.54	4.64	8798.07	0.23	
1896.14		270.49		7.01	266.12	21.21	0.000853
	0.37333	159674.83					
162.00		4379.94	12.54	4.64	8791.45	0.23	
1895.16		270.41		7.01	266.05	21.22	0.000852
	0.37258	159632.50					
163.00		4379.94	12.54	4.64	8784.71	0.23	
1894.23		270.35		7.01	265.99	21.22	0.000850
	0.37172	159592.66					
164.00		4379.93	12.53	4.64	8777.18	0.23	
1893.20		270.27		7.00	265.91	21.22	0.000852
	0.37247	159548.17					
165.00		4379.93	12.53	4.63	8771.32	0.23	
1892.58		270.22		7.00	265.87	21.22	0.000851
	0.37200	159521.39					
166.00		4379.92	12.52	4.63	8748.73	0.23	
1889.67		270.01		7.00	265.66	21.22	0.000851
	0.37181	159395.50					
167.00		4379.88	12.48	4.61	8670.48	0.23	
1879.41		269.25		6.98	264.92	21.23	0.000849
	0.36993	158951.53					
168.00		4379.85	12.45	4.60	8622.17	0.23	
1872.96		268.78		6.97	264.45	21.24	0.000853
	0.37089	158672.97					
169.00		4379.84	12.44	4.60	8605.10	0.23	
1870.51		268.60		6.96	264.28	21.24	0.000850
	0.36945	158567.00					
170.00		4379.83	12.43	4.60	8595.07	0.23	

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				HYCHAN.OUT			
1869.20		268.50		6.96	264.18	21.25	0.000850
	0.36927	158510.38					
171.00	4379.83	12.43	4.60	8587.19	0.23		
1868.14		268.42	6.96	264.11	21.25	0.000851	
	0.36951	158464.31					
172.00	4379.83	12.43	4.60	8580.28	0.23		
1867.16		268.35	6.96	264.04	21.25	0.000849	
	0.36879	158421.81					
173.00	4379.82	12.42	4.59	8573.61	0.23		
1866.28		268.28	6.96	263.97	21.25	0.000851	
	0.36947	158383.59					
174.00	4379.81	12.41	4.59	8548.49	0.23		
1863.25		268.06	6.95	263.75	21.25	0.000850	
	0.36854	158250.94					
175.00	4379.77	12.37	4.57	8468.61	0.23		
1852.67		267.27	6.93	262.98	21.27	0.000850	
	0.36787	157790.50					
176.00	4379.74	12.34	4.56	8421.90	0.23		
1846.11		266.78	6.92	262.51	21.27	0.000850	
	0.36698	157505.08					
177.00	4379.73	12.33	4.56	8402.67	0.23		
1843.50		266.59	6.92	262.32	21.28	0.000849	
	0.36653	157391.48					
178.00	4379.72	12.32	4.56	8390.22	0.23		
1841.91		266.47	6.91	262.20	21.28	0.000850	
	0.36669	157322.19					
179.00	4379.72	12.32	4.55	8382.02	0.23		
1840.79		266.39	6.91	262.12	21.28	0.000851	
	0.36687	157272.88					
180.00	4379.71	12.31	4.55	8373.58	0.23		
1839.67		266.31	6.91	262.04	21.28	0.000851	
	0.36688	157224.14					
181.00	4379.73	12.33	4.56	8402.60	0.23		
1843.14		266.57	6.91	262.29	21.28	0.000853	
	0.36815	157376.89					
182.00	4379.81	12.41	4.59	8547.00	0.23		
1862.16		267.98	6.95	263.68	21.25	0.000853	
	0.36998	158206.20					
183.00	4379.86	12.46	4.61	8640.53	0.23		
1874.89		268.92	6.97	264.60	21.24	0.000854	
	0.37132	158758.05					
184.00	4379.91	12.51	4.63	8735.66	0.23		
1887.46		269.85	6.99	265.50	21.22	0.000851	
	0.37137	159301.80					
185.00	4379.94	12.54	4.64	8783.56	0.23		
1894.04		270.33	7.01	265.97	21.22	0.000852	
	0.37234	159584.84					
186.00	4379.95	12.55	4.64	8801.02	0.23		
1896.49		270.51	7.01	266.15	21.21	0.000852	
	0.37274	159690.45					
187.00	4379.95	12.55	4.64	8810.77	0.23		
1897.64		270.60	7.01	266.23	21.21	0.000852	
	0.37291	159739.97					
188.00	4379.95	12.55	4.64	8814.85	0.23		
1898.33		270.65	7.01	266.28	21.21	0.000853	
	0.37329	159769.33					
189.00	4379.95	12.55	4.64	8817.78	0.23		
1898.67		270.67	7.01	266.31	21.21	0.000854	
	0.37385	159784.27					
190.00	4379.96	12.56	4.64	8818.62	0.23		
1898.85		270.69	7.01	266.32	21.21	0.000851	
	0.37256	159791.81					
191.00	4379.96	12.56	4.64	8819.33	0.23		

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1898.96	270.69	7.02	266.33	21.21	0.000852		
0.37306	159796.66						
192.00	4379.95	12.55	4.64	8800.27	0.23		
1896.61	270.52	7.01	266.16	21.21	0.000849		
0.37164	159694.33						
193.00	4379.91	12.51	4.62	8723.96	0.23		
1886.70	269.79	6.99	265.44	21.23	0.000851		
0.37117	159266.78						
194.00	4379.88	12.48	4.62	8682.66	0.23		
1880.91	269.36	6.98	265.03	21.23	0.000852		
0.37129	159017.36						
195.00	4379.87	12.47	4.61	8665.78	0.23		
1878.75	269.21	6.98	264.87	21.23	0.000853		
0.37127	158923.97						
196.00	4379.87	12.47	4.61	8659.72	0.23		
1877.76	269.13	6.98	264.80	21.24	0.000851		
0.37037	158881.09						
197.00	4379.87	12.47	4.61	8653.25	0.23		
1877.07	269.08	6.98	264.75	21.24	0.000849		
0.36968	158851.36						
198.00	4379.86	12.46	4.61	8648.00	0.23		
1876.36	269.03	6.97	264.70	21.24	0.000852		
0.37070	158820.52						
199.00	4379.86	12.46	4.61	8645.00	0.23		
1875.89	268.99	6.97	264.67	21.24	0.000852		
0.37068	158800.34						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5092

MAXIMUM DISCHARGE (CFS) = 22058.59 AT TIME = 91.77  
 MAXIMUM STAGE = 4384.44 AT TIME = 91.87

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)			
0.00	4366.70	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4366.70	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4366.70	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4366.70	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4366.70	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4368.15	1.45	0.73	361.37	0.11	0.000594
496.04	77.68	6.39	77.44	53.54	0.21	0.000507
0.23677	46464.19					
6.00	4375.96	9.26	3.61	3771.53	0.22	0.000510
1043.91	227.64	4.59	224.02	24.18		
0.14518	134412.58					
7.00	4376.81	10.11	3.91	4703.31	0.22	0.000510
1203.98	239.45	5.03	235.50	23.29		

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0.16005	141299.47						
8.00	4377.08	10.38	5.17	4.00	5035.27	0.22	
1257.41	243.09				239.03	23.04	0.000509
0.16427	143416.77						
9.00	4377.10	10.40	5.18	4.01	5058.63	0.22	
1261.59	243.35				239.28	23.02	0.000505
0.16342	143570.62						
10.00	4377.02	10.32	5.14	3.98	4960.26	0.22	
1246.85	242.35				238.32	23.09	0.000505
0.16212	142989.14						
11.00	4376.94	10.24	5.10	3.95	4862.35	0.22	
1230.74	241.26				237.26	23.16	0.000504
0.16042	142354.36						
12.00	4376.90	10.20	5.08	3.94	4813.58	0.22	
1222.39	240.69				236.70	23.20	0.000502
0.15919	142019.62						
13.00	4376.84	10.14	5.05	3.92	4741.92	0.22	
1211.10	239.91				235.94	23.26	0.000501
0.15778	141563.08						
14.00	4376.75	10.05	5.00	3.88	4626.67	0.22	
1192.86	238.64				234.71	23.35	0.000499
0.15577	140825.52						
15.00	4376.68	9.98	4.96	3.85	4541.84	0.21	
1179.10	237.69				233.78	23.42	0.000500
0.15462	140268.61						
16.00	4376.65	9.95	4.94	3.84	4502.16	0.21	
1172.57	237.23				233.34	23.45	0.000500
0.15423	140003.20						
17.00	4376.63	9.93	4.94	3.83	4485.89	0.21	
1169.89	237.04				233.16	23.47	0.000500
0.15396	139893.33						
18.00	4376.63	9.93	4.93	3.83	4476.02	0.21	
1168.48	236.95				233.06	23.48	0.000500
0.15390	139838.81						
19.00	4376.63	9.93	4.93	3.83	4471.38	0.21	
1168.32	236.95				233.06	23.48	0.000502
0.15447	139838.09						
20.00	4376.67	9.97	4.95	3.84	4517.52	0.21	
1175.89	237.48				233.58	23.44	0.000504
0.15558	140150.72						
21.00	4376.75	10.05	5.00	3.88	4625.58	0.22	
1192.99	238.68				234.75	23.35	0.000506
0.15786	140848.41						
22.00	4376.86	10.16	5.06	3.92	4759.93	0.22	
1214.22	240.15				236.17	23.24	0.000503
0.15883	141703.86						
23.00	4376.93	10.23	5.09	3.95	4842.75	0.22	
1227.52	241.06				237.05	23.18	0.000505
0.16055	142232.39						
24.00	4376.96	10.26	5.11	3.96	4887.59	0.22	
1234.66	241.54				237.52	23.14	0.000507
0.16175	142513.69						
25.00	4377.03	10.33	5.15	3.99	4971.09	0.22	
1247.38	242.40				238.36	23.08	0.000508
0.16302	143017.94						
26.00	4377.17	10.47	5.22	4.04	5158.50	0.22	
1275.87	244.31				240.22	22.95	0.000512
0.16693	144130.28						
27.00	4377.37	10.67	5.34	4.13	5439.46	0.22	
1318.45	247.11				242.93	22.76	0.000513
0.17083	145758.95						
28.00	4377.56	10.86	5.44	4.20	5693.06	0.22	
1356.26	249.53				245.29	22.59	0.000513

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0.17406	147173.62						
29.00	4377.66	10.96	5.49	4.24	5841.78	0.23	
1378.45	250.94				246.65	22.50	0.000515
0.17641	147990.22						
30.00	4377.71	11.01	5.52	4.26	5913.39	0.23	
1388.98	251.60				247.29	22.46	0.000514
0.17717	148375.44						
31.00	4377.78	11.08	5.56	4.28	6008.74	0.23	
1402.61	252.45				248.12	22.40	0.000514
0.17826	148870.62						
32.00	4377.82	11.12	5.58	4.30	6076.47	0.23	
1412.42	253.05				248.70	22.36	0.000515
0.17924	149222.27						
33.00	4377.85	11.15	5.60	4.31	6119.15	0.23	
1418.58	253.43				249.07	22.34	0.000517
0.18061	149444.83						
34.00	4377.91	11.21	5.63	4.34	6204.11	0.23	
1430.55	254.17				249.79	22.29	0.000515
0.18101	149874.08						
35.00	4377.95	11.25	5.65	4.35	6264.49	0.23	
1439.26	254.70				250.30	22.25	0.000517
0.18239	150182.72						
36.00	4377.95	11.25	5.65	4.35	6262.88	0.23	
1439.43	254.70				250.31	22.25	0.000516
0.18184	150184.02						
37.00	4377.89	11.19	5.62	4.33	6178.11	0.23	
1427.15	253.95				249.58	22.30	0.000515
0.18053	149748.34						
38.00	4377.87	11.17	5.61	4.32	6152.85	0.23	
1423.58	253.73				249.37	22.32	0.000514
0.18010	149620.64						
39.00	4377.83	11.13	5.59	4.30	6089.76	0.23	
1414.70	253.18				248.83	22.35	0.000515
0.17954	149300.81						
40.00	4377.80	11.10	5.57	4.29	6038.86	0.23	
1407.25	252.73				248.39	22.38	0.000515
0.17883	149033.83						
41.00	4377.78	11.08	5.56	4.28	6013.35	0.23	
1403.50	252.49				248.16	22.40	0.000515
0.17849	148898.53						
42.00	4377.77	11.07	5.55	4.28	6000.27	0.23	
1401.59	252.38				248.05	22.41	0.000513
0.17795	148829.62						
43.00	4377.76	11.07	5.55	4.28	5991.76	0.23	
1400.38	252.30				247.98	22.41	0.000515
0.17829	148785.58						
44.00	4377.77	11.07	5.55	4.28	5998.80	0.23	
1401.18	252.35				248.03	22.41	0.000514
0.17807	148815.64						
45.00	4377.81	11.11	5.57	4.30	6057.33	0.23	
1409.68	252.88				248.54	22.37	0.000515
0.17919	149124.81						
46.00	4377.84	11.14	5.59	4.31	6110.24	0.23	
1417.15	253.34				248.99	22.34	0.000516
0.17996	149392.27						
47.00	4377.91	11.21	5.63	4.34	6212.88	0.23	
1431.54	254.23				249.85	22.28	0.000517
0.18150	149909.31						
48.00	4378.00	11.30	5.68	4.38	6351.60	0.23	
1451.18	255.43				251.01	22.21	0.000520
0.18437	150607.25						
49.00	4378.10	11.40	5.74	4.42	6507.98	0.23	
1473.12	256.75				252.30	22.12	0.000519

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0.18594	151378.97						
50.00	4378.21	11.51	4.46	6669.41	0.23		
1495.46	258.09		5.79	253.59	22.04	0.000522	
0.18871	152156.58						
51.00	4378.31	11.61	4.50	6834.87	0.23		
1518.25	259.44		5.85	254.90	21.95	0.000522	
0.19064	152942.61						
52.00	4378.42	11.72	4.55	7018.40	0.23		
1543.12	260.90		5.91	256.32	21.86	0.000521	
0.19239	153793.02						
53.00	4378.57	11.87	4.61	7251.15	0.24		
1574.60	262.72		5.99	258.09	21.75	0.000523	
0.19543	154851.95						
54.00	4378.65	11.95	4.64	7390.50	0.24		
1593.34	263.78		6.04	259.12	21.69	0.000523	
0.19727	155473.48						
55.00	4378.76	12.06	4.68	7575.08	0.24		
1617.37	265.14		6.10	260.44	21.60	0.000526	
0.20022	156266.22						
56.00	4379.01	12.31	4.79	8031.64	0.24		
1676.09	268.41		6.24	263.62	21.41	0.000528	
0.20584	158169.08						
57.00	4379.34	12.64	4.93	8634.81	0.24		
1751.73	272.50		6.43	267.58	21.17	0.000534	
0.21405	160550.45						
58.00	4379.76	13.06	5.10	9432.47	0.25		
1849.98	277.66		6.66	272.59	20.88	0.000539	
0.22428	163552.64						
59.00	4380.18	13.48	5.27	10287.17	0.25		
1952.06	282.82		6.90	277.59	20.60	0.000540	
0.23244	166553.03						
60.00	4380.48	13.78	5.40	10944.62	0.26		
2028.29	286.53		7.08	281.19	20.40	0.000538	
0.23773	168711.98						
61.00	4380.67	13.97	5.48	11364.45	0.26		
2075.39	288.77		7.19	283.36	20.28	0.000539	
0.24185	170015.42						
62.00	4380.80	14.10	5.53	11668.18	0.26		
2109.39	290.37		7.26	284.91	20.20	0.000539	
0.24430	170943.16						
63.00	4380.87	14.17	5.56	11827.59	0.26		
2127.26	291.20		7.31	285.71	20.16	0.000539	
0.24548	171425.59						
64.00	4380.93	14.23	5.58	11959.29	0.26		
2141.76	291.87		7.34	286.36	20.12	0.000539	
0.24684	171816.66						
65.00	4381.00	14.30	5.61	12112.02	0.26		
2158.50	292.64		7.38	287.11	20.08	0.000539	
0.24813	172265.52						
66.00	4381.06	14.36	5.64	12264.46	0.26		
2175.68	293.43		7.41	287.87	20.04	0.000540	
0.24973	172724.89						
67.00	4381.12	14.42	5.66	12398.23	0.26		
2190.98	294.13		7.45	288.55	20.01	0.000540	
0.25117	173131.20						
68.00	4381.17	14.47	5.68	12519.98	0.26		
2204.05	294.72		7.48	289.13	19.98	0.000537	
0.25073	173476.58						
69.00	4381.14	14.44	5.67	12443.54	0.26		
2196.11	294.36		7.46	288.77	20.00	0.000541	
0.25208	173264.14						
70.00	4381.23	14.53	5.71	12665.75	0.26		
2219.28	295.42		7.51	289.80	19.94	0.000541	

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0.25358	173879.73						
71.00	4381.40	14.70	5.78	13084.88	0.27		
2263.88	297.42		7.61	291.74	19.84	0.000541	
0.25699	175042.27						
72.00	4381.55	14.86	5.85	13474.21	0.27		
2304.60	299.22		7.70	293.48	19.76	0.000542	
0.26042	176089.53						
73.00	4381.82	15.12	5.96	14167.67	0.27		
2376.04	302.32		7.86	296.49	19.61	0.000541	
0.26549	177895.14						
74.00	4381.98	15.28	6.03	14587.75	0.27		
2419.55	304.18		7.95	298.29	19.52	0.000541	
0.26874	178974.97						
75.00	4382.09	15.39	6.08	14880.39	0.27		
2449.07	305.43		8.02	299.50	19.46	0.000543	
0.27177	179700.27						
76.00	4382.22	15.52	6.13	15238.09	0.27		
2484.53	306.92		8.10	300.94	19.39	0.000542	
0.27381	180565.00						
77.00	4382.36	15.66	6.19	15611.80	0.28		
2521.55	308.45		8.17	302.43	19.32	0.000541	
0.27598	181457.64						
78.00	4382.44	15.74	6.23	15854.98	0.28		
2545.26	309.43		8.23	303.38	19.27	0.000542	
0.27798	182025.09						
79.00	4382.62	15.92	6.31	16357.96	0.28		
2593.84	311.41		8.33	305.29	19.18	0.000541	
0.28121	183175.70						
80.00	4382.78	16.08	6.38	16830.52	0.28		
2638.98	313.22		8.43	307.05	19.10	0.000541	
0.28460	184231.31						
81.00	4382.98	16.28	6.47	17452.14	0.28		
2697.50	315.55		8.55	309.30	19.00	0.000542	
0.28913	185580.62						
82.00	4383.17	16.47	6.55	18016.47	0.28		
2750.31	317.61		8.66	311.30	18.90	0.000542	
0.29303	186780.53						
83.00	4383.37	16.67	6.64	18660.48	0.29		
2809.45	319.23		8.80	313.51	18.80	0.000539	
0.29608	188105.00						
84.00	4383.56	16.86	6.72	19276.29	0.29		
2867.17	319.62		8.97	315.56	18.71	0.000534	
0.29908	189336.00						
85.00	4383.73	17.04	6.79	19844.11	0.29		
2921.43	319.96		9.13	317.39	18.63	0.000530	
0.30194	190436.72						
86.00	4383.86	17.16	6.85	20285.68	0.29		
2962.34	320.22		9.25	318.77	18.57	0.000523	
0.30193	191262.34						
87.00	4383.97	17.27	6.89	20646.19	0.29		
2995.59	320.43		9.35	319.88	18.52	0.000520	
0.30352	191929.55						
88.00	4384.07	17.37	6.94	21009.61	0.29		
3028.31	320.63		9.44	320.97	18.48	0.000518	
0.30533	192584.11						
89.00	4384.21	17.51	6.98	21452.93	0.29		
3072.12	320.90		9.57	322.40	18.41	0.000507	
0.30291	193439.16						
90.00	4384.34	17.64	7.00	21819.92	0.29		
3117.59	321.17		9.71	323.81	18.35	0.000501	
0.30335	194287.98						
91.00	4384.39	17.70	7.00	21945.28	0.29		
3135.91	321.28		9.76	324.37	18.33	0.000499	

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0.30389	194621.12						
92.00	4384.41	17.71	7.00	21986.63	0.29		
3142.21	321.31		9.78	324.56	18.32	0.000496	
0.30287	194734.72						
93.00	4384.35	17.65	6.99	21833.49	0.29		
3122.04	321.20		9.72	323.94	18.35	0.000510	
0.30924	194361.67						
94.00	4384.26	17.56	6.99	21589.03	0.29		
3089.50	321.00		9.62	322.93	18.39	0.000513	
0.30820	193758.53						
95.00	4384.18	17.48	6.97	21357.08	0.29		
3062.53	320.84		9.55	322.08	18.43	0.000516	
0.30726	193247.31						
96.00	4384.09	17.39	6.94	21060.42	0.29		
3033.25	320.66		9.46	321.12	18.47	0.000517	
0.30531	192674.44						
97.00	4383.98	17.28	6.90	20675.05	0.29		
2998.32	320.44		9.36	319.96	18.52	0.000522	
0.30482	191976.61						
98.00	4383.88	17.18	6.86	20346.82	0.29		
2968.11	320.25		9.27	318.95	18.56	0.000525	
0.30376	191371.44						
99.00	4383.77	17.07	6.81	19966.28	0.29		
2933.22	320.03		9.17	317.78	18.61	0.000528	
0.30191	190666.08						
100.00	4383.64	16.94	6.75	19526.66	0.29		
2891.95	319.77		9.04	316.38	18.68	0.000532	
0.30036	189829.08						
101.00	4383.52	16.82	6.70	19112.46	0.29		
2852.71	319.52		8.93	315.05	18.74	0.000537	
0.29932	189030.12						
102.00	4383.39	16.69	6.64	18679.04	0.29		
2813.78	319.26		8.81	313.65	18.80	0.000539	
0.29669	188189.39						
103.00	4383.20	16.50	6.56	18100.33	0.28		
2760.66	317.99		8.68	311.67	18.89	0.000538	
0.29153	187001.11						
104.00	4382.96	16.26	6.45	17371.48	0.28		
2692.64	315.33		8.54	309.09	19.00	0.000540	
0.28790	185454.61						
105.00	4382.65	15.95	6.31	16431.74	0.28		
2603.49	311.76		8.35	305.64	19.17	0.000540	
0.28132	183382.05						
106.00	4382.32	15.62	6.17	15504.13	0.28		
2512.60	308.06		8.16	302.05	19.34	0.000540	
0.27501	181228.42						
107.00	4382.07	15.37	6.06	14803.06	0.27		
2442.57	305.14		8.00	299.22	19.47	0.000542	
0.27047	179534.66						
108.00	4381.94	15.24	6.01	14466.07	0.27		
2408.75	303.71		7.93	297.83	19.54	0.000541	
0.26775	178699.78						
109.00	4381.73	15.03	5.91	13897.27	0.27		
2350.82	301.21		7.80	295.41	19.66	0.000540	
0.26295	177247.25						
110.00	4381.51	14.81	5.82	13343.37	0.27		
2293.33	298.70		7.68	292.98	19.78	0.000539	
0.25840	175786.53						
111.00	4381.30	14.60	5.73	12828.00	0.26		
2238.92	296.28		7.56	290.63	19.90	0.000539	
0.25408	174380.64						
112.00	4381.13	14.43	5.66	12416.34	0.26		
2194.33	294.27		7.46	288.69	20.00	0.000539	

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0.25090	173212.56						
113.00	4381.01	14.31	5.61	12125.61	0.26		
2162.52	292.82	7.39		287.28	20.07	0.000539	
0.24824	172368.53						
114.00	4380.88	14.18	5.55	11825.22	0.26		
2129.72	291.30	7.31		285.81	20.15	0.000538	
0.24526	171486.23						
115.00	4380.73	14.03	5.49	11479.74	0.26		
2091.33	289.51	7.22		284.07	20.24	0.000538	
0.24236	170443.39						
116.00	4380.65	13.95	5.46	11288.53	0.26		
2069.38	288.48	7.17		283.08	20.30	0.000538	
0.24077	169845.95						
117.00	4380.62	13.92	5.44	11219.06	0.26		
2061.58	288.11	7.16		282.72	20.32	0.000538	
0.24026	169630.16						
118.00	4380.54	13.84	5.41	11048.88	0.26		
2042.50	287.20	7.11		281.83	20.36	0.000538	
0.23886	169099.42						
119.00	4380.47	13.77	5.38	10889.79	0.26		
2024.45	286.33	7.07		281.00	20.41	0.000537	
0.23712	168597.41						
120.00	4380.42	13.72	5.36	10790.76	0.26		
2012.78	285.77	7.04		280.45	20.44	0.000537	
0.23614	168271.34						
121.00	4380.41	13.71	5.36	10763.28	0.26		
2009.57	285.62	7.04		280.30	20.45	0.000538	
0.23604	168181.80						
122.00	4380.38	13.69	5.35	10712.96	0.25		
2003.76	285.34	7.02		280.03	20.46	0.000538	
0.23561	168017.44						
123.00	4380.33	13.63	5.32	10593.13	0.25		
1990.27	284.68	6.99		279.39	20.50	0.000538	
0.23454	167634.17						
124.00	4380.26	13.56	5.29	10441.27	0.25		
1972.70	283.82	6.95		278.56	20.54	0.000537	
0.23302	167136.28						
125.00	4380.21	13.51	5.27	10329.32	0.25		
1959.58	283.18	6.92		277.94	20.58	0.000537	
0.23204	166761.25						
126.00	4380.14	13.44	5.24	10189.65	0.25		
1943.35	282.38	6.88		277.16	20.62	0.000536	
0.23039	166295.17						
127.00	4380.10	13.40	5.23	10096.38	0.25		
1932.30	281.83	6.86		276.63	20.65	0.000537	
0.22977	165977.94						
128.00	4380.06	13.36	5.21	10014.86	0.25		
1922.82	281.36	6.83		276.17	20.68	0.000537	
0.22894	165702.31						
129.00	4380.00	13.30	5.18	9888.63	0.25		
1907.94	280.61	6.80		275.45	20.72	0.000535	
0.22716	165269.27						
130.00	4379.95	13.25	5.17	9804.76	0.25		
1897.77	280.10	6.78		274.95	20.74	0.000534	
0.22590	164972.84						
131.00	4379.92	13.22	5.15	9724.09	0.25		
1888.22	279.62	6.75		274.49	20.77	0.000535	
0.22538	164691.83						
132.00	4379.85	13.15	5.12	9598.33	0.25		
1873.23	278.86	6.72		273.75	20.81	0.000536	
0.22463	164249.94						
133.00	4379.83	13.13	5.12	9554.39	0.25		
1867.68	278.58	6.70		273.48	20.83	0.000537	

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1878.15	0.22466	164089.05	13.17	6.73	5.13	9642.41	0.25	0.000535
	134.00	4379.87				274.00	20.80	
		279.12						
1880.24	0.22478	164399.33	13.18	6.73	5.14	9658.83	0.25	0.000536
	135.00	4379.88				274.10	20.79	
		279.22						
1877.02	0.22543	164459.09	13.17	6.73	5.13	9630.92	0.25	0.000534
	136.00	4379.87				273.94	20.80	
		279.06						
1873.10	0.22425	164363.84	13.15	6.72	5.12	9598.25	0.25	0.000535
	137.00	4379.85				273.75	20.81	
		278.86						
1869.31	0.22433	164248.03	13.14	6.71	5.12	9566.23	0.25	0.000535
	138.00	4379.84				273.56	20.82	
		278.67						
1865.80	0.22408	164136.06	13.12	6.70	5.11	9537.35	0.25	0.000535
	139.00	4379.82				273.39	20.83	
		278.49						
1862.60	0.22375	164032.11	13.11	6.69	5.11	9510.70	0.25	0.000534
	140.00	4379.81				273.23	20.84	
		278.32						
1857.00	0.22320	163937.00	13.09	6.68	5.10	9464.34	0.25	0.000534
	141.00	4379.79				272.95	20.86	
		278.04						
1845.26	0.22262	163769.61	13.04	6.65	5.08	9367.49	0.25	0.000532
	142.00	4379.74				272.36	20.89	
		277.43						
1838.26	0.22087	163417.92	13.01	6.63	5.07	9312.24	0.25	0.000532
	143.00	4379.71				272.00	20.91	
		277.06						
1834.40	0.22023	163200.03	12.99	6.63	5.06	9281.28	0.25	0.000532
	144.00	4379.69				271.81	20.92	
		276.86						
1831.03	0.22001	163083.98	12.98	6.62	5.05	9253.42	0.25	0.000533
	145.00	4379.68				271.64	20.93	
		276.68						
1825.99	0.21997	162982.98	12.96	6.61	5.04	9212.03	0.25	0.000532
	146.00	4379.65				271.38	20.95	
		276.42						
1814.33	0.21938	162829.52	12.91	6.58	5.02	9116.05	0.25	0.000532
	147.00	4379.61				270.79	20.98	
		275.81						
1807.08	0.21817	162476.38	12.88	6.56	5.01	9057.59	0.25	0.000532
	148.00	4379.58				270.43	21.00	
		275.44						
1803.14	0.21765	162258.12	12.86	6.55	5.01	9026.44	0.25	0.000532
	149.00	4379.56				270.23	21.02	
		275.23						
1799.89	0.21749	162136.70	12.85	6.54	5.00	8999.82	0.25	0.000532
	150.00	4379.54				270.06	21.02	
		275.06						
1796.84	0.21731	162038.05	12.83	6.54	5.00	8975.72	0.25	0.000531
	151.00	4379.53				269.91	21.03	
		274.90						
1792.55	0.21665	161944.81	12.81	6.53	4.99	8941.31	0.25	0.000531
	152.00	4379.51				269.69	21.05	
		274.67						
1783.44	0.21606	161813.05	12.78	6.50	4.97	8867.33	0.25	0.000530
	153.00	4379.47				269.22	21.07	
		274.19						
1775.01	0.21518	161532.41	12.74	6.48	4.96	8800.72	0.24	0.000531
	154.00	4379.44				268.79	21.10	
		273.75						

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1770.00	0.21465	161273.95	12.72	6.47	4.95	8760.71	0.24	0.000528
	155.00	4379.42				268.53	21.11	
		273.48						
1764.72	0.21314	161119.77	12.70	6.46	4.94	8716.42	0.24	0.000530
	156.00	4379.40				268.26	21.13	
		273.20						
1756.89	0.21344	160956.88	12.66	6.44	4.93	8655.19	0.24	0.000531
	157.00	4379.36				267.86	21.15	
		272.79						
1767.34	0.21341	160715.25	12.71	6.47	4.95	8741.33	0.24	0.000531
	158.00	4379.41				268.40	21.12	
		273.34						
1774.43	0.21425	161039.48	12.74	6.48	4.96	8795.62	0.24	0.000532
	159.00	4379.44				268.76	21.10	
		273.72						
1775.38	0.21511	161258.78	12.74	6.48	4.96	8802.21	0.24	0.000530
	160.00	4379.44				268.81	21.10	
		273.77						
1774.77	0.21433	161287.84	12.74	6.48	4.96	8798.20	0.24	0.000530
	161.00	4379.44				268.78	21.10	
		273.74						
1773.86	0.21437	161267.67	12.73	6.48	4.96	8791.62	0.24	0.000530
	162.00	4379.43				268.73	21.10	
		273.69						
1772.98	0.21438	161239.50	12.73	6.48	4.95	8784.79	0.24	0.000529
	163.00	4379.43				268.69	21.11	
		273.64						
1772.01	0.21396	161212.56	12.73	6.48	4.95	8777.31	0.24	0.000529
	164.00	4379.43				268.64	21.11	
		273.59						
1771.39	0.21397	161182.12	12.72	6.48	4.95	8771.45	0.24	0.000529
	165.00	4379.42				268.61	21.11	
		273.56						
1768.73	0.21373	161163.67	12.71	6.47	4.95	8749.85	0.24	0.000530
	166.00	4379.41				268.47	21.12	
		273.41						
1759.03	0.21403	161079.75	12.67	6.45	4.93	8672.06	0.24	0.000529
	167.00	4379.37				267.97	21.15	
		272.90						
1752.85	0.21275	160779.91	12.65	6.43	4.92	8622.86	0.24	0.000529
	168.00	4379.34				267.65	21.17	
		272.57						
1750.52	0.21226	160589.50	12.64	6.43	4.92	8605.33	0.24	0.000528
	169.00	4379.33				267.53	21.17	
		272.45						
1749.28	0.21174	160517.00	12.63	6.42	4.91	8595.18	0.24	0.000529
	170.00	4379.33				267.46	21.18	
		272.38						
1748.27	0.21215	160478.73	12.63	6.42	4.91	8587.39	0.24	0.000530
	171.00	4379.33				267.41	21.18	
		272.33						
1747.36	0.21218	160447.45	12.62	6.42	4.91	8580.45	0.24	0.000529
	172.00	4379.32				267.36	21.18	
		272.28						
1746.53	0.21196	160418.97	12.62	6.42	4.91	8573.81	0.24	0.000529
	173.00	4379.32				267.32	21.19	
		272.23						
1743.69	0.21168	160392.75	12.61	6.41	4.90	8549.59	0.24	0.000529
	174.00	4379.31				267.17	21.19	
		272.08						
1733.73	0.21153	160303.17	12.56	6.38	4.89	8470.22	0.24	0.000529
	175.00	4379.26				266.65	21.23	
		271.54						

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1727.51	0.21078	159991.39	12.54	6.37	4.88	8422.57	0.24	0.000528
	176.00	4379.24				266.33	21.24	
		271.21						
1725.01	0.20992	159795.94	12.53	6.36	4.87	8402.95	0.24	0.000528
	177.00	4379.23				266.20	21.25	
		271.07						
1723.49	0.20956	159717.92	12.52	6.36	4.87	8390.41	0.24	0.000529
	178.00	4379.22				266.12	21.26	
		270.99						
1722.43	0.20987	159670.25	12.51	6.36	4.87	8382.18	0.24	0.000529
	179.00	4379.21				266.06	21.26	
		270.93						
1721.39	0.20975	159636.62	12.51	6.35	4.86	8373.88	0.24	0.000528
	180.00	4379.21				266.01	21.26	
		270.88						
1724.55	0.20946	159603.92	12.52	6.36	4.87	8400.65	0.24	0.000528
	181.00	4379.22				266.17	21.25	
		271.05						
1742.47	0.20969	159704.59	12.60	6.41	4.90	8543.95	0.24	0.000530
	182.00	4379.30				267.11	21.20	
		272.02						
1754.55	0.21171	160266.53	12.65	6.43	4.92	8638.67	0.24	0.000529
	183.00	4379.35				267.74	21.16	
		272.66						
1766.46	0.21259	160642.58	12.70	6.46	4.94	8733.90	0.24	0.000531
	184.00	4379.40				268.35	21.12	
		273.30						
1772.75	0.21408	161012.56	12.73	6.48	4.95	8783.00	0.24	0.000530
	185.00	4379.43				268.68	21.11	
		273.63						
1775.06	0.21438	161205.70	12.74	6.48	4.96	8800.73	0.24	0.000531
	186.00	4379.44				268.80	21.10	
		273.75						
1776.20	0.21493	161277.50	12.74	6.49	4.96	8810.68	0.24	0.000530
	187.00	4379.44				268.85	21.10	
		273.81						
1776.84	0.21466	161311.69	12.75	6.49	4.96	8814.86	0.24	0.000530
	188.00	4379.45				268.89	21.09	
		273.85						
1777.16	0.21465	161331.67	12.75	6.49	4.96	8817.69	0.24	0.000531
	189.00	4379.45				268.90	21.09	
		273.86						
1777.32	0.21518	161341.59	12.75	6.49	4.96	8818.51	0.24	0.000530
	190.00	4379.45				268.91	21.09	
		273.87						
1777.43	0.21454	161346.59	12.75	6.49	4.96	8819.43	0.24	0.000530
	191.00	4379.45				268.92	21.09	
		273.88						
1775.26	0.21451	161350.19	12.74	6.48	4.96	8801.23	0.24	0.000530
	192.00	4379.44				268.80	21.10	
		273.76						
1765.90	0.21455	161282.12	12.70	6.46	4.94	8725.62	0.24	0.000531
	193.00	4379.40				268.32	21.13	
		273.26						
1760.38	0.21394	160993.02	12.68	6.45	4.93	8683.16	0.24	0.000531
	194.00	4379.38				268.04	21.14	
		272.97						
1758.29	0.21356	160822.84	12.67	6.44	4.93	8666.00	0.24	0.000530
	195.00	4379.37				267.93	21.15	
		272.86						
1757.38	0.21307	160758.16	12.66	6.44	4.93	8659.88	0.24	0.000529
	196.00	4379.36				267.88	21.15	
		272.81						

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0.21254	160729.55							
197.00	4379.36	12.66	4.93	8653.32	0.24			
1756.69	272.78	6.44		267.85	21.15	0.000529		
0.21248	160709.28							
198.00	4379.36	12.66	4.92	8648.14	0.24			
1756.03	272.74	6.44		267.81	21.16	0.000529		
0.21245	160687.88							
199.00	4379.36	12.66	4.92	8645.02	0.24			
1755.59	272.72	6.44		267.79	21.16	0.000531		
0.21341	160674.92							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5093

MAXIMUM DISCHARGE (CFS) = 22093.95 AT TIME = 91.76  
 MAXIMUM STAGE = 4383.50 AT TIME = 91.86

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)							
0.00	0.00	4366.10	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4366.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4366.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4366.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4366.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4367.43	1.33	0.88	283.66	0.13			
321.61	23.06	13.95	22.57	16.97	0.001440			
1.25285	11399.60							
6.00	4375.33	9.23	5.18	3724.83	0.30			
718.89	183.22	3.92	179.70	19.47	0.001403			
0.34353	90748.88							
7.00	4376.15	10.05	5.54	4691.72	0.31			
846.34	200.80	4.21	196.97	19.59	0.001426			
0.37512	99469.55							
8.00	4376.41	10.31	5.66	5032.62	0.31			
888.62	206.29	4.31	202.35	19.63	0.001429			
0.38406	102189.00							
9.00	4376.43	10.33	5.67	5059.38	0.31			
892.20	206.72	4.32	202.78	19.63	0.001424			
0.38358	102402.53							
10.00	4376.36	10.26	5.63	4962.91	0.31			
880.83	205.23	4.29	201.31	19.62	0.001418			
0.37984	101663.07							
11.00	4376.28	10.18	5.60	4863.76	0.31			
868.32	203.60	4.26	199.72	19.61	0.001414			
0.37628	100856.93							
12.00	4376.25	10.15	5.59	4814.56	0.31			
861.91	202.76	4.25	198.89	19.60	0.001409			
0.37381	100440.41							

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HYCHAN.OUT							
853.31	13.00	4376.19	10.09	5.56	4743.92	0.31	
	0.37091	201.62	4.23	197.77	19.60		0.001404
839.20	14.00	4376.10	10.00	5.52	4628.97	0.31	
	0.36667	199.75	4.20	195.93	19.59		0.001399
828.46	15.00	4376.04	9.94	5.48	4543.11	0.31	
	0.36383	198.33	4.18	194.54	19.58		0.001396
823.34	16.00	4376.01	9.91	5.47	4502.67	0.31	
	0.36276	197.65	4.17	193.87	19.57		0.001396
821.25	17.00	4375.99	9.89	5.46	4486.15	0.31	
	0.36232	197.37	4.16	193.60	19.57		0.001395
820.08	18.00	4375.99	9.89	5.46	4476.14	0.31	
	0.36199	197.22	4.16	193.45	19.57		0.001395
819.75	19.00	4375.98	9.88	5.45	4471.11	0.31	
	0.36251	197.19	4.16	193.42	19.57		0.001397
825.48	20.00	4376.02	9.92	5.47	4515.85	0.31	
	0.36473	197.97	4.17	194.19	19.57		0.001402
838.68	21.00	4376.10	10.00	5.51	4623.02	0.31	
	0.36963	199.74	4.20	195.92	19.59		0.001411
855.16	22.00	4376.21	10.11	5.56	4757.35	0.31	
	0.37367	201.92	4.24	198.06	19.60		0.001414
865.59	23.00	4376.27	10.17	5.59	4841.64	0.31	
	0.37680	203.27	4.26	199.39	19.61		0.001418
871.19	24.00	4376.30	10.20	5.61	4886.65	0.31	
	0.37838	204.00	4.27	200.11	19.61		0.001420
881.01	25.00	4376.36	10.26	5.64	4968.52	0.31	
	0.38238	205.29	4.29	201.37	19.62		0.001428
903.05	26.00	4376.50	10.40	5.71	5153.32	0.31	
	0.39041	208.15	4.34	204.19	19.64		0.001442
936.30	27.00	4376.69	10.59	5.80	5434.28	0.31	
	0.39930	212.39	4.41	208.35	19.67		0.001452
966.03	28.00	4376.87	10.77	5.89	5688.78	0.32	
	0.40721	216.12	4.47	212.01	19.69		0.001460
983.60	29.00	4376.97	10.87	5.94	5840.02	0.32	
	0.41147	218.28	4.51	214.13	19.70		0.001463
991.87	30.00	4377.02	10.92	5.96	5911.92	0.32	
	0.41417	219.30	4.52	215.13	19.71		0.001468
1002.59	31.00	4377.08	10.98	5.99	6006.93	0.32	
	0.41652	220.62	4.54	216.43	19.71		0.001469
1010.42	32.00	4377.12	11.02	6.01	6075.62	0.32	
	0.41835	221.57	4.56	217.36	19.72		0.001470
1015.23	33.00	4377.15	11.05	6.03	6118.07	0.32	
	0.42097	222.17	4.57	217.94	19.72		0.001476
		110061.41					

HYCHAN.OUT									
1024.65	34.00	4377.20	11.10	4.59	6.05	219.07	19.73	0.001477	
	0.42278	223.31							
		110631.13							
1031.58	35.00	4377.24	11.14	4.60	6.07	219.89	19.74	0.001479	
	0.42472	224.15							
		111045.13							
1031.88	36.00	4377.24	11.14	4.60	6.07	219.91	19.74	0.001477	
	0.42422	224.17							
		111053.62							
1022.13	37.00	4377.19	11.09	4.58	6.05	218.75	19.73	0.001472	
	0.42116	222.99							
		110470.23							
1019.31	38.00	4377.17	11.07	4.58	6.04	218.42	19.73	0.001471	
	0.42018	222.65							
		110300.59							
1012.34	39.00	4377.13	11.03	4.56	6.02	217.58	19.72	0.001470	
	0.41863	221.79							
		109876.61							
1006.44	40.00	4377.10	11.00	4.55	6.00	216.87	19.72	0.001468	
	0.41703	221.08							
		109520.66							
1003.48	41.00	4377.08	10.98	4.55	5.99	216.52	19.72	0.001466	
	0.41581	220.71							
		109341.59							
1001.95	42.00	4377.07	10.97	4.54	5.99	216.34	19.71	0.001466	
	0.41565	220.53							
		109249.52							
1001.01	43.00	4377.07	10.97	4.54	5.99	216.22	19.71	0.001468	
	0.41588	220.41							
		109191.75							
1001.60	44.00	4377.07	10.97	4.54	5.99	216.30	19.71	0.001469	
	0.41650	220.49							
		109231.00							
1008.22	45.00	4377.11	11.01	4.56	6.01	217.10	19.72	0.001472	
	0.41841	221.31							
		109635.62							
1014.13	46.00	4377.14	11.04	4.57	6.02	217.81	19.72	0.001475	
	0.42035	222.03							
		109994.16							
1025.43	47.00	4377.21	11.11	4.59	6.06	219.17	19.73	0.001478	
	0.42343	223.41							
		110678.94							
1040.91	48.00	4377.29	11.19	4.62	6.10	221.01	19.74	0.001487	
	0.42861	225.29							
		111608.79							
1058.23	49.00	4377.39	11.29	4.65	6.15	223.06	19.75	0.001492	
	0.43335	227.37							
		112643.02							
1075.93	50.00	4377.49	11.39	4.69	6.20	225.13	19.77	0.001498	
	0.43832	229.48							
		113688.74							
1093.93	51.00	4377.59	11.49	4.72	6.25	227.22	19.78	0.001504	
	0.44340	231.62							
		114747.55							
1113.56	52.00	4377.70	11.60	4.76	6.30	229.49	19.79	0.001511	
	0.44872	233.93							
		115893.84							
1138.59	53.00	4377.83	11.73	4.81	6.37	232.35	19.81	0.001518	
	0.45523	236.84							
		117339.02							
1153.62	54.00	4377.91	11.81	4.84	6.40	234.05	19.82	0.001521	
	0.45901	238.57							
		118195.75							

HYCHAN.OUT							
1172.69	55.00	4378.01	11.91	4.87	6.46	7570.20	0.33
	0.46611	240.77				236.21	19.83
		119285.68					0.001534
1219.34	56.00	4378.26	12.16	4.96	6.58	8022.00	0.33
	0.47905	246.07				241.42	19.86
		121916.42					0.001549
1279.96	57.00	4378.57	12.47	5.06	6.74	8622.85	0.34
	0.49675	252.80				248.03	19.89
		125252.96					0.001572
1358.71	58.00	4378.96	12.86	5.20	6.93	9418.11	0.34
	0.51862	261.34				256.41	19.94
		129487.35					0.001599
1441.25	59.00	4379.36	13.26	5.34	7.13	10274.35	0.35
	0.53792	270.05				264.97	19.98
		133808.86					0.001615
1503.61	60.00	4379.66	13.56	5.44	7.27	10936.77	0.35
	0.55160	276.48				271.28	20.01
		136998.16					0.001625
1542.30	61.00	4379.84	13.74	5.50	7.36	11358.67	0.35
	0.55993	280.40				275.13	20.03
		138942.55					0.001631
1570.32	62.00	4379.96	13.86	5.54	7.43	11664.67	0.35
	0.56570	283.21				277.89	20.04
		140335.62					0.001635
1585.14	63.00	4380.03	13.93	5.57	7.46	11825.64	0.35
	0.56833	284.68				279.34	20.05
		141064.31					0.001636
1597.07	64.00	4380.09	13.99	5.59	7.49	11957.07	0.35
	0.57138	285.87				280.50	20.06
		141652.77					0.001639
1610.88	65.00	4380.15	14.05	5.61	7.52	12109.69	0.35
	0.57470	287.23				281.84	20.06
		142330.38					0.001642
1624.85	66.00	4380.21	14.11	5.63	7.55	12261.97	0.35
	0.57891	288.63				283.21	20.07
		143021.45					0.001648
1637.36	67.00	4380.27	14.17	5.65	7.57	12396.43	0.35
	0.58202	289.86				284.43	20.08
		143635.02					0.001651
1648.10	68.00	4380.32	14.22	5.67	7.60	12517.96	0.36
	0.58359	290.92				285.46	20.08
		144158.94					0.001651
1641.63	69.00	4380.29	14.19	5.66	7.58	12445.00	0.35
	0.58238	290.28				284.83	20.08
		143841.27					0.001650
1660.38	70.00	4380.37	14.27	5.68	7.62	12660.38	0.36
	0.58783	292.14				286.66	20.09
		144764.91					0.001658
1697.03	71.00	4380.54	14.44	5.74	7.71	13078.98	0.36
	0.59669	295.72				290.18	20.10
		146538.41					0.001666
1730.50	72.00	4380.68	14.58	5.79	7.78	13467.17	0.36
	0.60438	298.96				293.36	20.12
		148144.50					0.001673
1789.33	73.00	4380.94	14.84	5.87	7.91	14157.76	0.36
	0.61886	304.58				298.88	20.14
		150932.78					0.001688
1825.65	74.00	4381.09	14.99	5.93	7.99	14583.52	0.36
	0.62559	307.99				302.23	20.16
		152625.20					0.001691
1850.08	75.00	4381.20	15.10	5.96	8.04	14876.65	0.36
	0.63066	310.28				304.48	20.17
		153760.92					0.001695

				HYCHAN.OUT			
1879.42	76.00	4381.32	15.22	6.00	8.10	15232.02	0.37
	0.63666	313.01				307.16	20.18
		155117.16					0.001699
1909.94	77.00	4381.45	15.35	6.05	8.17	15607.86	0.37
	0.64324	315.85				309.95	20.19
		156525.66					0.001705
1929.54	78.00	4381.53	15.43	6.07	8.21	15850.80	0.37
	0.64773	317.66				311.73	20.20
		157423.17					0.001709
1969.83	79.00	4381.70	15.60	6.13	8.30	16350.85	0.37
	0.65798	321.35				315.35	20.21
		159250.28					0.001720
2007.25	80.00	4381.86	15.76	6.18	8.38	16822.38	0.37
	0.66599	324.74				318.68	20.23
		160935.94					0.001727
2055.91	81.00	4382.05	15.95	6.25	8.49	17444.89	0.37
	0.67638	329.12				322.99	20.25
		163107.52					0.001735
2099.89	82.00	4382.23	16.13	6.31	8.58	18009.09	0.38
	0.68688	333.04				326.83	20.26
		165049.33					0.001746
2149.28	83.00	4382.43	16.33	6.37	8.68	18651.96	0.38
	0.69535	337.39				331.10	20.28
		167206.91					0.001749
2196.59	84.00	4382.61	16.51	6.43	8.77	19267.96	0.38
	0.70417	341.50				335.15	20.29
		169248.47					0.001754
2239.76	85.00	4382.78	16.68	6.49	8.86	19838.40	0.38
	0.71260	345.24				338.82	20.31
		171102.73					0.001760
2271.75	86.00	4382.91	16.81	6.53	8.93	20281.53	0.38
	0.71782	348.03				341.56	20.32
		172489.33					0.001762
2297.79	87.00	4383.01	16.91	6.56	8.98	20643.67	0.39
	0.72280	350.30				343.79	20.33
		173612.83					0.001766
2323.50	88.00	4383.11	17.01	6.59	9.04	21005.14	0.39
	0.72730	352.52				345.97	20.34
		174716.23					0.001768
2359.27	89.00	4383.25	17.15	6.64	9.09	21444.71	0.39
	0.73151	355.55				348.94	20.35
		176216.42					0.001767
2397.34	90.00	4383.39	17.29	6.68	9.10	21814.54	0.39
	0.73633	358.77				352.11	20.36
		177816.19					0.001766
2412.75	91.00	4383.45	17.35	6.70	9.10	21945.52	0.38
	0.73739	360.08				353.39	20.37
		178462.84					0.001764
2417.93	92.00	4383.47	17.37	6.71	9.09	21984.76	0.38
	0.73847	360.54				353.84	20.37
		178690.69					0.001765
2401.16	93.00	4383.41	17.31	6.69	9.10	21840.71	0.39
	0.73540	359.08				352.41	20.36
		177967.86					0.001762
2374.04	94.00	4383.30	17.20	6.65	9.10	21592.78	0.39
	0.73395	356.76				350.13	20.35
		176818.00					0.001768
2351.41	95.00	4383.22	17.12	6.63	9.08	21361.07	0.39
	0.73106	354.86				348.27	20.35
		175875.61					0.001768
2327.35	96.00	4383.13	17.03	6.60	9.05	21064.64	0.39
	0.72615	352.85				346.29	20.34
		174876.03					0.001764



				HYCHAN.OUT			
2299.91	97.00	4383.02	16.92	8.99	20679.99	0.39	
		350.47		6.56	343.96	20.33	0.001762
	0.72157	173699.27					
2276.19	98.00	4382.93	16.83	8.94	20350.76	0.38	
		348.42		6.53	341.94	20.32	0.001760
	0.71740	172679.70					
2248.98	99.00	4382.82	16.72	8.88	19971.67	0.38	
		346.04		6.50	339.60	20.31	0.001755
	0.71176	171497.33					
2216.35	100.00	4382.69	16.59	8.81	19533.05	0.38	
		343.20		6.46	336.81	20.30	0.001751
	0.70545	170091.14					
2185.35	101.00	4382.57	16.47	8.75	19117.20	0.38	
		340.50		6.42	334.16	20.29	0.001747
	0.69979	168749.52					
2153.50	102.00	4382.44	16.34	8.68	18686.00	0.38	
		337.70		6.38	331.41	20.28	0.001743
	0.69351	167363.28					
2109.03	103.00	4382.27	16.17	8.59	18108.99	0.38	
		333.80		6.32	327.58	20.26	0.001735
	0.68395	165426.62					
2052.11	104.00	4382.04	15.94	8.47	17382.52	0.37	
		328.75		6.24	322.62	20.24	0.001724
	0.67160	162921.84					
1977.77	105.00	4381.73	15.63	8.32	16446.57	0.37	
		322.05		6.14	316.03	20.22	0.001711
	0.65564	159597.41					
1902.15	106.00	4381.42	15.32	8.16	15516.43	0.37	
		315.14		6.04	309.25	20.19	0.001696
	0.63872	156172.62					
1844.52	107.00	4381.18	15.08	8.03	14808.61	0.36	
		309.77		5.95	303.97	20.16	0.001688
	0.62704	153506.73					
1816.68	108.00	4381.06	14.96	7.97	14471.96	0.36	
		307.14		5.91	301.39	20.15	0.001682
	0.62090	152203.92					
1768.93	109.00	4380.85	14.75	7.86	13906.45	0.36	
		302.60		5.85	296.93	20.13	0.001670
	0.60920	149951.69					
1721.72	110.00	4380.64	14.54	7.75	13351.42	0.36	
		298.06		5.78	292.48	20.11	0.001660
	0.59833	147700.09					
1677.04	111.00	4380.44	14.34	7.65	12835.08	0.36	
		293.72		5.71	288.21	20.09	0.001653
	0.58908	145547.45					
1640.24	112.00	4380.28	14.18	7.57	12421.65	0.35	
		290.13		5.65	284.69	20.08	0.001644
	0.58003	143766.55					
1614.05	113.00	4380.16	14.06	7.52	12129.79	0.35	
		287.55		5.61	282.15	20.06	0.001640
	0.57447	142487.25					
1587.18	114.00	4380.04	13.94	7.45	11830.32	0.35	
		284.87		5.57	279.52	20.05	0.001630
	0.56668	141159.44					
1555.70	115.00	4379.90	13.80	7.38	11484.63	0.35	
		281.72		5.52	276.43	20.04	0.001628
	0.56086	139595.45					
1537.53	116.00	4379.81	13.71	7.34	11289.87	0.35	
		279.91		5.49	274.65	20.03	0.001626
	0.55727	138696.72					
1531.18	117.00	4379.78	13.68	7.33	11220.80	0.35	
		279.26		5.48	274.01	20.03	0.001623
	0.55536	138376.09					

HYCHAN.OUT									
1515.64	118.00	4379.71	13.61	5.46	7.29	11051.95	20.02	0.35	0.001618
	0.55119	277.68				272.46			
1500.84	119.00	4379.64	13.54	5.43	7.26	10891.87	20.01	0.35	0.001616
	0.54803	276.17				270.98			
1491.29	120.00	4379.60	13.50	5.42	7.24	10791.68	20.01	0.35	0.001617
	0.54670	275.20				270.02			
1488.63	121.00	4379.58	13.48	5.41	7.23	10763.71	20.00	0.35	0.001616
	0.54584	274.93				269.75			
1483.93	122.00	4379.56	13.46	5.41	7.22	10714.11	20.00	0.35	0.001614
	0.54468	274.44				269.28			
1472.98	123.00	4379.51	13.41	5.39	7.19	10595.69	20.00	0.35	0.001609
	0.54104	273.31				268.16			
1458.62	124.00	4379.44	13.34	5.37	7.16	10443.30	19.99	0.35	0.001606
	0.53765	271.83				266.71			
1447.91	125.00	4379.39	13.29	5.35	7.14	10331.39	19.98	0.35	0.001603
	0.53486	270.72				265.62			
1434.72	126.00	4379.33	13.23	5.33	7.10	10191.68	19.98	0.34	0.001602
	0.53253	269.34				264.27			
1425.69	127.00	4379.29	13.19	5.31	7.08	10097.56	19.97	0.34	0.001600
	0.53020	268.40				263.35			
1418.03	128.00	4379.25	13.15	5.30	7.06	10016.62	19.97	0.34	0.001597
	0.52824	267.60				262.55			
1405.95	129.00	4379.19	13.09	5.28	7.03	9890.50	19.96	0.34	0.001595
	0.52529	266.32				261.31			
1397.66	130.00	4379.15	13.05	5.27	7.02	9805.92	19.96	0.34	0.001592
	0.52320	265.45				260.45			
1389.94	131.00	4379.11	13.01	5.25	7.00	9725.83	19.95	0.34	0.001589
	0.52091	264.63				259.65			
1377.81	132.00	4379.05	12.95	5.23	6.97	9600.25	19.95	0.34	0.001586
	0.51786	263.35				258.38			
1373.20	133.00	4379.03	12.93	5.22	6.96	9553.70	19.95	0.34	0.001588
	0.51774	262.87				257.91			
1381.63	134.00	4379.07	12.97	5.24	6.98	9641.23	19.95	0.34	0.001590
	0.51972	263.77				258.80			
1383.39	135.00	4379.08	12.98	5.24	6.98	9659.13	19.95	0.34	0.001590
	0.51993	263.95				258.97			
1380.79	136.00	4379.07	12.97	5.24	6.98	9631.37	19.95	0.34	0.001590
	0.51952	263.67				258.70			
1377.65	137.00	4379.05	12.95	5.23	6.97	9598.79	19.95	0.34	0.001588
	0.51836	263.33				258.37			
1374.55	138.00	4379.04	12.94	5.23	6.96	9566.76	19.95	0.34	0.001587
	0.51750	263.01				258.05			
		130314.73							

HYCHAN.OUT									
1371.72	139.00	4379.02	12.92	5.22	6.95	9537.82	0.34	19.94	0.001586
	0.51676	262.70				257.75			
		130164.77							
1369.13	140.00	4379.01	12.91	5.22	6.95	9511.17	0.34	19.94	0.001587
	0.51667	262.43				257.48			
		130027.77							
1364.62	141.00	4378.99	12.89	5.21	6.94	9465.64	0.34	19.94	0.001583
	0.51458	261.95				257.01			
		129788.15							
1355.19	142.00	4378.94	12.84	5.19	6.91	9368.81	0.34	19.94	0.001581
	0.51241	260.93				256.01			
		129286.66							
1349.78	143.00	4378.92	12.82	5.18	6.90	9312.98	0.34	19.93	0.001578
	0.51060	260.36				255.44			
		128999.51							
1346.66	144.00	4378.90	12.80	5.18	6.89	9281.75	0.34	19.93	0.001577
	0.50972	260.02				255.12			
		128834.84							
1343.90	145.00	4378.89	12.79	5.17	6.89	9253.82	0.34	19.93	0.001577
	0.50926	259.73				254.83			
		128689.12							
1339.93	146.00	4378.87	12.77	5.17	6.88	9213.30	0.34	19.93	0.001574
	0.50756	259.29				254.40			
		128473.45							
1330.51	147.00	4378.82	12.72	5.15	6.85	9117.43	0.34	19.92	0.001572
	0.50535	258.28				253.41			
		127971.20							
1324.63	148.00	4378.79	12.69	5.14	6.84	9058.27	0.34	19.92	0.001573
	0.50476	257.65				252.79			
		127657.62							
1321.51	149.00	4378.78	12.68	5.14	6.83	9026.89	0.34	19.92	0.001571
	0.50331	257.31				252.45			
		127489.51							
1318.87	150.00	4378.76	12.66	5.13	6.82	9000.31	0.34	19.92	0.001570
	0.50257	257.03				252.18			
		127348.44							
1316.43	151.00	4378.75	12.65	5.13	6.82	8976.12	0.34	19.91	0.001568
	0.50166	256.76				251.91			
		127216.91							
1313.01	152.00	4378.73	12.63	5.12	6.81	8942.19	0.34	19.91	0.001568
	0.50094	256.39				251.55			
		127030.96							
1305.74	153.00	4378.70	12.60	5.11	6.79	8868.71	0.34	19.91	0.001566
	0.49907	255.59				250.77			
		126637.42							
1298.94	154.00	4378.66	12.56	5.10	6.78	8801.68	0.34	19.90	0.001564
	0.49727	254.85				250.04			
		126271.34							
1294.89	155.00	4378.64	12.54	5.09	6.77	8761.11	0.34	19.90	0.001563
	0.49652	254.41				249.61			
		126053.53							
1290.65	156.00	4378.62	12.52	5.08	6.75	8717.70	0.34	19.90	0.001559
	0.49439	253.95				249.15			
		125821.26							
1284.32	157.00	4378.59	12.49	5.07	6.74	8655.13	0.34	19.90	0.001562
	0.49443	253.26				248.48			
		125481.06							
1292.65	158.00	4378.63	12.53	5.09	6.76	8739.61	0.34	19.90	0.001565
	0.49656	254.18				249.38			
		125938.22							
1298.37	159.00	4378.66	12.56	5.10	6.77	8795.21	0.34	19.90	0.001564
	0.49735	254.80				249.99			
		126244.70							

HYCHAN.OUT							
1299.15	160.00	4378.66	12.56	5.10	6.78	8802.22	0.34
	0.49756	254.88				250.07	19.90
		126284.86					0.001564
1298.70	161.00	4378.66	12.56	5.10	6.77	8798.34	0.34
	0.49712	254.83				250.02	19.90
		126260.26					0.001563
1298.00	162.00	4378.66	12.56	5.10	6.77	8791.74	0.34
	0.49766	254.75				249.94	19.90
		126221.34					0.001565
1297.28	163.00	4378.65	12.55	5.09	6.77	8784.83	0.34
	0.49744	254.67				249.87	19.90
		126182.46					0.001565
1296.52	164.00	4378.65	12.55	5.09	6.77	8777.51	0.34
	0.49653	254.59				249.79	19.90
		126141.67					0.001563
1295.98	165.00	4378.65	12.55	5.09	6.77	8771.47	0.34
	0.49638	254.54				249.73	19.90
		126113.27					0.001562
1293.92	166.00	4378.64	12.54	5.09	6.76	8750.84	0.34
	0.49556	254.30				249.50	19.90
		125998.89					0.001561
1286.13	167.00	4378.60	12.50	5.07	6.74	8673.29	0.34
	0.49415	253.45				248.66	19.90
		125574.62					0.001561
1281.10	168.00	4378.57	12.47	5.07	6.73	8623.40	0.34
	0.49249	252.90				248.13	19.89
		125304.09					0.001558
1279.26	169.00	4378.56	12.46	5.06	6.73	8605.49	0.34
	0.49231	252.70				247.93	19.89
		125203.57					0.001558
1278.25	170.00	4378.56	12.46	5.06	6.72	8595.32	0.34
	0.49216	252.59				247.82	19.89
		125148.92					0.001559
1277.43	171.00	4378.55	12.45	5.06	6.72	8587.56	0.34
	0.49183	252.50				247.73	19.89
		125104.56					0.001558
1276.71	172.00	4378.55	12.45	5.06	6.72	8580.56	0.34
	0.49210	252.42				247.65	19.89
		125064.55					0.001559
1276.05	173.00	4378.55	12.45	5.06	6.72	8573.94	0.34
	0.49172	252.35				247.58	19.89
		125028.80					0.001558
1273.79	174.00	4378.54	12.44	5.05	6.71	8550.47	0.34
	0.48987	252.10				247.34	19.89
		124904.28					0.001554
1265.86	175.00	4378.49	12.39	5.04	6.69	8471.53	0.34
	0.48837	251.22				246.47	19.89
		124468.16					0.001553
1260.88	176.00	4378.47	12.37	5.03	6.68	8423.10	0.33
	0.48728	250.67				245.93	19.88
		124196.64					0.001552
1258.87	177.00	4378.46	12.36	5.03	6.68	8403.16	0.33
	0.48655	250.45				245.72	19.88
		124087.12					0.001551
1257.62	178.00	4378.45	12.35	5.02	6.67	8390.59	0.33
	0.48655	250.31				245.58	19.88
		124019.61					0.001552
1256.78	179.00	4378.45	12.35	5.02	6.67	8382.30	0.33
	0.48611	250.22				245.49	19.88
		123973.41					0.001551
1255.96	180.00	4378.44	12.34	5.02	6.67	8374.02	0.33
	0.48575	250.13				245.40	19.88
		123927.55					0.001550

HYCHAN.OUT							
1258.43	181.00	4378.46	12.36	5.03	6.67	8399.12	0.33
	0.48704	250.41				245.68	19.88
		124067.31					0.001553
1272.72	182.00	4378.53	12.43	5.05	6.71	8541.55	0.34
	0.49087	252.00				247.24	19.89
		124853.90					0.001558
1282.42	183.00	4378.58	12.48	5.07	6.74	8637.22	0.34
	0.49324	253.06				248.28	19.90
		125381.87					0.001560
1291.95	184.00	4378.63	12.53	5.08	6.76	8732.53	0.34
	0.49614	254.10				249.31	19.90
		125899.07					0.001564
1297.05	185.00	4378.65	12.55	5.09	6.77	8782.54	0.34
	0.49745	254.66				249.85	19.90
		126173.29					0.001565
1298.89	186.00	4378.66	12.56	5.10	6.78	8800.52	0.34
	0.49785	254.86				250.04	19.90
		126272.45					0.001565
1299.88	187.00	4378.67	12.57	5.10	6.78	8810.58	0.34
	0.49763	254.96				250.15	19.91
		126323.48					0.001564
1300.35	188.00	4378.67	12.57	5.10	6.78	8814.80	0.34
	0.49805	255.01				250.20	19.91
		126350.16					0.001565
1300.61	189.00	4378.67	12.57	5.10	6.78	8817.68	0.34
	0.49775	255.04				250.23	19.91
		126364.16					0.001564
1300.75	190.00	4378.67	12.57	5.10	6.78	8818.41	0.34
	0.49779	255.06				250.24	19.91
		126371.60					0.001564
1300.82	191.00	4378.67	12.57	5.10	6.78	8819.49	0.34
	0.49771	255.06				250.25	19.91
		126375.45					0.001564
1299.12	192.00	4378.66	12.56	5.10	6.78	8802.06	0.34
	0.49754	254.87				250.06	19.90
		126281.18					0.001564
1291.62	193.00	4378.62	12.53	5.08	6.76	8726.93	0.34
	0.49533	254.05				249.25	19.90
		125873.72					0.001561
1287.16	194.00	4378.60	12.50	5.08	6.75	8683.58	0.34
	0.49439	253.57				248.78	19.90
		125633.61					0.001561
1285.45	195.00	4378.59	12.49	5.07	6.74	8666.12	0.34
	0.49387	253.39				248.60	19.90
		125542.84					0.001560
1284.76	196.00	4378.59	12.49	5.07	6.74	8659.96	0.34
	0.49357	253.31				248.52	19.90
		125504.23					0.001560
1284.16	197.00	4378.59	12.49	5.07	6.74	8653.37	0.34
	0.49403	253.24				248.46	19.90
		125472.25					0.001561
1283.64	198.00	4378.59	12.49	5.07	6.74	8648.24	0.34
	0.49336	253.19				248.40	19.90
		125444.25					0.001559
1283.30	199.00	4378.58	12.48	5.07	6.74	8645.17	0.34
	0.49341	253.15				248.37	19.90
		125424.83					0.001560

CHANNEL HYDROGRAPH FOR ELEMENT NO: 5094

MAXIMUM DISCHARGE (CFS) = 22109.76 AT TIME = 91.76  
 MAXIMUM STAGE = 4381.02 AT TIME = 91.86

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## HYCHAN.OUT

AREA BED (FT^2)	TIME WETTED (HRS) (LB/FT^2)	ELEV. PERIMETER SURFACE (FT) (FT^2)	THALWEG HYDRAULIC AREA (FT)	DEPTH RADIUS (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY	FLOW SLOPE
0.00	0.00	4365.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4365.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4365.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4365.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4365.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
321.61	5.00	4366.44	0.93	13.69	0.69	221.29	0.13	0.002250
	1.92207	23.49			23.31	24.93		
754.71	6.00	4373.56	8.06	4.87	4.89	3687.02	0.30	0.002155
	0.65496	154.95			152.76	18.96		
888.98	7.00	4374.34	8.84	5.29	5.27	4683.31	0.31	0.002193
	0.72370	168.12			165.71	18.74		
932.09	8.00	4374.58	9.08	5.42	5.40	5030.66	0.32	0.002199
	0.74303	172.10			169.61	18.68		
936.06	9.00	4374.60	9.10	5.43	5.41	5059.88	0.32	0.002195
	0.74346	172.44			169.94	18.67		
924.95	10.00	4374.54	9.04	5.40	5.37	4964.76	0.31	0.002182
	0.73492	171.40			168.93	18.69		
912.33	11.00	4374.47	8.97	5.36	5.33	4864.80	0.31	0.002180
	0.72891	170.25			167.80	18.71		
905.87	12.00	4374.44	8.94	5.34	5.32	4815.21	0.31	0.002175
	0.72462	169.67			167.22	18.71		
897.42	13.00	4374.39	8.89	5.31	5.29	4745.36	0.31	0.002167
	0.71856	168.87			166.44	18.73		
883.44	14.00	4374.31	8.81	5.27	5.24	4630.65	0.31	0.002157
	0.70973	167.55			165.15	18.75		
872.60	15.00	4374.25	8.75	5.24	5.21	4544.00	0.31	0.002152
	0.70358	166.54			164.15	18.77		
867.42	16.00	4374.22	8.72	5.22	5.19	4503.04	0.31	0.002150
	0.70080	166.05			163.67	18.77		
865.30	17.00	4374.21	8.71	5.22	5.18	4486.36	0.31	0.002149
	0.69959	165.85			163.47	18.78		
	18.00	4374.20	8.70		5.18	4476.22	0.31	

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		HYCHAN.OUT				
864.10	0.69904	165.73	5.21	163.36	18.78	0.002149
	19.00	81680.26				
		4374.20	8.70	5.18	4470.97	0.31
863.73	0.69967	165.69	5.21	163.32	18.78	0.002151
	20.00	81660.27				
		4374.23	8.73	5.19	4514.66	0.31
869.33	0.70464	166.23	5.23	163.85	18.77	0.002159
	21.00	81923.96				
		4374.30	8.80	5.24	4621.18	0.31
882.39	0.71326	167.48	5.27	165.07	18.75	0.002169
	22.00	82535.05				
		4374.40	8.90	5.29	4755.52	0.31
898.81	0.72347	169.02	5.32	166.58	18.73	0.002180
	23.00	83292.21				
		4374.45	8.95	5.32	4840.86	0.31
909.35	0.72862	169.99	5.35	167.54	18.71	0.002183
	24.00	83770.83				
		4374.49	8.99	5.34	4885.95	0.31
914.99	0.73243	170.51	5.37	168.05	18.70	0.002187
	25.00	84025.76				
		4374.54	9.04	5.37	4966.77	0.31
924.59	0.73980	171.41	5.39	168.93	18.69	0.002198
	26.00	84466.41				
		4374.66	9.16	5.44	5149.69	0.32
946.27	0.75730	173.40	5.46	170.89	18.66	0.002224
	27.00	85446.16				
		4374.84	9.34	5.55	5430.59	0.32
979.15	0.77628	176.38	5.55	173.81	18.61	0.002241
	28.00	86907.20				
		4375.00	9.50	5.64	5685.74	0.32
1008.62	0.79342	179.00	5.63	176.39	18.57	0.002256
	29.00	88192.91				
		4375.09	9.59	5.69	5838.74	0.32
1026.20	0.80230	180.53	5.68	177.89	18.55	0.002262
	30.00	88947.08				
		4375.13	9.63	5.71	5910.94	0.32
1034.42	0.80781	181.25	5.71	178.59	18.54	0.002268
	31.00	89297.43				
		4375.19	9.69	5.75	6005.62	0.33
1044.92	0.81435	182.16	5.74	179.50	18.52	0.002275
	32.00	89747.89				
		4375.23	9.73	5.77	6075.01	0.33
1052.66	0.81894	182.83	5.76	180.16	18.51	0.002279
	33.00	90077.58				
		4375.26	9.76	5.79	6117.37	0.33
1057.37	0.82168	183.24	5.77	180.55	18.51	0.002282
	34.00	90276.84				
		4375.30	9.80	5.81	6201.23	0.33
1066.58	0.82742	184.04	5.80	181.34	18.50	0.002288
	35.00	90668.12				
		4375.34	9.84	5.83	6263.24	0.33
1073.46	0.83041	184.62	5.81	181.91	18.49	0.002289
	36.00	90955.97				
		4375.34	9.84	5.83	6265.37	0.33
1074.00	0.82919	184.65	5.82	181.94	18.49	0.002285
	37.00	90970.86				
		4375.29	9.79	5.81	6179.30	0.33
1064.35	0.82460	183.83	5.79	181.13	18.50	0.002282
	38.00	90566.89				
		4375.28	9.78	5.80	6153.96	0.33
1061.55	0.82187	183.59	5.78	180.90	18.50	0.002278
	39.00	90448.97				
		4375.24	9.74	5.78	6092.11	0.33

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				HYCHAN.OUT			
1054.79		183.00		5.76	180.32	18.51	0.002273
	0.81758	90159.91					
	40.00	4375.21	9.71	5.76	6039.95	0.33	
1048.90		182.50		5.75	179.83	18.52	0.002271
	0.81442	89912.62					
	41.00	4375.20	9.70	5.75	6014.00	0.33	
1045.97		182.25		5.74	179.58	18.52	0.002271
	0.81345	89788.55					
	42.00	4375.19	9.69	5.75	6000.40	0.33	
1044.44		182.12		5.74	179.45	18.52	0.002269
	0.81188	89724.64					
	43.00	4375.18	9.68	5.74	5992.15	0.33	
1043.53		182.04		5.73	179.37	18.52	0.002269
	0.81177	89684.90					
	44.00	4375.19	9.69	5.74	5997.56	0.33	
1044.01		182.08		5.73	179.42	18.52	0.002276
	0.81424	89708.58					
	45.00	4375.22	9.72	5.76	6055.55	0.33	
1050.50		182.65		5.75	179.97	18.52	0.002277
	0.81728	89984.97					
	46.00	4375.25	9.75	5.78	6108.12	0.33	
1056.26		183.15		5.77	180.46	18.51	0.002283
	0.82149	90231.20					
	47.00	4375.31	9.81	5.82	6208.84	0.33	
1067.27		184.10		5.80	181.40	18.49	0.002291
	0.82892	90700.37					
	48.00	4375.39	9.89	5.86	6346.90	0.33	
1082.41		185.40		5.84	182.68	18.48	0.002301
	0.83833	91338.13					
	49.00	4375.48	9.98	5.92	6502.84	0.33	
1099.37		186.84		5.88	184.09	18.46	0.002313
	0.84923	92046.13					
	50.00	4375.56	10.06	5.97	6664.53	0.33	
1116.66		188.31		5.93	185.53	18.43	0.002323
	0.85963	92764.69					
	51.00	4375.65	10.15	6.02	6829.62	0.33	
1134.13		189.78		5.98	186.97	18.41	0.002334
	0.87047	93486.67					
	52.00	4375.75	10.25	6.08	7011.78	0.33	
1153.22		191.37		6.03	188.53	18.39	0.002352
	0.88429	94267.09					
	53.00	4375.87	10.37	6.15	7245.16	0.34	
1177.65		193.38		6.09	190.51	18.36	0.002363
	0.89801	95253.58					
	54.00	4375.95	10.45	6.19	7386.59	0.34	
1192.43		194.58		6.13	191.69	18.35	0.002371
	0.90661	95843.27					
	55.00	4376.04	10.54	6.25	7566.92	0.34	
1210.78		196.08		6.17	193.16	18.33	0.002390
	0.92085	96579.11					
	56.00	4376.26	10.76	6.38	8015.43	0.34	
1255.66		199.68		6.29	196.70	18.28	0.002424
	0.95123	98349.44					
	57.00	4376.54	11.04	6.56	8614.71	0.35	
1314.18		204.29		6.43	201.21	18.22	0.002463
	0.98874	100607.26					
	58.00	4376.90	11.40	6.77	9408.44	0.35	
1390.20		210.09		6.62	206.91	18.14	0.002507
	1.03532	103455.33					
	59.00	4377.27	11.77	6.98	10265.77	0.36	
1469.94		216.00		6.81	212.71	18.07	0.002542
	1.07954	106355.75					
	60.00	4377.54	12.04	7.14	10931.55	0.36	

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		HYCHAN.OUT					
1530.23	220.35	6.94	216.98	18.02	0.002564		
1.11102	108491.63						
61.00	4377.71	12.21	7.24	11354.75	0.37		
1567.33	223.01	7.03	219.59	17.99	0.002581		
1.13188	109793.65						
62.00	4377.83	12.33	7.32	11662.31	0.37		
1594.29	224.91	7.09	221.45	17.97	0.002589		
1.14525	110726.04						
63.00	4377.89	12.39	7.35	11824.29	0.37		
1608.64	225.91	7.12	222.43	17.95	0.002594		
1.15262	111217.39						
64.00	4377.94	12.44	7.38	11955.61	0.37		
1620.11	226.70	7.15	223.22	17.94	0.002600		
1.15923	111608.91						
65.00	4378.00	12.50	7.41	12108.15	0.37		
1633.37	227.63	7.18	224.12	17.93	0.002606		
1.16669	112060.63						
66.00	4378.05	12.55	7.45	12260.43	0.37		
1646.73	228.54	7.21	225.02	17.92	0.002613		
1.17462	112510.33						
67.00	4378.11	12.61	7.47	12395.28	0.37		
1658.64	229.36	7.23	225.82	17.91	0.002617		
1.18084	112912.29						
68.00	4378.15	12.65	7.50	12516.61	0.37		
1668.79	230.06	7.25	226.51	17.91	0.002622		
1.18698	113257.31						
69.00	4378.12	12.62	7.48	12445.97	0.37		
1662.98	229.64	7.24	226.10	17.91	0.002618		
1.18325	113048.47						
70.00	4378.20	12.70	7.53	12656.88	0.37		
1680.18	230.86	7.28	227.29	17.90	0.002637		
1.19742	113645.57						
71.00	4378.35	12.85	7.63	13075.23	0.38		
1714.74	233.23	7.35	229.62	17.87	0.002655		
1.21803	114807.84						
72.00	4378.48	12.98	7.71	13462.57	0.38		
1746.14	235.36	7.42	231.71	17.85	0.002672		
1.23676	115855.98						
73.00	4378.72	13.22	7.86	14151.54	0.38		
1801.21	239.06	7.53	235.34	17.81	0.002697		
1.26816	117671.16						
74.00	4378.86	13.36	7.94	14580.76	0.38		
1835.63	241.34	7.61	237.57	17.78	0.002711		
1.28656	118786.86						
75.00	4378.95	13.45	8.00	14874.12	0.38		
1858.47	242.84	7.65	239.05	17.77	0.002721		
1.29964	119523.40						
76.00	4379.07	13.57	8.08	15228.08	0.39		
1885.72	244.63	7.71	240.80	17.75	0.002739		
1.31746	120401.94						
77.00	4379.18	13.68	8.15	15605.40	0.39		
1914.36	246.46	7.77	242.60	17.73	0.002748		
1.33172	121301.20						
78.00	4379.26	13.76	8.20	15848.14	0.39		
1932.58	247.64	7.80	243.75	17.72	0.002761		
1.34463	121876.61						
79.00	4379.41	13.91	8.30	16346.57	0.39		
1969.94	250.03	7.88	246.10	17.69	0.002776		
1.36496	123051.91						
80.00	4379.55	14.05	8.39	16817.16	0.39		
2004.71	252.23	7.95	248.26	17.67	0.002798		
1.38758	124129.44						
81.00	4379.73	14.23	8.51	17440.32	0.40		

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2050.03	255.06	8.04	251.03	17.64	0.002819	
1.41377	125515.57					
82.00	4379.89	14.39	8.61	18004.63	0.40	
2090.86	257.58	8.12	253.51	17.62	0.002836	
1.43665	126752.92					
83.00	4380.07	14.57	8.73	18646.55	0.40	
2136.59	260.38	8.21	256.25	17.59	0.002855	
1.46172	128127.22					
84.00	4380.24	14.74	8.83	19262.70	0.41	
2180.37	263.04	8.29	258.86	17.56	0.002878	
1.48852	129431.34					
85.00	4380.39	14.89	8.93	19835.12	0.41	
2220.13	265.43	8.36	261.20	17.54	0.002890	
1.50862	130601.27					
86.00	4380.50	15.00	9.02	20279.55	0.41	
2247.86	267.15	8.41	262.89	17.52	0.002906	
1.52563	131444.27					
87.00	4380.59	15.09	9.09	20642.69	0.41	
2269.88	268.53	8.45	264.25	17.51	0.002921	
1.54059	132124.92					
88.00	4380.68	15.18	9.16	21002.62	0.41	
2291.68	269.90	8.49	265.59	17.50	0.002938	
1.55686	132794.78					
89.00	4380.80	15.30	9.24	21439.61	0.42	
2321.04	271.82	8.54	267.48	17.48	0.002972	
1.58378	133738.73					
90.00	4380.93	15.43	9.28	21811.26	0.42	
2349.94	273.83	8.58	269.44	17.46	0.002998	
1.60563	134721.67					
91.00	4380.98	15.48	9.29	21945.62	0.42	
2361.18	274.63	8.60	270.22	17.45	0.002998	
1.60832	135111.83					
92.00	4381.00	15.50	9.30	21983.79	0.42	
2364.62	274.88	8.60	270.48	17.45	0.003006	
1.61372	135238.20					
93.00	4380.94	15.44	9.28	21844.77	0.42	
2352.84	274.02	8.59	269.63	17.46	0.002965	
1.58843	134816.05					
94.00	4380.85	15.35	9.26	21595.15	0.42	
2332.87	272.62	8.56	268.26	17.47	0.002947	
1.57350	134127.88					
95.00	4380.78	15.28	9.23	21363.64	0.42	
2315.14	271.40	8.53	267.06	17.48	0.002939	
1.56433	133532.48					
96.00	4380.69	15.19	9.18	21067.15	0.42	
2295.00	270.10	8.50	265.78	17.49	0.002927	
1.55191	132890.97					
97.00	4380.60	15.10	9.10	20683.01	0.41	
2271.68	268.64	8.46	264.35	17.51	0.002911	
1.53616	132177.22					
98.00	4380.52	15.02	9.04	20353.11	0.41	
2251.55	267.37	8.42	263.11	17.52	0.002892	
1.51954	131556.20					
99.00	4380.42	14.92	8.96	19975.00	0.41	
2228.62	265.91	8.38	261.68	17.53	0.002876	
1.50398	130840.65					
100.00	4380.31	14.81	8.88	19536.94	0.41	
2199.48	264.13	8.33	259.93	17.55	0.002860	
1.48592	129964.32					
101.00	4380.20	14.70	8.81	19120.20	0.41	
2170.80	262.42	8.27	258.25	17.57	0.002849	
1.47079	129125.85					
102.00	4380.09	14.59	8.73	18690.42	0.40	

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2141.52		260.63		8.22	256.50	17.59	0.002833
	1.45262	128251.69					
103.00		4379.92	14.42	8.62	18114.45	0.40	
2100.43		258.10		8.14	254.02	17.61	0.002811
	1.42768	127010.87					
104.00		4379.71	14.22	8.49	17389.52	0.40	
2047.82		254.82		8.04	250.80	17.64	0.002785
	1.39678	125400.16					
105.00		4379.44	13.94	8.32	16456.20	0.39	
1978.98		250.45		7.90	246.52	17.69	0.002746
	1.35418	123258.78					
106.00		4379.15	13.65	8.13	15524.23	0.39	
1908.37		245.94		7.76	242.09	17.73	0.002715
	1.31481	121044.89					
107.00		4378.93	13.43	7.99	14812.06	0.38	
1854.15		242.47		7.65	238.69	17.77	0.002704
	1.29011	119343.57					
108.00		4378.82	13.32	7.92	14475.86	0.38	
1828.14		240.76		7.59	237.01	17.79	0.002686
	1.27283	118504.87					
109.00		4378.64	13.14	7.80	13912.31	0.38	
1783.60		237.78		7.50	234.08	17.82	0.002662
	1.24597	117042.18					
110.00		4378.45	12.95	7.68	13356.68	0.38	
1739.12		234.81		7.41	231.17	17.85	0.002639
	1.21953	115583.88					
111.00		4378.27	12.77	7.57	12839.79	0.37	
1696.88		231.95		7.32	228.36	17.89	0.002619
	1.19566	114180.09					
112.00		4378.12	12.62	7.48	12425.01	0.37	
1662.00		229.55		7.24	226.00	17.91	0.002606
	1.17753	113002.28					
113.00		4378.01	12.51	7.41	12132.67	0.37	
1637.13		227.82		7.19	224.31	17.93	0.002593
	1.16271	112154.77					
114.00		4377.90	12.40	7.34	11833.57	0.37	
1611.48		226.03		7.13	222.56	17.95	0.002578
	1.14708	111278.79					
115.00		4377.76	12.26	7.26	11488.03	0.37	
1581.36		223.92		7.06	220.48	17.98	0.002566
	1.13094	110241.06					
116.00		4377.69	12.19	7.22	11290.76	0.36	
1563.71		222.68		7.02	219.27	17.99	0.002565
	1.12402	109634.92					
117.00		4377.66	12.16	7.20	11221.90	0.36	
1557.61		222.25		7.01	218.85	18.00	0.002558
	1.11889	109423.70					
118.00		4377.59	12.09	7.16	11053.97	0.36	
1542.81		221.19		6.98	217.81	18.01	0.002550
	1.10981	108903.34					
119.00		4377.53	12.03	7.13	10893.29	0.36	
1528.58		220.17		6.94	216.81	18.02	0.002546
	1.10283	108404.16					
120.00		4377.49	11.99	7.10	10792.40	0.36	
1519.28		219.51		6.92	216.16	18.03	0.002543
	1.09815	108080.99					
121.00		4377.48	11.98	7.10	10763.97	0.36	
1516.70		219.33		6.92	215.98	18.03	0.002541
	1.09627	107990.27					
122.00		4377.46	11.96	7.09	10714.89	0.36	
1512.17		219.00		6.90	215.66	18.03	0.002538
	1.09373	107830.57					
123.00		4377.41	11.91	7.06	10597.31	0.36	

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1501.80		218.25		6.88	214.92	18.04	0.002529
	1.08590	107458.04					
	124.00	4377.35	11.85	7.02	10444.70	0.36	
1487.95		217.24		6.85	213.93	18.06	0.002524
	1.07878	106965.55					
	125.00	4377.30	11.80	6.99	10332.75	0.36	
1477.58		216.49		6.83	213.19	18.07	0.002518
	1.07234	106596.77					
	126.00	4377.24	11.74	6.96	10193.12	0.36	
1464.91		215.56		6.80	212.28	18.08	0.002512
	1.06534	106141.60					
	127.00	4377.20	11.70	6.94	10098.32	0.36	
1456.13		214.92		6.78	211.66	18.08	0.002508
	1.06050	105827.90					
	128.00	4377.17	11.67	6.91	10017.79	0.36	
1448.81		214.38		6.76	211.12	18.09	0.002503
	1.05563	105562.29					
	129.00	4377.12	11.62	6.88	9891.78	0.36	
1437.14		213.52		6.73	210.28	18.10	0.002498
	1.04911	105140.12					
	130.00	4377.08	11.58	6.86	9806.67	0.36	
1429.09		212.93		6.71	209.70	18.11	0.002495
	1.04500	104849.34					
	131.00	4377.05	11.55	6.84	9727.03	0.35	
1421.68		212.38		6.69	209.16	18.12	0.002489
	1.03958	104578.10					
	132.00	4376.99	11.49	6.81	9601.48	0.35	
1410.00		211.50		6.67	208.30	18.13	0.002484
	1.03347	104150.41					
	133.00	4376.97	11.47	6.80	9553.23	0.35	
1405.35		211.17		6.66	207.97	18.13	0.002488
	1.03327	103985.95					
	134.00	4377.01	11.51	6.82	9640.45	0.35	
1413.39		211.77		6.67	208.57	18.12	0.002491
	1.03735	104283.05					
	135.00	4377.02	11.52	6.83	9659.34	0.35	
1415.18		211.90		6.68	208.69	18.12	0.002489
	1.03726	104345.96					
	136.00	4377.00	11.50	6.82	9631.74	0.35	
1412.73		211.72		6.67	208.51	18.12	0.002488
	1.03586	104254.67					
	137.00	4376.99	11.49	6.81	9599.09	0.35	
1409.75		211.49		6.67	208.29	18.13	0.002485
	1.03369	104144.72					
	138.00	4376.98	11.48	6.80	9567.10	0.35	
1406.73		211.27		6.66	208.07	18.13	0.002485
	1.03233	104033.87					
	139.00	4376.96	11.46	6.79	9538.13	0.35	
1404.01		211.06		6.65	207.87	18.13	0.002484
	1.03108	103933.84					
	140.00	4376.95	11.45	6.79	9511.54	0.35	
1401.50		210.88		6.65	207.68	18.13	0.002481
	1.02897	103841.91					
	141.00	4376.93	11.43	6.78	9466.43	0.35	
1397.18		210.55		6.64	207.36	18.14	0.002478
	1.02610	103682.10					
	142.00	4376.89	11.39	6.75	9369.86	0.35	
1388.08		209.87		6.61	206.69	18.15	0.002474
	1.02110	103346.59					
	143.00	4376.87	11.37	6.74	9313.40	0.35	
1382.80		209.47		6.60	206.31	18.15	0.002471
	1.01802	103154.08					
144.00		4376.85	11.35	6.73	9282.05	0.35	

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				HYCHAN.OUT			
1379.80		209.25		6.59	206.08	18.15	0.002470
	1.01615	103041.63					
145.00		4376.84	11.34	6.72	9254.07	0.35	
1377.08		209.04		6.59	205.88	18.16	0.002471
	1.01562	102941.55					
146.00		4376.82	11.32	6.71	9214.15	0.35	
1373.31		208.75		6.58	205.60	18.16	0.002465
	1.01170	102800.47					
147.00		4376.78	11.28	6.68	9118.38	0.35	
1364.22		208.06		6.56	204.92	18.17	0.002463
	1.00778	102460.38					
148.00		4376.75	11.25	6.67	9058.81	0.35	
1358.43		207.63		6.54	204.50	18.18	0.002459
	1.00389	102248.06					
149.00		4376.74	11.24	6.66	9027.14	0.35	
1355.42		207.40		6.54	204.27	18.18	0.002458
	1.00258	102135.90					
150.00		4376.73	11.23	6.65	9000.63	0.35	
1352.89		207.20		6.53	204.08	18.18	0.002455
	1.00016	102040.10					
151.00		4376.71	11.21	6.65	8976.36	0.35	
1350.49		207.03		6.52	203.90	18.18	0.002455
	0.99934	101952.05					
152.00		4376.70	11.20	6.64	8942.84	0.35	
1347.22		206.77		6.52	203.66	18.19	0.002453
	0.99716	101828.34					
153.00		4376.67	11.17	6.62	8869.65	0.35	
1340.24		206.23		6.50	203.13	18.19	0.002448
	0.99250	101564.19					
154.00		4376.63	11.13	6.60	8802.31	0.35	
1333.62		205.73		6.48	202.63	18.20	0.002444
	0.98846	101316.13					
155.00		4376.62	11.12	6.59	8761.48	0.35	
1329.65		205.43		6.47	202.34	18.20	0.002444
	0.98729	101167.56					
156.00		4376.60	11.10	6.58	8718.45	0.35	
1325.56		205.11		6.46	202.02	18.21	0.002439
	0.98375	101012.30					
157.00		4376.57	11.07	6.56	8655.14	0.35	
1319.32		204.64		6.45	201.56	18.21	0.002441
	0.98205	100779.16					
158.00		4376.60	11.10	6.58	8738.41	0.35	
1327.24		205.25		6.47	202.17	18.21	0.002444
	0.98633	101083.13					
159.00		4376.63	11.13	6.60	8794.92	0.35	
1332.94		205.68		6.48	202.59	18.20	0.002446
	0.98932	101294.05					
160.00		4376.63	11.14	6.60	8802.28	0.35	
1333.72		205.74		6.48	202.65	18.20	0.002446
	0.98959	101323.24					
161.00		4376.63	11.13	6.60	8798.41	0.35	
1333.32		205.71		6.48	202.61	18.20	0.002447
	0.98957	101307.17					
162.00		4376.63	11.13	6.60	8791.87	0.35	
1332.61		205.66		6.48	202.56	18.20	0.002445
	0.98859	101281.59					
163.00		4376.63	11.13	6.60	8784.89	0.35	
1331.92		205.61		6.48	202.51	18.20	0.002445
	0.98833	101255.34					
164.00		4376.62	11.12	6.59	8777.55	0.35	
1331.20		205.55		6.48	202.45	18.20	0.002445
	0.98814	101227.23					
165.00		4376.62	11.12	6.59	8771.50	0.35	

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1330.67	0.98793	205.51	11.11	6.48	202.41	18.20	0.002445
166.00	4376.61	101207.40					
1328.73	0.98559	205.36	11.08	6.47	8751.44	0.35	0.002441
167.00	4376.58	101132.57			202.27	18.20	
1321.18	0.98154	204.77	11.05	6.45	8674.23	0.35	0.002438
168.00	4376.55	100847.40			201.69	18.21	
1316.25	0.97894	204.39	11.04	6.44	8623.73	0.35	0.002436
169.00	4376.54	100661.20			201.32	18.22	
1314.45	0.97838	204.26	11.04	6.44	8605.62	0.35	0.002436
170.00	4376.54	100594.01			201.19	18.22	
1313.46	0.97728	204.18	11.03	6.43	8595.41	0.35	0.002435
171.00	4376.53	100556.93			201.11	18.22	
1312.68	0.97657	204.12	11.03	6.43	8587.67	0.35	0.002434
172.00	4376.53	100526.62			201.05	18.22	
1311.97	0.97656	204.07	11.03	6.43	8580.67	0.35	0.002434
173.00	4376.53	100500.74			201.00	18.22	
1311.33	0.97638	204.02	11.02	6.43	8574.04	0.35	0.002434
174.00	4376.52	100475.60			200.95	18.22	
1309.22	0.97389	203.85	10.98	6.42	8551.00	0.35	0.002430
175.00	4376.48	100392.52			200.79	18.22	
1301.59	0.96955	203.25	10.96	6.40	8472.42	0.35	0.002426
176.00	4376.46	100100.18			200.20	18.23	
1296.71	0.96699	202.88	10.95	6.39	8423.48	0.35	0.002425
177.00	4376.45	99915.53			199.83	18.24	
1294.76	0.96657	202.72	10.94	6.39	8403.27	0.35	0.002425
178.00	4376.44	99841.33			199.68	18.24	
1293.55	0.96600	202.63	10.94	6.38	8390.73	0.35	0.002425
179.00	4376.44	99793.88			199.59	18.24	
1292.73	0.96522	202.56	10.94	6.38	8382.40	0.35	0.002424
180.00	4376.44	99762.90			199.53	18.24	
1291.93	0.96452	202.50	10.95	6.38	8374.14	0.35	0.002423
181.00	4376.45	99732.95			199.47	18.24	
1294.19	0.96755	202.69	11.01	6.39	8398.08	0.35	0.002428
182.00	4376.51	99823.40			199.65	18.24	
1307.92	0.97613	203.76	11.06	6.42	8539.88	0.35	0.002437
183.00	4376.56	100350.10			200.70	18.22	
1317.37	0.98185	204.49	11.10	6.44	8636.24	0.35	0.002442
184.00	4376.60	100708.12			201.42	18.22	
1326.59	0.98614	205.20	11.13	6.46	8731.60	0.35	0.002445
185.00	4376.63	101058.33			202.12	18.21	
1331.66	0.98886	205.59	11.13	6.48	8782.25	0.35	0.002447
186.00	4376.63	101245.79			202.49	18.20	
					8800.35	0.35	



HYCHAN.OUT									
1333.44	205.72	6.48	202.62	18.20	0.002447				
0.98973	101312.47								
187.00	4376.64	11.14	6.60	8810.49	0.35				
1334.44	205.80	6.48	202.70	18.20	0.002449				
0.99084	101350.60								
188.00	4376.64	11.14	6.60	8814.81	0.35				
1334.88	205.83	6.49	202.73	18.20	0.002447				
0.99025	101366.38								
189.00	4376.64	11.14	6.60	8817.62	0.35				
1335.15	205.85	6.49	202.75	18.20	0.002447				
0.99042	101376.41								
190.00	4376.64	11.14	6.60	8818.36	0.35				
1335.28	205.86	6.49	202.76	18.20	0.002448				
0.99073	101382.00								
191.00	4376.64	11.14	6.60	8819.52	0.35				
1335.36	205.87	6.49	202.77	18.20	0.002448				
0.99074	101383.96								
192.00	4376.63	11.13	6.60	8802.66	0.35				
1333.78	205.74	6.48	202.65	18.20	0.002444				
0.98854	101322.82								
193.00	4376.60	11.10	6.58	8727.78	0.35				
1326.53	205.18	6.47	202.10	18.21	0.002439				
0.98408	101048.14								
194.00	4376.58	11.08	6.57	8683.88	0.35				
1322.10	204.85	6.45	201.77	18.21	0.002439				
0.98216	100884.61								
195.00	4376.57	11.07	6.56	8666.18	0.35				
1320.43	204.72	6.45	201.64	18.21	0.002439				
0.98176	100820.56								
196.00	4376.57	11.07	6.56	8660.06	0.35				
1319.75	204.67	6.45	201.59	18.21	0.002440				
0.98165	100795.72								
197.00	4376.57	11.07	6.56	8653.49	0.35				
1319.17	204.62	6.45	201.55	18.21	0.002439				
0.98110	100773.32								
198.00	4376.56	11.06	6.56	8648.21	0.35				
1318.69	204.58	6.45	201.51	18.21	0.002439				
0.98116	100754.24								
199.00	4376.56	11.06	6.56	8645.25	0.35				
1318.35	204.56	6.44	201.48	18.21	0.002436				
0.97968	100742.25								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 5095

MAXIMUM DISCHARGE (CFS) = 22076.62 AT TIME = 91.80  
 MAXIMUM STAGE = 4379.00 AT TIME = 91.77

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA	AREA					
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)			
0.00	4364.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4364.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4364.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4364.90	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4364.90	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
306.92	5.00	4365.52	0.62	0.48	146.74	0.11			
		32.52	9.44		32.62	52.40			0.001853
	1.09112	16635.62							
825.67	6.00	4372.20	7.30	4.40	3629.85	0.29			
		194.76	4.24		192.48	26.36			0.001685
	0.44565	98165.07							
975.59	7.00	4372.98	8.08	4.79	4671.85	0.30			
		209.58	4.65		207.01	25.63			0.001716
	0.49833	105572.98							
1022.36	8.00	4373.20	8.30	4.92	5027.90	0.30			
		213.84	4.78		211.18	25.44			0.001719
	0.51297	107699.86							
1027.01	9.00	4373.22	8.32	4.93	5060.60	0.30			
		214.23	4.79		211.56	25.42			0.001717
	0.51360	107898.09							
1015.38	10.00	4373.17	8.27	4.89	4967.18	0.30			
		213.17	4.76		210.53	25.47			0.001708
	0.50765	107368.30							
1001.82	11.00	4373.10	8.20	4.86	4866.29	0.30			
		211.94	4.73		209.32	25.52			0.001704
	0.50273	106751.46							
994.91	12.00	4373.07	8.17	4.84	4816.10	0.30			
		211.30	4.71		208.69	25.55			0.001701
	0.49968	106431.84							
986.02	13.00	4373.02	8.12	4.81	4747.27	0.30			
		210.48	4.68		207.88	25.59			0.001694
	0.49520	106020.68							
971.19	14.00	4372.95	8.05	4.77	4632.81	0.30			
		209.10	4.64		206.54	25.65			0.001687
	0.48887	105334.32							
959.54	15.00	4372.89	7.99	4.74	4545.22	0.30			
		208.02	4.61		205.48	25.71			0.001683
	0.48427	104795.90							
953.97	16.00	4372.87	7.97	4.72	4503.55	0.29			
		207.51	4.60		204.97	25.73			0.001681
	0.48219	104536.73							
951.68	17.00	4372.85	7.95	4.71	4486.60	0.29			
		207.29	4.59		204.77	25.74			0.001680
	0.48131	104430.21							
950.38	18.00	4372.85	7.95	4.71	4476.36	0.29			
		207.17	4.59		204.65	25.75			0.001679
	0.48067	104370.73							
949.97	19.00	4372.85	7.95	4.71	4470.74	0.29			
		207.14	4.59		204.62	25.75			0.001681
	0.48104	104355.68							
955.81	20.00	4372.88	7.98	4.72	4513.16	0.29			
		207.70	4.60		205.17	25.72			0.001687
	0.48437	104635.74							
969.62	21.00	4372.94	8.04	4.76	4618.74	0.30			
		208.99	4.64		206.43	25.66			0.001696
	0.49093	105280.47							
987.05	22.00	4373.03	8.13	4.82	4753.04	0.30			
		210.61	4.69		208.01	25.58			0.001702
	0.49784	106087.38							
998.40	23.00	4373.09	8.19	4.85	4839.75	0.30			
		211.65	4.72		209.03	25.54			0.001707

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0.50255	106604.72						
24.00	4373.11	8.21	4.86	4885.07	0.30		
1004.42	212.20	4.73		209.57	25.51	0.001711	
0.50542	106879.30						
25.00	4373.16	8.26	4.89	4964.35	0.30		
1014.44	213.11	4.76		210.47	25.47	0.001720	
0.51097	107337.96						
26.00	4373.27	8.37	4.96	5145.02	0.30		
1037.20	215.18	4.82		212.49	25.37	0.001741	
0.52372	108369.01						
27.00	4373.44	8.54	5.06	5425.58	0.31		
1071.99	218.26	4.91		215.51	25.24	0.001755	
0.53790	109909.72						
28.00	4373.59	8.69	5.15	5681.72	0.31		
1103.24	220.98	4.99		218.17	25.12	0.001769	
0.55102	111268.89						
29.00	4373.67	8.77	5.20	5837.04	0.31		
1122.09	222.59	5.04		219.75	25.05	0.001774	
0.55793	112072.03						
30.00	4373.71	8.81	5.23	5909.62	0.31		
1130.85	223.34	5.06		220.48	25.01	0.001778	
0.56172	112444.69						
31.00	4373.77	8.87	5.26	6003.97	0.31		
1141.90	224.28	5.09		221.40	24.97	0.001783	
0.56649	112913.81						
32.00	4373.80	8.90	5.28	6074.25	0.31		
1150.14	224.97	5.11		222.07	24.95	0.001785	
0.56930	113257.39						
33.00	4373.83	8.93	5.30	6116.27	0.31		
1155.08	225.39	5.12		222.48	24.93	0.001789	
0.57225	113466.83						
34.00	4373.87	8.97	5.32	6199.70	0.31		
1164.74	226.20	5.15		223.28	24.89	0.001795	
0.57673	113873.02						
35.00	4373.90	9.00	5.34	6262.50	0.31		
1172.09	226.81	5.17		223.88	24.87	0.001798	
0.57968	114177.91						
36.00	4373.91	9.01	5.34	6266.74	0.31		
1172.86	226.87	5.17		223.93	24.86	0.001790	
0.57752	114205.74						
37.00	4373.86	8.96	5.32	6179.99	0.31		
1162.63	226.01	5.14		223.10	24.90	0.001790	
0.57458	113779.44						
38.00	4373.85	8.95	5.31	6154.50	0.31		
1159.65	225.76	5.14		222.85	24.91	0.001787	
0.57285	113655.11						
39.00	4373.81	8.91	5.29	6093.36	0.31		
1152.59	225.17	5.12		222.27	24.94	0.001782	
0.56936	113356.77						
40.00	4373.78	8.88	5.27	6040.61	0.31		
1146.31	224.64	5.10		221.75	24.96	0.001781	
0.56726	113093.30						
41.00	4373.77	8.87	5.26	6014.41	0.31		
1143.17	224.38	5.09		221.49	24.97	0.001780	
0.56588	112962.17						
42.00	4373.76	8.86	5.26	6000.39	0.31		
1141.53	224.24	5.09		221.36	24.98	0.001780	
0.56540	112892.85						
43.00	4373.76	8.86	5.25	5992.39	0.31		
1140.59	224.16	5.09		221.28	24.98	0.001779	
0.56486	112852.52						
44.00	4373.76	8.86	5.26	5997.02	0.31		
1141.01	224.19	5.09		221.32	24.98	0.001782	

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	0.56599	112872.20						
1147.86	45.00	4373.79	8.89	5.11	5.27	6054.51	0.31	0.001785
		224.78				221.89	24.95	
	0.56869	113162.34						
1153.89	46.00	4373.82	8.92	5.12	5.29	6107.00	0.31	0.001790
		225.28				222.38	24.93	
	0.57204	113416.30						
1165.40	47.00	4373.87	8.97	5.15	5.33	6206.65	0.31	0.001799
		226.26				223.34	24.89	
	0.57809	113900.88						
1181.30	48.00	4373.95	9.05	5.19	5.37	6344.32	0.31	0.001806
		227.58				224.64	24.83	
	0.58508	114564.20						
1199.17	49.00	4374.03	9.13	5.24	5.42	6500.09	0.32	0.001815
		229.06				226.08	24.77	
	0.59276	115302.90						
1217.37	50.00	4374.11	9.21	5.28	5.47	6661.86	0.32	0.001825
		230.55				227.54	24.71	
	0.60134	116045.71						
1235.73	51.00	4374.19	9.29	5.33	5.52	6826.77	0.32	0.001834
		232.04				229.00	24.65	
	0.60935	116787.95						
1255.70	52.00	4374.28	9.38	5.37	5.58	7008.35	0.32	0.001849
		233.65				230.57	24.59	
	0.61991	117593.20						
1281.36	53.00	4374.39	9.49	5.44	5.65	7241.89	0.32	0.001859
		235.70				232.58	24.50	
	0.63062	118616.12						
1296.98	54.00	4374.46	9.56	5.47	5.69	7384.45	0.32	0.001865
		236.93				233.79	24.45	
	0.63721	119230.53						
1315.95	55.00	4374.54	9.64	5.52	5.75	7562.60	0.33	0.001882
		238.43				235.25	24.39	
	0.64826	119978.82						
1362.47	56.00	4374.75	9.85	5.63	5.88	8006.82	0.33	0.001915
		242.05				238.79	24.25	
	0.67278	121783.53						
1423.45	57.00	4375.00	10.10	5.77	6.04	8603.97	0.34	0.001950
		246.66				243.30	24.08	
	0.70219	124083.34						
1503.23	58.00	4375.33	10.43	5.95	6.25	9395.59	0.34	0.001992
		252.50				249.02	23.86	
	0.73988	126998.07						
1587.28	59.00	4375.67	10.77	6.14	6.46	10254.20	0.35	0.002025
		258.46				254.84	23.65	
	0.77597	129969.16						
1651.02	60.00	4375.93	11.03	6.28	6.62	10924.52	0.35	0.002044
		262.85				259.14	23.50	
	0.80105	132161.00						
1689.77	61.00	4376.08	11.18	6.36	6.72	11349.70	0.35	0.002062
		265.48				261.71	23.41	
	0.81914	133471.92						
1718.15	62.00	4376.19	11.29	6.43	6.79	11659.14	0.36	0.002071
		267.38				263.56	23.35	
	0.83028	134417.05						
1733.44	63.00	4376.25	11.35	6.46	6.82	11822.54	0.36	0.002076
		268.38				264.54	23.31	
	0.83671	134917.89						
1745.63	64.00	4376.29	11.39	6.48	6.85	11953.62	0.36	0.002081
		269.18				265.33	23.29	
	0.84213	135316.00						
1759.70	65.00	4376.35	11.45	6.52	6.88	12106.08	0.36	0.002086
		270.10				266.22	23.25	

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0.84814	135773.84						
66.00	4376.40	11.50	6.91	12258.24	0.36		
1773.73	271.03		6.54	267.13	23.22	0.002092	
0.85422	136236.19						
67.00	4376.45	11.55	6.94	12393.66	0.36		
1786.05	271.84		6.57	267.93	23.20	0.002095	
0.85896	136643.75						
68.00	4376.49	11.59	6.97	12514.91	0.36		
1796.51	272.53		6.59	268.60	23.17	0.002106	
0.86611	136986.38						
69.00	4376.47	11.57	6.95	12447.22	0.36		
1791.07	272.16		6.58	268.24	23.19	0.002101	
0.86291	136800.31						
70.00	4376.53	11.63	7.00	12652.39	0.36		
1808.01	273.29		6.62	269.35	23.15	0.002122	
0.87580	137366.67						
71.00	4376.67	11.77	7.09	13070.23	0.36		
1843.50	275.61		6.69	271.61	23.08	0.002141	
0.89342	138519.27						
72.00	4376.79	11.89	7.17	13456.42	0.37		
1875.56	277.68		6.75	273.63	23.01	0.002160	
0.91057	139552.08						
73.00	4377.00	12.10	7.32	14143.06	0.37		
1931.66	281.25		6.87	277.13	22.90	0.002186	
0.93687	141334.38						
74.00	4377.14	12.24	7.41	14577.27	0.37		
1967.21	283.48		6.94	279.30	22.83	0.002203	
0.95375	142442.94						
75.00	4377.22	12.32	7.47	14870.99	0.38		
1990.48	284.93		6.99	280.72	22.78	0.002215	
0.96572	143166.91						
76.00	4377.32	12.42	7.54	15223.05	0.38		
2018.01	286.64		7.04	282.39	22.73	0.002237	
0.98287	144018.44						
77.00	4377.43	12.53	7.62	15601.96	0.38		
2047.68	288.46		7.10	284.16	22.68	0.002245	
0.99446	144923.66						
78.00	4377.50	12.60	7.67	15844.81	0.38		
2066.18	289.59		7.13	285.27	22.64	0.002262	
1.00712	145488.44						
79.00	4377.64	12.74	7.77	16340.37	0.38		
2104.10	291.88		7.21	287.51	22.57	0.002274	
1.02310	146631.41						
80.00	4377.77	12.87	7.86	16810.45	0.39		
2139.68	294.01		7.28	289.59	22.51	0.002301	
1.04493	147691.69						
81.00	4377.93	13.03	7.97	17434.41	0.39		
2186.32	296.76		7.37	292.28	22.43	0.002321	
1.06698	149061.89						
82.00	4378.08	13.18	8.08	17998.38	0.39		
2228.18	299.21		7.45	294.66	22.36	0.002337	
1.08599	150278.95						
83.00	4378.24	13.34	8.19	18639.44	0.40		
2274.96	301.91		7.54	297.30	22.28	0.002360	
1.10982	151623.02						
84.00	4378.40	13.50	8.30	19256.04	0.40		
2319.79	304.45		7.62	299.79	22.21	0.002385	
1.13406	152891.92						
85.00	4378.54	13.64	8.40	19830.45	0.40		
2360.33	306.75		7.69	302.03	22.15	0.002395	
1.15019	154033.56						
86.00	4378.63	13.73	8.50	20276.92	0.40		
2384.72	308.26		7.74	303.50	22.10	0.002422	

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1.16902	154787.34						
87.00	4378.70	13.80	7.76	8.59	20641.29	0.41	
2402.63	309.42				304.64	22.07	0.002436
1.18028	155365.84						
88.00	4378.77	13.87	7.79	8.68	20999.97	0.41	
2420.66	310.57				305.76	22.04	0.002469
1.20100	155937.70						
89.00	4378.86	13.96	7.83	8.77	21434.85	0.41	
2443.24	312.01				307.16	22.00	0.002515
1.22895	156653.70						
90.00	4378.94	14.04	7.86	8.85	21808.52	0.42	
2463.17	313.28				308.41	21.97	0.002541
1.24684	157287.97						
91.00	4378.97	14.07	7.87	8.88	21945.76	0.42	
2470.42	313.75				308.86	21.96	0.002545
1.25055	157520.81						
92.00	4378.98	14.08	7.88	8.89	21983.09	0.42	
2472.37	313.88				308.99	21.95	0.002557
1.25694	157586.41						
93.00	4378.95	14.05	7.87	8.86	21847.64	0.42	
2465.02	313.40				308.53	21.96	0.002520
1.23697	157348.25						
94.00	4378.89	13.99	7.84	8.81	21597.18	0.42	
2451.73	312.55				307.69	21.99	0.002483
1.21554	156923.09						
95.00	4378.84	13.94	7.82	8.76	21366.41	0.41	
2439.10	311.74				306.91	22.01	0.002465
1.20342	156521.95						
96.00	4378.78	13.88	7.80	8.69	21070.22	0.41	
2423.38	310.74				305.93	22.04	0.002450
1.19204	156024.69						
97.00	4378.71	13.81	7.77	8.61	20686.45	0.41	
2403.98	309.51				304.73	22.07	0.002426
1.17576	155410.81						
98.00	4378.64	13.74	7.74	8.53	20355.49	0.41	
2387.45	308.45				303.69	22.10	0.002399
1.15862	154882.06						
99.00	4378.57	13.67	7.71	8.43	19978.98	0.40	
2368.81	307.24				302.51	22.13	0.002380
1.14484	154278.12						
100.00	4378.47	13.57	7.66	8.35	19542.16	0.40	
2340.93	305.60				300.91	22.18	0.002364
1.12982	153464.98						
101.00	4378.37	13.47	7.60	8.27	19124.14	0.40	
2311.14	303.93				299.28	22.23	0.002354
1.11716	152630.89						
102.00	4378.26	13.36	7.55	8.20	18696.22	0.40	
2281.16	302.22				297.61	22.27	0.002337
1.10092	151780.28						
103.00	4378.12	13.22	7.47	8.09	18121.57	0.39	
2239.39	299.81				295.26	22.34	0.002309
1.07633	150581.19						
104.00	4377.93	13.03	7.37	7.96	17398.77	0.39	
2186.08	296.69				292.21	22.43	0.002281
1.04851	149027.50						
105.00	4377.68	12.78	7.23	7.78	16468.53	0.38	
2116.30	292.54				288.15	22.55	0.002239
1.01053	146957.70						
106.00	4377.42	12.52	7.09	7.60	15534.66	0.38	
2044.07	288.18				283.89	22.68	0.002205
0.97603	144785.72						
107.00	4377.21	12.31	6.98	7.45	14816.98	0.37	
1987.82	284.73				280.52	22.79	0.002195

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1961.20	108.00	0.95636	4377.11	143064.66	12.21	6.93	7.38	14480.76	0.37	0.002176
				283.06				278.89	22.84	
		0.94057		142235.53						
1916.00	109.00		4376.94		12.04	6.84	7.27	13920.13	0.37	0.002147
				280.20				276.09	22.93	
		0.91616		140807.64						
1870.04	110.00		4376.77		11.87	6.74	7.15	13363.56	0.37	0.002123
				277.27				273.23	23.02	
		0.89340		139348.09						
1826.33	111.00		4376.60		11.70	6.65	7.03	12845.85	0.36	0.002097
				274.45				270.48	23.11	
		0.87056		137942.94						
1790.44	112.00		4376.47		11.57	6.58	6.94	12429.74	0.36	0.002086
				272.11				268.19	23.19	
		0.85632		136774.41						
1764.79	113.00		4376.37		11.47	6.53	6.88	12136.27	0.36	0.002074
				270.42				266.53	23.24	
		0.84453		135931.58						
1737.86	114.00		4376.26		11.36	6.47	6.81	11838.04	0.36	0.002062
				268.64				264.80	23.30	
		0.83227		135046.55						
1706.21	115.00		4376.14		11.24	6.40	6.74	11492.40	0.35	0.002046
				266.54				262.74	23.37	
		0.81710		133997.16						
1687.49	116.00		4376.07		11.17	6.36	6.69	11292.09	0.35	0.002044
				265.29				261.52	23.42	
		0.81147		133376.50						
1681.03	117.00		4376.04		11.14	6.35	6.68	11223.36	0.35	0.002041
				264.86				261.10	23.43	
		0.80826		133159.44						
1665.58	118.00		4375.98		11.08	6.31	6.64	11056.63	0.35	0.002030
				263.81				260.07	23.47	
		0.79994		132635.94						
1650.61	119.00		4375.92		11.02	6.28	6.60	10895.27	0.35	0.002027
				262.79				259.08	23.50	
		0.79442		132129.36						
1640.68	120.00		4375.89		10.99	6.26	6.58	10793.19	0.35	0.002021
				262.12				258.42	23.52	
		0.78943		131793.39						
1637.97	121.00		4375.87		10.97	6.25	6.57	10764.34	0.35	0.002024
				261.93				258.24	23.53	
		0.78965		131701.20						
1633.09	122.00		4375.86		10.96	6.24	6.56	10715.97	0.35	0.002019
				261.60				257.91	23.54	
		0.78648		131536.20						
1622.42	123.00		4375.81		10.91	6.22	6.53	10599.47	0.35	0.002012
				260.86				257.19	23.57	
		0.78072		131166.20						
1607.81	124.00		4375.75		10.86	6.19	6.50	10446.58	0.35	0.002009
				259.85				256.21	23.60	
		0.77552		130665.12						
1596.76	125.00		4375.71		10.81	6.16	6.47	10334.57	0.35	0.002003
				259.09				255.46	23.63	
		0.77040		130285.40						
1583.47	126.00		4375.66		10.76	6.13	6.44	10194.96	0.35	0.001995
				258.16				254.55	23.66	
		0.76373		129822.85						
1574.15	127.00		4375.62		10.72	6.11	6.42	10099.35	0.35	0.001994
				257.52				253.92	23.68	
		0.76055		129499.35						
1566.51	128.00		4375.59		10.69	6.10	6.40	10019.37	0.34	0.001987
				256.98				253.39	23.70	

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	0.75589	129230.40							
1554.17	129.00	4375.54	10.64	6.07	6.37	9893.44	0.34		
		256.11				252.55	23.73	0.001981	
	0.75016	128798.18							
1545.62	130.00	4375.51	10.61	6.05	6.35	9807.75	0.34		
		255.51				251.96	23.76	0.001978	
	0.74678	128497.98							
1537.87	131.00	4375.47	10.57	6.03	6.33	9728.54	0.34		
		254.96				251.42	23.78	0.001975	
	0.74336	128222.41							
1525.61	132.00	4375.42	10.52	6.00	6.29	9603.27	0.34		
		254.08				250.56	23.81	0.001971	
	0.73847	127785.85							
1520.50	133.00	4375.40	10.50	5.99	6.28	9552.69	0.34		
		253.72				250.21	23.82	0.001974	
	0.73817	127608.09							
1528.81	134.00	4375.44	10.54	6.01	6.31	9639.33	0.34		
		254.32				250.80	23.80	0.001976	
	0.74115	127907.93							
1530.78	135.00	4375.45	10.55	6.02	6.31	9659.58	0.34		
		254.46				250.93	23.79	0.001976	
	0.74165	127976.12							
1528.31	136.00	4375.44	10.54	6.01	6.30	9632.14	0.34		
		254.28				250.76	23.80	0.001971	
	0.73937	127886.27							
1525.26	137.00	4375.42	10.52	6.00	6.29	9599.55	0.34		
		254.06				250.54	23.81	0.001972	
	0.73860	127775.09							
1522.06	138.00	4375.41	10.51	6.00	6.29	9567.59	0.34		
		253.83				250.32	23.82	0.001970	
	0.73720	127662.20							
1519.21	139.00	4375.40	10.50	5.99	6.28	9538.59	0.34		
		253.63				250.12	23.82	0.001970	
	0.73640	127559.77							
1516.56	140.00	4375.39	10.49	5.98	6.27	9511.89	0.34		
		253.44				249.93	23.83	0.001965	
	0.73384	127465.44							
1512.01	141.00	4375.37	10.47	5.97	6.26	9467.64	0.34		
		253.11				249.61	23.84	0.001964	
	0.73213	127302.61							
1502.45	142.00	4375.33	10.43	5.95	6.24	9371.05	0.34		
		252.42				248.94	23.87	0.001959	
	0.72769	126958.92							
1496.76	143.00	4375.31	10.41	5.94	6.22	9314.05	0.34		
		252.02				248.54	23.88	0.001957	
	0.72542	126756.67							
1493.68	144.00	4375.29	10.39	5.93	6.21	9282.45	0.34		
		251.79				248.32	23.89	0.001957	
	0.72431	126644.56							
1490.72	145.00	4375.28	10.38	5.93	6.21	9254.56	0.34		
		251.58				248.12	23.90	0.001958	
	0.72379	126540.73							
1486.85	146.00	4375.27	10.37	5.92	6.20	9215.18	0.34		
		251.30				247.84	23.91	0.001953	
	0.72089	126397.55							
1477.32	147.00	4375.23	10.33	5.89	6.17	9119.77	0.34		
		250.61				247.16	23.93	0.001951	
	0.71751	126052.66							
1471.05	148.00	4375.20	10.30	5.88	6.16	9059.33	0.34		
		250.16				246.72	23.95	0.001946	
	0.71399	125828.39							
1467.91	149.00	4375.19	10.29	5.87	6.15	9027.61	0.34		
		249.92				246.50	23.96	0.001946	

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1465.29	0.71330	125712.60	10.28	5.87	6.14	9000.98	0.34	0.001945
	150.00	4375.18				246.31	23.97	
		249.73						
1462.68	0.71196	125616.91	10.27	5.86	6.14	8976.77	0.34	0.001945
	151.00	4375.17				246.12	23.97	
		249.54						
1459.30	0.71127	125522.59	10.25	5.85	6.13	8943.65	0.34	0.001940
	152.00	4375.15				245.88	23.98	
		249.29						
1452.06	0.70878	125397.52	10.22	5.84	6.11	8870.85	0.34	0.001935
	153.00	4375.12				245.35	24.00	
		248.76						
1445.05	0.70480	125130.28	10.19	5.82	6.09	8803.15	0.34	0.001934
	154.00	4375.09				244.85	24.02	
		248.24						
1440.81	0.70259	124873.52	10.18	5.81	6.08	8761.94	0.34	0.001931
	155.00	4375.08				244.55	24.03	
		247.93						
1436.46	0.70026	124718.98	10.16	5.80	6.07	8719.57	0.34	0.001930
	156.00	4375.06				244.23	24.04	
		247.61						
1429.78	0.69883	124559.62	10.13	5.79	6.05	8655.17	0.34	0.001930
	157.00	4375.03				243.76	24.06	
		247.12						
1437.93	0.69693	124315.51	10.16	5.80	6.08	8736.76	0.34	0.001935
	158.00	4375.06				244.35	24.04	
		247.73						
1444.16	0.70070	124620.18	10.19	5.82	6.09	8794.61	0.34	0.001936
	159.00	4375.09				244.79	24.02	
		248.18						
1444.99	0.70279	124845.09	10.19	5.82	6.09	8802.25	0.34	0.001934
	160.00	4375.09				244.85	24.02	
		248.24						
1444.61	0.70250	124875.09	10.19	5.82	6.09	8798.57	0.34	0.001936
	161.00	4375.09				244.82	24.02	
		248.21						
1443.83	0.70314	124860.07	10.19	5.82	6.09	8791.94	0.34	0.001933
	162.00	4375.09				244.77	24.02	
		248.16						
1443.11	0.70186	124831.72	10.19	5.82	6.09	8784.92	0.34	0.001933
	163.00	4375.09				244.72	24.03	
		248.10						
1442.39	0.70169	124804.71	10.18	5.81	6.09	8777.75	0.34	0.001935
	164.00	4375.08				244.66	24.03	
		248.05						
1441.82	0.70223	124777.73	10.18	5.81	6.08	8771.53	0.34	0.001936
	165.00	4375.08				244.62	24.03	
		248.01						
1439.83	0.70220	124757.42	10.17	5.81	6.08	8752.30	0.34	0.001932
	166.00	4375.07				244.48	24.03	
		247.86						
1431.84	0.70027	124682.93	10.14	5.79	6.06	8675.38	0.34	0.001929
	167.00	4375.04				243.90	24.06	
		247.27						
1426.61	0.69686	124388.19	10.12	5.78	6.05	8624.19	0.34	0.001925
	168.00	4375.02				243.52	24.07	
		246.88						
1424.70	0.69405	124196.33	10.11	5.77	6.04	8605.81	0.33	0.001926
	169.00	4375.01				243.38	24.08	
		246.74						
1423.64	0.69381	124125.12	10.10	5.77	6.04	8595.47	0.33	0.001927
	170.00	4375.00				243.31	24.08	
		246.66						

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## HYCHAN.OUT

1422.85	0.69385	124086.12	10.10	5.77	6.04	8587.81	0.33	0.001925
	171.00	4375.00				243.25	24.08	
		246.60						
1422.10	0.69309	124056.23	10.10	5.77	6.03	8580.80	0.33	0.001922
	172.00	4375.00				243.19	24.08	
		246.55						
1421.44	0.69195	124027.89	10.10	5.77	6.03	8574.19	0.33	0.001923
	173.00	4375.00				243.14	24.09	
		246.50						
1419.32	0.69206	124003.64	10.09	5.76	6.03	8551.72	0.33	0.001922
	174.00	4374.99				242.99	24.09	
		246.34						
1411.39	0.69104	123923.10	10.05	5.74	6.00	8473.63	0.33	0.001917
	175.00	4374.95				242.40	24.11	
		245.74						
1406.22	0.68713	123625.10	10.03	5.73	5.99	8423.94	0.33	0.001915
	176.00	4374.93				242.02	24.13	
		245.35						
1404.18	0.68500	123432.23	10.02	5.73	5.98	8403.52	0.33	0.001916
	177.00	4374.92				241.87	24.13	
		245.20						
1402.93	0.68483	123355.59	10.02	5.72	5.98	8390.90	0.33	0.001916
	178.00	4374.92				241.78	24.14	
		245.11						
1402.05	0.68426	123308.91	10.01	5.72	5.98	8382.46	0.33	0.001915
	179.00	4374.91				241.72	24.14	
		245.04						
1401.20	0.68375	123276.41	10.01	5.72	5.98	8374.27	0.33	0.001914
	180.00	4374.91				241.66	24.14	
		244.98						
1403.40	0.68318	123244.49	10.02	5.72	5.98	8396.72	0.33	0.001920
	181.00	4374.92				241.82	24.14	
		245.15						
1417.68	0.68569	123330.34	10.08	5.76	6.02	8537.77	0.33	0.001927
	182.00	4374.98				242.88	24.10	
		246.23						
1427.62	0.69240	123867.69	10.12	5.78	6.05	8634.95	0.34	0.001933
	183.00	4375.02				243.60	24.07	
		246.97						
1437.28	0.69738	124237.84	10.16	5.80	6.07	8730.27	0.34	0.001934
	184.00	4375.06				244.30	24.04	
		247.68						
1442.82	0.70024	124595.43	10.18	5.82	6.09	8781.84	0.34	0.001936
	185.00	4375.08				244.70	24.03	
		248.09						
1444.67	0.70251	124795.51	10.19	5.82	6.09	8800.16	0.34	0.001935
	186.00	4375.09				244.83	24.02	
		248.22						
1445.76	0.70279	124864.61	10.20	5.82	6.09	8810.47	0.34	0.001936
	187.00	4375.10				244.91	24.02	
		248.30						
1446.24	0.70355	124902.30	10.20	5.82	6.09	8814.67	0.34	0.001935
	188.00	4375.10				244.94	24.02	
		248.34						
1446.54	0.70329	124920.53	10.20	5.82	6.10	8817.61	0.34	0.001936
	189.00	4375.10				244.96	24.02	
		248.36						
1446.64	0.70359	124931.16	10.20	5.82	6.10	8818.29	0.34	0.001939
	190.00	4375.10				244.97	24.02	
		248.37						
1446.77	0.70457	124935.48	10.20	5.82	6.10	8819.57	0.34	0.001937
	191.00	4375.10				244.98	24.02	
		248.37						

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## HYCHAN.OUT

1445.17	0.70413	124939.47	10.19	5.82	6.09	8803.34	0.34	0.001933
	192.00	4375.09				244.86	24.02	
	0.70201	124879.35						
1437.53	193.00	4375.06	10.16	5.80	6.07	8728.98	0.34	0.001930
		247.69				244.31	24.04	
	0.69897	124598.01						
1432.71	194.00	4375.04	10.14	5.79	6.06	8684.27	0.34	0.001929
		247.34				243.97	24.05	
	0.69733	124423.06						
1430.95	195.00	4375.04	10.14	5.79	6.06	8666.35	0.34	0.001930
		247.21				243.84	24.06	
	0.69719	124359.21						
1430.23	196.00	4375.03	10.13	5.79	6.06	8660.15	0.34	0.001929
		247.16				243.79	24.06	
	0.69661	124331.83						
1429.62	197.00	4375.03	10.13	5.79	6.05	8653.53	0.34	0.001928
		247.11				243.74	24.06	
	0.69587	124309.63						
1429.14	198.00	4375.03	10.13	5.78	6.05	8648.33	0.34	0.001928
		247.07				243.71	24.06	
	0.69591	124291.45						
1428.78	199.00	4375.03	10.13	5.78	6.05	8645.25	0.34	0.001927
		247.05				243.68	24.06	
	0.69559	124277.55						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5096

MAXIMUM DISCHARGE (CFS) = 22099.75 AT TIME = 91.79  
 MAXIMUM STAGE = 4377.42 AT TIME = 91.77

AREA	TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
STRESS	SURFACE AREA						
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(LB/FT^2)	(FT^2)	(FT)	(FT)			
0.00	0.00	4364.20	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4364.20	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4364.20	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4364.20	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4364.20	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
242.24	5.00	4364.59	0.39	0.32	78.33	0.09	0.001803
	0.94838	28.74	8.43	28.89	73.19		
853.65	6.00	4371.11	6.91	4.18	3571.39	0.28	0.001375
	0.36890	198.52	4.30	196.68	28.46		
1019.28	7.00	4371.88	7.68	4.57	4661.53	0.29	0.001396
	0.41655	213.12	4.78	211.04	27.48		
		105519.81					

		HYCHAN.OUT					
1070.21	8.00 4372.10	7.90	4.70	5025.40	0.29		
	217.17	4.93		215.02	27.23	0.001397	
	0.42962 107508.58						
1075.53	9.00 4372.12	7.92	4.71	5061.16	0.29		
	217.57	4.94		215.41	27.21	0.001395	
	0.43016 107706.16						
1063.28	10.00 4372.06	7.86	4.67	4969.43	0.29		
	216.59	4.91		214.45	27.27	0.001387	
	0.42498 107224.38						
1048.72	11.00 4372.00	7.80	4.64	4867.50	0.29		
	215.45	4.87		213.33	27.34	0.001384	
	0.42040 106663.91						
1041.31	12.00 4371.97	7.77	4.63	4816.81	0.29		
	214.87	4.85		212.76	27.38	0.001382	
	0.41805 106379.23						
1031.89	13.00 4371.93	7.73	4.60	4749.05	0.29		
	214.11	4.82		212.01	27.42	0.001376	
	0.41367 106004.30						
1016.05	14.00 4371.86	7.66	4.56	4634.80	0.29		
	212.82	4.77		210.75	27.50	0.001372	
	0.40883 105373.52						
1003.50	15.00 4371.81	7.61	4.53	4546.27	0.29		
	211.81	4.74		209.75	27.57	0.001369	
	0.40487 104874.05						
997.49	16.00 4371.78	7.58	4.52	4504.00	0.29		
	211.32	4.72		209.27	27.60	0.001368	
	0.40305 104634.23						
995.02	17.00 4371.77	7.57	4.51	4486.85	0.29		
	211.12	4.71		209.07	27.61	0.001369	
	0.40258 104534.33						
993.60	18.00 4371.77	7.57	4.51	4476.42	0.29		
	211.00	4.71		208.95	27.62	0.001368	
	0.40185 104477.30						
993.17	19.00 4371.76	7.56	4.50	4470.61	0.29		
	210.96	4.71		208.91	27.62	0.001371	
	0.40279 104455.72						
999.24	20.00 4371.79	7.59	4.52	4511.77	0.29		
	211.46	4.73		209.41	27.59	0.001374	
	0.40515 104704.16						
1013.90	21.00 4371.85	7.65	4.55	4616.56	0.29		
	212.67	4.77		210.59	27.51	0.001381	
	0.41083 105296.84						
1032.50	22.00 4371.93	7.73	4.60	4750.83	0.29		
	214.17	4.82		212.07	27.42	0.001384	
	0.41648 106036.32						
1044.81	23.00 4371.99	7.79	4.63	4838.82	0.29		
	215.15	4.86		213.03	27.36	0.001388	
	0.42062 106515.80						
1051.22	24.00 4372.01	7.81	4.65	4884.31	0.29		
	215.66	4.87		213.53	27.33	0.001389	
	0.42263 106767.47						
1061.77	25.00 4372.06	7.86	4.67	4962.28	0.29		
	216.51	4.90		214.37	27.27	0.001398	
	0.42788 107183.42						
1085.85	26.00 4372.16	7.96	4.73	5140.94	0.30		
	218.41	4.97		216.23	27.16	0.001412	
	0.43803 108116.19						
1123.14	27.00 4372.32	8.12	4.83	5421.10	0.30		
	221.28	5.08		219.06	26.98	0.001421	
	0.44994 109528.19						
1156.83	28.00 4372.46	8.26	4.91	5678.12	0.30		
	223.82	5.17		221.55	26.83	0.001428	
	0.46051 110773.97						

HYCHAN.OUT									
29.00	4372.54	8.34	4.96	5835.57	0.30				
1177.35	225.33	5.22		223.04	26.75	0.001429			
0.46598	111520.23								
30.00	4372.58	8.38	4.98	5908.44	0.30				
1186.80	226.03	5.25		223.72	26.71	0.001433			
0.46965	111861.77								
31.00	4372.62	8.43	5.01	6002.43	0.30				
1198.65	226.90	5.28		224.58	26.66	0.001436			
0.47336	112290.48								
32.00	4372.66	8.46	5.03	6073.47	0.30				
1207.68	227.56	5.31		225.22	26.62	0.001436			
0.47542	112611.55								
33.00	4372.68	8.48	5.04	6115.48	0.31				
1213.02	227.94	5.32		225.60	26.60	0.001440			
0.47834	112800.45								
34.00	4372.72	8.52	5.07	6198.29	0.31				
1223.34	228.69	5.35		226.34	26.55	0.001444			
0.48184	113169.88								
35.00	4372.76	8.56	5.09	6261.90	0.31				
1231.37	229.27	5.37		226.90	26.52	0.001446			
0.48446	113451.12								
36.00	4372.76	8.56	5.09	6267.88	0.31				
1232.35	229.33	5.37		226.96	26.52	0.001440			
0.48293	113480.88								
37.00	4372.71	8.52	5.06	6180.56	0.31				
1221.27	228.53	5.34		226.18	26.56	0.001440			
0.48015	113091.11								
38.00	4372.70	8.50	5.05	6155.02	0.31				
1218.06	228.30	5.34		225.95	26.58	0.001440			
0.47935	112977.27								
39.00	4372.67	8.47	5.03	6094.54	0.30				
1210.51	227.75	5.32		225.41	26.61	0.001435			
0.47584	112706.55								
40.00	4372.64	8.44	5.02	6041.11	0.30				
1203.69	227.26	5.30		224.93	26.64	0.001435			
0.47418	112464.43								
41.00	4372.63	8.43	5.01	6014.73	0.30				
1200.26	227.01	5.29		224.68	26.65	0.001433			
0.47267	112342.41								
42.00	4372.62	8.42	5.01	6000.48	0.30				
1198.48	226.88	5.28		224.56	26.66	0.001435			
0.47305	112279.77								
43.00	4372.62	8.42	5.00	5992.62	0.30				
1197.47	226.81	5.28		224.49	26.66	0.001432			
0.47178	112243.56								
44.00	4372.62	8.42	5.01	5996.44	0.30				
1197.87	226.84	5.28		224.52	26.66	0.001435			
0.47290	112259.20								
45.00	4372.65	8.45	5.02	6053.61	0.30				
1205.19	227.38	5.30		225.05	26.63	0.001436			
0.47511	112523.17								
46.00	4372.68	8.48	5.04	6106.06	0.31				
1211.73	227.85	5.32		225.51	26.60	0.001440			
0.47789	112755.63								
47.00	4372.73	8.53	5.07	6204.69	0.31				
1224.01	228.75	5.35		226.39	26.55	0.001446			
0.48294	113196.02								
48.00	4372.79	8.59	5.11	6342.10	0.31				
1241.13	229.97	5.40		227.60	26.48	0.001450			
0.48845	113799.29								
49.00	4372.87	8.67	5.16	6497.60	0.31				
1260.43	231.35	5.45		228.95	26.40	0.001456			
0.49512	114473.25								

				HYCHAN.OUT			
1280.16	50.00	4372.95	8.75	5.20	6659.57	0.31	
	0.50184	232.74		5.50	230.31	26.33	0.001462
		115156.20					
1300.14	51.00	4373.03	8.83	5.25	6824.23	0.31	
	0.50878	234.13		5.55	231.68	26.25	0.001468
		115839.48					
1321.73	52.00	4373.11	8.91	5.30	7005.36	0.31	
	0.51621	235.62		5.61	233.14	26.17	0.001475
		116570.74					
1349.54	53.00	4373.21	9.02	5.36	7239.01	0.31	
	0.52491	237.51		5.68	235.00	26.07	0.001480
		117500.48					
1366.55	54.00	4373.28	9.08	5.40	7382.56	0.32	
	0.53096	238.66		5.73	236.13	26.01	0.001486
		118063.15					
1386.92	55.00	4373.36	9.16	5.45	7558.95	0.32	
	0.53983	240.02		5.78	237.47	25.93	0.001497
		118734.96					
1437.08	56.00	4373.54	9.34	5.57	7999.40	0.32	
	0.55836	243.33		5.91	240.71	25.76	0.001515
		120356.40					
1503.58	57.00	4373.79	9.59	5.72	8594.60	0.33	
	0.58196	247.58		6.07	244.89	25.54	0.001536
		122444.48					
1593.37	58.00	4374.10	9.90	5.89	9384.46	0.33	
	0.60989	253.01		6.30	250.22	25.27	0.001552
		125108.61					
1689.47	59.00	4374.42	10.22	6.06	10244.13	0.33	
	0.63648	258.57		6.53	255.67	25.01	0.001561
		127836.78					
1763.18	60.00	4374.67	10.47	6.19	10918.38	0.34	
	0.65526	262.67		6.71	259.70	24.81	0.001564
		129851.52					
1808.48	61.00	4374.81	10.61	6.27	11345.30	0.34	
	0.66856	265.11		6.82	262.10	24.70	0.001571
		131048.32					
1841.63	62.00	4374.92	10.72	6.33	11656.33	0.34	
	0.67692	266.88		6.90	263.84	24.62	0.001572
		131917.75					
1859.82	63.00	4374.97	10.77	6.36	11821.02	0.34	
	0.68264	267.84		6.94	264.77	24.58	0.001575
		132386.66					
1874.36	64.00	4375.02	10.82	6.38	11951.84	0.34	
	0.68480	268.60		6.98	265.52	24.55	0.001573
		132758.42					
1891.13	65.00	4375.07	10.87	6.40	12104.25	0.34	
	0.68991	269.47		7.02	266.37	24.51	0.001575
		133185.38					
1907.90	66.00	4375.12	10.92	6.42	12256.41	0.34	
	0.69321	270.32		7.06	267.20	24.47	0.001574
		133601.25					
1922.70	67.00	4375.16	10.96	6.45	12392.27	0.34	
	0.69691	271.05		7.09	267.92	24.44	0.001574
		133961.72					
1935.57	68.00	4375.20	11.00	6.47	12513.56	0.34	
	0.70105	271.68		7.12	268.54	24.41	0.001577
		134268.70					
1929.53	69.00	4375.18	10.98	6.45	12448.31	0.34	
	0.69914	271.36		7.11	268.23	24.42	0.001576
		134113.83					
1949.10	70.00	4375.24	11.04	6.49	12648.67	0.34	
	0.70619	272.35		7.16	269.20	24.38	0.001581
		134600.48					



HYCHAN.OUT							
1991.86	71.00	4375.37	11.17	7.26	6.56	13066.05	0.35
	0.71691	274.45				271.25	24.29
		135627.27					0.001583
2029.77	72.00	4375.48	11.28	7.35	6.63	13451.22	0.35
	0.72721	276.31				273.09	24.21
		136542.66					0.001586
2095.03	73.00	4375.68	11.48	7.49	6.75	14135.98	0.35
	0.74719	279.52				276.24	24.07
		138118.55					0.001598
2136.72	74.00	4375.80	11.60	7.59	6.82	14574.44	0.35
	0.76236	281.55				278.23	23.99
		139113.61					0.001610
2163.18	75.00	4375.88	11.68	7.65	6.87	14868.37	0.35
	0.76978	282.86				279.51	23.93
		139752.50					0.001613
2194.20	76.00	4375.97	11.77	7.72	6.94	15218.89	0.36
	0.78094	284.38				281.00	23.87
		140501.19					0.001622
2227.78	77.00	4376.07	11.87	7.79	7.00	15599.11	0.36
	0.79180	286.02				282.61	23.80
		141305.98					0.001629
2248.16	78.00	4376.13	11.94	7.83	7.05	15842.20	0.36
	0.80180	287.03				283.60	23.76
		141800.45					0.001641
2290.51	79.00	4376.26	12.06	7.92	7.13	16335.15	0.36
	0.81310	289.09				285.62	23.68
		142810.39					0.001645
2329.99	80.00	4376.38	12.18	8.01	7.21	16804.92	0.36
	0.82926	291.01				287.50	23.60
		143749.86					0.001660
2381.82	81.00	4376.54	12.34	8.12	7.32	17429.47	0.37
	0.84750	293.50				289.94	23.50
		144971.78					0.001674
2427.69	82.00	4376.67	12.47	8.21	7.41	17993.26	0.37
	0.86401	295.71				292.11	23.42
		146052.91					0.001687
2478.67	83.00	4376.83	12.63	8.31	7.52	18633.55	0.37
	0.88271	298.14				294.49	23.32
		147247.45					0.001702
2527.65	84.00	4376.97	12.77	8.41	7.62	19250.51	0.38
	0.89912	300.46				296.77	23.24
		148382.77					0.001713
2570.70	85.00	4377.10	12.90	8.50	7.71	19826.62	0.38
	0.91464	302.52				298.78	23.16
		149391.61					0.001725
2587.25	86.00	4377.17	12.97	8.52	7.84	20276.46	0.38
	0.94299	303.60				299.85	23.12
		149922.83					0.001773
2596.27	87.00	4377.22	13.02	8.53	7.95	20640.40	0.39
	0.94724	304.34				300.57	23.09
		150286.08					0.001779
2605.92	88.00	4377.26	13.06	8.54	8.06	20998.81	0.39
	0.96825	305.10				301.31	23.06
		150657.20					0.001817
2617.81	89.00	4377.32	13.12	8.55	8.19	21432.46	0.40
	0.99636	306.04				302.23	23.03
		151117.20					0.001867
2628.40	90.00	4377.38	13.18	8.57	8.30	21806.02	0.40
	0.99854	306.85				303.03	23.00
		151515.66					0.001868
2631.53	91.00	4377.39	13.19	8.57	8.34	21946.73	0.40
	1.00829	307.13				303.31	22.99
		151655.06					0.001886

HYCHAN.OUT							
2632.31	92.00	4377.40	13.20	8.57	8.35	21982.85	0.41
	1.01200	307.21				303.38	22.99
		151691.05					0.001893
2628.89	93.00	4377.38	13.18	8.57	8.31	21848.62	0.40
	0.99089	306.91				303.09	23.00
		151547.06					0.001854
2622.00	94.00	4377.35	13.15	8.56	8.24	21598.62	0.40
	0.98322	306.38				302.57	23.02
		151284.97					0.001841
2615.45	95.00	4377.31	13.11	8.55	8.17	21367.80	0.40
	0.96685	305.86				302.06	23.04
		151030.48					0.001812
2606.95	96.00	4377.27	13.07	8.54	8.08	21072.05	0.39
	0.95138	305.20				301.42	23.06
		150708.44					0.001785
2596.39	97.00	4377.22	13.02	8.53	7.97	20688.54	0.39
	0.93540	304.38				300.62	23.09
		150307.56					0.001757
2587.70	98.00	4377.18	12.98	8.52	7.87	20357.14	0.39
	0.92661	303.69				299.94	23.12
		149969.59					0.001743
2578.17	99.00	4377.13	12.93	8.51	7.75	19981.60	0.38
	0.91152	302.92				299.18	23.14
		149588.31					0.001716
2551.97	100.00	4377.04	12.84	8.46	7.66	19546.54	0.38
	0.90043	301.56				297.85	23.20
		148923.88					0.001705
2519.52	101.00	4376.94	12.74	8.40	7.59	19127.34	0.37
	0.88663	300.03				296.35	23.25
		148174.38					0.001692
2486.67	102.00	4376.85	12.65	8.33	7.52	18701.15	0.37
	0.87533	298.48				294.83	23.31
		147413.62					0.001684
2441.20	103.00	4376.71	12.51	8.24	7.43	18127.37	0.37
	0.85879	296.31				292.70	23.40
		146348.67					0.001670
2382.97	104.00	4376.54	12.34	8.12	7.30	17406.36	0.37
	0.83476	293.50				289.95	23.50
		144974.08					0.001648
2305.88	105.00	4376.30	12.10	7.96	7.15	16478.93	0.36
	0.80645	289.77				286.29	23.65
		143143.14					0.001624
2224.86	106.00	4376.06	11.86	7.78	6.99	15543.30	0.36
	0.77854	285.84				282.43	23.81
		141215.03					0.001603
2161.43	107.00	4375.87	11.67	7.64	6.86	14821.10	0.35
	0.76264	282.73				279.38	23.94
		139689.27					0.001599
2131.14	108.00	4375.78	11.58	7.58	6.80	14484.90	0.35
	0.75236	281.23				277.91	24.00
		138957.12					0.001591
2079.18	109.00	4375.62	11.42	7.46	6.70	13926.55	0.35
	0.73497	278.67				275.40	24.11
		137698.19					0.001579
2025.03	110.00	4375.46	11.26	7.34	6.60	13369.40	0.35
	0.71965	276.02				272.79	24.22
		136397.41					0.001572
1972.45	111.00	4375.31	11.11	7.21	6.52	12850.89	0.34
	0.70817	273.45				270.28	24.33
		135139.77					0.001573
1928.75	112.00	4375.18	10.98	7.11	6.45	12433.78	0.34
	0.69741	271.32				268.19	24.42
		134094.42					0.001572

HYCHAN.OUT							
1897.45	113.00	4375.09	10.89	7.03	6.40	12139.51	0.34
	0.69019	269.78				266.68	24.49
		133339.11					0.001573
1865.13	114.00	4374.99	10.79	6.96	6.35	11841.90	0.34
	0.68032	268.13				265.06	24.57
		132528.08					0.001567
1827.95	115.00	4374.87	10.67	6.87	6.29	11496.11	0.34
	0.67196	266.17				263.13	24.66
		131566.28					0.001568
1806.10	116.00	4374.80	10.60	6.82	6.25	11293.26	0.34
	0.66699	265.00				261.99	24.71
		130992.56					0.001568
1798.66	117.00	4374.78	10.58	6.80	6.24	11224.74	0.34
	0.66246	264.59				261.59	24.73
		130793.34					0.001562
1780.94	118.00	4374.72	10.52	6.76	6.21	11058.88	0.34
	0.65801	263.62				260.63	24.77
		130316.50					0.001561
1763.57	119.00	4374.67	10.47	6.71	6.18	10896.95	0.34
	0.65249	262.67				259.70	24.81
		129851.43					0.001557
1752.29	120.00	4374.63	10.43	6.69	6.16	10793.82	0.34
	0.65058	262.04				259.08	24.84
		129540.59					0.001559
1749.11	121.00	4374.62	10.42	6.68	6.15	10764.83	0.34
	0.64897	261.87				258.91	24.85
		129455.99					0.001557
1743.44	122.00	4374.60	10.40	6.67	6.15	10716.83	0.34
	0.64844	261.55				258.60	24.87
		129301.16					0.001559
1731.43	123.00	4374.56	10.36	6.64	6.12	10601.33	0.34
	0.64331	260.87				257.94	24.90
		128967.84					0.001553
1714.57	124.00	4374.50	10.30	6.60	6.09	10448.32	0.33
	0.63931	259.93				257.01	24.94
		128505.41					0.001553
1701.83	125.00	4374.46	10.26	6.57	6.07	10336.17	0.33
	0.63355	259.21				256.31	24.98
		128152.70					0.001546
1686.68	126.00	4374.41	10.21	6.53	6.05	10196.52	0.33
	0.63025	258.35				255.46	25.02
		127730.05					0.001547
1675.97	127.00	4374.38	10.18	6.50	6.03	10100.28	0.33
	0.62639	257.74				254.86	25.05
		127431.31					0.001544
1667.26	128.00	4374.35	10.15	6.48	6.01	10020.67	0.33
	0.62492	257.24				254.37	25.07
		127186.25					0.001545
1653.15	129.00	4374.30	10.10	6.45	5.99	9894.93	0.33
	0.61975	256.43				253.57	25.11
		126787.49					0.001541
1643.37	130.00	4374.27	10.07	6.42	5.97	9808.63	0.33
	0.61764	255.86				253.02	25.14
		126510.68					0.001541
1634.42	131.00	4374.24	10.04	6.40	5.95	9729.96	0.33
	0.61687	255.35				252.52	25.16
		126259.61					0.001544
1620.52	132.00	4374.19	9.99	6.37	5.93	9604.73	0.33
	0.61045	254.54				251.72	25.20
		125860.87					0.001537
1614.54	133.00	4374.17	9.97	6.35	5.92	9552.29	0.33
	0.61037	254.20				251.39	25.22
		125692.65					0.001540

HYCHAN.OUT									
1623.64	134.00	4374.20	10.00	6.37	5.94	9638.39	25.19	0.33	0.001543
	0.61384	254.75				251.92			
1625.92	135.00	4374.21	10.01	6.38	5.94	9659.77	25.18	0.33	0.001541
	0.61334	254.88				252.05			
1623.19	136.00	4374.20	10.00	6.37	5.93	9632.49	25.19	0.33	0.001539
	0.61193	254.72				251.89			
1619.83	137.00	4374.19	9.99	6.36	5.93	9599.97	25.20	0.33	0.001539
	0.61117	254.52				251.70			
1616.28	138.00	4374.18	9.98	6.36	5.92	9568.00	25.21	0.33	0.001539
	0.61039	254.30				251.49			
1613.05	139.00	4374.16	9.96	6.35	5.91	9538.98	25.22	0.33	0.001540
	0.60996	254.11				251.30			
1610.14	140.00	4374.15	9.95	6.34	5.91	9512.22	25.23	0.33	0.001538
	0.60867	253.94				251.13			
1604.83	141.00	4374.14	9.94	6.33	5.90	9468.63	25.24	0.33	0.001535
	0.60594	253.63				250.83			
1594.03	142.00	4374.10	9.90	6.30	5.88	9372.17	25.27	0.33	0.001536
	0.60372	252.99				250.20			
1587.55	143.00	4374.08	9.88	6.28	5.87	9314.55	25.29	0.33	0.001534
	0.60164	252.61				249.82			
1584.16	144.00	4374.06	9.87	6.28	5.86	9282.84	25.30	0.33	0.001534
	0.60071	252.40				249.62			
1580.39	145.00	4374.05	9.85	6.27	5.86	9254.97	25.31	0.33	0.001531
	0.59863	252.20				249.42			
1576.20	146.00	4374.04	9.84	6.26	5.85	9216.05	25.33	0.33	0.001532
	0.59808	251.94				249.17			
1565.42	147.00	4374.00	9.80	6.23	5.83	9121.01	25.36	0.33	0.001528
	0.59393	251.29				248.53			
1558.15	148.00	4373.98	9.78	6.21	5.81	9059.78	25.38	0.33	0.001531
	0.59344	250.86				248.11			
1554.61	149.00	4373.96	9.76	6.20	5.81	9028.01	25.39	0.33	0.001528
	0.59128	250.65				247.90			
1551.80	150.00	4373.95	9.75	6.20	5.80	9001.27	25.40	0.33	0.001530
	0.59139	250.48				247.73			
1548.67	151.00	4373.94	9.74	6.19	5.80	8977.13	25.41	0.33	0.001527
	0.58965	250.30				247.55			
1544.83	152.00	4373.93	9.73	6.18	5.79	8944.33	25.42	0.33	0.001526
	0.58828	250.07				247.33			
1536.96	153.00	4373.90	9.70	6.16	5.77	8871.91	25.44	0.33	0.001524
	0.58563	249.57				246.85			
1528.97	154.00	4373.87	9.67	6.14	5.76	8803.87	25.47	0.33	0.001526
	0.58435	249.09				246.38			
		123187.67							

			HYCHAN.OUT				
1524.06	155.00	4373.86	9.66	5.75	8762.37	0.33	
	0.58210	248.80	6.13	246.09	25.48	0.001523	
1518.97	156.00	4373.84	9.64	5.74	8720.55	0.33	
	0.58064	248.50	6.11	245.79	25.50	0.001522	
1511.31	157.00	4373.81	9.61	5.73	8655.24	0.33	
	0.57974	248.03	6.09	245.34	25.52	0.001525	
1520.33	158.00	4373.85	9.65	5.75	8735.30	0.33	
	0.58277	248.59	6.12	245.88	25.49	0.001527	
1527.69	159.00	4373.87	9.67	5.76	8794.28	0.33	
	0.58388	249.03	6.13	246.31	25.47	0.001525	
1528.65	160.00	4373.87	9.67	5.76	8802.24	0.33	
	0.58351	249.08	6.14	246.37	25.47	0.001524	
1528.28	161.00	4373.87	9.67	5.76	8798.71	0.33	
	0.58327	249.06	6.14	246.34	25.47	0.001523	
1527.40	162.00	4373.87	9.67	5.76	8792.05	0.33	
	0.58348	249.01	6.13	246.29	25.47	0.001524	
1526.63	163.00	4373.87	9.67	5.75	8784.99	0.33	
	0.58358	248.96	6.13	246.24	25.47	0.001525	
1525.81	164.00	4373.86	9.66	5.75	8777.84	0.33	
	0.58243	248.91	6.13	246.19	25.48	0.001523	
1525.15	165.00	4373.86	9.66	5.75	8771.60	0.33	
	0.58353	248.87	6.13	246.15	25.48	0.001526	
1522.98	166.00	4373.85	9.65	5.75	8752.95	0.33	
	0.58058	248.73	6.12	246.02	25.49	0.001520	
1513.74	167.00	4373.82	9.62	5.73	8676.47	0.33	
	0.57911	248.18	6.10	245.48	25.51	0.001522	
1507.85	168.00	4373.80	9.60	5.72	8624.50	0.33	
	0.57698	247.82	6.08	245.12	25.53	0.001520	
1505.74	169.00	4373.79	9.59	5.72	8606.04	0.33	
	0.57697	247.69	6.08	244.99	25.54	0.001521	
1504.57	170.00	4373.79	9.59	5.71	8595.58	0.33	
	0.57719	247.61	6.08	244.92	25.54	0.001522	
1503.69	171.00	4373.79	9.59	5.71	8587.92	0.33	
	0.57665	247.56	6.07	244.87	25.54	0.001521	
1502.88	172.00	4373.78	9.58	5.71	8580.85	0.33	
	0.57625	247.51	6.07	244.82	25.55	0.001521	
1502.16	173.00	4373.78	9.58	5.71	8574.37	0.33	
	0.57544	247.46	6.07	244.77	25.55	0.001519	
1499.88	174.00	4373.77	9.57	5.70	8552.36	0.32	
	0.57467	247.32	6.06	244.63	25.56	0.001519	
1491.20	175.00	4373.74	9.54	5.68	8474.60	0.32	
	0.57212	246.77	6.04	244.09	25.58	0.001517	
		122046.64					

			HYCHAN.OUT				
1485.49	176.00	4373.72	9.52	5.67	8424.38	0.32	
	0.56997	246.41	6.03		243.74	25.60	0.001515
1483.24	177.00	4373.71	9.51	5.67	8403.69	0.32	
	0.56913	246.27	6.02		243.60	25.61	0.001514
1481.87	178.00	4373.71	9.51	5.66	8391.06	0.32	
	0.56869	246.18	6.02		243.52	25.61	0.001514
1480.90	179.00	4373.70	9.50	5.66	8382.51	0.32	
	0.56870	246.12	6.02		243.46	25.62	0.001515
1479.99	180.00	4373.70	9.50	5.66	8374.38	0.32	
	0.56839	246.06	6.01		243.40	25.62	0.001514
1482.26	181.00	4373.71	9.51	5.66	8395.59	0.32	
	0.57034	246.21	6.02		243.55	25.61	0.001518
1497.79	182.00	4373.77	9.57	5.70	8535.88	0.32	
	0.57551	247.20	6.06		244.51	25.56	0.001522
1508.80	183.00	4373.80	9.60	5.72	8633.87	0.33	
	0.57969	247.88	6.09		245.19	25.53	0.001526
1519.70	184.00	4373.84	9.64	5.74	8729.11	0.33	
	0.58126	248.55	6.11		245.84	25.49	0.001523
1526.19	185.00	4373.86	9.67	5.75	8781.50	0.33	
	0.58347	248.94	6.13		246.22	25.48	0.001525
1528.30	186.00	4373.87	9.67	5.76	8799.93	0.33	
	0.58440	249.06	6.14		246.34	25.47	0.001526
1529.61	187.00	4373.88	9.68	5.76	8810.40	0.33	
	0.58295	249.14	6.14		246.42	25.46	0.001522
1530.11	188.00	4373.88	9.68	5.76	8814.64	0.33	
	0.58560	249.17	6.14		246.45	25.46	0.001528
1530.54	189.00	4373.88	9.68	5.76	8817.56	0.33	
	0.58426	249.19	6.14		246.47	25.46	0.001524
1530.58	190.00	4373.88	9.68	5.76	8818.31	0.33	
	0.58523	249.20	6.14		246.48	25.46	0.001527
1530.82	191.00	4373.88	9.68	5.76	8819.55	0.33	
	0.58434	249.21	6.14		246.49	25.46	0.001524
1529.01	192.00	4373.87	9.67	5.76	8803.98	0.33	
	0.58401	249.10	6.14		246.38	25.47	0.001525
1520.21	193.00	4373.84	9.64	5.74	8730.01	0.33	
	0.58218	248.57	6.12		245.86	25.49	0.001526
1514.58	194.00	4373.82	9.62	5.73	8684.63	0.33	
	0.57921	248.24	6.10		245.53	25.51	0.001521
1512.58	195.00	4373.82	9.62	5.73	8666.49	0.33	
	0.57955	248.11	6.10		245.41	25.52	0.001523
1511.80	196.00	4373.81	9.62	5.73	8660.22	0.33	
	0.57844	248.07	6.09		245.37	25.52	0.001521
		122683.09					

		HYCHAN.OUT					
1511.13	197.00	4373.81	9.61	5.73	8653.61	0.33	
	0.57973	248.02	6.09		245.32	25.52	0.001525
		122661.83					
1510.60	198.00	4373.81	9.61	5.73	8648.36	0.33	
	0.57892	247.99	6.09		245.29	25.52	0.001523
		122645.84					
1510.19	199.00	4373.81	9.61	5.72	8645.27	0.33	
	0.57889	247.97	6.09		245.27	25.52	0.001523
		122634.04					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5098

MAXIMUM DISCHARGE (CFS) = 21633.71 AT TIME = 91.78  
 MAXIMUM STAGE = 4375.92 AT TIME = 89.98

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4363.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4363.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4363.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	3.00	4363.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	4.00	4363.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	5.00	4363.41	0.21	0.17	10.30	16.43	0.07	0.003501	
94.48	2.00615	10.29	9.18	5.47	250.46	37.45	0.37	0.002327	
	0.36655	5560.81	2.52	5.97	275.90	37.14	0.39	0.002346	
636.01	6.00	4369.89	6.69	6.11	282.86	37.06	0.39	0.002351	
	0.41059	251.99	2.81	6.09	278.98	37.10	0.39	0.002342	
778.83	7.00	4370.63	7.43	6.06	279.99	37.09	0.39	0.002340	
	0.42018	277.64	2.85	6.04	278.98	37.10	0.39	0.002342	
821.59	8.00	4370.83	7.63	6.02	4751.13	0.39			
	0.42341	284.66	2.89	6.13	5061.94	37.05	0.39	0.002349	
825.94	9.00	4370.85	7.65	6.09	4972.21	37.07	0.39	0.002342	
	0.42417	152743.31	2.88	6.09	4972.21	37.07	0.39	0.002342	
815.84	10.00	4370.81	7.61	6.09	4972.21	37.07	0.39	0.002342	
	0.42018	283.75	2.88	6.09	4972.21	37.07	0.39	0.002342	
803.70	11.00	4370.75	7.55	6.06	4869.22	37.09	0.39	0.002340	
	0.41642	151195.77	2.85	6.06	4869.22	37.09	0.39	0.002340	
797.23	12.00	4370.72	7.52	6.04	4817.93	37.10	0.39	0.002342	
	0.41494	280.75	2.84	6.04	4817.93	37.10	0.39	0.002342	
	13.00	4370.68	7.48	6.02	4751.13	0.39			

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		HYCHAN.OUT				
789.30	0.41127	279.47	2.82	277.71	37.12	0.002334
	14.00	149962.31				
		4370.62	7.42	5.98	4637.48	0.39
776.13	0.40716	277.29	2.80	275.55	37.14	0.002331
	15.00	148799.12				
		4370.57	7.37	5.94	4547.69	0.39
765.57	0.40384	275.56	2.78	273.83	37.16	0.002329
	16.00	147870.16				
		4370.54	7.34	5.92	4504.60	0.39
760.44	0.40246	274.72	2.77	273.00	37.17	0.002330
	17.00	147420.69				
		4370.53	7.33	5.92	4487.18	0.39
758.33	0.40159	274.38	2.76	272.66	37.18	0.002329
	18.00	147238.22				
		4370.53	7.33	5.91	4476.50	0.38
757.44	0.40114	274.18	2.76	272.47	37.18	0.002327
	19.00	147132.95				
		4370.53	7.33	5.90	4470.49	0.38
757.21	0.40110	274.14	2.76	272.43	37.18	0.002327
	20.00	147110.06				
		4370.55	7.35	5.92	4509.96	0.38
762.09	0.40348	274.98	2.77	273.26	37.17	0.002333
	21.00	147558.80				
		4370.61	7.41	5.96	4613.78	0.39
774.31	0.40760	276.99	2.80	275.26	37.14	0.002337
	22.00	148639.02				
		4370.68	7.48	6.01	4747.85	0.39
789.89	0.41282	279.55	2.83	277.79	37.11	0.002341
	23.00	150005.59				
		4370.73	7.53	6.05	4837.56	0.39
800.09	0.41603	281.24	2.84	279.46	37.09	0.002344
	24.00	150910.94				
		4370.76	7.56	6.06	4883.27	0.39
805.42	0.41787	282.10	2.86	280.32	37.08	0.002346
	25.00	151374.50				
		4370.80	7.60	6.09	4959.60	0.39
814.21	0.42109	283.52	2.87	281.72	37.07	0.002350
	26.00	152130.22				
		4370.89	7.69	6.15	5135.61	0.39
834.49	0.42857	286.73	2.91	284.91	37.03	0.002360
	27.00	153849.22				
		4371.04	7.84	6.25	5415.07	0.39
865.97	0.43867	291.66	2.97	289.80	36.98	0.002368
	28.00	156490.12				
		4371.17	7.97	6.34	5673.25	0.40
894.40	0.44697	296.06	3.02	294.16	36.93	0.002371
	29.00	158848.27				
		4371.24	8.04	6.40	5833.48	0.40
911.57	0.45244	298.72	3.05	296.80	36.90	0.002376
	30.00	160269.39				
		4371.28	8.08	6.42	5906.92	0.40
919.45	0.45490	299.93	3.07	298.00	36.89	0.002378
	31.00	160917.83				
		4371.32	8.12	6.46	6000.41	0.40
929.56	0.45826	301.44	3.08	299.49	36.87	0.002381
	32.00	161724.56				
		4371.36	8.16	6.48	6072.47	0.40
937.16	0.46057	302.59	3.10	300.63	36.86	0.002383
	33.00	162341.19				
		4371.38	8.18	6.49	6114.33	0.40
941.69	0.46190	303.27	3.11	301.31	36.85	0.002384
	34.00	162707.48				
		4371.41	8.21	6.52	6196.46	0.40

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		HYCHAN.OUT				
950.53	304.57	3.12	302.59	36.84	0.002387	
0.46488	163400.73					
35.00	4371.44	8.24	6.54	6261.02	0.40	
957.29	305.58	3.13	303.60	36.83	0.002387	
0.46663	163944.73					
36.00	4371.45	8.25	6.54	6269.38	0.40	
958.28	305.71	3.13	303.73	36.82	0.002384	
0.46634	164013.33					
37.00	4371.41	8.21	6.51	6181.46	0.40	
948.95	304.31	3.12	302.34	36.84	0.002384	
0.46389	163265.03					
38.00	4371.40	8.20	6.51	6155.69	0.40	
946.18	303.91	3.11	301.94	36.84	0.002381	
0.46264	163049.55					
39.00	4371.37	8.17	6.49	6095.92	0.40	
939.85	302.96	3.10	301.00	36.85	0.002378	
0.46037	162539.44					
40.00	4371.34	8.14	6.47	6041.96	0.40	
933.99	302.09	3.09	300.14	36.86	0.002380	
0.45908	162075.14					
41.00	4371.33	8.13	6.46	6015.13	0.40	
931.11	301.65	3.09	299.71	36.87	0.002377	
0.45789	161840.86					
42.00	4371.32	8.12	6.46	6000.62	0.40	
929.54	301.42	3.08	299.48	36.87	0.002378	
0.45768	161718.14					
43.00	4371.32	8.12	6.45	5992.77	0.40	
928.70	301.29	3.08	299.35	36.87	0.002378	
0.45733	161648.78					
44.00	4371.32	8.12	6.45	5995.88	0.40	
928.99	301.34	3.08	299.40	36.87	0.002380	
0.45777	161675.95					
45.00	4371.35	8.15	6.47	6052.32	0.40	
935.05	302.27	3.09	300.32	36.86	0.002381	
0.45957	162170.84					
46.00	4371.37	8.17	6.49	6104.80	0.40	
940.61	303.10	3.10	301.14	36.85	0.002384	
0.46155	162618.16					
47.00	4371.42	8.22	6.52	6202.18	0.40	
951.11	304.64	3.12	302.67	36.84	0.002387	
0.46504	163441.25					
48.00	4371.48	8.28	6.56	6338.92	0.40	
965.73	306.79	3.15	304.80	36.81	0.002391	
0.46962	164593.62					
49.00	4371.55	8.35	6.61	6494.30	0.40	
982.18	309.20	3.18	307.19	36.79	0.002397	
0.47505	165882.62					
50.00	4371.62	8.42	6.66	6656.37	0.40	
999.04	311.64	3.21	309.61	36.76	0.002399	
0.47997	167189.12					
51.00	4371.69	8.49	6.71	6820.87	0.41	
1016.13	314.10	3.24	312.05	36.74	0.002404	
0.48528	168504.73					
52.00	4371.77	8.57	6.77	7001.22	0.41	
1034.68	316.74	3.27	314.66	36.71	0.002408	
0.49084	169915.27					
53.00	4371.87	8.67	6.83	7235.05	0.41	
1058.61	320.10	3.31	317.99	36.68	0.002413	
0.49796	171716.94					
54.00	4371.93	8.73	6.88	7380.11	0.41	
1073.07	322.14	3.33	320.02	36.65	0.002418	
0.50256	172810.25					
55.00	4372.00	8.80	6.93	7553.84	0.41	

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				HYCHAN.OUT			
1090.65		324.56		3.36	322.42	36.63	0.002422
	0.50789	174104.58					
	56.00	4372.17	8.98	7.04	7989.06	0.41	
1134.23		330.45		3.43	328.25	36.57	0.002433
	0.52117	177254.75					
	57.00	4372.40	9.20	7.20	8581.19	0.42	
1192.11		338.13		3.53	335.87	36.50	0.002447
	0.53833	181368.47					
	58.00	4372.71	9.51	7.36	9367.62	0.42	
1272.39		348.52		3.65	346.16	36.40	0.002455
	0.55931	186925.86					
	59.00	4373.03	9.83	7.52	10228.72	0.42	
1360.26		359.43		3.78	356.97	36.30	0.002454
	0.57962	192764.48					
	60.00	4373.28	10.08	7.64	10908.49	0.42	
1428.64		367.65		3.89	365.12	36.23	0.002455
	0.59517	197165.69					
	61.00	4373.43	10.23	7.71	11338.33	0.42	
1471.41		372.67		3.95	370.10	36.19	0.002454
	0.60459	199851.97					
	62.00	4373.53	10.33	7.75	11651.81	0.43	
1502.50		376.28		3.99	373.67	36.16	0.002453
	0.61130	201784.25					
	63.00	4373.59	10.39	7.78	11818.63	0.43	
1519.43		378.27		4.02	375.64	36.14	0.002458
	0.61617	202845.31					
	64.00	4373.64	10.44	7.79	11948.92	0.43	
1532.93		379.85		4.04	377.21	36.13	0.002454
	0.61798	203693.67					
	65.00	4373.70	10.50	7.81	12101.17	0.43	
1548.51		381.67		4.06	379.01	36.11	0.002457
	0.62216	204665.59					
	66.00	4373.75	10.55	7.83	12253.33	0.43	
1564.13		383.49		4.08	380.82	36.10	0.002455
	0.62493	205640.52					
	67.00	4373.80	10.60	7.85	12389.87	0.43	
1578.06		385.10		4.10	382.41	36.08	0.002454
	0.62757	206504.08					
	68.00	4373.84	10.64	7.87	12511.26	0.43	
1590.53		386.53		4.11	383.83	36.07	0.002451
	0.62932	207266.64					
	69.00	4373.82	10.62	7.85	12450.17	0.42	
1585.10		385.89		4.11	383.20	36.08	0.002455
	0.62920	206926.91					
	70.00	4373.88	10.68	7.88	12641.88	0.43	
1603.33		387.99		4.13	385.28	36.06	0.002456
	0.63324	208050.36					
	71.00	4374.02	10.82	7.94	13054.98	0.43	
1644.75		388.76		4.23	389.90	36.02	0.002444
	0.64522	210547.66					
	72.00	4374.15	10.95	7.99	13428.47	0.43	
1681.59		389.01		4.32	393.96	35.99	0.002442
	0.65883	212735.81					
	73.00	4374.35	11.16	8.06	14075.29	0.43	
1745.68		389.43		4.48	400.85	35.93	0.002439
	0.68233	216461.25					
	74.00	4374.49	11.29	8.11	14493.22	0.43	
1787.75		389.69		4.59	405.27	35.90	0.002448
	0.70067	218847.69					
	75.00	4374.57	11.37	8.14	14766.88	0.43	
1814.80		389.86		4.65	408.02	35.88	0.002434
	0.70711	220332.34					
	76.00	4374.67	11.47	8.17	15085.65	0.43	

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				HYCHAN.OUT			
1846.52		390.05		4.73	411.24	35.85	0.002431
	0.71822	222067.67					
	77.00	4374.77	11.58	8.21	15435.25	0.43	
1881.19		390.27		4.82	414.71	35.83	0.002432
	0.73138	223941.78					
	78.00	4374.84	11.64	8.23	15657.31	0.43	
1902.07		390.39		4.87	416.78	35.81	0.002436
	0.74076	225060.08					
	79.00	4374.97	11.77	8.28	16112.00	0.43	
1945.14		390.65		4.98	421.11	35.78	0.002429
	0.75464	227400.08					
	80.00	4375.09	11.89	8.33	16539.72	0.43	
1985.54		390.90		5.08	425.13	35.75	0.002424
	0.76827	229570.47					
	81.00	4375.25	12.05	8.39	17113.18	0.43	
2038.58		391.22		5.21	430.40	35.71	0.002424
	0.78808	232415.83					
	82.00	4375.39	12.19	8.45	17609.22	0.43	
2083.87		391.50		5.32	435.04	35.68	0.002431
	0.80759	234922.81					
	83.00	4375.55	12.35	8.52	18166.42	0.43	
2132.98		391.82		5.44	440.18	35.64	0.002429
	0.82504	237698.09					
	84.00	4375.70	12.50	8.57	18696.02	0.43	
2180.42		392.12		5.56	445.13	35.60	0.002427
	0.84218	240369.56					
	85.00	4375.83	12.63	8.64	19194.07	0.43	
2221.09		392.38		5.66	449.39	35.57	0.002432
	0.85888	242670.05					
	86.00	4375.86	12.66	8.81	19638.37	0.44	
2229.69		392.44		5.68	450.38	35.57	0.002452
	0.86943	243206.91					
	87.00	4375.87	12.67	8.96	19990.32	0.44	
2230.71		392.46		5.68	450.63	35.57	0.002450
	0.86902	243341.38					
	88.00	4375.88	12.68	9.11	20339.65	0.45	
2232.80		392.48		5.69	450.97	35.56	0.002494
	0.88547	243521.66					
	89.00	4375.89	12.69	9.29	20766.84	0.46	
2235.25		392.50		5.69	451.36	35.56	0.002530
	0.89909	243736.73					
	90.00	4375.91	12.71	9.44	21124.44	0.47	
2237.58		392.53		5.70	451.77	35.56	0.002512
	0.89370	243958.20					
	91.00	4375.91	12.71	9.51	21273.88	0.47	
2237.29		392.53		5.70	451.79	35.56	0.002536
	0.90180	243964.31					
	92.00	4375.90	12.71	9.52	21306.33	0.47	
2237.09		392.53		5.70	451.76	35.56	0.002545
	0.90496	243952.81					
	93.00	4375.90	12.70	9.46	21169.63	0.47	
2236.91		392.52		5.70	451.69	35.56	0.002504
	0.89054	243911.52					
	94.00	4375.90	12.70	9.36	20933.68	0.46	
2235.60		392.51		5.70	451.46	35.56	0.002488
	0.88413	243786.84					
	95.00	4375.89	12.69	9.26	20700.00	0.46	
2234.43		392.50		5.69	451.28	35.56	0.002472
	0.87821	243690.73					
	96.00	4375.88	12.68	9.14	20410.92	0.45	
2232.45		392.48		5.69	450.99	35.56	0.002468
	0.87599	243535.52					
	97.00	4375.87	12.67	8.99	20036.42	0.45	

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				HYCHAN.OUT			
2229.89		392.46		5.68	450.63	35.57	0.002454
	0.86998	243339.75					
98.00		4375.86	12.66	8.85	19713.39	0.44	
2228.29		392.44		5.68	450.37	35.57	0.002427
	0.86005	243198.62					
99.00		4375.85	12.66	8.68	19339.32	0.43	
2226.98		392.42		5.67	450.12	35.57	0.002426
	0.85898	243066.50					
100.00		4375.78	12.58	8.60	18959.70	0.43	
2204.88		392.28		5.62	447.73	35.59	0.002429
	0.85201	241776.81					
101.00		4375.68	12.48	8.56	18599.76	0.43	
2173.55		392.08		5.54	444.47	35.61	0.002421
	0.83757	240013.27					
102.00		4375.58	12.38	8.52	18236.88	0.43	
2141.60		391.88		5.46	441.13	35.63	0.002426
	0.82716	238209.91					
103.00		4375.44	12.24	8.46	17740.97	0.43	
2097.75		391.59		5.36	436.53	35.67	0.002426
	0.81100	235725.89					
104.00		4375.26	12.06	8.39	17110.52	0.43	
2040.61		391.23		5.22	430.62	35.71	0.002418
	0.78684	232536.06					
105.00		4375.02	11.82	8.29	16272.43	0.43	
1962.02		390.76		5.02	422.76	35.77	0.002425
	0.75986	228289.44					
106.00		4374.77	11.57	8.20	15405.42	0.42	
1879.09		390.25		4.82	414.45	35.83	0.002427
	0.72909	223801.12					
107.00		4374.57	11.37	8.12	14734.12	0.42	
1813.86		389.85		4.65	407.91	35.88	0.002431
	0.70573	220272.00					
108.00		4374.47	11.27	8.09	14420.86	0.42	
1782.97		389.66		4.58	404.76	35.90	0.002440
	0.69656	218569.22					
109.00		4374.31	11.11	8.03	13903.56	0.42	
1731.55		389.33		4.45	399.28	35.95	0.002438
	0.67673	215612.72					
110.00		4374.13	10.93	7.97	13371.82	0.42	
1678.22		388.98		4.31	393.51	35.99	0.002444
	0.65794	212497.39					
111.00		4373.96	10.76	7.91	12859.87	0.42	
1626.63		388.64		4.19	387.85	36.04	0.002451
	0.64023	209436.39					
112.00		4373.82	10.62	7.85	12440.89	0.42	
1584.28		385.79		4.11	383.09	36.08	0.002454
	0.62878	206870.41					
113.00		4373.72	10.52	7.81	12145.01	0.42	
1554.29		382.34		4.07	379.68	36.11	0.002456
	0.62297	205025.48					
114.00		4373.61	10.41	7.77	11848.13	0.42	
1523.88		378.79		4.02	376.16	36.14	0.002451
	0.61529	203125.52					
115.00		4373.49	10.29	7.72	11502.24	0.42	
1489.25		374.74		3.97	372.14	36.17	0.002454
	0.60864	200956.31					
116.00		4373.42	10.22	7.69	11294.94	0.42	
1468.74		372.37		3.94	369.79	36.19	0.002458
	0.60491	199688.94					
117.00		4373.39	10.19	7.68	11226.62	0.42	
1461.88		371.56		3.93	369.00	36.20	0.002453
	0.60220	199257.75					
118.00		4373.34	10.14	7.65	11062.51	0.42	

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				HYCHAN.OUT			
1445.58		369.63		3.91	367.08	36.21	0.002459
	0.60001	198224.17					
119.00		4373.28	10.08	7.63	10899.71	0.42	
1429.35		367.72		3.89	365.19	36.23	0.002451
	0.59440	197201.02					
120.00		4373.24	10.04	7.61	10794.94	0.42	
1419.14		366.51		3.87	363.99	36.24	0.002453
	0.59264	196552.53					
121.00		4373.23	10.03	7.60	10765.28	0.42	
1416.15		366.15		3.87	363.63	36.24	0.002450
	0.59127	196361.91					
122.00		4373.21	10.01	7.60	10718.20	0.42	
1410.92		365.52		3.86	363.01	36.25	0.002454
	0.59117	196026.08					
123.00		4373.17	9.98	7.57	10604.07	0.42	
1399.99		364.21		3.84	361.71	36.26	0.002453
	0.58836	195323.28					
124.00		4373.12	9.92	7.55	10451.37	0.42	
1384.48		362.34		3.82	359.86	36.28	0.002446
	0.58331	194321.97					
125.00		4373.08	9.88	7.53	10338.18	0.42	
1372.79		360.92		3.80	358.45	36.29	0.002447
	0.58074	193564.25					
126.00		4373.03	9.83	7.51	10199.04	0.42	
1358.93		359.24		3.78	356.78	36.30	0.002449
	0.57798	192661.62					
127.00		4372.99	9.79	7.49	10101.54	0.42	
1349.07		358.04		3.77	355.59	36.32	0.002445
	0.57485	192020.88					
128.00		4372.96	9.76	7.47	10022.77	0.42	
1341.11		357.06		3.76	354.62	36.32	0.002446
	0.57325	191496.97					
129.00		4372.92	9.72	7.45	9897.15	0.42	
1328.25		355.47		3.74	353.05	36.34	0.002446
	0.57042	190646.55					
130.00		4372.88	9.68	7.44	9810.10	0.42	
1319.31		354.37		3.72	351.96	36.35	0.002446
	0.56819	190056.58					
131.00		4372.85	9.65	7.42	9732.15	0.42	
1311.06		353.34		3.71	350.94	36.36	0.002449
	0.56703	189505.02					
132.00		4372.81	9.61	7.40	9606.92	0.42	
1298.41		351.76		3.69	349.37	36.37	0.002443
	0.56262	188661.72					
133.00		4372.79	9.59	7.39	9551.65	0.42	
1292.82		351.08		3.68	348.70	36.38	0.002446
	0.56199	188296.45					
134.00		4372.81	9.62	7.41	9636.97	0.42	
1300.80		352.09		3.69	349.70	36.37	0.002450
	0.56491	188835.48					
135.00		4372.82	9.62	7.41	9659.99	0.42	
1302.94		352.35		3.70	349.95	36.37	0.002447
	0.56466	188974.42					
136.00		4372.81	9.61	7.41	9633.08	0.42	
1300.48		352.04		3.69	349.65	36.37	0.002446
	0.56392	188809.41					
137.00		4372.80	9.60	7.40	9600.63	0.42	
1297.44		351.66		3.69	349.27	36.37	0.002445
	0.56285	188605.05					
138.00		4372.79	9.59	7.39	9568.54	0.42	
1294.35		351.27		3.68	348.88	36.38	0.002446
	0.56234	188397.16					
139.00		4372.78	9.58	7.39	9539.60	0.42	

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		HYCHAN.OUT				
1291.45	350.90	3.68	348.52	36.38	0.002449	
0.56238	188199.55					
140.00	4372.77	9.57	7.38	9512.57	0.42	
1288.92	350.58	3.68	348.20	36.38	0.002448	
0.56172	188028.30					
141.00	4372.75	9.55	7.38	9470.26	0.42	
1284.03	349.96	3.67	347.59	36.39	0.002443	
0.55933	187696.36					
142.00	4372.72	9.52	7.36	9373.74	0.42	
1274.28	348.73	3.65	346.36	36.40	0.002445	
0.55747	187036.81					
143.00	4372.69	9.49	7.34	9315.31	0.42	
1268.39	347.99	3.64	345.63	36.41	0.002445	
0.55614	186642.23					
144.00	4372.68	9.48	7.34	9283.65	0.42	
1265.37	347.61	3.64	345.25	36.41	0.002442	
0.55468	186437.53					
145.00	4372.67	9.47	7.34	9255.38	0.42	
1261.65	347.14	3.63	344.79	36.41	0.002442	
0.55388	186186.83					
146.00	4372.65	9.45	7.33	9217.31	0.42	
1258.01	346.67	3.63	344.32	36.42	0.002444	
0.55333	185934.88					
147.00	4372.62	9.42	7.31	9123.04	0.42	
1248.25	345.43	3.61	343.09	36.43	0.002440	
0.55013	185271.08					
148.00	4372.59	9.39	7.30	9060.52	0.42	
1241.54	344.58	3.60	342.26	36.44	0.002443	
0.54920	184818.41					
149.00	4372.58	9.38	7.29	9028.37	0.42	
1238.38	344.17	3.60	341.85	36.44	0.002442	
0.54822	184596.69					
150.00	4372.57	9.37	7.28	9001.93	0.42	
1235.92	343.86	3.59	341.54	36.44	0.002441	
0.54746	184431.56					
151.00	4372.56	9.36	7.28	8977.70	0.42	
1233.00	343.48	3.59	341.16	36.45	0.002441	
0.54681	184228.02					
152.00	4372.55	9.35	7.28	8945.25	0.42	
1229.43	343.02	3.58	340.71	36.45	0.002441	
0.54590	183983.75					
153.00	4372.52	9.32	7.26	8873.35	0.42	
1222.62	342.13	3.57	339.83	36.46	0.002439	
0.54398	183509.83					
154.00	4372.49	9.29	7.24	8805.14	0.42	
1215.58	341.20	3.56	338.90	36.47	0.002437	
0.54173	183007.56					
155.00	4372.48	9.28	7.23	8762.98	0.42	
1211.21	340.62	3.56	338.33	36.48	0.002436	
0.54051	182697.72					
156.00	4372.46	9.26	7.23	8722.06	0.42	
1206.71	340.00	3.55	337.72	36.48	0.002433	
0.53892	182369.11					
157.00	4372.43	9.23	7.21	8655.39	0.42	
1199.79	339.10	3.54	336.82	36.49	0.002436	
0.53791	181885.33					
158.00	4372.46	9.26	7.23	8732.98	0.42	
1207.73	340.15	3.55	337.87	36.48	0.002440	
0.54066	182448.17					
159.00	4372.49	9.29	7.24	8793.75	0.42	
1214.30	341.03	3.56	338.74	36.47	0.002441	
0.54244	182919.53					
160.00	4372.49	9.29	7.24	8802.33	0.42	

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		HYCHAN.OUT					
1215.17	341.15	3.56	338.85	36.47	0.002437		
0.54174	182980.06						
161.00	4372.49	9.29	7.24	8798.91	0.42		
1214.87	341.11	3.56	338.81	36.47	0.002438		
0.54181	182958.62						
162.00	4372.49	9.29	7.24	8792.15	0.42		
1214.14	341.00	3.56	338.71	36.47	0.002436		
0.54121	182904.66						
163.00	4372.48	9.28	7.24	8785.09	0.42		
1213.46	340.92	3.56	338.63	36.47	0.002436		
0.54112	182857.66						
164.00	4372.48	9.28	7.24	8777.93	0.42		
1212.74	340.82	3.56	338.53	36.47	0.002439		
0.54160	182805.38						
165.00	4372.48	9.28	7.24	8771.97	0.42		
1212.13	340.74	3.56	338.45	36.47	0.002436		
0.54079	182763.38						
166.00	4372.47	9.27	7.23	8753.66	0.42		
1210.26	340.49	3.55	338.20	36.48	0.002435		
0.54012	182630.05						
167.00	4372.44	9.24	7.22	8678.21	0.42		
1202.09	339.38	3.54	337.11	36.49	0.002435		
0.53815	182037.61						
168.00	4372.42	9.22	7.21	8625.02	0.42		
1196.73	338.70	3.53	336.43	36.49	0.002435		
0.53689	181671.97						
169.00	4372.41	9.21	7.20	8606.38	0.42		
1194.83	338.46	3.53	336.19	36.50	0.002436		
0.53662	181540.62						
170.00	4372.41	9.21	7.20	8595.74	0.42		
1193.77	338.32	3.53	336.06	36.50	0.002435		
0.53617	181470.06						
171.00	4372.40	9.20	7.20	8588.06	0.42		
1192.96	338.22	3.53	335.95	36.50	0.002436		
0.53626	181414.36						
172.00	4372.40	9.20	7.20	8580.98	0.42		
1192.25	338.13	3.53	335.86	36.50	0.002436		
0.53607	181365.00						
173.00	4372.40	9.20	7.20	8574.46	0.42		
1191.60	338.05	3.52	335.78	36.50	0.002433		
0.53512	181321.73						
174.00	4372.39	9.19	7.19	8553.30	0.42		
1189.51	337.78	3.52	335.52	36.50	0.002435		
0.53500	181180.56						
175.00	4372.36	9.16	7.17	8476.10	0.42		
1181.57	336.78	3.51	334.53	36.51	0.002435		
0.53302	180644.17						
176.00	4372.34	9.14	7.16	8424.89	0.42		
1176.33	336.12	3.50	333.87	36.52	0.002434		
0.53157	180290.75						
177.00	4372.33	9.13	7.16	8404.00	0.42		
1174.16	335.86	3.50	333.61	36.52	0.002435		
0.53119	180150.48						
178.00	4372.33	9.13	7.16	8391.28	0.42		
1172.77	335.70	3.49	333.46	36.52	0.002435		
0.53079	180066.28						
179.00	4372.33	9.13	7.15	8382.65	0.42		
1171.79	335.59	3.49	333.35	36.52	0.002435		
0.53051	180007.31						
180.00	4372.32	9.12	7.15	8374.53	0.42		
1171.01	335.49	3.49	333.24	36.52	0.002435		
0.53033	179951.02						
181.00	4372.33	9.13	7.16	8394.04	0.42		

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		HYCHAN.OUT				
1173.03	335.74	3.49	333.50	36.52	0.002438	
0.53148	180087.98					
182.00	4372.38	9.18	7.19	8533.22	0.42	
1187.19	337.53	3.52	335.27	36.50	0.002436	
0.53455	181045.58					
183.00	4372.42	9.22	7.21	8632.32	0.42	
1197.44	338.80	3.53	336.53	36.49	0.002439	
0.53783	181727.52					
184.00	4372.46	9.26	7.23	8727.25	0.42	
1207.19	340.09	3.55	337.80	36.48	0.002437	
0.53975	182412.73					
185.00	4372.48	9.28	7.24	8780.81	0.42	
1212.99	340.86	3.56	338.57	36.47	0.002440	
0.54173	182826.48					
186.00	4372.49	9.29	7.24	8799.85	0.42	
1214.92	341.11	3.56	338.82	36.47	0.002438	
0.54181	182961.44					
187.00	4372.49	9.29	7.24	8810.07	0.42	
1216.04	341.26	3.56	338.97	36.47	0.002439	
0.54223	183042.67					
188.00	4372.50	9.30	7.25	8814.70	0.42	
1216.48	341.32	3.56	339.02	36.47	0.002440	
0.54266	183072.77					
189.00	4372.50	9.30	7.25	8817.58	0.42	
1216.88	341.38	3.56	339.08	36.47	0.002437	
0.54204	183104.61					
190.00	4372.50	9.30	7.25	8818.20	0.42	
1216.92	341.38	3.56	339.08	36.47	0.002439	
0.54250	183104.39					
191.00	4372.50	9.30	7.25	8819.66	0.42	
1217.13	341.41	3.57	339.12	36.47	0.002435	
0.54173	183122.81					
192.00	4372.49	9.29	7.24	8804.68	0.42	
1215.56	341.19	3.56	338.90	36.47	0.002440	
0.54234	183006.77					
193.00	4372.46	9.26	7.23	8731.71	0.42	
1207.79	340.15	3.55	337.86	36.48	0.002438	
0.54027	182446.08					
194.00	4372.44	9.24	7.22	8685.11	0.42	
1202.75	339.48	3.54	337.20	36.49	0.002435	
0.53831	182086.75					
195.00	4372.43	9.24	7.22	8666.82	0.42	
1200.94	339.25	3.54	336.97	36.49	0.002435	
0.53790	181963.69					
196.00	4372.43	9.23	7.22	8660.18	0.42	
1200.24	339.15	3.54	336.88	36.49	0.002437	
0.53823	181914.55					
197.00	4372.43	9.23	7.21	8653.85	0.42	
1199.63	339.08	3.54	336.80	36.49	0.002435	
0.53755	181874.19					
198.00	4372.43	9.23	7.21	8648.45	0.42	
1199.12	339.02	3.54	336.74	36.49	0.002436	
0.53769	181840.77					
199.00	4372.43	9.23	7.21	8645.26	0.42	
1198.76	338.97	3.54	336.69	36.49	0.002434	
0.53716	181814.34					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 5100

MAXIMUM DISCHARGE (CFS) = 21905.07 AT TIME = 91.78  
 MAXIMUM STAGE = 4373.05 AT TIME = 89.99

HYCHAN.OUT									
AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4361.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4361.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4361.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4361.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4361.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4361.57	0.07	0.07	0.07	3.71	0.00	0.00	0.003971
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.003971
624.68	6.00	4367.16	5.66	5.47	5.47	3415.53	0.41	0.00	0.003731
	1.05360	138.02	4.53	134.85	134.85	23.81	0.42	0.00	0.003762
767.37	7.00	4367.92	6.42	6.05	6.05	4640.02	0.43	0.00	0.003773
	1.17475	153.34	5.00	149.83	149.83	23.35	0.43	0.00	0.003772
810.03	8.00	4368.11	6.61	6.20	6.20	5020.13	0.43	0.00	0.003764
	1.21355	157.16	5.15	153.57	153.57	23.24	0.42	0.00	0.003760
814.14	9.00	4368.12	6.62	6.22	6.22	5062.33	0.42	0.00	0.003760
	1.21637	157.52	5.17	153.92	153.92	23.23	0.42	0.00	0.003754
804.05	10.00	4368.08	6.58	6.19	6.19	4973.79	0.42	0.00	0.003747
	1.20562	156.63	5.13	153.05	153.05	23.26	0.42	0.00	0.003744
792.05	11.00	4368.03	6.53	6.15	6.15	4870.16	0.42	0.00	0.003742
	1.19469	155.57	5.09	152.01	152.01	23.29	0.42	0.00	0.003742
785.39	12.00	4368.00	6.50	6.14	6.14	4818.67	0.42	0.00	0.003742
	1.18892	154.97	5.07	151.43	151.43	23.30	0.42	0.00	0.003754
777.31	13.00	4367.96	6.46	6.11	6.11	4752.28	0.42	0.00	0.003747
	1.18045	154.25	5.04	150.72	150.72	23.32	0.42	0.00	0.003744
764.14	14.00	4367.90	6.40	6.07	6.07	4639.01	0.42	0.00	0.003744
	1.16743	153.05	4.99	149.55	149.55	23.36	0.42	0.00	0.003744
753.48	15.00	4367.85	6.35	6.04	6.04	4548.55	0.42	0.00	0.003744
	1.15758	152.09	4.95	148.60	148.60	23.39	0.42	0.00	0.003744
748.26	16.00	4367.83	6.33	6.02	6.02	4504.98	0.42	0.00	0.003744
	1.15296	151.61	4.94	148.14	148.14	23.40	0.42	0.00	0.003742
746.08	17.00	4367.82	6.32	6.01	6.01	4487.34	0.42	0.00	0.003741
	1.15071	151.41	4.93	147.94	147.94	23.40	0.42	0.00	0.003741
745.50	18.00	4367.82	6.32	6.00	6.00	4476.46	0.42	0.00	0.003741
		151.36	4.93	147.89	147.89	23.41	0.42	0.00	0.003741

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			HYCHAN.OUT				
	1.14966	81340.03					
745.29	19.00	4367.82	6.32	6.00	4470.36	0.42	
		151.34	4.92		147.87	23.41	0.003739
	1.14886	81329.96					
750.06	20.00	4367.84	6.34	6.01	4509.02	0.42	
		151.78	4.94		148.30	23.39	0.003745
	1.15476	81566.41					
762.40	21.00	4367.90	6.40	6.05	4612.10	0.42	
		152.90	4.99		149.41	23.36	0.003752
	1.16723	82173.30					
778.08	22.00	4367.97	6.47	6.10	4746.17	0.42	
		154.32	5.04		150.79	23.32	0.003759
	1.18271	82936.30					
788.12	23.00	4368.01	6.51	6.14	4836.93	0.42	
		155.22	5.08		151.67	23.30	0.003763
	1.19215	83419.57					
793.46	24.00	4368.03	6.53	6.15	4882.68	0.42	
		155.70	5.10		152.14	23.28	0.003765
	1.19722	83675.50					
802.35	25.00	4368.07	6.57	6.18	4957.99	0.42	
		156.49	5.13		152.91	23.26	0.003771
	1.20646	84100.56					
822.92	26.00	4368.16	6.66	6.24	5132.50	0.43	
		158.29	5.20		154.68	23.21	0.003782
	1.22700	85072.98					
854.65	27.00	4368.30	6.80	6.33	5411.61	0.43	
		161.03	5.31		157.36	23.14	0.003797
	1.25764	86545.98					
883.10	28.00	4368.42	6.92	6.42	5670.36	0.43	
		163.44	5.40		159.71	23.08	0.003808
	1.28379	87842.07					
900.07	29.00	4368.49	6.99	6.48	5832.45	0.43	
		164.85	5.46		161.10	23.04	0.003815
	1.29968	88603.46					
907.85	30.00	4368.52	7.02	6.51	5905.99	0.43	
		165.50	5.49		161.73	23.02	0.003819
	1.30709	88950.44					
918.12	31.00	4368.57	7.07	6.53	5999.20	0.43	
		166.35	5.52		162.56	23.00	0.003824
	1.31708	89405.45					
925.64	32.00	4368.60	7.10	6.56	6071.88	0.43	
		166.96	5.54		163.16	22.98	0.003827
	1.32379	89737.00					
930.13	33.00	4368.62	7.12	6.57	6113.73	0.43	
		167.33	5.56		163.52	22.98	0.003828
	1.32780	89934.28					
939.16	34.00	4368.65	7.15	6.60	6195.38	0.43	
		168.06	5.59		164.24	22.96	0.003834
	1.33678	90329.70					
945.81	35.00	4368.68	7.18	6.62	6260.52	0.44	
		168.60	5.61		164.76	22.94	0.003835
	1.34250	90619.04					
946.90	36.00	4368.69	7.19	6.62	6270.21	0.44	
		168.69	5.61		164.84	22.94	0.003830
	1.34159	90664.65					
937.66	37.00	4368.65	7.15	6.59	6181.98	0.43	
		167.94	5.58		164.11	22.96	0.003829
	1.33418	90262.35					
934.82	38.00	4368.64	7.14	6.59	6155.98	0.43	
		167.71	5.57		163.89	22.97	0.003826
	1.33085	90138.48					
928.52	39.00	4368.61	7.11	6.57	6096.82	0.43	
		167.19	5.55		163.38	22.98	0.003823

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		HYCHAN.OUT					
	1.32481	89861.65					
922.59	40.00	4368.59	7.09	6.55	6042.50	0.43	
		166.71	5.53		162.91	22.99	0.003823
	1.32011	89601.05					
919.74	41.00	4368.57	7.07	6.54	6015.24	0.43	
		166.48	5.52		162.68	23.00	0.003820
	1.31678	89475.88					
918.13	42.00	4368.57	7.07	6.54	6000.76	0.43	
		166.34	5.52		162.55	23.00	0.003820
	1.31575	89405.08					
917.30	43.00	4368.56	7.06	6.53	5992.94	0.43	
		166.28	5.52		162.49	23.00	0.003820
	1.31509	89368.40					
917.55	44.00	4368.56	7.07	6.53	5995.47	0.43	
		166.30	5.52		162.51	23.00	0.003821
	1.31568	89379.76					
923.54	45.00	4368.59	7.09	6.55	6051.64	0.43	
		166.79	5.54		162.99	22.99	0.003825
	1.32170	89644.57					
929.09	46.00	4368.61	7.11	6.57	6104.08	0.43	
		167.24	5.56		163.43	22.98	0.003828
	1.32712	89888.62					
939.80	47.00	4368.66	7.16	6.60	6200.63	0.43	
		168.12	5.59		164.29	22.96	0.003834
	1.33728	90358.20					
954.55	48.00	4368.72	7.22	6.64	6337.15	0.44	
		169.31	5.64		165.45	22.93	0.003840
	1.35111	90999.05					
971.09	49.00	4368.78	7.28	6.69	6492.36	0.44	
		170.63	5.69		166.75	22.89	0.003849
	1.36680	91711.16					
988.06	50.00	4368.85	7.35	6.73	6654.50	0.44	
		171.98	5.75		168.06	22.86	0.003855
	1.38222	92435.01					
1005.23	51.00	4368.92	7.42	6.78	6818.86	0.44	
		173.32	5.80		169.38	22.83	0.003863
	1.39804	93160.71					
1023.94	52.00	4368.99	7.49	6.84	6998.75	0.44	
		174.78	5.86		170.81	22.79	0.003874
	1.41606	93943.96					
1048.05	53.00	4369.09	7.59	6.90	7232.81	0.44	
		176.63	5.93		172.62	22.75	0.003883
	1.43781	94940.90					
1062.39	54.00	4369.14	7.64	6.95	7378.64	0.44	
		177.72	5.98		173.69	22.72	0.003888
	1.45039	95527.97					
1080.21	55.00	4369.21	7.71	6.99	7550.72	0.44	
		179.07	6.03		175.00	22.69	0.003899
	1.46778	96252.69					
1124.47	56.00	4369.38	7.88	7.10	7982.99	0.45	
		182.35	6.17		178.22	22.61	0.003922
	1.50921	98020.74					
1182.89	57.00	4369.60	8.10	7.25	8573.25	0.45	
		186.59	6.34		182.36	22.52	0.003948
	1.56160	100298.49					
1263.61	58.00	4369.89	8.39	7.41	9357.54	0.45	
		192.25	6.57		187.90	22.39	0.003976
	1.63058	103347.50					
1352.66	59.00	4370.20	8.70	7.55	10219.24	0.45	
		198.28	6.82		193.81	22.27	0.004002
	1.70344	106592.80					
1422.13	60.00	4370.44	8.94	7.67	10902.49	0.45	
		202.84	7.01		198.26	22.17	0.004017

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	1.75722	109044.91						
1465.69	61.00	4370.59	9.09	7.13	7.73	11334.05	0.45	0.004025
	1.79001	110547.94						
1497.23	62.00	4370.69	9.19	7.21	7.78	11649.06	0.45	0.004030
	1.81331	111622.16						
1513.78	63.00	4370.75	9.25	7.25	7.81	11817.28	0.45	0.004032
	1.82527	112190.88						
1526.79	64.00	4370.79	9.29	7.29	7.83	11947.13	0.45	0.004038
	1.83634	112639.92						
1541.76	65.00	4370.84	9.34	7.33	7.85	12099.46	0.45	0.004041
	1.84702	113155.04						
1556.66	66.00	4370.89	9.39	7.36	7.87	12251.55	0.45	0.004049
	1.86003	113666.20						
1569.92	67.00	4370.94	9.44	7.40	7.89	12388.38	0.45	0.004051
	1.86954	114120.03						
1581.90	68.00	4370.98	9.48	7.43	7.91	12509.86	0.45	0.004054
	1.87838	114529.05						
1576.78	69.00	4370.96	9.46	7.41	7.90	12451.43	0.45	0.004053
	1.87489	114352.54						
1594.10	70.00	4371.02	9.52	7.46	7.93	12638.01	0.45	0.004060
	1.88889	114945.90						
1633.70	71.00	4371.15	9.65	7.55	7.99	13050.49	0.45	0.004072
	1.91897	116288.70						
1668.86	72.00	4371.27	9.77	7.64	8.04	13422.97	0.45	0.004081
	1.94519	117473.77						
1730.08	73.00	4371.47	9.97	7.78	8.14	14075.89	0.45	0.004097
	1.98991	119512.40						
1770.37	74.00	4371.60	10.10	7.88	8.19	14505.66	0.45	0.004097
	2.01395	120842.03						
1796.40	75.00	4371.68	10.18	7.94	8.23	14784.79	0.45	0.004103
	2.03180	121695.22						
1826.87	76.00	4371.78	10.28	8.01	8.27	15108.69	0.45	0.004106
	2.05113	122690.29						
1860.40	77.00	4371.89	10.39	8.08	8.32	15469.34	0.45	0.004109
	2.07212	123776.84						
1880.72	78.00	4371.96	10.46	8.13	8.35	15697.27	0.46	0.004114
	2.08639	124433.14						
1921.83	79.00	4372.09	10.59	8.22	8.40	16150.31	0.46	0.004126
	2.11557	125759.86						
1960.73	80.00	4372.21	10.71	8.30	8.46	16584.05	0.46	0.004132
	2.14018	127004.45						
2011.69	81.00	4372.37	10.87	8.41	8.53	17164.05	0.46	0.004138
		239.21						

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2057.06	2.17143	128623.74	11.02	8.51	8.59	17675.70	0.46	0.004147
	82.00	4372.52				236.45	21.46	
		241.86						
2107.15	2.20093	130048.56	11.17	8.61	8.66	18251.21	0.46	0.004156
	83.00	4372.67				239.29	21.41	
		244.76						
2156.00	2.23255	131608.83	11.33	8.71	8.72	18803.13	0.46	0.004165
	84.00	4372.83				242.03	21.37	
		247.56						
2197.91	2.26342	133117.83	11.46	8.79	8.79	19325.36	0.46	0.004174
	85.00	4372.96				244.37	21.33	
		249.94						
2205.74	2.29065	134400.81	11.48	8.81	8.97	19782.82	0.47	0.004232
	86.00	4372.98				244.79	21.32	
		250.38						
2205.61	2.32669	134635.69	11.48	8.81	9.13	20131.57	0.47	0.004247
	87.00	4372.98				244.79	21.32	
		250.37						
2206.85	2.33475	134632.72	11.48	8.81	9.28	20483.94	0.48	0.004261
	88.00	4372.98				244.85	21.32	
		250.44						
2208.20	2.34313	134667.36	11.49	8.81	9.47	20914.35	0.49	0.004324
	89.00	4372.99				244.92	21.32	
		250.51						
2209.27	2.37830	134706.27	11.49	8.82	9.63	21268.01	0.50	0.004321
	90.00	4372.99				244.98	21.32	
		250.57						
2208.60	2.37733	134740.94	11.49	8.82	9.70	21425.67	0.50	0.004353
	91.00	4372.99				244.93	21.32	
		250.52						
2208.20	2.39459	134713.58	11.49	8.81	9.72	21454.09	0.51	0.004357
	92.00	4372.99				244.92	21.32	
		250.51						
2208.39	2.39673	134706.69	11.49	8.81	9.65	21312.52	0.50	0.004294
	93.00	4372.99				244.94	21.32	
		250.53						
2207.96	2.36212	134717.34	11.49	8.81	9.55	21082.12	0.50	0.004311
	94.00	4372.99				244.91	21.32	
		250.50						
2207.50	2.37109	134699.19	11.48	8.81	9.44	20844.30	0.49	0.004276
	95.00	4372.98				244.88	21.32	
		250.47						
2206.37	2.35137	134685.42	11.48	8.81	9.32	20555.57	0.48	0.004241
	96.00	4372.98				244.81	21.32	
		250.40						
2204.72	2.33193	134647.84	11.48	8.81	9.15	20179.80	0.48	0.004208
	97.00	4372.98				244.72	21.33	
		250.31						
2204.02	2.31299	134596.70	11.47	8.81	9.01	19856.66	0.47	0.004205
	98.00	4372.97				244.68	21.33	
		250.26						
2203.84	2.31063	134574.73	11.47	8.81	8.84	19481.01	0.46	0.004166
	99.00	4372.97				244.67	21.33	
		250.25						
2181.59	2.28955	134569.48	11.40	8.76	8.75	19094.20	0.46	0.004165
	100.00	4372.90				243.43	21.35	
		248.98						
2149.17	2.27694	133885.61	11.30	8.70	8.71	18716.04	0.46	0.004157
	101.00	4372.80				241.62	21.38	
		247.14						
2116.22	2.25580	132891.97	11.20	8.63	8.67	18340.84	0.46	0.004149
	102.00	4372.70				239.77	21.41	
		245.25						

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2.23379	131873.06						
103.00	4372.56	11.06	8.54	8.61	17827.51	0.46	
2071.41	242.66				237.24	21.45	0.004139
2.20460	130480.01						
104.00	4372.38	10.88	8.42	8.53	17178.54	0.46	
2014.04	239.32				233.96	21.50	0.004128
2.16757	128680.22						
105.00	4372.14	10.64	8.25	8.43	16332.42	0.46	
1938.41	234.84				229.58	21.58	0.004114
2.11904	126270.15						
106.00	4371.88	10.38	8.08	8.31	15453.85	0.45	
1858.79	230.08				224.92	21.66	0.004103
2.06820	123708.02						
107.00	4371.68	10.18	7.94	8.22	14762.02	0.45	
1795.66	226.28				221.20	21.73	0.004098
2.02919	121661.38						
108.00	4371.58	10.08	7.87	8.18	14441.91	0.45	
1765.92	224.47				219.43	21.76	0.004088
2.00698	120686.82						
109.00	4371.42	9.92	7.75	8.11	13918.07	0.45	
1716.92	221.45				216.48	21.81	0.004075
1.97137	119064.95						
110.00	4371.26	9.76	7.63	8.03	13382.61	0.45	
1666.00	218.30				213.39	21.87	0.004068
1.93710	117365.33						
111.00	4371.09	9.59	7.51	7.96	12865.28	0.45	
1616.53	215.20				210.36	21.93	0.004054
1.90024	115700.25						
112.00	4370.96	9.46	7.41	7.90	12445.01	0.45	
1575.98	212.64				207.86	21.98	0.004045
1.87067	114322.08						
113.00	4370.86	9.36	7.34	7.85	12148.35	0.45	
1547.17	210.81				206.07	22.01	0.004040
1.85006	113336.68						
114.00	4370.76	9.26	7.26	7.81	11851.57	0.45	
1517.91	208.94				204.23	22.05	0.004031
1.82722	112329.16						
115.00	4370.65	9.15	7.18	7.75	11506.03	0.45	
1483.76	206.76				202.11	22.09	0.004018
1.79924	111158.43						
116.00	4370.58	9.08	7.12	7.72	11296.13	0.45	
1462.84	205.44				200.81	22.12	0.004014
1.78355	110447.66						
117.00	4370.56	9.06	7.10	7.71	11227.76	0.45	
1455.89	205.00				200.38	22.13	0.004016
1.77980	110209.16						
118.00	4370.50	9.00	7.06	7.69	11064.81	0.45	
1439.43	203.95				199.35	22.15	0.004010
1.76604	109640.91						
119.00	4370.44	8.94	7.01	7.66	10901.16	0.45	
1422.92	202.88				198.31	22.17	0.004005
1.75288	109069.33						
120.00	4370.41	8.91	6.99	7.64	10795.65	0.45	
1412.55	202.21				197.65	22.18	0.004002
1.74443	108708.77						
121.00	4370.40	8.90	6.98	7.64	10765.62	0.45	
1409.53	202.02				197.46	22.19	0.004004
1.74317	108603.64						
122.00	4370.38	8.88	6.96	7.63	10719.07	0.45	
1404.24	201.67				197.12	22.20	0.003998
1.73698	108418.02						
123.00	4370.34	8.84	6.93	7.61	10605.79	0.45	
1393.17	200.95				196.41	22.21	0.003995

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	1.72820	108028.20					
1377.45	124.00	4370.29	8.79	6.89	7.59	10453.03	0.45
	1.71701	107473.45					0.003994
1365.62	125.00	4370.25	8.75	6.86	7.57	10339.50	0.45
	1.70779	107054.08					0.003991
1351.56	126.00	4370.20	8.70	6.82	7.55	10200.64	0.45
	1.69617	106552.23					0.003986
1341.52	127.00	4370.17	8.67	6.79	7.53	10102.23	0.45
	1.68810	106193.38					0.003984
1333.46	128.00	4370.14	8.64	6.77	7.52	10024.04	0.45
	1.68019	105902.91					0.003978
1320.47	129.00	4370.09	8.59	6.73	7.50	9898.52	0.45
	1.67118	105433.17					0.003978
1311.40	130.00	4370.06	8.56	6.71	7.48	9810.95	0.45
	1.66359	105104.51					0.003975
1303.07	131.00	4370.03	8.53	6.68	7.47	9733.55	0.45
	1.65500	104800.68					0.003968
1290.26	132.00	4369.99	8.49	6.65	7.45	9608.11	0.45
	1.64589	104331.79					0.003968
1284.48	133.00	4369.97	8.47	6.63	7.44	9551.40	0.45
	1.64189	104121.16					0.003968
1292.51	134.00	4369.99	8.49	6.65	7.46	9636.17	0.45
	1.64878	104416.48					0.003971
1294.71	135.00	4370.00	8.50	6.66	7.46	9660.09	0.45
	1.65016	104496.16					0.003970
1292.23	136.00	4369.99	8.49	6.65	7.45	9633.42	0.45
	1.64872	104405.16					0.003971
1289.17	137.00	4369.98	8.48	6.64	7.45	9600.93	0.45
	1.64611	104292.84					0.003970
1286.05	138.00	4369.97	8.47	6.64	7.44	9568.95	0.45
	1.64265	104178.18					0.003967
1283.16	139.00	4369.96	8.46	6.63	7.43	9540.00	0.45
	1.63990	104071.94					0.003965
1280.61	140.00	4369.95	8.45	6.62	7.43	9512.84	0.45
	1.63807	103978.38					0.003965
1275.69	141.00	4369.93	8.43	6.61	7.42	9471.09	0.45
	1.63401	103796.24					0.003963
1265.86	142.00	4369.90	8.40	6.58	7.41	9374.82	0.45
	1.62552	103432.07					0.003960
1259.84	143.00	4369.88	8.38	6.56	7.39	9315.76	0.45
	1.62085	103209.21					0.003959
1256.79	144.00	4369.87	8.37	6.55	7.39	9283.98	0.45
		191.78					0.003959

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			HYCHAN.OUT				
	1.61878	103095.99					
1253.00	145.00	4369.85	8.35	6.54	7.39	9255.77	0.45
		191.52				187.19	22.41
	1.61629	102954.91					0.003959
1249.36	146.00	4369.84	8.34	6.53	7.38	9218.06	0.45
		191.27				186.94	22.41
	1.61137	102818.62					0.003953
1239.44	147.00	4369.80	8.30	6.50	7.36	9124.19	0.45
		190.58				186.27	22.43
	1.60458	102446.84					0.003954
1232.57	148.00	4369.78	8.28	6.48	7.35	9060.99	0.45
		190.10				185.80	22.44
	1.59847	102189.55					0.003951
1229.45	149.00	4369.77	8.27	6.47	7.34	9028.65	0.45
		189.88				185.59	22.44
	1.59573	102072.16					0.003950
1226.91	150.00	4369.76	8.26	6.47	7.34	9002.28	0.45
		189.70				185.41	22.45
	1.59344	101976.45					0.003948
1223.99	151.00	4369.75	8.25	6.46	7.34	8978.04	0.45
		189.50				185.21	22.45
	1.59243	101866.33					0.003951
1220.35	152.00	4369.74	8.24	6.45	7.33	8945.84	0.45
		189.24				184.96	22.46
	1.58804	101728.60					0.003947
1213.51	153.00	4369.71	8.21	6.43	7.31	8874.20	0.45
		188.76				184.49	22.47
	1.58209	101468.90					0.003944
1206.62	154.00	4369.69	8.19	6.41	7.30	8805.81	0.45
		188.28				184.01	22.48
	1.57568	101207.31					0.003940
1202.31	155.00	4369.67	8.17	6.40	7.29	8763.28	0.45
		187.97				183.72	22.49
	1.57327	101043.38					0.003942
1197.97	156.00	4369.65	8.15	6.38	7.28	8722.85	0.45
		187.66				183.41	22.49
	1.56859	100877.41					0.003938
1191.01	157.00	4369.63	8.13	6.36	7.27	8655.51	0.45
		187.17				182.93	22.50
	1.56329	100611.56					0.003937
1198.94	158.00	4369.66	8.16	6.39	7.28	8731.81	0.45
		187.73				183.48	22.49
	1.57013	100916.30					0.003940
1205.33	159.00	4369.68	8.18	6.40	7.30	8793.47	0.45
		188.19				183.93	22.48
	1.57545	101159.27					0.003942
1206.20	160.00	4369.68	8.18	6.41	7.30	8802.25	0.45
		188.25				183.99	22.48
	1.57696	101192.16					0.003944
1205.90	161.00	4369.68	8.18	6.41	7.30	8799.05	0.45
		188.23				183.96	22.48
	1.57681	101180.52					0.003944
1205.21	162.00	4369.68	8.18	6.40	7.30	8792.16	0.45
		188.18				183.92	22.48
	1.57541	101154.52					0.003942
1204.53	163.00	4369.68	8.18	6.40	7.29	8785.15	0.45
		188.13				183.87	22.48
	1.57490	101128.55					0.003942
1203.83	164.00	4369.68	8.18	6.40	7.29	8778.08	0.45
		188.08				183.82	22.48
	1.57490	101101.51					0.003943
1203.21	165.00	4369.67	8.17	6.40	7.29	8771.99	0.45
		188.04				183.78	22.48

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			HYCHAN.OUT				
	1.57365	101078.10					
1201.37	166.00	4369.67	8.17	6.39	7.29	8754.22	0.45
		187.90				183.65	22.49
	1.57231	101007.38					0.003941
1193.44	167.00	4369.64	8.14	6.37	7.27	8679.15	0.45
		187.34				183.10	22.50
	1.56503	100703.91					0.003937
1187.90	168.00	4369.62	8.12	6.35	7.26	8625.29	0.45
		186.95				182.71	22.51
	1.56073	100492.09					0.003936
1185.96	169.00	4369.61	8.11	6.35	7.26	8606.67	0.45
		186.81				182.58	22.51
	1.55919	100417.73					0.003936
1184.83	170.00	4369.61	8.11	6.35	7.25	8595.83	0.45
		186.73				182.50	22.51
	1.55789	100374.37					0.003935
1184.01	171.00	4369.60	8.10	6.34	7.25	8588.21	0.45
		186.67				182.44	22.52
	1.55761	100342.75					0.003935
1183.28	172.00	4369.60	8.10	6.34	7.25	8581.01	0.45
		186.62				182.39	22.52
	1.55690	100314.85					0.003935
1182.59	173.00	4369.60	8.10	6.34	7.25	8574.39	0.45
		186.57				182.34	22.52
	1.55588	100288.48					0.003934
1180.38	174.00	4369.59	8.09	6.33	7.25	8554.02	0.45
		186.41				182.19	22.52
	1.55394	100202.82					0.003933
1172.01	175.00	4369.56	8.06	6.31	7.23	8477.04	0.45
		185.81				181.60	22.53
	1.54650	99879.40					0.003929
1166.50	176.00	4369.54	8.04	6.29	7.22	8425.27	0.45
		185.41				181.21	22.54
	1.54254	99666.72					0.003929
1164.11	177.00	4369.53	8.03	6.28	7.22	8404.27	0.45
		185.24				181.04	22.55
	1.54116	99573.98					0.003930
1162.51	178.00	4369.52	8.02	6.28	7.22	8391.41	0.45
		185.13				180.93	22.55
	1.53979	99511.82					0.003930
1161.35	179.00	4369.52	8.02	6.28	7.22	8382.68	0.45
		185.04				180.85	22.55
	1.53876	99467.10					0.003929
1160.58	180.00	4369.52	8.02	6.27	7.22	8374.68	0.45
		184.99				180.79	22.55
	1.53815	99436.95					0.003929
1162.73	181.00	4369.52	8.02	6.28	7.22	8393.08	0.45
		185.14				180.95	22.55
	1.54129	99521.34					0.003933
1177.66	182.00	4369.58	8.08	6.32	7.24	8531.33	0.45
		186.22				182.00	22.53
	1.55234	100099.82					0.003934
1188.56	183.00	4369.62	8.12	6.36	7.26	8631.51	0.45
		187.00				182.76	22.51
	1.56195	100518.41					0.003938
1198.35	184.00	4369.66	8.16	6.38	7.28	8726.04	0.45
		187.69				183.44	22.49
	1.57062	100893.72					0.003942
1204.05	185.00	4369.68	8.18	6.40	7.29	8780.58	0.45
		188.10				183.84	22.48
	1.57461	101110.41					0.003942
1205.96	186.00	4369.68	8.18	6.41	7.30	8799.67	0.45
		188.23				183.97	22.48

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## HYCHAN.OUT

1207.06	1.57598	101183.18	8.19	6.41	7.30	8809.99	0.45	0.003945
1207.50	1.57792	101224.88	8.19	6.41	7.30	8814.68	0.45	0.003941
1207.85	1.57652	101241.41	8.19	6.41	7.30	8817.46	0.45	0.003943
1207.93	1.57781	101255.02	8.19	6.41	7.30	8818.31	0.45	0.003943
1208.09	1.57784	101257.62	8.19	6.41	7.30	8819.51	0.45	0.003944
1206.59	1.57837	101264.14	8.19	6.41	7.30	8805.33	0.45	0.003941
1199.03	1.57582	101206.31	8.16	6.39	7.28	8732.66	0.45	0.003937
1194.07	1.56894	100917.52	8.14	6.37	7.27	8685.25	0.45	0.003938
1192.20	1.56594	100728.95	8.13	6.37	7.27	8667.04	0.45	0.003938
1191.49	1.56436	100657.31	8.13	6.36	7.27	8660.25	0.45	0.003938
1190.85	1.56412	100630.24	8.13	6.36	7.27	8653.88	0.45	0.003935
1190.31	1.56243	100605.80	8.13	6.36	7.27	8648.52	0.45	0.003937
1189.97	1.56258	100584.84	8.12	6.36	7.27	8645.23	0.45	0.003935
	1.56188	100571.89						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 5101

MAXIMUM DISCHARGE (CFS) = 21905.07 AT TIME = 91.78  
 MAXIMUM STAGE = 4370.43 AT TIME = 89.99

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)			(FT)			
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	24.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT							
0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	61.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	62.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	63.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	64.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	65.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	66.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	67.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	68.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	69.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	70.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	71.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	72.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	73.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	74.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	75.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	76.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	77.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	78.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	79.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	80.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	81.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	82.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	83.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	84.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	85.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	86.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	87.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	88.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	89.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	90.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	91.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	92.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	93.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	94.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	96.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	97.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	98.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	99.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	101.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	102.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	103.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	104.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	106.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	107.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	108.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	109.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	110.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	111.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	112.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	113.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	114.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	115.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	116.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	117.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	118.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	119.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	121.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	122.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	123.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	124.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	125.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	126.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	127.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	128.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	129.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	131.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	132.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	133.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	134.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	136.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	137.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	138.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	139.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	141.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	142.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	143.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	144.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	145.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	146.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	147.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	148.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	149.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	151.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	152.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	153.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	154.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	155.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	156.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	157.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	158.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	159.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	160.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	161.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	162.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	163.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	164.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	165.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	166.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	167.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	168.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	169.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	170.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	171.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	172.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	173.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	174.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	175.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	176.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	177.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	178.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	179.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	181.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	182.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	183.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	184.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	186.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	187.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	188.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	189.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	190.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	191.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT							
0.00	192.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	193.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	194.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	195.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	196.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	197.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	198.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	199.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4040

MAXIMUM DISCHARGE (CFS) = 1552.75 AT TIME = 91.48  
 MAXIMUM STAGE = 4415.58 AT TIME = 91.46

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4407.34	0.00	0.00	0.00	0.00	0.00	0.000000

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HYCHAN.OUT						
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4407.34	0.00	0.00	0.00	0.000000

HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4407.34	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4407.34	0.00	0.00	0.00	0.00

HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4407.34	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.07	58.00	4407.44	0.10	0.06	0.00	0.03
0.07	0.000000	0.68	0.10	0.62	6.00	0.000000
0.11	59.00	4407.50	0.16	0.11	0.01	0.05
0.11	0.000000	1.10	0.10	1.01	6.39	0.000000
0.17	60.00	4407.53	0.19	0.16	0.03	0.06
0.17	0.000000	1.39	0.12	1.27	6.58	0.000000
0.16	61.00	4407.53	0.19	0.12	0.02	0.05
0.16	0.000000	1.38	0.12	1.26	6.57	0.000000
0.11	62.00	4407.49	0.15	0.11	0.01	0.05
0.11	0.000000	1.07	0.10	0.98	6.37	0.000000
0.06	63.00	4407.45	0.11	0.07	0.00	0.04
0.06	0.000000	0.73	0.08	0.67	6.06	0.000000
24.23	64.00	4409.44	2.11	1.82	44.19	0.22
24.23	0.000000	21.52	1.13	19.67	9.34	0.000000
56.39	65.00	4410.90	3.56	2.58	145.54	0.24
56.39	0.000000	39.33	1.43	35.92	10.09	0.000000
78.25	66.00	4411.55	4.21	2.85	223.28	0.25
78.25	0.000000	47.74	1.64	43.60	10.35	0.000000
96.12	67.00	4412.02	4.68	3.04	292.62	0.25
96.12	0.000000	53.82	1.79	49.15	10.51	0.000000
115.04	68.00	4412.47	5.13	3.22	370.74	0.25
115.04	0.000000	59.81	1.92	54.61	10.65	0.000000
140.57	69.00	4413.02	5.68	3.44	483.60	0.25
140.57	0.000000	67.22	2.09	61.37	10.81	0.000000
166.96	70.00	4413.54	6.20	3.63	606.81	0.26
166.96	0.000000	74.37	2.24	67.90	10.95	0.000000
	71.00	4413.76	6.42	3.79	684.98	0.26

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		HYCHAN.OUT					
180.66	77.36	2.34	70.63	11.01	0.000000		
0.00000	36725.21						
72.00	4413.85	6.51	4.00	761.31	0.28		
190.11	77.71	2.45	71.78	11.03	0.000000		
0.00000	37325.57						
73.00	4414.00	6.66	4.06	815.68	0.28		
200.78	78.02	2.57	73.71	11.07	0.000000		
0.00000	38329.89						
74.00	4414.09	6.75	4.07	844.64	0.28		
207.72	78.19	2.66	74.83	11.09	0.000000		
0.00000	38913.23						
75.00	4414.15	6.81	4.08	864.96	0.28		
211.92	78.32	2.71	75.61	11.10	0.000000		
0.00000	39315.06						
76.00	4414.20	6.86	4.09	880.70	0.28		
215.29	78.41	2.75	76.24	11.12	0.000000		
0.00000	39644.45						
77.00	4414.25	6.91	4.09	893.34	0.27		
218.46	78.51	2.78	76.86	11.13	0.000000		
0.00000	39968.92						
78.00	4414.32	6.98	4.13	918.47	0.28		
222.64	78.66	2.83	77.79	11.15	0.000000		
0.00000	40453.33						
79.00	4414.43	7.09	4.17	954.32	0.28		
228.88	78.87	2.90	79.16	11.17	0.000000		
0.00000	41161.73						
80.00	4414.58	7.24	4.25	1008.64	0.28		
237.53	79.18	3.00	81.15	11.21	0.000000		
0.00000	42195.92						
81.00	4414.77	7.43	4.33	1072.03	0.28		
247.72	79.55	3.11	83.53	11.25	0.000000		
0.00000	43435.32						
82.00	4415.01	7.67	4.45	1160.54	0.28		
260.83	80.03	3.26	86.64	11.30	0.000000		
0.00000	45054.30						
83.00	4415.22	7.88	4.53	1233.49	0.28		
272.45	80.47	3.39	89.46	11.35	0.000000		
0.00000	46517.12						
84.00	4415.37	8.03	4.56	1276.83	0.28		
279.78	80.76	3.46	91.36	11.38	0.000000		
0.00000	47506.10						
85.00	4415.51	8.17	4.62	1322.85	0.28		
286.61	81.04	3.54	93.22	11.41	0.000000		
0.00000	48473.09						
86.00	4415.63	8.29	4.77	1387.86	0.29		
291.04	81.28	3.58	94.77	11.43	0.000000		
0.00000	49280.12						
87.00	4415.73	8.39	4.92	1445.43	0.30		
294.08	81.48	3.61	96.05	11.45	0.000000		
0.00000	49946.80						
88.00	4415.80	8.46	5.03	1488.17	0.30		
296.10	81.62	3.63	97.03	11.47	0.000000		
0.00000	50458.20						
89.00	4415.86	8.52	5.04	1502.58	0.30		
297.91	81.74	3.64	97.79	11.48	0.000000		
0.00000	50852.23						
90.00	4415.91	8.57	5.06	1516.13	0.30		
299.72	81.85	3.66	98.49	11.49	0.000000		
0.00000	51215.05						
91.00	4415.94	8.60	5.06	1521.12	0.30		
300.49	81.90	3.67	98.82	11.49	0.000000		
0.00000	51385.61						
92.00	4415.92	8.58	5.06	1521.18	0.30		

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		HYCHAN.OUT				
300.61	81.87	3.67	98.63	11.49	0.000000	
0.00000	51289.28					
93.00	4415.91	8.57	5.00	1506.28	0.30	
301.21	81.84	3.68	98.46	11.49	0.000000	
0.00000	51200.80					
94.00	4415.90	8.56	4.93	1485.05	0.30	
301.20	81.82	3.68	98.35	11.49	0.000000	
0.00000	51139.67					
95.00	4415.90	8.56	4.86	1465.17	0.29	
301.30	81.81	3.68	98.28	11.48	0.000000	
0.00000	51103.29					
96.00	4415.89	8.55	4.78	1441.45	0.29	
301.42	81.80	3.68	98.18	11.48	0.000000	
0.00000	51052.06					
97.00	4415.87	8.53	4.68	1409.93	0.28	
301.33	81.76	3.69	97.94	11.48	0.000000	
0.00000	50928.96					
98.00	4415.82	8.48	4.57	1369.23	0.28	
299.59	81.65	3.67	97.20	11.47	0.000000	
0.00000	50542.36					
99.00	4415.73	8.39	4.44	1315.03	0.27	
296.50	81.47	3.64	96.01	11.45	0.000000	
0.00000	49923.79					
100.00	4415.63	8.29	4.37	1278.29	0.27	
292.40	81.27	3.60	94.74	11.43	0.000000	
0.00000	49263.93					
101.00	4415.50	8.16	4.33	1240.61	0.27	
286.45	81.01	3.54	93.02	11.40	0.000000	
0.00000	48372.02					
102.00	4415.33	7.99	4.27	1191.25	0.27	
278.73	80.68	3.45	90.85	11.37	0.000000	
0.00000	47243.58					
103.00	4415.22	7.88	4.25	1161.71	0.27	
273.27	80.46	3.40	89.44	11.35	0.000000	
0.00000	46506.76					
104.00	4415.13	7.79	4.24	1138.06	0.27	
268.38	80.27	3.34	88.19	11.33	0.000000	
0.00000	45856.94					
105.00	4415.01	7.67	4.23	1109.56	0.27	
262.04	80.04	3.27	86.66	11.30	0.000000	
0.00000	45062.35					
106.00	4414.88	7.54	4.21	1074.09	0.27	
254.85	79.77	3.19	84.97	11.27	0.000000	
0.00000	44183.13					
107.00	4414.75	7.41	4.18	1034.76	0.27	
247.53	79.52	3.11	83.34	11.24	0.000000	
0.00000	43335.11					
108.00	4414.67	7.33	4.16	1010.04	0.27	
242.97	79.36	3.06	82.28	11.23	0.000000	
0.00000	42784.12					
109.00	4414.58	7.24	4.14	983.90	0.27	
237.79	79.17	3.00	81.09	11.20	0.000000	
0.00000	42164.68					
110.00	4414.51	7.17	4.16	973.53	0.27	
233.74	79.05	2.96	80.27	11.19	0.000000	
0.00000	41741.99					
111.00	4414.41	7.07	4.13	940.64	0.27	
227.93	78.84	2.89	78.93	11.17	0.000000	
0.00000	41041.21					
112.00	4414.29	6.95	4.08	900.11	0.27	
220.79	78.59	2.81	77.37	11.14	0.000000	
0.00000	40230.09					
113.00	4414.24	6.90	4.07	886.85	0.27	

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		HYCHAN.OUT					
217.92	78.49	2.78	76.75	11.13	0.000000		
0.00000	39908.41						
114.00	4414.17	6.83	4.06	869.59	0.27		
214.02	78.37	2.73	75.93	11.11	0.000000		
0.00000	39483.16						
115.00	4414.10	6.76	4.06	847.27	0.28		
208.72	78.22	2.67	74.98	11.09	0.000000		
0.00000	38989.41						
116.00	4414.07	6.73	4.06	836.66	0.28		
206.00	78.15	2.64	74.55	11.08	0.000000		
0.00000	38768.50						
117.00	4414.04	6.70	4.04	826.69	0.28		
204.51	78.10	2.62	74.25	11.08	0.000000		
0.00000	38609.24						
118.00	4414.04	6.70	4.00	817.47	0.27		
204.47	78.09	2.62	74.18	11.08	0.000000		
0.00000	38573.50						
119.00	4414.01	6.67	3.97	804.18	0.27		
202.43	78.03	2.59	73.79	11.07	0.000000		
0.00000	38369.74						
120.00	4413.94	6.60	4.04	792.72	0.28		
196.42	77.89	2.52	72.90	11.05	0.000000		
0.00000	37909.52						
121.00	4413.91	6.57	4.03	783.34	0.28		
194.38	77.84	2.50	72.58	11.05	0.000000		
0.00000	37743.88						
122.00	4413.90	6.56	4.02	777.13	0.28		
193.16	77.81	2.48	72.39	11.04	0.000000		
0.00000	37641.47						
123.00	4413.88	6.54	4.02	772.55	0.28		
192.30	77.78	2.47	72.22	11.04	0.000000		
0.00000	37552.00						
124.00	4413.87	6.53	4.01	767.66	0.28		
191.39	77.75	2.46	72.02	11.04	0.000000		
0.00000	37449.05						
125.00	4413.85	6.51	4.00	762.65	0.28		
190.47	77.72	2.45	71.81	11.03	0.000000		
0.00000	37343.66						
126.00	4413.83	6.49	4.00	757.66	0.28		
189.54	77.69	2.44	71.61	11.03	0.000000		
0.00000	37238.10						
127.00	4413.82	6.48	3.99	752.65	0.28		
188.61	77.65	2.43	71.41	11.02	0.000000		
0.00000	37132.13						
128.00	4413.80	6.46	3.98	747.65	0.28		
187.68	77.62	2.42	71.20	11.02	0.000000		
0.00000	37025.73						
129.00	4413.79	6.45	3.98	742.66	0.28		
186.75	77.59	2.41	71.00	11.02	0.000000		
0.00000	36918.69						
130.00	4413.78	6.44	3.96	737.54	0.28		
186.13	77.57	2.40	70.88	11.01	0.000000		
0.00000	36857.49						
131.00	4413.78	6.44	3.94	732.45	0.27		
185.81	77.57	2.40	70.89	11.01	0.000000		
0.00000	36864.35						
132.00	4413.77	6.43	3.93	727.51	0.27		
185.25	77.57	2.39	70.86	11.01	0.000000		
0.00000	36845.59						
133.00	4413.77	6.43	3.91	722.52	0.27		
184.79	77.56	2.38	70.83	11.01	0.000000		
0.00000	36832.95						
134.00	4413.77	6.43	3.89	717.43	0.27		

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		HYCHAN.OUT					
184.32	77.56	2.38	70.83	11.01	0.000000		
0.00000	36829.11						
135.00	4413.77	6.43	3.87	712.51	0.27		
183.88	77.56	2.37	70.82	11.01	0.000000		
0.00000	36827.22						
136.00	4413.77	6.43	3.86	707.47	0.27		
183.43	77.56	2.37	70.81	11.01	0.000000		
0.00000	36823.19						
137.00	4413.77	6.43	3.84	702.43	0.27		
182.93	77.56	2.36	70.80	11.01	0.000000		
0.00000	36818.19						
138.00	4413.77	6.43	3.82	697.54	0.27		
182.49	77.55	2.35	70.80	11.01	0.000000		
0.00000	36815.00						
139.00	4413.77	6.43	3.80	692.54	0.26		
182.05	77.54	2.35	70.79	11.01	0.000000		
0.00000	36810.69						
140.00	4413.77	6.43	3.79	687.47	0.26		
181.56	77.53	2.34	70.78	11.01	0.000000		
0.00000	36804.00						
141.00	4413.77	6.43	3.77	684.02	0.26		
181.23	77.54	2.34	70.78	11.01	0.000000		
0.00000	36807.32						
142.00	4413.77	6.43	3.75	678.52	0.26		
180.71	77.52	2.33	70.77	11.01	0.000000		
0.00000	36799.64						
143.00	4413.76	6.42	3.72	669.45	0.26		
179.77	77.48	2.32	70.73	11.01	0.000000		
0.00000	36779.10						
144.00	4413.75	6.41	3.71	662.65	0.26		
178.74	77.33	2.31	70.59	11.01	0.000000		
0.00000	36708.36						
145.00	4413.73	6.39	3.70	657.65	0.26		
177.72	77.07	2.31	70.36	11.00	0.000000		
0.00000	36585.94						
146.00	4413.72	6.38	3.69	652.65	0.26		
176.70	76.81	2.30	70.12	11.00	0.000000		
0.00000	36462.43						
147.00	4413.70	6.36	3.69	647.65	0.26		
175.68	76.55	2.30	69.88	10.99	0.000000		
0.00000	36339.35						
148.00	4413.68	6.34	3.68	642.65	0.26		
174.66	76.29	2.29	69.65	10.99	0.000000		
0.00000	36216.51						
149.00	4413.66	6.32	3.67	637.65	0.26		
173.64	76.03	2.28	69.41	10.98	0.000000		
0.00000	36091.25						
150.00	4413.64	6.30	3.67	632.65	0.26		
172.62	75.76	2.28	69.17	10.98	0.000000		
0.00000	35966.61						
151.00	4413.62	6.28	3.66	627.66	0.26		
171.57	75.49	2.27	68.92	10.97	0.000000		
0.00000	35839.30						
152.00	4413.60	6.26	3.65	623.59	0.26		
170.72	75.28	2.27	68.72	10.97	0.000000		
0.00000	35735.93						
153.00	4413.60	6.26	3.65	621.53	0.26		
170.29	75.17	2.27	68.62	10.97	0.000000		
0.00000	35683.72						
154.00	4413.59	6.25	3.65	620.53	0.26		
170.07	75.11	2.26	68.57	10.97	0.000000		
0.00000	35657.60						
155.00	4413.59	6.25	3.65	620.00	0.26		

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		HYCHAN.OUT					
169.96	75.08	2.26	68.55	10.97	0.000000		
0.00000	35644.79						
156.00	4413.59	6.25	3.65	620.00	0.26		
169.96	75.09	2.26	68.55	10.97	0.000000		
0.00000	35645.04						
157.00	4413.59	6.25	3.65	620.00	0.26		
169.98	75.09	2.26	68.55	10.97	0.000000		
0.00000	35646.05						
158.00	4413.59	6.25	3.65	620.00	0.26		
169.97	75.09	2.26	68.55	10.97	0.000000		
0.00000	35646.03						
159.00	4413.59	6.25	3.65	620.00	0.26		
169.96	75.08	2.26	68.55	10.97	0.000000		
0.00000	35644.36						
160.00	4413.59	6.25	3.65	620.00	0.26		
169.96	75.08	2.26	68.55	10.97	0.000000		
0.00000	35644.67						
161.00	4413.59	6.25	3.65	620.00	0.26		
169.96	75.09	2.26	68.55	10.97	0.000000		
0.00000	35644.92						
162.00	4413.59	6.25	3.65	620.00	0.26		
169.96	75.08	2.26	68.55	10.97	0.000000		
0.00000	35644.35						
163.00	4413.59	6.25	3.65	620.00	0.26		
169.96	75.08	2.26	68.55	10.97	0.000000		
0.00000	35644.56						
164.00	4413.59	6.25	3.65	620.00	0.26		
169.96	75.08	2.26	68.55	10.97	0.000000		
0.00000	35644.46						
165.00	4413.59	6.25	3.65	620.00	0.26		
169.97	75.09	2.26	68.55	10.97	0.000000		
0.00000	35645.39						
166.00	4413.59	6.25	3.65	620.01	0.26		
169.97	75.09	2.26	68.55	10.97	0.000000		
0.00000	35645.23						
167.00	4413.59	6.25	3.65	619.53	0.26		
169.87	75.06	2.26	68.52	10.97	0.000000		
0.00000	35632.93						
168.00	4413.58	6.24	3.64	617.59	0.26		
169.48	74.96	2.26	68.43	10.96	0.000000		
0.00000	35583.91						
169.00	4413.57	6.23	3.64	614.59	0.26		
168.85	74.80	2.26	68.28	10.96	0.000000		
0.00000	35507.52						
170.00	4413.56	6.22	3.64	612.06	0.26		
168.33	74.66	2.25	68.16	10.96	0.000000		
0.00000	35442.72						
171.00	4413.55	6.21	3.63	609.59	0.26		
167.82	74.53	2.25	68.04	10.96	0.000000		
0.00000	35379.24						
172.00	4413.54	6.20	3.63	607.06	0.26		
167.29	74.39	2.25	67.91	10.95	0.000000		
0.00000	35314.70						
173.00	4413.53	6.19	3.63	604.59	0.26		
166.78	74.26	2.25	67.79	10.95	0.000000		
0.00000	35251.18						
174.00	4413.52	6.18	3.62	602.06	0.26		
166.26	74.12	2.24	67.67	10.95	0.000000		
0.00000	35186.78						
175.00	4413.51	6.17	3.62	599.59	0.26		
165.74	73.98	2.24	67.54	10.95	0.000000		
0.00000	35122.22						
176.00	4413.50	6.16	3.61	597.06	0.26		

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		HYCHAN.OUT					
165.22	73.85	2.24	67.42	10.94	0.000000		
0.00000	35057.05						
177.00	4413.49	6.15	3.61	595.06	0.26		
164.80	73.74	2.23	67.32	10.94	0.000000		
0.00000	35005.43						
178.00	4413.49	6.15	3.61	593.06	0.26		
164.38	73.63	2.23	67.22	10.94	0.000000		
0.00000	34953.98						
179.00	4413.48	6.14	3.60	591.06	0.26		
163.97	73.52	2.23	67.12	10.94	0.000000		
0.00000	34901.83						
180.00	4413.47	6.13	3.60	589.06	0.26		
163.54	73.41	2.23	67.02	10.93	0.000000		
0.00000	34849.45						
181.00	4413.46	6.12	3.60	587.06	0.26		
163.13	73.30	2.23	66.92	10.93	0.000000		
0.00000	34797.39						
182.00	4413.45	6.11	3.60	585.06	0.26		
162.71	73.19	2.22	66.82	10.93	0.000000		
0.00000	34745.25						
183.00	4413.44	6.11	3.59	583.06	0.26		
162.28	73.08	2.22	66.72	10.93	0.000000		
0.00000	34692.57						
184.00	4413.44	6.10	3.59	581.07	0.26		
161.86	72.97	2.22	66.61	10.93	0.000000		
0.00000	34639.30						
185.00	4413.43	6.09	3.59	579.06	0.26		
161.43	72.85	2.22	66.51	10.92	0.000000		
0.00000	34586.36						
186.00	4413.42	6.08	3.58	577.06	0.26		
161.01	72.74	2.21	66.41	10.92	0.000000		
0.00000	34533.24						
187.00	4413.41	6.07	3.58	575.06	0.26		
160.59	72.63	2.21	66.31	10.92	0.000000		
0.00000	34480.18						
188.00	4413.40	6.06	3.58	573.06	0.26		
160.17	72.52	2.21	66.21	10.92	0.000000		
0.00000	34427.00						
189.00	4413.40	6.06	3.57	571.07	0.26		
159.75	72.41	2.21	66.10	10.91	0.000000		
0.00000	34374.08						
190.00	4413.39	6.05	3.57	569.06	0.26		
159.33	72.29	2.20	66.00	10.91	0.000000		
0.00000	34321.12						
191.00	4413.38	6.04	3.57	567.06	0.26		
158.90	72.18	2.20	65.90	10.91	0.000000		
0.00000	34267.76						
192.00	4413.37	6.03	3.57	565.06	0.26		
158.47	72.07	2.20	65.80	10.91	0.000000		
0.00000	34213.94						
193.00	4413.36	6.02	3.56	563.06	0.26		
158.05	71.96	2.20	65.69	10.91	0.000000		
0.00000	34161.02						
194.00	4413.35	6.02	3.56	561.06	0.26		
157.64	71.84	2.19	65.59	10.90	0.000000		
0.00000	34107.79						
195.00	4413.35	6.01	3.56	559.06	0.26		
157.21	71.73	2.19	65.49	10.90	0.000000		
0.00000	34054.15						
196.00	4413.34	6.00	3.55	557.06	0.26		
156.78	71.62	2.19	65.38	10.90	0.000000		
0.00000	34000.05						
197.00	4413.33	5.99	3.55	555.06	0.26		

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		HYCHAN.OUT					
156.36	71.50	2.19	65.28	10.90	0.000000		
0.00000	33946.68						
198.00	4413.32	5.98	3.55	553.06	0.26		
155.94	71.39	2.18	65.18	10.90	0.000000		
0.00000	33892.89						
199.00	4413.31	5.97	3.54	551.13	0.26		
155.51	71.27	2.18	65.07	10.89	0.000000		
0.00000	33834.82						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4041

MAXIMUM DISCHARGE (CFS) = 1508.37 AT TIME = 91.79  
 MAXIMUM STAGE = 4413.61 AT TIME = 96.88

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	فرويد NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE
SHEAR	STRESS	SURFACE	AREA		WIDTH			
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)		(FT)	(FT^2)		(FT)			
0.00	0.00	4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
6.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
7.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
8.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
9.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
10.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
11.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
12.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
13.00		4405.83	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4405.83	0.00	0.00	0.00	0.00	0.000000
0.08	0.00000	0.00	0.11	0.06	0.00	0.03	0.001739
0.08	58.00	4405.94	0.11	0.66	6.05		
0.16	0.01218	397.15	0.19	0.13	0.02	0.05	0.001728
0.16	59.00	4406.02	0.12	1.22	6.55		
0.21	0.01271	733.38	0.22	0.25	0.05	0.09	0.001711
0.21	60.00	4406.05	0.13	1.47	6.70		
0.20	0.01417	881.42	0.21	0.25	0.05	0.10	0.001719
0.20	61.00	4406.04	0.13	1.43	6.68		
0.16	0.01398	860.12	0.19	0.12	0.02	0.05	0.001713
0.16	62.00	4406.02	0.12	1.24	6.56		
0.11	0.01248	744.60	0.16	0.11	0.01	0.05	0.001709
0.11	63.00	4405.99	0.10	1.02	6.39		
22.57	0.01074	610.19	1.84	1.67	37.80	0.22	0.001897
22.57	64.00	4407.67	1.22	16.90	9.16		
52.36	0.14450	10140.97	3.39	2.69	140.77	0.26	0.001899
52.36	65.00	4409.22	1.41	33.96	10.02		
73.62	0.16686	20378.64	4.00	3.00	221.04	0.26	0.001890
73.62	66.00	4409.83	1.63	41.13	10.27		
89.87	0.19280	24677.04	4.42	3.22	289.23	0.27	0.001927
89.87	67.00	4410.25	1.78	46.04	10.42		
107.48	0.21437	27622.45	4.82	3.43	368.42	0.28	0.001938
107.48	68.00	4410.65	1.93	50.92	10.56		
129.98	0.23311	30549.12	5.30	3.68	478.22	0.28	0.001999
129.98	69.00	4411.13	2.09	56.74	10.70		
154.47	0.26090	34045.68	5.77	3.91	604.42	0.29	0.002002
154.47	70.00	4411.60	2.25	62.55	10.84		
168.84	0.28171	37530.88	6.03	4.04	682.53	0.29	0.001913
168.84	71.00	4411.86	2.34	65.80	10.91		
182.16	0.27958	39479.27	6.26	4.17	759.35	0.29	0.001888
182.16	72.00	4412.09	2.42	68.64	10.97		
192.02	0.28545	41186.46	6.43	4.24	814.12	0.29	0.001873
192.02	73.00	4412.26	2.48	70.77	11.01		
199.52	0.28953	42459.16	6.54	4.23	843.77	0.29	0.001873
199.52	74.00	4412.37	2.57	72.17	11.04		
203.81	0.29990	43299.41	6.60	4.23	862.78	0.29	0.001870
203.81	75.00	4412.43	2.62	72.93	11.05		
207.03	0.30536	43760.84	6.65	4.23	876.60	0.29	0.001879
207.03	76.00	4412.48	2.65	73.57	11.07		
		77.99					

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		HYCHAN.OUT						
	0.31117	44140.53						
209.89	77.00	4412.53	6.70	4.23	887.13	0.29		
		78.09	2.69		74.17	11.08		0.001885
	0.31622	44500.81						
213.20	78.00	4412.58	6.75	4.26	907.52	0.29		
		78.20	2.73		74.86	11.09		0.001911
	0.32515	44914.95						
218.25	79.00	4412.66	6.83	4.28	933.68	0.29		
		78.36	2.79		75.90	11.11		0.001932
	0.33577	45540.18						
224.28	80.00	4412.77	6.94	4.35	975.74	0.29		
		78.58	2.85		77.31	11.14		0.002004
	0.35695	46383.94						
231.25	81.00	4412.90	7.07	4.44	1027.10	0.29		
		78.85	2.93		79.00	11.17		0.002049
	0.37503	47402.87						
240.34	82.00	4413.07	7.24	4.56	1095.88	0.30		
		79.18	3.04		81.12	11.21		0.002136
	0.40452	48672.23						
248.76	83.00	4413.22	7.39	4.66	1158.95	0.30		
		79.49	3.13		83.12	11.24		0.002178
	0.42530	49870.73						
254.04	84.00	4413.32	7.49	4.69	1191.62	0.30		
		79.68	3.19		84.39	11.26		0.002214
	0.44047	50632.64						
258.76	85.00	4413.41	7.58	4.74	1227.74	0.30		
		79.86	3.24		85.53	11.28		0.002261
	0.45712	51315.16						
261.03	86.00	4413.45	7.62	4.98	1299.16	0.32		
		79.94	3.27		86.02	11.29		0.002265
	0.46160	51611.66						
262.23	87.00	4413.47	7.64	5.20	1362.98	0.33		
		79.97	3.28		86.26	11.29		0.002290
	0.46853	51757.68						
262.81	88.00	4413.48	7.65	5.38	1414.13	0.34		
		79.99	3.29		86.38	11.30		0.002327
	0.47704	51827.91						
263.99	89.00	4413.50	7.67	5.41	1429.22	0.34		
		80.04	3.30		86.68	11.30		0.002317
	0.47689	52005.36						
265.26	90.00	4413.52	7.69	5.44	1441.86	0.35		
		80.09	3.31		86.98	11.31		0.002331
	0.48176	52189.61						
265.91	91.00	4413.53	7.70	5.45	1449.15	0.35		
		80.11	3.32		87.13	11.31		0.002314
	0.47931	52277.19						
265.96	92.00	4413.54	7.71	5.44	1445.88	0.35		
		80.11	3.32		87.14	11.31		0.002327
	0.48205	52285.16						
266.79	93.00	4413.55	7.72	5.33	1421.20	0.34		
		80.15	3.33		87.38	11.31		0.002338
	0.48566	52426.10						
267.34	94.00	4413.57	7.74	5.22	1395.87	0.33		
		80.17	3.33		87.54	11.32		0.002309
	0.48036	52524.94						
267.86	95.00	4413.58	7.75	5.11	1369.40	0.32		
		80.20	3.34		87.72	11.32		0.002315
	0.48241	52629.39						
268.50	96.00	4413.60	7.77	4.99	1339.21	0.32		
		80.23	3.35		87.92	11.32		0.002321
	0.48475	52751.41						
269.09	97.00	4413.61	7.78	4.83	1299.22	0.31		
		80.26	3.35		88.12	11.32		0.002314

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## HYCHAN.OUT

0.48414	52874.88						
98.00	4413.60	7.77	4.67	1253.85	0.30		
268.51	80.25	3.35		88.04	11.32	0.002274	
0.47481	52821.44						
99.00	4413.58	7.75	4.47	1193.96	0.28		
267.04	80.20	3.33		87.74	11.32	0.002255	
0.46860	52646.69						
100.00	4413.53	7.71	4.39	1161.54	0.28		
264.51	80.11	3.30		87.13	11.31	0.002230	
0.45942	52279.71						
101.00	4413.46	7.63	4.35	1133.51	0.28		
260.47	79.95	3.26		86.13	11.29	0.002186	
0.44445	51679.15						
102.00	4413.36	7.53	4.29	1095.16	0.28		
255.16	79.75	3.20		84.84	11.27	0.002144	
0.42807	50901.72						
103.00	4413.28	7.45	4.27	1073.86	0.28		
251.22	79.61	3.16		83.88	11.25	0.002130	
0.41951	50328.71						
104.00	4413.22	7.39	4.28	1060.27	0.28		
247.79	79.47	3.12		83.02	11.24	0.002090	
0.40657	49811.02						
105.00	4413.13	7.30	4.28	1040.70	0.28		
243.14	79.29	3.07		81.86	11.22	0.002061	
0.39444	49117.63						
106.00	4413.03	7.20	4.28	1018.81	0.28		
237.84	79.10	3.01		80.60	11.20	0.002013	
0.37767	48357.41						
107.00	4412.93	7.10	4.26	990.67	0.28		
232.42	78.90	2.95		79.33	11.17	0.001999	
0.36750	47600.45						
108.00	4412.87	7.04	4.24	970.69	0.28		
229.00	78.77	2.91		78.54	11.16	0.001970	
0.35728	47122.27						
109.00	4412.80	6.97	4.22	952.13	0.28		
225.36	78.63	2.87		77.63	11.14	0.001946	
0.34793	46576.53						
110.00	4412.73	6.90	4.27	949.43	0.29		
222.16	78.51	2.83		76.82	11.13	0.001932	
0.34108	46092.71						
111.00	4412.66	6.83	4.25	925.46	0.29		
217.94	78.35	2.78		75.84	11.11	0.001887	
0.32757	45501.33						
112.00	4412.56	6.73	4.21	893.17	0.29		
212.07	78.16	2.71		74.63	11.09	0.001881	
0.31853	44776.51						
113.00	4412.52	6.69	4.22	883.28	0.29		
209.54	78.08	2.68		74.11	11.08	0.001875	
0.31405	44465.68						
114.00	4412.46	6.64	4.21	869.20	0.29		
206.31	77.97	2.65		73.40	11.06	0.001853	
0.30595	44041.72						
115.00	4412.39	6.56	4.22	848.09	0.29		
201.14	77.81	2.59		72.39	11.04	0.001869	
0.30154	43434.50						
116.00	4412.34	6.51	4.22	837.22	0.29		
198.18	77.72	2.55		71.82	11.03	0.001864	
0.29657	43093.70						
117.00	4412.32	6.49	4.21	828.02	0.29		
196.79	77.68	2.53		71.58	11.03	0.001868	
0.29536	42949.89						
118.00	4412.33	6.50	4.17	818.15	0.29		
196.02	77.69	2.52		71.64	11.03	0.001870	

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		HYCHAN.OUT						
	0.29446	42982.62						
193.61	119.00	4412.30	6.47	4.17	807.37	0.29		
		77.63	2.49		71.27	11.02		0.001895
	0.29488	42763.12						
188.43	120.00	4412.19	6.36	4.22	794.58	0.29		
		76.65	2.46		69.98	10.99		0.001883
	0.28879	41985.25						
186.53	121.00	4412.16	6.33	4.20	783.89	0.29		
		76.20	2.45		69.56	10.99		0.001886
	0.28808	41737.48						
185.41	122.00	4412.14	6.31	4.19	777.43	0.29		
		75.93	2.44		69.32	10.98		0.001886
	0.28736	41593.46						
184.59	123.00	4412.13	6.30	4.19	772.71	0.29		
		75.74	2.44		69.15	10.98		0.001886
	0.28682	41489.69						
183.75	124.00	4412.11	6.28	4.18	767.80	0.29		
		75.55	2.43		68.97	10.97		0.001885
	0.28613	41381.55						
182.87	125.00	4412.10	6.27	4.17	762.81	0.29		
		75.34	2.43		68.78	10.97		0.001884
	0.28540	41269.59						
182.01	126.00	4412.08	6.25	4.16	757.80	0.29		
		75.14	2.42		68.60	10.97		0.001884
	0.28474	41158.35						
181.13	127.00	4412.07	6.24	4.16	752.78	0.29		
		74.93	2.42		68.41	10.96		0.001884
	0.28411	41046.13						
180.27	128.00	4412.05	6.23	4.15	747.81	0.29		
		74.73	2.41		68.22	10.96		0.001883
	0.28345	40933.55						
179.39	129.00	4412.04	6.21	4.14	742.79	0.29		
		74.52	2.41		68.03	10.96		0.001883
	0.28277	40820.86						
178.60	130.00	4412.03	6.20	4.13	737.54	0.29		
		74.36	2.40		67.89	10.95		0.001889
	0.28310	40734.00						
177.82	131.00	4412.02	6.19	4.12	732.72	0.29		
		74.20	2.40		67.74	10.95		0.001886
	0.28201	40644.21						
176.91	132.00	4412.00	6.17	4.11	727.62	0.29		
		73.98	2.39		67.54	10.95		0.001906
	0.28439	40523.17						
176.09	133.00	4411.99	6.16	4.10	722.64	0.29		
		73.79	2.39		67.37	10.94		0.001913
	0.28479	40421.29						
175.20	134.00	4411.97	6.14	4.10	717.63	0.29		
		73.58	2.38		67.18	10.94		0.001913
	0.28427	40306.67						
174.34	135.00	4411.96	6.13	4.09	712.59	0.29		
		73.38	2.38		66.99	10.93		0.001924
	0.28527	40196.43						
173.48	136.00	4411.94	6.11	4.08	707.68	0.29		
		73.18	2.37		66.81	10.93		0.001936
	0.28640	40085.76						
172.57	137.00	4411.93	6.10	4.07	702.63	0.29		
		72.96	2.37		66.61	10.93		0.001948
	0.28748	39963.66						
171.71	138.00	4411.91	6.08	4.06	697.59	0.29		
		72.76	2.36		66.43	10.92		0.001949
	0.28706	39855.75						
170.85	139.00	4411.90	6.07	4.05	692.69	0.29		
		72.56	2.35		66.24	10.92		0.001958

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		HYCHAN.OUT						
	0.28764	39746.33						
169.96	140.00	4411.88	6.05	4.05	687.65	10.91	0.29	
		72.35	2.35		66.05			0.001968
	0.28843	39629.75						
169.30	141.00	4411.87	6.04	4.04	684.02	10.91	0.29	
		72.19	2.35		65.90			0.001970
	0.28825	39542.44						
168.37	142.00	4411.85	6.02	4.03	678.78	10.91	0.29	
		71.96	2.34		65.70			0.001983
	0.28956	39417.72						
166.74	143.00	4411.82	5.99	4.02	669.77	10.90	0.29	
		71.56	2.33		65.33			0.002000
	0.29080	39199.10						
165.42	144.00	4411.80	5.97	4.01	662.82	10.89	0.29	
		71.22	2.32		65.02			0.001998
	0.28962	39014.54						
164.51	145.00	4411.78	5.95	4.00	657.81	10.89	0.29	
		71.00	2.32		64.82			0.001997
	0.28879	38892.53						
163.59	146.00	4411.77	5.94	3.99	652.80	10.88	0.29	
		70.77	2.31		64.61			0.001996
	0.28787	38768.05						
162.68	147.00	4411.75	5.92	3.98	647.80	10.88	0.29	
		70.55	2.31		64.41			0.001995
	0.28702	38645.54						
161.76	148.00	4411.73	5.90	3.97	642.81	10.87	0.29	
		70.32	2.30		64.20			0.001993
	0.28611	38521.91						
160.85	149.00	4411.72	5.89	3.97	637.79	10.87	0.29	
		70.09	2.29		64.00			0.001993
	0.28534	38397.37						
159.93	150.00	4411.70	5.87	3.96	632.81	10.87	0.29	
		69.87	2.29		63.79			0.001991
	0.28442	38273.13						
159.00	151.00	4411.68	5.85	3.95	627.82	10.86	0.29	
		69.63	2.28		63.58			0.001989
	0.28344	38145.67						
158.23	152.00	4411.67	5.84	3.94	623.68	10.86	0.29	
		69.44	2.28		63.40			0.001990
	0.28286	38041.35						
157.82	153.00	4411.66	5.83	3.94	621.57	10.85	0.29	
		69.34	2.28		63.31			0.001989
	0.28247	37986.48						
157.62	154.00	4411.66	5.83	3.94	620.56	10.85	0.29	
		69.29	2.27		63.26			0.001989
	0.28230	37958.61						
157.53	155.00	4411.66	5.83	3.94	620.01	10.85	0.29	
		69.27	2.27		63.24			0.001988
	0.28216	37946.12						
157.53	156.00	4411.66	5.83	3.94	619.99	10.85	0.29	
		69.27	2.27		63.24			0.001989
	0.28219	37945.97						
157.54	157.00	4411.66	5.83	3.94	619.99	10.85	0.29	
		69.27	2.27		63.25			0.001989
	0.28222	37947.80						
157.54	158.00	4411.66	5.83	3.94	620.01	10.85	0.29	
		69.27	2.27		63.25			0.001989
	0.28223	37947.23						
157.52	159.00	4411.66	5.83	3.94	619.99	10.85	0.29	
		69.27	2.27		63.24			0.001989
	0.28226	37944.98						
157.52	160.00	4411.66	5.83	3.94	620.00	10.85	0.29	
		69.27	2.27		63.24			0.001989

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HYCHAN.OUT									
0.28221	37945.14								
157.52	161.00	4411.66	5.83	3.94	620.01	10.85	0.29		
		69.27	2.27		63.24			0.001988	
0.28216	37945.77								
157.51	162.00	4411.66	5.83	3.94	619.99	10.85	0.29		
		69.27	2.27		63.24			0.001989	
0.28225	37944.19								
157.52	163.00	4411.66	5.83	3.94	620.01	10.85	0.29		
		69.27	2.27		63.24			0.001989	
0.28226	37944.42								
157.52	164.00	4411.66	5.83	3.94	619.99	10.85	0.29		
		69.27	2.27		63.24			0.001989	
0.28228	37944.54								
157.53	165.00	4411.66	5.83	3.94	620.00	10.85	0.29		
		69.27	2.27		63.25			0.001989	
0.28229	37947.39								
157.53	166.00	4411.66	5.83	3.94	620.00	10.85	0.29		
		69.27	2.27		63.24			0.001989	
0.28223	37946.50								
157.45	167.00	4411.66	5.83	3.93	619.56	10.85	0.29		
		69.25	2.27		63.22			0.001988	
0.28212	37934.92								
157.11	168.00	4411.65	5.82	3.93	617.68	10.85	0.29		
		69.16	2.27		63.15			0.001988	
0.28175	37887.54								
156.55	169.00	4411.64	5.81	3.93	614.68	10.85	0.29		
		69.02	2.27		63.02			0.001987	
0.28118	37809.98								
156.07	170.00	4411.63	5.80	3.92	612.12	10.85	0.29		
		68.91	2.27		62.91			0.001986	
0.28074	37746.41								
155.62	171.00	4411.62	5.79	3.92	609.67	10.84	0.29		
		68.79	2.26		62.80			0.001986	
0.28031	37682.86								
155.15	172.00	4411.61	5.78	3.91	607.13	10.84	0.29		
		68.67	2.26		62.70			0.001985	
0.27987	37617.66								
154.69	173.00	4411.60	5.77	3.91	604.70	10.84	0.29		
		68.55	2.26		62.59			0.001984	
0.27930	37554.25								
154.22	174.00	4411.60	5.77	3.90	602.12	10.84	0.29		
		68.44	2.25		62.48			0.001983	
0.27887	37489.44								
153.76	175.00	4411.59	5.76	3.90	599.68	10.83	0.29		
		68.32	2.25		62.37			0.001983	
0.27852	37424.62								
153.28	176.00	4411.58	5.75	3.90	597.12	10.83	0.29		
		68.20	2.25		62.27			0.001983	
0.27804	37359.52								
152.90	177.00	4411.57	5.74	3.89	595.13	10.83	0.29		
		68.10	2.25		62.18			0.001982	
0.27764	37307.00								
152.53	178.00	4411.56	5.73	3.89	593.12	10.83	0.29		
		68.01	2.24		62.09			0.001981	
0.27729	37254.79								
152.16	179.00	4411.56	5.73	3.88	591.12	10.83	0.29		
		67.91	2.24		62.01			0.001980	
0.27688	37203.26								
151.78	180.00	4411.55	5.72	3.88	589.13	10.82	0.29		
		67.81	2.24		61.92			0.001980	
0.27653	37149.52								
151.40	181.00	4411.54	5.71	3.88	587.12	10.82	0.29		
		67.72	2.24		61.83			0.001980	

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HYCHAN.OUT									
	0.27616	37097.89							
151.03	182.00	4411.54	5.71	3.87	61.74	585.12	10.82	0.29	0.001980
	0.27590	37045.26	2.23						
150.65	183.00	4411.53	5.70	3.87	61.65	583.12	10.82	0.29	0.001979
	0.27546	36991.60	2.23						
150.26	184.00	4411.52	5.69	3.87	61.56	581.13	10.82	0.29	0.001978
	0.27504	36938.12	2.23						
149.88	185.00	4411.51	5.68	3.86	61.47	579.12	10.81	0.29	0.001978
	0.27476	36884.62	2.22						
149.49	186.00	4411.51	5.68	3.86	61.39	577.12	10.81	0.29	0.001977
	0.27435	36831.25	2.22						
149.12	187.00	4411.50	5.67	3.86	61.30	575.12	10.81	0.29	0.001977
	0.27398	36778.64	2.22						
148.74	188.00	4411.49	5.66	3.85	61.21	573.13	10.81	0.29	0.001977
	0.27365	36725.82	2.22						
148.36	189.00	4411.49	5.66	3.85	61.12	571.12	10.81	0.29	0.001975
	0.27315	36671.75	2.21						
147.99	190.00	4411.48	5.65	3.85	61.03	569.13	10.80	0.29	0.001975
	0.27280	36619.05	2.21						
147.60	191.00	4411.47	5.64	3.84	60.94	567.13	10.80	0.29	0.001974
	0.27236	36564.68	2.21						
147.22	192.00	4411.46	5.63	3.84	60.85	565.12	10.80	0.29	0.001974
	0.27210	36510.43	2.21						
146.84	193.00	4411.46	5.63	3.83	60.76	563.13	10.80	0.29	0.001973
	0.27167	36457.01	2.20						
146.47	194.00	4411.45	5.62	3.83	60.67	561.13	10.80	0.28	0.001973
	0.27130	36404.21	2.20						
146.09	195.00	4411.44	5.61	3.83	60.58	559.12	10.79	0.28	0.001972
	0.27099	36348.63	2.20						
145.70	196.00	4411.44	5.61	3.82	60.49	557.13	10.79	0.28	0.001972
	0.27058	36295.15	2.20						
145.33	197.00	4411.43	5.60	3.82	60.40	555.12	10.79	0.28	0.001971
	0.27017	36241.52	2.19						
144.95	198.00	4411.42	5.59	3.82	60.31	553.12	10.79	0.28	0.001970
	0.26981	36187.25	2.19						
144.57	199.00	4411.41	5.58	3.81	60.22	551.13	10.79	0.28	0.001864
	0.25491	36132.98							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3977

MAXIMUM DISCHARGE (CFS) = 1297.78 AT TIME = 90.22  
 MAXIMUM STAGE = 4411.59 AT TIME = 96.54

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
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HYCHAN.OUT								
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA	AREA						
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(FT)	(CFS)		
(LB/FT^2)	(FT^2)							
0.00	0.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4404.33	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT							
0.00	19.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	40.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4404.33	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.08	58.00	4404.44	0.11	0.06	0.00	0.03	0.001718
0.08	0.01212	0.72	0.11	0.66	6.05		
0.17	59.00	398.71	0.19	0.17	0.03	0.07	0.001708
0.17	0.01301	1.37	0.12	1.25	6.57		
0.26	60.00	752.88	0.24	0.27	0.07	0.10	0.001689
0.26	0.01533	1.80	0.15	1.65	6.80		
		989.45					

HYCHAN.OUT							
0.28	61.00	4404.58	0.25	0.28	0.08	0.10	
	0.01571	1.89	0.15	1.74	6.85		0.001677
	62.00	1041.18					
0.19		4404.53	0.20	0.18	0.03	0.07	
	0.01389	1.48	0.13	1.36	6.63		0.001706
	63.00	815.28					
0.15		4404.51	0.18	0.12	0.02	0.05	
	0.01193	1.30	0.11	1.19	6.52		0.001692
	64.00	715.22					
21.64		4405.93	1.60	1.47	31.89	0.21	
	0.15479	15.67	1.38	14.32	8.97		0.001795
	65.00	8592.41					
51.07		4407.63	3.30	2.66	135.91	0.26	
	0.15464	36.11	1.41	32.98	9.98		0.001752
	66.00	19790.17					
72.96		4408.30	3.97	3.00	218.60	0.27	
	0.17548	44.57	1.64	40.71	10.26		0.001718
	67.00	24423.83					
89.07		4408.71	4.38	3.21	285.91	0.27	
	0.19204	49.90	1.78	45.57	10.41		0.001724
	68.00	27342.05					
106.90		4409.13	4.80	3.42	366.03	0.28	
	0.20605	55.41	1.93	50.60	10.55		0.001712
	69.00	30361.03					
128.91		4409.59	5.26	3.67	473.00	0.28	
	0.22559	61.56	2.09	56.21	10.69		0.001726
	70.00	33727.43					
153.79		4410.08	5.75	3.91	601.92	0.29	
	0.24076	68.17	2.26	62.24	10.83		0.001710
	71.00	37343.54					
168.08		4410.33	6.01	4.05	680.10	0.29	
	0.24992	71.70	2.34	65.46	10.90		0.001709
	72.00	39278.63					
181.65		4410.57	6.24	4.17	757.31	0.29	
	0.25771	74.95	2.42	68.42	10.96		0.001704
	73.00	41054.78					
191.21		4410.73	6.40	4.25	812.76	0.30	
	0.26585	77.17	2.48	70.45	11.00		0.001719
	74.00	42269.09					
198.54		4410.84	6.51	4.24	842.29	0.29	
	0.27367	77.72	2.55	71.82	11.03		0.001717
	75.00	43090.52					
202.83		4410.90	6.57	4.24	860.38	0.29	
	0.27889	77.84	2.61	72.59	11.05		0.001715
	76.00	43552.22					
205.78		4410.94	6.61	4.22	868.94	0.29	
	0.28492	77.93	2.64	73.13	11.06		0.001729
	77.00	43877.00					
208.18		4410.98	6.65	4.20	873.67	0.29	
	0.28874	78.00	2.67	73.57	11.07		0.001734
	78.00	44142.77					
211.00		4411.02	6.69	4.21	888.65	0.29	
	0.29533	78.08	2.70	74.09	11.08		0.001751
	79.00	44454.88					
215.45		4411.08	6.75	4.22	909.31	0.29	
	0.30558	78.20	2.75	74.90	11.09		0.001778
	80.00	44942.16					
219.85		4411.15	6.82	4.24	932.23	0.29	
	0.32057	78.34	2.81	75.74	11.11		0.001831
	81.00	45443.91					
224.56		4411.22	6.89	4.25	953.72	0.29	
	0.33360	78.48	2.86	76.66	11.12		0.001868
		45997.56					

HYCHAN.OUT							
230.92	82.00	4411.32	6.99	4.29	989.78	0.29	0.001936
	0.35446	78.68	2.93		77.96	11.15	
		46775.54					
236.37	83.00	4411.41	7.09	4.31	1017.80	0.29	0.001980
	0.37033	78.87	3.00		79.14	11.17	
		47482.16					
239.70	84.00	4411.47	7.14	4.29	1027.32	0.28	0.002015
	0.38165	78.98	3.03		79.87	11.18	
		47924.52					
242.72	85.00	4411.52	7.19	4.30	1043.27	0.28	0.002046
	0.39184	79.09	3.07		80.53	11.19	
		48316.80					
244.69	86.00	4411.55	7.22	4.52	1105.36	0.30	0.002030
	0.39170	79.14	3.09		80.88	11.20	
		48525.90					
245.74	87.00	4411.57	7.24	4.73	1163.05	0.31	0.002052
	0.39748	79.17	3.10		81.08	11.20	
		48647.27					
246.24	88.00	4411.57	7.24	4.92	1212.73	0.32	0.002069
	0.40140	79.18	3.11		81.17	11.21	
		48701.89					
246.62	89.00	4411.59	7.26	4.95	1221.34	0.32	0.002054
	0.39911	79.21	3.11		81.34	11.21	
		48804.81					
247.44	90.00	4411.60	7.27	4.96	1227.70	0.32	0.002089
	0.40701	79.24	3.12		81.53	11.21	
		48919.26					
247.89	91.00	4411.61	7.28	4.97	1232.21	0.32	0.002058
	0.40173	79.26	3.13		81.64	11.21	
		48981.95					
247.94	92.00	4411.61	7.28	4.96	1229.13	0.32	0.002063
	0.40273	79.26	3.13		81.63	11.21	
		48976.22					
248.30	93.00	4411.62	7.29	4.84	1200.61	0.32	0.002104
	0.41132	79.27	3.13		81.71	11.22	
		49028.07					
248.47	94.00	4411.62	7.29	4.72	1172.66	0.31	0.002083
	0.40729	79.28	3.13		81.78	11.22	
		49068.76					
248.59	95.00	4411.62	7.29	4.60	1144.23	0.30	0.002102
	0.41131	79.29	3.14		81.83	11.22	
		49099.15					
249.17	96.00	4411.63	7.30	4.46	1111.78	0.29	0.002105
	0.41282	79.30	3.14		81.90	11.22	
		49138.42					
249.27	97.00	4411.63	7.30	4.29	1069.77	0.28	0.002111
	0.41396	79.31	3.14		81.95	11.22	
		49167.70					
248.61	98.00	4411.62	7.29	4.14	1028.44	0.27	0.002089
	0.40880	79.29	3.14		81.83	11.22	
		49099.41					
247.06	99.00	4411.61	7.28	3.95	976.67	0.26	0.002093
	0.40722	79.25	3.12		81.59	11.21	
		48953.05					
245.09	100.00	4411.58	7.25	3.90	955.67	0.26	0.002068
	0.39937	79.20	3.09		81.24	11.21	
		48745.20					
242.68	101.00	4411.54	7.21	3.90	945.99	0.26	0.002036
	0.38964	79.11	3.07		80.69	11.20	
		48416.04					
239.42	102.00	4411.48	7.15	3.89	930.84	0.26	0.001996
	0.37755	79.00	3.03		79.96	11.18	
		47977.91					

		HYCHAN.OUT					
103.00	4411.44	7.11	3.90	924.92	0.26		
236.94	78.91	3.00	79.42	11.17	0.001981		
0.37107	47654.86						
104.00	4411.40	7.07	3.94	926.63	0.26		
234.96	78.84	2.98	78.97	11.17	0.001940		
0.36077	47381.25						
105.00	4411.35	7.02	4.00	927.88	0.27		
232.25	78.75	2.95	78.36	11.16	0.001910		
0.35155	47015.08						
106.00	4411.29	6.97	4.05	925.97	0.27		
228.87	78.63	2.91	77.61	11.14	0.001875		
0.34047	46563.49						
107.00	4411.23	6.90	4.07	916.34	0.27		
225.19	78.51	2.87	76.82	11.13	0.001852		
0.33146	46094.14						
108.00	4411.20	6.87	4.07	907.43	0.27		
222.70	78.43	2.84	76.34	11.12	0.001827		
0.32364	45802.03						
109.00	4411.16	6.83	4.11	905.42	0.28		
220.34	78.36	2.81	75.86	11.11	0.001804		
0.31650	45517.48						
110.00	4411.13	6.80	4.20	917.63	0.28		
218.29	78.29	2.79	75.45	11.10	0.001786		
0.31066	45268.92						
111.00	4411.08	6.75	4.21	905.41	0.29		
215.15	78.20	2.75	74.85	11.09	0.001745		
0.29959	44908.34						
112.00	4411.00	6.67	4.18	878.77	0.29		
209.99	78.05	2.69	73.91	11.07	0.001736		
0.29149	44343.74						
113.00	4410.97	6.64	4.20	872.08	0.29		
207.78	77.98	2.66	73.50	11.06	0.001728		
0.28728	44099.62						
114.00	4410.93	6.61	4.21	863.94	0.29		
205.20	77.91	2.63	73.02	11.06	0.001706		
0.28040	43811.97						
115.00	4410.87	6.54	4.23	848.60	0.29		
200.50	77.77	2.58	72.16	11.04	0.001705		
0.27431	43297.89						
116.00	4410.83	6.50	4.23	837.46	0.29		
197.75	77.70	2.55	71.67	11.03	0.001701		
0.27013	43002.60						
117.00	4410.81	6.48	4.22	829.22	0.29		
196.30	77.65	2.53	71.41	11.02	0.001713		
0.27022	42846.02						
118.00	4410.78	6.45	4.21	819.47	0.29		
194.46	77.60	2.51	71.08	11.02	0.001719		
0.26886	42648.61						
119.00	4410.74	6.41	4.22	808.98	0.29		
191.76	77.27	2.48	70.55	11.01	0.001732		
0.26823	42327.16						
120.00	4410.68	6.35	4.23	794.83	0.30		
187.89	76.41	2.46	69.75	10.99	0.001700		
0.26081	41851.58						
121.00	4410.65	6.32	4.21	784.13	0.30		
186.08	75.99	2.45	69.37	10.98	0.001700		
0.25983	41622.09						
122.00	4410.63	6.30	4.20	777.55	0.30		
184.96	75.73	2.44	69.13	10.98	0.001699		
0.25890	41480.20						
123.00	4410.61	6.28	4.20	772.84	0.30		
184.15	75.54	2.44	68.96	10.97	0.001698		
0.25835	41377.05						

		HYCHAN.OUT					
124.00	4410.60	6.27	4.19	767.95	0.29		
183.31	75.34	2.43		68.78	10.97	0.001699	
0.25790	41269.55						
125.00	4410.58	6.25	4.18	762.94	0.29		
182.44	75.14	2.43		68.60	10.97	0.001699	
0.25741	41157.42						
126.00	4410.57	6.24	4.17	757.95	0.29		
181.57	74.93	2.42		68.41	10.96	0.001699	
0.25693	41045.72						
127.00	4410.55	6.23	4.17	752.94	0.29		
180.70	74.73	2.42		68.22	10.96	0.001700	
0.25657	40933.95						
128.00	4410.54	6.21	4.16	747.95	0.29		
179.83	74.53	2.41		68.04	10.96	0.001699	
0.25577	40822.54						
129.00	4410.52	6.20	4.15	742.94	0.29		
178.96	74.32	2.41		67.85	10.95	0.001700	
0.25545	40709.61						
130.00	4410.51	6.18	4.14	737.69	0.29		
178.05	74.10	2.40		67.65	10.95	0.001709	
0.25620	40591.05						
131.00	4410.49	6.16	4.14	732.83	0.29		
177.19	73.90	2.40		67.47	10.94	0.001700	
0.25439	40479.97						
132.00	4410.48	6.15	4.13	727.78	0.29		
176.30	73.69	2.39		67.27	10.94	0.001704	
0.25434	40364.70						
133.00	4410.46	6.13	4.12	722.80	0.29		
175.44	73.48	2.39		67.09	10.94	0.001704	
0.25381	40252.35						
134.00	4410.45	6.12	4.11	717.76	0.29		
174.55	73.27	2.38		66.89	10.93	0.001700	
0.25269	40136.34						
135.00	4410.43	6.10	4.10	712.77	0.29		
173.67	73.06	2.38		66.70	10.93	0.001705	
0.25294	40020.29						
136.00	4410.42	6.09	4.10	707.81	0.29		
172.79	72.85	2.37		66.51	10.92	0.001702	
0.25184	39905.93						
137.00	4410.40	6.07	4.09	702.78	0.29		
171.90	72.64	2.37		66.31	10.92	0.001699	
0.25083	39788.44						
138.00	4410.39	6.06	4.08	697.75	0.29		
171.01	72.42	2.36		66.12	10.92	0.001706	
0.25133	39671.00						
139.00	4410.37	6.04	4.07	692.81	0.29		
170.12	72.21	2.36		65.92	10.91	0.001705	
0.25063	39553.30						
140.00	4410.36	6.03	4.06	687.80	0.29		
169.23	71.99	2.35		65.73	10.91	0.001702	
0.24966	39435.77						
141.00	4410.34	6.01	4.06	684.12	0.29		
168.58	71.83	2.35		65.58	10.90	0.001708	
0.25015	39348.98						
142.00	4410.33	6.00	4.05	679.01	0.29		
167.64	71.61	2.34		65.37	10.90	0.001707	
0.24936	39224.56						
143.00	4410.30	5.97	4.04	670.05	0.29		
166.03	71.21	2.33		65.02	10.89	0.001704	
0.24793	39010.15						
144.00	4410.28	5.95	4.02	662.97	0.29		
164.77	70.91	2.32		64.73	10.89	0.001704	
0.24709	38840.96						

		HYCHAN.OUT					
145.00	4410.26	5.93	4.02	657.96	0.29		
163.86	70.68	2.32		64.53	10.88	0.001704	
0.24646	38719.19						
146.00	4410.24	5.91	4.01	652.95	0.29		
162.95	70.46	2.31		64.33	10.88	0.001704	
0.24591	38596.57						
147.00	4410.23	5.90	4.00	647.95	0.29		
162.05	70.24	2.31		64.12	10.87	0.001703	
0.24523	38475.00						
148.00	4410.21	5.88	3.99	642.96	0.29		
161.13	70.01	2.30		63.92	10.87	0.001704	
0.24478	38351.06						
149.00	4410.19	5.86	3.98	637.95	0.29		
160.22	69.79	2.30		63.71	10.86	0.001704	
0.24410	38228.16						
150.00	4410.18	5.85	3.97	632.96	0.29		
159.31	69.56	2.29		63.51	10.86	0.001704	
0.24353	38104.55						
151.00	4410.16	5.83	3.96	627.97	0.29		
158.38	69.33	2.28		63.30	10.85	0.001703	
0.24283	37977.14						
152.00	4410.15	5.82	3.96	623.79	0.29		
157.61	69.13	2.28		63.12	10.85	0.001705	
0.24255	37871.91						
153.00	4410.14	5.81	3.95	621.60	0.29		
157.19	69.03	2.28		63.02	10.85	0.001705	
0.24221	37814.62						
154.00	4410.14	5.81	3.95	620.60	0.29		
157.01	68.99	2.28		62.98	10.85	0.001704	
0.24203	37790.34						
155.00	4410.13	5.80	3.95	620.00	0.29		
156.91	68.96	2.28		62.96	10.85	0.001704	
0.24189	37776.98						
156.00	4410.13	5.80	3.95	620.00	0.29		
156.91	68.96	2.28		62.96	10.85	0.001705	
0.24202	37777.04						
157.00	4410.13	5.80	3.95	619.99	0.29		
156.91	68.96	2.28		62.96	10.85	0.001704	
0.24200	37777.07						
158.00	4410.13	5.80	3.95	620.01	0.29		
156.92	68.96	2.28		62.96	10.85	0.001704	
0.24189	37777.58						
159.00	4410.13	5.80	3.95	620.00	0.29		
156.91	68.96	2.28		62.96	10.85	0.001705	
0.24206	37776.63						
160.00	4410.13	5.80	3.95	620.00	0.29		
156.90	68.96	2.28		62.96	10.85	0.001705	
0.24208	37775.96						
161.00	4410.13	5.80	3.95	620.01	0.29		
156.90	68.96	2.28		62.96	10.85	0.001704	
0.24193	37775.58						
162.00	4410.13	5.80	3.95	620.00	0.29		
156.89	68.96	2.28		62.96	10.85	0.001704	
0.24197	37774.31						
163.00	4410.13	5.80	3.95	620.01	0.29		
156.90	68.96	2.28		62.96	10.85	0.001704	
0.24195	37775.75						
164.00	4410.13	5.80	3.95	619.99	0.29		
156.91	68.96	2.28		62.96	10.85	0.001705	
0.24206	37776.15						
165.00	4410.13	5.80	3.95	620.00	0.29		
156.91	68.96	2.28		62.96	10.85	0.001704	
0.24197	37776.22						



HYCHAN.OUT									
156.91	166.00	4410.13	5.80	3.95	620.00	10.85	0.29	0.001705	
	0.24202	68.96	2.28		62.96				
		37777.07							
156.83	167.00	4410.13	5.80	3.95	619.59	10.85	0.29	0.001705	
	0.24197	68.94	2.27		62.94				
		37765.80							
156.50	168.00	4410.13	5.80	3.95	617.77	10.84	0.29	0.001705	
	0.24175	68.86	2.27		62.87				
		37720.20							
155.94	169.00	4410.12	5.79	3.94	614.77	10.84	0.29	0.001703	
	0.24121	68.72	2.27		62.74				
		37644.18							
155.46	170.00	4410.11	5.78	3.94	612.19	10.84	0.29	0.001704	
	0.24096	68.60	2.27		62.63				
		37577.91							
155.02	171.00	4410.10	5.77	3.93	609.77	10.84	0.29	0.001704	
	0.24073	68.49	2.26		62.53				
		37517.23							
154.55	172.00	4410.09	5.76	3.93	607.19	10.84	0.29	0.001705	
	0.24045	68.37	2.26		62.42				
		37452.53							
154.09	173.00	4410.08	5.75	3.92	604.78	10.83	0.29	0.001703	
	0.23991	68.25	2.26		62.32				
		37389.64							
153.62	174.00	4410.07	5.74	3.92	602.19	10.83	0.29	0.001704	
	0.23975	68.13	2.25		62.21				
		37323.80							
153.17	175.00	4410.06	5.74	3.92	599.78	10.83	0.29	0.001704	
	0.23944	68.02	2.25		62.10				
		37261.48							
152.68	176.00	4410.06	5.73	3.91	597.19	10.83	0.29	0.001704	
	0.23916	67.90	2.25		61.99				
		37194.12							
152.31	177.00	4410.05	5.72	3.91	595.19	10.82	0.29	0.001704	
	0.23885	67.80	2.25		61.90				
		37142.45							
151.95	178.00	4410.04	5.71	3.90	593.19	10.82	0.29	0.001704	
	0.23859	67.71	2.24		61.82				
		37092.31							
151.57	179.00	4410.04	5.71	3.90	591.18	10.82	0.29	0.001704	
	0.23839	67.61	2.24		61.73				
		37039.82							
151.20	180.00	4410.03	5.70	3.90	589.19	10.82	0.29	0.001704	
	0.23809	67.52	2.24		61.65				
		36988.15							
150.82	181.00	4410.02	5.69	3.89	587.18	10.82	0.29	0.001704	
	0.23782	67.42	2.24		61.56				
		36935.60							
150.45	182.00	4410.01	5.68	3.89	585.19	10.81	0.29	0.001704	
	0.23761	67.33	2.23		61.47				
		36884.39							
150.07	183.00	4410.01	5.68	3.89	583.18	10.81	0.29	0.001704	
	0.23737	67.23	2.23		61.39				
		36831.69							
149.69	184.00	4410.00	5.67	3.88	581.19	10.81	0.29	0.001704	
	0.23701	67.14	2.23		61.30				
		36777.86							
149.31	185.00	4409.99	5.66	3.88	579.19	10.81	0.29	0.001704	
	0.23682	67.04	2.23		61.21				
		36724.36							
148.92	186.00	4409.99	5.66	3.88	577.19	10.81	0.29	0.001704	
	0.23659	66.94	2.22		61.12				
		36670.46							

HYCHAN.OUT									
148.54	187.00	4409.98	5.65	3.87	61.03	575.19	10.80	0.29	0.001704
	0.23629	66.84	2.22						
		36617.83							
148.16	188.00	4409.97	5.64	3.87	60.94	573.20	10.80	0.29	0.001703
	0.23596	66.75	2.22						
		36564.40							
147.79	189.00	4409.96	5.63	3.86	60.85	571.18	10.80	0.29	0.001704
	0.23577	66.65	2.22						
		36512.66							
147.42	190.00	4409.96	5.63	3.86	60.77	569.19	10.80	0.29	0.001703
	0.23544	66.56	2.22						
		36460.59							
147.04	191.00	4409.95	5.62	3.86	60.68	567.18	10.80	0.29	0.001703
	0.23514	66.46	2.21						
		36406.45							
146.66	192.00	4409.94	5.61	3.85	60.59	565.20	10.79	0.29	0.001703
	0.23489	66.36	2.21						
		36352.61							
146.29	193.00	4409.94	5.61	3.85	60.50	563.18	10.79	0.29	0.001703
	0.23459	66.26	2.21						
		36300.89							
145.92	194.00	4409.93	5.60	3.85	60.41	561.18	10.79	0.29	0.001703
	0.23439	66.17	2.21						
		36248.28							
145.55	195.00	4409.92	5.59	3.84	60.33	559.20	10.79	0.29	0.001704
	0.23417	66.07	2.20						
		36196.21							
145.15	196.00	4409.91	5.58	3.84	60.23	557.20	10.79	0.29	0.001703
	0.23382	65.97	2.20						
		36140.14							
144.79	197.00	4409.91	5.58	3.83	60.15	555.18	10.78	0.29	0.001703
	0.23359	65.88	2.20						
		36088.06							
144.41	198.00	4409.90	5.57	3.83	60.06	553.18	10.78	0.29	0.001703
	0.23337	65.78	2.20						
		36034.87							
144.03	199.00	4409.89	5.56	3.83	59.97	551.20	10.78	0.29	0.001707
	0.23359	65.68	2.19						
		35980.98							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3978

MAXIMUM DISCHARGE (CFS) = 1204.24 AT TIME = 90.22  
 MAXIMUM STAGE = 4410.02 AT TIME = 96.22

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4402.82	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4402.82	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4402.82	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	3.00	4402.82	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4402.82	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4402.82	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4402.82	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.08	58.00	4402.93	0.11	0.06	0.00	0.03	0.001625
0.18	0.01153	367.04	0.11	0.67	6.06	0.07	0.001613
0.30	59.00	4403.02	0.20	0.18	0.03	0.09	0.001603
0.36	0.01275	711.69	0.13	1.29	6.59	0.09	0.001590
0.25	60.00	4403.08	0.26	0.27	0.08	0.09	0.001605
0.17	0.01554	986.46	0.16	1.79	6.87	0.10	0.001612
20.74	61.00	4403.10	0.29	0.29	0.10	0.10	0.001670
51.12	0.01646	1092.02	0.17	1.99	6.96	0.25	0.001618
	62.00	4403.05	0.23	0.23	0.06	0.09	
	0.01468	858.67	0.15	1.56	6.75	0.05	
	63.00	4403.02	0.20	0.12	0.02	0.19	
	0.01205	710.28	0.12	1.29	6.59	0.26	
	64.00	4404.26	1.44	1.28	26.52	0.26	
	0.15551	6987.96	1.49	12.71	8.84		
	65.00	4406.13	3.31	2.57	131.29		
	0.14258	18185.86	1.41	33.07	9.99		
	66.00	4406.82	4.00	2.91	216.23		

HYCHAN.OUT						
74.29	0.16452	45.03	1.65	41.12	10.27	0.001598
	67.00	22617.84				
90.54	0.17965	4407.23	4.41	3.12	282.87	0.26
	68.00	50.37	1.80	46.00	10.42	0.001601
		25299.09				
108.92	0.19366	4407.66	4.84	3.34	363.74	0.27
	69.00	56.00	1.94	51.14	10.56	0.001596
		28127.44				
130.79	0.21099	4408.12	5.30	3.58	468.23	0.27
	70.00	62.07	2.11	56.68	10.70	0.001605
		31172.72				
156.47	0.22621	4408.62	5.80	3.83	599.51	0.28
	71.00	68.84	2.27	62.85	10.84	0.001595
		34569.96				
170.89	0.23513	4408.88	6.06	3.97	677.82	0.28
	72.00	72.40	2.36	66.10	10.91	0.001596
		36354.35				
184.63	0.24299	4409.11	6.29	4.09	755.43	0.29
	73.00	75.68	2.44	69.09	10.98	0.001596
		38001.09				
194.52	0.25020	4409.27	6.45	4.17	811.42	0.29
	74.00	77.60	2.51	71.10	11.02	0.001600
		39103.86				
201.47	0.25817	4409.37	6.55	4.16	838.86	0.29
	75.00	77.80	2.59	72.35	11.04	0.001598
		39790.65				
205.52	0.26432	4409.43	6.61	4.16	854.30	0.28
	76.00	77.93	2.64	73.13	11.06	0.001606
		40223.66				
207.85	0.26904	4409.48	6.66	4.14	860.82	0.28
	77.00	78.01	2.66	73.67	11.07	0.001618
		40518.42				
209.56	0.27197	4409.51	6.69	4.12	864.06	0.28
	78.00	78.08	2.68	74.09	11.08	0.001624
		40747.04				
212.26	0.27611	4409.55	6.73	4.13	875.98	0.28
	79.00	78.15	2.72	74.57	11.08	0.001629
		41013.67				
215.50	0.28267	4409.60	6.78	4.11	886.74	0.28
	80.00	78.26	2.75	75.22	11.10	0.001645
		41373.40				
218.44	0.28959	4409.65	6.83	4.12	898.96	0.28
	81.00	78.36	2.79	75.89	11.11	0.001665
		41739.80				
222.09	0.29656	4409.71	6.89	4.11	913.20	0.28
	82.00	78.48	2.83	76.68	11.12	0.001680
		42173.10				
226.81	0.30764	4409.79	6.97	4.13	936.46	0.28
	83.00	78.64	2.88	77.70	11.14	0.001709
		42737.04				
230.92	0.31634	4409.86	7.04	4.13	954.11	0.27
	84.00	78.79	2.93	78.61	11.16	0.001730
		43236.36				
233.28	0.32144	4409.91	7.09	4.10	957.33	0.27
	85.00	78.87	2.96	79.15	11.17	0.001742
		43534.84				
235.60	0.32573	4409.95	7.13	4.10	966.87	0.27
	86.00	78.95	2.98	79.66	11.18	0.001749
		43814.46				
237.77	0.32875	4409.98	7.16	4.31	1024.32	0.28
	87.00	79.01	3.01	80.07	11.19	0.001751
		44036.02				
		4409.99	7.17	4.51	1078.30	0.30

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		HYCHAN.OUT					
239.01	79.05	3.02	80.28	11.19	0.001757		
0.33142	44155.05						
88.00	4410.00	7.18	4.68	1125.55	0.31		
240.25	79.06	3.04	80.40	11.19	0.001744		
0.33068	44218.60						
89.00	4410.00	7.18	4.72	1133.87	0.31		
240.41	79.07	3.04	80.40	11.19	0.001748		
0.33172	44221.37						
90.00	4410.01	7.19	4.72	1138.66	0.31		
241.05	79.09	3.05	80.55	11.19	0.001760		
0.33482	44300.32						
91.00	4410.02	7.20	4.73	1142.19	0.31		
241.41	79.10	3.05	80.63	11.20	0.001755		
0.33429	44346.11						
92.00	4410.02	7.20	4.72	1139.16	0.31		
241.44	79.10	3.05	80.63	11.20	0.001754		
0.33417	44345.29						
93.00	4410.02	7.20	4.60	1110.30	0.30		
241.56	79.11	3.05	80.67	11.20	0.001761		
0.33555	44366.40						
94.00	4410.02	7.21	4.48	1082.44	0.29		
241.50	79.11	3.05	80.68	11.20	0.001765		
0.33614	44373.28						
95.00	4410.03	7.21	4.37	1054.39	0.29		
241.43	79.11	3.05	80.69	11.20	0.001766		
0.33636	44377.55						
96.00	4410.04	7.22	4.25	1027.99	0.28		
242.03	79.13	3.06	80.83	11.20	0.001757		
0.33542	44457.98						
97.00	4410.04	7.22	4.09	988.62	0.27		
241.91	79.13	3.06	80.83	11.20	0.001759		
0.33561	44455.91						
98.00	4410.03	7.21	3.94	949.86	0.26		
241.17	79.11	3.05	80.69	11.20	0.001759		
0.33452	44381.02						
99.00	4410.00	7.18	3.76	899.45	0.25		
239.51	79.06	3.03	80.35	11.19	0.001757		
0.33216	44193.17						
100.00	4409.97	7.15	3.70	878.86	0.24		
237.64	79.00	3.01	79.96	11.18	0.001749		
0.32829	43979.57						
101.00	4409.94	7.12	3.71	874.48	0.24		
235.86	78.94	2.99	79.57	11.18	0.001735		
0.32350	43765.97						
102.00	4409.90	7.08	3.71	865.78	0.25		
233.56	78.85	2.96	79.05	11.17	0.001718		
0.31751	43474.95						
103.00	4409.87	7.05	3.73	863.96	0.25		
231.65	78.79	2.94	78.63	11.16	0.001715		
0.31472	43248.02						
104.00	4409.84	7.02	3.78	869.72	0.25		
230.38	78.74	2.93	78.32	11.15	0.001696		
0.30968	43076.52						
105.00	4409.81	6.99	3.83	876.15	0.26		
228.70	78.67	2.91	77.88	11.15	0.001682		
0.30508	42835.25						
106.00	4409.76	6.94	3.89	880.88	0.26		
226.18	78.59	2.88	77.33	11.14	0.001668		
0.29956	42533.65						
107.00	4409.72	6.90	3.93	877.78	0.26		
223.40	78.49	2.85	76.72	11.13	0.001657		
0.29428	42197.52						
108.00	4409.69	6.86	3.93	872.90	0.26		

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		HYCHAN.OUT					
221.84	78.43	2.83	76.32	11.12	0.001644		
0.29024	41978.37						
109.00	4409.65	6.83	3.97	873.97	0.27		
219.98	78.37	2.81	75.93	11.11	0.001641		
0.28752	41759.78						
110.00	4409.63	6.81	4.07	888.94	0.28		
218.40	78.31	2.79	75.58	11.10	0.001638		
0.28502	41571.53						
111.00	4409.59	6.77	4.09	885.56	0.28		
216.42	78.24	2.77	75.13	11.10	0.001608		
0.27756	41319.05						
112.00	4409.53	6.71	4.08	869.06	0.28		
212.79	78.13	2.72	74.40	11.08	0.001597		
0.27141	40918.21						
113.00	4409.51	6.69	4.10	863.64	0.28		
210.84	78.07	2.70	74.04	11.07	0.001591		
0.26818	40723.46						
114.00	4409.47	6.65	4.11	857.72	0.28		
208.53	78.00	2.67	73.62	11.07	0.001585		
0.26434	40491.86						
115.00	4409.41	6.59	4.15	846.50	0.28		
204.20	77.88	2.62	72.83	11.05	0.001586		
0.25951	40058.45						
116.00	4409.37	6.55	4.16	837.29	0.29		
201.43	77.80	2.59	72.33	11.04	0.001590		
0.25689	39782.04						
117.00	4409.35	6.53	4.15	829.60	0.29		
199.75	77.75	2.57	72.03	11.04	0.001590		
0.25493	39615.98						
118.00	4409.32	6.50	4.15	819.52	0.29		
197.70	77.69	2.54	71.66	11.03	0.001591		
0.25262	39414.50						
119.00	4409.28	6.46	4.15	809.91	0.29		
195.29	77.63	2.52	71.23	11.02	0.001587		
0.24917	39175.18						
120.00	4409.23	6.41	4.15	795.05	0.29		
191.48	77.24	2.48	70.51	11.01	0.001586		
0.24541	38780.48						
121.00	4409.20	6.38	4.14	784.37	0.29		
189.63	76.81	2.47	70.12	11.00	0.001587		
0.24455	38565.93						
122.00	4409.18	6.36	4.13	777.67	0.29		
188.47	76.54	2.46	69.88	10.99	0.001587		
0.24391	38432.46						
123.00	4409.16	6.34	4.12	772.97	0.29		
187.66	76.35	2.46	69.71	10.99	0.001588		
0.24358	38338.27						
124.00	4409.15	6.33	4.11	768.08	0.29		
186.82	76.16	2.45	69.53	10.99	0.001588		
0.24301	38240.19						
125.00	4409.13	6.31	4.10	763.08	0.29		
185.93	75.95	2.45	69.34	10.98	0.001588		
0.24264	38136.25						
126.00	4409.12	6.30	4.10	758.08	0.29		
185.04	75.75	2.44	69.15	10.98	0.001589		
0.24221	38032.76						
127.00	4409.10	6.28	4.09	753.08	0.29		
184.16	75.54	2.44	68.96	10.97	0.001587		
0.24144	37930.34						
128.00	4409.09	6.27	4.08	748.08	0.29		
183.29	75.34	2.43	68.78	10.97	0.001588		
0.24114	37827.66						
129.00	4409.07	6.25	4.07	743.09	0.29		

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		HYCHAN.OUT					
182.41	75.13	2.43	68.59	10.97	0.001586		
0.24033	37724.07						
130.00	4409.06	6.24	4.07	737.84	0.29		
181.48	74.91	2.42	68.39	10.96	0.001587		
0.23991	37614.84						
131.00	4409.04	6.22	4.06	732.93	0.29		
180.61	74.71	2.42	68.20	10.96	0.001589		
0.23970	37512.00						
132.00	4409.03	6.21	4.05	727.94	0.29		
179.72	74.50	2.41	68.01	10.95	0.001591		
0.23944	37407.27						
133.00	4409.01	6.19	4.04	722.92	0.29		
178.84	74.29	2.41	67.82	10.95	0.001587		
0.23837	37303.19						
134.00	4409.00	6.18	4.03	717.89	0.29		
177.94	74.08	2.40	67.63	10.95	0.001589		
0.23824	37196.21						
135.00	4408.98	6.16	4.03	712.93	0.29		
177.05	73.87	2.40	67.44	10.94	0.001587		
0.23730	37089.99						
136.00	4408.97	6.15	4.02	707.93	0.29		
176.16	73.66	2.39	67.24	10.94	0.001587		
0.23682	36984.14						
137.00	4408.95	6.13	4.01	702.93	0.29		
175.27	73.44	2.39	67.05	10.93	0.001588		
0.23650	36876.95						
138.00	4408.94	6.12	4.00	697.91	0.29		
174.36	73.23	2.38	66.85	10.93	0.001587		
0.23574	36769.04						
139.00	4408.92	6.10	3.99	692.92	0.29		
173.46	73.01	2.38	66.65	10.93	0.001588		
0.23542	36659.96						
140.00	4408.90	6.08	3.99	687.93	0.28		
172.57	72.80	2.37	66.46	10.92	0.001587		
0.23475	36553.36						
141.00	4408.89	6.07	3.98	684.20	0.28		
171.89	72.63	2.37	66.31	10.92	0.001588		
0.23444	36471.55						
142.00	4408.88	6.06	3.97	679.23	0.28		
170.98	72.41	2.36	66.11	10.92	0.001586		
0.23374	36361.62						
143.00	4408.85	6.03	3.96	670.30	0.28		
169.36	72.02	2.35	65.76	10.91	0.001587		
0.23292	36165.36						
144.00	4408.83	6.01	3.95	663.12	0.28		
168.06	71.71	2.34	65.47	10.90	0.001586		
0.23199	36006.77						
145.00	4408.81	5.99	3.94	658.09	0.28		
167.14	71.48	2.34	65.26	10.90	0.001586		
0.23144	35894.57						
146.00	4408.79	5.97	3.93	653.09	0.28		
166.22	71.26	2.33	65.06	10.89	0.001589		
0.23122	35782.25						
147.00	4408.78	5.96	3.92	648.09	0.28		
165.30	71.04	2.33	64.85	10.89	0.001588		
0.23055	35669.85						
148.00	4408.76	5.94	3.91	643.12	0.28		
164.33	70.80	2.32	64.64	10.88	0.001589		
0.23010	35550.64						
149.00	4408.74	5.92	3.90	638.08	0.28		
163.45	70.58	2.32	64.44	10.88	0.001587		
0.22930	35441.71						
150.00	4408.73	5.91	3.90	633.11	0.28		

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		HYCHAN.OUT							
162.52	70.35	2.31	64.23	10.87	0.001586				
0.22859	35326.79								
151.00	4408.71	5.89	3.89	628.11	0.28				
161.58	70.12	2.30	64.02	10.87	0.001586				
0.22806	35211.36								
152.00	4408.70	5.88	3.88	623.89	0.28				
160.80	69.93	2.30	63.84	10.87	0.001588				
0.22789	35113.70								
153.00	4408.69	5.87	3.88	621.63	0.28				
160.33	69.81	2.30	63.74	10.86	0.001588				
0.22764	35056.10								
154.00	4408.68	5.86	3.87	620.63	0.28				
160.18	69.78	2.30	63.70	10.86	0.001588				
0.22746	35037.55								
155.00	4408.68	5.86	3.87	620.00	0.28				
160.07	69.75	2.29	63.68	10.86	0.001589				
0.22756	35023.66								
156.00	4408.68	5.86	3.87	620.00	0.28				
160.06	69.75	2.29	63.68	10.86	0.001589				
0.22751	35022.27								
157.00	4408.68	5.86	3.87	619.99	0.28				
160.05	69.74	2.29	63.67	10.86	0.001588				
0.22742	35020.90								
158.00	4408.68	5.86	3.87	620.01	0.28				
160.05	69.74	2.29	63.68	10.86	0.001589				
0.22748	35021.27								
159.00	4408.68	5.86	3.87	620.01	0.28				
160.07	69.75	2.29	63.68	10.86	0.001589				
0.22751	35023.23								
160.00	4408.68	5.86	3.87	620.00	0.28				
160.06	69.75	2.29	63.68	10.86	0.001589				
0.22758	35022.38								
161.00	4408.68	5.86	3.87	620.00	0.28				
160.03	69.74	2.29	63.67	10.86	0.001589				
0.22757	35019.25								
162.00	4408.68	5.86	3.87	620.00	0.28				
160.03	69.74	2.29	63.67	10.86	0.001588				
0.22746	35019.25								
163.00	4408.68	5.86	3.87	620.01	0.28				
160.04	69.74	2.29	63.67	10.86	0.001588				
0.22745	35020.20								
164.00	4408.68	5.86	3.87	619.99	0.28				
160.06	69.75	2.29	63.68	10.86	0.001586				
0.22719	35022.78								
165.00	4408.68	5.86	3.87	619.99	0.28				
160.05	69.74	2.29	63.67	10.86	0.001588				
0.22741	35020.86								
166.00	4408.68	5.86	3.87	620.01	0.28				
160.06	69.74	2.29	63.68	10.86	0.001589				
0.22749	35021.80								
167.00	4408.68	5.86	3.87	619.61	0.28				
159.98	69.73	2.29	63.66	10.86	0.001588				
0.22735	35012.82								
168.00	4408.67	5.85	3.87	617.85	0.28				
159.67	69.65	2.29	63.59	10.86	0.001588				
0.22715	34973.07								
169.00	4408.66	5.84	3.86	614.84	0.28				
159.11	69.51	2.29	63.46	10.86	0.001586				
0.22651	34904.43								
170.00	4408.66	5.84	3.86	612.25	0.28				
158.61	69.38	2.29	63.35	10.86	0.001587				
0.22635	34841.31								
171.00	4408.65	5.83	3.86	609.86	0.28				

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		HYCHAN.OUT				
158.18	69.28	2.28	63.25	10.85	0.001586	
0.22598	34787.39					
172.00	4408.64	5.82	3.85	607.25	0.28	
157.70	69.16	2.28	63.14	10.85	0.001588	
0.22597	34727.94					
173.00	4408.63	5.81	3.85	604.85	0.28	
157.24	69.04	2.28	63.04	10.85	0.001588	
0.22570	34670.20					
174.00	4408.62	5.80	3.84	602.26	0.28	
156.73	68.92	2.27	62.92	10.85	0.001589	
0.22546	34606.24					
175.00	4408.61	5.79	3.84	599.86	0.28	
156.29	68.81	2.27	62.82	10.84	0.001586	
0.22477	34550.95					
176.00	4408.60	5.78	3.83	597.25	0.28	
155.79	68.68	2.27	62.71	10.84	0.001588	
0.22478	34487.86					
177.00	4408.60	5.78	3.83	595.24	0.28	
155.40	68.58	2.27	62.61	10.84	0.001586	
0.22424	34438.14					
178.00	4408.59	5.77	3.83	593.25	0.28	
155.04	68.49	2.26	62.53	10.84	0.001588	
0.22433	34393.93					
179.00	4408.58	5.76	3.82	591.24	0.28	
154.65	68.39	2.26	62.44	10.84	0.001588	
0.22411	34343.60					
180.00	4408.58	5.76	3.82	589.25	0.28	
154.27	68.30	2.26	62.36	10.83	0.001588	
0.22389	34295.82					
181.00	4408.57	5.75	3.82	587.23	0.28	
153.89	68.20	2.26	62.27	10.83	0.001588	
0.22363	34247.98					
182.00	4408.56	5.74	3.81	585.25	0.28	
153.52	68.11	2.25	62.18	10.83	0.001588	
0.22332	34200.73					
183.00	4408.55	5.73	3.81	583.23	0.28	
153.13	68.01	2.25	62.10	10.83	0.001588	
0.22311	34152.38					
184.00	4408.55	5.73	3.81	581.25	0.28	
152.76	67.92	2.25	62.01	10.83	0.001588	
0.22290	34104.29					
185.00	4408.54	5.72	3.80	579.26	0.28	
152.35	67.81	2.25	61.91	10.82	0.001588	
0.22260	34053.20					
186.00	4408.53	5.71	3.80	577.24	0.28	
151.97	67.72	2.24	61.83	10.82	0.001588	
0.22236	34003.83					
187.00	4408.53	5.71	3.79	575.25	0.28	
151.59	67.62	2.24	61.74	10.82	0.001588	
0.22210	33956.26					
188.00	4408.52	5.70	3.79	573.26	0.28	
151.20	67.52	2.24	61.65	10.82	0.001587	
0.22182	33906.86					
189.00	4408.51	5.69	3.79	571.23	0.28	
150.84	67.43	2.24	61.56	10.82	0.001588	
0.22164	33859.76					
190.00	4408.50	5.69	3.78	569.25	0.28	
150.47	67.33	2.23	61.48	10.81	0.001588	
0.22144	33812.53					
191.00	4408.50	5.68	3.78	567.24	0.28	
150.06	67.23	2.23	61.38	10.81	0.001588	
0.22121	33761.15					
192.00	4408.49	5.67	3.78	565.25	0.28	

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HYCHAN.OUT									
149.69	0.22073	67.14	2.23	61.30	10.81	0.001587			
193.00		33712.89							
149.31	0.22070	4408.48	5.66	3.77	563.24	0.28			
194.00		67.04	2.23	61.21	10.81	0.001588			
148.93	0.22049	33664.90							
195.00		4408.48	5.66	3.77	561.24	0.28			
148.56	0.22016	66.94	2.22	61.12	10.81	0.001588			
196.00		33616.20							
148.16	0.21982	4408.47	5.65	3.76	559.26	0.28			
197.00		66.85	2.22	61.03	10.80	0.001588			
147.79	0.21968	33568.32							
198.00		4408.46	5.64	3.76	557.25	0.28			
147.41	0.21954	66.74	2.22	60.94	10.80	0.001587			
199.00		33516.53							
147.02	0.21919	4408.45	5.63	3.76	555.24	0.28			
		66.65	2.22	60.85	10.80	0.001588			
		33468.70							
		4408.45	5.63	3.75	553.24	0.28			
		66.55	2.21	60.76	10.80	0.001588			
		33420.36							
		4408.44	5.62	3.75	551.26	0.28			
		66.45	2.21	60.67	10.80	0.001588			
		33370.61							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3915

MAXIMUM DISCHARGE (CFS) = 1109.47 AT TIME = 90.22  
 MAXIMUM STAGE = 4408.37 AT TIME = 91.70

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	(HRS)	SURFACE	AREA					
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
7.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
8.00	4401.31	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00000	0.00						
9.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
10.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
11.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
12.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
13.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
14.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
15.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
16.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
17.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
18.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
19.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
20.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
21.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
22.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
23.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
24.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
25.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
26.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
27.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
28.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
29.00	4401.31	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4401.31	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.08	58.00	4401.42	0.11	0.06	0.00	0.03	0.001628
0.18	0.01145	471.31	0.20	0.17	0.03	0.07	0.001624
0.33	59.00	4401.51	0.27	0.28	0.09	0.09	0.001617
0.43	0.01297	933.44	0.31	0.30	0.13	0.10	0.001604
0.34	60.00	4401.58	0.27	0.28	0.10	0.10	0.001594
0.19	0.01618	1343.01	0.21	0.17	0.03	0.06	0.001622
18.87	61.00	4401.62	1.20	1.06	19.92	0.17	0.001758
48.41	0.01788	1549.52	3.29	2.58	125.05	0.25	0.001699
71.68	62.00	4401.58	4.02	2.97	213.09	0.26	0.001689
87.26	0.01616	1339.77	4.42	3.20	278.98	0.27	0.001697
105.06	63.00	4401.52	4.85	3.43	360.82	0.27	0.001695
125.62	0.01299	961.80	5.30	3.68	462.18	0.28	0.001710
150.72	0.18270	7325.07	5.80	3.96	596.39	0.29	0.001700
164.63	64.00	4402.51	6.05	4.10	674.97	0.29	0.001703
	0.14264	23241.91	2.27	66.07	10.91		
	65.00	4404.60					
	0.16721	29166.66					
	66.00	4405.33					
	0.18302	32600.72					
	67.00	4405.73					
	0.19805	36226.12					
	68.00	4406.16					
	0.21588	40085.05					
	69.00	4406.61					
	0.23226	44441.69					
	70.00	4407.11					
	71.00	4407.36					
	72.37						

		HYCHAN.OUT						
	0.24178	46712.18						
178.11	72.00	4407.60	6.29	4.23	753.00	0.30		
		75.61	2.36		69.03	10.98		0.001696
	0.24928	48804.41						
188.32	73.00	4407.77	6.46	4.30	809.52	0.30		
		77.61	2.43		71.13	11.02		0.001702
	0.25772	50288.88						
193.97	74.00	4407.87	6.56	4.30	834.89	0.30		
		77.81	2.49		72.40	11.04		0.001688
	0.26261	51186.90						
197.27	75.00	4407.92	6.61	4.30	848.42	0.30		
		77.91	2.53		73.02	11.06		0.001706
	0.26955	51625.76						
198.82	76.00	4407.94	6.63	4.29	853.16	0.29		
		77.96	2.55		73.33	11.06		0.001718
	0.27346	51841.67						
199.92	77.00	4407.96	6.65	4.28	855.24	0.29		
		77.99	2.56		73.53	11.06		0.001723
	0.27557	51987.24						
203.02	78.00	4407.99	6.68	4.25	863.38	0.29		
		78.07	2.60		74.03	11.07		0.001716
	0.27852	52338.61						
206.02	79.00	4408.04	6.73	4.23	870.89	0.29		
		78.15	2.64		74.58	11.08		0.001726
	0.28384	52725.52						
208.07	80.00	4408.07	6.76	4.21	875.97	0.29		
		78.22	2.66		75.01	11.09		0.001745
	0.28964	53031.09						
210.67	81.00	4408.12	6.81	4.17	879.33	0.28		
		78.31	2.69		75.57	11.10		0.001758
	0.29505	53431.32						
213.97	82.00	4408.17	6.86	4.17	893.02	0.28		
		78.43	2.73		76.31	11.12		0.001786
	0.30405	53948.90						
216.85	83.00	4408.22	6.91	4.15	900.82	0.28		
		78.52	2.76		76.93	11.13		0.001798
	0.30977	54391.14						
218.27	84.00	4408.25	6.94	4.11	897.17	0.28		
		78.58	2.78		77.27	11.14		0.001811
	0.31391	54631.45						
219.82	85.00	4408.28	6.97	4.10	901.32	0.27		
		78.63	2.80		77.63	11.14		0.001816
	0.31674	54884.97						
223.45	86.00	4408.31	7.00	4.26	952.42	0.28		
		78.70	2.84		78.04	11.15		0.001797
	0.31843	55173.37						
225.58	87.00	4408.33	7.02	4.44	1001.10	0.30		
		78.74	2.86		78.30	11.15		0.001803
	0.32227	55356.68						
227.93	88.00	4408.36	7.05	4.56	1039.56	0.30		
		78.79	2.89		78.67	11.16		0.001789
	0.32287	55618.36						
228.53	89.00	4408.36	7.05	4.58	1046.03	0.30		
		78.81	2.90		78.74	11.16		0.001788
	0.32357	55665.92						
229.12	90.00	4408.37	7.06	4.58	1049.09	0.30		
		78.82	2.91		78.84	11.16		0.001800
	0.32651	55741.72						
229.37	91.00	4408.38	7.07	4.59	1051.68	0.30		
		78.83	2.91		78.90	11.17		0.001794
	0.32573	55783.55						
229.41	92.00	4408.38	7.07	4.57	1048.78	0.30		
		78.83	2.91		78.90	11.17		0.001795

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HYCHAN.OUT									
0.32602	55781.39								
93.00	4408.38	7.07	4.46	1020.65	0.30				
228.85	78.83	2.90		78.89	11.17			0.001808	
0.32747	55778.10								
94.00	4408.37	7.06	4.36	993.79	0.29				
228.15	78.83	2.89		78.86	11.16			0.001806	
0.32616	55756.05								
95.00	4408.37	7.06	4.25	966.55	0.28				
227.55	78.82	2.89		78.83	11.16			0.001812	
0.32647	55735.46								
96.00	4408.38	7.07	4.13	939.65	0.27				
227.27	78.83	2.88		78.90	11.17			0.001823	
0.32800	55779.44								
97.00	4408.37	7.06	3.99	902.11	0.26				
226.14	78.82	2.87		78.85	11.16			0.001833	
0.32818	55744.46								
98.00	4408.36	7.05	3.86	866.58	0.26				
224.38	78.80	2.85		78.70	11.16			0.001843	
0.32744	55643.39								
99.00	4408.34	7.03	3.71	822.12	0.25				
221.40	78.76	2.81		78.43	11.16			0.001854	
0.32516	55447.70								
100.00	4408.32	7.01	3.68	806.37	0.24				
219.27	78.71	2.79		78.14	11.15			0.001846	
0.32096	55241.96								
101.00	4408.29	6.98	3.70	807.02	0.25				
217.97	78.67	2.77		77.85	11.15			0.001839	
0.31791	55042.35								
102.00	4408.27	6.96	3.71	803.21	0.25				
216.44	78.62	2.75		77.52	11.14			0.001822	
0.31296	54808.36								
103.00	4408.25	6.94	3.74	805.27	0.25				
215.21	78.57	2.74		77.23	11.13			0.001816	
0.31046	54600.28								
104.00	4408.23	6.92	3.80	815.64	0.25				
214.88	78.54	2.74		77.06	11.13			0.001797	
0.30672	54479.11								
105.00	4408.22	6.91	3.85	826.12	0.26				
214.70	78.51	2.73		76.87	11.13			0.001774	
0.30279	54345.34								
106.00	4408.19	6.88	3.92	836.82	0.26				
213.46	78.45	2.72		76.47	11.12			0.001757	
0.29834	54066.85								
107.00	4408.15	6.84	3.96	838.70	0.27				
211.75	78.38	2.70		76.05	11.11			0.001746	
0.29440	53766.65								
108.00	4408.14	6.83	3.96	835.58	0.27				
211.14	78.36	2.69		75.87	11.11			0.001733	
0.29143	53639.42								
109.00	4408.12	6.81	4.00	840.12	0.27				
210.10	78.31	2.68		75.58	11.10			0.001721	
0.28813	53434.55								
110.00	4408.10	6.79	4.08	857.98	0.28				
210.16	78.27	2.68		75.33	11.10			0.001701	
0.28491	53261.10								
111.00	4408.07	6.76	4.12	862.45	0.28				
209.21	78.23	2.67		75.04	11.09			0.001686	
0.28131	53053.54								
112.00	4408.04	6.73	4.13	853.87	0.28				
206.80	78.16	2.65		74.59	11.09			0.001675	
0.27663	52733.10								
113.00	4408.02	6.71	4.14	850.01	0.28				
205.41	78.12	2.63		74.34	11.08			0.001669	

		HYCHAN.OUT						
	0.27390	52558.50						
203.67	114.00	4407.99	6.68	4.16	847.08	11.07	0.28	0.001666
		78.06	2.61		73.98			
	0.27129	52304.43						
199.40	115.00	4407.93	6.62	4.22	842.10	11.06	0.29	0.001681
		77.93	2.56		73.18			
	0.26846	51736.40						
194.47	116.00	4407.87	6.56	4.30	836.81	11.04	0.30	0.001684
		77.81	2.50		72.41			
	0.26267	51196.24						
192.91	117.00	4407.84	6.53	4.30	829.96	11.04	0.30	0.001684
		77.77	2.48		72.13			
	0.26072	50992.75						
191.08	118.00	4407.82	6.51	4.29	819.64	11.03	0.30	0.001695
		77.72	2.46		71.80			
	0.26004	50762.72						
189.19	119.00	4407.78	6.47	4.29	811.13	11.02	0.30	0.001681
		77.64	2.44		71.35			
	0.25558	50444.00						
185.89	120.00	4407.72	6.41	4.28	795.33	11.01	0.30	0.001685
		77.31	2.40		70.58			
	0.25279	49899.63						
183.92	121.00	4407.69	6.38	4.27	784.67	11.00	0.30	0.001687
		76.87	2.39		70.18			
	0.25191	49614.41						
182.70	122.00	4407.67	6.36	4.26	777.82	10.99	0.30	0.001688
		76.60	2.39		69.93			
	0.25116	49441.75						
181.86	123.00	4407.66	6.35	4.25	773.15	10.99	0.30	0.001690
		76.42	2.38		69.76			
	0.25096	49321.16						
180.85	124.00	4407.64	6.33	4.25	768.25	10.99	0.30	0.001691
		76.22	2.37		69.59			
	0.25040	49197.54						
179.95	125.00	4407.63	6.32	4.24	763.28	10.98	0.30	0.001690
		76.02	2.37		69.40			
	0.24967	49063.54						
179.07	126.00	4407.61	6.30	4.23	758.27	10.98	0.30	0.001690
		75.81	2.36		69.21			
	0.24906	48928.11						
178.22	127.00	4407.60	6.29	4.23	753.21	10.98	0.30	0.001692
		75.60	2.36		69.02			
	0.24881	48798.55						
177.36	128.00	4407.58	6.27	4.22	748.28	10.97	0.30	0.001690
		75.40	2.35		68.84			
	0.24804	48669.24						
176.50	129.00	4407.57	6.26	4.21	743.22	10.97	0.30	0.001692
		75.20	2.35		68.65			
	0.24782	48537.20						
175.55	130.00	4407.55	6.24	4.20	738.03	10.96	0.30	0.001692
		74.98	2.34		68.45			
	0.24721	48393.97						
174.70	131.00	4407.54	6.23	4.20	733.10	10.96	0.30	0.001693
		74.78	2.34		68.27			
	0.24686	48265.39						
173.86	132.00	4407.52	6.21	4.19	728.15	10.96	0.30	0.001691
		74.57	2.33		68.08			
	0.24605	48131.26						
173.01	133.00	4407.51	6.20	4.18	723.04	10.95	0.30	0.001693
		74.36	2.33		67.89			
	0.24579	47998.34						
172.15	134.00	4407.49	6.18	4.17	718.11	10.95	0.30	0.001692
		74.15	2.32		67.70			

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		HYCHAN.OUT						
	0.24514	47860.84						
171.30	135.00	4407.48	6.17	4.16	713.07	0.30		
		73.94	2.32		67.51	10.94		0.001691
	0.24442	47726.67						
170.44	136.00	4407.46	6.15	4.15	708.10	0.30		
		73.73	2.31		67.31	10.94		0.001691
	0.24388	47589.54						
169.59	137.00	4407.45	6.14	4.15	703.14	0.30		
		73.52	2.31		67.12	10.94		0.001690
	0.24323	47453.81						
168.73	138.00	4407.43	6.12	4.14	698.05	0.29		
		73.31	2.30		66.93	10.93		0.001691
	0.24287	47317.03						
167.85	139.00	4407.42	6.11	4.13	693.10	0.29		
		73.09	2.30		66.73	10.93		0.001693
	0.24259	47177.70						
167.01	140.00	4407.40	6.09	4.12	688.09	0.29		
		72.89	2.29		66.54	10.92		0.001692
	0.24195	47045.47						
166.33	141.00	4407.39	6.08	4.11	684.34	0.29		
		72.71	2.29		66.38	10.92		0.001691
	0.24135	46934.19						
165.52	142.00	4407.37	6.06	4.11	679.48	0.29		
		72.51	2.28		66.20	10.92		0.001691
	0.24079	46805.68						
163.98	143.00	4407.35	6.04	4.09	670.63	0.29		
		72.12	2.27		65.85	10.91		0.001690
	0.23973	46553.76						
162.69	144.00	4407.32	6.01	4.08	663.29	0.29		
		71.81	2.27		65.56	10.90		0.001690
	0.23894	46349.04						
161.81	145.00	4407.31	6.00	4.07	658.28	0.29		
		71.59	2.26		65.36	10.90		0.001689
	0.23830	46206.31						
160.93	146.00	4407.29	5.98	4.06	653.31	0.29		
		71.36	2.26		65.15	10.89		0.001689
	0.23769	46062.52						
160.04	147.00	4407.27	5.96	4.05	648.25	0.29		
		71.14	2.25		64.95	10.89		0.001689
	0.23709	45918.95						
159.09	148.00	4407.25	5.94	4.04	643.32	0.29		
		70.87	2.24		64.71	10.89		0.001689
	0.23659	45748.06						
158.26	149.00	4407.24	5.93	4.03	638.23	0.29		
		70.68	2.24		64.53	10.88		0.001689
	0.23592	45625.70						
157.36	150.00	4407.22	5.91	4.02	633.27	0.29		
		70.45	2.23		64.32	10.88		0.001689
	0.23544	45474.02						
156.49	151.00	4407.21	5.90	4.01	628.28	0.29		
		70.23	2.23		64.12	10.87		0.001690
	0.23498	45331.63						
155.72	152.00	4407.19	5.88	4.01	624.08	0.29		
		70.03	2.22		63.94	10.87		0.001688
	0.23423	45204.99						
155.25	153.00	4407.18	5.87	4.00	621.67	0.29		
		69.90	2.22		63.82	10.87		0.001689
	0.23404	45121.34						
155.11	154.00	4407.18	5.87	4.00	620.66	0.29		
		69.88	2.22		63.80	10.87		0.001689
	0.23392	45109.55						
154.98	155.00	4407.18	5.87	4.00	620.01	0.29		
		69.85	2.22		63.77	10.86		0.001690

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HYCHAN.OUT									
0.23392	45086.37								
156.00	4407.18	5.87	4.00	620.00	0.29				
154.96	69.84	2.22		63.76	10.86	0.001690			
0.23393	45080.61								
157.00	4407.18	5.87	4.00	619.98	0.29				
154.94	69.83	2.22		63.76	10.86	0.001689			
0.23390	45075.14								
158.00	4407.18	5.87	4.00	620.02	0.29				
154.96	69.83	2.22		63.76	10.86	0.001689			
0.23391	45076.48								
159.00	4407.18	5.87	4.00	620.02	0.29				
154.98	69.85	2.22		63.77	10.86	0.001689			
0.23380	45085.61								
160.00	4407.18	5.87	4.00	620.00	0.29				
154.98	69.85	2.22		63.77	10.86	0.001689			
0.23391	45084.82								
161.00	4407.18	5.87	4.00	619.99	0.29				
154.95	69.83	2.22		63.75	10.86	0.001689			
0.23387	45073.04								
162.00	4407.18	5.87	4.00	620.01	0.29				
154.95	69.83	2.22		63.75	10.86	0.001689			
0.23386	45073.95								
163.00	4407.18	5.87	4.00	620.01	0.29				
154.94	69.83	2.22		63.76	10.86	0.001688			
0.23378	45074.92								
164.00	4407.18	5.87	4.00	619.94	0.29				
154.98	69.85	2.22		63.77	10.86	0.001690			
0.23395	45086.72								
165.00	4407.18	5.87	4.00	620.03	0.29				
154.97	69.84	2.22		63.76	10.86	0.001688			
0.23375	45078.64								
166.00	4407.18	5.87	4.00	620.02	0.29				
154.96	69.83	2.22		63.76	10.86	0.001688			
0.23378	45076.59								
167.00	4407.18	5.87	4.00	619.62	0.29				
154.90	69.82	2.22		63.75	10.86	0.001690			
0.23391	45070.05								
168.00	4407.17	5.86	4.00	617.97	0.29				
154.63	69.75	2.22		63.68	10.86	0.001688			
0.23351	45024.55								
169.00	4407.16	5.85	3.99	614.90	0.29				
154.10	69.63	2.21		63.57	10.86	0.001690			
0.23344	44942.58								
170.00	4407.15	5.84	3.99	612.35	0.29				
153.61	69.49	2.21		63.44	10.86	0.001689			
0.23291	44855.22								
171.00	4407.15	5.84	3.98	609.95	0.29				
153.21	69.39	2.21		63.35	10.86	0.001689			
0.23268	44790.78								
172.00	4407.14	5.83	3.98	607.38	0.29				
152.75	69.27	2.21		63.25	10.85	0.001688			
0.23230	44714.60								
173.00	4407.13	5.82	3.97	604.94	0.29				
152.31	69.16	2.20		63.15	10.85	0.001688			
0.23193	44643.61								
174.00	4407.12	5.81	3.97	602.34	0.29				
151.80	69.02	2.20		63.01	10.85	0.001688			
0.23162	44549.61								
175.00	4407.11	5.80	3.96	599.92	0.29				
151.39	68.92	2.20		62.92	10.85	0.001688			
0.23141	44486.26								
176.00	4407.10	5.79	3.96	597.38	0.29				
150.90	68.79	2.19		62.80	10.84	0.001688			

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		HYCHAN.OUT						
	0.23110	44401.21						
150.51	177.00	4407.09	5.78	3.95	595.26	0.29		
		68.68	2.19		62.71	10.84		0.001690
	0.23112	44333.93						
150.18	178.00	4407.09	5.78	3.95	593.37	0.29		
		68.60	2.19		62.63	10.84		0.001688
	0.23065	44281.12						
149.79	179.00	4407.08	5.77	3.95	591.32	0.29		
		68.49	2.19		62.53	10.84		0.001688
	0.23040	44211.91						
149.43	180.00	4407.07	5.76	3.94	589.33	0.29		
		68.40	2.18		62.45	10.84		0.001687
	0.23001	44150.56						
149.07	181.00	4407.07	5.76	3.94	587.31	0.29		
		68.30	2.18		62.36	10.83		0.001688
	0.22981	44090.55						
148.71	182.00	4407.06	5.75	3.94	585.33	0.29		
		68.21	2.18		62.28	10.83		0.001687
	0.22952	44030.42						
148.35	183.00	4407.05	5.74	3.93	583.30	0.29		
		68.12	2.18		62.19	10.83		0.001687
	0.22925	43968.61						
147.99	184.00	4407.05	5.74	3.93	581.32	0.29		
		68.03	2.18		62.11	10.83		0.001688
	0.22908	43911.73						
147.60	185.00	4407.04	5.73	3.92	579.34	0.29		
		67.92	2.17		62.01	10.83		0.001687
	0.22882	43842.45						
147.23	186.00	4407.03	5.72	3.92	577.31	0.29		
		67.82	2.17		61.92	10.82		0.001687
	0.22849	43780.04						
146.87	187.00	4407.02	5.71	3.92	575.32	0.29		
		67.73	2.17		61.84	10.82		0.001687
	0.22831	43719.92						
146.50	188.00	4407.02	5.71	3.91	573.33	0.29		
		67.63	2.17		61.75	10.82		0.001686
	0.22796	43656.95						
146.15	189.00	4407.01	5.70	3.91	571.30	0.29		
		67.54	2.16		61.66	10.82		0.001688
	0.22796	43597.04						
145.79	190.00	4407.00	5.69	3.91	569.33	0.29		
		67.45	2.16		61.58	10.82		0.001687
	0.22747	43540.39						
145.41	191.00	4407.00	5.69	3.90	567.31	0.29		
		67.34	2.16		61.49	10.81		0.001688
	0.22746	43470.53						
145.06	192.00	4406.99	5.68	3.90	565.31	0.29		
		67.26	2.16		61.41	10.81		0.001686
	0.22694	43414.34						
144.69	193.00	4406.98	5.67	3.89	563.33	0.29		
		67.15	2.15		61.31	10.81		0.001686
	0.22673	43348.60						
144.32	194.00	4406.97	5.66	3.89	561.31	0.29		
		67.06	2.15		61.23	10.81		0.001687
	0.22652	43286.81						
143.97	195.00	4406.97	5.66	3.89	559.34	0.29		
		66.96	2.15		61.14	10.81		0.001687
	0.22631	43225.50						
143.58	196.00	4406.96	5.65	3.88	557.32	0.29		
		66.86	2.15		61.05	10.80		0.001688
	0.22615	43160.38						
143.23	197.00	4406.95	5.64	3.88	555.32	0.29		
		66.77	2.15		60.96	10.80		0.001688

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HYCHAN.OUT

0.22590	43098.54							
198.00	4406.95	5.64	3.87	553.32	0.29			
142.86	66.67	2.14		60.87	10.80		0.001686	
0.22550	43037.44							
199.00	4406.94	5.63	3.87	551.33	0.29			
142.49	66.57	2.14		60.78	10.80		0.001687	
0.22531	42974.11							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3829

MAXIMUM DISCHARGE (CFS) = 1036.98 AT TIME = 90.23  
 MAXIMUM STAGE = 4406.67 AT TIME = 91.80

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	1.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	2.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	3.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	4.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	5.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	6.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	7.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	8.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	9.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	10.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	11.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	12.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	13.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	

HYCHAN.OUT							
0.00	14.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	35.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4399.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT								
0.00	56.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4399.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.08	58.00	4399.91	0.11	0.06	0.01	0.03	0.03	0.001650
	0.01158	0.72	0.11	0.66	6.05			
0.18	59.00	4400.00	0.20	0.18	0.03	0.07	0.07	0.001647
	0.01319	1.41	0.13	1.29	6.59			
0.33	60.00	4400.07	0.27	0.30	0.10	0.10	0.10	0.001645
	0.01651	2.04	0.16	1.87	6.91			
0.44	61.00	4400.11	0.31	0.33	0.14	0.10	0.10	0.001636
	0.01842	2.42	0.18	2.22	7.06			
0.37	62.00	4400.09	0.29	0.32	0.12	0.10	0.10	0.001621
	0.01715	2.21	0.17	2.02	6.98			
0.23	63.00	4400.02	0.22	0.23	0.05	0.09	0.09	0.001647
	0.01447	1.62	0.14	1.48	6.71			
15.80	64.00	4400.78	0.98	0.95	15.08	0.17	0.17	0.001825
	0.20169	8.92	1.77	8.16	8.35			
42.78	65.00	4402.93	3.13	2.80	119.92	0.28	0.28	0.001830
	0.14417	33.89	1.26	30.96	9.90			
64.28	66.00	4403.65	3.85	3.28	210.55	0.29	0.29	0.001833
	0.17079	43.06	1.49	39.33	10.21			
78.07	67.00	4404.04	4.24	3.53	275.95	0.30	0.30	0.001861
	0.18829	48.15	1.62	43.97	10.36			
94.02	68.00	4404.46	4.66	3.81	358.46	0.31	0.31	0.001870
	0.20466	53.62	1.75	48.97	10.50			
111.87	69.00	4404.88	5.08	4.09	457.51	0.32	0.32	0.001908
	0.22488	59.23	1.89	54.09	10.64			
134.53	70.00	4405.38	5.58	4.41	593.79	0.33	0.33	0.001909
	0.24305	65.94	2.04	60.20	10.78			
146.84	71.00	4405.63	5.83	4.58	672.70	0.33	0.33	0.001925
	0.25431	69.36	2.12	63.33	10.86			
158.98	72.00	4405.87	6.07	4.72	750.89	0.34	0.34	0.001931
	0.26372	72.62	2.19	66.30	10.92			
168.60	73.00	4406.05	6.25	4.80	808.55	0.34	0.34	0.001943
	0.27219	75.11	2.24	68.57	10.97			
173.02	74.00	4406.13	6.33	4.82	834.08	0.34	0.34	0.001935
	0.27399	76.24	2.27	69.60	10.99			
175.56	75.00	4406.18	6.38	4.83	848.23	0.34	0.34	0.001941
	0.27663	76.86	2.28	70.17	11.00			
176.66	76.00	4406.20	6.40	4.84	854.27	0.34	0.34	0.001941
	0.27746	77.14	2.29	70.42	11.00			
		42250.58						

HYCHAN.OUT									
177.50	77.00	4406.21	6.41	2.30	4.83	70.60	857.65	11.01	0.001939
	0.27763	77.34							
		42361.22							
179.86	78.00	4406.26	6.46	2.32	4.81	71.23	864.97	11.02	0.001940
	0.28047	77.62							
		42735.04							
181.92	79.00	4406.31	6.51	2.34	4.79	71.77	870.91	11.03	0.001954
	0.28546	77.71							
		43059.33							
182.87	80.00	4406.33	6.53	2.35	4.79	72.08	875.64	11.04	0.001973
	0.28954	77.76							
		43248.46							
183.79	81.00	4406.36	6.56	2.36	4.78	72.47	878.04	11.04	0.001982
	0.29214	77.82							
		43483.77							
185.47	82.00	4406.40	6.60	2.38	4.79	72.96	887.66	11.05	0.002002
	0.29745	77.90							
		43773.57							
186.80	83.00	4406.43	6.63	2.40	4.78	73.39	893.17	11.06	0.002012
	0.30083	77.97							
		44035.37							
187.03	84.00	4406.45	6.65	2.40	4.76	73.58	890.91	11.07	0.002033
	0.30416	78.00							
		44145.62							
187.57	85.00	4406.47	6.67	2.40	4.76	73.79	893.68	11.07	0.002025
	0.30373	78.03							
		44273.30							
193.30	86.00	4406.54	6.74	2.47	4.84	74.71	936.45	11.09	0.001981
	0.30569	78.18							
		44828.52							
198.30	87.00	4406.58	6.78	2.53	4.92	75.26	974.81	11.10	0.001983
	0.31360	78.26							
		45158.64							
201.81	88.00	4406.62	6.82	2.58	4.93	75.81	995.84	11.11	0.001946
	0.31271	78.35							
		45487.24							
202.61	89.00	4406.64	6.84	2.59	4.92	75.98	997.02	11.11	0.001944
	0.31362	78.37							
		45590.89							
203.54	90.00	4406.65	6.85	2.60	4.91	76.11	998.74	11.11	0.001971
	0.31936	78.39							
		45663.58							
203.70	91.00	4406.65	6.85	2.60	4.91	76.15	999.84	11.11	0.001954
	0.31675	78.40							
		45689.10							
203.72	92.00	4406.65	6.85	2.60	4.90	76.15	997.34	11.11	0.001950
	0.31619	78.40							
		45691.66							
201.32	93.00	4406.63	6.83	2.57	4.84	75.93	975.10	11.11	0.001995
	0.31983	78.37							
		45559.51							
198.50	94.00	4406.62	6.82	2.53	4.80	75.70	953.39	11.11	0.002021
	0.31963	78.33							
		45420.72							
195.94	95.00	4406.60	6.80	2.50	4.76	75.50	933.50	11.10	0.002047
	0.31968	78.30							
		45297.69							
193.43	96.00	4406.59	6.79	2.47	4.71	75.33	911.99	11.10	0.002066
	0.31865	78.27							
		45195.36							
190.05	97.00	4406.56	6.76	2.43	4.66	74.94	884.80	11.09	0.002095
	0.31773	78.21							
		44962.43							

		HYCHAN.OUT					
186.46	98.00	4406.52	6.72	4.60	857.57	0.31	0.002133
	0.31766	78.13	2.39	74.42	11.08		
	99.00	44652.33	6.65	4.52	819.37	0.31	
181.31	0.31350	78.00	2.32	73.59	11.07		0.002161
	100.00	44156.13	6.61	4.50	804.85	0.31	
178.77	0.30803	4406.41	2.29	73.11	11.06		0.002152
	101.00	77.92	6.60	4.52	806.28	0.31	
178.44	0.30645	4406.40	2.29	72.91	11.05		0.002144
	102.00	43747.32	6.58	4.52	802.62	0.31	
177.71	0.30338	77.86	2.28	72.68	11.05		0.002130
	103.00	43610.44	6.57	4.53	804.80	0.31	
177.57	0.30111	4406.37	2.28	72.53	11.05		0.002115
	104.00	77.83	6.57	4.56	814.46	0.31	
178.48	0.30030	4406.37	2.29	72.57	11.05		0.002099
	105.00	77.84	6.58	4.59	823.78	0.32	
179.52	0.29828	4406.38	2.31	72.69	11.05		0.002073
	106.00	43613.47	6.57	4.63	835.23	0.32	
180.33	0.29602	77.85	2.32	72.62	11.05		0.002048
	107.00	43572.68	6.56	4.65	838.19	0.32	
180.11	0.29511	4406.36	2.31	72.41	11.04		0.002043
	108.00	77.81	6.55	4.65	835.25	0.32	
179.80	0.29336	4406.35	2.31	72.37	11.04		0.002034
	109.00	43422.27	6.55	4.67	839.84	0.32	
180.00	0.29092	77.79	2.31	72.28	11.04		0.002015
	110.00	43366.53	6.57	4.70	856.55	0.32	
182.32	0.28921	4406.37	2.34	72.54	11.05		0.001979
	111.00	77.83	6.56	4.72	861.89	0.32	
182.76	0.28777	4406.36	2.35	72.47	11.04		0.001964
	112.00	77.82	6.53	4.72	854.08	0.33	
180.86	0.28631	4406.33	2.33	72.04	11.04		0.001973
	113.00	43221.18	6.51	4.73	850.33	0.33	
179.69	0.28375	4406.31	2.31	71.78	11.03		0.001967
	114.00	77.71	6.49	4.74	848.49	0.33	
178.82	0.28182	4406.29	2.30	71.51	11.03		0.001962
	115.00	77.67	6.43	4.78	845.26	0.33	
176.77	0.27480	4406.23	2.28	70.77	11.01		0.001931
	116.00	77.52	6.35	4.82	837.29	0.34	
173.79	0.27383	4406.15	2.27	69.76	10.99		0.001930
	117.00	76.41	6.32	4.81	830.29	0.34	
172.57	0.27306	4406.12	2.27	69.48	10.98		0.001930
	118.00	76.10	6.29	4.80	819.94	0.34	
170.72	0.27318	4406.09	2.26	69.05	10.98		0.001940
		75.64					
		41432.23					

		HYCHAN.OUT					
119.00	4406.06	6.26	4.80	811.65	0.34		
169.24	75.26	2.25		68.70	10.97	0.001918	
0.26912	41222.98						
120.00	4406.01	6.21	4.78	795.63	0.34		
166.58	74.57	2.23		68.08	10.96	0.001922	
0.26783	40849.28						
121.00	4405.98	6.18	4.77	784.97	0.34		
164.71	74.10	2.22		67.65	10.95	0.001923	
0.26670	40589.20						
122.00	4405.96	6.16	4.76	777.95	0.34		
163.55	73.80	2.22		67.38	10.94	0.001923	
0.26585	40425.40						
123.00	4405.94	6.14	4.75	773.33	0.34		
162.78	73.59	2.21		67.18	10.94	0.001920	
0.26506	40310.93						
124.00	4405.92	6.12	4.75	768.42	0.34		
161.79	73.31	2.21		66.93	10.93	0.001921	
0.26462	40157.06						
125.00	4405.91	6.11	4.74	763.41	0.34		
160.97	73.10	2.20		66.73	10.93	0.001922	
0.26405	40039.73						
126.00	4405.89	6.09	4.74	758.40	0.34		
160.15	72.89	2.20		66.54	10.92	0.001920	
0.26325	39925.36						
127.00	4405.88	6.08	4.73	753.37	0.34		
159.37	72.69	2.19		66.36	10.92	0.001923	
0.26310	39815.26						
128.00	4405.86	6.06	4.72	748.41	0.34		
158.54	72.48	2.19		66.17	10.92	0.001920	
0.26211	39702.11						
129.00	4405.85	6.05	4.71	743.38	0.34		
157.76	72.28	2.18		65.99	10.91	0.001923	
0.26195	39592.07						
130.00	4405.83	6.03	4.71	738.19	0.34		
156.85	72.05	2.18		65.78	10.91	0.001923	
0.26122	39465.68						
131.00	4405.81	6.02	4.70	733.23	0.34		
156.08	71.84	2.17		65.59	10.90	0.001922	
0.26052	39353.00						
132.00	4405.80	6.00	4.69	728.28	0.34		
155.35	71.64	2.17		65.41	10.90	0.001918	
0.25950	39245.67						
133.00	4405.79	5.99	4.68	723.20	0.34		
154.60	71.44	2.16		65.23	10.90	0.001920	
0.25928	39135.52						
134.00	4405.77	5.97	4.67	718.23	0.34		
153.86	71.24	2.16		65.04	10.89	0.001916	
0.25824	39026.71						
135.00	4405.76	5.96	4.66	713.22	0.34		
153.12	71.04	2.16		64.86	10.89	0.001917	
0.25787	38916.57						
136.00	4405.74	5.94	4.65	708.22	0.34		
152.37	70.84	2.15		64.68	10.88	0.001916	
0.25711	38806.31						
137.00	4405.73	5.93	4.64	703.27	0.34		
151.64	70.64	2.15		64.49	10.88	0.001912	
0.25612	38695.88						
138.00	4405.71	5.91	4.63	698.22	0.34		
150.89	70.44	2.14		64.31	10.88	0.001914	
0.25581	38584.66						
139.00	4405.70	5.90	4.62	693.25	0.34		
150.12	70.23	2.14		64.12	10.87	0.001913	
0.25516	38470.37						



		HYCHAN.OUT							
140.00	4405.68	5.88	4.61	688.22	0.33				
149.37	70.02	2.13		63.93	10.87	0.001913			
0.25463	38358.26								
141.00	4405.67	5.87	4.60	684.41	0.33				
148.78	69.86	2.13		63.78	10.87	0.001910			
0.25376	38270.24								
142.00	4405.66	5.86	4.59	679.71	0.33				
148.09	69.67	2.13		63.61	10.86	0.001909			
0.25327	38163.42								
143.00	4405.63	5.83	4.57	670.86	0.33				
146.76	69.30	2.12		63.27	10.85	0.001906			
0.25190	37963.61								
144.00	4405.61	5.81	4.56	663.46	0.33				
145.62	68.99	2.11		62.99	10.85	0.001908			
0.25131	37791.87								
145.00	4405.59	5.79	4.55	658.41	0.33				
144.85	68.78	2.11		62.79	10.84	0.001905			
0.25040	37675.17								
146.00	4405.58	5.78	4.54	653.44	0.33				
144.09	68.56	2.10		62.60	10.84	0.001902			
0.24946	37559.55								
147.00	4405.56	5.76	4.52	648.39	0.33				
143.31	68.35	2.10		62.40	10.83	0.001902			
0.24888	37440.03								
148.00	4405.54	5.74	4.51	643.47	0.33				
142.56	68.14	2.09		62.21	10.83	0.001901			
0.24813	37326.39								
149.00	4405.53	5.73	4.50	638.37	0.33				
141.76	67.92	2.09		62.01	10.83	0.001900			
0.24750	37204.48								
150.00	4405.51	5.71	4.49	633.42	0.33				
140.98	67.70	2.08		61.81	10.82	0.001901			
0.24709	37085.96								
151.00	4405.50	5.70	4.48	628.44	0.33				
140.22	67.48	2.08		61.62	10.82	0.001900			
0.24635	36969.03								
152.00	4405.48	5.68	4.47	624.15	0.33				
139.54	67.30	2.07		61.44	10.81	0.001897			
0.24541	36865.49								
153.00	4405.47	5.67	4.47	621.71	0.33				
139.16	67.19	2.07		61.35	10.81	0.001897			
0.24511	36807.80								
154.00	4405.47	5.67	4.47	620.69	0.33				
138.98	67.14	2.07		61.30	10.81	0.001897			
0.24499	36778.91								
155.00	4405.47	5.67	4.46	620.01	0.33				
138.88	67.11	2.07		61.27	10.81	0.001897			
0.24500	36762.38								
156.00	4405.47	5.67	4.46	620.01	0.33				
138.87	67.11	2.07		61.27	10.81	0.001897			
0.24494	36762.54								
157.00	4405.47	5.67	4.46	619.97	0.33				
138.86	67.11	2.07		61.27	10.81	0.001897			
0.24493	36761.80								
158.00	4405.47	5.67	4.46	620.01	0.33				
138.88	67.11	2.07		61.28	10.81	0.001897			
0.24491	36765.15								
159.00	4405.47	5.67	4.46	620.02	0.33				
138.87	67.11	2.07		61.27	10.81	0.001896			
0.24488	36763.11								
160.00	4405.47	5.67	4.47	620.01	0.33				
138.86	67.11	2.07		61.27	10.81	0.001896			
0.24483	36763.38								

HYCHAN.OUT									
138.87	161.00	4405.47	5.67	2.07	4.46	61.27	619.99	10.81	0.001897
	0.24493	67.11							
		36764.88							
138.87	162.00	4405.47	5.67	2.07	4.46	61.27	620.01	10.81	0.001897
	0.24488	67.11							
		36764.16							
138.86	163.00	4405.47	5.67	2.07	4.46	61.27	620.00	10.81	0.001897
	0.24490	67.11							
		36762.64							
138.86	164.00	4405.47	5.67	2.07	4.46	61.27	619.96	10.81	0.001899
	0.24522	67.11							
		36761.91							
138.88	165.00	4405.47	5.67	2.07	4.46	61.28	619.99	10.81	0.001897
	0.24492	67.11							
		36765.89							
138.88	166.00	4405.47	5.67	2.07	4.46	61.27	620.03	10.81	0.001896
	0.24485	67.11							
		36764.91							
138.82	167.00	4405.47	5.67	2.07	4.46	61.26	619.65	10.81	0.001898
	0.24501	67.09							
		36754.70							
138.58	168.00	4405.46	5.66	2.07	4.46	61.20	618.04	10.81	0.001896
	0.24458	67.03							
		36719.70							
138.09	169.00	4405.45	5.65	2.06	4.45	61.07	615.00	10.80	0.001898
	0.24450	66.89							
		36642.55							
137.68	170.00	4405.44	5.64	2.06	4.45	60.97	612.38	10.80	0.001897
	0.24404	66.77							
		36580.01							
137.31	171.00	4405.44	5.64	2.06	4.44	60.87	610.04	10.80	0.001898
	0.24391	66.67							
		36523.89							
136.90	172.00	4405.43	5.63	2.06	4.44	60.77	607.43	10.80	0.001894
	0.24314	66.56							
		36461.81							
136.51	173.00	4405.42	5.62	2.05	4.43	60.67	605.01	10.80	0.001894
	0.24277	66.45							
		36399.95							
136.10	174.00	4405.41	5.61	2.05	4.43	60.56	602.41	10.79	0.001894
	0.24254	66.33							
		36338.02							
135.71	175.00	4405.40	5.60	2.05	4.42	60.46	600.02	10.79	0.001896
	0.24249	66.22							
		36278.71							
135.29	176.00	4405.39	5.59	2.05	4.42	60.36	597.44	10.79	0.001893
	0.24178	66.11							
		36213.91							
134.97	177.00	4405.39	5.59	2.04	4.41	60.27	595.34	10.79	0.001895
	0.24179	66.01							
		36163.52							
134.66	178.00	4405.38	5.58	2.04	4.41	60.19	593.41	10.78	0.001893
	0.24122	65.93							
		36115.74							
134.33	179.00	4405.37	5.57	2.04	4.40	60.11	591.38	10.78	0.001892
	0.24093	65.83							
		36065.52							
134.01	180.00	4405.37	5.57	2.04	4.40	60.03	589.37	10.78	0.001891
	0.24058	65.75							
		36016.89							
133.70	181.00	4405.36	5.56	2.04	4.39	59.95	587.38	10.78	0.001891
	0.24029	65.65							
		35967.00							

HYCHAN.OUT									
133.37	182.00	4405.35	5.55	2.03	4.39	585.38	10.78	0.33	0.001891
	0.23998	65.56				59.86			
		35916.71							
133.05	183.00	4405.35	5.55	2.03	4.38	583.36	10.78	0.33	0.001891
	0.23978	65.47				59.78			
		35867.49							
132.72	184.00	4405.34	5.54	2.03	4.38	581.38	10.77	0.33	0.001890
	0.23947	65.38				59.69			
		35816.38							
132.40	185.00	4405.33	5.53	2.03	4.38	579.41	10.77	0.33	0.001890
	0.23915	65.29				59.61			
		35765.80							
132.07	186.00	4405.33	5.53	2.03	4.37	577.35	10.77	0.33	0.001890
	0.23896	65.19				59.52			
		35713.20							
131.76	187.00	4405.32	5.52	2.02	4.37	575.39	10.77	0.33	0.001889
	0.23861	65.10				59.44			
		35665.00							
131.42	188.00	4405.31	5.51	2.02	4.36	573.37	10.77	0.33	0.001889
	0.23830	65.01				59.36			
		35614.19							
131.11	189.00	4405.31	5.51	2.02	4.36	571.39	10.76	0.33	0.001888
	0.23798	64.92				59.27			
		35564.61							
130.76	190.00	4405.30	5.50	2.02	4.35	569.37	10.76	0.33	0.001889
	0.23776	64.82				59.18			
		35510.63							
130.46	191.00	4405.29	5.49	2.02	4.35	567.39	10.76	0.33	0.001888
	0.23747	64.73				59.11			
		35463.24							
130.13	192.00	4405.29	5.49	2.01	4.34	565.34	10.76	0.33	0.001888
	0.23714	64.64				59.02			
		35410.45							
129.82	193.00	4405.28	5.48	2.01	4.34	563.39	10.76	0.33	0.001888
	0.23691	64.55				58.94			
		35363.42							
129.49	194.00	4405.27	5.47	2.01	4.34	561.37	10.75	0.33	0.001887
	0.23660	64.46				58.85			
		35310.87							
129.17	195.00	4405.27	5.47	2.01	4.33	559.41	10.75	0.33	0.001887
	0.23631	64.37				58.77			
		35261.41							
128.83	196.00	4405.26	5.46	2.00	4.33	557.39	10.75	0.33	0.001888
	0.23612	64.26				58.68			
		35206.38							
128.52	197.00	4405.25	5.45	2.00	4.32	555.38	10.75	0.33	0.001886
	0.23568	64.18				58.60			
		35159.31							
128.20	198.00	4405.25	5.45	2.00	4.32	553.36	10.75	0.33	0.001886
	0.23539	64.08				58.51			
		35107.23							
127.87	199.00	4405.24	5.44	2.00	4.31	551.40	10.74	0.33	0.001886
	0.23516	63.99				58.42			
		35054.79							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3830

MAXIMUM DISCHARGE (CFS) =	1025.28	AT TIME =	88.43
MAXIMUM STAGE =	4404.38	AT TIME =	90.24

AREA	TIME WETTED PERIMETER	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
			HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE

BED SHEAR STRESS		SURFACE AREA		HYCHAN.OUT			
(FT^2)	(HRS) (LB/FT^2)	(FT) (FT)	(FT^2)	(FT)	(FPS)	(FT)	(CFS)
0.00	0.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4398.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4398.00	0.00	0.00	0.00	0.00	0.00

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4398.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.08	58.00	4398.11	0.11	0.06	0.01	0.03	0.001748
	0.01262	0.73	0.12	0.67	6.05		
0.20	59.00	4398.20	0.20	0.16	0.03	0.06	0.001742
	0.01465	1.45	0.13	1.33	6.62		
0.35	60.00	4398.28	0.28	0.30	0.10	0.10	0.001762
	0.01825	2.08	0.17	1.91	6.93		
	61.00	4398.33	0.33	0.33	0.16	0.10	

HYCHAN.OUT							
0.47	0.02020	2.55	0.18	2.34	7.11	0.001754	
	62.00	1635.68					
0.44	0.01980	4398.31	0.31	0.33	0.14	0.10	
	63.00	2.41	0.18	2.21	7.06	0.001742	
0.30	0.01750	1543.56	0.25	0.29	0.09	0.10	
	64.00	4398.25	0.16	1.71	6.83	0.001735	
13.28	0.25923	1196.30	0.74	0.77	10.23	0.16	
	65.00	4398.74	2.04	5.95	8.02	0.002033	
38.82	0.16645	4163.05	2.90	2.95	114.69	0.31	
	66.00	31.13	1.25	28.45	9.80	0.002139	
59.38	0.20110	19911.72	3.60	3.50	207.90	0.33	
	67.00	4401.60	1.49	36.41	10.11	0.002163	
72.11	0.22409	25483.71	3.96	3.79	272.98	0.34	
	68.00	4401.96	1.62	40.59	10.25	0.002213	
86.97	0.24625	28415.23	4.34	4.09	356.11	0.35	
	69.00	4402.34	1.76	45.11	10.39	0.002241	
103.16	0.27353	31579.52	4.72	4.39	453.00	0.36	
	70.00	4402.72	1.90	49.64	10.52	0.002310	
124.29	0.29932	34747.68	5.17	4.76	591.18	0.37	
	71.00	4403.17	2.06	55.16	10.66	0.002332	
136.10	0.31428	38614.15	5.40	4.93	670.56	0.37	
	72.00	4403.40	2.14	57.94	10.73	0.002348	
148.04	0.32971	40554.94	5.61	5.06	748.86	0.38	
	73.00	4403.61	2.23	60.58	10.79	0.002368	
157.30	0.33946	42403.33	5.78	5.13	807.59	0.38	
	74.00	4403.78	2.29	62.63	10.84	0.002372	
161.40	0.34514	43837.94	5.85	5.16	833.30	0.38	
	75.00	4403.85	2.32	63.54	10.86	0.002385	
163.76	0.34718	44479.25	5.89	5.18	848.00	0.38	
	76.00	4403.89	2.33	64.07	10.87	0.002384	
164.72	0.34817	44852.45	5.91	5.19	854.18	0.38	
	77.00	4403.91	2.34	64.30	10.88	0.002386	
165.14	0.34975	45010.68	5.93	5.19	857.41	0.38	
	78.00	4403.93	2.34	64.48	10.88	0.002397	
166.17	0.35300	45133.67	5.96	5.20	864.61	0.38	
	79.00	4403.96	2.34	64.88	10.89	0.002419	
167.05	0.35413	45416.10	5.99	5.21	870.91	0.38	
	80.00	4403.99	2.34	65.23	10.90	0.002427	
167.89	0.35691	45657.96	5.99	5.22	875.75	0.38	
	81.00	4403.99	2.35	65.32	10.90	0.002437	
168.55	0.35839	45722.56	5.99	5.22	879.06	0.38	
	82.00	4404.01	2.36	65.32	10.90	0.002438	
			6.01	5.23	890.43	0.38	

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		HYCHAN.OUT							
170.40	71.81	2.37	65.56	10.90	0.002437				
0.36091	45892.89								
83.00	4404.02	6.02	5.23	896.38	0.38				
171.48	71.96	2.38	65.69	10.91	0.002448				
0.36405	45986.20								
84.00	4404.02	6.02	5.22	894.98	0.38				
171.34	71.86	2.38	65.61	10.90	0.002456				
0.36545	45924.09								
85.00	4404.02	6.02	5.23	897.59	0.38				
171.78	71.88	2.39	65.62	10.90	0.002441				
0.36398	45935.89								
86.00	4404.13	6.13	5.27	942.90	0.38				
179.01	73.43	2.44	67.04	10.93	0.002444				
0.37175	46929.52								
87.00	4404.23	6.23	5.31	982.43	0.37				
185.15	74.86	2.47	68.34	10.96	0.002429				
0.37488	47839.47								
88.00	4404.29	6.29	5.33	1001.56	0.37				
188.03	75.69	2.48	69.10	10.98	0.002389				
0.37033	48368.48								
89.00	4404.31	6.31	5.33	1002.09	0.37				
187.96	75.83	2.48	69.23	10.98	0.002441				
0.37757	48460.84								
90.00	4404.32	6.32	5.34	1005.23	0.37				
188.32	76.07	2.48	69.44	10.98	0.002420				
0.37386	48610.30								
91.00	4404.32	6.32	5.34	1004.86	0.37				
188.19	76.10	2.47	69.47	10.98	0.002457				
0.37912	48628.41								
92.00	4404.32	6.32	5.34	1003.10	0.37				
187.86	76.09	2.47	69.46	10.98	0.002446				
0.37682	48624.57								
93.00	4404.27	6.27	5.32	982.41	0.37				
184.68	75.37	2.45	68.81	10.97	0.002438				
0.37275	48164.08								
94.00	4404.21	6.21	5.30	958.97	0.37				
181.07	74.51	2.43	68.02	10.96	0.002492				
0.37780	47616.77								
95.00	4404.15	6.15	5.27	939.76	0.37				
178.17	73.72	2.42	67.30	10.94	0.002491				
0.37569	47109.90								
96.00	4404.09	6.09	5.25	918.04	0.38				
174.81	72.89	2.40	66.55	10.92	0.002490				
0.37267	46583.73								
97.00	4404.01	6.01	5.22	891.06	0.38				
170.63	71.80	2.38	65.55	10.90	0.002500				
0.37079	45884.65								
98.00	4403.93	5.93	5.19	863.37	0.38				
166.35	70.68	2.35	64.53	10.88	0.002539				
0.37287	45172.78								
99.00	4403.82	5.82	5.15	824.76	0.38				
160.30	69.17	2.32	63.15	10.85	0.002538				
0.36704	44204.58								
100.00	4403.77	5.77	5.12	808.38	0.38				
157.76	68.51	2.30	62.55	10.84	0.002531				
0.36360	43788.22								
101.00	4403.78	5.78	5.13	809.79	0.38				
157.97	68.57	2.30	62.60	10.84	0.002522				
0.36257	43822.76								
102.00	4403.77	5.77	5.12	805.70	0.38				
157.22	68.47	2.30	62.52	10.84	0.002518				
0.36076	43761.84								
103.00	4403.78	5.78	5.13	807.50	0.38				

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		HYCHAN.OUT					
157.45	68.58	2.30	62.62	10.84	0.002512		
0.35988	43830.50						
104.00	4403.80	5.80	5.14	816.36	0.38		
158.81	68.96	2.30	62.96	10.85	0.002504		
0.35976	44074.14						
105.00	4403.83	5.83	5.15	825.14	0.38		
160.18	69.32	2.31	63.29	10.85	0.002496		
0.35982	44305.15						
106.00	4403.86	5.86	5.16	836.48	0.38		
161.98	69.78	2.32	63.71	10.86	0.002481		
0.35934	44593.95						
107.00	4403.87	5.87	5.17	839.45	0.38		
162.44	69.89	2.32	63.81	10.87	0.002480		
0.35962	44668.91						
108.00	4403.87	5.87	5.17	836.36	0.38		
161.91	69.80	2.32	63.72	10.86	0.002470		
0.35747	44607.17						
109.00	4403.88	5.88	5.17	840.47	0.38		
162.54	69.99	2.32	63.90	10.87	0.002469		
0.35781	44729.52						
110.00	4403.94	5.94	5.20	856.96	0.38		
164.95	70.80	2.33	64.64	10.88	0.002463		
0.35811	45245.61						
111.00	4403.96	5.96	5.20	862.88	0.38		
165.83	71.07	2.33	64.89	10.89	0.002440		
0.35524	45420.97						
112.00	4403.93	5.93	5.19	855.20	0.38		
164.73	70.65	2.33	64.50	10.88	0.002447		
0.35605	45152.45						
113.00	4403.91	5.91	5.18	851.05	0.38		
164.15	70.38	2.33	64.25	10.88	0.002438		
0.35486	44977.74						
114.00	4403.90	5.90	5.18	849.16	0.38		
163.95	70.27	2.33	64.15	10.87	0.002425		
0.35310	44907.61						
115.00	4403.89	5.89	5.18	845.38	0.38		
163.34	70.09	2.33	63.99	10.87	0.002383		
0.34659	44795.95						
116.00	4403.86	5.86	5.16	837.49	0.38		
162.15	69.78	2.32	63.71	10.86	0.002382		
0.34538	44597.68						
117.00	4403.84	5.84	5.16	830.60	0.38		
161.08	69.51	2.32	63.46	10.86	0.002377		
0.34376	44420.85						
118.00	4403.81	5.81	5.15	820.25	0.38		
159.41	69.08	2.31	63.07	10.85	0.002370		
0.34120	44150.09						
119.00	4403.79	5.79	5.14	812.09	0.38		
158.11	68.75	2.30	62.77	10.84	0.002364		
0.33929	43936.04						
120.00	4403.74	5.74	5.12	795.93	0.38		
155.54	68.14	2.28	62.21	10.83	0.002362		
0.33649	43548.60						
121.00	4403.71	5.71	5.11	785.26	0.38		
153.80	67.70	2.27	61.81	10.82	0.002358		
0.33425	43268.19						
122.00	4403.69	5.69	5.10	778.09	0.38		
152.70	67.43	2.26	61.56	10.82	0.002359		
0.33334	43094.65						
123.00	4403.68	5.68	5.09	773.44	0.38		
151.99	67.26	2.26	61.41	10.81	0.002354		
0.33191	42988.71						
124.00	4403.66	5.66	5.08	768.58	0.38		

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		HYCHAN.OUT					
151.22	67.06	2.26	61.22	10.81	0.002350		
0.33076	42856.18						
125.00	4403.65	5.65	5.08	763.57	0.38		
150.45	66.86	2.25	61.05	10.80	0.002353		
0.33033	42732.19						
126.00	4403.64	5.64	5.07	758.53	0.38		
149.66	66.67	2.24	60.87	10.80	0.002351		
0.32927	42608.78						
127.00	4403.62	5.62	5.06	753.55	0.38		
148.86	66.48	2.24	60.70	10.80	0.002349		
0.32818	42487.08						
128.00	4403.61	5.61	5.05	748.54	0.38		
148.09	66.28	2.23	60.51	10.79	0.002348		
0.32735	42358.01						
129.00	4403.59	5.59	5.05	743.55	0.38		
147.29	66.09	2.23	60.34	10.79	0.002345		
0.32611	42236.98						
130.00	4403.58	5.58	5.04	738.34	0.38		
146.44	65.86	2.22	60.13	10.78	0.002344		
0.32515	42094.17						
131.00	4403.56	5.56	5.03	733.35	0.38		
145.67	65.68	2.22	59.97	10.78	0.002344		
0.32443	41978.84						
132.00	4403.55	5.55	5.03	728.40	0.38		
144.93	65.51	2.21	59.81	10.78	0.002343		
0.32348	41870.14						
133.00	4403.54	5.54	5.02	723.35	0.38		
144.21	65.33	2.21	59.65	10.77	0.002341		
0.32243	41757.23						
134.00	4403.52	5.53	5.01	718.33	0.38		
143.44	65.16	2.20	59.50	10.77	0.002344		
0.32202	41647.85						
135.00	4403.51	5.51	5.00	713.36	0.38		
142.69	64.99	2.20	59.34	10.76	0.002340		
0.32063	41537.79						
136.00	4403.50	5.50	4.99	708.35	0.38		
141.99	64.81	2.19	59.18	10.76	0.002341		
0.32009	41422.66						
137.00	4403.49	5.49	4.98	703.39	0.37		
141.19	64.64	2.18	59.02	10.76	0.002339		
0.31883	41314.55						
138.00	4403.47	5.47	4.97	698.39	0.37		
140.45	64.46	2.18	58.86	10.75	0.002337		
0.31777	41200.74						
139.00	4403.46	5.46	4.96	693.38	0.37		
139.70	64.28	2.17	58.69	10.75	0.002335		
0.31661	41085.58						
140.00	4403.45	5.45	4.95	688.35	0.37		
138.97	64.10	2.17	58.53	10.75	0.002336		
0.31607	40971.01						
141.00	4403.44	5.44	4.95	684.45	0.37		
138.35	63.96	2.16	58.40	10.74	0.002336		
0.31527	40882.07						
142.00	4403.42	5.42	4.94	679.93	0.37		
137.69	63.80	2.16	58.26	10.74	0.002335		
0.31441	40778.61						
143.00	4403.40	5.40	4.92	671.09	0.37		
136.34	63.48	2.15	57.96	10.73	0.002332		
0.31248	40574.65						
144.00	4403.38	5.38	4.91	663.63	0.37		
135.22	63.21	2.14	57.72	10.73	0.002333		
0.31143	40400.64						
145.00	4403.37	5.37	4.90	658.52	0.37		

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		HYCHAN.OUT					
134.44	63.02	2.13	57.54	10.72	0.002331		
0.31026	40280.92						
146.00	4403.35	5.35	4.89	653.57	0.37		
133.71	62.84	2.13	57.38	10.72	0.002329		
0.30923	40163.73						
147.00	4403.34	5.34	4.88	648.53	0.37		
132.95	62.65	2.12	57.21	10.71	0.002328		
0.30820	40046.15						
148.00	4403.33	5.33	4.87	643.61	0.37		
132.22	62.47	2.12	57.04	10.71	0.002326		
0.30725	39927.81						
149.00	4403.31	5.31	4.86	638.50	0.37		
131.46	62.28	2.11	56.86	10.71	0.002325		
0.30627	39804.47						
150.00	4403.30	5.30	4.85	633.58	0.37		
130.73	62.09	2.11	56.69	10.70	0.002326		
0.30554	39683.28						
151.00	4403.28	5.28	4.84	628.57	0.37		
129.93	61.90	2.10	56.52	10.70	0.002323		
0.30426	39562.64						
152.00	4403.27	5.27	4.83	624.24	0.37		
129.26	61.73	2.09	56.37	10.69	0.002323		
0.30349	39457.65						
153.00	4403.26	5.26	4.82	621.75	0.37		
128.89	61.64	2.09	56.28	10.69	0.002324		
0.30323	39395.80						
154.00	4403.26	5.26	4.82	620.71	0.37		
128.73	61.59	2.09	56.24	10.69	0.002322		
0.30277	39368.36						
155.00	4403.26	5.26	4.82	620.04	0.37		
128.64	61.57	2.09	56.22	10.69	0.002321		
0.30264	39354.34						
156.00	4403.26	5.26	4.82	620.00	0.37		
128.64	61.57	2.09	56.22	10.69	0.002321		
0.30265	39351.82						
157.00	4403.26	5.26	4.82	619.98	0.37		
128.63	61.56	2.09	56.21	10.69	0.002322		
0.30269	39349.76						
158.00	4403.26	5.26	4.82	620.01	0.37		
128.64	61.57	2.09	56.22	10.69	0.002321		
0.30265	39351.98						
159.00	4403.26	5.26	4.82	620.02	0.37		
128.65	61.57	2.09	56.22	10.69	0.002322		
0.30271	39351.18						
160.00	4403.26	5.26	4.82	620.01	0.37		
128.62	61.56	2.09	56.21	10.69	0.002322		
0.30271	39347.46						
161.00	4403.26	5.26	4.82	620.00	0.37		
128.63	61.57	2.09	56.22	10.69	0.002321		
0.30266	39350.67						
162.00	4403.26	5.26	4.82	620.00	0.37		
128.62	61.56	2.09	56.21	10.69	0.002322		
0.30271	39348.77						
163.00	4403.26	5.26	4.82	620.01	0.37		
128.63	61.56	2.09	56.21	10.69	0.002322		
0.30275	39348.22						
164.00	4403.26	5.26	4.82	619.96	0.37		
128.62	61.56	2.09	56.21	10.69	0.002321		
0.30262	39347.83						
165.00	4403.26	5.26	4.82	619.98	0.37		
128.63	61.56	2.09	56.21	10.69	0.002323		
0.30280	39350.18						
166.00	4403.26	5.26	4.82	620.03	0.37		

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		HYCHAN.OUT					
128.64	61.57	2.09	56.22	10.69	0.002322		
0.30271	39351.47						
167.00	4403.26	5.26	4.82	619.69	0.37		
128.60	61.55	2.09	56.20	10.69	0.002321		
0.30254	39343.45						
168.00	4403.25	5.25	4.81	618.10	0.37		
128.38	61.49	2.09	56.15	10.69	0.002320		
0.30225	39303.82						
169.00	4403.24	5.24	4.81	615.09	0.37		
127.93	61.37	2.08	56.04	10.69	0.002318		
0.30152	39227.79						
170.00	4403.24	5.24	4.80	612.44	0.37		
127.56	61.27	2.08	55.95	10.68	0.002320		
0.30132	39162.61						
171.00	4403.23	5.23	4.80	610.14	0.37		
127.21	61.18	2.08	55.86	10.68	0.002318		
0.30074	39101.66						
172.00	4403.22	5.22	4.79	607.48	0.37		
126.83	61.07	2.08	55.77	10.68	0.002317		
0.30021	39035.57						
173.00	4403.21	5.21	4.78	605.07	0.37		
126.48	60.98	2.07	55.68	10.68	0.002316		
0.29971	38974.93						
174.00	4403.21	5.21	4.78	602.49	0.37		
126.10	60.87	2.07	55.58	10.68	0.002316		
0.29934	38908.86						
175.00	4403.20	5.20	4.77	600.10	0.37		
125.74	60.78	2.07	55.50	10.67	0.002315		
0.29884	38846.84						
176.00	4403.19	5.19	4.77	597.49	0.37		
125.36	60.67	2.07	55.40	10.67	0.002313		
0.29817	38780.02						
177.00	4403.19	5.19	4.76	595.41	0.37		
125.06	60.59	2.06	55.33	10.67	0.002312		
0.29778	38728.05						
178.00	4403.18	5.18	4.76	593.46	0.37		
124.78	60.51	2.06	55.25	10.67	0.002312		
0.29744	38677.55						
179.00	4403.17	5.17	4.75	591.43	0.37		
124.48	60.43	2.06	55.18	10.67	0.002310		
0.29695	38626.29						
180.00	4403.17	5.17	4.75	589.43	0.37		
124.18	60.35	2.06	55.10	10.66	0.002312		
0.29688	38572.45						
181.00	4403.16	5.16	4.74	587.44	0.37		
123.89	60.27	2.06	55.03	10.66	0.002309		
0.29620	38522.45						
182.00	4403.16	5.16	4.74	585.43	0.37		
123.59	60.18	2.05	54.96	10.66	0.002310		
0.29598	38468.67						
183.00	4403.15	5.15	4.73	583.43	0.37		
123.29	60.10	2.05	54.88	10.66	0.002310		
0.29572	38416.94						
184.00	4403.14	5.14	4.73	581.43	0.37		
122.99	60.02	2.05	54.81	10.66	0.002308		
0.29515	38365.37						
185.00	4403.14	5.14	4.72	579.47	0.37		
122.69	59.94	2.05	54.73	10.65	0.002307		
0.29473	38311.19						
186.00	4403.13	5.13	4.72	577.42	0.37		
122.40	59.86	2.04	54.66	10.65	0.002307		
0.29440	38261.02						
187.00	4403.12	5.13	4.71	575.45	0.37		

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HYCHAN.OUT									
122.10	0.29386	59.78	2.04	54.58	10.65	0.002306			
188.00		38208.77							
121.79	0.29364	59.69	5.12	4.71	573.42	0.37			
189.00		38153.41	2.04	54.50	10.65	0.002306			
121.51	0.29306	59.61	5.11	4.70	571.44	0.37			
190.00		38102.48	2.04	54.43	10.65	0.002304			
121.20	0.29285	59.52	5.11	4.70	569.44	0.37			
191.00		38046.74	2.04	54.35	10.64	0.002305			
120.90	0.29220	59.44	5.10	4.69	567.44	0.37			
192.00		37995.77	2.03	54.28	10.64	0.002302			
120.60	0.29209	59.36	5.09	4.69	565.38	0.37			
193.00		37943.75	2.03	54.21	10.64	0.002304			
120.32	0.29161	59.28	5.09	4.68	563.47	0.37			
194.00		37892.26	2.03	54.13	10.64	0.002303			
120.02	0.29122	59.20	5.08	4.68	561.43	0.37			
195.00		37838.83	2.03	54.06	10.64	0.002302			
119.72	0.29065	59.11	5.08	4.67	559.46	0.37			
196.00		37785.09	2.03	53.98	10.64	0.002300			
119.42	0.29029	59.03	5.07	4.67	557.46	0.37			
197.00		37732.12	2.02	53.90	10.63	0.002300			
119.11	0.28970	58.95	5.06	4.66	555.43	0.37			
198.00		37677.69	2.02	53.83	10.63	0.002298			
118.82	0.28954	58.86	5.06	4.66	553.42	0.37			
199.00		37625.92	2.02	53.75	10.63	0.002299			
118.53	0.28911	58.78	5.05	4.65	551.46	0.36			
		37571.77	2.02	53.67	10.63	0.002298			

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3746

MAXIMUM DISCHARGE (CFS) = 1020.27 AT TIME = 90.26  
 MAXIMUM STAGE = 4401.96 AT TIME = 88.00

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC RADIUS	VELOCITY	DISCHARGE	FRUDE NO.	FLOW	FLOW
STRESS	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)	ENERGY	SLOPE
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FPS)	(CFS)	ENERGY	SLOPE
(FT^2)	(FT)	(FT)	(FT)	(FT)	(FPS)	(CFS)	ENERGY	SLOPE
0.00	0.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

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HYCHAN.OUT							
0.00	0.00000	4.00	4396.50	0.00	0.00	0.00	0.00
0.00	0.00000	5.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	6.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	7.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	8.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	9.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	10.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	11.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	12.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	13.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	14.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	15.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	16.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	17.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	18.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	19.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	20.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	21.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	22.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	23.00	4396.50	0.00	0.00	0.00	0.000000
0.00	0.00000	24.00	4396.50	0.00	0.00	0.00	0.000000



HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4396.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00000	0.00						
46.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
47.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
48.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
49.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
50.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
51.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
52.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
53.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
54.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
55.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
56.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
57.00	4396.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
58.00	4396.60	0.10	0.06	0.01	0.00	0.00	0.001624
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.001624
0.00000	0.00						
59.00	4396.67	0.17	0.14	0.02	0.06	0.06	0.001637
0.17	1.21	0.14	1.11	6.46	0.00	0.00	0.001637
0.01477	663.45						
0.36	60.00	0.24	0.34	0.12	0.12	0.12	0.001650
	1.77	0.20	1.62	6.79	0.00	0.00	0.001650
0.02079	972.05						
0.43	61.00	0.27	0.38	0.16	0.13	0.13	0.001650
	2.06	0.21	1.89	6.92	0.00	0.00	0.001650
0.02168	1134.16						
0.43	62.00	0.27	0.38	0.16	0.13	0.13	0.001638
	2.01	0.21	1.84	6.90	0.00	0.00	0.001638
0.02190	1106.81						
0.32	63.00	0.23	0.35	0.11	0.13	0.13	0.001599
	1.68	0.19	1.54	6.74	0.00	0.00	0.001599
0.01893	924.98						
10.00	64.00	0.51	0.64	6.42	0.16	0.16	0.001973
	4.18	2.39	3.83	7.58	0.00	0.00	0.001973
0.29456	2296.24						
35.11	65.00	2.39	3.15	110.46	0.36	0.36	0.002086
	24.94	1.41	22.79	9.52	0.00	0.00	0.002086
0.18332	13671.77						
54.75	66.00	3.01	3.76	205.61	0.38	0.38	0.002127
	32.49	1.69	29.68	9.85	0.00	0.00	0.002127

		HYCHAN.OUT						
	0.22370	17808.02						
66.62	67.00	4399.82	3.32	4.06	270.53	0.39		
		36.35	1.83	33.21	9.99		0.002184	
	0.24973	19923.62						
80.72	68.00	4400.16	3.66	4.39	354.11	0.40		
		40.56	1.99	37.05	10.13		0.002215	
	0.27506	22230.58						
95.68	69.00	4400.48	3.98	4.70	449.29	0.42		
		44.66	2.14	40.79	10.26		0.002289	
	0.30604	24476.38						
115.91	70.00	4400.87	4.37	5.08	588.91	0.43		
		49.84	2.33	45.52	10.41		0.002315	
	0.33593	27309.09						
127.77	71.00	4401.09	4.59	5.23	668.40	0.43		
		52.65	2.43	48.08	10.48		0.002323	
	0.35175	28847.27						
140.25	72.00	4401.30	4.80	5.33	746.98	0.43		
		55.45	2.53	50.64	10.55		0.002338	
	0.36908	30381.83						
149.63	73.00	4401.45	4.95	5.39	806.63	0.43		
		57.49	2.60	52.49	10.60		0.002344	
	0.38073	31496.85						
153.62	74.00	4401.52	5.02	5.42	832.71	0.43		
		58.35	2.63	53.28	10.62		0.002356	
	0.38711	31967.55						
155.83	75.00	4401.55	5.05	5.44	847.80	0.43		
		58.82	2.65	53.71	10.63		0.002363	
	0.39062	32228.07						
156.60	76.00	4401.57	5.07	5.45	854.18	0.43		
		59.00	2.65	53.88	10.63		0.002364	
	0.39160	32326.65						
156.54	77.00	4401.57	5.07	5.48	857.49	0.43		
		59.00	2.65	53.87	10.63		0.002383	
	0.39456	32324.21						
156.66	78.00	4401.57	5.07	5.52	864.56	0.43		
		59.02	2.65	53.90	10.63		0.002398	
	0.39708	32337.55						
156.83	79.00	4401.57	5.07	5.55	870.92	0.43		
		59.04	2.66	53.91	10.63		0.002396	
	0.39714	32345.87						
158.09	80.00	4401.59	5.09	5.54	875.61	0.43		
		59.31	2.67	54.16	10.64		0.002383	
	0.39641	32493.85						
159.42	81.00	4401.61	5.11	5.51	878.79	0.43		
		59.59	2.68	54.41	10.65		0.002386	
	0.39825	32647.74						
162.11	82.00	4401.65	5.15	5.49	890.01	0.43		
		60.14	2.70	54.91	10.66		0.002366	
	0.39799	32947.25						
163.97	83.00	4401.68	5.18	5.47	896.30	0.42		
		60.46	2.71	55.21	10.67		0.002359	
	0.39916	33124.88						
164.43	84.00	4401.68	5.18	5.44	895.06	0.42		
		60.49	2.72	55.23	10.67		0.002343	
	0.39748	33140.52						
165.74	85.00	4401.69	5.19	5.41	896.97	0.42		
		60.67	2.73	55.40	10.67		0.002327	
	0.39662	33238.21						
173.88	86.00	4401.81	5.31	5.43	943.59	0.42		
		62.24	2.79	56.83	10.71		0.002353	
	0.41018	34097.68						
179.76	87.00	4401.90	5.40	5.47	983.56	0.42		
		63.44	2.83	57.93	10.73		0.002347	

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		HYCHAN.OUT						
	0.41496	34757.18						
181.11	88.00	4401.93	5.43	5.53	1001.59	0.42		
		63.85	2.84		58.30	10.74		0.002371
	0.41967	34977.57						
179.59	89.00	4401.92	5.41	5.58	1002.68	0.42		
		63.67	2.82		58.14	10.74		0.002442
	0.42973	34883.48						
178.51	90.00	4401.91	5.41	5.63	1005.19	0.43		
		63.60	2.81		58.07	10.74		0.002394
	0.41937	34840.79						
177.95	91.00	4401.90	5.40	5.65	1005.21	0.43		
		63.52	2.80		58.00	10.73		0.002463
	0.43064	34797.71						
176.95	92.00	4401.89	5.39	5.67	1003.09	0.43		
		63.39	2.79		57.87	10.73		0.002467
	0.42982	34725.00						
173.77	93.00	4401.85	5.35	5.66	983.13	0.43		
		62.75	2.77		57.30	10.72		0.002403
	0.41526	34377.41						
170.46	94.00	4401.80	5.30	5.63	959.44	0.43		
		62.07	2.75		56.67	10.70		0.002413
	0.41350	34003.54						
168.66	95.00	4401.76	5.26	5.58	940.28	0.43		
		61.61	2.74		56.25	10.69		0.002387
	0.40772	33751.92						
165.74	96.00	4401.71	5.21	5.54	918.46	0.43		
		60.97	2.72		55.67	10.68		0.002369
	0.40178	33404.63						
162.61	97.00	4401.66	5.16	5.48	891.63	0.43		
		60.23	2.70		55.00	10.66		0.002343
	0.39467	33000.26						
159.29	98.00	4401.60	5.10	5.43	864.25	0.42		
		59.45	2.68		54.28	10.64		0.002338
	0.39094	32568.78						
153.95	99.00	4401.51	5.01	5.36	825.64	0.42		
		58.25	2.64		53.19	10.61		0.002320
	0.38268	31911.98						
151.99	100.00	4401.47	4.97	5.32	808.22	0.42		
		57.76	2.63		52.74	10.60		0.002307
	0.37880	31644.78						
152.20	101.00	4401.48	4.98	5.32	809.97	0.42		
		57.80	2.63		52.78	10.60		0.002322
	0.38149	31667.66						
150.51	102.00	4401.46	4.96	5.35	805.79	0.42		
		57.56	2.61		52.56	10.60		0.002333
	0.38066	31535.64						
150.22	103.00	4401.46	4.96	5.37	807.41	0.43		
		57.56	2.61		52.56	10.60		0.002343
	0.38167	31534.45						
151.18	104.00	4401.48	4.98	5.40	816.17	0.43		
		57.80	2.62		52.78	10.60		0.002349
	0.38341	31667.69						
152.30	105.00	4401.50	5.00	5.42	824.85	0.43		
		58.06	2.62		53.02	10.61		0.002357
	0.38580	31811.39						
153.91	106.00	4401.52	5.02	5.43	836.27	0.43		
		58.42	2.63		53.35	10.62		0.002365
	0.38881	32009.31						
154.25	107.00	4401.53	5.03	5.44	839.58	0.43		
		58.51	2.64		53.43	10.62		0.002366
	0.38927	32055.75						
153.50	108.00	4401.52	5.02	5.45	836.34	0.43		
		58.37	2.63		53.30	10.62		0.002364

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		HYCHAN.OUT						
	0.38789	31979.71						
153.92	109.00	4401.53	5.03	5.46	840.45	0.43		
		58.46	2.63		53.39	10.62		0.002375
	0.39020	32031.29						
155.23	110.00	4401.55	5.05	5.52	856.67	0.43		
		58.74	2.64		53.64	10.63		0.002390
	0.39412	32183.86						
155.82	111.00	4401.56	5.06	5.54	862.74	0.43		
		58.86	2.65		53.75	10.63		0.002386
	0.39407	32247.88						
155.49	112.00	4401.55	5.05	5.50	855.41	0.43		
		58.79	2.65		53.68	10.63		0.002376
	0.39221	32207.95						
155.53	113.00	4401.55	5.05	5.47	850.94	0.43		
		58.80	2.65		53.69	10.63		0.002372
	0.39152	32215.15						
155.68	114.00	4401.55	5.05	5.46	849.24	0.43		
		58.82	2.65		53.71	10.63		0.002361
	0.38990	32224.12						
155.33	115.00	4401.55	5.05	5.44	845.52	0.43		
		58.72	2.65		53.62	10.63		0.002354
	0.38852	32172.04						
154.41	116.00	4401.53	5.03	5.43	837.66	0.43		
		58.50	2.64		53.41	10.62		0.002353
	0.38762	32048.98						
153.51	117.00	4401.51	5.01	5.41	830.84	0.43		
		58.29	2.63		53.23	10.62		0.002348
	0.38580	31935.60						
151.96	118.00	4401.49	4.99	5.40	820.41	0.43		
		57.95	2.62		52.92	10.61		0.002337
	0.38239	31752.24						
150.83	119.00	4401.47	4.97	5.39	812.55	0.43		
		57.70	2.61		52.68	10.60		0.002337
	0.38126	31610.71						
148.20	120.00	4401.43	4.93	5.37	796.23	0.43		
		57.13	2.59		52.17	10.59		0.002335
	0.37788	31301.59						
146.55	121.00	4401.40	4.90	5.36	785.49	0.43		
		56.77	2.58		51.84	10.58		0.002329
	0.37509	31105.61						
145.46	122.00	4401.38	4.88	5.35	778.23	0.43		
		56.54	2.57		51.63	10.57		0.002329
	0.37400	30975.92						
144.77	123.00	4401.37	4.87	5.34	773.52	0.43		
		56.38	2.57		51.48	10.57		0.002330
	0.37329	30889.28						
144.07	124.00	4401.36	4.86	5.34	768.71	0.43		
		56.23	2.56		51.35	10.57		0.002325
	0.37180	30807.31						
143.35	125.00	4401.35	4.85	5.33	763.73	0.43		
		56.06	2.56		51.20	10.56		0.002323
	0.37062	30717.23						
142.56	126.00	4401.33	4.83	5.32	758.66	0.43		
		55.89	2.55		51.04	10.56		0.002320
	0.36933	30621.86						
141.75	127.00	4401.32	4.82	5.32	753.66	0.43		
		55.71	2.54		50.87	10.55		0.002319
	0.36825	30521.85						
141.03	128.00	4401.31	4.81	5.31	748.65	0.43		
		55.55	2.54		50.72	10.55		0.002318
	0.36722	30433.83						
140.23	129.00	4401.29	4.79	5.30	743.68	0.43		
		55.36	2.53		50.56	10.55		0.002316

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		HYCHAN.OUT						
	0.36605	30333.40						
139.44	130.00	4401.28	4.78	5.30	738.51	10.54	0.43	
	0.36436	30236.80	2.53		50.39			0.002311
138.61	131.00	4401.27	4.77	5.29	733.48	10.54	0.43	
	0.36410	30137.19	2.52		50.23			0.002316
137.78	132.00	4401.25	4.75	5.29	728.51	10.53	0.43	
	0.36299	30040.13	2.51		50.07			0.002315
137.01	133.00	4401.24	4.74	5.28	723.50	10.53	0.43	
	0.36212	29950.07	2.51		49.92			0.002315
136.16	134.00	4401.23	4.73	5.28	718.49	10.52	0.43	
	0.36133	29844.65	2.50		49.74			0.002316
135.33	135.00	4401.21	4.71	5.27	713.47	10.52	0.43	
	0.36000	29743.65	2.49		49.57			0.002314
134.59	136.00	4401.20	4.70	5.26	708.51	10.52	0.43	
	0.35920	29660.25	2.49		49.43			0.002315
133.68	137.00	4401.19	4.68	5.26	703.50	10.51	0.43	
	0.35818	29544.82	2.48		49.24			0.002315
132.90	138.00	4401.17	4.67	5.26	698.56	10.51	0.43	
	0.35677	29449.40	2.47		49.08			0.002312
132.06	139.00	4401.16	4.66	5.25	693.50	10.50	0.43	
	0.35537	29350.16	2.47		48.92			0.002310
131.28	140.00	4401.15	4.65	5.24	688.48	10.50	0.43	
	0.35501	29256.52	2.46		48.76			0.002314
130.61	141.00	4401.13	4.63	5.24	684.51	10.49	0.43	
	0.35433	29169.64	2.45		48.62			0.002315
129.91	142.00	4401.12	4.62	5.24	680.16	10.49	0.43	
	0.35314	29082.91	2.45		48.47			0.002312
128.47	143.00	4401.10	4.60	5.23	671.33	10.48	0.43	
	0.35121	28901.54	2.44		48.17			0.002311
127.26	144.00	4401.08	4.58	5.22	663.79	10.47	0.43	
	0.34970	28753.64	2.42		47.92			0.002311
126.40	145.00	4401.06	4.56	5.21	658.65	10.47	0.43	
	0.34859	28647.22	2.42		47.75			0.002311
125.66	146.00	4401.05	4.55	5.20	653.68	10.46	0.43	
	0.34750	28553.00	2.41		47.59			0.002309
124.83	147.00	4401.03	4.53	5.20	648.65	10.46	0.43	
	0.34670	28450.37	2.40		47.42			0.002311
124.06	148.00	4401.02	4.52	5.19	643.76	10.46	0.43	
	0.34543	28355.40	2.40		47.26			0.002309
123.26	149.00	4401.01	4.51	5.18	638.63	10.45	0.43	
	0.34432	28255.87	2.39		47.09			0.002308
122.52	150.00	4400.99	4.49	5.17	633.73	10.45	0.43	
		51.40	2.38		46.94			0.002309

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		HYCHAN.OUT						
	0.34342	28162.18						
121.68	151.00	4400.98	4.48	5.17	628.71	10.44	0.43	0.002306
	0.34203	28051.76	2.38		46.75			
120.97	152.00	4400.96	4.46	5.16	624.31	10.44	0.43	0.002306
	0.34119	27958.65	2.37		46.60			
120.61	153.00	4400.96	4.46	5.16	621.81	10.43	0.43	0.002306
	0.34062	27912.44	2.37		46.52			
120.44	154.00	4400.96	4.46	5.15	620.70	10.43	0.43	0.002306
	0.34053	27890.90	2.37		46.48			
120.35	155.00	4400.95	4.45	5.15	620.04	10.43	0.43	0.002306
	0.34030	27879.26	2.37		46.47			
120.35	156.00	4400.95	4.45	5.15	620.01	10.43	0.43	0.002306
	0.34033	27880.70	2.37		46.47			
120.35	157.00	4400.95	4.45	5.15	619.97	10.43	0.43	0.002307
	0.34055	27880.96	2.37		46.47			
120.35	158.00	4400.95	4.45	5.15	620.00	10.43	0.43	0.002307
	0.34051	27881.48	2.37		46.47			
120.35	159.00	4400.95	4.45	5.15	620.02	10.43	0.43	0.002307
	0.34039	27883.65	2.37		46.47			
120.33	160.00	4400.95	4.45	5.15	620.03	10.43	0.43	0.002307
	0.34043	27879.84	2.37		46.47			
120.34	161.00	4400.95	4.45	5.15	619.99	10.43	0.43	0.002305
	0.34017	27880.58	2.36		46.47			
120.32	162.00	4400.95	4.45	5.15	620.00	10.43	0.43	0.002308
	0.34053	27878.93	2.36		46.46			
120.34	163.00	4400.95	4.45	5.15	620.00	10.43	0.43	0.002307
	0.34043	27880.91	2.37		46.47			
120.33	164.00	4400.95	4.45	5.15	619.98	10.43	0.43	0.002306
	0.34027	27880.43	2.36		46.47			
120.34	165.00	4400.95	4.45	5.15	619.96	10.43	0.43	0.002307
	0.34040	27880.30	2.37		46.47			
120.35	166.00	4400.95	4.45	5.15	620.03	10.43	0.43	0.002306
	0.34031	27882.56	2.37		46.47			
120.30	167.00	4400.95	4.45	5.15	619.71	10.43	0.43	0.002305
	0.34018	27876.72	2.36		46.46			
120.09	168.00	4400.95	4.45	5.15	618.17	10.43	0.43	0.002304
	0.33975	27850.47	2.36		46.42			
119.68	169.00	4400.94	4.44	5.14	615.16	10.43	0.43	0.002303
	0.33905	27795.17	2.36		46.33			
119.31	170.00	4400.94	4.44	5.13	612.50	10.43	0.43	0.002305
	0.33882	27747.99	2.36		46.25			
118.99	171.00	4400.93	4.43	5.13	610.21	10.42	0.43	0.002302
		50.56	2.35		46.18			

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		HYCHAN.OUT						
	0.33811	27705.25						
118.63	172.00	4400.92	4.42	5.12	607.52	10.42	0.43	
		50.47	2.35		46.09			0.002302
	0.33761	27656.77						
118.29	173.00	4400.92	4.42	5.12	605.13	10.42	0.43	
		50.39	2.35		46.02			0.002302
	0.33713	27612.59						
117.94	174.00	4400.91	4.41	5.11	602.56	10.42	0.43	
		50.31	2.34		45.94			0.002300
	0.33640	27566.00						
117.60	175.00	4400.90	4.40	5.10	600.17	10.42	0.43	
		50.22	2.34		45.87			0.002298
	0.33579	27520.35						
117.25	176.00	4400.90	4.40	5.10	597.52	10.41	0.43	
		50.14	2.34		45.79			0.002299
	0.33552	27474.03						
116.96	177.00	4400.89	4.39	5.09	595.48	10.41	0.43	
		50.07	2.34		45.73			0.002298
	0.33498	27436.15						
116.68	178.00	4400.89	4.39	5.09	593.49	10.41	0.43	
		50.00	2.33		45.67			0.002297
	0.33440	27400.28						
116.41	179.00	4400.88	4.38	5.08	591.48	10.41	0.43	
		49.94	2.33		45.60			0.002296
	0.33406	27362.47						
116.12	180.00	4400.88	4.38	5.08	589.49	10.41	0.43	
		49.87	2.33		45.54			0.002295
	0.33345	27325.34						
115.85	181.00	4400.87	4.37	5.07	587.47	10.40	0.43	
		49.80	2.33		45.48			0.002294
	0.33297	27287.83						
115.57	182.00	4400.87	4.37	5.07	585.49	10.40	0.43	
		49.73	2.32		45.42			0.002293
	0.33254	27250.71						
115.30	183.00	4400.86	4.36	5.06	583.48	10.40	0.43	
		49.66	2.32		45.35			0.002292
	0.33205	27212.82						
114.99	184.00	4400.85	4.36	5.06	581.47	10.40	0.43	
		49.59	2.32		45.29			0.002292
	0.33160	27172.63						
114.72	185.00	4400.85	4.35	5.05	579.52	10.40	0.43	
		49.52	2.32		45.23			0.002291
	0.33121	27137.09						
114.44	186.00	4400.84	4.34	5.05	577.48	10.39	0.43	
		49.45	2.31		45.16			0.002291
	0.33076	27097.80						
114.16	187.00	4400.84	4.34	5.04	575.49	10.39	0.43	
		49.38	2.31		45.10			0.002290
	0.33030	27059.69						
113.87	188.00	4400.83	4.33	5.04	573.48	10.39	0.43	
		49.31	2.31		45.04			0.002290
	0.32993	27022.17						
113.60	189.00	4400.83	4.33	5.03	571.49	10.39	0.43	
		49.25	2.31		44.98			0.002289
	0.32947	26985.74						
113.32	190.00	4400.82	4.32	5.03	569.49	10.39	0.43	
		49.18	2.30		44.91			0.002287
	0.32888	26946.54						
113.03	191.00	4400.82	4.32	5.02	567.49	10.39	0.43	
		49.11	2.30		44.85			0.002286
	0.32831	26908.34						
112.75	192.00	4400.81	4.31	5.02	565.43	10.38	0.43	
		49.03	2.30		44.78			0.002286

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## HYCHAN.OUT

0.32806	26868.50							
193.00	4400.81	4.31	5.01	563.52	0.43			
112.47	48.97	2.30		44.72	10.38		0.002285	
0.32756	26833.81							
194.00	4400.80	4.30	5.00	561.48	0.43			
112.19	48.90	2.29		44.66	10.38		0.002284	
0.32702	26794.53							
195.00	4400.80	4.30	5.00	559.50	0.43			
111.92	48.83	2.29		44.59	10.38		0.002284	
0.32661	26756.81							
196.00	4400.79	4.29	4.99	557.52	0.43			
111.62	48.76	2.29		44.53	10.38		0.002283	
0.32610	26717.39							
197.00	4400.79	4.29	4.99	555.46	0.42			
111.34	48.69	2.29		44.46	10.37		0.002284	
0.32593	26678.85							
198.00	4400.78	4.28	4.98	553.47	0.42			
111.06	48.62	2.28		44.40	10.37		0.002282	
0.32523	26640.35							
199.00	4400.78	4.28	4.98	551.51	0.42			
110.78	48.55	2.28		44.34	10.37		0.002280	
0.32467	26603.94							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3747

MAXIMUM DISCHARGE (CFS) = 1019.37 AT TIME = 90.10  
 MAXIMUM STAGE = 4399.73 AT TIME = 87.48

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	5.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	6.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	7.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	8.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	9.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	30.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4395.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT								
0.00	51.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4395.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4395.09	0.09	0.06	0.01	0.00	0.00	0.001760
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.001760
0.17	59.00	4395.15	0.15	0.16	0.03	0.07	0.00	0.001785
	0.01824	1.03	0.16	0.95	6.33	0.00	0.00	0.001785
0.39	60.00	4395.22	0.22	0.34	0.13	0.13	0.00	0.001777
	0.02667	1.62	0.24	1.48	6.71	0.00	0.00	0.001777
0.41	61.00	4395.24	0.24	0.42	0.17	0.15	0.00	0.001792
	0.02627	1.75	0.23	1.60	6.78	0.00	0.00	0.001792
0.42	62.00	4395.24	0.24	0.42	0.18	0.15	0.00	0.001773
	0.02599	1.78	0.23	1.63	6.79	0.00	0.00	0.001773
0.36	63.00	4395.21	0.21	0.33	0.12	0.13	0.00	0.001751
	0.02579	1.51	0.24	1.39	6.65	0.00	0.00	0.001751
6.44	64.00	4395.37	0.37	0.51	3.30	0.15	0.00	0.002151
	0.29984	2.88	2.23	2.64	7.22	0.00	0.00	0.002151
31.08	65.00	4397.04	2.04	3.43	106.63	0.42	0.00	0.002223
	0.20719	20.81	1.49	19.02	9.30	0.00	0.00	0.002223
49.67	66.00	4397.59	2.59	4.10	203.59	0.45	0.00	0.002258
	0.25677	27.25	1.82	24.90	9.63	0.00	0.00	0.002258
60.85	67.00	4397.85	2.85	4.41	268.44	0.46	0.00	0.002308
	0.28774	30.45	2.00	27.82	9.77	0.00	0.00	0.002308
74.24	68.00	4398.14	3.14	4.75	352.32	0.47	0.00	0.002339
	0.31854	34.01	2.18	31.07	9.91	0.00	0.00	0.002339
88.16	69.00	4398.41	3.41	5.06	446.11	0.48	0.00	0.002404
	0.35357	37.40	2.36	34.16	10.03	0.00	0.00	0.002404
107.41	70.00	4398.75	3.75	5.46	586.87	0.50	0.00	0.002430
	0.38955	41.81	2.57	38.19	10.17	0.00	0.00	0.002430
118.29	71.00	4398.94	3.94	5.63	666.42	0.50	0.00	0.002465
	0.41135	44.24	2.67	40.40	10.25	0.00	0.00	0.002465
		23029.89						

HYCHAN.OUT									
129.55	72.00	4399.13	4.13	5.75	745.26	10.32	0.50	0.002486	
	0.43018	46.72	2.77		42.67				
		24321.65							
138.10	73.00	4399.27	4.27	5.83	805.78	10.37	0.50	0.002500	
	0.44395	48.52	2.85		44.31				
		25257.64							
141.82	74.00	4399.33	4.33	5.87	832.19	10.39	0.50	0.002502	
	0.44955	49.26	2.88		44.99				
		25642.08							
144.03	75.00	4399.36	4.36	5.89	847.66	10.40	0.50	0.002503	
	0.45309	49.66	2.90		45.35				
		25850.36							
144.99	76.00	4399.37	4.37	5.89	854.17	10.40	0.50	0.002493	
	0.45304	49.79	2.91		45.47				
		25916.28							
145.50	77.00	4399.37	4.37	5.89	857.59	10.40	0.50	0.002481	
	0.45270	49.76	2.92		45.45				
		25904.70							
146.51	78.00	4399.37	4.37	5.90	864.45	10.40	0.50	0.002464	
	0.45251	49.79	2.94		45.47				
		25917.79							
147.56	79.00	4399.37	4.37	5.90	870.95	10.41	0.50	0.002463	
	0.45505	49.84	2.96		45.52				
		25944.01							
148.10	80.00	4399.39	4.39	5.91	875.47	10.41	0.50	0.002480	
	0.45770	50.07	2.96		45.72				
		26062.94							
148.39	81.00	4399.41	4.41	5.92	878.62	10.42	0.50	0.002498	
	0.45981	50.31	2.95		45.95				
		26189.61							
149.77	82.00	4399.45	4.45	5.94	889.50	10.43	0.50	0.002529	
	0.46517	50.81	2.95		46.41				
		26451.15							
150.48	83.00	4399.48	4.48	5.96	896.15	10.44	0.50	0.002547	
	0.46701	51.21	2.94		46.77				
		26657.78							
150.11	84.00	4399.49	4.49	5.96	895.01	10.45	0.50	0.002579	
	0.47032	51.36	2.92		46.90				
		26733.30							
149.94	85.00	4399.52	4.52	5.98	896.27	10.45	0.50	0.002627	
	0.47561	51.69	2.90		47.20				
		26904.93							
156.20	86.00	4399.63	4.63	6.04	944.08	10.49	0.50	0.002665	
	0.48820	53.21	2.94		48.59				
		27698.48							
161.75	87.00	4399.71	4.71	6.09	984.85	10.52	0.49	0.002659	
	0.49506	54.21	2.98		49.51				
		28218.56							
164.51	88.00	4399.71	4.72	6.09	1002.05	10.52	0.49	0.002667	
	0.50408	54.32	3.03		49.60				
		28274.67							
165.24	89.00	4399.69	4.69	6.07	1003.54	10.51	0.49	0.002643	
	0.50541	53.93	3.06		49.25				
		28071.08							
165.87	90.00	4399.66	4.66	6.06	1005.00	10.50	0.49	0.002627	
	0.50725	53.61	3.09		48.96				
		27905.38							
166.11	91.00	4399.65	4.65	6.06	1005.84	10.50	0.50	0.002608	
	0.50557	53.48	3.11		48.84				
		27836.21							
165.95	92.00	4399.63	4.63	6.05	1003.22	10.49	0.50	0.002602	
	0.50608	53.24	3.12		48.62				
		27713.47							

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HYCHAN.OUT									
163.35	93.00	4399.59	4.59	3.10	6.02	48.10	983.54	10.48	0.002619
	0.50677	52.67							
		27417.63							
160.05	94.00	4399.55	4.55	3.07	6.00	47.58	959.74	10.46	0.002620
	0.50214	52.10							
		27121.68							
157.16	95.00	4399.53	4.53	3.03	5.99	47.37	940.70	10.46	0.002596
	0.49085	51.87							
		26999.75							
154.09	96.00	4399.49	4.49	3.00	5.96	46.92	918.82	10.45	0.002604
	0.48724	51.38							
		26746.85							
150.11	97.00	4399.46	4.46	2.95	5.94	46.49	892.00	10.43	0.002603
	0.47897	50.90							
		26498.55							
146.11	98.00	4399.42	4.42	2.90	5.92	46.02	864.94	10.42	0.002591
	0.46877	50.39							
		26231.50							
140.58	99.00	4399.35	4.35	2.84	5.88	45.18	826.38	10.40	0.002587
	0.45860	49.48							
		25755.03							
137.74	100.00	4399.32	4.32	2.80	5.87	44.92	807.89	10.39	0.002596
	0.45359	49.19							
		25607.16							
138.11	101.00	4399.33	4.33	2.81	5.87	44.96	810.34	10.39	0.002540
	0.44455	49.23							
		25628.60							
137.83	102.00	4399.29	4.29	2.82	5.85	44.56	805.98	10.38	0.002516
	0.44351	48.80							
		25401.76							
138.20	103.00	4399.29	4.29	2.84	5.84	44.46	807.38	10.37	0.002503
	0.44337	48.69							
		25344.76							
139.50	104.00	4399.30	4.30	2.86	5.85	44.60	816.06	10.38	0.002497
	0.44513	48.83							
		25419.79							
140.76	105.00	4399.31	4.31	2.87	5.86	44.77	824.59	10.38	0.002495
	0.44704	49.02							
		25516.17							
142.45	106.00	4399.33	4.33	2.89	5.87	45.02	836.15	10.39	0.002494
	0.44970	49.30							
		25663.37							
143.01	107.00	4399.34	4.34	2.90	5.87	45.06	839.68	10.39	0.002487
	0.44971	49.34							
		25687.03							
142.61	108.00	4399.32	4.32	2.90	5.86	44.92	836.36	10.39	0.002479
	0.44851	49.19							
		25604.49							
143.18	109.00	4399.33	4.33	2.91	5.87	44.99	840.41	10.39	0.002470
	0.44799	49.26							
		25644.29							
145.42	110.00	4399.35	4.35	2.94	5.89	45.21	856.35	10.40	0.002461
	0.45102	49.51							
		25770.70							
146.32	111.00	4399.36	4.36	2.95	5.90	45.32	862.64	10.40	0.002472
	0.45477	49.62							
		25831.22							
145.29	112.00	4399.35	4.35	2.93	5.89	45.26	855.59	10.40	0.002475
	0.45270	49.56							
		25799.92							
144.58	113.00	4399.35	4.35	2.92	5.89	45.27	850.90	10.40	0.002493
	0.45371	49.57							
		25802.70							



HYCHAN.OUT									
114.00	4399.36	4.36	5.88	849.25	0.50				
144.32	49.61	2.91		45.30	10.40			0.002491	
0.45222	25823.50								
115.00	4399.35	4.35	5.88	845.54	0.50				
143.74	49.56	2.90		45.26	10.40			0.002498	
0.45203	25799.98								
116.00	4399.34	4.34	5.87	837.82	0.50				
142.61	49.42	2.89		45.13	10.39			0.002502	
0.45053	25726.20								
117.00	4399.33	4.33	5.87	831.06	0.50				
141.62	49.27	2.87		45.00	10.39			0.002506	
0.44945	25647.19								
118.00	4399.31	4.31	5.86	820.52	0.50				
140.10	48.98	2.86		44.74	10.38			0.002505	
0.44704	25499.22								
119.00	4399.29	4.29	5.85	812.98	0.50				
139.05	48.79	2.85		44.56	10.38			0.002497	
0.44417	25397.03								
120.00	4399.26	4.26	5.82	796.49	0.50				
136.76	48.29	2.83		44.10	10.36			0.002494	
0.44076	25139.66								
121.00	4399.23	4.23	5.81	785.69	0.50				
135.23	47.98	2.82		43.82	10.35			0.002491	
0.43811	24978.64								
122.00	4399.22	4.22	5.80	778.37	0.50				
134.18	47.78	2.81		43.63	10.35			0.002492	
0.43664	24871.53								
123.00	4399.21	4.21	5.79	773.62	0.50				
133.51	47.65	2.80		43.52	10.35			0.002494	
0.43600	24805.76								
124.00	4399.20	4.20	5.79	768.81	0.50				
132.82	47.52	2.80		43.40	10.34			0.002494	
0.43504	24736.35								
125.00	4399.19	4.19	5.78	763.84	0.50				
132.14	47.38	2.79		43.28	10.34			0.002490	
0.43332	24667.60								
126.00	4399.17	4.17	5.77	758.76	0.50				
131.39	47.23	2.78		43.14	10.33			0.002491	
0.43245	24589.72								
127.00	4399.16	4.16	5.77	753.79	0.50				
130.64	47.08	2.77		43.00	10.33			0.002488	
0.43086	24509.84								
128.00	4399.15	4.15	5.76	748.76	0.50				
129.96	46.95	2.77		42.88	10.33			0.002490	
0.43013	24439.31								
129.00	4399.14	4.14	5.76	743.81	0.50				
129.23	46.80	2.76		42.74	10.32			0.002488	
0.42878	24362.31								
130.00	4399.13	4.13	5.75	738.61	0.50				
128.50	46.65	2.75		42.60	10.32			0.002484	
0.42706	24283.67								
131.00	4399.12	4.12	5.74	733.65	0.50				
127.80	46.48	2.75		42.45	10.31			0.002482	
0.42575	24197.45								
132.00	4399.10	4.10	5.73	728.60	0.50				
127.09	46.32	2.74		42.30	10.31			0.002480	
0.42467	24111.55								
133.00	4399.09	4.09	5.72	723.66	0.50				
126.41	46.16	2.74		42.16	10.30			0.002477	
0.42336	24028.58								
134.00	4399.08	4.08	5.72	718.61	0.50				
125.70	45.99	2.73		42.01	10.30			0.002471	
0.42141	23943.93								

		HYCHAN.OUT							
124.99	135.00	4399.07	4.07	5.71	713.60	10.29	0.50	0.002472	
	0.42078	45.83	2.73	41.85					
124.30	136.00	23857.02	4.05	5.70	708.64	10.29	0.50	0.002469	
	0.41926	45.67	2.72	41.71					
123.57	137.00	23774.83	4.04	5.69	703.63	10.28	0.50	0.002468	
	0.41822	45.50	2.72	41.55					
122.88	138.00	23685.57	4.03	5.69	698.67	10.28	0.50	0.002462	
	0.41634	45.34	2.71	41.41					
122.13	139.00	23603.89	4.01	5.68	693.60	10.27	0.50	0.002460	
	0.41505	45.16	2.70	41.25					
121.44	140.00	23511.97	4.00	5.67	688.65	10.27	0.50	0.002457	
	0.41370	45.00	2.70	41.10					
120.86	141.00	23429.42	3.99	5.66	684.55	10.27	0.50	0.002455	
	0.41257	44.88	2.69	40.99					
120.26	142.00	23362.50	3.98	5.66	680.36	10.26	0.50	0.002451	
	0.41108	44.73	2.69	40.86					
118.99	143.00	23288.87	3.96	5.64	671.55	10.25	0.50	0.002449	
	0.40920	44.45	2.68	40.59					
117.90	144.00	23138.65	3.94	5.63	663.95	10.25	0.50	0.002442	
	0.40653	44.19	2.67	40.36					
117.14	145.00	23007.44	3.93	5.62	658.75	10.24	0.50	0.002444	
	0.40587	44.02	2.66	40.20					
116.48	146.00	22916.80	3.91	5.61	653.79	10.24	0.50	0.002442	
	0.40459	43.87	2.66	40.07					
115.74	147.00	22838.24	3.90	5.61	648.83	10.23	0.50	0.002441	
	0.40341	43.69	2.65	39.91					
115.03	148.00	22747.74	3.89	5.60	643.85	10.23	0.50	0.002436	
	0.40167	43.53	2.64	39.76					
114.31	149.00	22664.12	3.87	5.59	638.76	10.22	0.50	0.002435	
	0.40052	43.36	2.64	39.61					
113.64	150.00	22576.23	3.86	5.58	633.87	10.22	0.50	0.002430	
	0.39878	43.21	2.63	39.47					
112.91	151.00	22496.56	3.85	5.57	628.81	10.21	0.50	0.002428	
	0.39738	43.04	2.62	39.31					
112.30	152.00	22408.61	3.84	5.56	624.40	10.21	0.50	0.002427	
	0.39643	42.90	2.62	39.18					
111.95	153.00	22334.27	3.83	5.55	621.82	10.21	0.50	0.002425	
	0.39558	42.82	2.61	39.11					
111.81	154.00	22294.90	3.83	5.55	620.74	10.20	0.50	0.002426	
	0.39564	42.79	2.61	39.08					
111.73	155.00	22277.18	3.83	5.55	620.05	10.20	0.50	0.002425	
	0.39524	42.77	2.61	39.06					
		22266.52							

		HYCHAN.OUT						
111.73	156.00	4398.83	3.83	5.55	620.02	10.20	0.50	0.002426
	0.39542	42.77	2.61		39.06			
		22266.35						
111.74	157.00	4398.83	3.83	5.55	619.97	10.20	0.50	0.002425
	0.39535	42.77	2.61		39.06			
		22265.06						
111.75	158.00	4398.83	3.83	5.55	620.00	10.20	0.50	0.002425
	0.39536	42.77	2.61		39.06			
		22264.85						
111.74	159.00	4398.83	3.83	5.55	620.02	10.20	0.50	0.002425
	0.39539	42.76	2.61		39.06			
		22264.14						
111.73	160.00	4398.83	3.83	5.55	620.03	10.20	0.50	0.002424
	0.39518	42.76	2.61		39.06			
		22263.28						
111.73	161.00	4398.83	3.83	5.55	619.99	10.20	0.50	0.002426
	0.39548	42.76	2.61		39.06			
		22263.05						
111.74	162.00	4398.83	3.83	5.55	620.01	10.20	0.50	0.002425
	0.39541	42.76	2.61		39.06			
		22261.56						
111.75	163.00	4398.83	3.83	5.55	620.01	10.20	0.50	0.002426
	0.39560	42.76	2.61		39.06			
		22263.69						
111.74	164.00	4398.83	3.83	5.55	619.97	10.20	0.50	0.002425
	0.39548	42.76	2.61		39.06			
		22262.38						
111.75	165.00	4398.83	3.83	5.55	619.96	10.20	0.50	0.002426
	0.39564	42.76	2.61		39.06			
		22263.90						
111.75	166.00	4398.83	3.83	5.55	620.03	10.20	0.50	0.002424
	0.39532	42.76	2.61		39.06			
		22263.75						
111.72	167.00	4398.83	3.83	5.55	619.73	10.20	0.50	0.002424
	0.39526	42.75	2.61		39.05			
		22259.15						
111.52	168.00	4398.82	3.82	5.54	618.21	10.20	0.50	0.002424
	0.39492	42.71	2.61		39.01			
		22235.54						
111.14	169.00	4398.82	3.82	5.54	615.23	10.20	0.50	0.002423
	0.39418	42.63	2.61		38.93			
		22192.76						
110.79	170.00	4398.81	3.81	5.53	612.56	10.20	0.50	0.002421
	0.39339	42.55	2.60		38.86			
		22152.98						
110.49	171.00	4398.81	3.81	5.52	610.27	10.19	0.50	0.002419
	0.39260	42.49	2.60		38.81			
		22119.44						
110.15	172.00	4398.80	3.80	5.52	607.55	10.19	0.50	0.002420
	0.39224	42.41	2.60		38.74			
		22081.36						
109.84	173.00	4398.80	3.80	5.51	605.19	10.19	0.50	0.002419
	0.39160	42.34	2.59		38.68			
		22045.02						
109.50	174.00	4398.79	3.79	5.50	602.61	10.19	0.50	0.002418
	0.39080	42.27	2.59		38.61			
		22007.27						
109.19	175.00	4398.78	3.78	5.50	600.23	10.19	0.50	0.002416
	0.39005	42.20	2.59		38.55			
		21972.77						
108.85	176.00	4398.78	3.78	5.49	597.58	10.18	0.50	0.002416
	0.38958	42.13	2.58		38.48			
		21933.37						

		HYCHAN.OUT						
108.59	177.00	4398.77	3.77	5.48	595.52	10.18	0.50	0.002414
	0.38884	42.07	2.58	38.43				
		21902.67						
108.32	178.00	4398.77	3.77	5.48	593.51	10.18	0.50	0.002414
	0.38841	42.01	2.58	38.37				
		21872.24						
108.07	179.00	4398.77	3.77	5.47	591.53	10.18	0.50	0.002414
	0.38792	41.96	2.58	38.32				
		21844.44						
107.79	180.00	4398.76	3.76	5.47	589.52	10.18	0.50	0.002412
	0.38723	41.90	2.57	38.27				
		21812.31						
107.55	181.00	4398.76	3.76	5.46	587.51	10.17	0.50	0.002413
	0.38699	41.84	2.57	38.22				
		21783.52						
107.28	182.00	4398.75	3.75	5.46	585.53	10.17	0.50	0.002413
	0.38655	41.78	2.57	38.17				
		21754.17						
107.02	183.00	4398.75	3.75	5.45	583.53	10.17	0.50	0.002410
	0.38573	41.73	2.56	38.11				
		21725.44						
106.73	184.00	4398.74	3.74	5.45	581.51	10.17	0.50	0.002410
	0.38515	41.67	2.56	38.06				
		21692.96						
106.46	185.00	4398.74	3.74	5.44	579.56	10.17	0.50	0.002409
	0.38468	41.61	2.56	38.00				
		21662.38						
106.20	186.00	4398.73	3.73	5.44	577.53	10.17	0.50	0.002409
	0.38416	41.55	2.56	37.95				
		21633.26						
105.93	187.00	4398.73	3.73	5.43	575.53	10.16	0.50	0.002409
	0.38372	41.49	2.55	37.90				
		21603.54						
105.66	188.00	4398.72	3.72	5.43	573.52	10.16	0.50	0.002408
	0.38315	41.43	2.55	37.85				
		21572.04						
105.40	189.00	4398.72	3.72	5.42	571.53	10.16	0.50	0.002407
	0.38252	41.38	2.55	37.79				
		21542.64						
105.14	190.00	4398.72	3.72	5.42	569.53	10.16	0.50	0.002406
	0.38194	41.32	2.54	37.74				
		21513.21						
104.87	191.00	4398.71	3.71	5.41	567.52	10.16	0.50	0.002404
	0.38132	41.26	2.54	37.69				
		21481.99						
104.59	192.00	4398.71	3.71	5.41	565.49	10.15	0.50	0.002406
	0.38106	41.20	2.54	37.63				
		21451.30						
104.34	193.00	4398.70	3.70	5.40	563.56	10.15	0.49	0.002404
	0.38045	41.14	2.54	37.58				
		21420.19						
104.08	194.00	4398.70	3.70	5.40	561.52	10.15	0.49	0.002402
	0.37968	41.09	2.53	37.53				
		21390.86						
103.83	195.00	4398.69	3.69	5.39	559.54	10.15	0.49	0.002402
	0.37932	41.03	2.53	37.48				
		21361.04						
103.55	196.00	4398.69	3.69	5.38	557.56	10.15	0.49	0.002400
	0.37857	40.97	2.53	37.42				
		21328.39						
103.29	197.00	4398.68	3.68	5.38	555.52	10.15	0.49	0.002400
	0.37819	40.91	2.52	37.37				
		21298.70						

				HYCHAN.OUT				
198.00	4398.68	3.68	5.37	553.50	10.14	0.49		
103.02	40.85	2.52	37.31				0.002400	
0.37771	21268.39							
199.00	4398.67	3.67	5.37	551.55	10.14	0.49		
102.75	40.79	2.52	37.26				0.002398	
0.37696	21236.33							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3748

MAXIMUM DISCHARGE (CFS) = 1046.69 AT TIME = 91.76  
 MAXIMUM STAGE = 4397.47 AT TIME = 91.74

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4393.50	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4393.50	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4393.50	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4393.50	0.00	0.00	0.00	0.00



HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4393.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4393.58	0.08	0.04	0.00	0.00	0.001821
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.001821
0.17	59.00	4393.63	0.13	0.18	0.03	0.09	0.001832
0.17	0.02274	443.08	0.20	0.81	6.20	0.09	0.001832
0.43	60.00	4393.69	0.19	0.33	0.14	0.13	0.001791
0.43	0.03501	689.43	0.31	1.25	6.57	0.13	0.001791
0.46	61.00	4393.70	0.20	0.41	0.19	0.16	0.001810
0.46	0.03595	727.71	0.32	1.32	6.61	0.16	0.001810
0.46	62.00	4393.70	0.20	0.38	0.18	0.15	0.001791
0.46	0.03557	727.46	0.32	1.32	6.61	0.15	0.001791
0.45	63.00	4393.70	0.20	0.28	0.12	0.11	0.001806
0.45	0.03559	715.93	0.32	1.30	6.60	0.11	0.001806
2.71	64.00	4393.74	0.24	0.38	1.02	0.14	0.002437
2.71	0.22722	912.23	1.49	1.66	6.81	0.14	0.002437
30.13	65.00	4395.13	1.63	3.42	103.13	0.47	0.002151
30.13	0.25196	8069.08	1.88	14.67	9.00	0.47	0.002151
49.26	66.00	4395.61	2.11	4.09	201.63	0.50	0.002187
49.26	0.31114	10861.17	2.28	19.75	9.35	0.50	0.002187
60.25	67.00	4395.85	2.35	4.42	266.52	0.51	0.002238
60.25	0.34476	12265.04	2.47	22.30	9.50	0.51	0.002238
73.41	68.00	4396.10	2.60	4.78	350.65	0.52	0.002272
73.41	0.37908	13799.53	2.67	25.09	9.64	0.52	0.002272
86.87	69.00	4396.34	2.84	5.10	443.18	0.53	0.002336
86.87	0.41769	15235.55	2.87	27.70	9.76	0.53	0.002336
105.89	70.00	4396.64	3.14	5.52	584.98	0.55	0.002369
105.89	0.45962	17112.38	3.11	31.11	9.91	0.55	0.002369
115.78	71.00	4396.79	3.29	5.74	664.91	0.56	0.002422
115.78	0.48701	18050.99	3.22	32.82	9.98	0.56	0.002422
125.16	72.00	4396.93	3.43	5.94	743.88	0.57	0.002465
125.16	0.51062	18946.27	3.32	34.45	10.04	0.57	0.002465
132.24	73.00	4397.04	3.54	6.09	805.08	0.57	0.002485
132.24	0.52521	19615.60	3.39	35.66	10.08	0.57	0.002485
135.09	74.00	4397.08	3.58	6.16	831.71	0.57	0.002526
135.09	0.53711	19915.16	3.41	36.21	10.10	0.57	0.002526
136.53	75.00	4397.11	3.61	6.21	847.50	0.58	0.002539
136.53	0.54045	20106.87	3.41	36.56	10.12	0.58	0.002539
136.76	76.00	4397.13	3.63	6.24	854.00	0.58	0.002566
136.76	0.54418	20213.87	3.40	36.75	10.12	0.58	0.002566
77.00	4397.15	3.65	6.27	857.43	0.58		

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		HYCHAN.OUT					
136.70	40.43	3.38	36.93	10.13	0.002579		
0.54407	20312.20						
78.00	4397.17	3.67	6.30	864.01	0.58		
137.22	40.76	3.37	37.23	10.14	0.002603		
0.54682	20477.63						
79.00	4397.20	3.70	6.32	870.93	0.58		
137.91	41.08	3.36	37.52	10.15	0.002618		
0.54841	20635.30						
80.00	4397.19	3.69	6.31	875.70	0.58		
138.72	41.04	3.38	37.48	10.15	0.002614		
0.55132	20616.19						
81.00	4397.18	3.68	6.30	878.69	0.58		
139.41	40.90	3.41	37.36	10.15	0.002621		
0.55740	20547.20						
82.00	4397.18	3.68	6.29	889.63	0.58		
141.39	40.89	3.46	37.35	10.14	0.002617		
0.56482	20540.55						
83.00	4397.17	3.67	6.23	896.33	0.57		
143.87	40.74	3.53	37.22	10.14	0.002633		
0.58020	20468.67						
84.00	4397.15	3.65	6.14	895.44	0.57		
145.88	40.47	3.60	36.97	10.13	0.002599		
0.58459	20334.03						
85.00	4397.12	3.62	5.97	896.31	0.55		
150.10	40.10	3.74	36.63	10.12	0.002568		
0.59995	20145.62						
86.00	4397.17	3.67	5.90	944.73	0.54		
160.08	40.73	3.93	37.21	10.14	0.002546		
0.62430	20464.46						
87.00	4397.24	3.74	5.84	985.22	0.53		
168.71	41.62	4.05	38.02	10.17	0.002500		
0.63232	20910.46						
88.00	4397.30	3.80	5.74	1001.63	0.52		
174.50	42.43	4.11	38.76	10.19	0.002428		
0.62297	21315.78						
89.00	4397.35	3.85	5.60	1003.21	0.50		
178.99	43.05	4.16	39.32	10.21	0.002311		
0.59970	21626.23						
90.00	4397.39	3.89	5.49	1004.29	0.49		
182.80	43.57	4.20	39.80	10.23	0.002248		
0.58859	21887.44						
91.00	4397.41	3.91	5.46	1006.02	0.49		
184.32	43.77	4.21	39.98	10.23	0.002330		
0.61212	21989.78						
92.00	4397.42	3.92	5.40	1002.51	0.48		
185.65	43.96	4.22	40.15	10.24	0.002157		
0.56859	22081.12						
93.00	4397.40	3.90	5.37	985.06	0.48		
183.41	43.65	4.20	39.86	10.23	0.002307		
0.60499	21925.68						
94.00	4397.35	3.85	5.35	960.18	0.48		
179.40	43.11	4.16	39.37	10.21	0.002237		
0.58088	21654.23						
95.00	4397.30	3.80	5.41	940.79	0.49		
174.04	42.37	4.11	38.70	10.19	0.002232		
0.57209	21283.69						
96.00	4397.25	3.75	5.41	919.76	0.49		
170.00	41.80	4.07	38.18	10.17	0.002312		
0.58672	20999.54						
97.00	4397.18	3.68	5.45	892.82	0.50		
163.68	40.91	4.00	37.37	10.15	0.002364		
0.59026	20551.83						
98.00	4397.11	3.61	5.50	865.80	0.51		

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		HYCHAN.OUT					
157.53	40.03	3.94	36.56	10.12	0.002400		
0.58937	20109.33						
99.00	4397.03	3.53	5.50	827.32	0.52		
150.37	38.98	3.86	35.61	10.08	0.002419		
0.58240	19583.35						
100.00	4396.97	3.47	5.56	808.23	0.53		
145.48	38.26	3.80	34.95	10.06	0.002510		
0.59544	19222.63						
101.00	4396.98	3.48	5.77	809.89	0.55		
140.30	38.35	3.66	35.04	10.06	0.002554		
0.58290	19269.51						
102.00	4397.01	3.51	5.94	805.77	0.56		
135.57	38.68	3.51	35.33	10.07	0.002577		
0.56361	19432.00						
103.00	4397.03	3.53	6.03	807.15	0.57		
133.91	38.91	3.44	35.55	10.08	0.002587		
0.55561	19550.89						
104.00	4397.05	3.55	6.09	815.81	0.57		
133.85	39.24	3.41	35.84	10.09	0.002598		
0.55300	19713.01						
105.00	4397.07	3.57	6.14	824.29	0.57		
134.26	39.50	3.40	36.08	10.10	0.002595		
0.55044	19845.03						
106.00	4397.10	3.60	6.19	835.96	0.58		
135.10	39.82	3.39	36.37	10.11	0.002604		
0.55117	20006.08						
107.00	4397.11	3.61	6.22	839.67	0.58		
135.06	39.97	3.38	36.51	10.12	0.002593		
0.54662	20080.32						
108.00	4397.11	3.61	6.23	836.24	0.58		
134.17	39.98	3.36	36.52	10.12	0.002606		
0.54569	20087.90						
109.00	4397.12	3.62	6.25	840.23	0.58		
134.50	40.11	3.35	36.64	10.12	0.002603		
0.54457	20151.13						
110.00	4397.16	3.66	6.29	855.84	0.58		
136.07	40.66	3.35	37.14	10.14	0.002612		
0.54547	20425.33						
111.00	4397.18	3.68	6.30	862.65	0.58		
136.85	40.86	3.35	37.32	10.14	0.002601		
0.54372	20525.77						
112.00	4397.16	3.66	6.28	855.96	0.58		
136.23	40.55	3.36	37.04	10.13	0.002576		
0.54002	20373.94						
113.00	4397.14	3.64	6.26	851.11	0.58		
135.91	40.30	3.37	36.82	10.13	0.002564		
0.53944	20248.29						
114.00	4397.13	3.63	6.24	849.32	0.58		
136.09	40.17	3.39	36.70	10.12	0.002541		
0.53718	20183.09						
115.00	4397.11	3.61	6.21	845.71	0.58		
136.24	40.01	3.40	36.55	10.12	0.002521		
0.53571	20102.58						
116.00	4397.09	3.59	6.16	838.06	0.57		
136.00	39.76	3.42	36.32	10.11	0.002503		
0.53434	19973.74						
117.00	4397.08	3.58	6.13	831.31	0.57		
135.64	39.56	3.43	36.13	10.10	0.002471		
0.52864	19873.62						
118.00	4397.06	3.56	6.09	820.64	0.57		
134.66	39.30	3.43	35.90	10.09	0.002465		
0.52710	19743.76						
119.00	4397.04	3.54	6.07	813.30	0.57		

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		HYCHAN.OUT							
133.99	39.12	3.43	35.73	10.09	0.002459				
0.52556	19652.32								
120.00	4397.02	3.52	6.04	796.70	0.57				
131.91	38.78	3.40	35.43	10.08	0.002450				
0.52005	19485.41								
121.00	4397.00	3.50	6.01	785.85	0.57				
130.77	38.54	3.39	35.20	10.07	0.002442				
0.51697	19361.26								
122.00	4396.98	3.48	5.99	778.51	0.57				
130.02	38.36	3.39	35.04	10.06	0.002436				
0.51523	19273.20								
123.00	4396.97	3.47	5.97	773.74	0.56				
129.56	38.24	3.39	34.93	10.06	0.002428				
0.51331	19214.07								
124.00	4396.96	3.46	5.96	768.90	0.56				
129.10	38.13	3.39	34.83	10.05	0.002425				
0.51250	19154.83								
125.00	4396.95	3.45	5.94	763.93	0.56				
128.62	38.00	3.38	34.72	10.05	0.002419				
0.51093	19094.10								
126.00	4396.94	3.44	5.92	758.88	0.56				
128.12	37.88	3.38	34.60	10.05	0.002415				
0.50975	19031.76								
127.00	4396.93	3.43	5.91	753.88	0.56				
127.60	37.76	3.38	34.49	10.04	0.002408				
0.50775	18970.52								
128.00	4396.93	3.43	5.89	748.87	0.56				
127.10	37.64	3.38	34.38	10.04	0.002404				
0.50658	18910.89								
129.00	4396.92	3.42	5.88	743.91	0.56				
126.57	37.52	3.37	34.27	10.03	0.002396				
0.50448	18850.03								
130.00	4396.91	3.41	5.86	738.70	0.56				
125.97	37.40	3.37	34.16	10.03	0.002400				
0.50440	18789.76								
131.00	4396.90	3.40	5.86	733.75	0.56				
125.29	37.30	3.36	34.08	10.03	0.002396				
0.50209	18741.32								
132.00	4396.89	3.39	5.85	728.70	0.56				
124.59	37.20	3.35	33.98	10.02	0.002396				
0.50069	18691.19								
133.00	4396.88	3.38	5.84	723.73	0.56				
123.90	37.10	3.34	33.89	10.02	0.002394				
0.49880	18642.21								
134.00	4396.88	3.37	5.83	718.70	0.56				
123.21	37.00	3.33	33.80	10.02	0.002394				
0.49736	18591.15								
135.00	4396.87	3.37	5.82	713.69	0.56				
122.55	36.90	3.32	33.71	10.01	0.002394				
0.49617	18540.13								
136.00	4396.86	3.36	5.82	708.73	0.56				
121.88	36.80	3.31	33.62	10.01	0.002392				
0.49438	18488.44								
137.00	4396.85	3.35	5.81	703.71	0.56				
121.21	36.69	3.30	33.52	10.01	0.002392				
0.49303	18435.15								
138.00	4396.84	3.34	5.80	698.74	0.56				
120.55	36.59	3.29	33.42	10.00	0.002392				
0.49177	18382.60								
139.00	4396.83	3.33	5.79	693.67	0.56				
119.88	36.48	3.29	33.32	10.00	0.002393				
0.49068	18328.39								
140.00	4396.83	3.32	5.78	688.77	0.56				

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		HYCHAN.OUT					
119.24	36.38	3.28	33.23	9.99	0.002384		
0.48770	18276.40						
141.00	4396.82	3.32	5.77	684.58	0.56		
118.71	36.28	3.27	33.14	9.99	0.002384		
0.48684	18229.28						
142.00	4396.81	3.31	5.76	680.50	0.56		
118.18	36.19	3.27	33.06	9.99	0.002383		
0.48560	18184.68						
143.00	4396.79	3.29	5.74	671.73	0.56		
117.04	36.00	3.25	32.88	9.98	0.002379		
0.48277	18085.20						
144.00	4396.78	3.28	5.72	664.03	0.56		
116.04	35.82	3.24	32.73	9.97	0.002375		
0.47996	17999.83						
145.00	4396.77	3.27	5.71	658.87	0.56		
115.35	35.71	3.23	32.62	9.97	0.002376		
0.47898	17940.64						
146.00	4396.76	3.26	5.70	653.87	0.56		
114.71	35.60	3.22	32.52	9.97	0.002375		
0.47743	17886.95						
147.00	4396.75	3.25	5.69	648.94	0.56		
114.04	35.49	3.21	32.42	9.96	0.002372		
0.47557	17830.32						
148.00	4396.75	3.24	5.68	643.92	0.56		
113.37	35.37	3.20	32.31	9.96	0.002370		
0.47394	17772.82						
149.00	4396.74	3.24	5.67	638.86	0.56		
112.70	35.26	3.20	32.21	9.95	0.002368		
0.47233	17715.16						
150.00	4396.73	3.23	5.66	633.97	0.56		
112.05	35.15	3.19	32.11	9.95	0.002364		
0.47028	17659.38						
151.00	4396.72	3.22	5.65	628.89	0.55		
111.37	35.03	3.18	32.00	9.95	0.002365		
0.46913	17601.53						
152.00	4396.71	3.21	5.64	624.46	0.55		
110.80	34.93	3.17	31.91	9.94	0.002364		
0.46792	17551.25						
153.00	4396.70	3.20	5.63	621.85	0.55		
110.43	34.87	3.17	31.85	9.94	0.002365		
0.46735	17520.22						
154.00	4396.70	3.20	5.63	620.77	0.55		
110.28	34.85	3.16	31.84	9.94	0.002365		
0.46694	17510.56						
155.00	4396.70	3.20	5.63	620.02	0.55		
110.16	34.84	3.16	31.83	9.94	0.002365		
0.46666	17503.97						
156.00	4396.70	3.20	5.63	620.03	0.55		
110.13	34.84	3.16	31.83	9.94	0.002367		
0.46686	17504.88						
157.00	4396.70	3.20	5.63	619.97	0.55		
110.12	34.84	3.16	31.83	9.94	0.002365		
0.46648	17507.82						
158.00	4396.70	3.20	5.63	619.99	0.55		
110.11	34.85	3.16	31.84	9.94	0.002366		
0.46650	17509.63						
159.00	4396.70	3.20	5.63	620.02	0.55		
110.11	34.85	3.16	31.83	9.94	0.002368		
0.46680	17508.97						
160.00	4396.70	3.20	5.63	620.04	0.55		
110.09	34.85	3.16	31.83	9.94	0.002366		
0.46648	17507.89						
161.00	4396.70	3.20	5.63	619.99	0.55		

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		HYCHAN.OUT							
110.08	34.85	3.16	31.83	9.94	0.002369				
0.46698	17508.75								
162.00	4396.70	3.20	5.63	620.02	0.55				
110.10	34.85	3.16	31.84	9.94	0.002367				
0.46657	17511.39								
163.00	4396.70	3.20	5.63	620.02	0.55				
110.09	34.85	3.16	31.84	9.94	0.002367				
0.46648	17511.05								
164.00	4396.70	3.20	5.63	619.97	0.55				
110.07	34.85	3.16	31.84	9.94	0.002368				
0.46663	17509.52								
165.00	4396.70	3.20	5.63	619.96	0.55				
110.07	34.85	3.16	31.84	9.94	0.002368				
0.46677	17510.64								
166.00	4396.70	3.20	5.63	620.00	0.55				
110.07	34.85	3.16	31.84	9.94	0.002368				
0.46669	17511.82								
167.00	4396.70	3.20	5.63	619.76	0.55				
110.04	34.85	3.16	31.83	9.94	0.002367				
0.46633	17508.66								
168.00	4396.70	3.20	5.63	618.24	0.55				
109.85	34.81	3.16	31.81	9.94	0.002369				
0.46637	17492.77								
169.00	4396.69	3.19	5.62	615.29	0.55				
109.46	34.75	3.15	31.74	9.94	0.002368				
0.46542	17457.68								
170.00	4396.69	3.19	5.61	612.61	0.55				
109.11	34.68	3.15	31.68	9.93	0.002366				
0.46438	17426.45								
171.00	4396.69	3.19	5.61	610.32	0.55				
108.81	34.63	3.14	31.63	9.93	0.002363				
0.46330	17399.10								
172.00	4396.68	3.18	5.60	607.59	0.55				
108.46	34.57	3.14	31.58	9.93	0.002365				
0.46309	17367.43								
173.00	4396.68	3.18	5.60	605.23	0.55				
108.15	34.51	3.13	31.53	9.93	0.002364				
0.46222	17340.66								
174.00	4396.67	3.17	5.59	602.65	0.55				
107.82	34.45	3.13	31.47	9.92	0.002363				
0.46154	17310.38								
175.00	4396.67	3.17	5.58	600.31	0.55				
107.51	34.39	3.13	31.42	9.92	0.002362				
0.46079	17281.54								
176.00	4396.66	3.16	5.58	597.61	0.55				
107.16	34.33	3.12	31.36	9.92	0.002359				
0.45941	17250.62								
177.00	4396.66	3.16	5.57	595.57	0.55				
106.89	34.29	3.12	31.32	9.92	0.002360				
0.45913	17227.80								
178.00	4396.65	3.15	5.57	593.53	0.55				
106.62	34.24	3.11	31.28	9.92	0.002361				
0.45880	17203.38								
179.00	4396.65	3.15	5.56	591.57	0.55				
106.36	34.19	3.11	31.24	9.92	0.002360				
0.45809	17179.77								
180.00	4396.65	3.15	5.56	589.56	0.55				
106.09	34.14	3.11	31.19	9.91	0.002360				
0.45767	17155.49								
181.00	4396.64	3.14	5.55	587.54	0.55				
105.84	34.10	3.10	31.15	9.91	0.002360				
0.45711	17133.16								
182.00	4396.64	3.14	5.55	585.59	0.55				

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		HYCHAN.OUT							
105.58	34.05	3.10	31.11	9.91	0.002359				
0.45646	17107.89								
183.00	4396.63	3.13	5.54	583.56	0.55				
105.31	34.00	3.10	31.06	9.91	0.002358				
0.45581	17082.51								
184.00	4396.63	3.13	5.54	581.54	0.55				
105.06	33.94	3.09	31.01	9.91	0.002358				
0.45534	17055.74								
185.00	4396.63	3.13	5.53	579.61	0.55				
104.82	33.90	3.09	30.97	9.90	0.002355				
0.45441	17030.99								
186.00	4396.62	3.12	5.52	577.58	0.55				
104.56	33.85	3.09	30.92	9.90	0.002353				
0.45364	17006.07								
187.00	4396.62	3.12	5.52	575.56	0.55				
104.30	33.79	3.09	30.87	9.90	0.002353				
0.45323	16979.96								
188.00	4396.61	3.11	5.51	573.57	0.55				
104.05	33.75	3.08	30.83	9.90	0.002352				
0.45246	16956.03								
189.00	4396.61	3.11	5.51	571.56	0.55				
103.79	33.70	3.08	30.78	9.90	0.002351				
0.45184	16930.85								
190.00	4396.61	3.11	5.50	569.57	0.55				
103.53	33.65	3.08	30.74	9.89	0.002351				
0.45140	16905.98								
191.00	4396.60	3.10	5.50	567.55	0.55				
103.27	33.60	3.07	30.69	9.89	0.002351				
0.45101	16881.24								
192.00	4396.60	3.10	5.49	565.55	0.55				
103.00	33.54	3.07	30.64	9.89	0.002351				
0.45037	16854.45								
193.00	4396.60	3.09	5.48	563.58	0.55				
102.76	33.50	3.07	30.61	9.89	0.002350				
0.44974	16833.85								
194.00	4396.59	3.09	5.48	561.55	0.55				
102.48	33.45	3.06	30.56	9.89	0.002349				
0.44902	16808.16								
195.00	4396.59	3.09	5.47	559.58	0.55				
102.22	33.41	3.06	30.52	9.89	0.002348				
0.44829	16785.21								
196.00	4396.58	3.08	5.47	557.61	0.55				
101.96	33.36	3.06	30.47	9.88	0.002346				
0.44747	16760.73								
197.00	4396.58	3.08	5.46	555.55	0.55				
101.68	33.30	3.05	30.43	9.88	0.002344				
0.44664	16734.40								
198.00	4396.58	3.07	5.46	553.55	0.55				
101.41	33.25	3.05	30.38	9.88	0.002346				
0.44645	16709.21								
199.00	4396.57	3.07	5.45	551.57	0.55				
101.15	33.21	3.05	30.34	9.88	0.002346				
0.44599	16684.73								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3834

MAXIMUM DISCHARGE (CFS) =	1409.49	AT TIME =	91.18
MAXIMUM STAGE =	4396.48	AT TIME =	91.89

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					



		HYCHAN.OUT					
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(FT)	(CFS)	
	(LB/FT^2)	(FT)	(FT^2)				
0.00	0.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT

	0.00000	0.00					
0.00	20.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	21.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	22.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	23.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	24.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	25.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	26.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	27.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	28.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	29.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	30.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	31.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	32.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	33.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	34.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	35.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	36.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	37.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	38.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	39.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
0.00	40.00	4392.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4392.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4392.07	0.07	0.01	0.00	0.00	0.001798
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.001798
0.18	59.00	4392.12	0.12	0.20	0.04	0.10	0.001808
0.18	0.02651	385.15	0.23	0.71	6.11	0.10	0.001808
0.33	60.00	4392.18	0.18	0.24	0.08	0.10	0.001837
0.33	0.02888	639.21	0.25	1.18	6.52	0.10	0.001837
0.60	61.00	4392.25	0.25	0.37	0.22	0.13	0.001820
0.60	1.87		0.32	1.71	6.83	0.13	0.001820

HYCHAN.OUT									
0.58	0.03653	925.24	0.25	0.29	0.17	0.10			
	62.00	4392.25	0.31	1.72	6.84		0.001818		
	0.03524	931.46							
0.56	63.00	4392.24	0.24	0.29	0.16	0.10			
		1.75	0.32	1.60	6.78		0.001811		
	0.03589	866.19							
0.59	64.00	4392.21	0.21	0.29	0.17	0.11			
		1.53	0.39	1.40	6.66		0.002492		
	0.06038	755.84							
27.19	65.00	4393.50	1.50	3.59	97.51	0.52			
		14.61	1.86	13.36	8.89		0.002267		
	0.26328	7212.04							
45.52	66.00	4393.94	1.94	4.39	199.65	0.55			
		19.64	2.32	17.95	9.24		0.002324		
	0.33606	9693.16							
56.21	67.00	4394.14	2.14	4.71	264.66	0.57			
		21.88	2.57	20.00	9.36		0.002378		
	0.38119	10798.29							
69.16	68.00	4394.35	2.35	5.05	349.00	0.58			
		24.37	2.84	22.27	9.49		0.002415		
	0.42770	12024.96							
82.35	69.00	4394.54	2.54	5.35	440.36	0.59			
		26.67	3.09	24.37	9.60		0.002485		
	0.47887	13157.69							
101.24	70.00	4394.79	2.80	5.76	583.07	0.61			
		29.80	3.40	27.23	9.74		0.002517		
	0.53347	14704.59							
111.76	71.00	4394.92	2.91	5.94	663.59	0.61			
		31.27	3.57	28.57	9.80		0.002540		
	0.56648	15429.10							
122.23	72.00	4395.02	3.02	6.08	742.76	0.62			
		32.55	3.76	29.73	9.85		0.002557		
	0.59925	16056.73							
130.53	73.00	4395.09	3.09	6.16	804.41	0.62			
		33.45	3.90	30.56	9.89		0.002568		
	0.62526	16503.88							
135.07	74.00	4395.11	3.11	6.16	831.76	0.62			
		33.74	4.00	30.83	9.90		0.002531		
	0.63227	16647.26							
138.20	75.00	4395.12	3.12	6.13	847.54	0.61			
		33.81	4.09	30.89	9.90		0.002523		
	0.64352	16679.35							
140.77	76.00	4395.11	3.11	6.07	854.28	0.61			
		33.67	4.18	30.76	9.90		0.002495		
	0.65094	16610.69							
143.74	77.00	4395.09	3.09	5.97	857.58	0.60			
		33.46	4.30	30.57	9.89		0.002470		
	0.66215	16507.47							
147.36	78.00	4395.08	3.08	5.86	864.17	0.59			
		33.30	4.43	30.42	9.88		0.002465		
	0.68056	16427.59							
150.98	79.00	4395.07	3.07	5.77	870.91	0.58			
		33.20	4.55	30.33	9.88		0.002412		
	0.68428	16379.93							
154.11	80.00	4395.09	3.09	5.68	875.35	0.57			
		33.48	4.60	30.59	9.89		0.002375		
	0.68198	16517.64							
156.88	81.00	4395.12	3.12	5.60	878.55	0.56			
		33.82	4.64	30.90	9.90		0.002322		
	0.67203	16685.73							
161.86	82.00	4395.17	3.17	5.49	888.63	0.54			
		34.43	4.70	31.46	9.92		0.002265		

		HYCHAN.OUT						
	0.66448	16986.76						
169.21	83.00	4395.24	3.24	5.29	895.70	0.52		
		35.31	4.79		32.26	9.96	0.002030	
	0.60684	17420.26						
176.50	84.00	4395.31	3.31	5.07	894.13	0.49		
		36.18	4.88		33.05	9.99	0.001865	
	0.56790	17846.13						
190.62	85.00	4395.44	3.44	4.69	893.76	0.45		
		37.80	5.04		34.53	10.04	0.001731	
	0.54462	18646.55						
211.30	86.00	4395.62	3.62	4.47	943.87	0.41		
		40.08	5.27		36.61	10.12	0.001569	
	0.51608	19767.39						
232.26	87.00	4395.79	3.79	4.24	983.90	0.38		
		42.30	5.49		38.63	10.19	0.001402	
	0.48039	20861.46						
252.66	88.00	4395.95	3.95	3.96	999.70	0.35		
		44.37	5.69		40.53	10.25	0.001252	
	0.44470	21885.66						
273.72	89.00	4396.11	4.11	3.65	1000.46	0.32		
		46.45	5.89		42.42	10.31	0.001084	
	0.39852	22907.79						
304.39	90.00	4396.24	4.24	3.29	1001.77	0.28		
		48.13	6.33		43.95	10.36	0.000953	
	0.37599	23734.11						
363.69	91.00	4396.28	4.28	2.77	1008.32	0.24		
		48.64	7.48		44.42	10.37	0.000913	
	0.42615	23987.71						
366.13	92.00	4396.34	4.34	2.73	998.88	0.23		
		49.39	7.41		45.10	10.39	0.000961	
	0.44471	24355.54						
372.62	93.00	4396.32	4.32	2.65	988.16	0.23		
		49.09	7.59		44.83	10.39	0.000844	
	0.39954	24210.78						
354.75	94.00	4396.26	4.26	2.70	959.27	0.23		
		48.41	7.33		44.21	10.37	0.001050	
	0.48001	23873.46						
328.36	95.00	4396.14	4.14	2.87	942.56	0.25		
		46.84	7.01		42.78	10.32	0.001049	
	0.45908	23099.96						
275.65	96.00	4396.07	4.07	3.35	923.13	0.29		
		45.94	6.00		41.96	10.30	0.001104	
	0.41331	22658.58						
250.53	97.00	4395.94	3.94	3.57	894.75	0.32		
		44.15	5.67		40.32	10.24	0.001168	
	0.41358	21774.31						
232.91	98.00	4395.80	3.80	3.73	868.00	0.34		
		42.35	5.50		38.68	10.19	0.001235	
	0.42376	20888.83						
216.08	99.00	4395.66	3.66	3.84	829.82	0.35		
		40.58	5.33		37.07	10.13	0.001380	
	0.45848	20015.20						
200.97	100.00	4395.53	3.53	4.03	810.37	0.38		
		38.95	5.16		35.58	10.08	0.001494	
	0.48096	19211.50						
180.13	101.00	4395.34	3.34	4.51	812.10	0.43		
		36.60	4.92		33.43	10.00	0.001802	
	0.55346	18054.34						
165.24	102.00	4395.20	3.20	4.89	807.35	0.48		
		34.84	4.74		31.82	9.94	0.001992	
	0.58953	17184.97						
159.11	103.00	4395.14	3.14	5.07	807.40	0.50		
		34.10	4.67		31.15	9.91	0.002054	

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		HYCHAN.OUT						
	0.59802	16820.39						
156.37	104.00	4395.12	3.12	5.22	816.13	0.52	0.002123	
	0.61348	16654.45		4.63	30.84	9.90		
155.29	105.00	4395.10	3.11	5.31	824.41	0.53	0.002242	
	0.64597	16589.26		4.62	30.72	9.89		
154.84	106.00	4395.10	3.10	5.40	835.90	0.54	0.002240	
	0.64457	16561.91		4.61	30.67	9.89		
153.55	107.00	4395.09	3.09	5.47	839.96	0.55	0.002379	
	0.68225	16482.78		4.60	30.52	9.89		
151.26	108.00	4395.06	3.06	5.53	836.48	0.56	0.002331	
	0.66415	16342.51		4.57	30.26	9.87		
151.07	109.00	4395.06	3.06	5.56	840.25	0.56	0.002362	
	0.67256	16331.23		4.56	30.24	9.87		
150.61	110.00	4395.06	3.06	5.68	855.86	0.57	0.002442	
	0.69439	16305.11		4.56	30.19	9.87		
149.14	111.00	4395.06	3.06	5.78	862.51	0.58	0.002457	
	0.69089	16325.99		4.51	30.23	9.87		
145.87	112.00	4395.07	3.07	5.87	855.91	0.59	0.002498	
	0.68488	16377.99		4.39	30.33	9.88		
142.96	113.00	4395.08	3.08	5.95	851.00	0.60	0.002492	
	0.66668	16450.44		4.29	30.46	9.88		
140.66	114.00	4395.10	3.10	6.04	849.08	0.60	0.002534	
	0.66330	16540.69		4.20	30.63	9.89		
138.31	115.00	4395.11	3.11	6.11	845.49	0.61	0.002532	
	0.64774	16640.08		4.10	30.81	9.90		
135.47	116.00	4395.13	3.13	6.19	837.99	0.62	0.002548	
	0.63519	16727.69		4.00	30.98	9.90		
133.50	117.00	4395.13	3.13	6.23	831.06	0.62	0.002579	
	0.63192	16770.09		3.93	31.06	9.91		
131.53	118.00	4395.13	3.13	6.24	820.68	0.62	0.002571	
	0.62154	16746.72		3.87	31.01	9.91		
130.16	119.00	4395.13	3.13	6.25	813.67	0.62	0.002567	
	0.61468	16733.32		3.84	30.99	9.90		
128.07	120.00	4395.10	3.10	6.22	796.86	0.62	0.002569	
	0.61095	16578.53		3.81	30.70	9.89		
126.41	121.00	4395.09	3.09	6.22	785.91	0.62	0.002572	
	0.60565	16523.39		3.77	30.60	9.89		
125.23	122.00	4395.09	3.09	6.22	778.57	0.62	0.002571	
	0.60101	16494.15		3.75	30.54	9.89		
124.38	123.00	4395.09	3.09	6.22	773.75	0.62	0.002570	
	0.59707	16481.16		3.72	30.52	9.89		
123.56	124.00	4395.08	3.09	6.22	768.95	0.62	0.002573	
		33.38		3.70	30.50	9.88		

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		HYCHAN.OUT						
	0.59440	16467.69						
122.73	125.00	4395.08	3.08	6.22	763.97	0.63		
		33.35	3.68		30.47	9.88	0.002573	
	0.59078	16452.01						
121.90	126.00	4395.08	3.08	6.23	758.92	0.63		
		33.31	3.66		30.43	9.88	0.002572	
	0.58738	16434.01						
121.12	127.00	4395.08	3.08	6.22	753.93	0.63		
		33.27	3.64		30.39	9.88	0.002574	
	0.58478	16413.20						
120.34	128.00	4395.07	3.07	6.22	748.92	0.63		
		33.23	3.62		30.36	9.88	0.002573	
	0.58152	16393.23						
119.57	129.00	4395.07	3.07	6.22	743.94	0.63		
		33.18	3.60		30.32	9.88	0.002574	
	0.57866	16370.23						
118.89	130.00	4395.06	3.06	6.21	738.82	0.63		
		33.11	3.59		30.25	9.87	0.002569	
	0.57570	16334.38						
118.44	131.00	4395.05	3.05	6.20	733.88	0.63		
		32.99	3.59		30.14	9.87	0.002560	
	0.57361	16276.10						
117.99	132.00	4395.04	3.04	6.18	728.83	0.62		
		32.87	3.59		30.03	9.87	0.002553	
	0.57201	16214.74						
117.53	133.00	4395.03	3.03	6.16	723.84	0.62		
		32.74	3.59		29.91	9.86	0.002546	
	0.57018	16153.89						
117.06	134.00	4395.02	3.02	6.14	718.84	0.62		
		32.62	3.59		29.81	9.86	0.002542	
	0.56904	16095.09						
116.56	135.00	4395.02	3.02	6.12	713.80	0.62		
		32.51	3.59		29.70	9.85	0.002535	
	0.56712	16039.70						
116.06	136.00	4395.01	3.01	6.11	708.84	0.62		
		32.40	3.58		29.60	9.85	0.002530	
	0.56549	15984.64						
115.54	137.00	4395.00	3.00	6.09	703.82	0.62		
		32.29	3.58		29.50	9.84	0.002525	
	0.56386	15930.42						
115.02	138.00	4394.99	2.99	6.08	698.86	0.62		
		32.18	3.57		29.40	9.84	0.002522	
	0.56250	15876.65						
114.48	139.00	4394.98	2.98	6.06	693.78	0.62		
		32.07	3.57		29.30	9.83	0.002521	
	0.56151	15822.41						
113.95	140.00	4394.97	2.97	6.05	688.85	0.62		
		31.97	3.56		29.21	9.83	0.002517	
	0.55976	15770.89						
113.44	141.00	4394.96	2.96	6.04	684.64	0.62		
		31.89	3.56		29.13	9.83	0.002515	
	0.55827	15732.30						
113.01	142.00	4394.96	2.96	6.02	680.66	0.62		
		31.80	3.55		29.06	9.82	0.002511	
	0.55669	15689.87						
111.99	143.00	4394.94	2.94	6.00	671.90	0.62		
		31.63	3.54		28.89	9.82	0.002503	
	0.55319	15602.59						
111.09	144.00	4394.93	2.93	5.98	664.13	0.62		
		31.47	3.53		28.75	9.81	0.002501	
	0.55106	15524.85						
110.53	145.00	4394.92	2.92	5.96	659.01	0.61		
		31.36	3.52		28.65	9.81	0.002496	

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		HYCHAN.OUT						
	0.54893	15470.92						
109.96	146.00	4394.91	2.91	5.95	653.97	0.61		
		31.25	3.52		28.55	9.80	0.002493	
	0.54740	15417.94						
109.41	147.00	4394.90	2.90	5.93	649.05	0.61		
		31.14	3.51		28.45	9.80	0.002489	
	0.54570	15364.37						
108.84	148.00	4394.90	2.90	5.92	644.02	0.61		
		31.03	3.51		28.35	9.79	0.002487	
	0.54434	15310.87						
108.26	149.00	4394.89	2.89	5.90	638.96	0.61		
		30.92	3.50		28.25	9.79	0.002483	
	0.54244	15257.23						
107.70	150.00	4394.88	2.88	5.89	634.08	0.61		
		30.82	3.49		28.16	9.78	0.002479	
	0.54056	15205.13						
107.10	151.00	4394.87	2.87	5.87	628.99	0.61		
		30.71	3.49		28.06	9.78	0.002476	
	0.53883	15150.28						
106.59	152.00	4394.86	2.86	5.86	624.55	0.61		
		30.61	3.48		27.97	9.78	0.002474	
	0.53754	15103.91						
106.30	153.00	4394.86	2.86	5.85	621.88	0.61		
		30.55	3.48		27.91	9.77	0.002473	
	0.53679	15073.85						
106.20	154.00	4394.85	2.85	5.85	620.80	0.61		
		30.52	3.48		27.88	9.77	0.002470	
	0.53633	15057.58						
106.16	155.00	4394.85	2.85	5.84	620.02	0.61		
		30.50	3.48		27.86	9.77	0.002470	
	0.53660	15045.57						
106.19	156.00	4394.85	2.85	5.84	620.06	0.61		
		30.48	3.48		27.85	9.77	0.002467	
	0.53627	15039.93						
106.23	157.00	4394.85	2.85	5.84	619.97	0.61		
		30.47	3.49		27.84	9.77	0.002467	
	0.53660	15034.94						
106.26	158.00	4394.85	2.85	5.83	619.99	0.61		
		30.47	3.49		27.84	9.77	0.002467	
	0.53693	15032.01						
106.28	159.00	4394.85	2.85	5.83	620.03	0.61		
		30.47	3.49		27.84	9.77	0.002466	
	0.53682	15031.75						
106.27	160.00	4394.85	2.85	5.83	620.04	0.61		
		30.46	3.49		27.83	9.77	0.002466	
	0.53680	15029.37						
106.28	161.00	4394.85	2.85	5.83	620.01	0.61		
		30.46	3.49		27.83	9.77	0.002464	
	0.53655	15027.76						
106.30	162.00	4394.85	2.85	5.83	620.00	0.61		
		30.46	3.49		27.83	9.77	0.002464	
	0.53657	15028.21						
106.30	163.00	4394.85	2.85	5.83	620.03	0.61		
		30.46	3.49		27.83	9.77	0.002463	
	0.53635	15025.82						
106.31	164.00	4394.85	2.85	5.83	619.97	0.61		
		30.45	3.49		27.82	9.77	0.002462	
	0.53635	15024.86						
106.32	165.00	4394.85	2.85	5.83	619.97	0.61		
		30.45	3.49		27.82	9.77	0.002462	
	0.53641	15024.00						
106.32	166.00	4394.85	2.85	5.83	619.98	0.61		
		30.45	3.49		27.82	9.77	0.002465	

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		HYCHAN.OUT						
	0.53701	15022.89						
106.31	167.00	4394.85	2.85	5.83	619.78	0.61		
		30.44	3.49		27.81	9.77		0.002462
	0.53649	15020.07						
106.15	168.00	4394.84	2.84	5.82	618.31	0.61		
		30.41	3.49		27.79	9.77		0.002461
	0.53609	15003.92						
105.79	169.00	4394.84	2.84	5.82	615.34	0.61		
		30.35	3.49		27.73	9.76		0.002459
	0.53487	14973.29						
105.47	170.00	4394.83	2.84	5.81	612.66	0.61		
		30.29	3.48		27.68	9.76		0.002459
	0.53419	14946.58						
105.19	171.00	4394.83	2.83	5.80	610.35	0.61		
		30.25	3.48		27.63	9.76		0.002458
	0.53342	14922.33						
104.86	172.00	4394.83	2.83	5.80	607.65	0.61		
		30.19	3.47		27.58	9.76		0.002455
	0.53217	14894.92						
104.56	173.00	4394.82	2.82	5.79	605.28	0.61		
		30.14	3.47		27.54	9.76		0.002456
	0.53164	14870.28						
104.25	174.00	4394.82	2.82	5.78	602.71	0.61		
		30.09	3.46		27.49	9.75		0.002454
	0.53065	14844.89						
103.97	175.00	4394.81	2.81	5.77	600.35	0.61		
		30.04	3.46		27.44	9.75		0.002453
	0.52972	14820.16						
103.63	176.00	4394.81	2.81	5.77	597.64	0.61		
		29.98	3.46		27.39	9.75		0.002452
	0.52881	14791.25						
103.40	177.00	4394.81	2.81	5.76	595.63	0.61		
		29.93	3.45		27.35	9.75		0.002450
	0.52808	14768.50						
103.15	178.00	4394.80	2.80	5.75	593.58	0.61		
		29.89	3.45		27.31	9.75		0.002450
	0.52757	14747.28						
102.92	179.00	4394.80	2.80	5.75	591.61	0.61		
		29.85	3.45		27.27	9.74		0.002449
	0.52690	14726.27						
102.66	180.00	4394.79	2.80	5.74	589.61	0.61		
		29.80	3.44		27.23	9.74		0.002447
	0.52602	14704.71						
102.42	181.00	4394.79	2.79	5.74	587.58	0.61		
		29.76	3.44		27.19	9.74		0.002446
	0.52517	14684.09						
102.17	182.00	4394.79	2.79	5.73	585.62	0.61		
		29.72	3.44		27.16	9.74		0.002444
	0.52421	14664.71						
101.89	183.00	4394.79	2.79	5.73	583.59	0.61		
		29.68	3.43		27.12	9.74		0.002444
	0.52359	14645.03						
101.61	184.00	4394.78	2.78	5.72	581.58	0.60		
		29.65	3.43		27.09	9.74		0.002446
	0.52302	14627.59						
101.34	185.00	4394.78	2.78	5.72	579.64	0.60		
		29.61	3.42		27.06	9.73		0.002445
	0.52214	14611.06						
101.06	186.00	4394.78	2.78	5.72	577.61	0.60		
		29.58	3.42		27.02	9.73		0.002444
	0.52115	14592.32						
100.78	187.00	4394.77	2.77	5.71	575.60	0.60		
		29.54	3.41		26.99	9.73		0.002445

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## HYCHAN.OUT

0.52049	14573.25							
188.00	4394.77	2.77	5.71	573.61	0.60			
100.52	29.50	3.41	26.95	9.73	0.002443			
0.51947	14553.74							
189.00	4394.77	2.77	5.70	571.60	0.60			
100.26	29.46	3.40	26.92	9.73	0.002443			
0.51890	14534.19							
190.00	4394.76	2.76	5.70	569.61	0.60			
100.00	29.42	3.40	26.88	9.73	0.002443			
0.51818	14514.56							
191.00	4394.76	2.76	5.69	567.59	0.60			
99.74	29.38	3.40	26.84	9.72	0.002443			
0.51760	14494.45							
192.00	4394.76	2.76	5.69	565.61	0.60			
99.48	29.34	3.39	26.80	9.72	0.002440			
0.51635	14473.86							
193.00	4394.75	2.75	5.68	563.62	0.60			
99.24	29.29	3.39	26.76	9.72	0.002440			
0.51585	14453.02							
194.00	4394.75	2.75	5.67	561.59	0.60			
99.00	29.25	3.38	26.72	9.72	0.002439			
0.51517	14430.56							
195.00	4394.75	2.75	5.67	559.62	0.60			
98.76	29.20	3.38	26.68	9.72	0.002438			
0.51457	14408.71							
196.00	4394.74	2.74	5.66	557.65	0.60			
98.51	29.16	3.38	26.64	9.71	0.002436			
0.51358	14386.89							
197.00	4394.74	2.74	5.66	555.59	0.60			
98.25	29.11	3.37	26.60	9.71	0.002437			
0.51312	14365.04							
198.00	4394.74	2.74	5.65	553.60	0.60			
98.00	29.07	3.37	26.56	9.71	0.002434			
0.51192	14344.36							
199.00	4394.73	2.73	5.64	551.61	0.60			
97.74	29.03	3.37	26.52	9.71	0.002436			
0.51183	14322.62							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3835

MAXIMUM DISCHARGE (CFS) = 1690.75 AT TIME = 91.51  
 MAXIMUM STAGE = 4396.60 AT TIME = 91.76

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	4.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	25.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4390.65	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT								
0.00	46.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	47.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	48.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	49.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	50.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	51.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	52.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	53.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	54.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	55.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	56.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	57.00	4390.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	58.00	4390.71	0.06	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.68	59.00	4390.75	0.10	0.07	0.04	0.04	0.04	0.001658
	0.10583	311.18	1.02	0.61	5.99			
1.19	60.00	4390.75	0.10	0.09	0.10	0.05	0.05	0.001542
	0.16906	316.36	1.76	0.62	6.00			
2.09	61.00	4390.79	0.14	0.11	0.22	0.05	0.05	0.001331
	0.17744	456.18	2.14	0.89	6.29			
1.96	62.00	4390.79	0.14	0.09	0.17	0.04	0.04	0.001229
	0.15934	440.62	2.08	0.86	6.26			
2.07	63.00	4390.79	0.14	0.08	0.16	0.04	0.04	0.001144
	0.15046	460.11	2.11	0.90	6.30			
1.91	64.00	4390.79	0.14	0.06	0.12	0.03	0.03	0.001338
	0.17274	431.25	2.07	0.85	6.24			
48.53	65.00	4391.69	1.04	1.92	93.32	0.33	0.33	0.001970
	0.62480	4453.76	5.08	8.73	8.42			
74.25	66.00	4392.08	1.43	2.67	197.96	0.39	0.39	0.002025
	0.67914	6441.33	5.37	12.63	8.83			

HYCHAN.OUT									
89.94	67.00	4392.26	1.61	2.92	262.99	0.41			
	0.72274	15.86	5.67	14.50	8.99	0.002042			
	68.00	7392.60							
108.34	0.76792	4392.46	1.81	3.21	347.46	0.42			
	69.00	18.11	5.98	16.55	9.14	0.002057			
	0.82534	8442.67							
126.59	70.00	4392.64	1.99	3.46	437.81	0.43			
	0.82534	20.20	6.27	18.46	9.27	0.002110			
	71.00	9415.07							
151.55	0.87635	4392.88	2.23	3.83	581.18	0.45			
	72.00	22.96	6.60	20.98	9.42	0.002128			
	0.87635	10701.18							
166.58	73.00	4393.01	2.36	3.97	661.96	0.46			
	0.88852	24.54	6.79	22.43	9.50	0.002098			
	74.00	11438.00							
182.65	0.89293	4393.15	2.50	4.06	741.12	0.45			
	75.00	26.18	6.98	23.92	9.58	0.002051			
	0.89293	12201.71							
196.00	76.00	4393.26	2.61	4.10	803.28	0.45			
	0.85719	27.51	7.13	25.14	9.64	0.001928			
	77.00	12819.20							
205.20	0.89099	4393.33	2.68	4.05	830.49	0.44			
	78.00	28.41	7.22	25.96	9.68	0.001977			
	0.89099	13237.15							
212.94	79.00	4393.39	2.74	3.98	846.53	0.42			
	0.82703	29.15	7.30	26.63	9.71	0.001814			
	76.00	13583.43							
221.29	0.82183	4393.46	2.81	3.86	853.54	0.41			
	77.00	29.94	7.39	27.36	9.75	0.001782			
	0.82183	13952.22							
231.58	80.00	4393.54	2.89	3.70	855.92	0.38			
	0.74011	30.91	7.49	28.24	9.79	0.001583			
	78.00	14401.85							
243.25	0.71163	4393.62	2.97	3.55	863.54	0.36			
	79.00	31.98	7.61	29.22	9.83	0.001499			
	0.71163	14901.52							
255.86	81.00	4393.71	3.06	3.40	868.71	0.34			
	0.66139	33.13	7.72	30.27	9.88	0.001372			
	80.00	15435.90							
270.00	0.58643	4393.82	3.17	3.24	874.70	0.32			
	82.00	34.39	7.85	31.41	9.92	0.001197			
	0.58643	16021.61							
298.62	83.00	4393.91	3.26	2.93	876.33	0.29			
	0.62140	35.55	8.40	32.48	9.96	0.001186			
	82.00	16564.10							
351.08	0.51795	4394.05	3.40	2.52	886.17	0.24			
	83.00	37.34	9.40	34.11	10.03	0.000883			
	0.51795	17394.49							
394.11	84.00	4394.26	3.61	2.26	889.35	0.21			
	0.61649	40.02	9.85	36.56	10.12	0.001003			
	84.00	18644.02							
431.10	0.48219	4394.47	3.82	2.06	889.08	0.19			
	85.00	42.66	10.11	38.97	10.20	0.000765			
	0.48219	19873.04							
492.66	86.00	4394.81	4.16	1.81	890.22	0.16			
	0.20513	47.00	10.48	42.92	10.33	0.000314			
	86.00	21890.73							
554.00	0.21077	4395.12	4.47	1.69	937.32	0.14			
	87.00	51.15	10.83	46.72	10.44	0.000312			
	0.21077	23825.57							
611.67	0.11455	4395.42	4.77	1.60	978.34	0.13			
		55.09	11.10	50.31	10.54	0.000165			
		25656.07							



HYCHAN.OUT							
668.08	88.00	4395.70	5.05	1.48	991.25	0.12	0.000274
	0.19464	58.71	11.38		53.61	10.63	
		27341.39					
730.01	89.00	4395.95	5.30	1.36	993.06	0.10	0.000149
	0.10951	62.16	11.74		56.76	10.70	
		28946.87					
779.06	90.00	4396.17	5.52	1.28	994.41	0.10	0.000235
	0.17544	65.13	11.96		59.47	10.77	
		30328.11					
794.52	91.00	4396.33	5.68	1.27	1007.15	0.09	0.000000
	0.00000	67.22	11.82		61.37	10.81	
		31298.18					
806.31	92.00	4396.38	5.73	1.24	999.63	0.09	0.000073
	0.05426	67.90	11.88		61.99	10.83	
		31616.21					
806.15	93.00	4396.38	5.73	1.22	986.58	0.09	0.000071
	0.05273	67.89	11.88		61.98	10.83	
		31610.56					
787.91	94.00	4396.30	5.65	1.23	970.31	0.09	0.000000
	0.00000	66.83	11.79		61.02	10.80	
		31119.27					
753.13	95.00	4396.15	5.50	1.25	942.86	0.09	0.000143
	0.10397	64.78	11.63		59.14	10.76	
		30163.15					
729.22	96.00	4395.96	5.31	1.27	926.58	0.10	0.000252
	0.18384	62.28	11.71		56.87	10.71	
		29003.85					
674.40	97.00	4395.75	5.10	1.34	900.44	0.10	0.000233
	0.16511	59.49	11.34		54.32	10.64	
		27702.60					
635.37	98.00	4395.55	4.90	1.37	872.80	0.11	0.000320
	0.22322	56.78	11.19		51.85	10.58	
		26443.16					
596.91	99.00	4395.35	4.70	1.40	836.52	0.11	0.000338
	0.23256	54.12	11.03		49.42	10.52	
		25204.59					
552.44	100.00	4395.13	4.48	1.48	815.18	0.12	0.000623
	0.41918	51.27	10.77		46.82	10.44	
		23880.39					
476.22	101.00	4394.73	4.08	1.73	822.61	0.15	0.000638
	0.41200	45.99	10.36		42.00	10.30	
		21420.25					
416.50	102.00	4394.38	3.73	1.95	811.70	0.18	0.000934
	0.58514	41.50	10.04		37.90	10.16	
		19330.78					
382.75	103.00	4394.21	3.56	2.12	810.03	0.20	0.000928
	0.56368	39.31	9.74		35.91	10.09	
		18313.44					
364.99	104.00	4394.10	3.45	2.24	817.48	0.21	0.001058
	0.63590	37.89	9.63		34.61	10.05	
		17653.55					
354.25	105.00	4394.03	3.38	2.33	826.34	0.22	0.001072
	0.63870	37.11	9.55		33.90	10.02	
		17290.61					
341.27	106.00	4393.98	3.33	2.45	836.55	0.24	0.000963
	0.56254	36.47	9.36		33.31	10.00	
		16990.10					
331.89	107.00	4393.92	3.27	2.54	843.16	0.25	0.000965
	0.55980	35.71	9.29		32.62	9.97	
		16636.80					
312.90	108.00	4393.85	3.20	2.67	835.48	0.26	0.001061
	0.59492	34.84	8.98		31.82	9.94	
		16230.27					

		HYCHAN.OUT					
109.00	4393.83	3.18	3.09	841.67	0.31		
272.15	34.57	7.87		31.58	9.93	0.001340	
0.65803	16108.08						
110.00	4393.75	3.10	3.28	857.41	0.33		
261.08	33.59	7.77		30.69	9.89	0.001402	
0.68018	15650.17						
111.00	4393.68	3.03	3.44	862.87	0.35		
250.91	32.68	7.68		29.85	9.86	0.001525	
0.73079	15224.67						
112.00	4393.60	2.95	3.57	857.98	0.37		
240.27	31.70	7.58		28.96	9.82	0.001597	
0.75529	14770.87						
113.00	4393.53	2.88	3.69	851.29	0.38		
230.70	30.82	7.49		28.16	9.78	0.001737	
0.81143	14361.30						
114.00	4393.47	2.82	3.82	850.69	0.40		
222.52	30.05	7.40		27.46	9.75	0.001847	
0.85353	14003.28						
115.00	4393.40	2.75	3.95	845.71	0.42		
214.04	29.25	7.32		26.73	9.72	0.001932	
0.88207	13631.68						
116.00	4393.33	2.68	4.10	839.20	0.44		
204.64	28.35	7.22		25.90	9.68	0.002097	
0.94482	13209.60						
117.00	4393.28	2.63	4.19	831.81	0.46		
198.53	27.75	7.15		25.36	9.65	0.002045	
0.91260	12933.58						
118.00	4393.24	2.59	4.24	820.82	0.46		
193.77	27.29	7.10		24.93	9.63	0.002096	
0.92880	12716.74						
119.00	4393.21	2.56	4.28	814.23	0.47		
190.39	26.95	7.06		24.63	9.62	0.002131	
0.93923	12560.47						
120.00	4393.19	2.54	4.24	797.26	0.47		
187.95	26.71	7.04		24.41	9.61	0.002167	
0.95157	12447.77						
121.00	4393.16	2.51	4.26	786.23	0.47		
184.64	26.38	7.00		24.11	9.59	0.002195	
0.95866	12294.41						
122.00	4393.14	2.49	4.28	778.81	0.48		
182.09	26.13	6.97		23.87	9.58	0.002219	
0.96524	12175.22						
123.00	4393.13	2.48	4.30	773.94	0.48		
180.10	25.93	6.95		23.69	9.57	0.002244	
0.97269	12082.00						
124.00	4393.11	2.46	4.32	769.18	0.49		
178.20	25.73	6.92		23.52	9.56	0.002263	
0.97782	11992.71						
125.00	4393.09	2.44	4.33	764.16	0.49		
176.31	25.54	6.90		23.34	9.55	0.002288	
0.98556	11903.43						
126.00	4393.08	2.43	4.35	759.10	0.49		
174.45	25.35	6.88		23.17	9.54	0.002306	
0.99027	11815.53						
127.00	4393.06	2.41	4.36	754.12	0.50		
172.80	25.18	6.86		23.01	9.53	0.002326	
0.99580	11737.11						
128.00	4393.05	2.40	4.38	749.09	0.50		
171.13	25.01	6.84		22.86	9.53	0.002344	
1.00077	11657.74						
129.00	4393.04	2.39	4.39	744.11	0.50		
169.53	24.85	6.82		22.71	9.52	0.002363	
1.00610	11581.25						

		HYCHAN.OUT						
130.00	4393.03	2.38	4.40	738.88	0.50			
167.81	24.74	6.78	22.60	9.51	0.002376			
1.00567	11528.31							
131.00	4393.03	2.38	4.42	733.88	0.51			
165.98	24.73	6.71	22.60	9.51	0.002384			
0.99841	11525.28							
132.00	4393.03	2.38	4.44	728.83	0.51			
164.19	24.73	6.64	22.60	9.51	0.002393			
0.99175	11523.83							
133.00	4393.02	2.37	4.45	723.83	0.51			
162.53	24.72	6.57	22.59	9.51	0.002401			
0.98493	11520.42							
134.00	4393.02	2.37	4.46	718.88	0.51			
161.03	24.71	6.52	22.58	9.51	0.002405			
0.97799	11514.53							
135.00	4393.02	2.37	4.47	713.82	0.51			
159.69	24.68	6.47	22.55	9.51	0.002409			
0.97256	11501.48							
136.00	4393.02	2.37	4.47	708.88	0.51			
158.43	24.65	6.43	22.52	9.51	0.002413			
0.96788	11487.68							
137.00	4393.02	2.37	4.48	703.85	0.51			
157.23	24.61	6.39	22.49	9.51	0.002416			
0.96313	11471.21							
138.00	4393.01	2.36	4.48	698.89	0.51			
156.09	24.57	6.35	22.46	9.50	0.002418			
0.95851	11452.89							
139.00	4393.01	2.36	4.48	693.85	0.51			
154.97	24.53	6.32	22.42	9.50	0.002420			
0.95399	11433.42							
140.00	4393.01	2.36	4.48	688.92	0.51			
153.94	24.49	6.29	22.38	9.50	0.002420			
0.94935	11412.38							
141.00	4393.00	2.35	4.47	684.66	0.51			
153.29	24.42	6.28	22.32	9.50	0.002421			
0.94830	11381.65							
142.00	4393.00	2.35	4.47	680.76	0.51			
152.46	24.39	6.25	22.28	9.50	0.002420			
0.94426	11364.77							
143.00	4392.99	2.34	4.45	672.02	0.51			
150.91	24.27	6.22	22.18	9.49	0.002421			
0.93937	11312.76							
144.00	4392.98	2.33	4.44	664.19	0.51			
149.48	24.18	6.18	22.09	9.48	0.002423			
0.93485	11266.97							
145.00	4392.97	2.32	4.44	659.07	0.51			
148.47	24.12	6.16	22.04	9.48	0.002422			
0.93031	11242.30							
146.00	4392.97	2.32	4.43	654.02	0.51			
147.48	24.07	6.13	21.99	9.48	0.002424			
0.92689	11216.89							
147.00	4392.97	2.32	4.43	649.11	0.51			
146.52	24.02	6.10	21.95	9.48	0.002424			
0.92270	11193.22							
148.00	4392.96	2.31	4.43	644.08	0.51			
145.53	23.96	6.07	21.90	9.47	0.002426			
0.91948	11167.85							
149.00	4392.96	2.31	4.42	639.01	0.51			
144.55	23.90	6.05	21.84	9.47	0.002427			
0.91581	11140.08							
150.00	4392.95	2.30	4.42	634.13	0.51			
143.60	23.85	6.02	21.79	9.47	0.002427			
0.91213	11113.73							

		HYCHAN.OUT						
142.65	151.00	4392.95	2.30	4.41	629.05	0.51	0.002427	
	0.90849	23.78	6.00	21.73	9.46			
141.81	152.00	11084.43	2.29	4.40	624.59	0.51	0.002428	
	0.90529	23.73	5.98	21.69	9.46			
141.20	153.00	11060.15	2.29	4.40	621.88	0.51	0.002430	
	0.90307	23.71	5.96	21.66	9.46			
140.86	154.00	11048.47	2.29	4.41	620.79	0.51	0.002431	
	0.90111	23.71	5.94	21.67	9.46			
140.57	155.00	11050.97	2.29	4.41	620.02	0.51	0.002433	
	0.89984	23.72	5.93	21.68	9.46			
140.41	156.00	11055.54	2.29	4.42	620.03	0.51	0.002433	
	0.89788	23.74	5.91	21.70	9.46			
140.26	157.00	11065.50	2.29	4.42	619.96	0.51	0.002435	
	0.89692	23.76	5.90	21.71	9.46			
140.14	158.00	11074.58	2.30	4.42	619.98	0.51	0.002437	
	0.89616	23.78	5.89	21.73	9.46			
140.09	159.00	11081.67	2.30	4.43	620.02	0.51	0.002436	
	0.89524	23.78	5.89	21.73	9.46			
140.04	160.00	11084.41	2.30	4.43	620.03	0.52	0.002437	
	0.89542	23.79	5.89	21.74	9.46			
140.00	161.00	11085.80	2.30	4.43	620.00	0.52	0.002437	
	0.89470	23.79	5.88	21.74	9.47			
139.97	162.00	11088.34	2.30	4.43	619.99	0.52	0.002437	
	0.89452	23.80	5.88	21.75	9.47			
139.94	163.00	11090.30	2.30	4.43	620.02	0.52	0.002438	
	0.89447	23.80	5.88	21.75	9.47			
139.90	164.00	11093.26	2.30	4.43	619.96	0.52	0.002438	
	0.89407	23.80	5.88	21.75	9.47			
139.88	165.00	11094.27	2.30	4.43	619.97	0.52	0.002439	
	0.89392	23.81	5.87	21.76	9.47			
139.85	166.00	11096.96	2.30	4.43	619.98	0.52	0.002440	
	0.89413	23.81	5.87	21.76	9.47			
139.77	167.00	11098.55	2.30	4.43	619.77	0.52	0.002440	
	0.89348	23.82	5.87	21.76	9.47			
139.50	168.00	11099.75	2.30	4.43	618.36	0.52	0.002438	
	0.89165	23.80	5.86	21.75	9.47			
139.01	169.00	11092.54	2.29	4.43	615.38	0.52	0.002438	
	0.89029	23.76	5.85	21.71	9.46			
138.56	170.00	11072.67	2.29	4.42	612.70	0.52	0.002437	
	0.88845	23.72	5.84	21.68	9.46			
138.19	171.00	11054.36	2.29	4.42	610.39	0.51	0.002438	
	0.88744	23.69	5.83	21.64	9.46			
		11038.84						

		HYCHAN.OUT							
137.76	172.00	4392.93	2.28	5.83	4.41	21.61	607.68	0.51	0.002435
	0.88535	23.64							
	173.00	11020.06							
137.37	173.00	4392.93	2.28	5.82	4.41	21.58	605.34	0.51	0.002436
	0.88444	23.61							
	174.00	11003.26							
136.97	174.00	4392.93	2.28	5.81	4.40	21.54	602.74	0.51	0.002434
	0.88262	23.57							
	175.00	10984.88							
136.57	175.00	4392.93	2.28	5.80	4.40	21.51	600.39	0.51	0.002435
	0.88153	23.54							
	176.00	10969.18							
136.09	176.00	4392.92	2.27	5.79	4.39	21.47	597.66	0.51	0.002436
	0.88046	23.50							
	177.00	10950.90							
135.75	177.00	4392.92	2.27	5.78	4.39	21.45	595.66	0.51	0.002434
	0.87854	23.47							
	178.00	10939.88							
135.40	178.00	4392.92	2.27	5.78	4.38	21.42	593.61	0.51	0.002434
	0.87699	23.44							
	179.00	10926.74							
135.07	179.00	4392.92	2.27	5.77	4.38	21.40	591.63	0.51	0.002433
	0.87584	23.42							
	180.00	10913.84							
134.72	180.00	4392.91	2.26	5.76	4.38	21.37	589.64	0.51	0.002433
	0.87472	23.39							
	181.00	10899.60							
134.40	181.00	4392.91	2.26	5.75	4.37	21.35	587.60	0.51	0.002433
	0.87361	23.36							
	182.00	10885.97							
134.12	182.00	4392.91	2.26	5.75	4.37	21.31	585.67	0.51	0.002432
	0.87269	23.32							
	183.00	10870.05							
133.87	183.00	4392.90	2.25	5.75	4.36	21.27	583.64	0.51	0.002430
	0.87203	23.28							
	184.00	10850.19							
133.62	184.00	4392.90	2.25	5.75	4.35	21.23	581.63	0.51	0.002428
	0.87135	23.23							
	185.00	10827.36							
133.42	185.00	4392.90	2.25	5.75	4.34	21.19	579.69	0.51	0.002428
	0.87169	23.18							
	186.00	10805.75							
133.19	186.00	4392.89	2.24	5.76	4.34	21.15	577.64	0.51	0.002426
	0.87131	23.14							
	187.00	10785.19							
132.92	187.00	4392.89	2.24	5.75	4.33	21.11	575.65	0.51	0.002424
	0.87063	23.10							
	188.00	10765.00							
132.65	188.00	4392.89	2.24	5.75	4.32	21.07	573.63	0.51	0.002424
	0.87000	23.06							
	189.00	10746.83							
132.37	189.00	4392.88	2.23	5.75	4.32	21.04	571.64	0.51	0.002423
	0.86955	23.02							
	190.00	10729.27							
132.08	190.00	4392.88	2.23	5.75	4.31	21.00	569.64	0.51	0.002422
	0.86846	22.98							
	191.00	10712.11							
131.78	191.00	4392.88	2.23	5.74	4.31	20.97	567.62	0.51	0.002421
	0.86754	22.95							
	192.00	10694.83							
131.48	192.00	4392.87	2.22	5.74	4.30	20.94	565.64	0.51	0.002420
	0.86650	22.91							
		10678.39							

HYCHAN.OUT									
131.16	193.00	4392.87	2.22	5.73	4.30	20.91	563.64	9.42	0.002419
	0.86512	22.88							
		10664.29							
130.81	194.00	4392.87	2.22	5.72	4.29	20.89	561.61	9.42	0.002420
	0.86426	22.85							
		10652.12							
130.46	195.00	4392.87	2.22	5.72	4.29	20.86	559.66	9.42	0.002420
	0.86303	22.83							
		10639.24							
130.11	196.00	4392.86	2.21	5.71	4.29	20.83	557.66	9.41	0.002420
	0.86185	22.80							
		10624.48							
129.80	197.00	4392.86	2.21	5.70	4.28	20.80	555.63	9.41	0.002419
	0.86085	22.76							
		10608.92							
129.50	198.00	4392.86	2.21	5.70	4.28	20.77	553.62	9.41	0.002418
	0.85949	22.73							
		10593.70							
129.18	199.00	4392.85	2.20	5.69	4.27	20.74	551.66	9.41	0.002416
	0.85815	22.69							
		10577.45							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3836

MAXIMUM DISCHARGE (CFS) = 2121.07 AT TIME = 86.58  
 MAXIMUM STAGE = 4396.71 AT TIME = 91.83

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4389.50	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4389.50	0.00	0.00	0.00	0.000000

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HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4389.50	0.00	0.00	0.00	0.000000



HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4389.50	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4389.50	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4389.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4389.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4389.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4389.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4389.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4389.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4389.51	0.01	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4389.53	0.03	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
51.18	60.00	4389.69	0.19	-0.03	-1.76	0.01	0.000592
	0.06214	30.44	1.68	32.55	171.93		
79.73	61.00	4390.02	0.52	-0.04	-2.90	0.01	0.000403
	0.04429	45.32	1.76	46.29	88.63		
75.39	62.00	4390.26	0.76	-0.02	-1.80	0.00	0.000296
	0.02645	52.60	1.43	52.82	69.14		
86.31	63.00	4390.40	0.90	-0.01	-1.06	0.00	0.000218
	0.02101	55.99	1.54	55.82	62.31		
104.58	64.00	4390.52	1.02	-0.02	-2.36	0.00	0.000158
	0.01748	58.96	1.77	58.43	57.17		
122.30	65.00	4390.81	1.31	0.72	87.96	0.11	0.000756
	0.08886	64.93	1.88	63.64	48.69		
158.56	66.00	4391.09	1.59	1.23	194.40	0.17	0.000810
	0.11442	70.08	2.26	68.09	42.87		
190.19	67.00	4391.29	1.79	1.36	258.87	0.18	0.000779
	0.12581	73.47	2.59	70.99	39.63		
225.60	68.00	4391.50	2.00	1.52	344.02	0.19	0.000778
	0.14258	76.78	2.94	73.82	36.82		
260.52	69.00	4391.70	2.20	1.66	433.05	0.20	0.000811
	0.16555	79.65	3.27	76.25	34.64		
301.77	70.00	4391.93	2.43	1.91	577.58	0.22	0.000811
	0.18457	82.74	3.65	78.87	32.51		
334.59	71.00	4392.10	2.60	1.97	657.97	0.22	0.000765
	0.18793	84.98	3.94	80.75	31.10		
72.00		4392.30	2.80	1.96	737.11	0.21	

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		HYCHAN.OUT					
375.18	87.51	4.29	82.88	29.61	0.000706		
0.18886	42270.84						
73.00	4392.47	2.97	1.86	797.32	0.19		
428.53	89.58	4.78	84.61	28.48	0.000704		
0.21017	43152.14						
74.00	4392.61	3.11	1.62	832.42	0.16		
512.46	91.24	5.62	86.00	27.62	0.000512		
0.17960	43859.91						
75.00	4392.75	3.25	1.54	841.20	0.15		
545.45	92.75	5.88	87.26	26.88	0.000521		
0.19136	44500.84						
76.00	4392.89	3.39	1.46	852.54	0.14		
582.38	94.36	6.17	88.60	26.12	0.000380		
0.14626	45183.52						
77.00	4393.07	3.57	1.36	849.59	0.13		
624.63	96.26	6.49	90.18	25.26	0.000353		
0.14309	45991.77						
78.00	4393.24	3.74	1.29	860.12	0.12		
668.50	98.01	6.82	91.62	24.52	0.000275		
0.11702	46726.91						
79.00	4393.41	3.91	1.21	864.78	0.11		
712.60	99.77	7.14	93.08	23.80	0.000198		
0.08814	47468.95						
80.00	4393.58	4.08	1.15	866.12	0.10		
755.77	101.45	7.45	94.47	23.15	0.000224		
0.10396	48177.97						
81.00	4393.79	4.29	1.08	875.85	0.09		
807.46	103.43	7.81	96.10	22.42	0.000019		
0.00949	49008.92						
82.00	4394.05	4.55	0.99	872.64	0.08		
879.00	105.83	8.31	98.07	21.57	0.000000		
0.00000	50016.31						
83.00	4394.29	4.79	0.94	893.88	0.08		
953.78	108.07	8.83	99.90	20.84	0.000000		
0.00000	50948.71						
84.00	4394.53	5.03	0.86	877.34	0.07		
1019.56	110.08	9.26	101.55	20.21	0.000000		
0.00000	51789.35						
85.00	4394.87	5.37	0.77	864.51	0.06		
1119.75	112.97	9.91	103.90	19.35	0.000074		
0.04571	52990.80						
86.00	4395.19	5.69	0.77	934.71	0.06		
1215.40	115.61	10.51	106.05	18.62	0.000000		
0.00000	54084.26						
87.00	4395.49	5.99	0.74	967.93	0.05		
1307.88	117.89	11.09	107.90	18.03	0.000073		
0.05071	55028.29						
88.00	4395.76	6.26	0.71	993.89	0.05		
1394.99	120.00	11.62	109.61	17.50	0.000000		
0.00000	55899.84						
89.00	4396.02	6.52	0.67	983.09	0.05		
1457.67	121.90	11.96	111.14	17.05	0.000046		
0.03431	56681.71						
90.00	4396.23	6.73	0.65	993.93	0.04		
1536.71	123.41	12.45	112.36	16.70	0.000057		
0.04448	57303.82						
91.00	4396.35	6.85	0.63	991.98	0.04		
1579.24	124.28	12.71	113.06	16.51	0.000097		
0.07671	57661.96						
92.00	4396.41	6.91	0.63	1003.09	0.04		
1597.50	124.69	12.81	113.39	16.42	0.000000		
0.00000	57828.59						
93.00	4396.39	6.89	0.62	995.57	0.04		

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1593.07		124.59		12.79	113.31	16.44	0.000028
	0.02195	57788.69					
	94.00	4396.32	6.82	0.61	962.30	0.04	
1569.12		124.10		12.64	112.92	16.55	0.000010
	0.00785	57586.96					
	95.00	4396.17	6.67	0.63	953.68	0.04	
1519.60		123.03		12.35	112.05	16.79	0.000047
	0.03633	57145.96					
	96.00	4396.02	6.52	0.65	937.62	0.04	
1453.58		121.88		11.93	111.12	17.05	0.000000
	0.00000	56673.04					
	97.00	4395.80	6.30	0.64	903.21	0.05	
1408.22		120.31		11.71	109.86	17.43	0.000063
	0.04585	56026.29					
	98.00	4395.60	6.10	0.66	880.91	0.05	
1344.48		118.80		11.32	108.64	17.80	0.000041
	0.02880	55405.55					
	99.00	4395.41	5.91	0.66	841.71	0.05	
1278.51		117.31		10.90	107.43	18.17	0.000000
	0.00000	54787.71					
	100.00	4395.19	5.69	0.69	831.81	0.05	
1211.86		115.55		10.49	106.00	18.64	0.000000
	0.00000	54061.28					
	101.00	4394.78	5.28	0.76	826.07	0.06	
1087.12		112.24		9.69	103.31	19.56	0.000098
	0.05947	52688.28					
	102.00	4394.43	4.93	0.84	827.14	0.07	
987.94		109.25		9.04	100.87	20.46	0.000000
	0.00000	51444.14					
	103.00	4394.23	4.73	0.87	809.50	0.07	
935.38		107.53		8.70	99.46	21.01	0.000083
	0.04485	50725.79					
	104.00	4394.11	4.61	0.91	823.10	0.08	
899.94		106.45		8.45	98.58	21.37	0.000027
	0.01403	50274.98					
	105.00	4394.04	4.54	0.94	827.16	0.08	
880.60		105.81		8.32	98.05	21.58	0.000000
	0.00000	50006.80					
	106.00	4393.97	4.47	0.97	830.96	0.08	
861.08		105.12		8.19	97.49	21.82	0.000234
	0.11937	49718.70					
	107.00	4393.90	4.40	1.01	843.95	0.08	
839.43		104.48		8.03	96.96	22.04	0.000081
	0.04071	49448.09					
	108.00	4393.79	4.29	1.04	839.71	0.09	
808.78		103.47		7.82	96.13	22.40	0.000281
	0.13700	49024.91					
	109.00	4393.63	4.13	1.11	852.77	0.10	
766.63		101.92		7.52	94.85	22.97	0.000159
	0.07449	48375.48					
	110.00	4393.48	3.98	1.18	859.20	0.10	
730.88		100.51		7.27	93.69	23.51	0.000240
	0.10887	47780.88					
	111.00	4393.35	3.85	1.25	867.80	0.11	
692.16		99.12		6.98	92.54	24.06	0.000273
	0.11910	47196.06					
	112.00	4393.20	3.70	1.30	859.65	0.12	
660.29		97.61		6.76	91.29	24.69	0.000352
	0.14865	46560.20					
	113.00	4393.06	3.56	1.37	856.74	0.13	
623.14		96.15		6.48	90.09	25.31	0.000389
	0.15724	45943.75					
	114.00	4392.92	3.42	1.45	853.43	0.14	

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587.89	94.63	6.21	88.82	25.99	0.000441	
0.17076	45299.93					
115.00	4392.77	3.27	1.55	849.39	0.15	
546.28	92.98	5.88	87.45	26.77	0.000591	
0.21659	44598.11					
116.00	4392.58	3.08	1.67	844.23	0.17	
505.13	90.85	5.56	85.68	27.82	0.000590	
0.20464	43695.70					
117.00	4392.46	2.96	1.75	829.45	0.18	
474.56	89.43	5.31	84.49	28.56	0.000791	
0.26184	43087.59					
118.00	4392.37	2.87	1.82	823.13	0.19	
451.34	88.33	5.11	83.57	29.16	0.000814	
0.25960	42620.12					
119.00	4392.30	2.80	1.88	815.86	0.20	
432.89	87.47	4.95	82.85	29.63	0.000774	
0.23915	42252.94					
120.00	4392.28	2.78	2.15	798.97	0.23	
371.37	87.28	4.25	82.69	29.74	0.000811	
0.21537	42171.17					
121.00	4392.22	2.72	2.19	787.32	0.23	
359.53	86.56	4.15	82.08	30.16	0.000841	
0.21788	41862.21					
122.00	4392.17	2.67	2.23	779.82	0.24	
349.51	85.93	4.07	81.56	30.52	0.000870	
0.22074	41594.28					
123.00	4392.13	2.63	2.27	774.82	0.25	
341.06	85.40	3.99	81.11	30.84	0.000899	
0.22402	41363.63					
124.00	4392.09	2.59	2.31	769.96	0.25	
332.95	84.87	3.92	80.66	31.16	0.000930	
0.22774	41137.93					
125.00	4392.05	2.55	2.35	765.10	0.26	
324.92	84.34	3.85	80.22	31.49	0.000955	
0.22956	40910.25					
126.00	4392.01	2.51	2.40	759.78	0.27	
317.00	83.81	3.78	79.77	31.82	0.000979	
0.23099	40681.92					
127.00	4391.97	2.47	2.43	754.91	0.27	
310.25	83.34	3.72	79.38	32.12	0.001008	
0.23417	40483.07					
128.00	4391.94	2.43	2.47	749.82	0.28	
303.30	82.86	3.66	78.97	32.43	0.001036	
0.23654	40275.24					
129.00	4391.90	2.40	2.51	744.84	0.29	
296.71	82.40	3.60	78.58	32.74	0.001062	
0.23871	40074.70					
130.00	4391.87	2.37	2.55	739.57	0.29	
290.28	81.93	3.54	78.19	33.05	0.001091	
0.24126	39875.96					
131.00	4391.83	2.33	2.58	734.50	0.30	
284.39	81.50	3.49	77.82	33.34	0.001125	
0.24495	39690.63					
132.00	4391.80	2.30	2.62	729.42	0.30	
278.68	81.08	3.44	77.47	33.63	0.001155	
0.24780	39507.88					
133.00	4391.78	2.28	2.65	724.39	0.31	
273.43	80.69	3.39	77.13	33.90	0.001190	
0.25166	39337.81					
134.00	4391.75	2.25	2.68	719.33	0.31	
268.81	80.33	3.35	76.83	34.15	0.001211	
0.25295	39185.77					
135.00	4391.73	2.23	2.70	714.22	0.32	

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		HYCHAN.OUT					
264.96	80.04	3.31	76.58	34.36	0.001232		
0.25442	39057.38						
136.00	4391.71	2.21	2.71	709.25	0.32		
261.38	79.76	3.28	76.35	34.56	0.001251		
0.25576	38936.82						
137.00	4391.69	2.19	2.73	704.21	0.33		
258.07	79.50	3.25	76.13	34.75	0.001269		
0.25715	38824.11						
138.00	4391.67	2.17	2.74	699.21	0.33		
255.04	79.26	3.22	75.92	34.93	0.001283		
0.25752	38720.12						
139.00	4391.66	2.16	2.75	694.18	0.33		
252.10	79.02	3.19	75.72	35.10	0.001296		
0.25809	38618.31						
140.00	4391.64	2.14	2.76	689.07	0.33		
249.48	78.81	3.17	75.54	35.26	0.001299		
0.25656	38526.91						
141.00	4391.64	2.14	2.76	684.82	0.33		
248.39	78.72	3.16	75.47	35.32	0.001307		
0.25725	38488.49						
142.00	4391.62	2.12	2.77	681.08	0.33		
246.29	78.55	3.14	75.32	35.45	0.001317		
0.25761	38414.27						
143.00	4391.61	2.11	2.77	672.39	0.34		
243.01	78.28	3.10	75.09	35.66	0.001329		
0.25736	38297.36						
144.00	4391.59	2.09	2.77	664.47	0.34		
239.92	78.02	3.07	74.87	35.85	0.001340		
0.25715	38186.04						
145.00	4391.57	2.07	2.78	659.34	0.34		
237.51	77.82	3.05	74.70	36.01	0.001351		
0.25725	38098.74						
146.00	4391.56	2.06	2.78	654.28	0.34		
235.15	77.62	3.03	74.53	36.16	0.001361		
0.25732	38012.35						
147.00	4391.55	2.05	2.79	649.37	0.34		
232.86	77.43	3.01	74.37	36.31	0.001372		
0.25747	37927.74						
148.00	4391.53	2.03	2.80	644.35	0.35		
230.52	77.23	2.99	74.20	36.47	0.001383		
0.25757	37840.90						
149.00	4391.52	2.02	2.80	639.24	0.35		
228.27	77.03	2.96	74.03	36.62	0.001393		
0.25754	37756.45						
150.00	4391.51	2.01	2.81	634.37	0.35		
226.08	76.84	2.94	73.87	36.77	0.001403		
0.25767	37673.93						
151.00	4391.50	2.00	2.81	629.26	0.35		
223.98	76.66	2.92	73.71	36.92	0.001412		
0.25747	37594.12						
152.00	4391.49	1.99	2.81	624.78	0.35		
222.09	76.49	2.90	73.57	37.05	0.001420		
0.25736	37521.76						
153.00	4391.48	1.98	2.82	622.02	0.35		
220.52	76.35	2.89	73.45	37.17	0.001429		
0.25757	37461.59						
154.00	4391.47	1.97	2.83	620.92	0.36		
219.37	76.25	2.88	73.37	37.25	0.001440		
0.25849	37417.09						
155.00	4391.46	1.96	2.84	620.13	0.36		
218.33	76.16	2.87	73.29	37.33	0.001449		
0.25918	37376.38						
156.00	4391.46	1.96	2.85	620.09	0.36		

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		HYCHAN.OUT					
217.50	76.08	2.86	73.22	37.39	0.001457		
0.25992	37344.23						
157.00	4391.45	1.95	2.86	620.04	0.36		
216.77	76.02	2.85	73.17	37.44	0.001465		
0.26065	37315.62						
158.00	4391.45	1.95	2.87	620.03	0.36		
216.16	75.96	2.85	73.12	37.49	0.001469		
0.26084	37291.91						
159.00	4391.45	1.95	2.87	620.03	0.36		
215.92	75.94	2.84	73.10	37.50	0.001470		
0.26089	37282.31						
160.00	4391.45	1.95	2.87	620.06	0.36		
215.72	75.92	2.84	73.09	37.52	0.001473		
0.26118	37274.49						
161.00	4391.45	1.95	2.88	620.02	0.36		
215.53	75.90	2.84	73.07	37.53	0.001475		
0.26141	37267.22						
162.00	4391.45	1.95	2.88	620.01	0.36		
215.37	75.89	2.84	73.06	37.54	0.001477		
0.26161	37260.73						
163.00	4391.44	1.94	2.88	620.04	0.36		
215.19	75.87	2.84	73.05	37.56	0.001480		
0.26194	37253.78						
164.00	4391.44	1.94	2.88	619.98	0.36		
215.01	75.86	2.83	73.03	37.57	0.001482		
0.26209	37246.58						
165.00	4391.44	1.94	2.89	619.99	0.36		
214.86	75.84	2.83	73.02	37.58	0.001483		
0.26215	37240.96						
166.00	4391.44	1.94	2.89	620.01	0.37		
214.73	75.83	2.83	73.01	37.59	0.001485		
0.26235	37235.51						
167.00	4391.44	1.94	2.89	619.81	0.37		
214.44	75.81	2.83	72.99	37.61	0.001489		
0.26276	37224.14						
168.00	4391.44	1.94	2.89	618.45	0.37		
213.82	75.75	2.82	72.94	37.66	0.001490		
0.26246	37199.70						
169.00	4391.43	1.93	2.89	615.48	0.37		
212.88	75.66	2.81	72.87	37.73	0.001494		
0.26222	37162.60						
170.00	4391.43	1.93	2.89	612.79	0.37		
212.04	75.59	2.81	72.80	37.80	0.001494		
0.26158	37129.03						
171.00	4391.42	1.92	2.89	610.47	0.37		
211.33	75.52	2.80	72.75	37.85	0.001496		
0.26128	37100.62						
172.00	4391.42	1.92	2.89	607.74	0.37		
210.55	75.45	2.79	72.69	37.91	0.001499		
0.26101	37069.43						
173.00	4391.41	1.91	2.89	605.44	0.37		
209.85	75.39	2.78	72.63	37.96	0.001500		
0.26050	37041.48						
174.00	4391.41	1.91	2.88	602.80	0.37		
209.13	75.32	2.78	72.57	38.02	0.001501		
0.26012	37012.44						
175.00	4391.40	1.90	2.88	600.49	0.37		
208.36	75.25	2.77	72.51	38.08	0.001504		
0.25983	36981.55						
176.00	4391.40	1.90	2.88	597.76	0.37		
207.41	75.16	2.76	72.44	38.15	0.001508		
0.25974	36943.34						
177.00	4391.39	1.89	2.88	595.73	0.37		

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		HYCHAN.OUT					
206.66	75.09	2.75	72.38	38.21	0.001511		
0.25945	36912.91						
178.00	4391.39	1.89	2.88	593.68	0.37		
205.95	75.02	2.75	72.32	38.27	0.001513		
0.25912	36883.99						
179.00	4391.39	1.89	2.88	591.71	0.37		
205.31	74.96	2.74	72.27	38.32	0.001515		
0.25897	36857.75						
180.00	4391.38	1.88	2.88	589.71	0.37		
204.66	74.90	2.73	72.22	38.37	0.001516		
0.25854	36831.26						
181.00	4391.38	1.88	2.88	587.66	0.37		
204.06	74.85	2.73	72.17	38.42	0.001519		
0.25844	36806.83						
182.00	4391.38	1.88	2.88	585.69	0.37		
203.64	74.81	2.72	72.14	38.46	0.001516		
0.25751	36789.34						
183.00	4391.38	1.87	2.87	583.65	0.37		
203.47	74.79	2.72	72.12	38.47	0.001511		
0.25659	36782.54						
184.00	4391.37	1.87	2.86	581.64	0.37		
203.36	74.78	2.72	72.11	38.48	0.001506		
0.25553	36778.15						
185.00	4391.37	1.87	2.85	579.70	0.37		
203.37	74.78	2.72	72.11	38.48	0.001501		
0.25470	36778.41						
186.00	4391.37	1.87	2.84	577.65	0.37		
203.26	74.77	2.72	72.11	38.49	0.001497		
0.25401	36774.06						
187.00	4391.37	1.87	2.84	575.69	0.37		
203.03	74.75	2.72	72.09	38.50	0.001494		
0.25321	36764.29						
188.00	4391.37	1.87	2.83	573.66	0.36		
202.73	74.72	2.71	72.06	38.53	0.001493		
0.25278	36751.94						
189.00	4391.37	1.87	2.82	571.68	0.36		
202.37	74.69	2.71	72.03	38.56	0.001492		
0.25219	36737.09						
190.00	4391.37	1.87	2.82	569.69	0.36		
201.98	74.65	2.71	72.00	38.59	0.001490		
0.25160	36721.12						
191.00	4391.36	1.86	2.82	567.67	0.36		
201.56	74.61	2.70	71.97	38.62	0.001490		
0.25112	36703.83						
192.00	4391.36	1.86	2.81	565.70	0.36		
201.10	74.57	2.70	71.93	38.66	0.001490		
0.25069	36684.76						
193.00	4391.36	1.86	2.81	563.71	0.36		
200.51	74.51	2.69	71.88	38.71	0.001492		
0.25058	36660.13						
194.00	4391.35	1.85	2.81	561.69	0.36		
199.78	74.44	2.68	71.82	38.77	0.001496		
0.25059	36629.79						
195.00	4391.35	1.85	2.81	559.74	0.36		
199.07	74.37	2.68	71.76	38.83	0.001498		
0.25017	36599.96						
196.00	4391.34	1.84	2.81	557.71	0.36		
198.40	74.31	2.67	71.71	38.89	0.001500		
0.24984	36572.29						
197.00	4391.34	1.84	2.81	555.70	0.36		
197.89	74.26	2.66	71.67	38.93	0.001499		
0.24929	36550.86						
198.00	4391.34	1.84	2.81	553.67	0.36		

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197.38		74.21		HYCHAN.OUT		71.63		38.97		0.001501
	0.24909	36529.19		2.66						
199.00		4391.33		1.83		2.80		551.73		0.36
196.85		74.16		2.65		71.58		39.02		0.001499
	0.24832	36507.04								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3837

MAXIMUM DISCHARGE (CFS) = 2410.17 AT TIME = 95.08  
 MAXIMUM STAGE = 4396.73 AT TIME = 91.58

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	3.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	4.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	5.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	6.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	7.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	8.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	9.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	10.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	11.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	12.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	13.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	14.00	4388.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4388.40	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

		HYCHAN.OUT					
	0.00000	0.00					
41.45	57.00	4388.54	0.14	-0.05	-2.13	0.02	
		27.18	1.52	29.44	207.64		0.000000
	0.00000	15310.56					
77.01	58.00	4388.92	0.52	-0.08	-5.79	0.02	
		45.13	1.71	46.12	89.25		0.000000
	0.00000	23980.46					
130.34	59.00	4389.33	0.93	-0.06	-7.65	0.01	
		56.79	2.30	56.52	60.86		0.000016
	0.00231	29390.71					
191.64	60.00	4389.69	1.29	-0.05	-9.60	0.01	
		64.57	2.97	63.33	49.13		0.000000
	0.00000	32930.44					
246.32	61.00	4390.02	1.62	-0.05	-11.37	0.01	
		70.67	3.49	68.60	42.27		0.000000
	0.00000	35669.90					
235.52	62.00	4390.26	1.86	-0.03	-6.61	0.00	
		74.62	3.16	71.98	38.62		0.000000
	0.00000	37428.11					
257.06	63.00	4390.40	2.00	-0.02	-4.61	0.00	
		76.66	3.35	73.71	36.92		0.000000
	0.00000	38330.32					
289.42	64.00	4390.52	2.12	-0.03	-7.34	0.00	
		78.51	3.69	75.29	35.48		0.000000
	0.00000	39149.56					
286.83	65.00	4390.74	2.34	0.28	79.50	0.03	
		81.62	3.51	77.93	33.25		0.000083
	0.01811	40521.68					
337.10	66.00	4390.98	2.58	0.56	188.21	0.06	
		84.70	3.98	80.52	31.27		0.000089
	0.02204	41869.58					
392.99	67.00	4391.19	2.79	0.63	249.19	0.07	
		87.38	4.50	82.77	29.69		0.000115
	0.03235	43040.75					
436.97	68.00	4391.41	3.01	0.77	337.01	0.08	
		90.01	4.85	84.97	28.26		0.000120
	0.03624	44184.82					
497.59	69.00	4391.61	3.21	0.85	423.93	0.08	
		92.37	5.39	86.94	27.07		0.000107
	0.03604	45208.33					
554.86	70.00	4391.84	3.44	1.03	569.71	0.10	
		94.84	5.85	89.00	25.90		0.000098
	0.03569	46277.80					
611.43	71.00	4392.03	3.63	1.06	648.78	0.10	
		96.88	6.31	90.69	25.00		0.000093
	0.03647	47156.78					
683.42	72.00	4392.26	3.86	1.06	727.12	0.10	
		99.25	6.89	92.65	24.01		0.000067
	0.02887	48177.92					
772.70	73.00	4392.47	4.07	1.03	794.01	0.09	
		101.30	7.63	94.34	23.21		0.000071
	0.03367	49057.74					
907.54	74.00	4392.64	4.24	0.90	813.39	0.08	
		103.01	8.81	95.75	22.57		0.000000
	0.00000	49792.30					
961.37	75.00	4392.78	4.38	0.87	839.83	0.07	
		104.33	9.21	96.84	22.09		0.000040
	0.02288	50356.61					
1020.24	76.00	4392.94	4.54	0.82	839.00	0.07	
		105.76	9.65	98.01	21.60		0.000000
	0.00000	50966.51					
1094.36	77.00	4393.11	4.71	0.77	844.16	0.06	
		107.35	10.19	99.31	21.07		0.000000

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				HYCHAN.OUT			
	0.00000	51642.88					
1163.22	78.00	4393.29	4.89	0.73	851.58	0.06	0.000000
		108.88	10.68		100.57	20.58	
	0.00000	52295.65					
1240.95	79.00	4393.45	5.05	0.69	853.24	0.05	0.000000
		110.33	11.25		101.75	20.13	
	0.00000	52910.93					
1306.27	80.00	4393.63	5.23	0.66	866.73	0.05	0.000000
		111.79	11.68		102.94	19.69	
	0.00000	53530.68					
1393.86	81.00	4393.82	5.42	0.61	855.02	0.05	0.000000
		113.39	12.29		104.25	19.23	
	0.00000	54207.75					
1490.32	82.00	4394.05	5.65	0.58	862.62	0.04	0.000123
		115.27	12.93		105.77	18.71	
	0.09920	55000.10					
1587.24	83.00	4394.30	5.90	0.55	873.50	0.04	0.000000
		117.22	13.54		107.35	18.20	
	0.00000	55823.58					
1675.51	84.00	4394.52	6.12	0.51	860.38	0.04	0.000000
		118.90	14.09		108.72	17.77	
	0.00000	56533.31					
1820.04	85.00	4394.86	6.46	0.48	869.55	0.03	0.000177
		121.47	14.98		110.80	17.15	
	0.16535	57614.41					
1952.36	86.00	4395.18	6.78	0.46	906.46	0.03	0.000144
		123.79	15.77		112.66	16.62	
	0.14153	58584.05					
2074.83	87.00	4395.48	7.08	0.46	959.75	0.03	0.000126
		125.92	16.48		114.38	16.15	
	0.12910	59476.20					
2173.69	88.00	4395.75	7.35	0.44	960.53	0.03	0.000026
		127.78	17.01		115.87	15.76	
	0.02753	60254.52					
2269.29	89.00	4396.02	7.62	0.44	994.08	0.03	0.000013
		129.40	17.54		117.32	15.40	
	0.01371	61006.14					
2313.92	90.00	4396.23	7.83	0.45	1034.09	0.03	0.000000
		129.82	17.82		118.42	15.13	
	0.00000	61579.14					
2343.11	91.00	4396.34	7.94	0.45	1060.92	0.03	0.000160
		130.05	18.02		119.03	14.99	
	0.17992	61893.02					
2352.80	92.00	4396.39	7.99	0.46	1073.98	0.03	0.000040
		130.15	18.08		119.30	14.92	
	0.04471	62034.22					
2353.01	93.00	4396.39	7.99	0.46	1071.52	0.03	0.000000
		130.14	18.08		119.26	14.93	
	0.00000	62016.47					
2332.11	94.00	4396.31	7.91	0.45	1040.71	0.03	0.000124
		129.99	17.94		118.87	15.02	
	0.13894	61813.53					
2301.04	95.00	4396.17	7.77	0.44	1006.60	0.03	0.000075
		129.70	17.74		118.12	15.20	
	0.08249	61423.01					
2267.40	96.00	4396.01	7.61	0.42	963.06	0.03	0.000000
		129.39	17.52		117.29	15.40	
	0.00000	60993.31					
2185.53	97.00	4395.80	7.40	0.43	931.71	0.03	0.000000
		128.13	17.06		116.15	15.69	
	0.00000	60398.84					
2112.30	98.00	4395.60	7.20	0.42	890.28	0.03	0.000000
		126.72	16.67		115.02	15.98	

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		HYCHAN.OUT					
	0.00000	59812.82					
2043.76	99.00	4395.40	7.00	0.42	849.36	0.03	
		125.32	16.31		113.90	16.28	0.000043
	0.04420	59225.43					
1950.62	100.00	4395.18	6.78	0.43	842.34	0.03	
		123.79	15.76		112.67	16.62	0.000000
	0.00000	58587.16					
1778.50	101.00	4394.78	6.38	0.49	868.04	0.03	
		120.84	14.72		110.28	17.30	0.000000
	0.00000	57347.93					
1640.26	102.00	4394.42	6.02	0.50	825.40	0.04	
		118.15	13.88		108.11	17.96	0.000000
	0.00000	56215.37					
1560.15	103.00	4394.23	5.83	0.53	828.70	0.04	
		116.71	13.37		106.95	18.33	0.000000
	0.00000	55611.41					
1516.17	104.00	4394.11	5.71	0.54	822.63	0.04	
		115.74	13.10		106.15	18.59	0.000000
	0.00000	55199.80					
1485.70	105.00	4394.04	5.64	0.56	826.26	0.04	
		115.15	12.90		105.68	18.75	0.000000
	0.00000	54951.83					
1460.73	106.00	4393.98	5.58	0.59	855.72	0.04	
		114.67	12.74		105.28	18.88	0.000000
	0.00000	54747.33					
1430.73	107.00	4393.90	5.50	0.59	842.64	0.04	
		114.07	12.54		104.80	19.04	0.000134
	0.10499	54494.39					
1394.13	108.00	4393.81	5.41	0.61	851.02	0.05	
		113.31	12.30		104.18	19.26	0.000039
	0.02961	54172.74					
1324.72	109.00	4393.67	5.27	0.64	844.99	0.05	
		112.14	11.81		103.23	19.59	0.000000
	0.00000	53679.49					
1266.16	110.00	4393.53	5.13	0.69	869.75	0.05	
		110.96	11.41		102.26	19.94	0.000000
	0.00000	53177.53					
1215.01	111.00	4393.39	4.99	0.72	871.26	0.06	
		109.75	11.07		101.28	20.31	0.000000
	0.00000	52664.70					
1153.89	112.00	4393.25	4.85	0.76	871.79	0.06	
		108.55	10.63		100.29	20.68	0.000000
	0.00000	52153.27					
1096.44	113.00	4393.10	4.70	0.78	859.84	0.06	
		107.26	10.22		99.24	21.10	0.000000
	0.00000	51602.96					
1029.29	114.00	4392.96	4.56	0.84	861.40	0.07	
		105.98	9.71		98.19	21.53	0.000000
	0.00000	51058.85					
966.45	115.00	4392.80	4.40	0.90	865.35	0.08	
		104.45	9.25		96.93	22.05	0.000027
	0.01543	50404.91					
892.30	116.00	4392.61	4.21	0.96	855.70	0.08	
		102.66	8.69		95.46	22.70	0.000000
	0.00000	49640.18					
839.64	117.00	4392.47	4.07	1.02	853.83	0.09	
		101.35	8.28		94.39	23.19	0.000075
	0.03856	49080.32					
801.95	118.00	4392.37	3.97	1.03	829.56	0.09	
		100.36	7.99		93.57	23.57	0.000115
	0.05741	48654.66					
767.79	119.00	4392.29	3.89	1.07	817.86	0.10	
		99.58	7.71		92.93	23.88	0.000117

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		HYCHAN.OUT						
	0.05615	48321.93						
120.00	4392.21	3.81	1.20	803.55	0.11			
669.47	98.80	6.78		92.28	24.19	0.000126		
	0.05347	47986.34						
121.00	4392.14	3.74	1.22	790.49	0.11			
646.74	98.07	6.60		91.67	24.50	0.000150		
	0.06155	47669.26						
122.00	4392.08	3.68	1.25	782.48	0.11			
626.70	97.40	6.43		91.12	24.78	0.000161		
	0.06475	47381.52						
123.00	4392.02	3.62	1.28	777.18	0.12			
609.34	96.80	6.29		90.63	25.03	0.000156		
	0.06110	47126.19						
124.00	4391.96	3.56	1.30	772.93	0.12			
592.38	96.21	6.16		90.14	25.29	0.000175		
	0.06734	46870.51						
125.00	4391.91	3.51	1.33	767.04	0.13			
575.20	95.60	6.02		89.63	25.56	0.000187		
	0.07015	46605.72						
126.00	4391.85	3.45	1.37	761.97	0.13			
558.08	94.97	5.88		89.11	25.84	0.000214		
	0.07833	46334.86						
127.00	4391.80	3.40	1.39	757.45	0.13			
543.12	94.41	5.75		88.64	26.10	0.000232		
	0.08333	46092.47						
128.00	4391.74	3.34	1.43	752.07	0.14			
527.50	93.81	5.62		88.14	26.37	0.000249		
	0.08722	45833.54						
129.00	4391.69	3.29	1.46	747.02	0.14			
512.39	93.22	5.50		87.65	26.65	0.000269		
	0.09226	45577.00						
130.00	4391.63	3.23	1.49	741.47	0.15			
497.55	92.62	5.37		87.15	26.94	0.000290		
	0.09737	45318.76						
131.00	4391.58	3.18	1.52	736.45	0.15			
483.79	92.06	5.26		86.68	27.22	0.000298		
	0.09774	45073.57						
132.00	4391.53	3.13	1.56	731.30	0.15			
470.25	91.49	5.14		86.21	27.50	0.000328		
	0.10531	44826.62						
133.00	4391.49	3.09	1.59	726.40	0.16			
457.63	90.94	5.03		85.75	27.77	0.000346		
	0.10863	44591.10						
134.00	4391.45	3.05	1.61	720.70	0.16			
446.51	90.45	4.94		85.34	28.02	0.000358		
	0.11035	44379.02						
135.00	4391.41	3.01	1.64	715.47	0.17			
437.33	90.04	4.86		85.00	28.24	0.000372		
	0.11275	44200.68						
136.00	4391.38	2.98	1.66	710.47	0.17			
428.75	89.65	4.78		84.68	28.44	0.000385		
	0.11497	44031.29						
137.00	4391.35	2.95	1.68	705.50	0.17			
420.84	89.29	4.71		84.37	28.64	0.000406		
	0.11950	43872.45						
138.00	4391.32	2.92	1.69	700.09	0.17			
413.69	88.95	4.65		84.09	28.82	0.000423		
	0.12271	43726.88						
139.00	4391.29	2.89	1.71	695.27	0.18			
406.71	88.62	4.59		83.81	29.00	0.000428		
	0.12255	43582.46						
140.00	4391.27	2.87	1.72	689.41	0.18			
400.68	88.33	4.54		83.57	29.15	0.000434		

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		HYCHAN.OUT						
	0.12277	43456.51						
141.00	4391.26	2.86	1.72	685.35	0.18			
398.87	88.24	4.52		83.50	29.20	0.000439		
	0.12388	43418.11						
142.00	4391.24	2.84	1.73	682.02	0.18			
393.85	88.00	4.48		83.29	29.34	0.000449		
	0.12552	43311.19						
143.00	4391.21	2.81	1.74	673.45	0.18			
386.96	87.66	4.41		83.01	29.53	0.000460		
	0.12670	43162.77						
144.00	4391.18	2.78	1.75	665.36	0.18			
380.36	87.33	4.36		82.73	29.72	0.000471		
	0.12797	43018.89						
145.00	4391.16	2.76	1.76	660.17	0.19			
374.78	87.05	4.31		82.49	29.88	0.000482		
	0.12960	42895.39						
146.00	4391.14	2.74	1.77	655.10	0.19			
369.32	86.76	4.26		82.26	30.04	0.000492		
	0.13065	42772.95						
147.00	4391.12	2.72	1.79	650.19	0.19			
363.92	86.48	4.21		82.02	30.20	0.000504		
	0.13233	42650.56						
148.00	4391.09	2.69	1.80	645.17	0.19			
358.45	86.20	4.16		81.78	30.37	0.000515		
	0.13368	42524.84						
149.00	4391.07	2.67	1.81	640.00	0.20			
353.29	85.92	4.11		81.55	30.53	0.000526		
	0.13483	42404.94						
150.00	4391.05	2.65	1.82	635.15	0.20			
348.20	85.65	4.07		81.32	30.69	0.000537		
	0.13626	42285.39						
151.00	4391.03	2.63	1.83	629.95	0.20			
343.48	85.39	4.02		81.10	30.85	0.000547		
	0.13724	42172.93						
152.00	4391.01	2.61	1.84	625.41	0.20			
339.11	85.15	3.98		80.90	30.99	0.000557		
	0.13837	42067.96						
153.00	4390.99	2.59	1.86	622.56	0.20			
335.18	84.93	3.95		80.72	31.12	0.000567		
	0.13965	41972.50						
154.00	4390.98	2.58	1.87	621.45	0.21			
331.78	84.74	3.92		80.56	31.24	0.000578		
	0.14126	41889.00						
155.00	4390.96	2.56	1.89	620.59	0.21			
328.59	84.56	3.89		80.40	31.35	0.000590		
	0.14300	41810.20						
156.00	4390.95	2.55	1.90	620.45	0.21			
325.81	84.40	3.86		80.27	31.45	0.000599		
	0.14435	41741.00						
157.00	4390.94	2.54	1.92	620.44	0.21			
323.29	84.26	3.84		80.15	31.54	0.000609		
	0.14591	41677.76						
158.00	4390.93	2.53	1.93	620.24	0.21			
321.26	84.14	3.82		80.05	31.61	0.000614		
	0.14631	41626.54						
159.00	4390.93	2.53	1.94	620.09	0.21			
320.46	84.10	3.81		80.01	31.64	0.000617		
	0.14667	41606.35						
160.00	4390.93	2.53	1.94	620.19	0.22			
319.81	84.06	3.80		79.98	31.67	0.000620		
	0.14708	41589.95						
161.00	4390.92	2.52	1.94	620.09	0.22			
319.17	84.02	3.80		79.95	31.69	0.000622		

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		HYCHAN.OUT						
	0.14743	41573.58						
318.61	162.00	4390.92	2.52	1.95	620.13	0.22		
		83.99	3.79		79.92	31.71	0.000625	
	0.14791	41559.45						
317.94	163.00	4390.92	2.52	1.95	620.13	0.22		
		83.95	3.79		79.89	31.73	0.000627	
	0.14825	41542.29						
317.37	164.00	4390.92	2.51	1.95	620.06	0.22		
		83.92	3.78		79.86	31.75	0.000630	
	0.14863	41527.81						
316.83	165.00	4390.91	2.51	1.96	620.08	0.22		
		83.89	3.78		79.83	31.77	0.000631	
	0.14879	41514.07						
316.35	166.00	4390.91	2.51	1.96	620.09	0.22		
		83.86	3.77		79.81	31.79	0.000634	
	0.14921	41501.74						
315.46	167.00	4390.91	2.51	1.97	620.00	0.22		
		83.81	3.76		79.77	31.83	0.000639	
	0.15008	41478.73						
313.90	168.00	4390.90	2.50	1.97	618.71	0.22		
		83.71	3.75		79.69	31.88	0.000642	
	0.15031	41438.76						
311.98	169.00	4390.89	2.49	1.97	615.79	0.22		
		83.60	3.73		79.59	31.96	0.000646	
	0.15046	41389.03						
310.29	170.00	4390.88	2.48	1.98	613.03	0.22		
		83.50	3.72		79.51	32.02	0.000650	
	0.15065	41345.07						
308.84	171.00	4390.88	2.48	1.98	610.68	0.22		
		83.41	3.70		79.44	32.07	0.000652	
	0.15067	41307.34						
307.33	172.00	4390.87	2.47	1.98	607.95	0.22		
		83.32	3.69		79.36	32.13	0.000656	
	0.15089	41267.81						
305.96	173.00	4390.86	2.46	1.98	605.68	0.22		
		83.24	3.68		79.29	32.19	0.000657	
	0.15075	41231.87						
304.61	174.00	4390.86	2.46	1.98	603.00	0.22		
		83.16	3.66		79.22	32.24	0.000660	
	0.15097	41196.29						
303.00	175.00	4390.85	2.45	1.98	600.79	0.22		
		83.06	3.65		79.14	32.30	0.000665	
	0.15129	41153.50						
300.97	176.00	4390.84	2.44	1.99	598.08	0.22		
		82.94	3.63		79.04	32.38	0.000671	
	0.15183	41099.52						
299.20	177.00	4390.83	2.43	1.99	595.96	0.23		
		82.83	3.61		78.95	32.45	0.000674	
	0.15197	41052.11						
297.64	178.00	4390.83	2.43	2.00	593.90	0.23		
		82.74	3.60		78.87	32.51	0.000678	
	0.15230	41010.20						
296.26	179.00	4390.82	2.42	2.00	591.93	0.23		
		82.65	3.58		78.79	32.57	0.000682	
	0.15253	40973.07						
294.94	180.00	4390.81	2.41	2.00	589.91	0.23		
		82.57	3.57		78.73	32.62	0.000684	
	0.15250	40937.11						
293.74	181.00	4390.81	2.41	2.00	587.83	0.23		
		82.50	3.56		78.66	32.67	0.000687	
	0.15257	40904.57						
293.18	182.00	4390.81	2.41	2.00	585.69	0.23		
		82.46	3.56		78.63	32.69	0.000683	

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HYCHAN.OUT									
0.15151	40889.40								
183.00	4390.81	2.41	1.99	583.54	0.23				
293.56	82.48	3.56		78.65	32.68	0.000677			
0.15025	40899.86								
184.00	4390.81	2.41	1.98	581.51	0.22				
294.27	82.53	3.57		78.69	32.65	0.000669			
0.14893	40919.24								
185.00	4390.81	2.41	1.96	579.57	0.22				
295.24	82.59	3.57		78.74	32.61	0.000662			
0.14775	40945.62								
186.00	4390.82	2.42	1.95	577.58	0.22				
295.82	82.62	3.58		78.77	32.59	0.000658			
0.14705	40961.15								
187.00	4390.82	2.42	1.94	575.69	0.22				
295.99	82.64	3.58		78.78	32.58	0.000655			
0.14635	40965.81								
188.00	4390.82	2.42	1.94	573.71	0.22				
295.86	82.63	3.58		78.77	32.58	0.000653			
0.14591	40962.34								
189.00	4390.82	2.42	1.93	571.74	0.22				
295.56	82.61	3.58		78.76	32.60	0.000651			
0.14541	40954.14								
190.00	4390.81	2.41	1.93	569.77	0.22				
295.15	82.58	3.57		78.74	32.61	0.000650			
0.14503	40942.98								
191.00	4390.81	2.41	1.93	567.76	0.22				
294.64	82.55	3.57		78.71	32.63	0.000650			
0.14480	40929.02								
192.00	4390.81	2.41	1.92	565.82	0.22				
293.98	82.51	3.56		78.68	32.66	0.000650			
0.14457	40911.25								
193.00	4390.80	2.40	1.93	563.94	0.22				
292.80	82.44	3.55		78.61	32.71	0.000655			
0.14511	40878.91								
194.00	4390.80	2.40	1.93	561.97	0.22				
291.12	82.33	3.54		78.53	32.78	0.000660			
0.14559	40833.05								
195.00	4390.79	2.39	1.93	559.97	0.22				
289.54	82.23	3.52		78.44	32.85	0.000663			
0.14572	40789.45								
196.00	4390.78	2.38	1.94	557.86	0.22				
288.22	82.15	3.51		78.37	32.90	0.000666			
0.14575	40752.98								
197.00	4390.78	2.38	1.93	555.84	0.22				
287.34	82.09	3.50		78.32	32.94	0.000667			
0.14568	40728.59								
198.00	4390.77	2.37	1.93	553.80	0.22				
286.44	82.04	3.49		78.28	32.98	0.000669			
0.14578	40703.87								
199.00	4390.77	2.37	1.93	551.87	0.22				
285.56	81.98	3.48		78.23	33.01	0.000670			
0.14566	40679.32								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3925

MAXIMUM DISCHARGE (CFS) =	2108.02	AT TIME =	90.26
MAXIMUM STAGE =	4396.54	AT TIME =	91.70

TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE AREA				
(HRS)	(FT)	(FT)	(FPS)	(CFS)		

(FT^2)	(LB/FT^2)	(FT)	(FT^2)	HYCHAN.OUT (FT)	(FT)		
0.00	0.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	20.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4387.20	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00	41.00	4387.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4387.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4387.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4387.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4387.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4387.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4387.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4387.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4387.20	0.00	-0.00	0.00	-0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4387.30	0.10	-0.01	0.00	-0.14	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
20.27	51.00	4387.44	0.24	-0.02	23.50	-0.38	0.01	0.00	0.000000
	0.00000	23.56	0.86	0.00	0.00	98.06	0.00	0.00	0.000000
29.76	52.00	4387.59	0.39	-0.02	36.49	-0.71	0.01	0.00	0.000000
	0.00000	36.59	0.81	0.00	0.00	94.08	0.00	0.00	0.000000
42.75	53.00	4387.76	0.56	-0.03	51.09	-1.19	0.01	0.00	0.000000
	0.00000	51.22	0.83	0.00	0.00	91.15	0.00	0.00	0.000000
56.61	54.00	4387.92	0.72	-0.02	64.25	-1.21	0.00	0.00	0.000000
	0.00000	64.42	0.88	0.00	0.00	89.20	0.00	0.00	0.000000
73.51	55.00	4388.06	0.86	-0.03	75.92	-1.86	0.00	0.00	0.000000
	0.00000	76.12	0.97	0.00	0.00	87.81	0.00	0.00	0.000000
97.76	56.00	4388.26	1.06	-0.03	91.31	-3.07	0.01	0.00	0.000000
	0.00000	91.54	1.07	0.00	0.00	86.30	0.00	0.00	0.000000
139.70	57.00	4388.54	1.34	-0.06	113.58	-8.03	0.01	0.00	0.000000
	0.00000	113.88	1.23	0.00	0.00	84.55	0.00	0.00	0.000000
203.80	58.00	4388.92	1.72	-0.07	142.29	-15.17	0.01	0.00	0.000000
	0.00000	142.66	1.43	0.00	0.00	82.77	0.00	0.00	0.000000
287.65	59.00	4389.33	2.13	-0.07	173.06	-18.91	0.01	0.00	0.000000
	0.00000	173.51	1.66	0.00	0.00	81.26	0.00	0.00	0.000000
379.38	60.00	4389.69	2.49	-0.06	199.60	-20.90	0.01	0.00	0.000000
	0.00000	200.12	1.90	0.00	0.00	80.18	0.00	0.00	0.000000
464.37	61.00	4390.02	2.82	-0.05	223.91	-23.75	0.01	0.00	0.000000
	0.00000	224.50	2.07	0.00	0.00	79.32	0.00	0.00	0.000000
		134348.50							



		HYCHAN.OUT					
460.73	62.00	4390.26	3.06	-0.03	-13.76	0.00	0.000000
	0.00000	241.95	1.90		241.32	78.76	
		144794.33					
489.77	63.00	4390.40	3.20	-0.02	-9.66	0.00	0.000000
	0.00000	251.52	1.95		250.87	78.47	
		150519.77					
541.78	64.00	4390.52	3.32	-0.03	-15.14	0.00	0.000000
	0.00000	260.51	2.08		259.84	78.21	
		155901.23					
559.50	65.00	4390.73	3.53	0.12	67.75	0.01	0.000016
	0.00203	275.38	2.03		274.67	77.81	
		164802.38					
694.88	66.00	4390.95	3.75	0.25	176.68	0.02	0.000000
	0.00000	291.02	2.39		290.27	77.40	
		174161.48					
775.24	67.00	4391.16	3.96	0.31	238.29	0.03	0.000012
	0.00184	305.80	2.54		305.01	77.04	
		183005.78					
855.00	68.00	4391.37	4.17	0.38	326.06	0.03	0.000019
	0.00319	320.49	2.67		319.66	76.70	
		191796.14					
938.47	69.00	4391.57	4.37	0.43	406.29	0.04	0.000058
	0.01013	334.81	2.80		333.94	76.39	
		200365.77					
1031.14	70.00	4391.79	4.59	0.54	556.39	0.04	0.000076
	0.01393	349.84	2.95		348.93	76.07	
		209358.19					
1113.76	71.00	4391.98	4.78	0.57	634.86	0.05	0.000059
	0.01122	363.40	3.06		362.45	75.80	
		217472.89					
1236.21	72.00	4392.22	5.02	0.57	710.63	0.05	0.000030
	0.00606	379.94	3.25		378.96	75.48	
		227376.16					
1335.41	73.00	4392.43	5.23	0.58	774.94	0.04	0.000000
	0.00000	394.73	3.38		393.71	75.21	
		236224.67					
1412.40	74.00	4392.62	5.42	0.57	809.00	0.04	0.000126
	0.02737	407.22	3.47		406.16	74.99	
		243697.28					
1481.80	75.00	4392.76	5.56	0.56	825.55	0.04	0.000036
	0.00807	411.11	3.60		416.27	74.82	
		249760.56					
1549.08	76.00	4392.92	5.72	0.53	815.22	0.04	0.000145
	0.03413	411.43	3.77		426.93	74.64	
		256158.39					
1628.30	77.00	4393.10	5.90	0.50	809.64	0.04	0.000059
	0.01457	411.79	3.95		439.47	74.44	
		263680.91					
1699.78	78.00	4393.28	6.08	0.47	803.24	0.03	0.000098
	0.02533	412.14	4.12		451.26	74.25	
		270757.56					
1772.42	79.00	4393.45	6.25	0.46	814.19	0.03	0.000077
	0.02069	412.49	4.30		462.91	74.08	
		277743.69					
1836.81	80.00	4393.61	6.41	0.44	805.63	0.03	0.000000
	0.00000	412.82	4.45		474.10	73.91	
		284461.81					
1921.23	81.00	4393.81	6.61	0.42	808.25	0.03	0.000123
	0.03568	413.20	4.65		487.18	73.72	
		292308.31					
2018.08	82.00	4394.04	6.84	0.41	817.68	0.03	0.000009
	0.00272	413.67	4.88		502.95	73.50	
		301768.16					

		HYCHAN.OUT					
2119.21	83.00	4394.28	7.08	0.39	826.04	0.03	
	0.06335	414.15	5.12		519.04	73.28	0.000198
		311424.56					
2210.71	84.00	4394.51	7.31	0.37	820.75	0.02	
	0.05284	414.61	5.33		534.18	73.08	0.000159
		320507.75					
2350.62	85.00	4394.85	7.65	0.36	835.26	0.02	
	0.00000	415.29	5.66		557.00	72.80	0.000000
		334201.34					
2485.73	86.00	4395.17	7.97	0.36	900.94	0.02	
	0.00000	415.93	5.98		578.25	72.54	0.000000
		346949.72					
2606.80	87.00	4395.47	8.27	0.37	971.06	0.02	
	0.00000	416.53	6.26		598.10	72.31	0.000000
		358862.78					
2726.16	88.00	4395.74	8.54	0.38	1038.76	0.02	
	0.03739	417.07	6.54		616.10	72.11	0.000092
		369657.16					
2828.46	89.00	4396.01	8.81	0.39	1114.39	0.02	
	0.00000	417.61	6.77		633.67	71.92	0.000000
		380204.41					
2910.92	90.00	4396.22	9.02	0.41	1201.61	0.02	
	0.00000	418.02	6.96		647.17	71.78	0.000000
		388302.31					
2959.58	91.00	4396.34	9.14	0.43	1270.60	0.03	
	0.00000	418.27	7.08		655.35	71.69	0.000000
		393211.16					
2976.07	92.00	4396.39	9.19	0.43	1287.13	0.03	
	0.05072	418.38	7.11		658.88	71.66	0.000114
		395326.84					
2976.65	93.00	4396.39	9.19	0.43	1286.95	0.03	
	0.00000	418.36	7.11		658.48	71.66	0.000000
		395085.09					
2943.41	94.00	4396.31	9.11	0.42	1243.18	0.02	
	0.00000	418.22	7.04		653.62	71.71	0.000000
		392172.97					
2886.94	95.00	4396.17	8.97	0.41	1184.21	0.02	
	0.00000	417.92	6.91		643.90	71.81	0.000000
		386340.19					
2825.90	96.00	4396.00	8.80	0.39	1108.02	0.02	
	0.03227	417.59	6.77		633.03	71.93	0.000076
		379816.12					
2741.45	97.00	4395.79	8.60	0.38	1040.74	0.02	
	0.00000	417.18	6.57		619.47	72.07	0.000000
		371682.12					
2660.96	98.00	4395.59	8.39	0.37	982.48	0.02	
	0.01224	416.76	6.38		605.85	72.22	0.000031
		363512.56					
2577.36	99.00	4395.39	8.19	0.36	919.43	0.02	
	0.02006	416.37	6.19		592.77	72.37	0.000052
		355661.59					
2484.82	100.00	4395.17	7.97	0.35	880.40	0.02	
	0.07406	415.93	5.97		578.22	72.54	0.000199
		346930.59					
2314.21	101.00	4394.76	7.56	0.38	879.04	0.02	
	0.00000	415.11	5.57		551.16	72.87	0.000000
		330698.62					
2172.84	102.00	4394.41	7.21	0.39	838.35	0.03	
	0.06249	414.41	5.24		527.50	73.17	0.000191
		316499.62					
2089.17	103.00	4394.22	7.02	0.39	822.80	0.03	
	0.01549	414.02	5.05		514.71	73.34	0.000049
		308824.88					

		HYCHAN.OUT					
2039.51	104.00	4394.09	6.89	0.41	834.36	0.03	0.000140
	0.04320	413.78	4.93		506.45	73.45	
2010.67	105.00	303868.28	6.82	0.42	845.76	0.03	0.000170
	0.05143	413.63	4.86		501.66	73.52	
1982.35	106.00	300996.75	6.76	0.43	857.97	0.03	0.000000
	0.00000	413.50	4.79		497.30	73.58	
1954.95	107.00	298380.66	6.69	0.45	878.50	0.03	0.000000
	0.00000	413.36	4.73		492.57	73.64	
1914.16	108.00	295541.19	6.59	0.46	879.29	0.03	0.000000
	0.00000	413.17	4.63		486.01	73.74	
1853.88	109.00	291608.88	6.45	0.48	890.64	0.03	0.000112
	0.03151	412.89	4.49		476.73	73.87	
1795.56	110.00	286039.81	6.32	0.50	901.64	0.04	0.000081
	0.02205	412.62	4.35		467.43	74.01	
1739.31	111.00	280458.72	6.18	0.52	912.92	0.04	0.000093
	0.02453	412.34	4.22		457.93	74.15	
1677.92	112.00	274759.69	6.03	0.53	896.12	0.04	0.000071
	0.01796	412.05	4.07		448.21	74.30	
1622.82	113.00	268925.22	5.89	0.55	894.59	0.04	0.000106
	0.02619	411.76	3.94		438.42	74.46	
1557.94	114.00	263050.38	5.74	0.57	881.13	0.04	0.000105
	0.02471	411.47	3.79		428.45	74.62	
1471.24	115.00	257071.62	5.57	0.61	890.38	0.05	0.000084
	0.01871	411.13	3.58		416.96	74.81	
1387.17	116.00	250176.66	5.37	0.63	872.32	0.05	0.000163
	0.03482	404.27	3.43		403.23	75.04	
1327.92	117.00	241935.72	5.24	0.65	858.34	0.05	0.000000
	0.00000	394.85	3.36		393.82	75.21	
1273.86	118.00	236294.53	5.13	0.66	841.37	0.05	0.000000
	0.00000	387.52	3.29		386.51	75.34	
1229.07	119.00	231907.55	5.05	0.67	824.91	0.05	0.000091
	0.01836	381.68	3.22		380.69	75.45	
1200.13	120.00	228413.39	4.96	0.68	810.22	0.05	0.000029
	0.00573	375.88	3.19		374.91	75.56	
1169.96	121.00	224946.97	4.88	0.68	796.54	0.05	0.000026
	0.00510	370.47	3.16		369.51	75.66	
1133.18	122.00	221705.47	4.81	0.69	786.99	0.06	0.000032
	0.00617	365.61	3.10		364.66	75.76	
1100.99	123.00	218795.88	4.75	0.71	779.36	0.06	0.000063
	0.01197	361.28	3.05		360.34	75.84	
1074.12	124.00	216205.52	4.69	0.72	777.14	0.06	0.000096
	0.01801	356.85	3.01		355.93	75.93	
		213555.02					

		HYCHAN.OUT					
1038.61	125.00	4391.82	4.62	0.74	771.62	0.06	0.000080
	0.01464	352.40	2.95		351.49	76.02	
	126.00	210895.30					
1001.50		4391.76	4.56	0.77	767.00	0.06	
		347.72	2.88		346.82	76.12	0.000099
	0.01772	208090.73					
911.41	127.00	4391.70	4.50	0.84	761.57	0.07	
	0.01490	343.56	2.65		342.67	76.20	0.000090
		205603.61					
875.12	128.00	4391.63	4.43	0.86	755.91	0.07	
		339.12	2.58		338.24	76.30	0.000100
	0.01617	202943.59					
844.45	129.00	4391.57	4.37	0.89	751.25	0.08	
	0.01712	334.67	2.52		333.81	76.39	0.000109
		200284.11					
818.70	130.00	4391.51	4.31	0.91	745.89	0.08	
		330.19	2.48		329.34	76.49	0.000128
	0.01977	197601.02					
794.49	131.00	4391.44	4.24	0.93	738.91	0.08	
	0.02561	325.90	2.44		325.06	76.58	0.000168
		195036.44					
770.20	132.00	4391.38	4.18	0.96	736.03	0.08	
	0.02210	321.52	2.40		320.69	76.68	0.000148
		192411.48					
747.33	133.00	4391.32	4.12	0.98	729.53	0.08	
	0.02370	317.33	2.36		316.51	76.77	0.000161
		189906.89					
727.19	134.00	4391.27	4.07	0.99	723.17	0.09	
	0.02747	313.58	2.32		312.77	76.86	0.000190
		187660.14					
710.40	135.00	4391.22	4.02	1.01	717.97	0.09	
	0.02938	310.40	2.29		309.60	76.93	0.000206
		185760.23					
694.56	136.00	4391.18	3.98	1.03	712.69	0.09	
	0.02915	307.37	2.26		306.57	77.00	0.000207
		183944.61					
679.78	137.00	4391.14	3.94	1.04	708.43	0.09	
	0.02749	304.50	2.23		303.72	77.07	0.000197
		182229.78					
666.64	138.00	4391.10	3.90	1.05	702.69	0.09	
	0.02993	301.93	2.21		301.15	77.13	0.000217
		180689.09					
653.50	139.00	4391.07	3.87	1.07	696.48	0.10	
	0.03008	299.33	2.18		298.55	77.20	0.000221
		179131.20					
642.53	140.00	4391.04	3.84	1.07	690.47	0.10	
	0.03124	297.13	2.16		296.36	77.25	0.000232
		177815.22					
639.82	141.00	4391.03	3.83	1.07	686.29	0.10	
	0.03202	296.58	2.16		295.81	77.26	0.000238
		177487.27					
630.11	142.00	4391.00	3.80	1.09	683.83	0.10	
	0.03283	294.61	2.14		293.85	77.31	0.000246
		176308.20					
617.85	143.00	4390.96	3.77	1.09	675.41	0.10	
	0.03333	292.10	2.12		291.34	77.37	0.000253
		174804.36					
606.02	144.00	4390.93	3.73	1.10	667.11	0.10	
	0.03396	289.65	2.09		288.90	77.44	0.000260
		173340.42					
595.41	145.00	4390.90	3.70	1.11	661.88	0.10	
	0.03476	287.43	2.07		286.69	77.49	0.000269
		172012.56					

		HYCHAN.OUT					
584.98	146.00	4390.87	3.67	1.12	656.68	0.10	0.000276
	0.03534	285.23	2.05	284.49	77.55		
574.50	147.00	170694.03	3.64	1.13	651.88	0.10	0.000286
	0.03624	282.99	2.03	282.26	77.61		
563.83	148.00	169355.23	3.60	1.15	646.83	0.11	0.000295
	0.03699	280.69	2.01	279.96	77.67		
553.89	149.00	167978.94	3.57	1.16	641.51	0.11	0.000303
	0.03764	278.53	1.99	277.81	77.72		
543.90	150.00	166683.06	3.54	1.17	636.74	0.11	0.000314
	0.03851	276.33	1.97	275.61	77.78		
534.78	151.00	165366.83	3.52	1.18	631.33	0.11	0.000321
	0.03907	274.30	1.95	273.59	77.83		
526.17	152.00	164154.36	3.49	1.19	626.74	0.11	0.000331
	0.03986	272.37	1.93	271.66	77.89		
517.99	153.00	162997.62	3.46	1.20	623.77	0.11	0.000340
	0.04061	270.52	1.91	269.82	77.94		
510.24	154.00	161890.11	3.44	1.22	622.67	0.12	0.000351
	0.04159	268.75	1.90	268.05	77.98		
502.87	155.00	160830.73	3.41	1.24	621.74	0.12	0.000362
	0.04250	267.05	1.88	266.36	78.03		
496.14	156.00	159814.92	3.39	1.25	621.37	0.12	0.000372
	0.04342	265.49	1.87	264.80	78.07		
489.89	157.00	158880.66	3.37	1.27	621.46	0.12	0.000383
	0.04436	264.03	1.86	263.34	78.11		
484.98	158.00	158006.25	3.36	1.28	620.73	0.12	0.000388
	0.04464	262.87	1.84	262.19	78.15		
483.08	159.00	157314.30	3.35	1.28	620.30	0.12	0.000390
	0.04480	262.42	1.84	261.74	78.16		
481.47	160.00	157046.36	3.34	1.29	620.50	0.12	0.000393
	0.04509	262.04	1.84	261.36	78.17		
479.86	161.00	156818.94	3.34	1.29	620.27	0.12	0.000396
	0.04529	261.66	1.83	260.98	78.18		
478.47	162.00	156589.72	3.33	1.30	620.42	0.13	0.000399
	0.04558	261.33	1.83	260.65	78.19		
476.72	163.00	156392.67	3.33	1.30	620.37	0.13	0.000402
	0.04579	260.91	1.83	260.24	78.20		
475.35	164.00	156143.05	3.32	1.30	620.28	0.13	0.000404
	0.04601	260.59	1.82	259.91	78.21		
473.95	165.00	155947.09	3.32	1.31	620.28	0.13	0.000406
	0.04617	260.25	1.82	259.58	78.22		
472.73	166.00	155747.30	3.31	1.31	620.32	0.13	0.000409
	0.04638	259.96	1.82	259.29	78.23		
		155572.36					

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		HYCHAN.OUT					
167.00	4390.51	3.31	1.32	620.51	0.13		
470.48	259.42	1.81	258.75	78.24	0.000415		
0.04696	155249.03						
168.00	4390.50	3.30	1.33	619.20	0.13		
467.04	258.59	1.81	257.92	78.27	0.000419		
0.04727	154753.56						
169.00	4390.48	3.28	1.33	616.36	0.13		
463.34	257.70	1.80	257.03	78.29	0.000423		
0.04742	154218.94						
170.00	4390.47	3.27	1.33	613.53	0.13		
460.16	256.93	1.79	256.26	78.31	0.000427		
0.04770	153757.45						
171.00	4390.46	3.26	1.34	611.10	0.13		
457.44	256.26	1.79	255.60	78.33	0.000430		
0.04788	153360.47						
172.00	4390.45	3.25	1.34	608.36	0.13		
454.67	255.59	1.78	254.92	78.35	0.000433		
0.04802	152954.94						
173.00	4390.44	3.24	1.34	606.07	0.13		
452.11	254.96	1.77	254.30	78.37	0.000434		
0.04805	152580.55						
174.00	4390.44	3.24	1.34	603.43	0.13		
449.74	254.38	1.77	253.72	78.39	0.000438		
0.04832	152231.14						
175.00	4390.43	3.23	1.35	601.40	0.13		
446.50	253.58	1.76	252.92	78.41	0.000444		
0.04877	151751.70						
176.00	4390.41	3.21	1.35	598.76	0.13		
442.40	252.56	1.75	251.91	78.44	0.000450		
0.04915	151143.73						
177.00	4390.40	3.20	1.36	596.46	0.13		
438.63	251.62	1.74	250.97	78.47	0.000454		
0.04942	150582.31						
178.00	4390.39	3.19	1.37	594.35	0.13		
435.42	250.82	1.74	250.17	78.49	0.000459		
0.04972	150100.50						
179.00	4390.38	3.18	1.37	592.38	0.14		
432.63	250.12	1.73	249.47	78.51	0.000463		
0.04999	149681.70						
180.00	4390.37	3.17	1.37	590.29	0.14		
430.05	249.47	1.72	248.82	78.53	0.000467		
0.05020	149291.88						
181.00	4390.36	3.16	1.37	588.14	0.14		
427.75	248.89	1.72	248.24	78.55	0.000468		
0.05018	148944.58						
182.00	4390.36	3.16	1.37	585.52	0.14		
427.28	248.77	1.72	248.12	78.55	0.000463		
0.04964	148874.56						
183.00	4390.37	3.17	1.36	583.10	0.13		
429.31	249.28	1.72	248.64	78.54	0.000455		
0.04887	149182.38						
184.00	4390.38	3.18	1.34	580.98	0.13		
432.24	250.02	1.73	249.38	78.52	0.000445		
0.04803	149625.23						
185.00	4390.39	3.19	1.33	579.09	0.13		
435.71	250.89	1.74	250.24	78.49	0.000437		
0.04731	150146.70						
186.00	4390.40	3.20	1.32	577.31	0.13		
438.09	251.49	1.74	250.84	78.47	0.000431		
0.04684	150503.11						
187.00	4390.40	3.20	1.31	575.52	0.13		
439.46	251.83	1.75	251.18	78.46	0.000427		
0.04654	150707.25						

HYCHAN.OUT									
188.00	4390.40	3.20	1.30	573.69	0.13				
439.98	251.96	1.75	251.31	78.46	0.000425				
0.04632	150784.30								
189.00	4390.40	3.20	1.30	571.72	0.13				
440.08	251.98	1.75	251.33	78.46	0.000423				
0.04609	150798.86								
190.00	4390.40	3.20	1.30	569.86	0.13				
439.87	251.93	1.75	251.28	78.46	0.000422				
0.04593	150768.48								
191.00	4390.40	3.20	1.29	567.86	0.13				
439.44	251.82	1.75	251.17	78.46	0.000420				
0.04578	150703.44								
192.00	4390.40	3.20	1.29	566.00	0.13				
438.62	251.62	1.74	250.97	78.47	0.000421				
0.04580	150581.92								
193.00	4390.39	3.19	1.29	564.47	0.13				
436.32	251.04	1.74	250.39	78.49	0.000426				
0.04624	150236.58								
194.00	4390.38	3.18	1.30	562.54	0.13				
432.78	250.15	1.73	249.51	78.51	0.000432				
0.04662	149704.53								
195.00	4390.37	3.17	1.30	560.42	0.13				
429.53	249.34	1.72	248.69	78.54	0.000436				
0.04682	149214.00								
196.00	4390.36	3.16	1.31	558.19	0.13				
426.96	248.68	1.72	248.04	78.56	0.000439				
0.04699	148824.42								
197.00	4390.35	3.15	1.31	556.14	0.13				
424.91	248.16	1.71	247.52	78.57	0.000441				
0.04715	148513.03								
198.00	4390.34	3.14	1.31	554.05	0.13				
423.27	247.75	1.71	247.11	78.58	0.000443				
0.04719	148263.47								
199.00	4390.34	3.14	1.31	552.12	0.13				
421.77	247.36	1.71	246.72	78.59	0.000443				
0.04716	148034.09								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3926

MAXIMUM DISCHARGE (CFS) = 2422.39 AT TIME = 90.28  
 MAXIMUM STAGE = 4396.50 AT TIME = 92.27

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
STRESS	SURFACE AREA	AREA							
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)							
0.00	0.00	4386.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4386.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4386.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	3.00	4386.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	4.00	4386.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4386.21	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4386.21	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4386.21	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4386.21	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4386.24	0.03	-0.00	-0.06	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
18.97	29.00	4386.40	0.19	-0.02	-0.30	0.01	0.000000
0.000000	19.40	10642.94	0.98	19.35	99.86	0.00	0.000000
25.36	30.00	4386.51	0.30	-0.01	-0.26	0.00	0.000000
0.000000	28.73	15761.62	0.88	28.66	96.24	0.00	0.000000
31.84	31.00	4386.59	0.38	-0.01	-0.43	0.00	0.000000
0.000000	36.22	19870.48	0.88	36.13	94.17	0.00	0.000000
0.00	32.00	4386.67	0.46	0.00	0.00	0.00	0.000000
0.000000	43.16	23679.02	0.00	43.05	92.63	0.00	0.000000
0.00	33.00	4386.72	0.51	0.00	0.00	0.00	0.000000
0.000000	47.26	25927.60	0.00	47.14	91.84	0.00	0.000000
47.63	34.00	4386.79	0.58	-0.01	-0.56	0.00	0.000000
0.000000	52.82	28975.19	0.90	52.68	90.88	0.00	0.000000
0.00	35.00	4386.86	0.65	0.00	0.00	0.00	0.000000
0.000000	58.39	32033.98	0.00	58.24	90.03	0.00	0.000000
0.00	36.00	4386.88	0.67	0.00	0.00	0.00	0.000000
0.000000	60.35	33108.11	0.00	60.20	89.75	0.00	0.000000
0.00	37.00	4386.92	0.71	0.00	0.00	0.00	0.000000
0.000000	63.95	35083.38	0.00	63.79	89.26	0.00	0.000000
12.56	38.00	4386.91	0.70	0.01	0.17	0.00	0.000000
0.000000	63.10	34614.12	0.20	62.93	89.38	0.00	0.000000
20.52	39.00	4386.86	0.65	0.02	0.48	0.01	0.000000
0.000000	58.80	32253.96	0.35	58.64	89.97	0.00	0.000000
18.83	40.00	4386.81	0.60	0.02	0.37	0.00	0.000000
0.000000	54.26	29763.57	0.35	54.12	90.65	0.00	0.000000
11.88	41.00	4386.78	0.57	0.01	0.15	0.00	0.000000
0.000000	51.77	28397.34	0.23	51.63	91.06	0.00	0.000000
8.99	42.00	4386.76	0.55	0.01	0.11	0.00	0.000000
0.000000	50.59	27753.38	0.18	50.46	91.25	0.00	0.000000
0.00	43.00	4386.75	0.54	0.00	0.00	0.00	0.000000
0.000000	49.85	27346.97	0.00	49.72	91.38	0.00	0.000000
0.00	44.00	4386.75	0.54	0.00	0.00	0.00	0.000000
0.000000	49.74	27285.41	0.00	49.61	91.40	0.00	0.000000
28.72	45.00	4386.80	0.59	-0.02	-0.48	0.00	0.000000
0.000000	53.43	29311.85	0.54	53.29	90.78	0.00	0.000000
46.00	46.00	4386.86	0.65	-0.02	-0.50	0.00	

HYCHAN.OUT						
32.14	0.00000	58.30	0.55	58.15	90.04	0.000000
	47.00	31983.89				
61.94	0.00000	4386.93	0.72	-0.01	-0.79	0.00
	64.09	35158.38	0.97	63.92	89.24	0.000000
	48.00	4387.04	0.83	-0.02	-1.25	0.00
74.45	0.00000	72.98	1.02	72.79	88.16	0.000000
	49.00	40036.53				
90.03	0.00000	4387.16	0.95	-0.02	-1.64	0.00
	83.15	45612.82	1.08	82.93	87.09	0.000000
	50.00	4387.30	1.09	-0.02	-2.10	0.00
109.10	0.00000	94.02	1.16	93.78	86.08	0.000000
	51.00	51576.74				
130.47	0.00000	4387.44	1.23	-0.02	-2.73	0.00
	105.06	57635.25	1.24	104.79	85.19	0.000000
	52.00	4387.59	1.38	-0.02	-3.60	0.00
155.46	0.00000	116.58	1.33	116.28	84.36	0.000000
	53.00	63955.75				
186.00	0.00000	4387.76	1.55	-0.03	-4.92	0.00
	129.86	71238.60	1.43	129.52	83.51	0.000000
	54.00	4387.92	1.71	-0.02	-4.40	0.00
213.73	0.00000	142.00	1.51	141.63	82.81	0.000000
	55.00	77899.18				
250.40	0.00000	4388.06	1.85	-0.02	-6.22	0.00
	152.92	83888.77	1.64	152.53	82.23	0.000000
	56.00	4388.26	2.05	-0.03	-9.51	0.00
296.53	0.00000	167.44	1.77	167.01	81.53	0.000000
	57.00	91854.23				
370.14	0.00000	4388.54	2.33	-0.05	-19.07	0.01
	188.70	103519.15	1.96	188.22	80.62	0.000000
	58.00	4388.92	2.71	-0.06	-31.00	0.01
478.70	0.00000	216.29	2.21	215.73	79.59	0.000000
	59.00	118653.09				
611.01	0.00000	4389.33	3.12	-0.06	-36.41	0.01
	246.01	134955.36	2.48	245.37	78.64	0.000000
	60.00	4389.69	3.48	-0.05	-37.66	0.00
748.65	0.00000	271.78	2.75	271.08	77.90	0.000000
	61.00	149093.55				
872.54	0.00000	4390.02	3.81	-0.05	-41.33	0.00
	295.49	162098.80	2.95	294.73	77.29	0.000000
	62.00	4390.26	4.05	-0.03	-23.68	0.00
841.85	0.00000	312.49	2.69	311.68	76.89	0.000000
	63.00	171422.88				
892.21	0.00000	4390.40	4.19	-0.02	-16.74	0.00
	321.82	176544.22	2.77	320.99	76.67	0.000000
	64.00	4390.52	4.31	-0.03	-25.55	0.00
941.54	0.00000	330.62	2.85	329.76	76.48	0.000000
	65.00	181370.41				
1120.63	0.00233	4390.73	4.52	0.05	52.12	0.00
	344.95	189231.47	3.25	344.06	76.17	0.000011
	66.00	4390.95	4.74	0.13	159.27	0.01
1194.57	0.00295	360.18	3.32	359.25	75.86	0.000014
	67.00	197586.06				
		4391.15	4.94	0.17	222.26	0.01

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		HYCHAN.OUT					
1301.44	374.66	3.47	373.69	75.58	0.000000		
0.00000	205527.52						
68.00	4391.36	5.15	0.22	312.40	0.02		
1398.73	388.92	3.60	387.91	75.32	0.000000		
0.00000	213350.44						
69.00	4391.56	5.35	0.26	392.69	0.02		
1502.00	402.78	3.73	401.74	75.07	0.000012		
0.00275	220954.69						
70.00	4391.77	5.56	0.34	541.63	0.03		
1590.00	411.11	3.87	416.27	74.82	0.000025		
0.00606	228951.12						
71.00	4391.97	5.76	0.36	602.96	0.03		
1674.61	411.51	4.07	429.67	74.60	0.000000		
0.00000	236321.05						
72.00	4392.21	6.00	0.37	653.25	0.03		
1780.58	411.99	4.32	445.98	74.34	0.000031		
0.00832	245288.08						
73.00	4392.43	6.22	0.38	703.93	0.03		
1862.83	412.42	4.52	460.63	74.11	0.000065		
0.01826	253346.05						
74.00	4392.61	6.40	0.38	742.21	0.03		
1939.63	412.79	4.70	473.06	73.93	0.000000		
0.00000	260180.31						
75.00	4392.76	6.55	0.38	752.87	0.03		
1999.11	413.08	4.84	483.01	73.78	0.000000		
0.00000	265652.84						
76.00	4392.91	6.70	0.37	755.87	0.02		
2065.80	413.39	5.00	493.57	73.63	0.000000		
0.00000	271462.56						
77.00	4393.10	6.89	0.35	744.86	0.02		
2139.39	413.77	5.17	506.04	73.46	0.000000		
0.00000	278324.09						
78.00	4393.27	7.06	0.34	755.32	0.02		
2213.70	414.11	5.35	517.60	73.30	0.000048		
0.01584	284680.50						
79.00	4393.44	7.23	0.33	762.86	0.02		
2283.70	414.46	5.51	529.16	73.15	0.000000		
0.00000	291040.53						
80.00	4393.61	7.40	0.32	764.99	0.02		
2358.56	414.79	5.69	540.26	73.01	0.000078		
0.02758	297141.56						
81.00	4393.80	7.59	0.32	770.36	0.02		
2436.98	415.18	5.87	553.25	72.84	0.000010		
0.00378	304285.09						
82.00	4394.04	7.83	0.30	772.01	0.02		
2532.88	415.64	6.09	568.75	72.65	0.000000		
0.00000	312810.44						
83.00	4394.28	8.07	0.30	794.83	0.02		
2638.07	416.13	6.34	584.80	72.46	0.000000		
0.00000	321639.16						
84.00	4394.51	8.30	0.29	779.18	0.02		
2730.15	416.58	6.55	599.81	72.29	0.000000		
0.00000	329897.41						
85.00	4394.85	8.64	0.28	800.69	0.02		
2870.55	417.27	6.88	622.37	72.04	0.000097		
0.04176	342304.97						
86.00	4395.17	8.96	0.30	900.01	0.02		
3001.66	417.91	7.18	643.51	71.82	0.000000		
0.00000	353931.25						
87.00	4395.47	9.26	0.32	992.17	0.02		
3128.78	418.51	7.48	663.06	71.61	0.000091		
0.04230	364682.50						
88.00	4395.74	9.53	0.34	1110.11	0.02		

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		HYCHAN.OUT					
3238.55	0.00000	419.06	7.73	681.09	71.43	0.000000	
89.00	4396.01	374600.09	9.80	0.37	1229.01	0.02	
3343.65	0.00000	419.58	7.97	698.11	71.27	0.000000	
90.00	4396.21	383963.25	10.00	0.39	1348.86	0.02	
3425.44	0.01966	419.99	8.16	711.58	71.14	0.000039	
91.00	4396.34	391368.50	10.13	0.42	1469.30	0.02	
3480.08	0.00000	420.24	8.28	719.77	71.06	0.000000	
92.00	4396.39	395872.44	10.18	0.43	1488.30	0.02	
3498.39	0.00949	420.35	8.32	723.14	71.03	0.000018	
93.00	4396.39	397729.38	10.18	0.42	1477.11	0.02	
3493.05	0.00000	420.34	8.31	722.79	71.03	0.000000	
94.00	4396.31	397534.81	10.10	0.42	1437.83	0.02	
3464.40	0.00000	420.19	8.24	718.01	71.08	0.000000	
95.00	4396.16	394907.22	9.95	0.39	1335.62	0.02	
3401.95	0.00000	419.89	8.10	708.36	71.17	0.000000	
96.00	4396.00	389596.66	9.79	0.37	1246.05	0.02	
3331.84	0.00000	419.56	7.94	697.61	71.27	0.000000	
97.00	4395.79	383683.94	9.58	0.35	1152.41	0.02	
3259.55	0.03676	419.15	7.78	684.13	71.40	0.000076	
98.00	4395.59	376270.00	9.38	0.34	1067.99	0.02	
3172.19	0.01959	418.74	7.58	670.82	71.54	0.000041	
99.00	4395.39	368951.62	9.18	0.32	975.35	0.02	
3092.08	0.00000	418.35	7.39	657.97	71.67	0.000000	
100.00	4395.17	361883.81	8.96	0.31	925.87	0.02	
3002.00	0.00000	417.91	7.18	643.41	71.82	0.000000	
101.00	4394.76	353877.62	8.55	0.31	886.81	0.02	
2834.09	0.03473	417.09	6.79	616.53	72.11	0.000082	
102.00	4394.41	339089.69	8.20	0.31	845.21	0.02	
2687.00	0.00000	416.38	6.45	593.22	72.37	0.000000	
103.00	4394.21	326273.22	8.00	0.32	823.04	0.02	
2608.67	0.01706	416.00	6.27	580.43	72.52	0.000044	
104.00	4394.09	319235.28	7.88	0.33	845.53	0.02	
2557.07	0.00000	415.75	6.15	572.31	72.61	0.000000	
105.00	4394.02	314769.34	7.81	0.34	855.54	0.02	
2527.53	0.00000	415.61	6.08	567.56	72.67	0.000000	
106.00	4393.95	312159.84	7.74	0.35	865.62	0.02	
2500.62	0.05383	415.47	6.02	563.09	72.72	0.000143	
107.00	4393.88	309699.50	7.67	0.36	898.01	0.02	
2468.76	0.00000	415.33	5.94	558.48	72.78	0.000000	
108.00	4393.78	307164.06	7.57	0.37	905.92	0.02	
2430.50	0.03064	415.14	5.85	551.86	72.86	0.000084	
109.00	4393.65	303521.78	7.44	0.39	930.11	0.03	

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		HYCHAN.OUT					
2373.20	414.87	5.72	542.86	72.97	0.000000		
0.00000	298572.16						
110.00	4393.51	7.30	0.40	934.37	0.03		
2314.14	414.58	5.58	533.45	73.09	0.000020		
0.00682	293398.84						
111.00	4393.37	7.16	0.42	940.98	0.03		
2253.62	414.30	5.44	524.06	73.22	0.000000		
0.00000	288231.56						
112.00	4393.22	7.01	0.42	928.66	0.03		
2195.05	414.01	5.30	514.33	73.35	0.000049		
0.01616	282879.12						
113.00	4393.08	6.87	0.43	922.87	0.03		
2132.79	413.72	5.16	504.68	73.48	0.000000		
0.00000	277576.75						
114.00	4392.93	6.72	0.44	911.66	0.03		
2072.16	413.43	5.01	494.72	73.61	0.000028		
0.00870	272095.75						
115.00	4392.76	6.55	0.45	907.91	0.03		
1996.10	413.09	4.83	483.39	73.78	0.000000		
0.00000	265863.44						
116.00	4392.56	6.35	0.46	884.41	0.03		
1915.25	412.69	4.64	469.72	73.97	0.000000		
0.00000	258345.27						
117.00	4392.42	6.21	0.47	866.12	0.03		
1861.12	412.40	4.51	460.05	74.12	0.000073		
0.02063	253030.09						
118.00	4392.31	6.10	0.47	853.90	0.03		
1814.80	412.19	4.40	453.00	74.23	0.000014		
0.00380	249151.69						
119.00	4392.22	6.01	0.47	846.41	0.03		
1787.81	412.02	4.34	446.96	74.32	0.000029		
0.00789	245827.14						
120.00	4392.14	5.93	0.47	819.09	0.03		
1746.79	411.85	4.24	441.41	74.41	0.000029		
0.00776	242775.81						
121.00	4392.06	5.85	0.47	810.26	0.03		
1715.14	411.70	4.17	436.13	74.49	0.000019		
0.00496	239869.91						
122.00	4391.99	5.78	0.47	800.61	0.03		
1686.05	411.55	4.10	431.22	74.57	0.000027		
0.00684	237169.80						
123.00	4391.93	5.72	0.48	794.32	0.04		
1659.22	411.42	4.03	426.81	74.64	0.000045		
0.01140	234744.09						
124.00	4391.86	5.65	0.49	792.37	0.04		
1629.55	411.30	3.96	422.50	74.72	0.000000		
0.00000	232374.78						
125.00	4391.80	5.59	0.49	779.68	0.04		
1606.14	411.16	3.91	417.80	74.79	0.000051		
0.01240	229790.62						
126.00	4391.73	5.52	0.49	775.69	0.04		
1574.06	411.02	3.83	413.10	74.87	0.000030		
0.00723	227204.88						
127.00	4391.66	5.45	0.50	765.43	0.04		
1542.67	409.26	3.77	408.20	74.96	0.000053		
0.01247	224511.97						
128.00	4391.58	5.38	0.50	761.84	0.04		
1508.76	404.41	3.73	403.37	75.04	0.000049		
0.01150	221851.25						
129.00	4391.52	5.31	0.51	756.63	0.04		
1474.12	399.62	3.69	398.58	75.13	0.000054		
0.01242	219220.67						
130.00	4391.45	5.24	0.52	752.00	0.04		

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		HYCHAN.OUT					
1440.68	394.80	3.65	393.77	75.21	0.000057		
0.01294	216575.73						
131.00	4391.38	5.17	0.53	748.25	0.04		
1403.32	390.21	3.60	389.20	75.30	0.000029		
0.00653	214059.27						
132.00	4391.31	5.10	0.54	736.79	0.04		
1372.82	385.44	3.56	384.44	75.38	0.000071		
0.01571	211441.03						
133.00	4391.25	5.04	0.55	735.30	0.04		
1338.14	380.97	3.51	379.99	75.46	0.000055		
0.01202	208992.30						
134.00	4391.19	4.98	0.55	729.37	0.04		
1315.34	376.91	3.49	375.93	75.54	0.000042		
0.00917	206761.77						
135.00	4391.14	4.93	0.56	722.23	0.04		
1282.94	373.44	3.44	372.47	75.61	0.000041		
0.00884	204857.81						
136.00	4391.09	4.88	0.57	715.20	0.05		
1258.02	370.22	3.40	369.26	75.67	0.000050		
0.01066	203094.41						
137.00	4391.04	4.84	0.57	709.67	0.05		
1236.01	367.11	3.37	366.16	75.73	0.000069		
0.01451	201387.86						
138.00	4391.00	4.79	0.58	706.46	0.05		
1217.46	364.26	3.34	363.32	75.78	0.000077		
0.01608	199826.86						
139.00	4390.96	4.75	0.59	699.18	0.05		
1189.18	361.49	3.29	360.55	75.84	0.000065		
0.01329	198305.08						
140.00	4390.93	4.72	0.61	692.30	0.05		
1141.84	358.91	3.18	357.98	75.89	0.000079		
0.01561	196888.64						
141.00	4390.91	4.70	0.65	688.08	0.05		
1060.68	357.58	2.97	356.65	75.92	0.000091		
0.01680	196157.77						
142.00	4390.88	4.67	0.66	686.52	0.05		
1045.22	355.29	2.94	354.37	75.96	0.000095		
0.01736	194905.11						
143.00	4390.84	4.63	0.66	678.14	0.05		
1026.76	352.55	2.91	351.63	76.02	0.000097		
0.01759	193398.39						
144.00	4390.80	4.59	0.66	669.63	0.05		
1008.88	349.86	2.88	348.96	76.07	0.000100		
0.01801	191925.33						
145.00	4390.76	4.55	0.67	664.38	0.06		
992.40	347.36	2.86	346.46	76.12	0.000102		
0.01823	190553.25						
146.00	4390.73	4.52	0.68	659.02	0.06		
976.10	344.86	2.83	343.97	76.18	0.000107		
0.01889	189184.42						
147.00	4390.69	4.48	0.68	654.46	0.06		
959.46	342.29	2.80	341.40	76.23	0.000110		
0.01930	187772.58						
148.00	4390.65	4.44	0.69	649.32	0.06		
942.42	339.63	2.77	338.75	76.29	0.000114		
0.01981	186313.25						
149.00	4390.61	4.40	0.69	643.79	0.06		
926.55	337.13	2.75	336.26	76.34	0.000119		
0.02043	184940.91						
150.00	4390.58	4.37	0.70	639.22	0.06		
910.33	334.55	2.72	333.68	76.39	0.000123		
0.02087	183524.31						
151.00	4390.54	4.33	0.71	633.38	0.06		

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		HYCHAN.OUT					
895.66	332.19	2.70	331.33	76.44	0.000126		
0.02118	182230.89						
152.00	4390.51	4.30	0.71	628.85	0.06		
881.59	329.91	2.67	329.05	76.49	0.000131		
0.02180	180978.81						
153.00	4390.48	4.27	0.72	625.71	0.06		
867.76	327.64	2.65	326.80	76.54	0.000135		
0.02228	179737.25						
154.00	4390.45	4.24	0.73	624.77	0.06		
854.12	325.39	2.62	324.55	76.59	0.000141		
0.02311	178501.41						
155.00	4390.42	4.21	0.74	623.65	0.06		
841.01	323.21	2.60	322.37	76.64	0.000145		
0.02361	177303.83						
156.00	4390.39	4.18	0.75	623.05	0.06		
828.65	321.13	2.58	320.30	76.69	0.000151		
0.02432	176164.38						
157.00	4390.36	4.15	0.76	623.26	0.07		
817.01	319.16	2.56	318.33	76.73	0.000157		
0.02515	175081.75						
158.00	4390.34	4.13	0.77	621.54	0.07		
807.99	317.62	2.54	316.80	76.77	0.000159		
0.02527	174238.28						
159.00	4390.33	4.12	0.77	620.65	0.07		
804.54	317.03	2.54	316.21	76.78	0.000161		
0.02553	173914.64						
160.00	4390.32	4.11	0.77	621.05	0.07		
801.46	316.50	2.53	315.68	76.79	0.000163		
0.02570	173624.45						
161.00	4390.31	4.10	0.78	620.64	0.07		
798.48	315.99	2.53	315.17	76.80	0.000165		
0.02595	173343.09						
162.00	4390.31	4.10	0.78	620.94	0.07		
795.77	315.52	2.52	314.70	76.82	0.000166		
0.02608	173086.59						
163.00	4390.30	4.09	0.78	620.77	0.07		
792.41	314.94	2.52	314.12	76.83	0.000167		
0.02621	172767.91						
164.00	4390.29	4.08	0.79	620.69	0.07		
789.82	314.49	2.51	313.68	76.84	0.000169		
0.02642	172522.25						
165.00	4390.29	4.08	0.79	620.63	0.07		
787.16	314.03	2.51	313.22	76.85	0.000169		
0.02650	172269.23						
166.00	4390.28	4.07	0.79	620.70	0.07		
784.80	313.62	2.50	312.81	76.86	0.000171		
0.02677	172043.72						
167.00	4390.27	4.06	0.80	621.48	0.07		
780.38	312.85	2.49	312.04	76.88	0.000175		
0.02724	171620.59						
168.00	4390.25	4.04	0.80	620.07	0.07		
774.06	311.74	2.48	310.93	76.90	0.000178		
0.02752	171013.91						
169.00	4390.24	4.03	0.80	617.21	0.07		
767.71	310.62	2.47	309.82	76.93	0.000180		
0.02770	170400.91						
170.00	4390.22	4.01	0.81	614.34	0.07		
762.33	309.67	2.46	308.87	76.95	0.000181		
0.02780	169879.94						
171.00	4390.21	4.00	0.81	611.78	0.07		
757.68	308.85	2.45	308.05	76.97	0.000183		
0.02801	169428.42						
172.00	4390.20	3.99	0.81	609.00	0.07		

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		HYCHAN.OUT					
753.07	308.03	2.44	307.23	76.99	0.000184		
0.02812	168978.61						
173.00	4390.19	3.98	0.81	606.63	0.07		
748.81	307.27	2.44	306.48	77.01	0.000186		
0.02822	168562.44						
174.00	4390.18	3.97	0.81	604.13	0.07		
744.89	306.57	2.43	305.78	77.02	0.000187		
0.02840	168177.55						
175.00	4390.17	3.96	0.82	602.50	0.07		
739.05	305.52	2.42	304.73	77.05	0.000191		
0.02882	167600.91						
176.00	4390.15	3.94	0.82	599.86	0.07		
731.67	304.19	2.41	303.40	77.08	0.000194		
0.02912	166870.45						
177.00	4390.13	3.92	0.82	597.32	0.07		
724.75	302.93	2.39	302.15	77.11	0.000198		
0.02949	166181.39						
178.00	4390.11	3.90	0.83	595.15	0.07		
718.93	301.87	2.38	301.09	77.14	0.000200		
0.02967	165599.56						
179.00	4390.10	3.89	0.83	593.14	0.07		
713.86	300.94	2.37	300.16	77.16	0.000202		
0.02991	165090.00						
180.00	4390.09	3.88	0.83	590.97	0.07		
709.22	300.09	2.36	299.31	77.18	0.000204		
0.03011	164621.27						
181.00	4390.08	3.87	0.83	588.55	0.07		
705.19	299.35	2.36	298.57	77.20	0.000205		
0.03011	164213.83						
182.00	4390.08	3.87	0.83	585.07	0.07		
705.16	299.34	2.36	298.57	77.20	0.000201		
0.02953	164213.03						
183.00	4390.09	3.88	0.82	582.15	0.07		
710.20	300.28	2.37	299.50	77.17	0.000196		
0.02898	164724.16						
184.00	4390.11	3.90	0.81	579.86	0.07		
716.97	301.52	2.38	300.74	77.14	0.000190		
0.02819	165406.86						
185.00	4390.13	3.92	0.80	578.09	0.07		
724.71	302.93	2.39	302.15	77.11	0.000184		
0.02752	166181.77						
186.00	4390.14	3.93	0.79	576.67	0.07		
730.10	303.91	2.40	303.12	77.09	0.000182		
0.02721	166717.50						
187.00	4390.15	3.94	0.78	575.16	0.07		
733.45	304.51	2.41	303.73	77.07	0.000180		
0.02699	167049.09						
188.00	4390.15	3.94	0.78	573.58	0.07		
735.06	304.80	2.41	304.02	77.07	0.000178		
0.02680	167208.64						
189.00	4390.16	3.95	0.78	571.64	0.07		
735.91	304.96	2.41	304.17	77.06	0.000177		
0.02664	167292.58						
190.00	4390.16	3.95	0.77	569.86	0.07		
736.10	304.99	2.41	304.20	77.06	0.000176		
0.02646	167311.67						
191.00	4390.16	3.95	0.77	567.92	0.07		
735.95	304.96	2.41	304.17	77.06	0.000175		
0.02640	167296.19						
192.00	4390.15	3.94	0.77	566.27	0.07		
734.96	304.78	2.41	304.00	77.07	0.000176		
0.02643	167197.59						
193.00	4390.14	3.93	0.77	565.40	0.07		

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		HYCHAN.OUT					
730.86	304.04	2.40	303.25	77.08	0.000179		
0.02683	166790.22						
194.00	4390.13	3.92	0.78	563.51	0.07		
724.42	302.87	2.39	302.09	77.11	0.000181		
0.02706	166148.11						
195.00	4390.11	3.90	0.78	561.16	0.07		
718.63	301.82	2.38	301.03	77.14	0.000183		
0.02718	165568.98						
196.00	4390.10	3.89	0.78	558.73	0.07		
714.18	301.00	2.37	300.22	77.16	0.000185		
0.02740	165122.44						
197.00	4390.09	3.88	0.78	556.66	0.07		
710.67	300.36	2.37	299.58	77.17	0.000186		
0.02750	164768.03						
198.00	4390.08	3.88	0.78	554.42	0.07		
708.07	299.88	2.36	299.10	77.18	0.000186		
0.02743	164506.20						
199.00	4390.08	3.87	0.78	552.43	0.07		
705.72	299.44	2.36	298.67	77.19	0.000187		
0.02752	164268.41						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3988

MAXIMUM DISCHARGE (CFS) = 2255.64 AT TIME = 90.74  
 MAXIMUM STAGE = 4396.47 AT TIME = 91.88

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4385.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4385.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4385.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4385.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4385.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4385.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4385.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
7.00	4385.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
8.00	4385.21	0.00	0.00	0.00	-0.00	-0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
9.00	4385.35	0.14	-0.10	-0.75	0.05	0.000000			
7.57	14.80	0.51	14.76	102.44					

		HYCHAN.OUT					
	0.00000	10436.65					
12.30	10.00	4385.61	0.40	-0.06	-0.69	0.02	
		37.73	0.33	37.64	93.81		0.000000
	0.00000	26608.94					
6.55	11.00	4385.63	0.42	0.02	0.16	0.01	
		39.67	0.17	39.57	93.36		0.000019
	0.00020	27975.29					
5.61	12.00	4385.60	0.39	0.04	0.22	0.01	
		36.90	0.15	36.80	94.00		0.000030
	0.00028	26019.27					
4.58	13.00	4385.57	0.36	0.04	0.20	0.01	
		33.78	0.14	33.69	94.79		0.000048
	0.00040	23818.58					
3.63	14.00	4385.53	0.32	0.05	0.19	0.02	
		30.52	0.12	30.44	95.70		0.000077
	0.00057	21523.70					
2.78	15.00	4385.49	0.28	0.06	0.16	0.02	
		27.15	0.10	27.08	96.76		0.000094
	0.00060	19146.56					
2.11	16.00	4385.46	0.25	0.06	0.12	0.02	
		24.09	0.09	24.02	97.85		0.000103
	0.00057	16984.90					
1.63	17.00	4385.43	0.22	0.05	0.09	0.02	
		21.50	0.08	21.45	98.90		0.000112
	0.00053	15162.98					
1.33	18.00	4385.41	0.20	0.03	0.04	0.01	
		19.64	0.07	19.59	99.75		0.000126
	0.00053	13851.34					
1.17	19.00	4385.40	0.19	0.03	0.03	0.01	
		18.61	0.06	18.56	100.26		0.000135
	0.00053	13120.70					
1.03	20.00	4385.38	0.17	0.02	0.03	0.01	
		17.65	0.06	17.60	100.76		0.000107
	0.00039	12445.64					
0.94	21.00	4385.38	0.17	0.02	0.02	0.01	
		16.88	0.06	16.83	101.18		0.000021
	0.00007	11901.46					
5.65	22.00	4385.39	0.18	-0.03	-0.15	0.01	
		18.09	0.31	18.05	100.52		0.000000
	0.00000	12758.83					
8.99	23.00	4385.49	0.28	-0.07	-0.64	0.02	
		27.13	0.33	27.06	96.76		0.000000
	0.00000	19133.39					
12.52	24.00	4385.61	0.40	-0.04	-0.44	0.01	
		37.98	0.33	37.88	93.75		0.000000
	0.00000	26784.04					
16.24	25.00	4385.68	0.47	-0.04	-0.64	0.01	
		43.37	0.37	43.26	92.58		0.000000
	0.00000	30586.16					
23.47	26.00	4385.80	0.59	-0.07	-1.59	0.02	
		53.53	0.44	53.39	90.77		0.000000
	0.00000	37748.89					
36.34	27.00	4385.98	0.77	-0.07	-2.64	0.01	
		68.69	0.53	68.51	88.66		0.000000
	0.00000	48439.16					
55.94	28.00	4386.20	0.99	-0.07	-4.13	0.01	
		86.53	0.65	86.31	86.76		0.000000
	0.00000	61017.92					
76.64	29.00	4386.40	1.19	-0.04	-3.37	0.01	
		102.26	0.75	102.00	85.41		0.000000
	0.00000	72112.73					
90.40	30.00	4386.51	1.30	-0.02	-2.07	0.00	
		110.35	0.82	110.06	84.80		0.000000

		HYCHAN.OUT						
	0.00000	77813.88						
101.97	31.00	4386.59	1.38	-0.03	-2.81	0.00		
	0.00000	117.01	0.87		116.71	84.33	0.000000	
	32.00	82511.09						
111.82	4386.67	1.46	-0.02	-1.95	0.00			
	123.25	0.91		122.93	83.92	0.000000		
	0.00000	86914.00						
117.79	33.00	4386.72	1.51	-0.01	-1.58	0.00		
	126.97	0.93		126.65	83.68	0.000000		
	0.00000	89538.27						
130.65	34.00	4386.79	1.58	-0.02	-2.86	0.00		
	132.06	0.99		131.72	83.38	0.000000		
	0.00000	93124.43						
136.02	35.00	4386.86	1.65	-0.01	-1.86	0.00		
	137.18	0.99		136.83	83.08	0.000000		
	0.00000	96737.97						
0.00	36.00	4386.88	1.67	0.00	0.00	0.00		
	138.95	0.00		138.59	82.98	0.000000		
	0.00000	97984.28						
0.00	37.00	4386.92	1.71	0.00	0.00	0.00		
	142.25	0.00		141.88	82.79	0.000000		
	0.00000	100311.66						
0.00	38.00	4386.91	1.70	0.00	0.00	0.00		
	141.22	0.00		140.86	82.85	0.000000		
	0.00000	99585.91						
130.28	39.00	4386.86	1.65	0.02	2.20	0.00		
	137.38	0.95		137.03	83.07	0.000000		
	0.00000	96878.19						
120.25	40.00	4386.80	1.59	0.01	1.67	0.00		
	133.10	0.90		132.76	83.31	0.000000		
	0.00000	93859.15						
0.00	41.00	4386.77	1.56	0.00	0.00	0.00		
	130.81	0.00		130.47	83.45	0.000000		
	0.00000	92242.73						
0.00	42.00	4386.76	1.55	0.00	0.00	0.00		
	129.61	0.00		129.27	83.52	0.000005		
	0.00000	91396.48						
0.00	43.00	4386.75	1.54	0.00	0.00	0.00		
	128.97	0.00		128.64	83.56	0.000007		
	0.00000	90946.70						
0.00	44.00	4386.75	1.54	0.00	0.00	0.00		
	129.04	0.00		128.71	83.56	0.000000		
	0.00000	90994.50						
116.45	45.00	4386.79	1.58	-0.02	-1.97	0.00		
	132.43	0.88		132.09	83.35	0.000000		
	0.00000	93385.34						
122.89	46.00	4386.85	1.64	-0.02	-2.34	0.00		
	137.03	0.90		136.68	83.09	0.000000		
	0.00000	96630.48						
153.24	47.00	4386.93	1.72	-0.02	-3.73	0.00		
	142.45	1.08		142.08	82.78	0.000000		
	0.00000	100452.72						
172.31	48.00	4387.04	1.83	-0.03	-5.29	0.00		
	150.74	1.14		150.35	82.34	0.000000		
	0.00000	106299.09						
196.02	49.00	4387.16	1.95	-0.03	-6.50	0.00		
	160.27	1.22		159.85	81.87	0.000000		
	0.00000	113016.55						
223.28	50.00	4387.30	2.09	-0.03	-7.50	0.00		
	170.52	1.31		170.08	81.39	0.000000		
	0.00000	120244.73						
253.60	51.00	4387.44	2.23	-0.03	-8.84	0.00		
	180.99	1.40		180.52	80.94	0.000000		

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		HYCHAN.OUT					
	0.00000	127627.18					
288.14	52.00	4387.59	2.38	-0.04	-10.70	0.00	
	0.00000	191.96	1.50		191.46	80.49	0.000000
	0.00000	135363.98					
329.29	53.00	4387.76	2.55	-0.04	-13.60	0.00	
	0.00000	204.66	1.61		204.13	80.01	0.000000
	0.00000	144316.83					
370.11	54.00	4387.92	2.71	-0.03	-11.54	0.00	
	0.00000	216.30	1.71		215.74	79.59	0.000000
	0.00000	152527.73					
413.45	55.00	4388.06	2.85	-0.04	-15.66	0.00	
	0.00000	226.81	1.82		226.22	79.24	0.000000
	0.00000	159939.88					
472.14	56.00	4388.26	3.05	-0.05	-22.96	0.00	
	0.00000	240.83	1.96		240.21	78.79	0.000000
	0.00000	169825.14					
563.02	57.00	4388.54	3.34	-0.07	-41.11	0.01	
	0.00000	261.43	2.15		260.76	78.19	0.000000
	0.00000	184355.34					
695.53	58.00	4388.92	3.71	-0.09	-61.22	0.01	
	0.00000	288.25	2.41		287.50	77.47	0.000000
	0.00000	203263.67					
852.90	59.00	4389.33	4.12	-0.08	-68.52	0.01	
	0.00000	317.20	2.69		316.38	76.78	0.000000
	0.00000	223683.34					
1013.11	60.00	4389.69	4.48	-0.07	-67.62	0.01	
	0.00000	342.39	2.96		341.50	76.23	0.000000
	0.00000	241440.00					
1163.98	61.00	4390.02	4.81	-0.06	-72.03	0.00	
	0.00000	365.60	3.18		364.65	75.76	0.000000
	0.00000	257808.52					
1243.49	62.00	4390.26	5.05	-0.03	-40.90	0.00	
	0.00000	382.25	3.25		381.26	75.44	0.000000
	0.00000	269548.91					
1299.83	63.00	4390.40	5.19	-0.02	-28.58	0.00	
	0.00000	391.39	3.32		390.37	75.27	0.000000
	0.00000	275993.53					
1378.23	64.00	4390.52	5.31	-0.03	-43.29	0.00	
	0.00000	400.03	3.45		399.00	75.12	0.000000
	0.00000	282092.44					
1522.55	65.00	4390.73	5.52	0.02	28.35	0.00	
	0.00000	411.02	3.70		413.04	74.87	0.000000
	0.00000	292021.78					
1570.66	66.00	4390.94	5.73	0.07	115.31	0.01	
	0.00713	411.46	3.82		427.96	74.63	0.000030
	0.00713	302570.84					
1655.26	67.00	4391.15	5.94	0.10	161.90	0.01	
	0.00820	411.87	4.02		442.16	74.40	0.000033
	0.00820	312610.50					
1738.64	68.00	4391.36	6.15	0.14	243.64	0.01	
	0.00790	412.29	4.22		456.14	74.18	0.000030
	0.00790	322494.03					
1821.21	69.00	4391.56	6.35	0.17	312.75	0.01	
	0.00000	412.69	4.41		469.78	73.97	0.000000
	0.00000	332136.50					
1907.88	70.00	4391.77	6.56	0.24	466.33	0.02	
	0.00000	413.11	4.62		484.01	73.77	0.000000
	0.00000	342193.53					
1987.44	71.00	4391.97	6.76	0.26	520.37	0.02	
	0.00000	413.50	4.81		497.15	73.58	0.000000
	0.00000	351486.22					
2086.29	72.00	4392.21	7.00	0.28	574.55	0.02	
	0.00000	413.98	5.04		513.30	73.36	0.000000

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HYCHAN.OUT									
0.00000	362904.00								
73.00	4392.42	7.21	0.29	630.00	0.02				
2173.26	414.41	5.24	527.61	73.17	0.000044				
0.01441	373017.09								
74.00	4392.60	7.39	0.30	668.67	0.02				
2249.23	414.78	5.42	539.88	73.01	0.000000				
0.00000	381693.62								
75.00	4392.75	7.54	0.30	694.11	0.02				
2311.58	415.07	5.57	549.66	72.89	0.000000				
0.00000	388606.75								
76.00	4392.91	7.70	0.30	703.58	0.02				
2377.54	415.39	5.72	560.26	72.76	0.000000				
0.00000	396103.44								
77.00	4393.09	7.88	0.28	688.10	0.02				
2454.68	415.76	5.90	572.51	72.61	0.000000				
0.00000	404764.09								
78.00	4393.27	8.06	0.28	714.60	0.02				
2527.61	416.11	6.07	584.08	72.47	0.000000				
0.00000	412944.00								
79.00	4393.44	8.23	0.27	706.33	0.02				
2599.64	416.45	6.24	595.41	72.34	0.000031				
0.01203	420954.91								
80.00	4393.61	8.40	0.27	729.48	0.02				
2667.14	416.79	6.40	606.58	72.22	0.000000				
0.00000	428850.69								
81.00	4393.80	8.59	0.26	715.07	0.02				
2749.24	417.17	6.59	619.37	72.07	0.000000				
0.00000	437891.09								
82.00	4394.03	8.82	0.25	710.39	0.01				
2847.67	417.63	6.82	634.48	71.91	0.000052				
0.02209	448573.94								
83.00	4394.28	9.07	0.25	738.72	0.01				
2947.09	418.13	7.05	650.67	71.74	0.000000				
0.00000	460021.53								
84.00	4394.50	9.29	0.24	722.60	0.01				
3038.77	418.57	7.26	665.28	71.59	0.000000				
0.00000	470350.88								
85.00	4394.85	9.64	0.25	785.83	0.01				
3179.82	419.26	7.58	687.73	71.37	0.000086				
0.04071	486221.72								
86.00	4395.17	9.96	0.27	878.80	0.01				
3308.44	419.90	7.88	708.56	71.17	0.000068				
0.03358	500954.53								
87.00	4395.47	10.26	0.30	1013.23	0.02				
3432.66	420.50	8.16	728.17	70.99	0.000043				
0.02175	514816.50								
88.00	4395.74	10.53	0.32	1148.88	0.02				
3544.47	421.05	8.42	745.87	70.82	0.000033				
0.01716	527329.81								
89.00	4396.01	10.80	0.36	1331.56	0.02				
3651.19	421.58	8.66	762.95	70.67	0.000018				
0.00962	539402.94								
90.00	4396.21	11.00	0.40	1487.85	0.02				
3731.40	421.99	8.84	776.36	70.56	0.000053				
0.02927	548884.62								
91.00	4396.34	11.13	0.43	1623.09	0.02				
3780.90	422.24	8.95	784.41	70.49	0.000000				
0.00000	554577.06								
92.00	4396.39	11.18	0.44	1668.36	0.02				
3805.73	422.35	9.01	787.83	70.46	0.000000				
0.00000	556996.69								
93.00	4396.38	11.17	0.43	1650.69	0.02				
3802.37	422.33	9.00	787.30	70.47	0.000076				

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## HYCHAN.OUT

0.04270	556623.44						
94.00	4396.31	11.10	0.43	1603.71	0.02		
3772.78	422.19	8.94	782.75	70.50	0.000000		
0.00000	553406.31						
95.00	4396.16	10.95	0.40	1478.80	0.02		
3712.36	421.89	8.80	773.06	70.59	0.000000		
0.00000	546556.69						
96.00	4396.00	10.79	0.38	1373.17	0.02		
3642.72	421.56	8.64	762.37	70.68	0.000027		
0.01465	538995.12						
97.00	4395.79	10.58	0.36	1266.43	0.02		
3565.27	421.15	8.47	749.18	70.80	0.000000		
0.00000	529670.00						
98.00	4395.59	10.38	0.33	1151.47	0.02		
3479.55	420.74	8.27	735.85	70.92	0.000000		
0.00000	520242.81						
99.00	4395.39	10.18	0.30	1030.67	0.02		
3399.89	420.34	8.09	722.85	71.03	0.000025		
0.01252	511057.69						
100.00	4395.17	9.96	0.29	967.56	0.02		
3309.26	419.90	7.88	708.65	71.17	0.000000		
0.00000	501016.41						
101.00	4394.76	9.55	0.30	927.25	0.02		
3143.05	419.08	7.50	681.96	71.42	0.000000		
0.00000	482144.00						
102.00	4394.40	9.19	0.28	836.78	0.02		
2998.21	418.37	7.17	658.73	71.66	0.000000		
0.00000	465722.06						
103.00	4394.21	9.00	0.29	842.62	0.02		
2919.63	417.99	6.98	646.25	71.79	0.000000		
0.00000	456895.81						
104.00	4394.09	8.88	0.30	852.95	0.02		
2869.29	417.74	6.87	638.07	71.87	0.000000		
0.00000	451115.09						
105.00	4394.01	8.80	0.30	864.55	0.02		
2839.84	417.60	6.80	633.24	71.92	0.000000		
0.00000	447703.62						
106.00	4393.95	8.74	0.32	909.42	0.02		
2812.57	417.47	6.74	629.01	71.97	0.000015		
0.00637	444711.38						
107.00	4393.88	8.67	0.33	917.32	0.02		
2783.57	417.32	6.67	624.29	72.02	0.000071		
0.02937	441372.59						
108.00	4393.78	8.57	0.35	948.68	0.02		
2744.38	417.13	6.58	617.92	72.09	0.000050		
0.02063	436869.28						
109.00	4393.65	8.44	0.36	961.03	0.02		
2681.58	416.86	6.43	609.08	72.19	0.000000		
0.00000	430618.91						
110.00	4393.50	8.29	0.37	977.26	0.02		
2624.07	416.58	6.30	599.67	72.29	0.000000		
0.00000	423970.16						
111.00	4393.36	8.15	0.38	970.92	0.02		
2566.74	416.29	6.17	590.26	72.40	0.000016		
0.00632	417314.47						
112.00	4393.22	8.01	0.39	974.37	0.02		
2508.32	416.01	6.03	580.79	72.51	0.000000		
0.00000	410619.44						
113.00	4393.07	7.86	0.39	951.53	0.02		
2447.61	415.71	5.89	571.10	72.63	0.000000		
0.00000	403770.12						
114.00	4392.93	7.72	0.40	947.22	0.03		
2385.36	415.42	5.74	561.35	72.74	0.000000		

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HYCHAN.OUT									
	0.00000	396877.22							
2311.44	115.00	4392.76	7.55	5.57	0.40	549.93	932.99	72.89	0.000000
	0.00000	415.08							
2232.46	116.00	4392.55	7.34	5.38	0.41	536.41	907.14	73.06	0.000000
	0.00000	414.67							
2173.02	117.00	4392.41	7.20	5.24	0.41	526.93	900.19	73.18	0.000000
	0.00000	414.39							
2130.56	118.00	4392.30	7.09	5.14	0.41	519.75	871.36	73.27	0.000055
	0.01769	414.17							
2094.08	119.00	4392.22	7.01	5.06	0.42	514.14	869.50	73.35	0.000000
	0.00000	414.01							
2056.51	120.00	4392.13	6.92	4.97	0.41	508.39	839.28	73.43	0.000040
	0.01230	413.83							
2024.74	121.00	4392.06	6.85	4.89	0.41	503.21	828.19	73.50	0.000059
	0.01808	413.68							
1994.75	122.00	4391.98	6.78	4.82	0.41	498.40	818.70	73.56	0.000051
	0.01537	413.54							
1968.16	123.00	4391.92	6.71	4.76	0.41	494.10	810.53	73.62	0.000000
	0.00000	413.41							
1941.35	124.00	4391.85	6.65	4.70	0.41	489.65	801.72	73.69	0.000000
	0.00000	413.28							
1914.73	125.00	4391.79	6.58	4.63	0.42	485.18	804.48	73.75	0.000000
	0.00000	413.14							
1885.64	126.00	4391.72	6.51	4.57	0.42	480.45	791.47	73.82	0.000000
	0.00000	413.00							
1853.74	127.00	4391.65	6.44	4.49	0.42	475.62	786.82	73.89	0.000015
	0.00411	412.86							
1825.12	128.00	4391.58	6.37	4.42	0.43	470.89	779.62	73.96	0.000023
	0.00625	412.72							
1795.86	129.00	4391.51	6.30	4.35	0.43	466.16	776.70	74.03	0.000029
	0.00783	412.58							
1766.98	130.00	4391.44	6.23	4.28	0.44	461.42	772.05	74.10	0.000005
	0.00144	412.44							
1739.63	131.00	4391.37	6.16	4.22	0.44	456.80	761.37	74.17	0.000000
	0.00000	412.31							
1711.49	132.00	4391.30	6.09	4.15	0.45	452.15	763.40	74.24	0.000008
	0.00216	412.17							
1684.78	133.00	4391.23	6.02	4.09	0.45	447.63	751.12	74.31	0.000029
	0.00738	412.03							
1660.15	134.00	4391.18	5.97	4.03	0.45	443.69	743.40	74.37	0.000013
	0.00333	411.92							
1639.18	135.00	4391.12	5.91	3.98	0.45	440.23	736.57	74.43	0.000000
		411.82							

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HYCHAN.OUT									
0.00000	311240.00								
136.00	4391.08	5.87		0.45	729.80	0.03			
1620.06	411.72		3.93		436.98	74.48		0.000016	
0.00396	308948.19								
137.00	4391.03	5.82		0.45	726.10	0.03			
1602.18	411.63		3.89		433.92	74.53		0.000026	
0.00630	306783.53								
138.00	4390.99	5.78		0.45	719.76	0.03			
1583.64	411.55		3.85		431.17	74.57		0.000000	
0.00000	304840.41								
139.00	4390.95	5.74		0.45	707.24	0.03			
1568.23	411.47		3.81		428.28	74.62		0.000031	
0.00735	302792.53								
140.00	4390.91	5.70		0.45	703.05	0.03			
1548.67	411.39		3.76		425.65	74.66		0.000024	
0.00562	300933.75								
141.00	4390.88	5.67		0.46	696.46	0.03			
1509.04	411.33		3.67		423.46	74.70		0.000024	
0.00539	299387.53								
142.00	4390.84	5.63		0.47	694.80	0.03			
1488.97	411.25		3.62		421.02	74.74		0.000024	
0.00543	297662.38								
143.00	4390.80	5.59		0.47	686.96	0.03			
1472.46	411.17		3.58		418.27	74.79		0.000024	
0.00540	295714.03								
144.00	4390.76	5.55		0.47	678.41	0.03			
1456.31	411.09		3.54		415.57	74.83		0.000026	
0.00570	293809.75								
145.00	4390.73	5.52		0.47	672.20	0.04			
1441.15	411.02		3.51		413.04	74.87		0.000026	
0.00570	292022.31								
146.00	4390.69	5.48		0.46	662.56	0.03			
1425.88	410.95		3.47		410.53	74.92		0.000027	
0.00591	290243.25								
147.00	4390.65	5.44		0.47	658.79	0.04			
1406.56	408.97		3.44		407.91	74.96		0.000028	
0.00600	288395.28								
148.00	4390.61	5.40		0.47	653.65	0.04			
1385.26	406.26		3.41		405.21	75.01		0.000030	
0.00629	286485.03								
149.00	4390.58	5.37		0.47	647.94	0.04			
1365.37	403.71		3.38		402.67	75.05		0.000030	
0.00637	284686.69								
150.00	4390.54	5.33		0.48	643.35	0.04			
1344.98	401.08		3.35		400.04	75.10		0.000030	
0.00634	282827.38								
151.00	4390.50	5.29		0.48	636.94	0.04			
1326.56	398.68		3.33		397.64	75.14		0.000032	
0.00658	281134.97								
152.00	4390.47	5.26		0.48	632.69	0.04			
1308.71	396.33		3.30		395.31	75.18		0.000033	
0.00681	279481.53								
153.00	4390.43	5.22		0.49	629.08	0.04			
1291.13	394.01		3.28		392.99	75.23		0.000034	
0.00703	277840.88								
154.00	4390.40	5.19		0.49	628.57	0.04			
1273.47	391.65		3.25		390.64	75.27		0.000036	
0.00727	276179.16								
155.00	4390.37	5.16		0.50	626.96	0.04			
1256.48	389.37		3.23		388.36	75.31		0.000037	
0.00746	274569.00								
156.00	4390.33	5.13		0.50	626.09	0.04			
1240.35	387.18		3.20		386.18	75.35		0.000038	

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		HYCHAN.OUT						
	0.00768	273028.19						
1225.03	157.00	4390.30	5.09	3.18	0.51	384.09	626.58	0.04
		385.09						0.000040
	0.00793	271555.00						
1213.36	158.00	4390.28	5.07	3.16	0.51	382.50	622.96	0.04
		383.49						0.000040
	0.00790	270426.41						
1208.85	159.00	4390.27	5.06	3.16	0.51	381.88	621.46	0.04
		382.87						0.000041
	0.00817	269989.84						
1204.76	160.00	4390.26	5.05	3.15	0.52	381.32	621.95	0.04
		382.31						0.000041
	0.00810	269591.12						
1200.84	161.00	4390.26	5.05	3.15	0.52	380.78	621.43	0.04
		381.76						0.000042
	0.00830	269209.31						
1197.19	162.00	4390.25	5.04	3.14	0.52	380.27	621.79	0.04
		381.26						0.000042
	0.00824	268852.81						
1192.79	163.00	4390.24	5.03	3.13	0.52	379.66	621.49	0.04
		380.65						0.000043
	0.00835	268422.34						
1189.31	164.00	4390.23	5.02	3.13	0.52	379.18	621.49	0.04
		380.16						0.000043
	0.00844	268080.56						
1185.84	165.00	4390.23	5.02	3.12	0.52	378.70	621.16	0.04
		379.68						0.000043
	0.00833	267739.41						
1182.65	166.00	4390.22	5.01	3.12	0.53	378.25	621.59	0.04
		379.23						0.000044
	0.00862	267425.16						
1176.64	167.00	4390.21	5.00	3.11	0.53	377.41	623.22	0.04
		378.39						0.000045
	0.00864	266832.00						
1168.34	168.00	4390.19	4.98	3.10	0.53	376.25	621.65	0.04
		377.23						0.000046
	0.00885	266011.03						
1160.14	169.00	4390.17	4.96	3.08	0.53	375.10	618.78	0.04
		376.07						0.000047
	0.00900	265195.72						
1153.21	170.00	4390.16	4.95	3.07	0.53	374.12	615.69	0.04
		375.09						0.000046
	0.00891	264505.41						
1147.19	171.00	4390.15	4.94	3.07	0.53	373.27	613.00	0.04
		374.24						0.000047
	0.00895	263903.91						
1141.29	172.00	4390.14	4.93	3.06	0.53	372.43	610.16	0.04
		373.40						0.000048
	0.00906	263311.47						
1135.79	173.00	4390.12	4.91	3.05	0.54	371.65	607.70	0.04
		372.62						0.000048
	0.00907	262758.31						
1130.74	174.00	4390.11	4.90	3.04	0.54	370.93	605.33	0.04
		371.89						0.000048
	0.00915	262249.09						
1122.94	175.00	4390.10	4.89	3.03	0.54	369.81	604.45	0.04
		370.77						0.000049
	0.00925	261458.88						
1113.25	176.00	4390.08	4.87	3.01	0.54	368.42	601.91	0.04
		369.38						0.000050
	0.00938	260473.52						
1104.09	177.00	4390.06	4.85	3.00	0.54	367.10	599.01	0.04
		368.05						0.000052

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				HYCHAN.OUT				
	0.00966	259538.86						
1096.41	178.00	4390.04	4.83	2.99	0.54	365.98	596.54	0.000052
	0.00961	258751.17						
1089.71	179.00	4390.03	4.82	2.98	0.55	365.01	594.49	0.000052
	0.00967	258061.12						
1083.57	180.00	4390.02	4.81	2.97	0.55	364.11	592.18	0.000053
	0.00974	257427.83						
1078.37	181.00	4390.00	4.79	2.96	0.55	363.35	589.32	0.000053
	0.00976	256889.45						
1078.81	182.00	4390.01	4.80	2.96	0.54	363.42	584.03	0.000051
	0.00947	256938.75						
1086.08	183.00	4390.02	4.81	2.97	0.53	364.49	580.42	0.000050
	0.00924	257692.27						
1095.62	184.00	4390.04	4.83	2.99	0.53	365.88	577.58	0.000047
	0.00885	258676.75						
1106.27	185.00	4390.06	4.85	3.00	0.52	367.42	576.07	0.000046
	0.00863	259767.12						
1113.70	186.00	4390.08	4.87	3.01	0.52	368.49	575.59	0.000045
	0.00847	260524.28						
1118.38	187.00	4390.09	4.88	3.02	0.51	369.16	574.46	0.000045
	0.00846	260999.09						
1120.69	188.00	4390.09	4.88	3.03	0.51	369.50	573.27	0.000044
	0.00838	261233.67						
1122.05	189.00	4390.10	4.89	3.03	0.51	369.69	571.44	0.000044
	0.00825	261370.89						
1122.50	190.00	4390.10	4.89	3.03	0.51	369.75	569.83	0.000044
	0.00831	261416.52						
1122.49	191.00	4390.10	4.89	3.03	0.51	369.75	568.04	0.000044
	0.00823	261414.97						
1121.29	192.00	4390.09	4.88	3.03	0.51	369.58	566.71	0.000044
	0.00827	261293.05						
1115.77	193.00	4390.08	4.87	3.02	0.51	368.79	567.16	0.000045
	0.00842	260731.33						
1107.33	194.00	4390.07	4.86	3.00	0.51	367.57	565.19	0.000045
	0.00840	259870.30						
1099.75	195.00	4390.05	4.84	2.99	0.51	366.47	562.45	0.000045
	0.00842	259094.81						
1093.99	196.00	4390.04	4.83	2.98	0.51	365.63	559.82	0.000046
	0.00858	258503.34						
1089.44	197.00	4390.03	4.82	2.98	0.51	364.97	557.48	0.000046
	0.00847	258034.98						
1086.16	198.00	4390.02	4.81	2.97	0.51	364.49	555.02	0.000046

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## HYCHAN.OUT

0.00854 257696.95  
 199.00 4390.01 4.80 0.51 553.12 0.04  
 1083.18 365.00 2.97 364.06 75.77 0.000046  
 0.00856 257388.05

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4053

MAXIMUM DISCHARGE (CFS) = 2377.80 AT TIME = 91.43

MAXIMUM STAGE = 4396.49 AT TIME = 92.24

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)							
0.00	0.00	4384.86	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4384.86	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4384.86	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4384.86	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4384.86	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4384.86	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4384.86	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4384.86	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4384.96	0.10	-0.10	-1.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
23.34	9.00	4385.51	0.65	-0.17	-4.05	0.04	0.000000	
	0.00000	58.84	0.40	58.68	89.97			
32.45	10.00	4385.63	0.77	-0.03	-0.84	0.01	0.000000	
	0.00000	68.24	0.48	68.06	88.72			
19.30	11.00	4385.62	0.76	0.04	0.74	0.01	0.000016	
	0.00028	67.53	0.29	67.35	88.81			
16.73	12.00	4385.57	0.71	0.05	0.76	0.01	0.000023	
	0.00038	63.20	0.26	63.03	89.36			
14.10	13.00	4385.51	0.65	0.06	0.81	0.01	0.000040	
	0.00059	58.89	0.24	58.74	89.96			
11.04	14.00	4385.44	0.58	0.08	0.89	0.02	0.000068	
	0.00088	52.91	0.21	52.77	90.87			
		37309.13						

HYCHAN.OUT							
8.37	15.00	4385.36	0.50	0.07	0.61	0.02	
	0.00110	46.45	0.18	46.33	91.99		0.000098
	16.00	32755.44					
6.71	0.00108	4385.32	0.46	0.06	0.41	0.02	
	17.00	42.48	0.16	42.37	92.77		0.000110
	0.00108	29953.67					
5.48	0.00098	4385.27	0.41	0.06	0.32	0.02	
	18.00	38.86	0.14	38.76	93.55		0.000111
	0.00098	27400.70					
4.53	0.00089	4385.24	0.38	0.05	0.22	0.01	
	19.00	35.74	0.13	35.64	94.29		0.000112
	0.00089	25200.48					
3.84	0.00077	4385.21	0.35	0.04	0.14	0.01	
	20.00	33.27	0.12	33.19	94.92		0.000107
	0.00077	23462.55					
0.00	0.00000	4385.20	0.34	0.00	0.00	0.00	
	21.00	32.63	0.00	32.54	95.10		0.000068
	0.00000	23008.62					
12.18	0.00017	4385.28	0.42	-0.06	-0.70	0.02	
	22.00	39.65	0.31	39.54	93.37		0.000009
	0.00017	27957.54					
18.29	0.00000	4385.41	0.55	-0.07	-1.28	0.02	
	23.00	50.63	0.36	50.50	91.25		0.000000
	0.00000	35705.84					
25.32	0.00000	4385.54	0.68	-0.07	-1.73	0.01	
	24.00	61.31	0.41	61.15	89.62		0.000000
	0.00000	43234.01					
29.84	0.00000	4385.62	0.76	-0.04	-1.05	0.01	
	25.00	67.54	0.44	67.37	88.80		0.000000
	0.00000	47630.31					
34.99	0.00000	4385.68	0.82	-0.05	-1.77	0.01	
	26.00	72.66	0.48	72.48	88.20		0.000000
	0.00000	51240.60					
45.16	0.00000	4385.81	0.95	-0.09	-4.06	0.02	
	27.00	82.79	0.55	82.57	87.12		0.000000
	0.00000	58379.41					
61.46	0.00000	4385.99	1.13	-0.10	-6.18	0.02	
	28.00	97.24	0.63	96.99	85.81		0.000000
	0.00000	68568.62					
84.43	0.00000	4386.21	1.35	-0.11	-9.17	0.02	
	29.00	114.40	0.74	114.11	84.51		0.000000
	0.00000	80673.25					
107.33	0.00000	4386.41	1.55	-0.07	-7.00	0.01	
	30.00	129.46	0.83	129.13	83.53		0.000000
	0.00000	91293.82					
122.29	0.00000	4386.51	1.65	-0.03	-4.18	0.00	
	31.00	137.29	0.89	136.94	83.07		0.000000
	0.00000	96814.08					
134.86	0.00000	4386.59	1.73	-0.04	-5.56	0.01	
	32.00	143.83	0.94	143.46	82.71		0.000000
	0.00000	101424.05					
146.59	0.00000	4386.67	1.82	-0.03	-3.78	0.00	
	33.00	149.93	0.98	149.54	82.39		0.000000
	0.00000	105727.94					
154.72	0.00000	4386.72	1.86	-0.02	-3.04	0.00	
	34.00	153.58	1.01	153.18	82.20		0.000000
	0.00000	108301.11					
165.43	0.00000	4386.79	1.93	-0.03	-5.44	0.00	
	35.00	158.59	1.04	158.18	81.95		0.000000
	0.00000	111833.21					
174.08	0.00000	4386.86	2.00	-0.02	-3.50	0.00	
	0.00000	163.62	1.06	163.19	81.71		0.000000
	0.00000	115376.86					



		HYCHAN.OUT					
187.88	36.00	4386.88	2.02	-0.01	-2.69	0.00	
	0.00000	165.43	1.14	165.00	81.63	0.000000	
	37.00	116657.21					
0.00	0.00000	4386.92	2.06	0.00	0.00	0.00	
	0.00000	168.64	0.00	168.20	81.48	0.000000	
	38.00	118916.80					
0.00	0.00000	4386.91	2.05	0.00	0.00	0.00	
	0.00000	167.57	0.00	167.14	81.53	0.000000	
	39.00	118168.49					
162.32	0.00033	4386.86	2.00	0.03	4.33	0.00	
	40.00	163.81	0.99	163.38	81.70	0.000005	
	0.00046	115510.87					
153.31	0.00046	4386.80	1.94	0.02	3.18	0.00	
	41.00	159.60	0.96	159.19	81.90	0.000008	
	0.00043	112548.33					
147.23	0.00043	4386.77	1.91	0.01	1.61	0.00	
	42.00	157.35	0.94	156.94	82.01	0.000007	
	0.00000	110957.61					
0.00	0.00000	4386.76	1.90	0.00	0.00	0.00	
	43.00	156.18	0.00	155.77	82.07	0.000000	
	0.00000	110131.90					
0.00	0.00000	4386.75	1.89	0.00	0.00	0.00	
	44.00	155.51	0.00	155.11	82.10	0.000000	
	0.00000	109664.16					
0.00	0.00000	4386.75	1.89	0.00	0.00	0.00	
	45.00	155.62	0.00	155.22	82.10	0.000006	
	0.00000	109737.95					
153.25	0.00000	4386.79	1.94	-0.03	-4.38	0.00	
	46.00	158.95	0.96	158.54	81.93	0.000000	
	0.00000	112089.71					
162.98	0.00000	4386.85	1.99	-0.02	-4.01	0.00	
	47.00	163.44	1.00	163.02	81.72	0.000000	
	0.00000	115253.93					
189.58	0.00000	4386.93	2.07	-0.04	-6.99	0.00	
	48.00	168.81	1.12	168.38	81.47	0.000000	
	0.00000	119042.03					
208.91	0.00000	4387.04	2.18	-0.05	-9.73	0.01	
	49.00	176.98	1.18	176.53	81.11	0.000000	
	0.00000	124804.41					
233.26	0.00000	4387.16	2.30	-0.05	-11.76	0.01	
	50.00	186.37	1.25	185.89	80.72	0.000000	
	0.00000	131424.86					
260.92	0.00000	4387.30	2.44	-0.05	-13.27	0.01	
	51.00	196.48	1.33	195.97	80.32	0.000000	
	0.00000	138552.66					
291.47	0.00000	4387.44	2.58	-0.05	-15.30	0.01	
	52.00	206.81	1.41	206.28	79.93	0.000000	
	0.00000	145839.72					
325.98	0.00000	4387.59	2.73	-0.06	-18.15	0.01	
	53.00	217.65	1.50	217.09	79.55	0.000000	
	0.00000	153483.14					
366.76	0.00000	4387.76	2.90	-0.06	-22.62	0.01	
	54.00	230.21	1.59	229.61	79.13	0.000000	
	0.00000	162336.00					
407.36	0.00000	4387.92	3.06	-0.05	-18.90	0.00	
	55.00	241.71	1.69	241.09	78.77	0.000000	
	0.00000	170449.31					
449.21	0.00000	4388.07	3.21	-0.06	-25.33	0.01	
	56.00	252.12	1.78	251.47	78.45	0.000000	
	0.00000	177790.11					
506.25	0.00000	4388.26	3.40	-0.07	-36.65	0.01	
	0.00000	266.02	1.90	265.33	78.06	0.000000	
	0.00000	187587.86					

		HYCHAN.OUT					
593.67	57.00	4388.55	3.69	-0.11	285.72	-63.32	0.01
	0.00000	286.46	2.07		77.52		0.000000
720.33	58.00	202006.59	4.06	-0.13	312.26	-91.32	0.01
	0.00000	313.07	2.30		76.87		0.000000
869.10	59.00	220768.42	4.47	-0.12	340.91	-100.17	0.01
	0.00000	341.79	2.54		76.24		0.000000
1019.26	60.00	241022.61	4.83	-0.10	365.84	-96.97	0.01
	0.00000	366.79	2.78		75.73		0.000000
1162.67	61.00	258647.50	5.16	-0.09	388.84	-101.91	0.01
	0.00000	389.85	2.98		75.30		0.000000
1255.56	62.00	274908.81	5.40	-0.05	405.32	-57.47	0.00
	0.00000	406.38	3.09		75.01		0.000000
1283.75	63.00	286563.94	5.54	-0.03	414.38	-41.20	0.00
	0.00000	411.06	3.12		74.85		0.000000
1371.97	64.00	292963.22	5.66	-0.05	422.99	-70.76	0.00
	0.00000	411.31	3.34		74.71		0.000000
1418.45	65.00	299053.72	5.87	-0.02	437.00	-30.54	0.00
	0.00000	411.72	3.45		74.48		0.000000
1528.80	66.00	308958.56	6.09	0.02	451.86	30.44	0.00
	0.00000	412.16	3.71		74.24		0.000000
1611.34	67.00	319463.19	6.29	0.04	465.98	57.15	0.00
	0.00000	412.58	3.91		74.03		0.000000
1692.45	68.00	329445.12	6.50	0.09	479.81	146.34	0.01
	0.00268	412.99	4.10		73.83		0.000010
1773.13	69.00	339228.16	6.70	0.12	493.30	220.59	0.01
	0.00412	413.39	4.29		73.63		0.000015
1855.05	70.00	348763.38	6.91	0.21	507.41	385.48	0.01
	0.00231	413.81	4.48		73.44		0.000008
1935.48	71.00	358742.28	7.10	0.23	520.49	446.06	0.02
	0.01005	414.20	4.67		73.26		0.000034
2035.88	72.00	367984.62	7.35	0.24	536.58	488.52	0.02
	0.00000	414.68	4.91		73.05		0.000000
2124.03	73.00	379363.22	7.56	0.26	550.84	559.85	0.02
	0.00000	415.10	5.12		72.87		0.000000
2199.66	74.00	389441.59	7.74	0.27	562.91	598.01	0.02
	0.00762	415.47	5.29		72.73		0.000023
2260.73	75.00	397977.00	7.89	0.28	572.78	637.28	0.02
	0.01089	415.77	5.44		72.61		0.000032
2325.21	76.00	404958.50	8.05	0.28	583.40	641.22	0.02
	0.00268	416.09	5.59		72.48		0.000008
2401.85	77.00	412464.12	8.23	0.27	595.54	637.07	0.02
	0.01347	416.45	5.77		72.34		0.000037
		421048.66					

HYCHAN.OUT							
2473.44	78.00	4393.27	8.41	0.27	658.10	0.02	0.000000
	0.00000	416.80	5.93		607.17	72.21	
		429272.53					
2544.13	79.00	4393.44	8.58	0.26	671.52	0.02	0.000063
	0.02394	417.14	6.10		618.38	72.09	
		437197.31					
2610.96	80.00	4393.61	8.75	0.26	679.44	0.02	0.000000
	0.00000	417.48	6.25		629.48	71.96	
		445043.62					
2694.27	81.00	4393.80	8.94	0.25	669.49	0.01	0.000011
	0.00444	417.87	6.45		642.18	71.83	
		454023.09					
2792.33	82.00	4394.03	9.17	0.24	673.01	0.01	0.000036
	0.01495	418.33	6.67		657.43	71.67	
		464801.12					
2893.32	83.00	4394.28	9.42	0.24	687.82	0.01	0.000092
	0.03962	418.82	6.91		673.36	71.51	
		476062.56					
2986.62	84.00	4394.50	9.64	0.23	679.12	0.01	0.000089
	0.03935	419.27	7.12		688.12	71.36	
		486498.69					
3129.02	85.00	4394.85	9.99	0.24	756.81	0.01	0.000000
	0.00000	419.96	7.45		710.53	71.15	
		502345.88					
3261.62	86.00	4395.17	10.31	0.26	861.62	0.01	0.000000
	0.00000	420.60	7.75		731.26	70.96	
		517003.62					
3383.96	87.00	4395.47	10.61	0.30	1010.52	0.02	0.000000
	0.00000	421.20	8.03		750.82	70.78	
		530826.88					
3496.50	88.00	4395.74	10.88	0.34	1193.89	0.02	0.000023
	0.01211	421.75	8.29		768.43	70.63	
		543277.25					
3597.08	89.00	4396.00	11.14	0.39	1404.92	0.02	0.000012
	0.00659	422.28	8.52		785.46	70.48	
		555323.56					
3677.32	90.00	4396.21	11.35	0.43	1592.75	0.02	0.000000
	0.00000	422.69	8.70		798.73	70.37	
		564703.56					
3731.18	91.00	4396.33	11.47	0.47	1751.08	0.02	0.000023
	0.01249	422.94	8.82		806.71	70.30	
		570342.88					
3752.76	92.00	4396.39	11.53	0.48	1816.59	0.03	0.000000
	0.00000	423.05	8.87		810.21	70.28	
		572818.62					
3751.33	93.00	4396.38	11.52	0.48	1808.71	0.03	0.000037
	0.02050	423.03	8.87		809.61	70.28	
		572397.19					
3720.63	94.00	4396.31	11.45	0.47	1737.15	0.02	0.000036
	0.01955	422.88	8.80		805.06	70.32	
		569175.19					
3660.74	95.00	4396.16	11.30	0.44	1608.25	0.02	0.000048
	0.02601	422.59	8.66		795.45	70.40	
		562385.75					
3589.37	96.00	4396.00	11.14	0.42	1490.12	0.02	0.000000
	0.00000	422.26	8.50		784.89	70.49	
		554917.56					
3513.17	97.00	4395.79	10.93	0.38	1349.35	0.02	0.000000
	0.00000	421.85	8.33		771.72	70.60	
		545607.81					
3430.10	98.00	4395.59	10.73	0.36	1223.88	0.02	0.000000
	0.00000	421.44	8.14		758.46	70.71	
		536230.38					

HYCHAN.OUT							
3350.63	99.00	4395.39	10.53	0.33	1092.01	0.02	0.000039
	0.01929	421.04	7.96		745.56	70.83	
	100.00	527113.88					
3259.43		4395.17	10.31	0.31	1001.98	0.02	0.000114
	0.05515	420.60	7.75		731.29	70.96	
	101.00	517019.06					
3091.93		4394.76	9.90	0.31	954.43	0.02	0.000000
	0.00000	419.78	7.37		704.72	71.20	
	102.00	498237.03					
2946.34		4394.40	9.54	0.29	855.31	0.02	0.000113
	0.04957	419.07	7.03		681.48	71.43	
	103.00	481805.28					
2865.44		4394.21	9.35	0.30	845.94	0.02	0.000000
	0.00000	418.69	6.84		669.02	71.55	
	104.00	473000.03					
2814.88		4394.08	9.23	0.31	863.88	0.02	0.000045
	0.01899	418.44	6.73		660.85	71.64	
	105.00	467218.25					
2785.37		4394.01	9.15	0.32	882.50	0.02	0.000108
	0.04481	418.29	6.66		656.11	71.68	
	106.00	463870.97					
2756.27		4393.95	9.09	0.33	920.41	0.02	0.000000
	0.00000	418.16	6.59		651.89	71.73	
	107.00	460887.06					
2726.81		4393.88	9.02	0.35	946.88	0.02	0.000000
	0.00000	418.02	6.52		647.13	71.78	
	108.00	457522.94					
2686.95		4393.78	8.92	0.36	976.10	0.02	0.000000
	0.00000	417.82	6.43		640.74	71.84	
	109.00	453005.53					
2626.47		4393.64	8.78	0.38	994.80	0.02	0.000047
	0.01844	417.55	6.29		631.76	71.94	
	110.00	446656.75					
2567.16		4393.50	8.64	0.39	1012.34	0.02	0.000006
	0.00237	417.27	6.15		622.54	72.04	
	111.00	440133.59					
2510.23		4393.36	8.50	0.40	1013.00	0.02	0.000074
	0.02770	416.99	6.02		613.14	72.14	
	112.00	433486.47					
2450.13		4393.22	8.36	0.41	1002.09	0.02	0.000000
	0.00000	416.70	5.88		603.68	72.25	
	113.00	426801.41					
2392.01		4393.07	8.21	0.41	990.02	0.03	0.000041
	0.01452	416.40	5.74		593.98	72.36	
	114.00	419941.53					
2331.36		4392.92	8.06	0.42	981.50	0.03	0.000000
	0.00000	416.12	5.60		584.40	72.47	
	115.00	413168.81					
2258.81		4392.75	7.89	0.43	969.05	0.03	0.000032
	0.01070	415.76	5.43		572.75	72.61	
	116.00	404933.56					
2177.30		4392.55	7.69	0.43	936.79	0.03	0.000031
	0.01024	415.36	5.24		559.46	72.77	
	117.00	395536.97					
2119.25		4392.40	7.54	0.43	919.46	0.03	0.000000
	0.00000	415.08	5.11		549.89	72.89	
	118.00	388768.78					
2075.25		4392.30	7.44	0.43	899.88	0.03	0.000000
	0.00000	414.86	5.00		542.84	72.97	
	119.00	383788.03					
2040.18		4392.21	7.35	0.43	883.91	0.03	0.000000
	0.00000	414.69	4.92		537.13	73.05	
		379752.41					

		HYCHAN.OUT					
2004.07	120.00	4392.13	7.27	0.43	864.74	0.03	
	0.00000	414.53	4.83		531.52	73.12	0.000000
1973.55	121.00	4392.05	7.19	0.43	849.42	0.03	
	0.00000	414.37	4.76		526.28	73.19	0.000000
1944.63	122.00	4391.98	7.12	0.43	835.84	0.03	
	0.00000	414.23	4.69		521.50	73.25	0.000000
1916.83	123.00	4391.91	7.05	0.43	823.25	0.03	
	0.00000	414.10	4.63		517.17	73.31	0.000000
1891.50	124.00	4391.85	6.99	0.43	822.41	0.03	
	0.01229	413.96	4.57		512.75	73.37	0.000043
1861.89	125.00	4391.78	6.92	0.44	817.79	0.03	
	0.00000	413.83	4.50		508.34	73.43	0.000000
1833.66	126.00	4391.71	6.85	0.44	811.29	0.03	
	0.00231	413.69	4.43		503.57	73.49	0.000008
1799.90	127.00	4391.64	6.78	0.45	806.77	0.03	
	0.00000	413.55	4.35		498.81	73.56	0.000000
1771.28	128.00	4391.57	6.71	0.45	800.99	0.03	
	0.00000	413.41	4.28		494.06	73.62	0.000000
1742.73	129.00	4391.50	6.64	0.46	797.99	0.03	
	0.00000	413.27	4.22		489.32	73.69	0.000000
1712.45	130.00	4391.43	6.57	0.46	789.97	0.03	
	0.00000	413.13	4.15		484.57	73.76	0.000000
1684.40	131.00	4391.36	6.50	0.47	784.94	0.03	
	0.01129	412.99	4.08		479.99	73.82	0.000044
1655.79	132.00	4391.29	6.43	0.47	781.15	0.03	
	0.00000	412.85	4.01		475.36	73.89	0.000000
1630.67	133.00	4391.23	6.37	0.48	775.24	0.03	
	0.00000	412.72	3.95		470.87	73.96	0.000000
1606.12	134.00	4391.17	6.31	0.47	761.61	0.03	
	0.00935	412.60	3.89		466.83	74.02	0.000038
1586.33	135.00	4391.12	6.26	0.47	752.42	0.03	
	0.01141	412.50	3.85		463.41	74.07	0.000048
1566.82	136.00	4391.07	6.21	0.48	745.62	0.03	
	0.00909	412.41	3.80		460.21	74.12	0.000038
1546.58	137.00	4391.02	6.16	0.48	739.54	0.03	
	0.00000	412.32	3.75		457.19	74.16	0.000000
1522.74	138.00	4390.98	6.12	0.48	729.51	0.03	
	0.00000	412.23	3.69		454.32	74.21	0.000000
1508.85	139.00	4390.94	6.08	0.48	724.75	0.03	
	0.00477	412.15	3.66		451.52	74.25	0.000021
1482.78	140.00	4390.90	6.04	0.48	712.75	0.03	
	0.00439	412.07	3.60		448.88	74.29	0.000020
		317360.81					

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		HYCHAN.OUT				
141.00	4390.87	6.01	0.49	705.70	0.04	
1448.72	412.00	3.52		446.50	74.33	0.000013
0.00283	315673.66					
142.00	4390.83	5.97	0.49	705.13	0.04	
1433.62	411.93	3.48		443.99	74.37	0.000013
0.00274	313900.00					
143.00	4390.79	5.93	0.49	697.40	0.04	
1417.03	411.85	3.44		441.24	74.41	0.000012
0.00268	311954.31					
144.00	4390.75	5.89	0.49	688.68	0.04	
1400.82	411.77	3.40		438.55	74.45	0.000013
0.00274	310052.12					
145.00	4390.71	5.85	0.49	681.79	0.04	
1385.59	411.69	3.37		436.02	74.49	0.000013
0.00282	308264.41					
146.00	4390.68	5.82	0.49	671.86	0.04	
1370.40	411.62	3.33		433.50	74.54	0.000013
0.00272	306481.41					
147.00	4390.64	5.78	0.49	668.28	0.04	
1354.59	411.54	3.29		430.87	74.58	0.000014
0.00288	304622.91					
148.00	4390.60	5.74	0.50	663.26	0.04	
1338.26	411.46	3.25		428.15	74.62	0.000014
0.00287	302701.91					
149.00	4390.56	5.70	0.50	656.87	0.04	
1322.93	411.39	3.22		425.60	74.66	0.000014
0.00282	300899.09					
150.00	4390.52	5.66	0.50	652.31	0.04	
1307.06	411.31	3.18		422.95	74.71	0.000015
0.00288	299028.94					
151.00	4390.49	5.63	0.50	645.03	0.04	
1292.63	411.24	3.14		420.55	74.75	0.000015
0.00295	297330.75					
152.00	4390.45	5.59	0.50	640.47	0.04	
1278.50	411.17	3.11		418.20	74.79	0.000015
0.00294	295666.78					
153.00	4390.42	5.56	0.50	636.64	0.04	
1264.47	411.10	3.08		415.86	74.83	0.000016
0.00314	294012.41					
154.00	4390.38	5.52	0.51	635.92	0.04	
1250.21	411.03	3.04		413.48	74.87	0.000016
0.00307	292329.69					
155.00	4390.35	5.49	0.51	630.37	0.04	
1236.39	410.97	3.01		411.18	74.91	0.000018
0.00335	290703.91					
156.00	4390.32	5.46	0.51	629.02	0.04	
1222.38	410.03	2.98		408.97	74.94	0.000018
0.00339	289144.19					
157.00	4390.29	5.43	0.52	629.81	0.04	
1207.87	407.91	2.96		406.85	74.98	0.000018
0.00340	287643.66					
158.00	4390.26	5.40	0.52	624.29	0.04	
1196.94	406.30	2.95		405.25	75.01	0.000018
0.00335	286509.22					
159.00	4390.25	5.39	0.52	622.33	0.04	
1192.69	405.67	2.94		404.62	75.02	0.000018
0.00336	286066.41					
160.00	4390.25	5.39	0.52	622.76	0.04	
1188.81	405.10	2.93		404.05	75.03	0.000019
0.00343	285661.03					
161.00	4390.24	5.38	0.53	622.23	0.04	
1185.08	404.54	2.93		403.49	75.04	0.000019
0.00340	285270.84					

			HYCHAN.OUT						
1181.62	162.00	4390.23	5.37	2.92	0.53	402.98	622.61	75.05	0.000019
	0.00346	404.03							
		284908.34							
1177.46	163.00	4390.22	5.36	2.92	0.53	402.36	622.29	75.06	0.000019
	0.00353	403.41							
		284470.75							
1174.14	164.00	4390.21	5.35	2.91	0.53	401.87	622.22	75.07	0.000019
	0.00351	402.91							
		284121.50							
1170.88	165.00	4390.21	5.35	2.91	0.53	401.38	621.63	75.08	0.000020
	0.00356	402.42							
		283778.06							
1167.80	166.00	4390.20	5.34	2.91	0.53	400.92	622.52	75.09	0.000020
	0.00354	401.96							
		283452.09							
1162.05	167.00	4390.19	5.33	2.90	0.54	400.06	624.83	75.10	0.000019
	0.00350	401.10							
		282842.75							
1154.21	168.00	4390.17	5.31	2.89	0.54	398.88	623.35	75.12	0.000020
	0.00369	399.92							
		282009.41							
1146.52	169.00	4390.15	5.29	2.88	0.54	397.72	620.35	75.14	0.000021
	0.00373	398.75							
		281189.16							
1140.01	170.00	4390.14	5.28	2.87	0.54	396.74	616.96	75.16	0.000021
	0.00367	397.77							
		280493.78							
1134.37	171.00	4390.13	5.27	2.86	0.54	395.88	614.20	75.17	0.000021
	0.00370	396.91							
		279889.03							
1128.83	172.00	4390.11	5.25	2.85	0.54	395.04	611.35	75.19	0.000021
	0.00380	396.06							
		279292.78							
1123.69	173.00	4390.10	5.24	2.84	0.54	394.25	608.68	75.20	0.000021
	0.00374	395.28							
		278738.09							
1118.94	174.00	4390.09	5.23	2.84	0.54	393.53	606.57	75.22	0.000022
	0.00383	394.55							
		278224.34							
1111.52	175.00	4390.08	5.22	2.83	0.55	392.39	606.37	75.24	0.000022
	0.00384	393.41							
		277419.47							
1102.36	176.00	4390.05	5.19	2.81	0.55	390.98	603.92	75.26	0.000022
	0.00392	391.99							
		276421.28							
1093.70	177.00	4390.04	5.18	2.80	0.55	389.64	600.73	75.29	0.000022
	0.00393	390.65							
		275473.50							
1086.46	178.00	4390.02	5.16	2.79	0.55	388.51	597.87	75.31	0.000022
	0.00387	389.52							
		274678.44							
1080.13	179.00	4390.00	5.14	2.78	0.55	387.52	595.83	75.33	0.000023
	0.00400	388.53							
		273979.69							
1074.33	180.00	4389.99	5.13	2.77	0.55	386.62	593.38	75.34	0.000023
	0.00396	387.62							
		273339.25							
1069.46	181.00	4389.98	5.12	2.76	0.55	385.86	590.06	75.36	0.000023
	0.00396	386.86							
		272799.72							
1070.10	182.00	4389.98	5.12	2.77	0.54	385.96	583.01	75.35	0.000022
	0.00387	386.96							
		272874.00							



		HYCHAN.OUT					
1077.17	183.00	4390.00	5.14	0.54	578.59	0.04	
	0.00371	388.07	2.78		387.07	75.33	0.000021
		273658.22					
1086.39	184.00	4390.02	5.16	0.53	575.30	0.04	
	0.00360	389.52	2.79		388.51	75.31	0.000021
		274677.78					
1096.60	185.00	4390.04	5.18	0.52	574.12	0.04	
	0.00357	391.11	2.80		390.10	75.28	0.000020
		275797.44					
1103.69	186.00	4390.06	5.20	0.52	574.37	0.04	
	0.00331	392.20	2.81		391.19	75.26	0.000019
		276571.31					
1108.16	187.00	4390.07	5.21	0.52	573.83	0.04	
	0.00352	392.89	2.82		391.88	75.25	0.000020
		277057.25					
1110.41	188.00	4390.07	5.21	0.52	573.00	0.04	
	0.00348	393.24	2.82		392.22	75.24	0.000020
		277301.56					
1111.77	189.00	4390.08	5.22	0.51	571.15	0.04	
	0.00335	393.45	2.83		392.43	75.24	0.000019
		277448.41					
1112.24	190.00	4390.08	5.22	0.51	569.90	0.04	
	0.00338	393.52	2.83		392.50	75.24	0.000019
		277499.41					
1112.30	191.00	4390.08	5.22	0.51	568.05	0.04	
	0.00335	393.53	2.83		392.51	75.24	0.000019
		277505.88					
1111.19	192.00	4390.07	5.21	0.51	567.18	0.04	
	0.00340	393.36	2.82		392.34	75.24	0.000019
		277385.31					
1105.91	193.00	4390.06	5.20	0.51	568.87	0.04	
	0.00341	392.54	2.82		391.53	75.25	0.000019
		276808.78					
1097.94	194.00	4390.04	5.18	0.52	566.84	0.04	
	0.00349	391.31	2.81		390.30	75.28	0.000020
		275938.72					
1090.82	195.00	4390.03	5.17	0.52	563.71	0.04	
	0.00351	390.20	2.80		389.19	75.30	0.000020
		275158.06					
1085.41	196.00	4390.02	5.16	0.52	560.89	0.04	
	0.00342	389.36	2.79		388.35	75.31	0.000020
		274562.94					
1081.16	197.00	4390.01	5.15	0.52	558.27	0.04	
	0.00352	388.69	2.78		387.69	75.32	0.000020
		274095.00					
1078.10	198.00	4390.00	5.14	0.52	555.71	0.04	
	0.00350	388.21	2.78		387.21	75.33	0.000020
		273756.66					
1075.32	199.00	4389.99	5.13	0.51	553.65	0.04	
	0.00337	387.78	2.77		386.77	75.34	0.000019
		273449.53					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4115

MAXIMUM DISCHARGE (CFS) = 2428.79 AT TIME = 92.26  
 MAXIMUM STAGE = 4396.45 AT TIME = 91.91

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		

		HYCHAN.OUT					
	(LB/FT^2)	(FT^2)					
0.00	0.00	4384.51	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4384.51	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4384.51	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4384.51	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4384.51	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	5.00	4384.51	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	6.00	4384.51	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	7.00	4384.52	0.01	-0.01	-0.03	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
20.68	8.00	4385.07	0.56	-0.31	-6.31	0.07	0.000000
	0.00000	51.01	0.41	50.88	91.18		
41.77	9.00	33582.73	1.07	-0.15	-6.07	0.02	0.000000
	0.00000	92.53	0.45	92.29	86.21		
47.94	10.00	60910.36	1.12	-0.02	-0.90	0.00	0.000000
	0.00000	96.36	0.50	96.11	85.89		
38.47	11.00	63431.76	1.11	0.04	1.46	0.01	0.000000
	0.00000	95.25	0.40	95.01	85.98		
34.78	12.00	62704.96	1.05	0.04	1.41	0.01	0.000000
	0.00000	90.94	0.38	90.70	86.35		
30.71	13.00	59865.06	0.99	0.05	1.65	0.01	0.000011
	0.00024	86.42	0.36	86.20	86.77		
25.49	14.00	56891.88	0.91	0.08	1.94	0.01	0.000022
	0.00044	79.62	0.32	79.41	87.44		
20.15	15.00	52412.50	0.81	0.08	1.55	0.02	0.000039
	0.00069	71.47	0.28	71.28	88.33		
16.19	16.00	47045.14	0.73	0.06	0.89	0.01	0.000044
	0.00068	65.11	0.25	64.94	89.11		
14.32	17.00	42859.39	0.69	0.04	0.56	0.01	0.000038
	0.00056	61.59	0.23	61.43	89.58		
13.67	18.00	40545.39	0.66	0.02	0.34	0.01	0.000028
	0.00040	59.84	0.23	59.69	89.82		
12.07	19.00	39392.29	0.66	0.01	0.14	0.00	0.000017
	0.00021	59.17	0.20	59.02	89.92		
	20.00	38952.54	0.69	-0.04	-0.69	0.01	
		4385.20					

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HYCHAN.OUT						
18.55	0.00000	61.74	0.30	61.58	89.56	0.000000
	21.00	40645.92				
23.49	0.00000	4385.29	0.78	-0.08	-1.78	0.02
	22.00	69.62	0.34	69.44	88.55	0.000000
	0.00000	45828.96				
31.39	0.00000	4385.42	0.92	-0.09	-2.79	0.02
	23.00	80.17	0.39	79.96	87.38	0.000000
	0.00000	52772.09				
39.76	0.00000	4385.55	1.04	-0.08	-2.99	0.01
	24.00	90.15	0.44	89.92	86.42	0.000000
	0.00000	59347.34				
45.00	0.00000	4385.62	1.11	-0.04	-1.71	0.01
	25.00	95.70	0.47	95.46	85.94	0.000000
	0.00000	63000.36				
51.08	0.00000	4385.69	1.18	-0.06	-3.13	0.01
	26.00	100.80	0.51	100.54	85.52	0.000000
	0.00000	66358.44				
63.24	0.00000	4385.82	1.31	-0.11	-6.83	0.02
	27.00	111.08	0.57	110.79	84.74	0.000000
	0.00000	73122.33				
81.55	0.00000	4386.00	1.49	-0.12	-9.82	0.02
	28.00	125.12	0.65	124.80	83.80	0.000000
	0.00000	82364.98				
106.31	0.00000	4386.22	1.71	-0.13	-14.08	0.02
	29.00	141.84	0.75	141.47	82.82	0.000000
	0.00000	93369.30				
129.97	0.00000	4386.41	1.90	-0.08	-10.40	0.01
	30.00	156.20	0.83	155.79	82.07	0.000000
	0.00000	102823.76				
145.34	0.00000	4386.51	2.00	-0.04	-6.18	0.01
	31.00	163.76	0.89	163.34	81.70	0.000000
	0.00000	107802.63				
158.41	0.00000	4386.60	2.09	-0.05	-8.14	0.01
	32.00	170.21	0.93	169.77	81.41	0.000000
	0.00000	112046.54				
170.54	0.00000	4386.68	2.17	-0.03	-5.48	0.00
	33.00	176.18	0.97	175.72	81.14	0.000000
	0.00000	115978.24				
179.22	0.00000	4386.72	2.21	-0.02	-4.41	0.00
	34.00	179.77	1.00	179.30	80.99	0.000000
	0.00000	118338.61				
189.82	0.00000	4386.79	2.28	-0.04	-7.81	0.00
	35.00	184.72	1.03	184.24	80.78	0.000000
	0.00000	121600.59				
199.90	0.00000	4386.86	2.35	-0.02	-4.99	0.00
	36.00	189.66	1.05	189.16	80.58	0.000000
	0.00000	124848.42				
211.91	0.00000	4386.88	2.37	-0.02	-3.86	0.00
	37.00	191.52	1.11	191.02	80.51	0.000000
	0.00000	126074.43				
0.00	0.00000	4386.92	2.41	0.00	0.00	0.00
	38.00	194.61	0.00	194.10	80.39	0.000000
	0.00000	128107.91				
0.00	0.00000	4386.91	2.40	0.00	0.00	0.00
	39.00	193.50	0.00	193.00	80.43	0.000000
	0.00000	127378.41				
195.57	0.00000	4386.86	2.35	0.03	6.55	0.00
	40.00	189.81	1.03	189.31	80.58	0.000000
	0.00000	124947.20				
186.30	0.00000	4386.80	2.29	0.03	4.66	0.00
	41.00	185.70	1.00	185.21	80.74	0.000000
	0.00000	122241.55				
	0.00000	4386.77	2.26	0.01	2.17	0.00

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		HYCHAN.OUT				
		0.98	183.04	80.83	0.000000	
179.05	183.51					
	120805.20					
	0.00000					
	42.00	2.25	0.00	0.00	0.00	
0.00	4386.76	0.00	181.84	80.88	0.00	0.000000
	182.31					
	120014.49					
	0.00000					
	43.00	2.24	0.00	0.00	0.00	
0.00	4386.75	0.00	181.16	80.91	0.00	0.000000
	181.63					
	119565.28					
	0.00000					
	44.00	2.24	0.00	0.00	0.00	
0.00	4386.75	0.00	181.30	80.91	0.00	0.000000
	181.77					
	119660.20					
	0.00000					
	45.00	2.29	-0.03	-6.48	0.00	
185.25	4386.79	1.00	184.57	80.77	0.00	0.000000
	185.05					
	121814.02					
	0.00000					
	46.00	2.34	-0.03	-5.73	0.00	
195.94	4386.85	1.03	188.95	80.59	0.00	0.000000
	189.44					
	124707.44					
	0.00000					
	47.00	2.42	-0.05	-9.97	0.01	
214.42	4386.93	1.10	194.30	80.38	0.01	0.000000
	194.81					
	128240.52					
	0.00000					
	48.00	2.53	-0.06	-13.75	0.01	
234.08	4387.04	1.15	202.36	80.07	0.01	0.000000
	202.89					
	133559.80					
	0.00000					
	49.00	2.65	-0.06	-16.45	0.01	
258.62	4387.16	1.22	211.61	79.74	0.01	0.000000
	212.16					
	139664.77					
	0.00000					
	50.00	2.79	-0.06	-18.41	0.01	
286.31	4387.30	1.29	221.57	79.39	0.01	0.000000
	222.15					
	146237.94					
	0.00000					
	51.00	2.93	-0.07	-21.02	0.01	
316.77	4387.44	1.36	231.76	79.06	0.01	0.000000
	232.36					
	152963.53					
	0.00000					
	52.00	3.08	-0.07	-24.68	0.01	
351.02	4387.59	1.44	242.46	78.72	0.01	0.000000
	243.09					
	160023.81					
	0.00000					
	53.00	3.25	-0.08	-30.45	0.01	
391.28	4387.76	1.53	254.86	78.36	0.01	0.000000
	255.52					
	168208.17					
	0.00000					
	54.00	3.41	-0.06	-25.25	0.01	
431.09	4387.92	1.62	266.20	78.03	0.01	0.000000
	266.89					
	175693.34					
	0.00000					
	55.00	3.56	-0.07	-33.65	0.01	
472.09	4388.07	1.70	276.50	77.76	0.01	0.000000
	277.22					
	182490.50					
	0.00000					
	56.00	3.75	-0.09	-48.38	0.01	
527.83	4388.26	1.81	290.26	77.40	0.01	0.000000
	291.01					
	191572.16					
	0.00000					
	57.00	4.04	-0.13	-82.16	0.01	
612.78	4388.55	1.97	310.54	76.91	0.01	0.000000
	311.34					
	204954.28					
	0.00000					
	58.00	4.41	-0.16	-116.59	0.01	
735.15	4388.92	2.18	336.89	76.32	0.01	0.000000
	337.77					
	222350.62					
	0.00000					
	59.00	4.82	-0.14	-126.49	0.01	
877.72	4389.33	2.40	365.31	75.75	0.01	0.000000
	366.26					
	241103.47					
	0.00000					
	60.00	5.18	-0.12	-121.26	0.01	
1020.84	4389.69	2.61	390.05	75.28	0.01	0.000000
	391.06					
	257432.27					
	0.00000					
	61.00	5.51	-0.11	-131.45	0.01	
1156.35	4390.02	2.81	412.92	74.88	0.01	0.000000
	411.02					
	272524.50					
	0.00000					
	62.00	5.75	-0.08	-94.77	0.01	
	4390.26					

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		HYCHAN.OUT				
1254.00	411.50	3.05	429.32	74.60	0.000000	
0.00000	283352.72					
63.00	4390.40	5.89	-0.07	-88.72	0.00	
1310.52	411.76	3.18	438.31	74.46	0.000000	
0.00000	289283.84					
64.00	4390.52	6.01	-0.10	-142.74	0.01	
1366.30	412.01	3.32	446.95	74.32	0.000000	
0.00000	294989.84					
65.00	4390.73	6.22	-0.09	-132.10	0.01	
1438.37	412.42	3.49	460.84	74.11	0.000000	
0.00000	304152.97					
66.00	4390.95	6.44	-0.06	-85.99	0.00	
1515.01	412.86	3.67	475.62	73.89	0.000000	
0.00000	313909.47					
67.00	4391.15	6.64	-0.03	-49.38	0.00	
1591.07	413.28	3.85	489.61	73.69	0.000000	
0.00000	323145.19					
68.00	4391.36	6.85	0.03	57.49	0.00	
1708.57	413.69	4.13	503.38	73.49	0.000000	
0.00000	332230.50					
69.00	4391.56	7.05	0.08	139.65	0.01	
1781.77	414.08	4.30	516.75	73.31	0.000017	
0.00466	341052.81					
70.00	4391.77	7.26	0.17	313.47	0.01	
1861.68	414.50	4.49	530.71	73.13	0.000030	
0.00847	350269.19					
71.00	4391.96	7.45	0.19	375.17	0.01	
1938.99	414.89	4.67	543.81	72.96	0.000000	
0.00000	358912.56					
72.00	4392.20	7.69	0.20	409.79	0.01	
2040.91	415.37	4.91	559.70	72.76	0.000022	
0.00676	369400.59					
73.00	4392.42	7.91	0.23	490.10	0.01	
2127.57	415.80	5.12	573.97	72.59	0.000000	
0.00000	378820.97					
74.00	4392.60	8.09	0.25	540.99	0.02	
2202.21	416.16	5.29	586.02	72.45	0.000049	
0.01610	386774.84					
75.00	4392.75	8.24	0.26	586.34	0.02	
2263.44	416.46	5.43	595.81	72.34	0.000011	
0.00363	393237.19					
76.00	4392.91	8.40	0.25	591.05	0.02	
2328.37	416.78	5.59	606.34	72.22	0.000071	
0.02463	400186.94					
77.00	4393.09	8.58	0.25	590.80	0.01	
2406.00	417.15	5.77	618.58	72.08	0.000008	
0.00297	408263.34					
78.00	4393.27	8.76	0.25	612.52	0.01	
2477.89	417.50	5.94	630.04	71.96	0.000078	
0.02891	415825.88					
79.00	4393.44	8.93	0.25	636.03	0.01	
2550.35	417.84	6.10	641.38	71.84	0.000000	
0.00000	423307.66					
80.00	4393.60	9.10	0.24	632.86	0.01	
2619.38	418.18	6.26	652.34	71.72	0.000053	
0.02071	430542.38					
81.00	4393.80	9.29	0.23	631.25	0.01	
2700.72	418.57	6.45	665.11	71.59	0.000058	
0.02321	438969.91					
82.00	4394.03	9.52	0.22	623.89	0.01	
2800.34	419.04	6.68	680.41	71.44	0.000000	
0.00000	449071.69					
83.00	4394.27	9.77	0.22	648.76	0.01	

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		HYCHAN.OUT					
2901.39	419.52	6.92	696.12	71.29	0.000000		
0.00000	459440.34						
84.00	4394.50	9.99	0.21	626.41	0.01		
2995.45	419.97	7.13	0.21	710.96	71.15	0.000000	
0.00000	469235.81						
85.00	4394.84	10.33	0.23	709.57	0.01		
3137.46	420.66	7.46	0.23	733.13	70.94	0.000013	
0.00616	483867.75						
86.00	4395.17	10.66	0.26	854.10	0.01		
3266.73	421.30	7.75	0.26	753.92	70.75	0.000000	
0.00000	497586.78						
87.00	4395.46	10.95	0.30	1016.05	0.02		
3388.75	421.90	8.03	0.30	773.20	70.59	0.000034	
0.01680	510312.38						
88.00	4395.74	11.23	0.35	1229.86	0.02		
3498.86	422.45	8.28	0.35	791.04	70.43	0.000000	
0.00000	522089.44						
89.00	4396.00	11.49	0.41	1467.13	0.02		
3595.36	422.97	8.50	0.41	807.72	70.30	0.000000	
0.00000	533094.38						
90.00	4396.21	11.70	0.46	1672.31	0.02		
3674.05	423.38	8.68	0.46	820.97	70.19	0.000000	
0.00000	541840.12						
91.00	4396.33	11.82	0.50	1856.35	0.03		
3732.81	423.63	8.81	0.50	828.92	70.12	0.000054	
0.02970	547086.69						
92.00	4396.38	11.87	0.51	1927.27	0.03		
3752.21	423.74	8.86	0.51	832.35	70.10	0.000014	
0.00763	549354.31						
93.00	4396.38	11.87	0.51	1930.89	0.03		
3751.95	423.72	8.85	0.51	831.90	70.10	0.000000	
0.00000	549053.06						
94.00	4396.30	11.79	0.50	1849.72	0.03		
3722.50	423.58	8.79	0.50	827.26	70.14	0.000076	
0.04181	545993.12						
95.00	4396.16	11.65	0.47	1709.96	0.02		
3661.71	423.28	8.65	0.47	817.78	70.21	0.000052	
0.02805	539732.69						
96.00	4395.99	11.48	0.44	1575.01	0.02		
3589.03	422.95	8.49	0.44	807.14	70.30	0.000000	
0.00000	532710.94						
97.00	4395.79	11.28	0.41	1431.13	0.02		
3515.77	422.55	8.32	0.41	794.14	70.41	0.000043	
0.02224	524133.41						
98.00	4395.58	11.08	0.38	1291.49	0.02		
3434.55	422.14	8.14	0.38	781.00	70.52	0.000041	
0.02079	515462.72						
99.00	4395.39	10.88	0.34	1141.32	0.02		
3354.04	421.74	7.95	0.34	768.26	70.63	0.000000	
0.00000	507049.84						
100.00	4395.16	10.65	0.32	1051.64	0.02		
3263.86	421.30	7.75	0.32	753.82	70.75	0.000000	
0.00000	497523.47						
101.00	4394.75	10.24	0.31	966.87	0.02		
3098.60	420.48	7.37	0.31	727.32	70.99	0.000056	
0.02562	480032.44						
102.00	4394.40	9.89	0.30	873.87	0.02		
2952.47	419.77	7.03	0.30	704.35	71.21	0.000000	
0.00000	464872.66						
103.00	4394.21	9.70	0.29	845.68	0.02		
2873.37	419.38	6.85	0.29	691.73	71.33	0.000058	
0.02475	456540.25						
104.00	4394.08	9.57	0.31	879.68	0.02		

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		HYCHAN.OUT					
2823.03	419.14	6.74	683.68	71.41	0.000032		
0.01342	451228.97						
105.00	4394.01	9.50	0.32	900.19	0.02		
2792.22	418.99	6.66	679.01	71.45	0.000000		
0.00000	448145.41						
106.00	4393.95	9.44	0.34	926.23	0.02		
2764.69	418.86	6.60	674.60	71.50	0.000051		
0.02093	445237.06						
107.00	4393.88	9.37	0.36	978.42	0.02		
2734.98	418.72	6.53	670.04	71.54	0.000000		
0.00000	442223.12						
108.00	4393.77	9.26	0.37	1006.31	0.02		
2693.41	418.52	6.44	663.42	71.61	0.000000		
0.00000	437856.62						
109.00	4393.64	9.13	0.40	1040.67	0.02		
2633.21	418.24	6.30	654.47	71.70	0.000013		
0.00519	431949.00						
110.00	4393.50	8.99	0.41	1046.70	0.02		
2574.07	417.96	6.16	645.24	71.80	0.000040		
0.01544	425856.44						
111.00	4393.35	8.85	0.42	1051.93	0.02		
2515.78	417.68	6.02	635.92	71.90	0.000000		
0.00000	419706.06						
112.00	4393.21	8.70	0.42	1030.18	0.03		
2457.02	417.39	5.89	626.37	72.00	0.000067		
0.02461	413405.50						
113.00	4393.06	8.55	0.43	1027.54	0.03		
2397.19	417.10	5.75	616.80	72.10	0.000031		
0.01118	407084.84						
114.00	4392.92	8.41	0.43	1008.39	0.03		
2333.65	416.80	5.60	607.08	72.21	0.000041		
0.01442	400674.62						
115.00	4392.74	8.23	0.44	1002.58	0.03		
2260.83	416.45	5.43	595.62	72.34	0.000034		
0.01141	393111.75						
116.00	4392.54	8.03	0.44	959.06	0.03		
2175.52	416.05	5.23	582.21	72.50	0.000000		
0.00000	384259.38						
117.00	4392.40	7.89	0.45	947.30	0.03		
2116.85	415.76	5.09	572.76	72.61	0.000030		
0.00949	378019.41						
118.00	4392.29	7.78	0.44	916.15	0.03		
2072.36	415.55	4.99	565.67	72.69	0.000000		
0.00000	373341.41						
119.00	4392.20	7.69	0.44	904.93	0.03		
2037.87	415.38	4.91	559.85	72.76	0.000041		
0.01257	369503.03						
120.00	4392.12	7.61	0.44	882.64	0.03		
2006.95	415.21	4.83	554.46	72.83	0.000009		
0.00262	365941.53						
121.00	4392.04	7.54	0.44	869.79	0.03		
1975.76	415.06	4.76	549.26	72.89	0.000000		
0.00000	362511.25						
122.00	4391.97	7.46	0.44	855.59	0.03		
1946.19	414.91	4.69	544.41	72.95	0.000000		
0.00000	359313.50						
123.00	4391.91	7.40	0.44	845.86	0.03		
1920.13	414.78	4.63	540.09	73.01	0.000035		
0.01016	356459.81						
124.00	4391.84	7.33	0.45	844.29	0.03		
1892.21	414.65	4.56	535.82	73.06	0.000000		
0.00000	353638.25						
125.00	4391.77	7.26	0.45	834.08	0.03		

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		HYCHAN.OUT					
1865.17	414.52	4.50	531.19	73.12	0.000042		
0.01177	350583.88						
126.00	4391.70	7.19	0.45	834.06	0.03		
1836.15	414.38	4.43	526.55	73.18	0.000034		
0.00931	347524.59						
127.00	4391.63	7.12	0.46	824.53	0.03		
1804.17	414.23	4.36	521.78	73.25	0.000019		
0.00523	344377.31						
128.00	4391.56	7.05	0.46	822.39	0.03		
1775.54	414.09	4.29	517.04	73.31	0.000009		
0.00241	341246.31						
129.00	4391.49	6.98	0.47	819.35	0.03		
1746.96	413.95	4.22	512.34	73.37	0.000000		
0.00000	338142.12						
130.00	4391.42	6.91	0.47	814.38	0.03		
1718.01	413.81	4.15	507.53	73.44	0.000028		
0.00737	334969.44						
131.00	4391.35	6.84	0.48	810.77	0.03		
1689.47	413.68	4.08	503.03	73.50	0.000000		
0.00000	332001.44						
132.00	4391.28	6.77	0.48	799.14	0.03		
1661.46	413.54	4.02	498.32	73.56	0.000038		
0.00942	328892.88						
133.00	4391.22	6.71	0.49	798.75	0.03		
1634.00	413.41	3.95	493.95	73.63	0.000000		
0.00000	326005.31						
134.00	4391.16	6.65	0.49	784.30	0.03		
1610.09	413.29	3.90	489.91	73.68	0.000000		
0.00000	323338.59						
135.00	4391.11	6.60	0.48	770.82	0.03		
1589.71	413.19	3.85	486.55	73.73	0.000000		
0.00000	321122.22						
136.00	4391.06	6.55	0.48	761.37	0.03		
1569.96	413.09	3.80	483.35	73.78	0.000000		
0.00000	319011.12						
137.00	4391.02	6.51	0.49	753.22	0.03		
1550.44	413.00	3.75	480.25	73.82	0.000000		
0.00000	316966.19						
138.00	4390.97	6.46	0.48	742.50	0.03		
1532.99	412.91	3.71	477.32	73.86	0.000040		
0.00936	315029.62						
139.00	4390.93	6.42	0.49	741.23	0.03		
1515.73	412.83	3.67	474.62	73.90	0.000000		
0.00000	313248.53						
140.00	4390.89	6.38	0.48	726.28	0.03		
1498.14	412.75	3.63	471.80	73.94	0.000000		
0.00000	311390.28						
141.00	4390.85	6.34	0.49	717.11	0.03		
1468.63	412.68	3.56	469.34	73.98	0.000012		
0.00272	309765.69						
142.00	4390.82	6.31	0.49	717.49	0.03		
1451.27	412.60	3.52	466.82	74.02	0.000012		
0.00271	308100.31						
143.00	4390.78	6.27	0.49	709.88	0.03		
1434.59	412.52	3.48	464.06	74.06	0.000013		
0.00279	306281.31						
144.00	4390.74	6.23	0.49	700.90	0.03		
1418.31	412.44	3.44	461.37	74.10	0.000013		
0.00285	304505.94						
145.00	4390.70	6.19	0.49	693.51	0.04		
1402.98	412.37	3.40	458.84	74.14	0.000012		
0.00262	302834.91						
146.00	4390.66	6.15	0.49	683.22	0.03		

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		HYCHAN.OUT					
1387.76	412.29	3.37	456.33	74.18	0.000013		
0.00276	301175.09						
147.00	4390.62	6.11	0.50	679.91	0.04		
1371.79	412.21	3.33	453.68	74.22	0.000013		
0.00270	299429.84						
148.00	4390.58	6.07	0.50	674.93	0.04		
1355.30	412.13	3.29	450.95	74.26	0.000013		
0.00260	297628.75						
149.00	4390.54	6.04	0.50	668.16	0.04		
1339.88	412.06	3.25	448.40	74.30	0.000014		
0.00286	295944.00						
150.00	4390.51	6.00	0.50	663.57	0.04		
1323.85	411.98	3.21	445.74	74.34	0.000014		
0.00285	294189.44						
151.00	4390.47	5.96	0.50	655.28	0.04		
1309.33	411.91	3.18	443.34	74.38	0.000014		
0.00279	292603.00						
152.00	4390.44	5.93	0.50	650.32	0.04		
1295.06	411.84	3.14	440.97	74.42	0.000014		
0.00284	291041.28						
153.00	4390.40	5.89	0.50	646.18	0.04		
1280.86	411.77	3.11	438.62	74.45	0.000015		
0.00291	289486.00						
154.00	4390.37	5.86	0.51	645.64	0.04		
1266.39	411.70	3.08	436.21	74.49	0.000015		
0.00290	287899.22						
155.00	4390.33	5.82	0.51	639.62	0.04		
1252.41	411.63	3.04	433.89	74.53	0.000016		
0.00311	286367.31						
156.00	4390.30	5.79	0.51	637.43	0.04		
1238.97	411.57	3.01	431.66	74.57	0.000017		
0.00311	284893.97						
157.00	4390.27	5.76	0.52	638.13	0.04		
1225.99	411.50	2.98	429.50	74.60	0.000017		
0.00313	283468.91						
158.00	4390.24	5.73	0.52	630.15	0.04		
1216.34	411.46	2.96	427.90	74.63	0.000017		
0.00313	282412.41						
159.00	4390.23	5.72	0.52	625.94	0.04		
1212.54	411.44	2.95	427.27	74.64	0.000017		
0.00307	281999.19						
160.00	4390.23	5.72	0.52	625.61	0.04		
1209.03	411.42	2.94	426.69	74.65	0.000018		
0.00321	281615.41						
161.00	4390.22	5.71	0.52	624.39	0.04		
1205.66	411.40	2.93	426.13	74.66	0.000017		
0.00316	281245.31						
162.00	4390.21	5.70	0.52	624.60	0.04		
1202.51	411.39	2.92	425.61	74.66	0.000018		
0.00320	280900.56						
163.00	4390.20	5.69	0.52	624.12	0.04		
1198.76	411.37	2.91	424.98	74.67	0.000018		
0.00319	280487.88						
164.00	4390.19	5.68	0.52	623.81	0.04		
1195.74	411.35	2.91	424.48	74.68	0.000018		
0.00328	280156.66						
165.00	4390.19	5.68	0.52	622.94	0.04		
1192.79	411.34	2.90	423.99	74.69	0.000018		
0.00328	279833.31						
166.00	4390.18	5.67	0.52	623.98	0.04		
1189.94	411.33	2.89	423.51	74.70	0.000018		
0.00329	279518.97						
167.00	4390.17	5.66	0.53	627.14	0.04		

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				HYCHAN.OUT			
1184.62		411.30		2.88	422.63	74.71	0.000019
	0.00334	278933.16					
168.00		4390.15	5.64	0.53	626.16	0.04	
1177.44		411.27		2.86	421.43	74.73	0.000019
	0.00339	278142.56					
169.00		4390.13	5.62	0.53	623.22	0.04	
1170.45		411.23		2.85	420.26	74.75	0.000019
	0.00336	277373.38					
170.00		4390.12	5.61	0.53	619.57	0.04	
1164.54		411.20		2.83	419.28	74.77	0.000019
	0.00337	276723.22					
171.00		4390.10	5.60	0.53	616.64	0.04	
1159.38		411.18		2.82	418.42	74.78	0.000019
	0.00335	276155.94					
172.00		4390.09	5.58	0.53	613.67	0.04	
1154.30		411.15		2.81	417.57	74.80	0.000019
	0.00339	275596.31					
173.00		4390.08	5.57	0.53	610.70	0.04	
1149.60		411.13		2.80	416.79	74.81	0.000019
	0.00339	275079.34					
174.00		4390.07	5.56	0.53	608.73	0.04	
1145.19		411.11		2.79	416.05	74.82	0.000020
	0.00349	274594.44					
175.00		4390.05	5.54	0.54	609.32	0.04	
1138.25		411.07		2.77	414.89	74.84	0.000020
	0.00347	273828.94					
176.00		4390.03	5.52	0.54	605.99	0.04	
1129.69		411.03		2.75	413.46	74.87	0.000020
	0.00350	272886.72					
177.00		4390.01	5.50	0.54	602.08	0.04	
1121.58		410.99		2.73	412.11	74.89	0.000020
	0.00343	271993.94					
178.00		4390.00	5.49	0.54	598.89	0.04	
1114.80		410.96		2.71	410.98	74.91	0.000020
	0.00346	271246.72					
179.00		4389.98	5.47	0.54	597.01	0.04	
1108.81		410.93		2.70	409.98	74.93	0.000021
	0.00356	270587.66					
180.00		4389.97	5.46	0.54	594.30	0.04	
1103.18		410.13		2.69	409.07	74.94	0.000021
	0.00352	269985.34					
181.00		4389.96	5.45	0.54	590.66	0.04	
1098.47		409.37		2.68	408.31	74.96	0.000021
	0.00345	269482.53					
182.00		4389.96	5.45	0.53	582.14	0.04	
1099.35		409.51		2.68	408.45	74.95	0.000020
	0.00341	269579.47					
183.00		4389.98	5.47	0.52	577.07	0.04	
1106.49		410.67		2.69	409.61	74.93	0.000020
	0.00328	270343.69					
184.00		4390.00	5.49	0.51	573.42	0.04	
1115.45		410.96		2.71	411.10	74.91	0.000019
	0.00320	271325.78					
185.00		4390.02	5.51	0.51	572.54	0.04	
1125.14		411.01		2.74	412.72	74.88	0.000018
	0.00313	272392.44					
186.00		4390.04	5.53	0.51	573.32	0.04	
1131.84		411.04		2.75	413.83	74.86	0.000018
	0.00303	273128.88					
187.00		4390.05	5.54	0.50	573.48	0.04	
1136.03		411.06		2.76	414.53	74.85	0.000018
	0.00308	273589.12					
188.00		4390.05	5.54	0.50	572.74	0.04	

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		HYCHAN.OUT							
1138.18	0.00304	411.07	2.77	414.89	74.84	0.000018			
189.00	4390.06	273826.09	5.55	0.50	570.88	0.04			
1139.51	0.00308	411.08	2.77	415.11	74.84	0.000018			
190.00	4390.06	273971.97	5.55	0.50	569.89	0.04			
1139.97	0.00296	411.08	2.77	415.19	74.84	0.000017			
191.00	4390.06	274022.97	5.55	0.50	568.14	0.04			
1140.09	0.00300	411.08	2.77	415.21	74.84	0.000017			
192.00	4390.06	274035.91	5.55	0.50	567.56	0.04			
1139.07	0.00301	411.08	2.77	415.04	74.84	0.000017			
193.00	4390.04	273923.53	5.53	0.50	570.21	0.04			
1134.05	0.00309	411.05	2.76	414.20	74.86	0.000018			
194.00	4390.02	273369.03	5.52	0.50	568.21	0.04			
1126.61	0.00317	411.02	2.74	412.95	74.88	0.000019			
195.00	4390.01	272548.56	5.50	0.50	564.72	0.04			
1119.99	0.00317	410.99	2.73	411.85	74.90	0.000019			
196.00	4390.00	271818.97	5.49	0.50	561.62	0.04			
1114.92	0.00301	410.96	2.71	411.00	74.91	0.000018			
197.00	4389.99	271260.66	5.48	0.50	559.04	0.04			
1110.96	0.00317	410.94	2.70	410.34	74.92	0.000019			
198.00	4389.98	270823.97	5.47	0.50	556.13	0.04			
1108.11	0.00305	410.93	2.70	409.87	74.93	0.000018			
199.00	4389.97	270511.59	5.46	0.50	554.10	0.04			
1105.45	0.00299	410.50	2.69	409.44	74.94	0.000018			
		270227.28							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4116

MAXIMUM DISCHARGE (CFS) = 2497.33 AT TIME = 92.08  
 MAXIMUM STAGE = 4396.46 AT TIME = 91.65

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	(HRS)	(FT)	AREA	(FT)	(FPS)	(CFS)		
(FT^2)	(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)		
0.00	0.00	4384.35	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4384.35	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4384.35	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4384.35	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4384.35	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4384.35	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4384.35	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
12.03	7.00	4384.50	0.16	-0.16	-1.93	0.07	0.000000
		15.84	0.76	15.80	101.79		0.000000
36.30	8.00	4385.34	0.99	-0.33	-11.85	0.06	0.000000
		86.51	0.42	86.28	86.76		0.000000
51.50	9.00	4385.60	1.25	-0.15	-7.48	0.02	0.000000
		106.96	0.48	106.69	85.05		0.000000
59.38	10.00	4385.63	1.28	-0.02	-0.94	0.00	0.000000
		108.97	0.54	108.69	84.90		0.000000
44.41	11.00	4385.61	1.26	0.05	2.25	0.01	0.000000
		107.66	0.41	107.38	84.99		0.000000
40.73	12.00	4385.56	1.21	0.05	2.10	0.01	0.000000
		103.37	0.39	103.11	85.32		0.000000
36.25	13.00	4385.50	1.15	0.07	2.59	0.01	0.000008
		98.75	0.37	98.50	85.69		0.000008
30.59	14.00	4385.41	1.06	0.10	3.14	0.02	0.000017
		91.63	0.33	91.39	86.29		0.000017
24.95	15.00	4385.31	0.96	0.10	2.53	0.02	0.000010
		83.48	0.30	83.26	87.05		0.000010
21.03	16.00	4385.23	0.88	0.07	1.40	0.01	0.000000
		77.56	0.27	77.35	87.66		0.000000
19.32	17.00	4385.19	0.84	0.04	0.82	0.01	0.000000
		74.32	0.26	74.13	88.01		0.000000
19.10	18.00	4385.17	0.82	0.02	0.46	0.00	0.000000
		72.75	0.26	72.56	88.19		0.000000
0.00	19.00	4385.17	0.82	0.00	0.00	0.00	0.000000
		72.14	0.00	71.95	88.26		0.000000
25.15	20.00	4385.20	0.85	-0.06	-1.43	0.01	0.000000
		75.06	0.34	74.86	87.93		0.000000
30.96	21.00	4385.30	0.95	-0.10	-3.04	0.02	0.000000
		83.29	0.37	83.08	87.07		0.000000
39.38	22.00	4385.44	1.09	-0.11	-4.40	0.02	0.000000
		93.72	0.42	93.48	86.11		0.000000
47.70	23.00	4385.56	1.21	-0.09	-4.28	0.01	0.000000
		103.23	0.46	102.96	85.33		0.000000
52.77	24.00	4385.62	1.27	-0.05	-2.38	0.01	0.000000
		108.36	0.49	108.08	84.94		0.000000
59.12	25.00	4385.69	1.34	-0.08	-4.63	0.01	0.000000
		113.57	0.52	113.27	84.57		0.000000

		HYCHAN.OUT					
	0.00000	67964.15					
71.90	26.00	4385.83	1.48	-0.14	-9.77	0.02	
		124.16	0.58	123.84	83.86	0.000000	
	0.00000	74303.83					
90.18	27.00	4386.01	1.66	-0.15	-13.54	0.02	
		138.05	0.65	137.69	83.03	0.000000	
	0.00000	82616.73					
114.21	28.00	4386.23	1.88	-0.17	-18.92	0.02	
		154.59	0.74	154.19	82.15	0.000000	
	0.00000	92513.83					
136.21	29.00	4386.41	2.06	-0.10	-13.70	0.01	
		168.40	0.81	167.97	81.49	0.000000	
	0.00000	100779.13					
150.50	30.00	4386.51	2.16	-0.05	-8.14	0.01	
		175.76	0.86	175.31	81.16	0.000000	
	0.00000	105185.77					
162.95	31.00	4386.60	2.25	-0.07	-10.69	0.01	
		182.19	0.89	181.72	80.89	0.000000	
	0.00000	109030.01					
174.34	32.00	4386.68	2.33	-0.04	-7.13	0.00	
		188.08	0.93	187.59	80.65	0.000000	
	0.00000	112555.45					
182.42	33.00	4386.72	2.37	-0.03	-5.77	0.00	
		191.63	0.95	191.14	80.51	0.000000	
	0.00000	114682.11					
192.57	34.00	4386.79	2.44	-0.05	-10.13	0.01	
		196.58	0.98	196.07	80.31	0.000000	
	0.00000	117643.72					
202.49	35.00	4386.86	2.51	-0.03	-6.42	0.00	
		201.46	1.01	200.94	80.13	0.000000	
	0.00000	120563.98					
214.22	36.00	4386.88	2.53	-0.02	-5.00	0.00	
		203.43	1.05	202.90	80.05	0.000000	
	0.00000	121742.39					
0.00	37.00	4386.92	2.58	0.00	0.00	0.00	
		206.41	0.00	205.87	79.94	0.000000	
	0.00000	123524.30					
203.35	38.00	4386.91	2.56	0.01	3.00	0.00	
		205.27	0.99	204.74	79.99	0.000000	
	0.00000	122842.44					
197.06	39.00	4386.86	2.51	0.04	8.28	0.00	
		201.60	0.98	201.08	80.12	0.000000	
	0.00000	120648.44					
188.31	40.00	4386.80	2.45	0.03	5.98	0.00	
		197.48	0.95	196.97	80.28	0.000000	
	0.00000	118182.19					
180.93	41.00	4386.77	2.42	0.01	2.35	0.00	
		195.31	0.93	194.80	80.36	0.000000	
	0.00000	116880.41					
0.00	42.00	4386.76	2.41	0.00	0.00	0.00	
		194.14	0.00	193.64	80.41	0.000016	
	0.00000	116183.68					
0.00	43.00	4386.75	2.40	0.00	0.00	0.00	
		193.49	0.00	192.99	80.43	0.000009	
	0.00000	115792.03					
181.29	44.00	4386.75	2.40	-0.01	-2.00	0.00	
		193.62	0.94	193.12	80.43	0.000000	
	0.00000	115874.30					
188.72	45.00	4386.79	2.45	-0.04	-8.17	0.00	
		196.88	0.96	196.37	80.30	0.000000	
	0.00000	117824.40					
198.27	46.00	4386.85	2.50	-0.04	-7.43	0.00	
		201.21	0.99	200.69	80.14	0.000000	

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		HYCHAN.OUT					
	0.00000	120414.81					
215.72	47.00	4386.93	2.58	-0.06	-12.87	0.01	
	0.00000	206.62	1.04		206.08	79.94	0.000000
234.22	48.00	4387.04	2.69	-0.08	-17.69	0.01	
	0.00000	214.68	1.09		214.12	79.65	0.000000
257.15	49.00	4387.16	2.81	-0.08	-20.98	0.01	
	0.00000	223.90	1.15		223.33	79.33	0.000000
282.90	50.00	4387.30	2.95	-0.08	-23.37	0.01	
	0.00000	233.84	1.21		233.23	79.01	0.000000
311.16	51.00	4387.44	3.09	-0.09	-26.53	0.01	
	0.00000	244.00	1.28		243.37	78.70	0.000000
342.87	52.00	4387.59	3.24	-0.09	-30.96	0.01	
	0.00000	254.68	1.35		254.02	78.38	0.000000
380.03	53.00	4387.76	3.41	-0.10	-37.94	0.01	
	0.00000	267.07	1.42		266.38	78.03	0.000000
416.52	54.00	4387.92	3.57	-0.08	-31.32	0.01	
	0.00000	278.36	1.50		277.64	77.73	0.000000
454.19	55.00	4388.07	3.72	-0.09	-41.59	0.01	
	0.00000	288.66	1.57		287.91	77.46	0.000000
505.40	56.00	4388.26	3.91	-0.12	-59.59	0.01	
	0.00000	302.43	1.67		301.65	77.12	0.000000
583.18	57.00	4388.55	4.20	-0.17	-100.09	0.01	
	0.00000	322.76	1.81		321.92	76.65	0.000000
694.65	58.00	4388.93	4.58	-0.20	-140.48	0.02	
	0.00000	349.12	1.99		348.22	76.09	0.000000
823.55	59.00	4389.33	4.98	-0.18	-151.23	0.01	
	0.00000	377.47	2.18		376.49	75.53	0.000000
953.44	60.00	4389.69	5.34	-0.15	-144.00	0.01	
	0.00000	402.16	2.37		401.12	75.08	0.000000
1087.02	61.00	4390.03	5.68	-0.16	-168.79	0.01	
	0.00000	411.34	2.64		423.94	74.69	0.000000
1185.44	62.00	4390.27	5.92	-0.13	-155.57	0.01	
	0.00000	411.82	2.88		440.32	74.43	0.000000
1241.45	63.00	4390.40	6.05	-0.15	-190.08	0.01	
	0.00000	412.09	3.01		449.35	74.28	0.000000
1294.19	64.00	4390.53	6.18	-0.21	-269.60	0.01	
	0.00000	412.34	3.14		458.01	74.15	0.000000
1374.11	65.00	4390.73	6.38	-0.21	-288.13	0.01	
	0.00000	412.75	3.33		471.87	73.94	0.000000
1448.37	66.00	4390.95	6.60	-0.18	-267.94	0.01	
	0.00251	413.19	3.51		486.57	73.73	0.000011
1527.18	67.00	4391.16	6.81	-0.14	-213.15	0.01	
		413.60	3.69		500.53	73.53	0.000000

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HYCHAN.OUT									
0.00000	300319.53								
68.00	4391.36	7.01	-0.05	-77.94	0.00				
1600.10	414.01	3.86	514.24	73.35	0.000000				
0.00000	308546.25								
69.00	4391.56	7.21	0.02	28.23	0.00				
1740.03	414.41	4.20	527.55	73.17	0.000000				
0.00000	316527.78								
70.00	4391.77	7.42	0.12	214.55	0.01				
1786.30	414.82	4.31	541.41	72.99	0.000000				
0.00000	324843.28								
71.00	4391.96	7.61	0.15	276.84	0.01				
1860.38	415.21	4.48	554.45	72.83	0.000000				
0.00000	332670.03								
72.00	4392.20	7.85	0.16	311.45	0.01				
1965.49	415.69	4.73	570.41	72.63	0.000000				
0.00000	342245.78								
73.00	4392.42	8.07	0.19	397.71	0.01				
2052.00	416.12	4.93	584.53	72.47	0.000008				
0.00236	350720.16								
74.00	4392.60	8.25	0.22	465.73	0.01				
2125.38	416.48	5.10	596.62	72.33	0.000000				
0.00000	357970.03								
75.00	4392.75	8.40	0.23	509.46	0.01				
2186.10	416.78	5.25	606.38	72.22	0.000000				
0.00000	363830.94								
76.00	4392.91	8.56	0.24	530.14	0.01				
2251.50	417.10	5.40	616.87	72.10	0.000011				
0.00368	370124.34								
77.00	4393.09	8.74	0.23	525.13	0.01				
2327.65	417.47	5.58	629.14	71.97	0.000000				
0.00000	377485.41								
78.00	4393.26	8.91	0.24	564.65	0.01				
2399.43	417.82	5.74	640.49	71.85	0.000034				
0.01221	384292.22								
79.00	4393.44	9.09	0.23	579.54	0.01				
2468.76	418.16	5.90	651.80	71.73	0.000000				
0.00000	391083.00								
80.00	4393.60	9.25	0.23	596.28	0.01				
2537.74	418.50	6.06	662.80	71.62	0.000043				
0.01636	397677.59								
81.00	4393.80	9.45	0.22	587.60	0.01				
2619.00	418.89	6.25	675.56	71.49	0.000000				
0.00000	405333.19								
82.00	4394.03	9.68	0.21	576.54	0.01				
2716.91	419.35	6.48	690.61	71.34	0.000000				
0.00000	414367.25								
83.00	4394.27	9.93	0.22	611.03	0.01				
2818.31	419.84	6.71	706.55	71.19	0.000000				
0.00000	423933.00								
84.00	4394.50	10.15	0.20	585.10	0.01				
2910.97	420.29	6.93	721.17	71.05	0.000000				
0.00000	432702.97								
85.00	4394.84	10.49	0.23	693.38	0.01				
3053.62	420.97	7.25	743.37	70.85	0.000137				
0.06188	446024.12								
86.00	4395.16	10.81	0.26	832.32	0.01				
3181.86	421.61	7.55	764.07	70.66	0.000058				
0.02751	458443.16								
87.00	4395.46	11.11	0.31	1016.63	0.02				
3305.86	422.22	7.83	783.53	70.50	0.000081				
0.03969	470118.03								
88.00	4395.74	11.39	0.36	1241.54	0.02				
3415.33	422.76	8.08	801.18	70.35	0.000041				

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## HYCHAN.OUT

0.02073	480708.84						
89.00	4396.00	11.65	0.43	1507.95	0.02		
3518.46	423.28	8.31	817.83	70.21	0.000012		
0.00597	490695.66						
90.00	4396.20	11.85	0.48	1732.17	0.02		
3599.35	423.69	8.50	830.85	70.11	0.000007		
0.00376	498508.12						
91.00	4396.33	11.98	0.53	1939.61	0.03		
3655.53	423.94	8.62	838.93	70.05	0.000000		
0.00000	503360.03						
92.00	4396.38	12.03	0.55	2011.44	0.03		
3675.24	424.04	8.67	842.24	70.02	0.000039		
0.02125	505344.31						
93.00	4396.37	12.02	0.55	2017.54	0.03		
3673.03	424.03	8.66	841.93	70.02	0.000000		
0.00000	505160.53						
94.00	4396.30	11.95	0.53	1943.56	0.03		
3644.77	423.89	8.60	837.25	70.06	0.000006		
0.00340	502351.84						
95.00	4396.15	11.80	0.50	1786.31	0.03		
3583.41	423.60	8.46	827.85	70.13	0.000000		
0.00000	496711.53						
96.00	4395.99	11.64	0.47	1637.31	0.02		
3513.07	423.26	8.30	817.13	70.22	0.000026		
0.01326	490275.03						
97.00	4395.79	11.44	0.43	1491.95	0.02		
3435.38	422.87	8.12	804.45	70.32	0.000000		
0.00000	482669.09						
98.00	4395.58	11.23	0.40	1336.65	0.02		
3351.24	422.46	7.93	791.27	70.43	0.000000		
0.00000	474762.78						
99.00	4395.38	11.03	0.36	1172.55	0.02		
3271.37	422.06	7.75	778.41	70.54	0.000000		
0.00000	467045.53						
100.00	4395.16	10.81	0.34	1079.03	0.02		
3180.36	421.61	7.54	764.13	70.66	0.000000		
0.00000	458479.69						
101.00	4394.75	10.40	0.33	995.64	0.02		
3015.09	420.79	7.17	737.60	70.90	0.000030		
0.01326	442559.78						
102.00	4394.40	10.05	0.30	871.54	0.02		
2868.00	420.09	6.83	714.60	71.11	0.000000		
0.00000	428760.47						
103.00	4394.21	9.86	0.31	859.84	0.02		
2790.02	419.70	6.65	702.06	71.23	0.000000		
0.00000	421237.84						
104.00	4394.08	9.73	0.32	886.31	0.02		
2738.13	419.45	6.53	693.95	71.31	0.000000		
0.00000	416367.38						
105.00	4394.01	9.66	0.33	905.96	0.02		
2706.73	419.30	6.46	689.18	71.35	0.000000		
0.00000	413506.75						
106.00	4393.94	9.59	0.36	952.20	0.02		
2680.23	419.17	6.39	684.87	71.40	0.000108		
0.04313	410924.03						
107.00	4393.87	9.52	0.38	995.21	0.02		
2649.13	419.03	6.32	680.22	71.44	0.000022		
0.00850	408134.78						
108.00	4393.77	9.42	0.40	1042.23	0.02		
2608.09	418.83	6.23	673.68	71.51	0.000064		
0.02473	404209.56						
109.00	4393.64	9.29	0.42	1080.53	0.02		
2547.96	418.56	6.09	664.86	71.60	0.000000		

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HYCHAN.OUT									
	0.00000	398917.66							
110.00	4393.49	9.14	0.44	1089.96	0.03				
2489.03	418.27	5.95	655.50	71.69	0.000000				
	0.00000	393297.50							
111.00	4393.35	9.00	0.45	1087.51	0.03				
2429.81	417.99	5.81	646.14	71.79	0.000000				
	0.00000	387686.69							
112.00	4393.21	8.86	0.45	1076.35	0.03				
2372.20	417.70	5.68	636.61	71.89	0.000036				
	0.01285	381965.56							
113.00	4393.06	8.71	0.46	1062.85	0.03				
2312.12	417.41	5.54	627.07	71.99	0.000000				
	0.00000	376239.44							
114.00	4392.91	8.56	0.46	1046.47	0.03				
2252.96	417.11	5.40	617.19	72.10	0.000037				
	0.01241	370314.97							
115.00	4392.74	8.39	0.47	1027.47	0.03				
2179.60	416.77	5.23	605.91	72.22	0.000016				
	0.00518	363544.56							
116.00	4392.54	8.19	0.46	970.20	0.03				
2099.27	416.36	5.04	592.43	72.38	0.000049				
	0.01533	355456.72							
117.00	4392.39	8.04	0.47	966.23	0.03				
2040.51	416.07	4.90	583.01	72.49	0.000000				
	0.00000	349807.62							
118.00	4392.28	7.93	0.47	938.49	0.03				
1996.24	415.86	4.80	575.82	72.57	0.000020				
	0.00610	345491.88							
119.00	4392.20	7.85	0.47	930.11	0.03				
1960.34	415.68	4.72	570.11	72.64	0.000012				
	0.00367	342063.84							
120.00	4392.12	7.77	0.47	906.53	0.03				
1923.88	415.52	4.63	564.67	72.70	0.000062				
	0.01785	338804.69							
121.00	4392.04	7.69	0.47	892.30	0.03				
1894.14	415.36	4.56	559.49	72.77	0.000072				
	0.02053	335696.75							
122.00	4391.97	7.62	0.47	878.12	0.03				
1864.99	415.22	4.49	554.69	72.83	0.000074				
	0.02080	332814.62							
123.00	4391.90	7.55	0.47	867.52	0.03				
1838.15	415.09	4.43	550.40	72.88	0.000020				
	0.00550	330242.62							
124.00	4391.84	7.49	0.48	861.94	0.03				
1810.31	414.96	4.36	546.02	72.93	0.000000				
	0.00000	327612.66							
125.00	4391.77	7.42	0.48	860.27	0.03				
1783.68	414.82	4.30	541.49	72.99	0.000022				
	0.00589	324896.28							
126.00	4391.70	7.35	0.49	857.99	0.03				
1754.73	414.68	4.23	536.82	73.05	0.000000				
	0.00000	322094.84							
127.00	4391.63	7.28	0.49	849.83	0.03				
1719.02	414.54	4.15	531.96	73.11	0.000044				
	0.01135	319173.56							
128.00	4391.56	7.21	0.50	849.86	0.03				
1689.24	414.40	4.08	527.25	73.17	0.000039				
	0.00996	316352.16							
129.00	4391.48	7.14	0.51	847.80	0.03				
1661.27	414.26	4.01	522.56	73.24	0.000052				
	0.01303	313536.44							
130.00	4391.41	7.06	0.52	844.41	0.03				
1629.99	414.12	3.94	517.78	73.30	0.000034				

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		HYCHAN.OUT					
	0.00832	310667.28					
1599.28	131.00	4391.35	7.00	0.52	837.18	0.03	
		413.98	3.86		513.19	73.36	0.000000
	0.00000	307914.31					
1572.19	132.00	4391.28	6.93	0.53	833.24	0.04	
		413.84	3.80		508.51	73.42	0.000041
	0.00963	305108.50					
1545.10	133.00	4391.21	6.86	0.53	825.51	0.04	
		413.71	3.73		504.05	73.49	0.000018
	0.00427	302432.72					
1519.95	134.00	4391.15	6.80	0.53	810.03	0.04	
		413.59	3.68		500.09	73.54	0.000000
	0.00000	300051.19					
1501.02	135.00	4391.10	6.75	0.53	795.11	0.04	
		413.49	3.63		496.74	73.59	0.000000
	0.00000	298041.97					
1479.99	136.00	4391.05	6.70	0.53	784.45	0.04	
		413.39	3.58		493.50	73.63	0.000000
	0.00000	296099.59					
1460.91	137.00	4391.01	6.66	0.53	775.73	0.04	
		413.30	3.53		490.38	73.68	0.000006
	0.00143	294229.25					
1438.29	138.00	4390.96	6.61	0.53	766.36	0.04	
		413.21	3.48		487.54	73.72	0.000039
	0.00852	292524.72					
1425.73	139.00	4390.92	6.57	0.53	756.55	0.04	
		413.13	3.45		484.74	73.76	0.000000
	0.00000	290845.41					
1405.49	140.00	4390.88	6.53	0.53	746.54	0.04	
		413.05	3.40		482.04	73.79	0.000000
	0.00000	289222.56					
1382.61	141.00	4390.84	6.49	0.53	735.14	0.04	
		412.97	3.35		479.41	73.83	0.000011
	0.00231	287647.69					
1367.23	142.00	4390.81	6.46	0.54	734.92	0.04	
		412.90	3.31		476.88	73.87	0.000011
	0.00237	286127.25					
1350.46	143.00	4390.76	6.41	0.54	727.69	0.04	
		412.82	3.27		474.11	73.91	0.000011
	0.00229	284467.66					
1334.11	144.00	4390.72	6.37	0.54	718.66	0.04	
		412.74	3.23		471.42	73.95	0.000014
	0.00286	282850.25					
1318.72	145.00	4390.69	6.34	0.54	710.35	0.04	
		412.66	3.20		468.88	73.99	0.000013
	0.00268	281328.72					
1303.47	146.00	4390.65	6.30	0.54	699.98	0.04	
		412.59	3.16		466.37	74.02	0.000012
	0.00243	279819.28					
1287.36	147.00	4390.61	6.26	0.54	696.73	0.04	
		412.51	3.12		463.70	74.06	0.000013
	0.00256	278222.75					
1270.75	148.00	4390.57	6.22	0.54	692.10	0.04	
		412.43	3.08		460.96	74.11	0.000014
	0.00270	276575.88					
1255.25	149.00	4390.53	6.18	0.55	684.96	0.04	
		412.35	3.04		458.40	74.14	0.000015
	0.00276	275039.09					
1239.09	150.00	4390.49	6.14	0.55	680.02	0.04	
		412.27	3.01		455.73	74.19	0.000014
	0.00266	273435.94					
1224.53	151.00	4390.46	6.11	0.55	670.45	0.04	
		412.20	2.97		453.32	74.22	0.000015

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HYCHAN.OUT									
	0.00276	271991.94							
1210.13	152.00	4390.42	6.07	2.94	0.55	450.94	664.86	74.26	0.000015
	0.00283	270563.47							
1195.79	153.00	4390.39	6.04	2.90	0.55	448.56	660.61	74.30	0.000016
	0.00284	269138.75							
1181.14	154.00	4390.35	6.00	2.87	0.56	446.14	660.57	74.33	0.000017
	0.00296	267681.03							
1167.04	155.00	4390.32	5.97	2.83	0.56	443.80	654.09	74.37	0.000017
	0.00293	266279.06							
1153.45	156.00	4390.28	5.93	2.80	0.56	441.55	650.90	74.41	0.000017
	0.00292	264927.81							
1140.23	157.00	4390.25	5.90	2.77	0.57	439.35	651.37	74.44	0.000017
	0.00296	263611.44							
1130.59	158.00	4390.23	5.88	2.75	0.57	437.76	640.64	74.47	0.000017
	0.00290	262654.97							
1126.82	159.00	4390.22	5.87	2.74	0.56	437.14	632.92	74.48	0.000017
	0.00292	262284.78							
1123.24	160.00	4390.21	5.86	2.73	0.56	436.55	631.07	74.49	0.000017
	0.00286	261930.80							
1119.84	161.00	4390.20	5.85	2.72	0.56	435.99	628.72	74.50	0.000018
	0.00303	261593.61							
1116.63	162.00	4390.19	5.84	2.71	0.56	435.46	628.34	74.50	0.000018
	0.00308	261275.14							
1112.83	163.00	4390.19	5.84	2.70	0.56	434.83	627.46	74.51	0.000018
	0.00306	260896.58							
1109.75	164.00	4390.18	5.83	2.70	0.56	434.32	626.82	74.52	0.000018
	0.00307	260590.78							
1106.79	165.00	4390.17	5.82	2.69	0.57	433.83	625.43	74.53	0.000018
	0.00309	260295.52							
1103.84	166.00	4390.16	5.81	2.68	0.57	433.34	626.57	74.54	0.000018
	0.00301	260001.42							
1098.35	167.00	4390.15	5.80	2.67	0.57	432.42	630.65	74.55	0.000019
	0.00315	259453.73							
1091.04	168.00	4390.13	5.78	2.65	0.58	431.20	630.35	74.57	0.000020
	0.00326	258722.88							
1084.01	169.00	4390.11	5.77	2.63	0.58	430.03	627.66	74.59	0.000019
	0.00319	258019.77							
1078.07	170.00	4390.10	5.75	2.62	0.58	429.05	623.78	74.61	0.000019
	0.00317	257427.56							
1072.85	171.00	4390.09	5.74	2.61	0.58	428.18	620.60	74.62	0.000020
	0.00323	256907.25							
1067.74	172.00	4390.08	5.73	2.60	0.58	427.33	617.47	74.64	0.000019

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HYCHAN.OUT									
	0.00315	256397.48							
1063.03	173.00	4390.06	5.71	2.58	0.58	614.07	0.04		
		411.42				426.54	74.65	0.000019	
	0.00307	255926.75							
1058.55	174.00	4390.05	5.70	2.57	0.58	612.19	0.04		
		411.39				425.80	74.66	0.000020	
	0.00318	255480.09							
1051.47	175.00	4390.04	5.69	2.56	0.58	613.64	0.04		
		411.36				424.62	74.68	0.000020	
	0.00326	254771.08							
1042.80	176.00	4390.01	5.66	2.54	0.59	611.04	0.04		
		411.32				423.17	74.70	0.000020	
	0.00322	253903.22							
1034.60	177.00	4389.99	5.64	2.52	0.59	607.12	0.04		
		411.28				421.81	74.73	0.000020	
	0.00315	253083.55							
1027.75	178.00	4389.98	5.63	2.50	0.59	603.55	0.04		
		411.24				420.66	74.75	0.000021	
	0.00328	252398.95							
1021.69	179.00	4389.96	5.61	2.48	0.59	601.36	0.04		
		411.21				419.66	74.76	0.000021	
	0.00332	251793.70							
1016.18	180.00	4389.95	5.60	2.47	0.59	597.71	0.04		
		411.19				418.74	74.78	0.000022	
	0.00338	251243.92							
1011.63	181.00	4389.94	5.59	2.46	0.59	593.29	0.04		
		411.16				417.98	74.79	0.000021	
	0.00322	250789.52							
1012.71	182.00	4389.94	5.59	2.46	0.58	582.59	0.04		
		411.17				418.17	74.79	0.000020	
	0.00310	250902.64							
1019.91	183.00	4389.96	5.61	2.48	0.56	575.84	0.04		
		411.21				419.38	74.77	0.000019	
	0.00292	251625.72							
1029.07	184.00	4389.98	5.63	2.50	0.56	571.66	0.04		
		411.25				420.91	74.74	0.000019	
	0.00296	252543.28							
1038.96	185.00	4390.01	5.66	2.53	0.55	570.27	0.04		
		411.30				422.55	74.71	0.000018	
	0.00292	253532.44							
1045.77	186.00	4390.02	5.67	2.54	0.55	570.78	0.04		
		411.33				423.69	74.70	0.000018	
	0.00287	254213.16							
1050.02	187.00	4390.03	5.68	2.55	0.54	571.25	0.04		
		411.35				424.40	74.68	0.000017	
	0.00279	254637.62							
1052.25	188.00	4390.04	5.69	2.56	0.54	570.67	0.04		
		411.36				424.77	74.68	0.000017	
	0.00270	254859.81							
1053.63	189.00	4390.04	5.69	2.56	0.54	568.92	0.04		
		411.37				425.00	74.67	0.000018	
	0.00281	254997.48							
1054.13	190.00	4390.04	5.69	2.56	0.54	568.15	0.04		
		411.37				425.08	74.67	0.000017	
	0.00277	255046.69							
1054.29	191.00	4390.04	5.69	2.56	0.54	566.64	0.04		
		411.37				425.10	74.67	0.000018	
	0.00285	255062.17							
1053.26	192.00	4390.04	5.69	2.56	0.54	566.55	0.04		
		411.37				424.93	74.68	0.000017	
	0.00273	254959.20							
1048.09	193.00	4390.03	5.68	2.55	0.54	570.95	0.04		
		411.34				424.07	74.69	0.000019	

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0.00295	254440.06							
194.00	4390.01	5.66	0.55	569.42	0.04			
1040.55	411.31	2.53		422.81	74.71	0.000019		
0.00293	253685.02							
195.00	4389.99	5.64	0.55	565.70	0.04			
1033.88	411.27	2.51		421.70	74.73	0.000019		
0.00294	253018.75							
196.00	4389.98	5.63	0.55	562.56	0.04			
1028.80	411.25	2.50		420.85	74.74	0.000019		
0.00292	252509.78							
197.00	4389.97	5.62	0.55	560.28	0.04			
1024.81	411.23	2.49		420.18	74.75	0.000019		
0.00291	252110.23							
198.00	4389.96	5.61	0.55	557.16	0.04			
1021.99	411.22	2.49		419.72	74.76	0.000018		
0.00285	251829.12							
199.00	4389.96	5.61	0.54	555.14	0.04			
1019.42	411.20	2.48		419.29	74.77	0.000019		
0.00291	251571.88							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4182

MAXIMUM DISCHARGE (CFS) = 2521.19 AT TIME = 90.94  
 MAXIMUM STAGE = 4396.43 AT TIME = 92.12

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
	(LB/FT^2)	(FT)	(FT^2)		(FT)				
0.00	0.00	4384.15	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4384.15	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4384.15	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4384.15	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4384.15	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4384.15	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4384.15	0.00	-0.00	-0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
23.86	7.00	4384.74	0.59	-0.30	-7.10	0.07			
		53.75	0.44	53.61	90.73	0.000000			
	0.00000	32165.51							
53.01	8.00	4385.47	1.32	-0.28	-14.93	0.04			
		112.38	0.47	112.09	84.65	0.000000			
	0.00000	67251.24							
62.26	9.00	4385.62	1.47	-0.13	-8.09	0.02			
		124.01	0.50	123.68	83.87	0.000000			
	0.00000	74210.95							



HYCHAN.OUT							
79.60	10.00	4385.63	1.48	-0.01	-0.96	0.00	0.000000
	0.00000	124.53	0.64	124.21	83.84		
		74527.52					
49.98	11.00	4385.61	1.46	0.06	3.00	0.01	0.000000
	0.00000	122.89	0.41	122.58	83.94		
		73545.52					
48.94	12.00	4385.56	1.41	0.05	2.65	0.01	0.000000
	0.00000	118.66	0.41	118.35	84.22		
		71009.51					
40.32	13.00	4385.49	1.34	0.09	3.50	0.01	0.000016
	0.00036	113.82	0.35	113.53	84.55		
		68116.58					
34.15	14.00	4385.39	1.24	0.13	4.31	0.02	0.000025
	0.00049	106.14	0.32	105.87	85.11		
		63519.92					
28.68	15.00	4385.29	1.14	0.12	3.33	0.02	0.000011
	0.00020	98.02	0.29	97.76	85.75		
		58657.73					
25.83	16.00	4385.22	1.07	0.07	1.80	0.01	0.000009
	0.00015	92.83	0.28	92.59	86.19		
		55551.17					
25.85	17.00	4385.19	1.04	0.04	1.06	0.01	0.000000
	0.00000	89.98	0.29	89.74	86.44		
		53845.82					
24.95	18.00	4385.17	1.02	0.02	0.56	0.00	0.000000
	0.00000	88.62	0.28	88.39	86.56		
		53035.95					
0.00	19.00	4385.16	1.01	0.00	0.00	0.00	0.000000
	0.00000	88.09	0.00	87.86	86.61		
		52716.27					
34.09	20.00	4385.21	1.06	-0.06	-2.20	0.01	0.000000
	0.00000	91.49	0.37	91.26	86.30		
		54753.75					
40.78	21.00	4385.32	1.17	-0.10	-4.24	0.02	0.000000
	0.00000	100.16	0.41	99.90	85.57		
		59939.07					
49.41	22.00	4385.45	1.30	-0.12	-5.81	0.02	0.000000
	0.00000	110.46	0.45	110.17	84.79		
		66104.52					
57.27	23.00	4385.56	1.41	-0.09	-5.33	0.01	0.000000
	0.00000	119.34	0.48	119.03	84.17		
		71418.15					
61.83	24.00	4385.62	1.47	-0.05	-2.94	0.01	0.000000
	0.00000	123.95	0.50	123.63	83.87		
		74176.67					
68.34	25.00	4385.69	1.54	-0.09	-6.04	0.01	0.000000
	0.00000	129.37	0.53	129.03	83.54		
		77420.83					
81.36	26.00	4385.84	1.69	-0.15	-12.35	0.02	0.000000
	0.00000	140.45	0.58	140.08	82.89		
		84049.24					
98.85	27.00	4386.02	1.87	-0.17	-16.70	0.02	0.000000
	0.00000	154.18	0.64	153.78	82.17		
		92270.08					
121.14	28.00	4386.24	2.09	-0.19	-22.80	0.02	0.000000
	0.00000	170.53	0.71	170.09	81.39		
		102053.97					
140.22	29.00	4386.42	2.27	-0.12	-16.28	0.01	0.000000
	0.00000	183.57	0.76	183.09	80.83		
		109854.52					
152.65	30.00	4386.51	2.36	-0.06	-9.72	0.01	0.000000
	0.00000	190.64	0.80	190.15	80.54		
		114090.51					

		HYCHAN.OUT							
163.92	31.00	4386.60	2.45	-0.08	196.54	-12.77	80.29	0.01	0.000000
	0.00000	197.05	0.83						
		117925.27							
174.00	32.00	4386.68	2.53	-0.05	202.30	-8.43	80.08	0.01	0.000000
	0.00000	202.83	0.86						
		121381.61							
181.21	33.00	4386.72	2.57	-0.04	205.81	-6.88	79.95	0.00	0.000000
	0.00000	206.34	0.88						
		123484.07							
190.34	34.00	4386.79	2.64	-0.06	210.75	-12.00	79.77	0.01	0.000000
	0.00000	211.29	0.90						
		126447.96							
199.11	35.00	4386.86	2.71	-0.04	215.54	-7.56	79.60	0.00	0.000000
	0.00000	216.10	0.92						
		129324.05							
211.58	36.00	4386.89	2.74	-0.03	217.64	-5.94	79.53	0.00	0.000000
	0.00000	218.20	0.97						
		130581.84							
0.00	37.00	4386.93	2.78	0.00	220.47	0.00	79.43	0.00	0.000018
	0.00000	221.04	0.00						
		132282.23							
189.56	38.00	4386.91	2.76	0.02	219.29	3.53	79.47	0.00	0.000000
	0.00000	219.85	0.86						
		131571.58							
188.29	39.00	4386.86	2.71	0.05	215.71	9.47	79.59	0.01	0.000000
	0.00000	216.27	0.87						
		129425.03							
179.88	40.00	4386.80	2.65	0.04	211.60	6.88	79.74	0.00	0.000000
	0.00000	212.15	0.85						
		126961.83							
171.82	41.00	4386.77	2.62	0.02	209.39	3.45	79.82	0.00	0.000011
	0.00055	209.93	0.82						
		125631.60							
168.14	42.00	4386.76	2.61	0.01	208.27	2.16	79.86	0.00	0.000000
	0.00000	208.81	0.81						
		124962.74							
0.00	43.00	4386.75	2.60	0.00	207.64	0.00	79.88	0.00	0.000000
	0.00000	208.18	0.00						
		124586.06							
175.41	44.00	4386.75	2.60	-0.02	207.77	-2.79	79.88	0.00	0.000011
	0.00058	208.31	0.84						
		124663.89							
185.52	45.00	4386.79	2.65	-0.05	210.98	-9.48	79.76	0.01	0.000000
	0.00000	211.53	0.88						
		126587.45							
195.35	46.00	4386.85	2.70	-0.05	215.28	-8.82	79.61	0.00	0.000000
	0.00000	215.84	0.91						
		129167.32							
210.96	47.00	4386.93	2.78	-0.07	220.70	-15.22	79.42	0.01	0.000000
	0.00000	221.28	0.95						
		132421.58							
227.43	48.00	4387.04	2.89	-0.09	228.72	-20.83	79.16	0.01	0.000000
	0.00000	229.32	0.99						
		137234.08							
247.66	49.00	4387.17	3.02	-0.10	237.88	-24.57	78.87	0.01	0.000000
	0.00000	238.50	1.04						
		142727.70							
270.22	50.00	4387.30	3.15	-0.10	247.72	-27.30	78.56	0.01	0.000000
	0.00000	248.37	1.09						
		148634.05							
294.92	51.00	4387.44	3.29	-0.10	257.81	-30.91	78.27	0.01	0.000000
	0.00000	258.48	1.14						
		154683.88							

		HYCHAN.OUT					
322.55	52.00	4387.59	3.44	-0.11	-35.92	0.01	0.000000
	0.00000	269.10	1.20	268.41	77.97		
		161043.06					
354.80	53.00	4387.77	3.62	-0.12	-43.82	0.01	0.000000
	0.00000	281.44	1.26	280.71	77.65		
		168425.09					
386.11	54.00	4387.92	3.77	-0.09	-36.07	0.01	0.000000
	0.00000	292.62	1.32	291.86	77.36		
		175115.64					
418.64	55.00	4388.07	3.92	-0.11	-47.83	0.01	0.000000
	0.00000	302.89	1.38	302.11	77.11		
		181266.50					
462.86	56.00	4388.26	4.11	-0.15	-68.41	0.01	0.000000
	0.00000	316.66	1.46	315.84	76.79		
		189503.97					
529.81	57.00	4388.55	4.40	-0.22	-114.06	0.02	0.000000
	0.00000	337.00	1.57	336.13	76.34		
		201678.66					
624.88	58.00	4388.93	4.78	-0.25	-158.94	0.02	0.000000
	0.00000	363.31	1.72	362.37	75.80		
		217420.41					
734.32	59.00	4389.34	5.19	-0.23	-170.19	0.02	0.000000
	0.00000	391.46	1.88	390.45	75.27		
		234271.05					
869.33	60.00	4389.69	5.54	-0.20	-170.63	0.01	0.000000
	0.00000	411.08	2.11	414.94	74.84		
		248961.34					
1008.17	61.00	4390.03	5.88	-0.24	-244.95	0.02	0.000000
	0.00000	411.74	2.45	437.76	74.47		
		262653.12					
1103.62	62.00	4390.27	6.12	-0.28	-307.24	0.02	0.000000
	0.00000	412.23	2.68	454.17	74.21		
		272500.41					
1157.99	63.00	4390.40	6.25	-0.30	-347.14	0.02	0.000000
	0.00000	412.49	2.81	463.11	74.07		
		277866.22					
1211.24	64.00	4390.53	6.38	-0.33	-396.19	0.02	0.000000
	0.00000	412.74	2.93	471.67	73.95		
		283002.72					
1292.80	65.00	4390.73	6.58	-0.34	-436.24	0.02	0.000000
	0.00000	413.15	3.13	485.47	73.75		
		291283.06					
1381.15	66.00	4390.95	6.80	-0.31	-434.62	0.02	0.000011
	0.00233	413.59	3.34	500.13	73.54		
		300075.56					
1450.36	67.00	4391.16	7.01	-0.25	-365.61	0.02	0.000020
	0.00439	414.00	3.50	513.95	73.35		
		308372.75					
1510.49	68.00	4391.36	7.21	-0.14	-205.92	0.01	0.000022
	0.00498	414.41	3.64	527.55	73.17		
		316530.94					
1586.00	69.00	4391.56	7.41	-0.05	-83.36	0.00	0.000000
	0.00000	414.81	3.82	540.86	73.00		
		324514.78					
1689.89	70.00	4391.77	7.62	0.07	116.28	0.00	0.000000
	0.00000	415.22	4.07	554.69	72.83		
		332813.69					
1764.21	71.00	4391.96	7.81	0.10	179.95	0.01	0.000031
	0.00822	415.61	4.24	567.70	72.67		
		340620.62					
1858.93	72.00	4392.20	8.05	0.11	211.97	0.01	0.000000
	0.00000	416.09	4.47	583.68	72.48		
		350208.66					

		HYCHAN.OUT					
1947.62	73.00	4392.42	8.27	0.16	308.94	0.01	0.000023
	0.00658	416.52	4.68		597.70	72.32	
2024.40	74.00	4392.60	8.45	0.19	387.34	0.01	0.000000
	0.00000	416.88	4.86		609.70	72.18	
2086.31	75.00	4392.74	8.59	0.21	436.10	0.01	0.000000
	0.00000	417.18	5.00		619.46	72.07	
2153.73	76.00	4392.90	8.75	0.22	469.95	0.01	0.000000
	0.00000	417.50	5.16		629.98	71.96	
2226.64	77.00	4393.09	8.94	0.21	463.70	0.01	0.000000
	0.00000	417.87	5.33		642.16	71.83	
2302.09	78.00	4393.26	9.11	0.23	518.11	0.01	0.000000
	0.00000	418.21	5.50		653.55	71.71	
2372.69	79.00	4393.44	9.29	0.22	526.07	0.01	0.000064
	0.02260	418.56	5.67		664.78	71.60	
2441.76	80.00	4393.60	9.45	0.23	558.10	0.01	0.000000
	0.00000	418.90	5.83		675.83	71.49	
2522.51	81.00	4393.80	9.65	0.21	539.40	0.01	0.000000
	0.00000	419.29	6.02		688.56	71.36	
2622.60	82.00	4394.03	9.88	0.20	532.75	0.01	0.000061
	0.02378	419.75	6.25		703.62	71.21	
2722.27	83.00	4394.28	10.13	0.21	562.11	0.01	0.000051
	0.02065	420.24	6.48		719.60	71.06	
2815.79	84.00	4394.50	10.35	0.19	541.32	0.01	0.000085
	0.03537	420.69	6.69		734.16	70.93	
2960.88	85.00	4394.84	10.69	0.23	675.46	0.01	0.000000
	0.00000	421.38	7.03		756.39	70.73	
3090.95	86.00	4395.16	11.01	0.26	804.96	0.01	0.000000
	0.00000	422.01	7.32		776.95	70.55	
3211.83	87.00	4395.46	11.31	0.31	1003.32	0.02	0.000000
	0.00000	422.62	7.60		796.43	70.39	
3322.56	88.00	4395.74	11.59	0.37	1229.66	0.02	0.000006
	0.00289	423.16	7.85		813.89	70.25	
3417.95	89.00	4396.00	11.85	0.44	1500.53	0.02	0.000010
	0.00521	423.68	8.07		830.54	70.11	
3496.51	90.00	4396.20	12.05	0.49	1727.02	0.03	0.000049
	0.02539	424.08	8.24		843.40	70.01	
3550.38	91.00	4396.32	12.17	0.55	1943.09	0.03	0.000000
	0.00000	424.34	8.37		851.54	69.95	
3575.07	92.00	4396.38	12.23	0.57	2023.68	0.03	0.000009
	0.00455	424.44	8.42		854.87	69.92	
3571.24	93.00	4396.37	12.22	0.57	2025.41	0.03	0.000024
	0.01279	424.43	8.41		854.43	69.93	
		512660.25					

HYCHAN.OUT							
3543.47	94.00	4396.30	12.15	0.55	1963.91	0.03	0.000000
	0.00000	424.28	8.35		849.91	69.96	
		509943.28					
3482.81	95.00	4396.15	12.00	0.52	1804.42	0.03	0.000000
	0.00000	423.99	8.21		840.49	70.03	0.000000
		504295.50					
3410.27	96.00	4395.98	11.83	0.49	1657.82	0.02	0.000030
	0.01494	423.66	8.05		829.78	70.12	
		497868.88					
3339.17	97.00	4395.79	11.64	0.45	1514.57	0.02	0.000000
	0.00000	423.26	7.89		817.16	70.22	0.000000
		490296.44					
3257.55	98.00	4395.58	11.43	0.42	1358.95	0.02	0.000000
	0.00000	422.85	7.70		804.03	70.33	0.000000
		482418.06					
3177.00	99.00	4395.38	11.23	0.38	1196.38	0.02	0.000040
	0.01882	422.45	7.52		791.18	70.43	
		474708.81					
3086.76	100.00	4395.16	11.01	0.35	1095.34	0.02	0.000083
	0.03791	422.01	7.31		777.02	70.55	
		466210.81					
2921.06	101.00	4394.75	10.60	0.35	1019.18	0.02	0.000000
	0.00000	421.20	6.94		750.58	70.78	0.000000
		450348.03					
2774.17	102.00	4394.40	10.25	0.31	866.07	0.02	0.000083
	0.03400	420.48	6.60		727.52	70.99	
		436509.09					
2694.57	103.00	4394.21	10.06	0.32	871.03	0.02	0.000000
	0.00000	420.10	6.41		715.08	71.11	0.000000
		429045.41					
2643.56	104.00	4394.08	9.93	0.34	893.67	0.02	0.000000
	0.00000	419.85	6.30		706.86	71.18	0.000000
		424113.72					
2612.73	105.00	4394.01	9.86	0.35	917.35	0.02	0.000084
	0.03273	419.70	6.23		702.03	71.23	
		421217.72					
2584.04	106.00	4393.94	9.79	0.38	984.91	0.02	0.000000
	0.00000	419.57	6.16		697.79	71.27	0.000000
		418675.09					
2552.79	107.00	4393.87	9.72	0.40	1016.60	0.02	0.000041
	0.01551	419.42	6.09		692.99	71.32	
		415794.91					
2511.10	108.00	4393.77	9.62	0.43	1080.49	0.02	0.000000
	0.00000	419.22	5.99		686.50	71.38	0.000000
		411897.34					
2450.87	109.00	4393.63	9.48	0.46	1118.10	0.03	0.000000
	0.00000	418.95	5.85		677.56	71.47	0.000000
		406537.75					
2393.95	110.00	4393.49	9.34	0.47	1136.34	0.03	0.000000
	0.00000	418.66	5.72		668.17	71.56	0.000000
		400901.78					
2335.68	111.00	4393.34	9.19	0.48	1126.17	0.03	0.000048
	0.01688	418.37	5.58		658.77	71.66	
		395260.50					
2276.19	112.00	4393.20	9.05	0.49	1124.07	0.03	0.000000
	0.00000	418.09	5.44		649.32	71.75	0.000000
		389592.12					
2214.84	113.00	4393.05	8.90	0.50	1098.11	0.03	0.000000
	0.00000	417.79	5.30		639.77	71.85	0.000000
		383862.28					
2153.13	114.00	4392.90	8.75	0.50	1085.47	0.03	0.000000
	0.00000	417.50	5.16		629.98	71.96	0.000000
		377988.88					

		HYCHAN.OUT					
2078.16	115.00	4392.73	8.58	0.51	1051.69	0.03	0.000000
	0.00000	417.15	4.98		618.62	72.08	
1992.56	116.00	4392.53	8.38	0.50	986.61	0.03	0.000000
	0.00000	416.75	4.78		605.27	72.23	
1937.17	117.00	4392.39	8.24	0.50	978.04	0.03	0.000027
	0.00788	416.46	4.65		595.75	72.34	
1893.52	118.00	4392.28	8.13	0.51	968.45	0.03	0.000006
	0.00162	416.24	4.55		588.65	72.42	
1857.70	119.00	4392.19	8.04	0.51	954.73	0.03	0.000000
	0.00000	416.07	4.46		582.94	72.49	
1824.23	120.00	4392.11	7.96	0.51	936.45	0.03	0.000000
	0.00000	415.90	4.39		577.41	72.55	
1794.82	121.00	4392.03	7.88	0.51	919.46	0.03	0.000000
	0.00000	415.75	4.32		572.27	72.61	
1763.08	122.00	4391.96	7.81	0.51	903.78	0.03	0.000000
	0.00000	415.61	4.24		567.51	72.67	
1736.80	123.00	4391.90	7.75	0.51	888.75	0.03	0.000000
	0.00000	415.48	4.18		563.23	72.72	
1710.22	124.00	4391.83	7.68	0.52	883.95	0.03	0.000045
	0.01162	415.34	4.12		558.78	72.78	
1681.75	125.00	4391.76	7.61	0.53	888.76	0.03	0.000000
	0.00000	415.21	4.05		554.38	72.83	
1652.96	126.00	4391.69	7.54	0.54	885.11	0.03	0.000000
	0.00000	415.07	3.98		549.67	72.89	
1620.61	127.00	4391.62	7.47	0.54	882.50	0.04	0.000000
	0.00000	414.92	3.91		544.66	72.95	
1588.77	128.00	4391.54	7.40	0.55	880.96	0.04	0.000000
	0.00000	414.78	3.83		539.92	73.01	
1560.89	129.00	4391.47	7.32	0.57	881.91	0.04	0.000000
	0.00000	414.64	3.76		535.22	73.07	
1530.55	130.00	4391.40	7.25	0.57	877.67	0.04	0.000000
	0.00000	414.49	3.69		530.47	73.13	
1502.09	131.00	4391.33	7.18	0.58	866.42	0.04	0.000037
	0.00839	414.35	3.63		525.79	73.19	
1473.32	132.00	4391.26	7.11	0.59	872.21	0.04	0.000000
	0.00000	414.22	3.56		521.18	73.25	
1446.31	133.00	4391.20	7.05	0.59	857.96	0.04	0.000013
	0.00284	414.08	3.49		516.65	73.31	
1420.93	134.00	4391.14	6.99	0.59	839.03	0.04	0.000043
	0.00911	413.96	3.43		512.69	73.37	
1400.28	135.00	4391.09	6.94	0.59	823.04	0.04	0.000044
	0.00929	413.86	3.38		509.35	73.41	
		305609.72					

		HYCHAN.OUT					
136.00	4391.04	6.89	0.59	811.68	0.04		
1381.26	413.77	3.34		506.10	73.46	0.000040	
0.00838	303657.19						
137.00	4390.99	6.84	0.59	803.37	0.04		
1362.51	413.67	3.29		503.00	73.50	0.000034	
0.00709	301799.06						
138.00	4390.95	6.80	0.59	793.82	0.04		
1343.01	413.59	3.25		500.12	73.54	0.000000	
0.00000	300073.75						
139.00	4390.91	6.76	0.58	775.42	0.04		
1325.69	413.51	3.21		497.35	73.58	0.000040	
0.00808	298412.12						
140.00	4390.87	6.72	0.59	770.71	0.04		
1307.41	413.43	3.16		494.62	73.62	0.000021	
0.00410	296769.84						
141.00	4390.83	6.68	0.60	757.38	0.04		
1266.76	413.35	3.06		491.99	73.65	0.000013	
0.00251	295192.12						
142.00	4390.79	6.64	0.61	756.50	0.04		
1247.04	413.27	3.02		489.42	73.69	0.000017	
0.00313	293652.00						
143.00	4390.75	6.60	0.61	749.58	0.04		
1230.15	413.19	2.98		486.64	73.73	0.000013	
0.00242	291984.81						
144.00	4390.71	6.56	0.61	740.96	0.04		
1213.70	413.11	2.94		483.94	73.77	0.000010	
0.00179	290361.09						
145.00	4390.67	6.52	0.61	731.48	0.04		
1198.24	413.03	2.90		481.39	73.80	0.000021	
0.00388	288836.72						
146.00	4390.64	6.49	0.61	720.73	0.04		
1182.92	412.96	2.86		478.87	73.84	0.000013	
0.00234	287324.75						
147.00	4390.60	6.45	0.62	718.10	0.04		
1166.64	412.88	2.83		476.19	73.88	0.000021	
0.00370	285714.22						
148.00	4390.55	6.40	0.62	713.86	0.04		
1149.84	412.80	2.79		473.42	73.92	0.000020	
0.00350	284052.00						
149.00	4390.52	6.37	0.62	706.32	0.04		
1134.23	412.72	2.75		470.85	73.96	0.000015	
0.00266	282509.12						
150.00	4390.48	6.33	0.63	701.14	0.04		
1117.91	412.64	2.71		468.16	74.00	0.000016	
0.00266	280893.53						
151.00	4390.44	6.29	0.63	690.26	0.04		
1103.28	412.57	2.67		465.74	74.03	0.000018	
0.00295	279446.72						
152.00	4390.41	6.26	0.63	683.97	0.04		
1088.72	412.50	2.64		463.34	74.07	0.000018	
0.00292	278005.78						
153.00	4390.37	6.22	0.63	679.65	0.04		
1074.20	412.43	2.60		460.94	74.11	0.000019	
0.00303	276566.91						
154.00	4390.33	6.18	0.64	680.44	0.05		
1059.27	412.35	2.57		458.47	74.14	0.000019	
0.00302	275084.91						
155.00	4390.30	6.15	0.64	673.44	0.05		
1045.02	412.29	2.53		456.12	74.18	0.000019	
0.00303	273671.16						
156.00	4390.27	6.12	0.65	669.34	0.05		
1031.24	412.22	2.50		453.84	74.21	0.000019	
0.00299	272303.91						



		HYCHAN.OUT				
1017.70	157.00 4390.23	6.08	0.66	669.70	0.05	
	412.15 270959.31	2.47		451.60	74.25	0.000021
	0.00324					
1008.13	158.00 4390.21	6.06	0.65	655.79	0.05	
	412.11 270012.72	2.45		450.02	74.27	0.000021
	0.00326					
1004.44	159.00 4390.20	6.05	0.64	643.74	0.05	
	412.09 269653.84	2.44		449.42	74.28	0.000021
	0.00326					
1000.81	160.00 4390.19	6.04	0.64	639.79	0.05	
	412.07 269296.66	2.43		448.83	74.29	0.000021
	0.00312					
997.40	161.00 4390.18	6.03	0.64	636.10	0.05	
	412.05 268959.75	2.42		448.27	74.30	0.000020
	0.00301					
994.11	162.00 4390.18	6.03	0.64	634.87	0.05	
	412.04 268634.62	2.41		447.72	74.31	0.000021
	0.00316					
990.26	163.00 4390.17	6.02	0.64	633.45	0.05	
	412.02 268252.50	2.40		447.09	74.32	0.000021
	0.00321					
987.11	164.00 4390.16	6.01	0.64	632.27	0.05	
	412.00 267940.47	2.40		446.57	74.33	0.000022
	0.00322					
984.12	165.00 4390.15	6.00	0.64	630.32	0.05	
	411.99 267643.53	2.39		446.07	74.33	0.000024
	0.00353					
981.07	166.00 4390.14	5.99	0.64	631.34	0.05	
	411.97 267339.97	2.38		445.57	74.34	0.000022
	0.00332					
975.33	167.00 4390.13	5.98	0.65	636.74	0.05	
	411.95 266768.19	2.37		444.61	74.36	0.000022
	0.00326					
967.82	168.00 4390.11	5.96	0.66	637.55	0.05	
	411.91 266018.78	2.35		443.36	74.38	0.000023
	0.00344					
960.72	169.00 4390.09	5.94	0.66	635.16	0.05	
	411.87 265310.53	2.33		442.18	74.40	0.000024
	0.00350					
954.73	170.00 4390.08	5.93	0.66	631.17	0.05	
	411.85 264714.31	2.32		441.19	74.41	0.000023
	0.00332					
949.45	171.00 4390.07	5.92	0.66	627.74	0.05	
	411.82 264188.75	2.31		440.31	74.43	0.000025
	0.00360					
944.29	172.00 4390.05	5.90	0.66	624.22	0.05	
	411.79 263676.22	2.29		439.46	74.44	0.000025
	0.00357					
939.55	173.00 4390.04	5.89	0.66	620.34	0.05	
	411.77 263204.88	2.28		438.67	74.45	0.000023
	0.00329					
934.98	174.00 4390.03	5.88	0.66	618.58	0.05	
	411.75 262749.53	2.27		437.92	74.46	0.000025
	0.00351					
927.65	175.00 4390.01	5.86	0.67	621.21	0.05	
	411.71 262017.97	2.25		436.70	74.48	0.000025
	0.00356					
918.81	176.00 4389.99	5.84	0.67	619.65	0.05	
	411.67 261134.91	2.23		435.22	74.51	0.000025
	0.00353					
910.49	177.00 4389.97	5.82	0.68	615.92	0.05	
	411.63 260304.39	2.21		433.84	74.53	0.000026
	0.00361					

HYCHAN.OUT							
178.00	4389.95	5.80	0.68	612.05	0.05		
903.54	411.60	2.20	432.69	74.55	0.000027		
0.00376	259611.27						
179.00	4389.94	5.79	0.68	609.51	0.05		
897.36	411.57	2.18	431.66	74.57	0.000027		
0.00370	258994.78						
180.00	4389.93	5.78	0.68	605.12	0.05		
891.81	411.54	2.17	430.74	74.58	0.000029		
0.00394	258442.81						
181.00	4389.91	5.76	0.68	599.60	0.05		
887.28	411.52	2.16	429.99	74.59	0.000028		
0.00376	257991.94						
182.00	4389.92	5.77	0.66	585.37	0.05		
888.73	411.52	2.16	430.24	74.59	0.000025		
0.00342	258144.88						
183.00	4389.94	5.79	0.64	575.62	0.05		
896.38	411.56	2.18	431.52	74.57	0.000025		
0.00335	258912.62						
184.00	4389.96	5.81	0.63	570.15	0.05		
905.90	411.61	2.20	433.11	74.54	0.000023		
0.00309	259865.25						
185.00	4389.98	5.84	0.62	568.66	0.05		
916.09	411.66	2.23	434.80	74.51	0.000023		
0.00323	260880.23						
186.00	4390.00	5.85	0.62	569.29	0.04		
923.06	411.69	2.24	435.96	74.50	0.000022		
0.00304	261575.56						
187.00	4390.01	5.86	0.61	570.00	0.04		
927.40	411.71	2.25	436.68	74.48	0.000022		
0.00303	262007.08						
188.00	4390.02	5.87	0.61	569.41	0.04		
929.73	411.72	2.26	437.07	74.48	0.000022		
0.00312	262239.12						
189.00	4390.02	5.87	0.61	567.83	0.04		
931.15	411.73	2.26	437.30	74.47	0.000021		
0.00290	262379.94						
190.00	4390.02	5.87	0.61	567.35	0.04		
931.71	411.73	2.26	437.39	74.47	0.000019		
0.00275	262434.94						
191.00	4390.02	5.87	0.61	566.17	0.04		
931.90	411.73	2.26	437.42	74.47	0.000022		
0.00315	262453.72						
192.00	4390.02	5.87	0.61	566.46	0.04		
930.85	411.73	2.26	437.25	74.47	0.000022		
0.00312	262348.47						
193.00	4390.01	5.86	0.62	572.31	0.05		
925.43	411.70	2.25	436.34	74.49	0.000022		
0.00308	261806.72						
194.00	4389.99	5.84	0.62	570.85	0.05		
917.73	411.67	2.23	435.07	74.51	0.000024		
0.00336	261039.17						
195.00	4389.97	5.82	0.62	567.37	0.05		
911.01	411.63	2.21	433.95	74.53	0.000024		
0.00334	260368.42						
196.00	4389.96	5.81	0.62	564.62	0.05		
905.89	411.61	2.20	433.09	74.54	0.000025		
0.00338	259856.38						
197.00	4389.95	5.80	0.62	562.86	0.05		
901.83	411.59	2.19	432.42	74.55	0.000023		
0.00317	259451.05						
198.00	4389.94	5.79	0.62	559.57	0.05		
899.06	411.57	2.18	431.96	74.56	0.000023		
0.00310	259174.72						

HYCHAN.OUT  
 199.00 4389.94 5.79 0.62 557.85 0.05  
 896.47 411.56 2.18 431.53 74.57 0.000024  
 0.00322 258916.02

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4252

MAXIMUM DISCHARGE (CFS) = 2330.07 AT TIME = 92.21  
 MAXIMUM STAGE = 4396.46 AT TIME = 91.47

AREA BED SHEAR (FT^2)	TIME WETTED PERIMETER (HRS) (LB/FT^2)	ELEV. SURFACE AREA (FT) (FT^2)	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FOUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4383.84	0.04	-0.05	-0.65	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
45.40	7.00	4385.02	1.22	-0.35	-15.82	0.06	0.000000
		104.46	0.43	104.19	85.24		0.000000
	0.00000	63558.32					
74.93	8.00	4385.55	1.75	-0.24	-17.68	0.03	0.000000
	0.00000	145.19	0.52	144.81	82.64		0.000000
		88334.16					
80.21	9.00	4385.64	1.84	-0.10	-8.25	0.01	0.000000
	0.00000	151.88	0.53	151.49	82.29		0.000000
		92406.04					
0.00	10.00	4385.63	1.83	0.00	0.00	0.00	0.000000
	0.00000	151.29	0.00	150.90	82.32		0.000000
		92047.06					
57.60	11.00	4385.61	1.81	0.07	3.78	0.01	0.000016
	0.00037	149.31	0.39	148.93	82.42		0.000016
		90845.39					
56.97	12.00	4385.55	1.75	0.06	3.28	0.01	0.000023
	0.00057	145.30	0.39	144.92	82.63		0.000023
		88403.55					
52.55	13.00	4385.48	1.68	0.09	4.80	0.01	0.000000
	0.00000	139.87	0.38	139.51	82.93		0.000000
		85102.81					
46.60	14.00	4385.37	1.57	0.12	5.70	0.02	0.000028
	0.00061	131.37	0.35	131.03	83.42		0.000028
		79927.20					
	15.00	4385.27	1.47	0.10	4.11	0.01	

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HYCHAN.OUT						
41.17	0.00106	123.49	0.33	123.17	83.90	0.000051
	16.00	75136.40				
37.68	0.00000	4385.21	1.42	0.06	2.31	0.01
	17.00	119.42	0.32	119.11	84.17	0.000000
	0.00000	72659.06				
34.51	0.00054	4385.19	1.39	0.03	1.17	0.01
	18.00	117.12	0.29	116.81	84.32	0.000030
	0.00000	71256.28				
31.87	0.00000	4385.17	1.37	0.02	0.75	0.00
	19.00	115.92	0.27	115.62	84.40	0.000000
	0.00000	70529.46				
0.00	0.00000	4385.16	1.36	0.00	0.00	0.00
	20.00	115.41	0.00	115.12	84.44	0.000000
	0.00000	70220.41				
50.62	0.00000	4385.21	1.41	-0.06	-3.28	0.01
	21.00	119.35	0.42	119.04	84.17	0.000000
	0.00000	72616.20				
61.07	0.00000	4385.33	1.53	-0.09	-5.72	0.01
	22.00	128.34	0.48	128.01	83.60	0.000000
	0.00000	78086.79				
68.99	0.00000	4385.46	1.66	-0.11	-7.38	0.01
	23.00	138.49	0.50	138.13	83.00	0.000000
	0.00000	84260.45				
75.64	0.00000	4385.57	1.77	-0.08	-6.42	0.01
	24.00	146.70	0.52	146.33	82.55	0.000000
	0.00000	89258.31				
75.59	0.00000	4385.63	1.83	-0.05	-3.57	0.01
	25.00	150.77	0.50	150.38	82.34	0.000000
	0.00000	91730.31				
85.16	0.00000	4385.70	1.90	-0.09	-7.75	0.01
	26.00	156.45	0.54	156.05	82.06	0.000000
	0.00000	95189.16				
96.48	0.00000	4385.86	2.06	-0.16	-15.22	0.02
	27.00	168.08	0.57	167.65	81.50	0.000000
	0.00000	102265.62				
110.80	0.00000	4386.04	2.24	-0.18	-20.22	0.02
	28.00	181.67	0.61	181.20	80.91	0.000000
	0.00000	110533.45				
128.11	0.00000	4386.26	2.46	-0.21	-26.74	0.02
	29.00	197.79	0.65	197.28	80.27	0.000000
	0.00000	120342.09				
141.69	0.00000	4386.42	2.62	-0.13	-18.79	0.01
	30.00	209.79	0.68	209.24	79.82	0.000000
	0.00000	127637.91				
150.46	0.00000	4386.51	2.71	-0.08	-11.33	0.01
	31.00	216.45	0.70	215.89	79.59	0.000000
	0.00000	131695.64				
158.76	0.00000	4386.60	2.80	-0.09	-14.92	0.01
	32.00	222.84	0.71	222.26	79.37	0.000000
	0.00000	135580.94				
164.89	0.00000	4386.68	2.88	-0.06	-9.72	0.01
	33.00	228.44	0.72	227.85	79.19	0.000000
	0.00000	138986.25				
166.32	0.00000	4386.72	2.92	-0.05	-8.05	0.00
	34.00	231.89	0.72	231.29	79.07	0.000000
	0.00000	141086.53				
177.70	0.00000	4386.79	2.99	-0.08	-13.87	0.01
	35.00	236.85	0.75	236.24	78.92	0.000000
	0.00000	144103.47				
178.91	0.00000	4386.86	3.06	-0.05	-8.70	0.00
	36.00	241.54	0.74	240.91	78.77	0.000000
	0.00000	146957.22				
	0.00000	4386.89	3.09	-0.04	-6.90	0.00

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		HYCHAN.OUT					
190.43	0.00000	243.74	0.78	243.11	78.70	0.000000	
	37.00	148298.83					
0.00	0.00000	4386.93	3.13	0.00	0.00	0.00	
	38.00	246.43	0.00	245.79	78.62	0.000000	
	0.00000	149933.83					
148.52	0.00000	4386.91	3.11	0.02	3.53	0.00	
	39.00	245.16	0.61	244.53	78.66	0.000000	
	0.00000	149161.50					
154.78	0.00157	4386.86	3.06	0.07	10.96	0.01	
	40.00	241.63	0.64	241.00	78.77	0.000039	
	0.00157	147012.72					
147.61	0.00199	4386.80	3.00	0.05	8.10	0.01	
	41.00	237.64	0.62	237.03	78.89	0.000051	
	0.00199	144586.72					
136.93	0.00067	4386.77	2.97	0.03	3.84	0.00	
	42.00	235.42	0.58	234.81	78.96	0.000018	
	0.00067	143236.52					
131.79	0.00000	4386.76	2.96	0.02	2.21	0.00	
	43.00	234.26	0.56	233.65	79.00	0.000000	
	0.00000	142529.36					
0.00	0.00000	4386.75	2.95	0.00	0.00	0.00	
	44.00	233.65	0.00	233.05	79.02	0.000000	
	0.00000	142157.59					
160.52	0.00000	4386.75	2.95	-0.02	-2.61	0.00	
	45.00	233.83	0.69	233.23	79.01	0.000000	
	0.00000	142267.97					
166.40	0.00000	4386.80	3.00	-0.07	-11.33	0.01	
	46.00	237.02	0.70	236.41	78.91	0.000000	
	0.00000	144209.17					
171.04	0.00000	4386.85	3.05	-0.06	-10.28	0.01	
	47.00	241.28	0.71	240.66	78.78	0.000000	
	0.00000	146801.45					
192.37	0.00000	4386.93	3.13	-0.09	-17.64	0.01	
	48.00	246.75	0.78	246.11	78.61	0.000000	
	0.00000	150127.78					
203.98	0.00000	4387.04	3.24	-0.12	-23.97	0.01	
	49.00	254.77	0.80	254.11	78.38	0.000000	
	0.00000	155007.22					
218.01	0.00000	4387.17	3.37	-0.13	-28.20	0.01	
	50.00	263.87	0.83	263.19	78.12	0.000000	
	0.00000	160546.97					
233.46	0.00000	4387.31	3.51	-0.13	-31.20	0.01	
	51.00	273.65	0.85	272.94	77.85	0.000000	
	0.00000	166492.28					
250.20	0.00000	4387.45	3.65	-0.14	-35.27	0.01	
	52.00	283.67	0.88	282.93	77.59	0.000000	
	0.00000	172588.22					
268.78	0.00000	4387.59	3.80	-0.15	-40.87	0.01	
	53.00	294.21	0.91	293.45	77.32	0.000000	
	0.00000	179004.05					
290.21	0.00000	4387.77	3.97	-0.17	-49.57	0.02	
	54.00	306.47	0.95	305.67	77.03	0.000000	
	0.00000	186461.16					
310.40	0.00000	4387.92	4.12	-0.13	-40.70	0.01	
	55.00	317.46	0.98	316.64	76.77	0.000000	
	0.00000	193148.52					
331.82	0.00000	4388.07	4.27	-0.16	-53.96	0.01	
	56.00	327.71	1.01	326.86	76.54	0.000000	
	0.00000	199385.05					
360.68	0.00000	4388.27	4.47	-0.21	-77.11	0.02	
	57.00	341.47	1.06	340.59	76.25	0.000000	
	0.00000	207759.88					
	0.00000	4388.56	4.76	-0.32	-127.67	0.03	

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		HYCHAN.OUT				
403.94	361.89	1.12	360.95	75.83	0.000000	
0.00000	220178.91					
58.00	4388.94	5.14	-0.38	-176.69	0.03	
471.10	388.11	1.21	387.10	75.33	0.000000	
0.00000	236131.97					
59.00	4389.34	5.54	-0.36	-202.87	0.03	
561.61	411.07	1.37	414.87	74.84	0.000000	
0.00000	253071.67					
60.00	4389.70	5.90	-0.36	-230.07	0.03	
644.39	411.78	1.56	439.12	74.44	0.000000	
0.00000	267864.69					
61.00	4390.03	6.23	-0.50	-361.94	0.04	
723.46	412.46	1.75	461.91	74.09	0.000000	
0.00000	281763.06					
62.00	4390.27	6.47	-0.58	-449.71	0.04	
777.39	412.94	1.88	478.16	73.85	0.000000	
0.00000	291675.81					
63.00	4390.41	6.61	-0.58	-468.62	0.04	
807.94	413.20	1.96	487.03	73.72	0.000000	
0.00000	297085.47					
64.00	4390.53	6.73	-0.59	-492.77	0.04	
838.33	413.45	2.03	495.60	73.60	0.000000	
0.00000	302318.78					
65.00	4390.74	6.94	-0.62	-545.17	0.04	
884.87	413.86	2.14	509.31	73.41	0.000000	
0.00000	310678.34					
66.00	4390.95	7.15	-0.58	-542.72	0.04	
934.46	414.29	2.26	523.78	73.22	0.000000	
0.00000	319505.72					
67.00	4391.16	7.36	-0.47	-458.39	0.03	
975.10	414.70	2.35	537.45	73.04	0.000000	
0.00000	327843.97					
68.00	4391.36	7.56	-0.28	-283.74	0.02	
999.97	415.10	2.41	550.81	72.87	0.000015	
0.00225	335996.91					
69.00	4391.56	7.76	-0.15	-158.93	0.01	
1027.89	415.50	2.47	564.05	72.71	0.000020	
0.00315	344071.66					
70.00	4391.76	7.96	0.05	50.72	0.00	
1044.30	415.92	2.51	577.81	72.55	0.000074	
0.01157	352466.66					
71.00	4391.96	8.16	0.11	119.44	0.01	
1099.32	416.31	2.64	590.88	72.39	0.000000	
0.00000	360439.78					
72.00	4392.20	8.40	0.12	141.80	0.01	
1167.75	416.79	2.80	606.59	72.22	0.000000	
0.00000	370022.31					
73.00	4392.41	8.61	0.20	247.11	0.01	
1220.90	417.21	2.93	620.65	72.06	0.000188	
0.03441	378599.38					
74.00	4392.59	8.79	0.26	332.18	0.02	
1270.94	417.58	3.04	632.60	71.93	0.000000	
0.00000	385886.91					
75.00	4392.74	8.94	0.30	390.22	0.02	
1306.18	417.87	3.13	642.33	71.83	0.000000	
0.00000	391818.44					
76.00	4392.90	9.10	0.31	421.21	0.02	
1344.63	418.19	3.22	652.90	71.72	0.000000	
0.00000	398268.41					
77.00	4393.09	9.29	0.30	418.31	0.02	
1387.75	418.56	3.32	664.93	71.59	0.000065	
0.01335	405609.34					
78.00	4393.26	9.46	0.33	475.99	0.02	

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				HYCHAN.OUT			
1428.51		418.91		3.41	676.42	71.48	0.000000
	0.00000	412618.81					
79.00		4393.43	9.63	0.34	497.19	0.02	
1464.00		419.25		3.49	687.54	71.37	0.000000
	0.00000	419396.44					
80.00		4393.60	9.80	0.34	513.32	0.02	
1507.90		419.59		3.59	698.51	71.26	0.000000
	0.00000	426092.34					
81.00		4393.80	10.00	0.32	501.38	0.02	
1547.23		419.98		3.68	711.21	71.14	0.000000
	0.00000	433840.00					
82.00		4394.03	10.23	0.31	495.66	0.02	
1598.43		420.45		3.80	726.40	71.00	0.000000
	0.00000	443106.81					
83.00		4394.27	10.47	0.32	522.11	0.02	
1656.55		420.93		3.94	742.07	70.86	0.000037
	0.00901	452662.00					
84.00		4394.50	10.70	0.29	495.06	0.02	
1711.44		421.39		4.06	756.84	70.73	0.000000
	0.00000	461671.62					
85.00		4394.84	11.04	0.35	628.76	0.02	
1795.40		422.07		4.25	778.85	70.54	0.000000
	0.00000	475095.91					
86.00		4395.16	11.36	0.42	785.12	0.02	
1874.78		422.71		4.44	799.41	70.36	0.000000
	0.00000	487637.94					
87.00		4395.46	11.66	0.50	979.96	0.03	
1947.97		423.31		4.60	818.65	70.21	0.000000
	0.00000	499374.91					
88.00		4395.74	11.94	0.61	1219.57	0.03	
2012.88		423.86		4.75	836.30	70.07	0.000000
	0.00000	510144.53					
89.00		4395.99	12.19	0.72	1488.67	0.04	
2054.88		424.37		4.84	852.65	69.94	0.000000
	0.00000	520116.06					
90.00		4396.19	12.39	0.82	1722.44	0.04	
2092.94		424.77		4.93	865.43	69.84	0.000000
	0.00000	527912.12					
91.00		4396.32	12.52	0.91	1935.56	0.05	
2136.93		425.02		5.03	873.55	69.78	0.000000
	0.00000	532864.75					
92.00		4396.37	12.57	0.94	2029.80	0.05	
2150.61		425.13		5.06	876.92	69.75	0.000000
	0.00000	534923.50					
93.00		4396.36	12.56	0.95	2032.60	0.05	
2148.84		425.11		5.05	876.37	69.76	0.000000
	0.00000	534584.44					
94.00		4396.29	12.49	0.93	1975.76	0.05	
2131.98		424.98		5.02	871.99	69.79	0.000000
	0.00000	531916.44					
95.00		4396.15	12.35	0.87	1819.91	0.04	
2097.40		424.68		4.94	862.58	69.86	0.000000
	0.00000	526176.81					
96.00		4395.98	12.18	0.82	1676.98	0.04	
2049.12		424.35		4.83	851.86	69.94	0.000000
	0.00000	519634.12					
97.00		4395.78	11.98	0.76	1530.72	0.04	
2017.93		423.96		4.76	839.40	70.04	0.000000
	0.00000	512035.47					
98.00		4395.58	11.78	0.70	1379.94	0.04	
1972.65		423.55		4.66	826.35	70.15	0.000000
	0.00000	504074.25					
99.00		4395.38	11.58	0.63	1217.79	0.03	

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		HYCHAN.OUT					
1923.46	423.15	4.55	813.71	70.25	0.000000		
0.00000	496360.88						
100.00	4395.16	11.36	0.60	1120.81	0.03		
1866.28	422.71	4.42	799.30	70.37	0.000000		
0.00000	487570.19						
101.00	4394.75	10.95	0.58	1029.78	0.03		
1771.10	421.89	4.20	772.95	70.59	0.000000		
0.00000	471496.72						
102.00	4394.40	10.60	0.53	886.44	0.03		
1684.52	421.18	4.00	750.07	70.79	0.000011		
0.00266	457541.78						
103.00	4394.20	10.40	0.53	872.24	0.03		
1635.60	420.79	3.89	737.49	70.90	0.000000		
0.00000	449868.62						
104.00	4394.08	10.28	0.57	908.13	0.03		
1605.58	420.54	3.82	729.36	70.97	0.000000		
0.00000	444912.16						
105.00	4394.00	10.20	0.59	933.45	0.03		
1588.17	420.39	3.78	724.65	71.02	0.000000		
0.00000	442036.62						
106.00	4393.94	10.14	0.63	987.69	0.03		
1569.28	420.26	3.73	720.32	71.06	0.000000		
0.00000	439397.28						
107.00	4393.86	10.06	0.67	1041.77	0.04		
1550.54	420.12	3.69	715.60	71.10	0.000000		
0.00000	436517.38						
108.00	4393.76	9.96	0.72	1101.81	0.04		
1523.41	419.91	3.63	709.02	71.16	0.000000		
0.00000	432504.31						
109.00	4393.62	9.82	0.76	1149.71	0.04		
1504.07	419.64	3.58	699.95	71.25	0.000000		
0.00000	426967.56						
110.00	4393.48	9.68	0.79	1165.79	0.04		
1471.50	419.35	3.51	690.70	71.34	0.000000		
0.00000	421327.28						
111.00	4393.34	9.54	0.81	1163.39	0.05		
1438.05	419.06	3.43	681.31	71.43	0.000000		
0.00000	415598.22						
112.00	4393.19	9.39	0.82	1148.80	0.05		
1400.56	418.77	3.34	671.88	71.52	0.000000		
0.00000	409848.19						
113.00	4393.05	9.25	0.83	1131.62	0.05		
1364.32	418.48	3.26	662.25	71.62	0.000000		
0.00000	403975.44						
114.00	4392.90	9.10	0.84	1115.96	0.05		
1330.01	418.19	3.18	652.66	71.72	0.000000		
0.00000	398125.22						
115.00	4392.72	8.92	0.84	1079.64	0.05		
1287.98	417.84	3.08	641.10	71.84	0.000000		
0.00000	391070.09						
116.00	4392.52	8.72	0.81	1007.81	0.05		
1243.02	417.43	2.98	627.84	71.98	0.000000		
0.00000	382983.53						
117.00	4392.38	8.58	0.85	1006.95	0.05		
1180.74	417.14	2.83	618.25	72.09	0.000000		
0.00000	377130.12						
118.00	4392.27	8.47	0.83	986.55	0.05		
1182.83	416.93	2.84	611.24	72.16	0.000000		
0.00000	372853.38						
119.00	4392.18	8.38	0.84	976.68	0.05		
1164.53	416.75	2.79	605.52	72.23	0.000000		
0.00000	369368.38						
120.00	4392.10	8.30	0.83	953.84	0.05		

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		HYCHAN.OUT					
1145.33	416.59	2.75	600.05	72.29	0.000000		
0.000000	366027.84						
121.00	4392.02	8.22	0.84	941.40	0.05		
1127.18	416.43	2.71	594.91	72.35	0.000000		
0.000000	362894.06						
122.00	4391.95	8.15	0.83	923.25	0.05		
1110.62	416.29	2.67	590.10	72.40	0.000000		
0.000000	359963.91						
123.00	4391.88	8.08	0.83	908.70	0.05		
1095.28	416.16	2.63	585.75	72.45	0.000000		
0.000000	357305.72						
124.00	4391.82	8.02	0.84	907.85	0.05		
1079.42	416.03	2.59	581.44	72.50	0.000000		
0.000000	354679.03						
125.00	4391.75	7.95	0.85	904.24	0.05		
1063.46	415.89	2.56	576.87	72.56	0.000000		
0.000000	351891.94						
126.00	4391.68	7.88	0.87	906.52	0.05		
1044.95	415.75	2.51	572.23	72.61	0.000000		
0.000000	349061.69						
127.00	4391.61	7.81	0.88	905.04	0.06		
1029.60	415.60	2.48	567.30	72.67	0.000000		
0.000000	346054.97						
128.00	4391.53	7.73	0.90	906.30	0.06		
1011.30	415.45	2.43	562.47	72.73	0.000000		
0.000000	343106.03						
129.00	4391.46	7.66	0.91	905.37	0.06		
994.49	415.31	2.39	557.71	72.79	0.000000		
0.000000	340201.09						
130.00	4391.39	7.59	0.92	902.81	0.06		
976.90	415.17	2.35	552.88	72.85	0.000000		
0.000000	337254.34						
131.00	4391.32	7.52	0.93	896.35	0.06		
959.72	415.03	2.31	548.25	72.91	0.000058		
0.00843	334432.47						
132.00	4391.25	7.45	0.95	895.39	0.06		
938.45	414.89	2.26	543.56	72.97	0.000000		
0.000000	331570.25						
133.00	4391.18	7.38	0.96	885.76	0.06		
926.09	414.75	2.23	539.08	73.02	0.000000		
0.000000	328836.19						
134.00	4391.12	7.32	0.95	865.14	0.06		
911.14	414.63	2.20	535.03	73.07	0.000000		
0.000000	326370.53						
135.00	4391.07	7.27	0.94	845.24	0.06		
897.27	414.53	2.16	531.68	73.12	0.000000		
0.000000	324322.50						
136.00	4391.02	7.22	0.94	832.01	0.06		
887.12	414.43	2.14	528.45	73.16	0.000079		
0.01057	322356.12						
137.00	4390.98	7.18	0.94	823.50	0.06		
877.32	414.34	2.12	525.37	73.20	0.000000		
0.000000	320476.22						
138.00	4390.93	7.13	0.93	808.79	0.06		
867.84	414.25	2.09	522.43	73.24	0.000000		
0.000000	318684.81						
139.00	4390.89	7.09	0.93	797.74	0.06		
857.77	414.17	2.07	519.73	73.27	0.000061		
0.00793	317033.22						
140.00	4390.85	7.05	0.93	787.63	0.06		
847.99	414.09	2.05	516.98	73.31	0.000000		
0.000000	315358.81						
141.00	4390.81	7.01	0.92	773.96	0.06		

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		HYCHAN.OUT				
839.01	414.01	2.03	514.25	73.35	0.000000	
0.00000	313689.94					
142.00	4390.77	6.97	0.93	774.41	0.06	
829.33	413.93	2.00	511.60	73.38	0.000000	
0.00000	312076.09					
143.00	4390.73	6.93	0.94	767.30	0.06	
819.25	413.85	1.98	508.81	73.42	0.000000	
0.00000	310374.72					
144.00	4390.69	6.89	0.93	758.31	0.06	
811.08	413.77	1.96	506.10	73.46	0.000038	
0.00470	308720.50					
145.00	4390.65	6.85	0.94	750.30	0.06	
801.69	413.69	1.94	503.54	73.49	0.000000	
0.00000	307159.44					
146.00	4390.61	6.81	0.93	737.58	0.06	
791.84	413.61	1.91	500.99	73.53	0.000000	
0.00000	305601.78					
147.00	4390.57	6.77	0.94	736.64	0.06	
782.66	413.53	1.89	498.28	73.56	0.000000	
0.00000	303950.50					
148.00	4390.53	6.73	0.95	731.85	0.06	
772.21	413.45	1.87	495.49	73.60	0.000000	
0.00000	302250.16					
149.00	4390.49	6.69	0.98	724.16	0.07	
735.64	413.37	1.78	492.88	73.64	0.000000	
0.00000	300659.75					
150.00	4390.45	6.65	1.00	719.22	0.07	
719.27	413.29	1.74	490.16	73.68	0.000000	
0.00000	298997.72					
151.00	4390.42	6.62	1.00	707.47	0.07	
710.93	413.22	1.72	487.74	73.71	0.000000	
0.00000	297518.97					
152.00	4390.38	6.58	1.00	700.66	0.07	
702.56	413.15	1.70	485.30	73.75	0.000000	
0.00000	296034.22					
153.00	4390.34	6.54	1.00	696.62	0.07	
694.18	413.08	1.68	482.86	73.78	0.000000	
0.00000	294542.81					
154.00	4390.31	6.51	1.02	698.11	0.07	
685.47	413.00	1.66	480.31	73.82	0.000000	
0.00000	292991.56					
155.00	4390.27	6.47	1.02	690.86	0.07	
677.27	412.93	1.64	477.92	73.85	0.000000	
0.00000	291531.97					
156.00	4390.24	6.44	1.02	686.01	0.07	
669.31	412.86	1.62	475.60	73.89	0.000000	
0.00000	290114.28					
157.00	4390.20	6.40	1.04	687.01	0.07	
661.36	412.79	1.60	473.27	73.92	0.000000	
0.00000	288695.22					
158.00	4390.18	6.38	1.02	669.73	0.07	
656.06	412.75	1.59	471.73	73.94	0.000000	
0.00000	287754.12					
159.00	4390.17	6.37	1.00	654.04	0.07	
654.15	412.73	1.58	471.18	73.95	0.000000	
0.00000	287418.88					
160.00	4390.16	6.36	0.99	648.50	0.07	
652.10	412.71	1.58	470.58	73.96	0.000000	
0.00000	287056.47					
161.00	4390.15	6.35	0.99	643.54	0.07	
650.18	412.70	1.58	470.03	73.97	0.000000	
0.00000	286715.50					
162.00	4390.15	6.35	0.99	642.08	0.07	

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		HYCHAN.OUT				
648.28	412.68	1.57	469.47	73.98	0.000000	
0.00000	286376.09					
163.00	4390.14	6.34	0.99	640.20	0.07	
646.06	412.66	1.57	468.82	73.99	0.000000	
0.00000	285980.12					
164.00	4390.13	6.33	0.99	638.49	0.07	
644.23	412.64	1.56	468.29	74.00	0.000000	
0.00000	285654.41					
165.00	4390.12	6.32	0.99	636.43	0.07	
642.52	412.63	1.56	467.79	74.00	0.000000	
0.00000	285349.00					
166.00	4390.11	6.31	0.99	637.09	0.07	
640.71	412.61	1.55	467.26	74.01	0.000000	
0.00000	285027.06					
167.00	4390.10	6.30	1.01	643.93	0.07	
637.22	412.58	1.54	466.23	74.03	0.000000	
0.00000	284400.50					
168.00	4390.08	6.28	1.02	646.10	0.07	
632.77	412.54	1.53	464.92	74.05	0.000000	
0.00000	283600.97					
169.00	4390.06	6.26	1.02	644.00	0.07	
628.67	412.51	1.52	463.72	74.06	0.000000	
0.00000	282867.22					
170.00	4390.05	6.25	1.02	639.64	0.07	
625.24	412.48	1.52	462.71	74.08	0.000008	
0.00078	282253.38					
171.00	4390.03	6.23	1.02	636.31	0.07	
622.17	412.45	1.51	461.81	74.09	0.000000	
0.00000	281704.31					
172.00	4390.02	6.22	1.02	632.37	0.07	
619.25	412.43	1.50	460.95	74.11	0.000000	
0.00000	281181.75					
173.00	4390.01	6.21	1.02	627.71	0.07	
616.55	412.40	1.50	460.16	74.12	0.000011	
0.00105	280699.81					
174.00	4390.00	6.20	1.02	626.51	0.07	
613.87	412.38	1.49	459.37	74.13	0.000000	
0.00000	280218.28					
175.00	4389.98	6.18	1.03	630.45	0.07	
609.48	412.34	1.48	458.08	74.15	0.000000	
0.00000	279430.19					
176.00	4389.96	6.16	1.04	630.04	0.07	
604.29	412.30	1.47	456.55	74.17	0.000000	
0.00000	278497.03					
177.00	4389.93	6.13	1.05	626.58	0.07	
599.47	412.26	1.45	455.13	74.19	0.000000	
0.00000	277631.34					
178.00	4389.92	6.12	1.05	622.32	0.07	
595.43	412.22	1.44	453.95	74.21	0.000000	
0.00000	276906.50					
179.00	4389.90	6.10	1.05	619.41	0.07	
591.84	412.19	1.44	452.89	74.23	0.000011	
0.00102	276262.22					
180.00	4389.89	6.09	1.04	614.58	0.07	
588.67	412.16	1.43	451.96	74.24	0.000000	
0.00000	275692.75					
181.00	4389.88	6.08	1.04	607.61	0.07	
586.15	412.14	1.42	451.22	74.25	0.000000	
0.00000	275243.16					
182.00	4389.88	6.08	1.00	589.46	0.07	
587.44	412.15	1.43	451.61	74.25	0.000000	
0.00000	275482.84					
183.00	4389.90	6.10	0.97	576.56	0.07	

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HYCHAN.OUT									
592.23		412.19	1.44	453.03	74.23	0.000000			
	0.00000	276349.28							
184.00		4389.93	6.13	0.95	568.90	0.07			
597.97		412.24	1.45	454.73	74.20	0.000008			
	0.00072	277384.12							
185.00		4389.95	6.15	0.94	566.75	0.07			
604.00		412.30	1.46	456.50	74.17	0.000000			
	0.00000	278464.88							
186.00		4389.97	6.17	0.93	567.36	0.07			
608.10		412.33	1.47	457.71	74.16	0.000010			
	0.00095	279201.66							
187.00		4389.98	6.18	0.93	568.94	0.07			
610.62		412.35	1.48	458.44	74.14	0.000006			
	0.00056	279650.47							
188.00		4389.99	6.19	0.93	568.81	0.07			
612.01		412.37	1.48	458.85	74.14	0.000000			
	0.00000	279899.19							
189.00		4389.99	6.19	0.93	567.15	0.07			
612.86		412.37	1.49	459.10	74.13	0.000007			
	0.00063	280050.75							
190.00		4389.99	6.19	0.92	566.85	0.07			
613.21		412.38	1.49	459.20	74.13	0.000012			
	0.00114	280113.53							
191.00		4389.99	6.19	0.92	566.43	0.07			
613.33		412.38	1.49	459.24	74.13	0.000000			
	0.00000	280135.06							
192.00		4389.99	6.19	0.93	566.81	0.07			
612.72		412.37	1.49	459.06	74.13	0.000000			
	0.00000	280025.62							
193.00		4389.98	6.18	0.94	573.80	0.07			
609.40		412.34	1.48	458.08	74.15	0.000000			
	0.00000	279428.31							
194.00		4389.96	6.16	0.95	573.58	0.07			
604.90		412.30	1.47	456.75	74.17	0.000000			
	0.00000	278619.22							
195.00		4389.94	6.14	0.95	570.47	0.07			
601.05		412.27	1.46	455.62	74.19	0.000000			
	0.00000	277926.81							
196.00		4389.93	6.13	0.95	568.34	0.07			
598.12		412.24	1.45	454.75	74.20	0.000000			
	0.00000	277399.78							
197.00		4389.92	6.12	0.95	566.85	0.07			
595.76		412.22	1.45	454.06	74.21	0.000000			
	0.00000	276976.56							
198.00		4389.91	6.11	0.95	563.57	0.07			
594.22		412.21	1.44	453.61	74.22	0.000007			
	0.00062	276700.16							
199.00		4389.91	6.11	0.95	562.02	0.07			
592.72		412.20	1.44	453.16	74.22	0.000006			
	0.00054	276430.12							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4253

MAXIMUM DISCHARGE (CFS) = 4078.73 AT TIME = 91.70  
 MAXIMUM STAGE = 4396.40 AT TIME = 92.21

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)		
(LB/FT^2)	(FT^2)					

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## HYCHAN.OUT

0.00	0.00	4382.95	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4382.95	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4382.95	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4382.95	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4382.95	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4382.95	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
36.01	6.00	4383.24	0.29	-0.23	-8.35	0.08		0.000000
		13.97	2.58	15.16	51.68			
	0.00000	9096.80						
72.83	7.00	4385.12	2.18	-1.01	-73.21	0.12		0.000000
		32.93	2.21	31.63	14.54			
	0.00000	18975.69						
88.69	8.00	4385.58	2.63	-0.77	-67.99	0.08		0.000000
		35.72	2.48	33.91	12.89			
	0.00000	20345.56						
90.92	9.00	4385.65	2.70	-0.51	-46.09	0.05		0.000000
		36.11	2.52	34.22	12.69			
	0.00000	20533.72						
90.13	10.00	4385.63	2.68	-0.28	-25.52	0.03		0.000000
		36.03	2.50	34.16	12.73			
	0.00000	20497.82						
65.08	11.00	4385.60	2.65	0.10	6.30	0.01		0.000000
		35.85	1.82	34.01	12.83			
	0.00000	20407.68						
64.19	12.00	4385.55	2.60	0.16	10.11	0.02		0.000000
		35.54	1.81	33.76	12.99			
	0.00000	20257.59						
60.75	13.00	4385.47	2.52	0.27	16.35	0.03		0.000034
		35.08	1.73	33.39	13.24			
	0.00372	20031.48						
55.87	14.00	4385.35	2.40	0.36	20.34	0.04		0.000023
		34.37	1.63	32.81	13.65			
	0.00236	19685.93						
53.68	15.00	4385.25	2.30	0.30	15.96	0.03		0.000000
		33.74	1.59	32.29	14.03			
	0.00000	19372.99						
51.95	16.00	4385.20	2.25	0.17	8.89	0.02		0.000028
		33.44	1.55	32.04	14.22			
	0.00267	19224.22						
51.03	17.00	4385.18	2.23	0.10	5.04	0.01		0.000000
		33.27	1.53	31.91	14.32			
	0.00000	19143.02						
48.30	18.00	4385.17	2.22	0.05	2.30	0.01		0.000007
		33.19	1.46	31.84	14.37			
	0.00067	19104.28						
0.00	19.00	4385.16	2.21	0.00	0.00	0.00		0.000000
		33.18	0.00	31.83	14.38			
	0.00000	19097.02						
72.08	20.00	4385.22	2.27	-0.19	-13.40	0.02		0.000000
		33.52	2.15	32.11	14.17			

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HYCHAN.OUT									
	0.00000	19263.68							
78.59	21.00	4385.34	2.39	-0.28	-22.14	0.03			
		34.27	2.29		32.72	13.71	0.000000		
	0.00000	19633.63							
83.65	22.00	4385.47	2.52	-0.33	-27.68	0.04			
		35.08	2.38		33.38	13.25	0.000000		
	0.00000	20030.45							
87.63	23.00	4385.58	2.63	-0.28	-24.66	0.03			
		35.70	2.45		33.89	12.90	0.000000		
	0.00000	20335.00							
86.87	24.00	4385.63	2.68	-0.17	-14.92	0.02			
		35.99	2.41		34.13	12.75	0.000000		
	0.00000	20478.60							
93.22	25.00	4385.71	2.76	-0.28	-26.32	0.03			
		36.44	2.56		34.50	12.52	0.000000		
	0.00000	20697.82							
100.08	26.00	4385.87	2.92	-0.47	-47.12	0.05			
		37.34	2.68		35.23	12.07	0.000000		
	0.00000	21135.07							
108.16	27.00	4386.05	3.10	-0.56	-60.16	0.06			
		38.34	2.82		36.03	11.61	0.000000		
	0.00000	21617.22							
117.60	28.00	4386.27	3.32	-0.65	-76.75	0.06			
		39.48	2.98		36.95	11.12	0.000000		
	0.00000	22167.06							
124.14	29.00	4386.43	3.48	-0.49	-61.40	0.05			
		40.25	3.08		37.57	10.80	0.000000		
	0.00000	22540.31							
128.12	30.00	4386.51	3.56	-0.35	-44.59	0.03			
		40.69	3.15		37.91	10.64	0.000000		
	0.00000	22747.10							
132.27	31.00	4386.60	3.65	-0.37	-49.02	0.03			
		41.11	3.22		38.25	10.47	0.000000		
	0.00000	22952.75							
135.30	32.00	4386.68	3.73	-0.25	-33.59	0.02			
		41.48	3.26		38.54	10.34	0.000000		
	0.00000	23125.60							
136.00	33.00	4386.73	3.78	-0.17	-23.53	0.02			
		41.70	3.26		38.72	10.26	0.000000		
	0.00000	23232.62							
141.34	34.00	4386.79	3.85	-0.25	-35.94	0.02			
		42.03	3.36		38.98	10.14	0.000000		
	0.00000	23388.81							
143.61	35.00	4386.86	3.91	-0.17	-24.36	0.02			
		42.32	3.39		39.22	10.03	0.000000		
	0.00000	23530.54							
140.25	36.00	4386.89	3.94	-0.11	-15.86	0.01			
		42.48	3.30		39.34	9.98	0.000000		
	0.00000	23602.70							
148.46	37.00	4386.93	3.98	-0.03	-5.19	0.00			
		42.63	3.48		39.46	9.93	0.000000		
	0.00000	23677.35							
118.61	38.00	4386.91	3.96	0.11	13.25	0.01			
		42.55	2.79		39.40	9.95	0.000021		
	0.00360	23638.11							
117.27	39.00	4386.85	3.91	0.25	29.84	0.02			
		42.31	2.77		39.20	10.04	0.000011		
	0.00185	23521.91							
114.70	40.00	4386.80	3.85	0.18	21.21	0.02			
		42.05	2.73		39.00	10.13	0.000000		
	0.00000	23399.99							
110.53	41.00	4386.77	3.82	0.09	9.70	0.01			
		41.92	2.64		38.90	10.18	0.000000		



		HYCHAN.OUT						
	0.00000	23337.75						
107.84	42.00	4386.76	3.81	0.04	4.82	0.00		
	0.00000	23303.62	2.58		38.84	10.20	0.000000	
103.44	43.00	4386.75	3.80	0.02	2.34	0.00		
	0.00458	23285.73	2.47		38.81	10.22	0.000030	
123.98	44.00	4386.75	3.80	-0.04	-5.00	0.00		
	0.00000	23290.75	2.96		38.82	10.21	0.000000	
137.45	45.00	4386.80	3.85	-0.23	-31.23	0.02		
	0.00000	23391.41	3.27		38.99	10.14	0.000000	
136.50	46.00	4386.85	3.91	-0.19	-26.53	0.02		
	0.00000	23522.08	3.23		39.20	10.04	0.000000	
148.28	47.00	4386.93	3.98	-0.29	-43.47	0.03		
	0.00000	23692.86	3.48		39.49	9.91	0.000000	
153.79	48.00	4387.05	4.10	-0.38	-58.84	0.03		
	0.00000	23936.46	3.56		39.89	9.74	0.000000	
160.25	49.00	4387.17	4.22	-0.43	-68.22	0.04		
	0.00000	24207.18	3.66		40.35	9.55	0.000000	
167.21	50.00	4387.31	4.36	-0.44	-74.07	0.04		
	0.00000	24491.98	3.77		40.82	9.36	0.000000	
174.62	51.00	4387.45	4.50	-0.46	-80.90	0.04		
	0.00000	24779.54	3.88		41.30	9.18	0.000000	
182.72	52.00	4387.60	4.65	-0.50	-90.68	0.04		
	0.00000	25077.53	4.01		41.80	8.99	0.000000	
191.97	53.00	4387.77	4.82	-0.56	-107.39	0.04		
	0.00000	25417.88	4.15		42.36	8.78	0.000000	
200.26	54.00	4387.93	4.98	-0.43	-87.04	0.03		
	0.00000	25712.42	4.27		42.85	8.61	0.000000	
209.21	55.00	4388.07	5.12	-0.53	-110.89	0.04		
	0.00000	25989.12	4.40		43.32	8.45	0.000000	
221.23	56.00	4388.27	5.32	-0.70	-155.57	0.05		
	0.00000	26355.94	4.58		43.93	8.25	0.000000	
239.78	57.00	4388.57	5.62	-1.04	-248.33	0.08		
	0.00000	26890.20	4.85		44.82	7.97	0.000000	
263.76	58.00	4388.95	6.00	-1.25	-328.80	0.09		
	0.00000	27544.96	5.19		45.91	7.65	0.000000	
288.53	59.00	4389.35	6.40	-1.23	-354.30	0.09		
	0.00000	28204.37	5.52		47.01	7.34	0.000000	
311.80	60.00	4389.71	6.76	-1.16	-360.70	0.08		
	0.00000	28764.51	5.83		47.94	7.10	0.000000	
336.47	61.00	4390.05	7.10	-1.48	-496.83	0.10		
	0.00000	29287.62	6.16		48.81	6.88	0.000000	
352.63	62.00	4390.29	7.34	-1.47	-520.05	0.10		
		55.42	6.36		49.42	6.73	0.000000	

		HYCHAN.OUT						
	0.00000	29650.29						
361.21	63.00	4390.42	7.47	-1.34	-484.72	0.09		
	0.00000	55.84	6.47		49.74	6.66	0.000000	
	64.00	29843.71						
371.06	4390.55	56.25	7.60	-1.41	-521.53	0.09		
	0.00000	30030.54	6.60		50.05	6.59	0.000000	
	65.00	4390.75	7.80	-1.51	-581.20	0.10		
385.91	56.89	30323.78	6.78		50.54	6.48	0.000000	
	0.00000	57.55	8.01	-1.40	-560.43	0.09		
400.94	4390.96	30624.76	6.97		51.04	6.37	0.000000	
	67.00	4391.16	8.22	-1.04	-429.94	0.06		
413.71	58.16	30903.37	7.11		51.51	6.27	0.000000	
	68.00	4391.36	8.41	-0.44	-182.67	0.03		
410.95	58.75	31172.45	6.99		51.95	6.18	0.000000	
	69.00	4391.56	8.61	-0.05	-19.99	0.00		
416.38	59.33	31436.71	7.02		52.39	6.09	0.000012	
	70.00	4391.76	8.81	0.55	231.46	0.03		
420.74	59.94	31710.71	7.02		52.85	6.00	0.000020	
	71.00	4391.96	9.01	0.58	251.03	0.03		
435.03	60.50	31963.83	7.19		53.27	5.92	0.000000	
	72.00	4392.20	9.25	0.53	241.64	0.03		
454.13	61.19	32276.89	7.42		53.79	5.82	0.000039	
	73.00	4392.41	9.46	0.89	415.19	0.05		
467.37	61.77	32541.96	7.57		54.24	5.74	0.000000	
	74.00	4392.59	9.64	1.13	543.31	0.06		
479.75	62.28	32772.52	7.70		54.62	5.67	0.000071	
	75.00	4392.73	9.78	1.29	631.52	0.07		
489.68	62.68	32951.48	7.81		54.92	5.61	0.000083	
	76.00	4392.90	9.95	1.48	741.89	0.08		
500.30	63.13	33152.01	7.93		55.25	5.55	0.000101	
	77.00	4393.08	10.13	1.74	887.52	0.10		
510.64	63.62	33376.14	8.03		55.63	5.49	0.000098	
	78.00	4393.26	10.31	2.06	1052.66	0.11		
510.21	64.09	33586.00	7.96		55.98	5.43	0.000129	
	79.00	4393.43	10.48	2.34	1181.50	0.13		
505.92	64.55	33791.45	7.84		56.32	5.37	0.000113	
	80.00	4393.60	10.65	2.53	1310.91	0.14		
518.09	64.99	33988.89	7.97		56.65	5.32	0.000162	
	81.00	4393.79	10.84	2.67	1420.60	0.14		
532.55	65.50	34217.61	8.13		57.03	5.26	0.000228	
	82.00	4394.03	11.08	2.90	1594.64	0.15		
549.95	66.10	34488.50	8.32		57.48	5.19	0.000108	
	83.00	4394.27	11.32	3.04	1724.58	0.16		
567.71	66.72		8.51		57.94	5.12	0.000165	

		HYCHAN.OUT						
	0.08773	34762.50						
584.97	84.00	4394.50	11.55	3.14	1837.21	0.16		
	0.07427	35018.54	8.69		58.36	5.05	0.000137	
610.28	85.00	4394.84	11.89	3.68	2248.75	0.19		
	0.18803	35392.56	8.96		58.99	4.96	0.000336	
633.20	86.00	4395.16	12.21	4.15	2629.27	0.21		
	0.17935	35740.71	9.20		59.57	4.88	0.000313	
653.76	87.00	4395.48	12.53	4.55	2974.13	0.23		
	0.25348	36084.04	9.41		60.14	4.80	0.000432	
672.62	88.00	4395.78	12.83	4.87	3277.43	0.24		
	0.24048	36400.13	9.60		60.67	4.73	0.000402	
690.01	89.00	4396.06	13.11	5.18	3571.28	0.25		
	0.26714	36689.20	9.77		61.15	4.66	0.000438	
703.58	90.00	4396.29	13.34	5.39	3789.31	0.26		
	0.26417	36923.32	9.89		61.54	4.61	0.000428	
712.19	91.00	4396.45	13.50	5.52	3934.61	0.27		
	0.31301	37078.94	9.97		61.80	4.58	0.000503	
715.77	92.00	4396.50	13.55	5.58	3995.17	0.27		
	0.28989	37136.33	10.01		61.89	4.57	0.000464	
715.23	93.00	4396.48	13.53	5.58	3991.07	0.27		
	0.29394	37117.96	10.00		61.86	4.57	0.000471	
710.48	94.00	4396.40	13.45	5.52	3920.18	0.27		
	0.29261	37036.88	9.96		61.73	4.59	0.000471	
700.48	95.00	4396.23	13.28	5.37	3761.83	0.26		
	0.28032	36864.19	9.87		61.44	4.63	0.000455	
688.94	96.00	4396.04	13.09	5.21	3586.71	0.25		
	0.24215	36669.31	9.76		61.12	4.67	0.000398	
675.65	97.00	4395.83	12.88	5.01	3382.10	0.25		
	0.24647	36446.57	9.63		60.74	4.72	0.000410	
661.70	98.00	4395.61	12.66	4.78	3165.23	0.24		
	0.22605	36222.33	9.49		60.37	4.77	0.000382	
648.17	99.00	4395.39	12.44	4.56	2953.27	0.23		
	0.16694	35990.17	9.35		59.98	4.82	0.000286	
632.77	100.00	4395.15	12.20	4.29	2715.35	0.22		
	0.12890	35733.06	9.19		59.56	4.88	0.000225	
603.20	101.00	4394.74	11.79	3.74	2254.03	0.19		
	0.17457	35284.28	8.89		58.81	4.99	0.000315	
576.62	102.00	4394.39	11.44	3.34	1923.32	0.17		
	0.08305	34895.38	8.60		58.16	5.08	0.000155	
561.90	103.00	4394.19	11.24	3.48	1957.17	0.18		
	0.17906	34673.64	8.45		57.79	5.14	0.000340	
552.75	104.00	4394.07	11.12	3.63	2008.69	0.19		
		66.20	8.35		57.55	5.18	0.000309	

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HYCHAN.OUT									
0.16124	34531.96								
105.00	4393.99	11.04	3.63	1988.25	0.19				
547.36	66.02	8.29		57.41	5.20	0.000194			
0.10054	34448.77								
106.00	4393.92	10.97	3.68	1997.25	0.20				
542.13	65.84	8.23		57.28	5.22	0.000296			
0.15189	34368.30								
107.00	4393.85	10.90	3.72	1995.69	0.20				
536.81	65.65	8.18		57.14	5.24	0.000224			
0.11415	34284.89								
108.00	4393.75	10.80	3.82	2020.70	0.20				
529.11	65.38	8.09		56.94	5.27	0.000271			
0.13695	34163.77								
109.00	4393.61	10.66	3.87	2008.31	0.21				
518.88	65.01	7.98		56.67	5.32	0.000298			
0.14823	34000.39								
110.00	4393.46	10.51	3.87	1967.42	0.21				
508.28	64.64	7.86		56.38	5.36	0.000321			
0.15770	33830.54								
111.00	4393.32	10.37	3.82	1903.86	0.21				
497.78	64.26	7.75		56.10	5.41	0.000279			
0.13480	33659.47								
112.00	4393.17	10.22	3.78	1839.50	0.21				
487.15	63.86	7.63		55.81	5.46	0.000323			
0.15365	33484.07								
113.00	4393.02	10.07	3.73	1777.63	0.21				
476.47	63.47	7.51		55.51	5.51	0.000317			
0.14841	33305.48								
114.00	4392.88	9.93	3.70	1724.47	0.21				
465.74	63.07	7.38		55.21	5.56	0.000279			
0.12868	33124.76								
115.00	4392.70	9.75	3.62	1639.81	0.20				
452.47	62.58	7.23		54.85	5.63	0.000308			
0.13880	32907.13								
116.00	4392.50	9.55	3.46	1509.75	0.20				
436.89	62.03	7.04		54.43	5.70	0.000270			
0.11864	32656.96								
117.00	4392.35	9.40	3.31	1408.54	0.19				
425.41	61.61	6.90		54.12	5.76	0.000211			
0.09082	32469.71								
118.00	4392.24	9.29	3.22	1342.62	0.19				
417.33	61.31	6.81		53.89	5.80	0.000227			
0.09636	32334.14								
119.00	4392.16	9.21	3.16	1296.43	0.18				
410.73	61.07	6.73		53.70	5.83	0.000211			
0.08866	32222.02								
120.00	4392.07	9.12	3.07	1239.73	0.18				
404.45	60.83	6.65		53.52	5.87	0.000224			
0.09304	32113.96								
121.00	4391.99	9.04	2.96	1180.77	0.17				
398.63	60.61	6.58		53.36	5.90	0.000222			
0.09125	32013.35								
122.00	4391.92	8.97	2.87	1128.88	0.17				
393.31	60.40	6.51		53.20	5.93	0.000210			
0.08551	31919.25								
123.00	4391.86	8.91	2.82	1094.97	0.17				
388.45	60.21	6.45		53.05	5.96	0.000191			
0.07694	31832.46								
124.00	4391.79	8.84	2.81	1079.48	0.17				
383.52	60.01	6.39		52.91	5.99	0.000152			
0.06073	31744.70								
125.00	4391.72	8.77	2.81	1062.87	0.17				
378.35	59.81	6.33		52.75	6.02	0.000214			

		HYCHAN.OUT						
	0.08466	31650.98						
126.00	4391.65	8.70	2.82	1052.08	0.17			
373.14	59.59	6.26	52.59	6.05	0.000239			
	0.09333	31554.83						
127.00	4391.57	8.62	2.82	1036.15	0.17			
367.80	59.38	6.19	52.43	6.08	0.000204			
	0.07871	31455.31						
128.00	4391.50	8.55	2.81	1018.86	0.17			
362.33	59.15	6.13	52.26	6.11	0.000215			
	0.08228	31354.37						
129.00	4391.42	8.47	2.83	1012.11	0.17			
357.20	58.94	6.06	52.09	6.15	0.000204			
	0.07704	31255.21						
130.00	4391.35	8.40	2.84	998.25	0.17			
351.85	58.71	5.99	51.92	6.18	0.000226			
	0.08466	31153.51						
131.00	4391.28	8.33	2.84	984.84	0.17			
346.86	58.50	5.93	51.76	6.22	0.000204			
	0.07536	31056.63						
132.00	4391.20	8.25	2.85	973.19	0.17			
341.72	58.28	5.86	51.60	6.25	0.000240			
	0.08794	30957.52						
133.00	4391.13	8.18	2.86	963.24	0.18			
337.01	58.07	5.80	51.44	6.28	0.000219			
	0.07933	30861.55						
134.00	4391.08	8.13	2.81	934.63	0.17			
332.86	57.89	5.75	51.30	6.31	0.000207			
	0.07421	30779.60						
135.00	4391.02	8.08	2.77	912.71	0.17			
329.39	57.74	5.71	51.18	6.34	0.000208			
	0.07401	30709.45						
136.00	4390.98	8.03	2.76	899.23	0.17			
326.10	57.59	5.66	51.07	6.36	0.000188			
	0.06646	30641.71						
137.00	4390.93	7.98	2.75	887.38	0.17			
322.89	57.45	5.62	50.96	6.39	0.000203			
	0.07130	30576.44						
138.00	4390.89	7.94	2.73	872.08	0.17			
319.97	57.31	5.58	50.86	6.41	0.000213			
	0.07432	30514.81						
139.00	4390.84	7.89	2.72	861.91	0.17			
317.09	57.18	5.55	50.76	6.43	0.000206			
	0.07121	30454.60						
140.00	4390.80	7.85	2.70	847.77	0.17			
314.38	57.06	5.51	50.66	6.45	0.000215			
	0.07403	30398.29						
141.00	4390.76	7.81	2.68	836.53	0.17			
311.66	56.93	5.47	50.57	6.47	0.000226			
	0.07707	30340.84						
142.00	4390.72	7.77	2.70	835.54	0.17			
308.90	56.80	5.44	50.47	6.49	0.000223			
	0.07573	30281.82						
143.00	4390.68	7.73	2.71	829.20	0.17			
306.06	56.67	5.40	50.37	6.52	0.000229			
	0.07716	30220.34						
144.00	4390.64	7.69	2.70	819.66	0.17			
303.42	56.54	5.37	50.27	6.54	0.000210			
	0.07039	30163.07						
145.00	4390.60	7.65	2.68	807.29	0.17			
300.81	56.42	5.33	50.18	6.56	0.000209			
	0.06944	30107.37						
146.00	4390.56	7.61	2.68	797.83	0.17			
298.20	56.29	5.30	50.08	6.58	0.000230			

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		HYCHAN.OUT						
	0.07595	30049.01						
147.00	4390.52	7.57	2.70	796.98	0.17			
295.52	56.16	5.26	49.98	6.60	0.000225			
	0.07390	29990.61						
148.00	4390.48	7.53	2.70	791.72	0.17			
292.70	56.02	5.22	49.88	6.63	0.000206			
	0.06721	29926.94						
149.00	4390.44	7.49	2.70	783.76	0.17			
289.85	55.89	5.19	49.78	6.65	0.000225			
	0.07275	29866.07						
150.00	4390.40	7.45	2.70	775.46	0.17			
287.45	55.77	5.15	49.69	6.67	0.000225			
	0.07222	29812.39						
151.00	4390.36	7.41	2.69	765.36	0.17			
285.05	55.66	5.12	49.60	6.69	0.000219			
	0.07004	29757.88						
152.00	4390.32	7.37	2.68	756.73	0.17			
282.69	55.54	5.09	49.51	6.71	0.000221			
	0.07013	29703.85						
153.00	4390.29	7.34	2.69	755.17	0.18			
280.24	55.42	5.06	49.41	6.73	0.000228			
	0.07202	29647.53						
154.00	4390.25	7.30	2.71	753.84	0.18			
277.78	55.29	5.02	49.32	6.76	0.000231			
	0.07251	29590.30						
155.00	4390.21	7.26	2.72	747.85	0.18			
275.39	55.17	4.99	49.22	6.78	0.000232			
	0.07230	29534.53						
156.00	4390.17	7.23	2.72	742.43	0.18			
273.12	55.05	4.96	49.14	6.80	0.000239			
	0.07395	29481.17						
157.00	4390.14	7.19	2.74	741.97	0.18			
270.81	54.93	4.93	49.04	6.82	0.000237			
	0.07300	29426.62						
158.00	4390.12	7.17	2.65	714.03	0.17			
269.49	54.87	4.91	48.99	6.83	0.000220			
	0.06747	29395.06						
159.00	4390.11	7.16	2.59	697.80	0.17			
269.05	54.84	4.91	48.97	6.84	0.000216			
	0.06617	29384.68						
160.00	4390.10	7.15	2.58	692.37	0.17			
268.62	54.82	4.90	48.96	6.84	0.000216			
	0.06607	29374.39						
161.00	4390.10	7.15	2.57	688.34	0.17			
268.07	54.79	4.89	48.94	6.85	0.000213			
	0.06512	29361.30						
162.00	4390.09	7.14	2.56	685.32	0.17			
267.48	54.76	4.88	48.91	6.85	0.000212			
	0.06463	29347.02						
163.00	4390.08	7.13	2.57	685.00	0.17			
266.94	54.73	4.88	48.89	6.86	0.000213			
	0.06484	29334.03						
164.00	4390.07	7.12	2.56	681.55	0.17			
266.37	54.70	4.87	48.87	6.86	0.000215			
	0.06520	29320.51						
165.00	4390.06	7.11	2.56	679.68	0.17			
265.90	54.68	4.86	48.85	6.87	0.000216			
	0.06552	29308.95						
166.00	4390.05	7.10	2.57	681.50	0.17			
265.41	54.65	4.86	48.83	6.87	0.000222			
	0.06714	29297.22						
167.00	4390.04	7.09	2.62	693.45	0.17			
264.29	54.59	4.84	48.78	6.89	0.000234			

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		HYCHAN.OUT						
	0.07063	29270.21						
168.00	4390.01	7.06	2.64	694.29	0.18			
262.96	54.52	4.82	48.73	6.90	0.000230			
	0.06921	29237.85						
169.00	4390.00	7.05	2.64	690.60	0.18			
261.81	54.46	4.81	48.68	6.91	0.000232			
	0.06971	29209.90						
170.00	4389.98	7.03	2.63	685.61	0.17			
260.87	54.41	4.79	48.64	6.92	0.000231			
	0.06900	29186.72						
171.00	4389.97	7.02	2.62	681.02	0.17			
260.00	54.37	4.78	48.61	6.93	0.000227			
	0.06786	29165.73						
172.00	4389.95	7.00	2.61	676.68	0.17			
259.22	54.32	4.77	48.58	6.94	0.000230			
	0.06853	29146.32						
173.00	4389.94	6.99	2.60	673.15	0.17			
258.51	54.29	4.76	48.55	6.94	0.000232			
	0.06882	29128.86						
174.00	4389.93	6.98	2.61	671.57	0.17			
257.70	54.24	4.75	48.52	6.95	0.000234			
	0.06933	29109.03						
175.00	4389.91	6.96	2.65	680.12	0.18			
256.44	54.17	4.73	48.46	6.96	0.000240			
	0.07074	29077.71						
176.00	4389.88	6.93	2.67	679.38	0.18			
254.90	54.09	4.71	48.40	6.98	0.000242			
	0.07127	29039.28						
177.00	4389.86	6.91	2.66	674.30	0.18			
253.55	54.02	4.69	48.34	6.99	0.000245			
	0.07166	29005.70						
178.00	4389.84	6.89	2.65	669.25	0.18			
252.45	53.96	4.68	48.30	7.01	0.000241			
	0.07030	28978.19						
179.00	4389.83	6.88	2.64	664.00	0.18			
251.46	53.90	4.66	48.26	7.02	0.000241			
	0.07028	28953.07						
180.00	4389.81	6.86	2.63	659.56	0.18			
250.63	53.86	4.65	48.22	7.02	0.000241			
	0.06984	28932.28						
181.00	4389.80	6.85	2.60	649.17	0.17			
249.98	53.82	4.64	48.19	7.03	0.000225			
	0.06509	28915.91						
182.00	4389.81	6.86	2.47	619.09	0.17			
250.62	53.86	4.65	48.22	7.02	0.000205			
	0.05964	28932.26						
183.00	4389.84	6.89	2.41	606.49	0.16			
252.18	53.94	4.67	48.29	7.01	0.000196			
	0.05718	28971.47						
184.00	4389.87	6.92	2.35	596.00	0.16			
253.90	54.04	4.70	48.36	6.99	0.000188			
	0.05498	29014.62						
185.00	4389.90	6.95	2.33	596.77	0.16			
255.63	54.13	4.72	48.43	6.97	0.000184			
	0.05427	29057.75						
186.00	4389.91	6.97	2.34	601.38	0.16			
256.81	54.20	4.74	48.48	6.96	0.000188			
	0.05549	29086.98						
187.00	4389.93	6.98	2.34	603.62	0.16			
257.55	54.23	4.75	48.51	6.95	0.000188			
	0.05578	29105.24						
188.00	4389.93	6.98	2.35	605.75	0.16			
257.91	54.25	4.75	48.52	6.95	0.000193			

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0.05730	29114.29							
189.00	4389.94	6.99	2.35	605.59	0.16			
258.16	54.27	4.76		48.53	6.95	0.000187		
0.05557	29120.36							
190.00	4389.94	6.99	2.35	605.79	0.16			
258.25	54.27	4.76		48.54	6.95	0.000187		
0.05565	29122.43							
191.00	4389.94	6.99	2.35	605.93	0.16			
258.25	54.27	4.76		48.54	6.95	0.000186		
0.05513	29122.56							
192.00	4389.94	6.99	2.36	608.49	0.16			
258.07	54.26	4.76		48.53	6.95	0.000197		
0.05841	29117.98							
193.00	4389.92	6.97	2.42	621.77	0.16			
257.13	54.21	4.74		48.49	6.96	0.000199		
0.05895	29094.91							
194.00	4389.90	6.95	2.42	620.07	0.16			
255.78	54.14	4.72		48.44	6.97	0.000202		
0.05954	29061.33							
195.00	4389.88	6.93	2.42	616.52	0.16			
254.73	54.08	4.71		48.39	6.98	0.000197		
0.05802	29035.03							
196.00	4389.87	6.92	2.41	611.79	0.16			
253.95	54.04	4.70		48.36	6.99	0.000200		
0.05872	29015.70							
197.00	4389.86	6.91	2.41	609.64	0.16			
253.33	54.01	4.69		48.33	7.00	0.000199		
0.05830	29000.06							
198.00	4389.85	6.90	2.39	605.43	0.16			
252.87	53.98	4.68		48.31	7.00	0.000198		
0.05778	28988.57							
199.00	4389.84	6.89	2.39	603.65	0.16			
252.46	53.96	4.68		48.30	7.01	0.000198		
0.05769	28978.27							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4323

MAXIMUM DISCHARGE (CFS) = 4186.92 AT TIME = 91.14  
 MAXIMUM STAGE = 4395.18 AT TIME = 91.95

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT^2)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4380.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	0.00	4380.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	0.00	4380.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	0.00	4380.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	0.00	4380.90	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00	5.00	4380.90	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
62.32	6.00	4382.01	1.11	-0.35	-21.84	0.06			0.000000
	0.00000	12.36	5.04	12.05	10.84				0.000000
141.73	7.00	4385.26	4.36	-0.56	-79.77	0.05			0.000000
	0.00000	40.95	3.46	39.32	9.02				0.000000
160.22	8.00	4385.64	4.74	-0.43	-69.03	0.03			0.000000
	0.00000	44.05	3.64	42.26	8.92				0.000000
162.02	9.00	4385.67	4.77	-0.28	-45.90	0.02			0.000000
	0.00000	44.33	3.66	42.52	8.91				0.000000
159.44	10.00	4385.64	4.74	-0.16	-25.38	0.01			0.000000
	0.00000	44.10	3.62	42.31	8.92				0.000000
144.28	11.00	4385.60	4.70	0.05	6.77	0.00			0.000000
	0.00000	43.73	3.30	41.96	8.93				0.000000
142.88	12.00	4385.54	4.64	0.07	10.41	0.01			0.000000
	0.00000	43.28	3.30	41.53	8.95				0.000000
139.30	13.00	4385.45	4.55	0.13	17.75	0.01			0.000030
	0.00605	42.57	3.27	40.85	8.97				0.000030
132.58	14.00	4385.33	4.43	0.16	21.11	0.01			0.000025
	0.00490	41.52	3.19	39.87	9.00				0.000025
128.71	15.00	4385.23	4.33	0.13	16.14	0.01			0.000000
	0.00000	40.74	3.16	39.13	9.03				0.000000
126.16	16.00	4385.19	4.29	0.08	9.66	0.01			0.000025
	0.00486	40.41	3.12	38.81	9.04				0.000025
124.17	17.00	4385.17	4.27	0.04	4.70	0.00			0.000000
	0.00000	40.26	3.08	38.66	9.05				0.000000
122.68	18.00	4385.16	4.26	0.02	2.59	0.00			0.000032
	0.00618	40.17	3.05	38.59	9.05				0.000032
0.00	19.00	4385.16	4.26	0.00	0.00	0.00			0.000000
	0.00000	40.16	0.00	38.57	9.05				0.000000
137.57	20.00	4385.22	4.32	-0.10	-14.10	0.01			0.000000
	0.00000	40.64	3.38	39.03	9.03				0.000000
145.70	21.00	4385.35	4.44	-0.16	-23.22	0.01			0.000000
	0.00000	41.67	3.50	40.00	9.00				0.000000
152.34	22.00	4385.48	4.58	-0.19	-28.66	0.02			0.000000
	0.00000	42.78	3.56	41.06	8.96				0.000000
157.36	23.00	4385.58	4.68	-0.16	-25.27	0.01			0.000000
	0.00000	43.62	3.61	41.85	8.94				0.000000
154.07	24.00	4385.63	4.73	-0.10	-15.31	0.01			0.000000
	0.00000	44.00	3.50	42.21	8.93				0.000000
164.35	25.00	4385.71	4.81	-0.17	-27.40	0.01			0.000000
	0.00000	44.68	3.68	42.86	8.90				0.000000
		25713.98							

		HYCHAN.OUT						
173.31	26.00	4385.89	4.99	-0.28	-48.69	0.02	0.000000	
	0.00000	46.09	3.76		44.19	8.86		
		26513.13						
183.55	27.00	4386.08	5.18	-0.34	-62.20	0.03	0.000000	
	0.00000	47.63	3.85		45.65	8.82		
		27391.62						
195.30	28.00	4386.30	5.40	-0.40	-78.57	0.03	0.000000	
	0.00000	49.45	3.95		47.37	8.77		
		28421.81						
202.78	29.00	4386.44	5.54	-0.31	-62.29	0.02	0.000000	
	0.00000	50.57	4.01		48.43	8.74		
		29059.04						
207.26	30.00	4386.52	5.62	-0.22	-45.29	0.02	0.000000	
	0.00000	51.20	4.05		49.03	8.72		
		29416.92						
212.13	31.00	4386.61	5.71	-0.24	-49.93	0.02	0.000000	
	0.00000	51.91	4.09		49.70	8.70		
		29821.45						
213.15	32.00	4386.68	5.78	-0.16	-34.08	0.01	0.000000	
	0.00000	52.47	4.06		50.23	8.69		
		30138.94						
211.28	33.00	4386.73	5.83	-0.11	-24.07	0.01	0.000000	
	0.00000	52.83	4.00		50.57	8.68		
		30342.81						
220.29	34.00	4386.80	5.90	-0.17	-36.70	0.01	0.000000	
	0.00000	53.40	4.13		51.11	8.66		
		30665.64						
218.78	35.00	4386.86	5.96	-0.11	-24.82	0.01	0.000000	
	0.00000	53.89	4.06		51.57	8.65		
		30943.69						
224.15	36.00	4386.89	5.99	-0.07	-16.32	0.01	0.000000	
	0.00000	54.16	4.14		51.83	8.65		
		31095.21						
217.42	37.00	4386.92	6.02	-0.02	-5.18	0.00	0.000030	
	0.00755	54.40	4.00		52.05	8.64		
		31231.61						
214.19	38.00	4386.90	6.00	0.07	13.96	0.00	0.000032	
	0.00794	54.23	3.95		51.89	8.64		
		31136.40						
211.66	39.00	4386.85	5.94	0.14	30.27	0.01	0.000000	
	0.00000	53.77	3.94		51.46	8.66		
		30874.02						
208.14	40.00	4386.79	5.89	0.10	21.50	0.01	0.000000	
	0.00000	53.36	3.90		51.07	8.67		
		30643.99						
206.73	41.00	4386.77	5.87	0.05	9.61	0.00	0.000000	
	0.00000	53.18	3.89		50.90	8.67		
		30538.37						
204.13	42.00	4386.76	5.86	0.03	5.17	0.00	0.000006	
	0.00144	53.06	3.85		50.79	8.67		
		30472.84						
199.82	43.00	4386.75	5.85	0.01	2.84	0.00	0.000000	
	0.00000	53.01	3.77		50.74	8.67		
		30442.71						
209.56	44.00	4386.75	5.85	-0.03	-5.59	0.00	0.000007	
	0.00178	53.03	3.95		50.76	8.67		
		30457.02						
216.05	45.00	4386.80	5.90	-0.15	-31.88	0.01	0.000000	
	0.00000	53.41	4.05		51.11	8.66		
		30668.85						
218.01	46.00	4386.86	5.96	-0.12	-27.17	0.01	0.000000	
	0.00000	53.87	4.05		51.55	8.65		
		30929.63						

		HYCHAN.OUT					
230.61	47.00	4386.94	6.04	-0.19	-44.52	0.01	0.000000
	0.00000	54.50	4.23		52.15	8.64	
		31290.82					
237.61	48.00	4387.05	6.15	-0.25	-60.08	0.02	0.000000
	0.00000	55.42	4.29		53.02	8.62	
		31809.55					
245.29	49.00	4387.18	6.28	-0.28	-69.66	0.02	0.000000
	0.00000	56.44	4.35		53.98	8.59	
		32386.48					
253.49	50.00	4387.32	6.42	-0.30	-75.51	0.02	0.000000
	0.00000	57.52	4.41		55.00	8.57	
		32997.64					
261.28	51.00	4387.46	6.56	-0.32	-82.52	0.02	0.000000
	0.00000	58.63	4.46		56.04	8.54	
		33626.36					
271.50	52.00	4387.61	6.71	-0.34	-92.56	0.02	0.000000
	0.00000	59.80	4.54		57.15	8.52	
		34292.44					
282.54	53.00	4387.79	6.89	-0.39	-109.32	0.03	0.000000
	0.00000	61.18	4.62		58.45	8.49	
		35070.77					
291.49	54.00	4387.94	7.04	-0.30	-88.61	0.02	0.000000
	0.00000	62.33	4.68		59.54	8.46	
		35724.82					
302.44	55.00	4388.09	7.19	-0.37	-113.11	0.02	0.000000
	0.00000	63.50	4.76		60.65	8.44	
		36387.58					
316.24	56.00	4388.30	7.40	-0.50	-158.70	0.03	0.000000
	0.00000	65.12	4.86		62.17	8.41	
		37299.05					
340.08	57.00	4388.64	7.74	-0.74	-253.26	0.05	0.000000
	0.00000	67.73	5.02		64.63	8.36	
		38779.72					
368.51	58.00	4389.04	8.14	-0.91	-334.36	0.06	0.000000
	0.00000	70.85	5.20		67.57	8.30	
		40542.33					
396.14	59.00	4389.44	8.53	-0.91	-359.17	0.05	0.000000
	0.00000	73.83	5.37		70.38	8.25	
		42226.55					
422.51	60.00	4389.78	8.88	-0.87	-365.62	0.05	0.000000
	0.00000	76.42	5.53		72.81	8.20	
		43684.00					
454.59	61.00	4390.15	9.25	-1.10	-501.98	0.06	0.000000
	0.00000	79.26	5.74		75.48	8.16	
		45288.65					
472.86	62.00	4390.39	9.49	-1.10	-522.24	0.06	0.000000
	0.00000	81.01	5.84		77.12	8.13	
		46274.80					
481.27	63.00	4390.50	9.60	-1.01	-486.12	0.06	0.000000
	0.00000	81.84	5.88		77.90	8.12	
		46742.62					
492.42	64.00	4390.63	9.73	-1.07	-524.65	0.06	0.000000
	0.00000	82.86	5.94		78.87	8.10	
		47322.91					
508.72	65.00	4390.85	9.95	-1.16	-588.59	0.06	0.000000
	0.00000	83.87	6.07		80.37	8.08	
		48221.35					
523.71	66.00	4391.05	10.15	-1.08	-567.49	0.06	0.000000
	0.00000	84.26	6.22		81.75	8.06	
		49047.06					
534.29	67.00	4391.21	10.31	-0.82	-436.98	0.04	0.000000
	0.00000	84.58	6.32		82.87	8.04	
		49719.31					

		HYCHAN.OUT							
537.57	68.00	4391.37	10.47	-0.36	-192.43	8.02	0.02	0.000000	
	0.00000	84.91	6.33		83.99				
		50395.59							
542.86	69.00	4391.56	10.66	-0.07	-38.76	8.00	0.00	0.000000	
	0.00000	85.29	6.36		85.31				
		51187.66							
560.24	70.00	4391.75	10.85	0.36	199.43	7.99	0.02	0.000000	
	0.00000	85.67	6.54		86.62				
		51974.54							
573.47	71.00	4391.95	11.05	0.36	203.67	7.97	0.02	0.000088	
	0.03670	86.07	6.66		88.01				
		52804.53							
595.04	72.00	4392.19	11.29	0.33	198.82	7.94	0.02	0.000180	
	0.07732	86.54	6.88		89.64				
		53785.22							
607.95	73.00	4392.38	11.48	0.59	356.56	7.93	0.03	0.000000	
	0.00000	86.93	6.99		90.97				
		54581.84							
619.61	74.00	4392.54	11.64	0.80	492.96	7.91	0.04	0.000204	
	0.09042	87.24	7.10		92.05				
		55230.20							
629.33	75.00	4392.67	11.77	0.92	581.45	7.90	0.05	0.000237	
	0.10630	87.51	7.19		92.96				
		55775.56							
639.54	76.00	4392.80	11.90	1.09	696.03	7.89	0.06	0.000296	
	0.13472	87.78	7.29		93.88				
		56329.21							
649.41	77.00	4392.95	12.05	1.30	846.44	7.87	0.07	0.000055	
	0.02509	88.07	7.37		94.87				
		56924.38							
656.47	78.00	4393.06	12.16	1.56	1023.91	7.86	0.08	0.000231	
	0.10697	88.30	7.43		95.65				
		57390.71							
665.31	79.00	4393.18	12.28	1.74	1159.87	7.85	0.09	0.000177	
	0.08297	88.53	7.52		96.44				
		57866.45							
674.93	80.00	4393.31	12.40	1.91	1291.69	7.84	0.10	0.000249	
	0.11821	88.78	7.60		97.29				
		58375.71							
687.94	81.00	4393.47	12.57	2.04	1406.04	7.83	0.10	0.000250	
	0.12040	89.11	7.72		98.41				
		59045.84							
702.42	82.00	4393.65	12.75	2.25	1581.53	7.81	0.11	0.000302	
	0.14793	89.46	7.85		99.61				
		59767.20							
719.33	83.00	4393.86	12.96	2.39	1718.66	7.80	0.12	0.000185	
	0.09260	89.89	8.00		101.04				
		60626.16							
734.70	84.00	4394.06	13.16	2.50	1833.15	7.78	0.12	0.000345	
	0.17512	90.28	8.14		102.37				
		61424.10							
743.22	85.00	4394.24	13.34	3.04	2256.52	7.77	0.15	0.000563	
	0.28781	90.65	8.20		103.62				
		62172.90							
749.20	86.00	4394.41	13.51	3.53	2645.67	7.75	0.17	0.000631	
	0.32427	91.00	8.23		104.78				
		62870.57							
762.22	87.00	4394.58	13.68	3.96	3015.95	7.74	0.19	0.000682	
	0.35507	91.33	8.35		105.88				
		63530.64							
774.88	88.00	4394.74	13.84	4.32	3344.64	7.73	0.20	0.000788	
	0.41588	91.64	8.46		106.95				
		64168.47							

HYCHAN.OUT							
786.49	89.00	4394.88	13.98	4.65	3660.75	0.22	0.000819
	0.43732	91.94	8.55	107.92	7.72		
	90.00	64753.25	14.10	4.90	3897.79	0.23	
796.23		92.18	8.64	108.74	7.71		0.000863
	0.46505	65242.15	14.18	5.06	4057.49	0.24	
802.49	91.00	4395.08	8.69	109.26	7.70		0.000891
	0.48302	92.34	14.22	5.12	4122.48	0.24	
805.11	92.00	65553.38	8.71	109.48	7.70		0.000910
	0.49454	92.40	14.21	5.12	4117.80	0.24	
804.64	93.00	65688.85	8.71	109.44	7.70		0.000854
	0.46424	92.39	14.17	5.05	4042.15	0.24	
801.09	94.00	65667.00	8.68	109.14	7.71		0.000863
	0.46752	92.30	14.07	4.88	3871.85	0.23	
793.91	95.00	65485.08	8.62	108.54	7.71		0.000814
	0.43750	92.12	13.97	4.69	3685.55	0.22	
785.54	96.00	65122.00	8.55	107.83	7.72		0.000744
	0.39661	91.91	13.85	4.47	3469.18	0.21	
776.16	97.00	64696.80	8.47	107.03	7.73		0.000679
	0.35853	91.67	13.73	4.23	3239.30	0.20	
766.50	98.00	64218.89	8.38	106.21	7.74		0.000608
	0.31784	91.43	13.61	3.97	3007.90	0.19	
757.09	99.00	63727.86	8.30	105.42	7.75		0.000618
	0.32042	91.19	13.48	3.68	2751.30	0.18	
747.02	100.00	63254.14	8.21	104.57	7.76		0.000465
	0.23818	90.94	13.26	3.10	2266.59	0.15	
731.83	101.00	62742.38	8.09	103.05	7.77		0.000351
	0.17718	90.48	13.01	2.67	1929.27	0.13	
723.03	102.00	61829.37	8.03	101.41	7.79		0.000277
	0.13899	90.00	12.76	2.81	1971.86	0.14	
702.72	103.00	60847.98	7.85	99.71	7.81		0.000387
	0.18947	89.49	12.59	2.95	2028.54	0.15	
687.16	104.00	59827.89	7.71	98.53	7.83		0.000363
	0.17472	89.15	12.51	2.96	2011.26	0.15	
678.59	105.00	59119.30	7.62	98.03	7.83		0.000359
	0.17086	89.00	12.43	3.05	2030.04	0.15	
664.87	106.00	58816.18	7.49	97.43	7.84		0.000477
	0.22285	88.82	12.34	3.09	2035.91	0.16	
658.50	107.00	58459.98	7.43	96.87	7.85		0.000493
	0.22830	88.66	12.20	3.20	2072.41	0.16	
647.80	108.00	58120.24	7.33	95.91	7.86		0.000536
	0.24496	88.37	12.04	3.26	2069.35	0.17	
635.52	109.00	57547.97	7.22	94.82	7.87		0.000433
	0.19499	88.05					
		56892.90					

HYCHAN.OUT							
110.00	4392.79	11.89	3.26	2031.23	0.17		
623.93	87.75	7.11	93.80	7.89	0.000453		
0.20094	56278.75						
111.00	4392.66	11.76	3.20	1966.47	0.16		
613.61	87.49	7.01	92.89	7.90	0.000486		
0.21253	55734.20						
112.00	4392.52	11.62	3.15	1901.42	0.16		
603.09	87.22	6.91	91.96	7.91	0.000518		
0.22363	55178.24						
113.00	4392.39	11.49	3.10	1838.01	0.16		
592.43	86.94	6.81	91.02	7.92	0.000500		
0.21265	54613.70						
114.00	4392.24	11.34	3.07	1783.02	0.16		
581.10	86.65	6.71	90.02	7.94	0.000453		
0.18967	54014.39						
115.00	4392.09	11.19	2.96	1687.10	0.16		
569.05	86.34	6.59	88.97	7.95	0.000453		
0.18613	53379.00						
116.00	4391.94	11.03	2.77	1544.80	0.15		
556.99	86.04	6.47	87.92	7.97	0.000397		
0.16049	52749.92						
117.00	4391.83	10.93	2.64	1448.44	0.14		
549.14	85.84	6.40	87.21	7.98	0.000337		
0.13473	52327.92						
118.00	4391.75	10.85	2.55	1385.79	0.14		
542.69	85.67	6.33	86.63	7.99	0.000313		
0.12378	51980.88						
119.00	4391.68	10.78	2.50	1340.75	0.13		
537.16	85.53	6.28	86.14	7.99	0.000288		
0.11282	51684.31						
120.00	4391.62	10.72	2.41	1283.07	0.13		
532.60	85.41	6.24	85.74	8.00	0.000282		
0.10960	51441.17						
121.00	4391.57	10.67	2.31	1223.51	0.12		
528.80	85.31	6.20	85.40	8.00	0.000369		
0.14267	51237.88						
122.00	4391.52	10.62	2.22	1169.17	0.12		
526.06	85.22	6.17	85.07	8.01	0.000367		
0.14123	51041.75						
123.00	4391.47	10.57	2.16	1133.23	0.12		
523.55	85.11	6.15	84.70	8.01	0.000288		
0.11042	50821.07						
124.00	4391.40	10.50	2.16	1117.83	0.12		
516.66	84.98	6.08	84.23	8.02	0.000301		
0.11420	50538.38						
125.00	4391.33	10.43	2.16	1101.20	0.12		
510.22	84.84	6.01	83.74	8.03	0.000349		
0.13082	50244.88						
126.00	4391.26	10.36	2.16	1089.99	0.12		
504.31	84.68	5.96	83.21	8.04	0.000315		
0.11708	49927.14						
127.00	4391.18	10.28	2.14	1071.19	0.12		
499.81	84.53	5.91	82.68	8.04	0.000220		
0.08115	49608.85						
128.00	4391.10	10.20	2.13	1053.40	0.12		
493.44	84.38	5.85	82.15	8.05	0.000355		
0.12971	49291.96						
129.00	4391.02	10.12	2.12	1041.09	0.12		
490.31	84.22	5.82	81.60	8.06	0.000232		
0.08437	48960.31						
130.00	4390.95	10.05	2.13	1025.77	0.12		
481.75	84.07	5.73	81.06	8.07	0.000240		
0.08580	48635.62						



		HYCHAN.OUT					
476.58	131.00	4390.87	9.97	2.12	1010.92	0.12	0.000211
	0.07480	83.92	5.68		80.54	8.08	
468.39	132.00	48326.15	9.90	2.14	1001.25	0.12	0.000366
	0.12773	83.76	5.59		80.00	8.08	
463.76	133.00	47997.94	9.82	2.13	985.59	0.12	0.000246
	0.08513	83.53	5.55		79.49	8.09	
458.56	134.00	47696.54	9.78	2.07	951.39	0.12	0.000289
	0.09939	83.18	5.51		79.17	8.10	
455.06	135.00	47499.32	9.74	2.04	926.06	0.11	0.000279
	0.09543	82.87	5.49		78.88	8.10	
451.15	136.00	47327.45	9.69	2.02	909.58	0.11	0.000185
	0.06306	82.53	5.47		78.56	8.11	
449.73	137.00	47133.81	9.64	1.99	896.61	0.11	0.000314
	0.10729	82.18	5.47		78.23	8.11	
443.95	138.00	46935.97	9.60	1.98	878.53	0.11	0.000281
	0.09506	81.89	5.42		77.96	8.12	
442.62	139.00	46774.60	9.56	1.96	867.11	0.11	0.000189
	0.06407	81.59	5.42		77.68	8.12	
438.21	140.00	46605.38	9.53	1.94	850.13	0.11	0.000254
	0.08540	81.32	5.39		77.42	8.13	
434.20	141.00	46450.88	9.49	1.93	838.50	0.11	0.000299
	0.10013	81.02	5.36		77.14	8.13	
430.18	142.00	46284.99	9.44	1.95	837.02	0.11	0.000333
	0.11090	80.66	5.33		76.80	8.14	
426.45	143.00	46080.92	9.40	1.95	830.30	0.11	0.000282
	0.09329	80.33	5.31		76.49	8.14	
423.13	144.00	45891.03	9.36	1.94	819.79	0.11	0.000221
	0.07295	80.03	5.29		76.20	8.15	
420.17	145.00	45721.70	9.32	1.92	808.07	0.11	0.000336
	0.11039	79.76	5.27		75.95	8.15	
417.05	146.00	45569.48	9.28	1.92	798.78	0.11	0.000279
	0.09136	79.47	5.25		75.68	8.15	
413.06	147.00	45408.75	9.23	1.93	797.61	0.11	0.000341
	0.11097	79.09	5.22		75.33	8.16	
409.58	148.00	45195.15	9.18	1.93	791.80	0.11	0.000276
	0.08943	78.74	5.20		75.00	8.17	
406.63	149.00	44997.91	9.14	1.93	784.74	0.11	0.000277
	0.08964	78.44	5.18		74.71	8.17	
404.02	150.00	44828.93	9.11	1.92	776.00	0.11	0.000278
	0.08968	78.18	5.17		74.47	8.17	
401.41	151.00	44679.12	9.07	1.91	765.75	0.11	0.000284
	0.09145	77.91	5.15		74.21	8.18	
		44528.45					

		HYCHAN.OUT					
152.00	4389.94	9.04	1.90	757.30	0.11		
398.79	77.64	5.14		73.96	8.18	0.000283	
0.09067	44376.87						
153.00	4389.89	8.99	1.91	755.90	0.11		
395.48	77.30	5.12		73.64	8.19	0.000289	
0.09242	44184.36						
154.00	4389.85	8.95	1.92	754.46	0.11		
392.16	76.96	5.10		73.32	8.19	0.000291	
0.09256	43990.89						
155.00	4389.81	8.91	1.92	748.37	0.11		
389.26	76.66	5.08		73.03	8.20	0.000292	
0.09263	43820.96						
156.00	4389.77	8.87	1.92	743.04	0.11		
386.48	76.37	5.06		72.76	8.20	0.000298	
0.09409	43657.56						
157.00	4389.73	8.83	1.94	742.40	0.11		
383.28	76.03	5.04		72.45	8.21	0.000304	
0.09548	43468.84						
158.00	4389.73	8.83	1.86	713.74	0.11		
383.73	76.08	5.04		72.49	8.21	0.000277	
0.08722	43496.34						
159.00	4389.74	8.84	1.82	697.79	0.11		
384.37	76.15	5.05		72.56	8.21	0.000266	
0.08377	43533.61						
160.00	4389.74	8.84	1.80	692.48	0.11		
384.18	76.13	5.05		72.54	8.21	0.000263	
0.08277	43521.96						
161.00	4389.73	8.83	1.79	688.36	0.11		
383.69	76.08	5.04		72.49	8.21	0.000267	
0.08391	43493.50						
162.00	4389.72	8.82	1.79	685.44	0.11		
383.12	76.02	5.04		72.43	8.21	0.000264	
0.08292	43459.74						
163.00	4389.71	8.81	1.79	685.14	0.11		
382.37	75.94	5.04		72.36	8.21	0.000259	
0.08143	43415.24						
164.00	4389.71	8.81	1.79	681.70	0.11		
381.86	75.89	5.03		72.31	8.21	0.000271	
0.08515	43385.01						
165.00	4389.70	8.80	1.78	679.85	0.11		
381.34	75.83	5.03		72.26	8.21	0.000270	
0.08482	43354.12						
166.00	4389.69	8.79	1.79	681.77	0.11		
380.50	75.74	5.02		72.17	8.21	0.000272	
0.08528	43304.49						
167.00	4389.65	8.75	1.84	694.02	0.11		
377.96	75.47	5.01		71.92	8.22	0.000277	
0.08651	43153.08						
168.00	4389.62	8.72	1.85	694.48	0.11		
376.02	75.27	5.00		71.73	8.22	0.000283	
0.08821	43037.87						
169.00	4389.61	8.71	1.84	690.89	0.11		
374.72	75.13	4.99		71.60	8.22	0.000295	
0.09167	42959.88						
170.00	4389.59	8.69	1.83	685.72	0.11		
373.81	75.04	4.98		71.51	8.23	0.000269	
0.08373	42905.55						
171.00	4389.58	8.68	1.83	681.16	0.11		
372.95	74.95	4.98		71.42	8.23	0.000283	
0.08781	42854.29						
172.00	4389.57	8.67	1.82	676.92	0.11		
372.20	74.86	4.97		71.35	8.23	0.000280	
0.08692	42808.81						

		HYCHAN.OUT							
371.48	173.00	4389.56	8.66	1.81	71.28	673.28	8.23	0.11	0.000266
	0.08238	74.79	4.97						
370.43	174.00	42765.82	8.65	1.81	71.17	671.88	8.23	0.11	0.000291
	0.09007	74.68	4.96						
367.92	175.00	42702.68	8.61	1.85	70.92	680.57	8.24	0.11	0.000292
	0.09024	74.41	4.94						
365.79	176.00	42551.25	8.58	1.86	70.70	679.76	8.24	0.11	0.000291
	0.08941	74.18	4.93						
364.31	177.00	42422.82	8.56	1.85	70.55	674.60	8.24	0.11	0.000291
	0.08933	74.02	4.92						
363.17	178.00	42332.96	8.54	1.84	70.44	669.39	8.25	0.11	0.000292
	0.08942	73.90	4.91						
362.21	179.00	42263.78	8.53	1.83	70.34	664.21	8.25	0.11	0.000283
	0.08665	73.80	4.91						
361.39	180.00	42205.29	8.52	1.83	70.26	659.74	8.25	0.11	0.000293
	0.08971	73.71	4.90						
361.38	181.00	42155.48	8.52	1.80	70.26	648.79	8.25	0.11	0.000271
	0.08289	73.71	4.90						
364.85	182.00	42156.17	8.57	1.69	70.61	618.33	8.24	0.10	0.000248
	0.07610	74.08	4.92						
367.98	183.00	42367.39	8.61	1.65	70.93	605.92	8.24	0.10	0.000236
	0.07295	74.42	4.94						
371.18	184.00	42555.93	8.66	1.60	71.25	595.37	8.23	0.10	0.000219
	0.06785	74.76	4.97						
373.47	185.00	42748.97	8.69	1.60	71.48	596.40	8.23	0.10	0.000227
	0.07055	75.00	4.98						
374.71	186.00	42885.36	8.71	1.60	71.60	601.24	8.22	0.10	0.000213
	0.06642	75.13	4.99						
375.54	187.00	42959.76	8.72	1.61	71.68	603.57	8.22	0.10	0.000222
	0.06928	75.22	4.99						
375.88	188.00	43009.43	8.72	1.61	71.72	605.82	8.22	0.10	0.000227
	0.07088	75.26	4.99						
376.22	189.00	43029.74	8.73	1.61	71.75	605.38	8.22	0.10	0.000216
	0.06748	75.29	5.00						
376.32	190.00	43049.93	8.73	1.61	71.76	605.76	8.22	0.10	0.000215
	0.06701	75.30	5.00						
376.29	191.00	43055.55	8.73	1.61	71.76	605.96	8.22	0.10	0.000230
	0.07181	75.30	5.00						
375.84	192.00	43053.98	8.72	1.62	71.71	608.87	8.22	0.10	0.000234
	0.07286	75.25	4.99						
373.51	193.00	43026.79	8.69	1.67	71.48	622.10	8.23	0.10	0.000240
	0.07469	75.00	4.98						
		42887.51							

HYCHAN.OUT								
194.00	4389.56	8.66	1.67	620.45	0.10			
371.78	74.82	4.97	71.31	8.23	0.000247			
0.07662	42783.83							
195.00	4389.55	8.65	1.66	616.58	0.10			
370.61	74.70	4.96	71.19	8.23	0.000238			
0.07379	42713.47							
196.00	4389.54	8.64	1.65	612.02	0.10			
369.90	74.62	4.96	71.12	8.23	0.000241			
0.07447	42671.09							
197.00	4389.53	8.63	1.65	609.71	0.10			
369.21	74.55	4.95	71.05	8.23	0.000235			
0.07251	42629.45							
198.00	4389.52	8.62	1.64	605.46	0.10			
368.91	74.52	4.95	71.02	8.23	0.000232			
0.07172	42611.49							
199.00	4389.52	8.62	1.64	603.74	0.10			
368.46	74.47	4.95	70.97	8.24	0.000235			
0.07253	42583.92							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4324

MAXIMUM DISCHARGE (CFS) = 3931.46 AT TIME = 91.15  
 MAXIMUM STAGE = 4394.91 AT TIME = 91.96

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4379.98	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4379.98	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4379.98	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4379.98	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4379.98	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4379.98	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
79.40	6.00	4381.62	1.64	-0.58	32.05	-46.37	0.08	0.000000
	0.00000	33.06	2.40			19.49		
190.76	7.00	4385.28	5.30	-0.45	57.34	-86.55	0.03	0.000000
	0.00000	60.61	3.15			10.82		
210.18	8.00	4385.65	5.67	-0.33	59.28	-69.97	0.02	0.000000
	0.00000	62.76	3.35			10.46		
211.75	9.00	4385.68	5.70	-0.22	59.42	-45.66	0.02	0.000000
	0.00000	62.91	3.37			10.43		
	10.00	4385.64	5.66	-0.12		-25.19	0.01	

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HYCHAN.OUT									
208.39	0.00139	62.73	3.32	59.26	10.46	0.000007			
	11.00	4385.60	5.62	0.04	7.37	0.00			
203.84	0.00378	62.45	3.26	59.01	10.51	0.000019			
	12.00	4385.54	5.56	0.05	10.97	0.00			
202.61	0.00705	62.14	3.26	58.72	10.56	0.000035			
	13.00	4385.45	5.47	0.09	18.46	0.01			
197.92	0.00000	61.63	3.21	58.26	10.64	0.000000			
	14.00	4385.33	5.35	0.12	22.35	0.01			
191.48	0.00180	60.88	3.15	57.58	10.77	0.000009			
	15.00	4385.23	5.25	0.09	16.64	0.01			
186.90	0.00736	60.31	3.10	57.06	10.87	0.000038			
	16.00	4385.19	5.21	0.05	9.45	0.00			
184.34	0.00000	60.09	3.07	56.86	10.91	0.000000			
	17.00	4385.17	5.19	0.03	5.04	0.00			
183.60	0.00299	59.98	3.06	56.76	10.93	0.000016			
	18.00	4385.16	5.18	0.01	2.63	0.00			
182.05	0.00000	59.92	3.04	56.70	10.94	0.000000			
	19.00	4385.16	5.18	0.00	0.00	0.00			
0.00	0.00000	59.91	0.00	56.70	10.94	0.000023			
	20.00	4385.22	5.24	-0.08	-14.96	0.01			
186.79	0.00000	60.26	3.10	57.02	10.88	0.000000			
	21.00	4385.35	5.37	-0.13	-24.32	0.01			
194.03	0.00000	61.00	3.18	57.69	10.75	0.000000			
	22.00	4385.48	5.50	-0.15	-29.64	0.01			
200.64	0.00000	61.80	3.25	58.42	10.61	0.000000			
	23.00	4385.59	5.61	-0.13	-25.86	0.01			
205.47	0.00000	62.39	3.29	58.95	10.52	0.000000			
	24.00	4385.63	5.65	-0.08	-15.70	0.01			
207.14	0.00000	62.66	3.31	59.19	10.47	0.000000			
	25.00	4385.72	5.74	-0.13	-28.48	0.01			
213.08	0.00000	63.14	3.37	59.63	10.40	0.000000			
	26.00	4385.89	5.91	-0.22	-50.20	0.02			
223.25	0.00000	64.13	3.48	60.53	10.24	0.000000			
	27.00	4386.08	6.10	-0.27	-64.16	0.02			
233.73	0.00000	65.21	3.58	61.51	10.08	0.000000			
	28.00	4386.31	6.33	-0.33	-80.17	0.02			
245.75	0.00000	66.46	3.70	62.63	9.89	0.000000			
	29.00	4386.45	6.47	-0.25	-63.11	0.02			
252.82	0.00000	67.20	3.76	63.30	9.79	0.000000			
	30.00	4386.52	6.54	-0.18	-45.91	0.01			
256.46	0.00000	67.61	3.79	63.67	9.73	0.000000			
	31.00	4386.61	6.63	-0.19	-50.73	0.01			

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		HYCHAN.OUT					
261.41	68.09	3.84	64.10	9.66	0.000000		
0.00000	38462.09						
32.00	4386.68	6.70	-0.13	-34.52	0.01		
264.18	68.45	3.86	64.43	9.61	0.000000		
0.00000	38659.33						
33.00	4386.73	6.75	-0.09	-24.53	0.01		
266.18	68.69	3.88	64.65	9.58	0.000000		
0.00000	38787.30						
34.00	4386.80	6.82	-0.14	-37.37	0.01		
270.79	69.07	3.92	64.99	9.53	0.000000		
0.00000	38993.16						
35.00	4386.86	6.88	-0.09	-25.21	0.01		
273.51	69.38	3.94	65.28	9.49	0.000000		
0.00000	39166.15						
36.00	4386.90	6.92	-0.06	-16.71	0.00		
277.88	69.56	3.99	65.44	9.46	0.000000		
0.00000	39263.68						
37.00	4386.92	6.94	-0.02	-5.32	0.00		
277.69	69.71	3.98	65.57	9.44	0.000006		
0.00161	39342.43						
38.00	4386.90	6.92	0.05	14.54	0.00		
275.87	69.61	3.96	65.48	9.46	0.000000		
0.00000	39288.00						
39.00	4386.84	6.86	0.11	30.96	0.01		
273.16	69.29	3.94	65.19	9.50	0.000000		
0.00000	39116.14						
40.00	4386.79	6.81	0.08	21.73	0.01		
270.31	69.03	3.92	64.96	9.53	0.000000		
0.00000	38976.05						
41.00	4386.77	6.79	0.04	9.75	0.00		
268.35	68.91	3.89	64.85	9.55	0.000036		
0.00880	38907.14						
42.00	4386.76	6.78	0.02	5.22	0.00		
267.50	68.84	3.89	64.78	9.56	0.000008		
0.00195	38869.00						
43.00	4386.75	6.77	0.01	2.72	0.00		
266.35	68.80	3.87	64.75	9.56	0.000000		
0.00000	38848.39						
44.00	4386.75	6.77	-0.02	-5.47	0.00		
267.85	68.82	3.89	64.77	9.56	0.000000		
0.00000	38859.01						
45.00	4386.80	6.82	-0.12	-32.68	0.01		
270.78	69.07	3.92	65.00	9.53	0.000000		
0.00000	38997.15						
46.00	4386.86	6.88	-0.10	-27.64	0.01		
273.92	69.37	3.95	65.27	9.49	0.000000		
0.00000	39159.31						
47.00	4386.94	6.96	-0.16	-45.45	0.01		
279.88	69.79	4.01	65.65	9.43	0.000000		
0.00000	39387.95						
48.00	4387.06	7.08	-0.21	-61.14	0.01		
286.43	70.40	4.07	66.19	9.35	0.000000		
0.00000	39714.88						
49.00	4387.19	7.21	-0.24	-70.90	0.02		
294.39	71.06	4.14	66.79	9.27	0.000000		
0.00000	40074.86						
50.00	4387.32	7.34	-0.25	-76.73	0.02		
301.94	71.76	4.21	67.42	9.18	0.000000		
0.00000	40452.93						
51.00	4387.46	7.48	-0.27	-83.86	0.02		
310.20	72.47	4.28	68.06	9.09	0.000000		
0.00000	40837.57						
52.00	4387.62	7.64	-0.29	-94.13	0.02		

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		HYCHAN.OUT					
319.67	73.23	4.37	68.74	9.00	0.000000		
0.00000	41245.47						
53.00	4387.79	7.81	-0.34	-110.89	0.02		
330.07	74.10	4.45	69.53	8.90	0.000000		
0.00000	41717.88						
54.00	4387.94	7.96	-0.27	-89.86	0.02		
338.37	74.82	4.52	70.18	8.82	0.000000		
0.00000	42105.28						
55.00	4388.09	8.11	-0.33	-114.92	0.02		
348.82	75.56	4.62	70.84	8.73	0.000000		
0.00000	42503.80						
56.00	4388.30	8.32	-0.44	-161.24	0.03		
363.16	76.58	4.74	71.76	8.62	0.000000		
0.00000	43053.14						
57.00	4388.65	8.67	-0.67	-257.12	0.04		
385.66	78.22	4.93	73.24	8.44	0.000000		
0.00000	43941.30						
58.00	4389.07	9.09	-0.82	-338.74	0.05		
412.91	80.13	5.15	74.95	8.25	0.000000		
0.00000	44970.85						
59.00	4389.46	9.48	-0.86	-380.99	0.05		
440.52	81.34	5.42	76.54	8.07	0.000000		
0.00000	45926.78						
60.00	4389.81	9.83	-0.92	-428.07	0.05		
465.85	82.03	5.68	77.92	7.93	0.000000		
0.00000	46753.71						
61.00	4390.19	10.21	-1.12	-553.73	0.06		
494.37	82.80	5.97	79.43	7.78	0.000000		
0.00000	47656.20						
62.00	4390.42	10.44	-1.08	-550.21	0.06		
511.09	83.25	6.14	80.30	7.69	0.000000		
0.00000	48179.39						
63.00	4390.53	10.55	-1.00	-519.74	0.05		
518.77	83.47	6.22	80.71	7.65	0.000000		
0.00000	48424.27						
64.00	4390.66	10.68	-1.04	-548.49	0.06		
529.39	83.74	6.32	81.23	7.60	0.000000		
0.00000	48738.92						
65.00	4390.88	10.90	-1.08	-590.12	0.06		
545.02	84.17	6.48	82.03	7.53	0.000000		
0.00000	49215.60						
66.00	4391.07	11.09	-1.00	-559.36	0.05		
558.97	84.55	6.61	82.74	7.46	0.000000		
0.00000	49643.04						
67.00	4391.22	11.24	-0.76	-432.23	0.04		
569.28	84.85	6.71	83.29	7.41	0.000000		
0.00000	49974.87						
68.00	4391.37	11.39	-0.33	-193.27	0.02		
577.67	85.15	6.78	83.85	7.36	0.000000		
0.00000	50310.73						
69.00	4391.56	11.58	-0.08	-45.67	0.00		
586.25	85.53	6.85	84.53	7.30	0.000000		
0.00000	50719.53						
70.00	4391.75	11.77	0.29	172.44	0.01		
605.05	85.91	7.04	85.22	7.24	0.000013		
0.00560	51132.18						
71.00	4391.95	11.97	0.26	158.78	0.01		
618.41	86.31	7.16	85.95	7.18	0.000000		
0.00000	51569.29						
72.00	4392.18	12.20	0.26	162.79	0.01		
637.76	86.78	7.35	86.78	7.11	0.000000		
0.00000	52069.60						
73.00	4392.38	12.40	0.45	289.71	0.02		

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HYCHAN.OUT									
650.74	0.01408	87.17	7.47	87.47	7.05	0.000030			
	74.00	52480.27							
661.65	0.000000	4392.54	12.56	0.61	406.53	0.03			
	75.00	87.50	7.56	88.03	7.01	0.000000			
		52819.14							
671.10	0.000000	4392.67	12.69	0.72	481.53	0.04			
	76.00	87.76	7.65	88.49	6.97	0.000000			
		53096.12							
680.34	0.000000	4392.81	12.83	0.86	587.13	0.04			
	77.00	88.03	7.73	88.96	6.94	0.000000			
		53374.51							
690.78	0.000000	4392.95	12.97	1.05	726.08	0.05			
	78.00	88.32	7.82	89.46	6.90	0.000012			
		53673.78							
698.48	0.00589	4393.06	13.09	1.28	897.16	0.06			
	79.00	88.55	7.89	89.84	6.87	0.000057			
		53905.30							
707.08	0.02804	4393.19	13.21	1.43	1008.89	0.07			
	80.00	88.79	7.96	90.25	6.83	0.000013			
		54151.51							
715.96	0.00624	4393.31	13.33	1.58	1129.51	0.08			
	81.00	89.03	8.04	90.67	6.80	0.000055			
		54402.86							
727.68	0.02739	4393.47	13.49	1.71	1247.70	0.08			
	82.00	89.35	8.14	91.21	6.76	0.000000			
		54727.37							
740.49	0.000000	4393.64	13.66	1.92	1422.56	0.09			
	83.00	89.70	8.26	91.79	6.72	0.000115			
		55071.32							
755.59	0.05903	4393.85	13.87	2.10	1590.00	0.10			
	84.00	90.11	8.39	92.47	6.67	0.000017			
		55483.69							
769.32	0.00894	4394.03	14.05	2.25	1730.06	0.11			
	85.00	90.48	8.50	93.09	6.62	0.000129			
		55853.24							
780.23	0.06856	4394.20	14.22	2.71	2113.21	0.13			
	86.00	90.82	8.59	93.64	6.58	0.000123			
		56184.34							
790.34	0.06585	4394.35	14.37	3.12	2467.76	0.15			
	87.00	91.11	8.67	94.11	6.55	0.000201			
		56468.22							
800.24	0.10872	4394.49	14.51	3.51	2808.42	0.16			
	88.00	91.39	8.76	94.57	6.52	0.000182			
		56742.98							
809.69	0.09965	4394.62	14.64	3.85	3113.57	0.18			
	89.00	91.66	8.83	95.00	6.49	0.000266			
		57002.63							
818.16	0.14682	4394.74	14.76	4.18	3417.59	0.19			
	90.00	91.90	8.90	95.39	6.46	0.000286			
		57232.55							
825.45	0.15886	4394.84	14.86	4.42	3651.49	0.20			
	91.00	92.10	8.96	95.71	6.44	0.000315			
		57426.93							
830.04	0.17614	4394.91	14.93	4.59	3811.35	0.21			
	92.00	92.23	9.00	95.91	6.43	0.000318			
		57548.14							
832.00	0.17835	4394.93	14.95	4.66	3877.66	0.21			
	93.00	92.28	9.02	95.99	6.42	0.000342			
		57596.39							
831.61	0.19269	4394.92	14.94	4.65	3867.94	0.21			
	94.00	92.27	9.01	95.98	6.42	0.000317			
		57585.72							
	0.17821	4394.89	14.91	4.58	3795.71	0.21			

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		HYCHAN.OUT					
828.90	92.19	8.99	95.86	6.43	0.000301		
0.16897	57514.94						
95.00	4394.81	14.83	4.41	3631.01	0.20		
823.53	92.04	8.95	95.62	6.45	0.000269		
0.15017	57373.62						
96.00	4394.73	14.75	4.22	3448.27	0.19		
817.04	91.87	8.89	95.34	6.47	0.000258		
0.14320	57203.56						
97.00	4394.63	14.65	4.00	3240.18	0.18		
809.87	91.67	8.83	95.02	6.49	0.000210		
0.11579	57012.92						
98.00	4394.52	14.54	3.78	3032.44	0.17		
802.45	91.46	8.77	94.68	6.51	0.000169		
0.09276	56809.49						
99.00	4394.42	14.44	3.55	2822.21	0.16		
795.26	91.26	8.71	94.35	6.53	0.000200		
0.10896	56611.30						
100.00	4394.31	14.33	3.29	2587.70	0.15		
787.60	91.04	8.65	94.00	6.56	0.000128		
0.06917	56398.80						
101.00	4394.12	14.14	2.77	2144.40	0.13		
774.19	90.65	8.54	93.37	6.60	0.000000		
0.00000	56019.95						
102.00	4393.89	13.91	2.38	1804.38	0.11		
758.46	90.21	8.41	92.63	6.66	0.000084		
0.04409	55577.87						
103.00	4393.65	13.67	2.40	1777.56	0.11		
739.16	89.72	8.24	91.82	6.72	0.000007		
0.00352	55091.00						
104.00	4393.47	13.49	2.49	1801.51	0.12		
724.94	89.36	8.11	91.22	6.76	0.000016		
0.00789	54733.29						
105.00	4393.39	13.41	2.52	1810.37	0.12		
719.19	89.20	8.06	90.95	6.78	0.000121		
0.06098	54567.14						
106.00	4393.29	13.31	2.62	1863.29	0.13		
712.00	88.99	8.00	90.60	6.81	0.000134		
0.06680	54357.67						
107.00	4393.20	13.22	2.66	1876.28	0.13		
705.49	88.81	7.94	90.29	6.83	0.000158		
0.07828	54175.11						
108.00	4393.05	13.07	2.73	1893.88	0.13		
694.53	88.52	7.85	89.80	6.87	0.000164		
0.08018	53879.61						
109.00	4392.89	12.91	2.77	1887.92	0.14		
682.27	88.19	7.74	89.23	6.91	0.000132		
0.06394	53538.30						
110.00	4392.73	12.75	2.77	1859.18	0.14		
671.06	87.88	7.64	88.70	6.96	0.000131		
0.06222	53217.99						
111.00	4392.60	12.62	2.74	1812.85	0.14		
661.41	87.61	7.55	88.23	6.99	0.000114		
0.05357	52935.77						
112.00	4392.46	12.48	2.72	1769.27	0.14		
651.58	87.33	7.46	87.74	7.03	0.000130		
0.06069	52646.54						
113.00	4392.32	12.34	2.68	1718.95	0.13		
641.59	87.05	7.37	87.26	7.07	0.000111		
0.05128	52355.02						
114.00	4392.17	12.19	2.66	1676.31	0.13		
630.81	86.75	7.27	86.73	7.12	0.000152		
0.06893	52038.82						
115.00	4392.02	12.04	2.60	1609.25	0.13		

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		HYCHAN.OUT				
620.07	86.45	7.17	86.19	7.16	0.000113	
0.05078	51712.42					
116.00	4391.87	11.89	2.45	1494.73	0.13	
609.72	86.16	7.08	85.67	7.20	0.000124	
0.05462	51399.22					
117.00	4391.77	11.79	2.34	1411.67	0.12	
602.88	85.96	7.01	85.32	7.23	0.000093	
0.04079	51193.05					
118.00	4391.69	11.71	2.29	1365.78	0.12	
597.05	85.80	6.96	85.02	7.26	0.000104	
0.04512	51014.31					
119.00	4391.62	11.64	2.25	1330.78	0.12	
592.00	85.66	6.91	84.77	7.28	0.000096	
0.04139	50860.71					
120.00	4391.57	11.59	2.18	1279.63	0.11	
588.10	85.55	6.87	84.57	7.30	0.000104	
0.04467	50742.19					
121.00	4391.52	11.54	2.09	1223.29	0.11	
584.92	85.46	6.84	84.41	7.31	0.000076	
0.03252	50646.43					
122.00	4391.48	11.50	2.01	1169.85	0.10	
581.81	85.37	6.81	84.26	7.33	0.000075	
0.03203	50553.56					
123.00	4391.43	11.45	1.96	1133.92	0.10	
578.15	85.28	6.78	84.07	7.34	0.000082	
0.03469	50444.81					
124.00	4391.36	11.38	1.95	1118.84	0.10	
573.01	85.14	6.73	83.82	7.37	0.000084	
0.03532	50291.71					
125.00	4391.29	11.31	1.94	1102.68	0.10	
567.82	84.99	6.68	83.56	7.39	0.000061	
0.02558	50136.04					
126.00	4391.21	11.23	1.94	1091.78	0.10	
562.10	84.84	6.63	83.27	7.41	0.000046	
0.01909	49964.17					
127.00	4391.14	11.16	1.93	1072.63	0.10	
556.54	84.69	6.57	82.99	7.44	0.000089	
0.03634	49796.61					
128.00	4391.06	11.08	1.92	1055.15	0.10	
550.95	84.54	6.52	82.71	7.47	0.000062	
0.02542	49627.95					
129.00	4390.98	11.00	1.91	1042.77	0.10	
545.15	84.38	6.46	82.42	7.49	0.000098	
0.03960	49451.67					
130.00	4390.90	10.92	1.91	1027.45	0.10	
539.30	84.22	6.40	82.12	7.52	0.000086	
0.03455	49273.77					
131.00	4390.83	10.85	1.90	1012.09	0.10	
533.82	84.07	6.35	81.84	7.55	0.000066	
0.02631	49106.63					
132.00	4390.75	10.77	1.90	1002.94	0.10	
527.87	83.91	6.29	81.54	7.57	0.000067	
0.02641	48924.05					
133.00	4390.67	10.69	1.89	986.18	0.10	
522.52	83.76	6.24	81.27	7.60	0.000070	
0.02742	48759.65					
134.00	4390.63	10.65	1.83	952.06	0.10	
519.24	83.67	6.21	81.10	7.62	0.000050	
0.01949	48658.49					
135.00	4390.59	10.61	1.79	926.70	0.10	
516.32	83.59	6.18	80.95	7.63	0.000047	
0.01798	48568.46					
136.00	4390.54	10.56	1.77	910.24	0.10	

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		HYCHAN.OUT					
512.92	83.50	6.14	80.77	7.65	0.000071		
0.02707	48463.18						
137.00	4390.50	10.52	1.76	897.32	0.10		
509.77	83.41	6.11	80.60	7.66	0.000048		
0.01824	48361.36						
138.00	4390.46	10.48	1.74	879.47	0.09		
506.71	83.33	6.08	80.45	7.68	0.000086		
0.03248	48270.11						
139.00	4390.42	10.44	1.72	867.18	0.09		
503.93	83.26	6.05	80.30	7.69	0.000045		
0.01691	48181.77						
140.00	4390.38	10.40	1.70	850.87	0.09		
501.27	83.18	6.03	80.16	7.71	0.000046		
0.01726	48097.86						
141.00	4390.34	10.36	1.68	839.22	0.09		
498.24	83.10	6.00	80.01	7.72	0.000047		
0.01753	48005.79						
142.00	4390.29	10.31	1.69	837.84	0.09		
494.54	83.00	5.96	79.82	7.74	0.000051		
0.01908	47889.81						
143.00	4390.25	10.27	1.69	830.80	0.09		
491.17	82.91	5.92	79.64	7.76	0.000053		
0.01974	47784.03						
144.00	4390.21	10.23	1.68	820.42	0.09		
488.22	82.83	5.89	79.48	7.77	0.000078		
0.02866	47690.90						
145.00	4390.17	10.19	1.66	808.55	0.09		
485.62	82.76	5.87	79.35	7.79	0.000063		
0.02293	47609.18						
146.00	4390.13	10.15	1.66	799.17	0.09		
482.76	82.68	5.84	79.20	7.80	0.000053		
0.01949	47518.95						
147.00	4390.08	10.10	1.67	798.34	0.09		
478.94	82.58	5.80	79.00	7.82	0.000059		
0.02151	47397.77						
148.00	4390.03	10.05	1.67	792.40	0.09		
475.45	82.48	5.76	78.81	7.84	0.000082		
0.02948	47286.71						
149.00	4389.99	10.01	1.66	785.05	0.09		
472.51	82.40	5.73	78.66	7.86	0.000066		
0.02367	47193.45						
150.00	4389.96	9.98	1.65	776.25	0.09		
469.95	82.33	5.71	78.52	7.87	0.000063		
0.02248	47111.84						
151.00	4389.92	9.94	1.64	765.90	0.09		
467.36	82.26	5.68	78.38	7.88	0.000063		
0.02250	47029.25						
152.00	4389.89	9.91	1.63	757.50	0.09		
464.75	82.19	5.65	78.24	7.90	0.000067		
0.02360	46945.53						
153.00	4389.84	9.86	1.64	756.38	0.09		
461.30	82.10	5.62	78.06	7.92	0.000069		
0.02415	46834.99						
154.00	4389.79	9.81	1.65	754.81	0.09		
457.86	82.00	5.58	77.87	7.93	0.000070		
0.02445	46724.32						
155.00	4389.75	9.77	1.65	748.55	0.09		
454.89	81.92	5.55	77.71	7.95	0.000070		
0.02423	46628.90						
156.00	4389.71	9.73	1.64	743.52	0.09		
452.02	81.84	5.52	77.56	7.97	0.000078		
0.02679	46536.00						
157.00	4389.67	9.69	1.66	742.69	0.09		

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		HYCHAN.OUT					
448.67	81.75	5.49	77.38	7.99	0.000067		
0.02285	46427.58						
158.00	4389.68	9.70	1.59	712.73	0.09		
449.55	81.78	5.50	77.43	7.98	0.000063		
0.02144	46457.23						
159.00	4389.69	9.71	1.55	696.02	0.09		
450.41	81.80	5.51	77.48	7.98	0.000058		
0.02009	46485.19						
160.00	4389.69	9.71	1.53	690.69	0.09		
450.27	81.80	5.50	77.47	7.98	0.000062		
0.02120	46480.61						
161.00	4389.69	9.70	1.53	686.87	0.09		
449.81	81.79	5.50	77.44	7.98	0.000059		
0.02032	46465.45						
162.00	4389.68	9.70	1.52	684.27	0.09		
449.24	81.77	5.49	77.41	7.98	0.000062		
0.02130	46447.00						
163.00	4389.67	9.69	1.53	684.43	0.09		
448.45	81.75	5.49	77.37	7.99	0.000058		
0.01989	46421.20						
164.00	4389.66	9.68	1.52	681.39	0.09		
447.96	81.73	5.48	77.34	7.99	0.000065		
0.02207	46404.93						
165.00	4389.65	9.67	1.52	679.54	0.09		
447.42	81.72	5.48	77.31	7.99	0.000056		
0.01925	46387.70						
166.00	4389.64	9.66	1.53	681.88	0.09		
446.50	81.70	5.47	77.26	8.00	0.000062		
0.02114	46357.73						
167.00	4389.60	9.62	1.57	694.75	0.09		
443.64	81.62	5.44	77.11	8.01	0.000062		
0.02093	46264.39						
168.00	4389.57	9.59	1.57	695.45	0.09		
441.59	81.56	5.41	77.00	8.03	0.000066		
0.02247	46197.35						
169.00	4389.55	9.57	1.57	691.89	0.09		
440.25	81.52	5.40	76.92	8.03	0.000065		
0.02179	46153.92						
170.00	4389.54	9.56	1.56	686.32	0.09		
439.35	81.50	5.39	76.87	8.04	0.000064		
0.02165	46124.63						
171.00	4389.53	9.55	1.56	681.98	0.09		
438.50	81.48	5.38	76.83	8.04	0.000070		
0.02340	46096.81						
172.00	4389.52	9.54	1.55	677.60	0.09		
437.74	81.46	5.37	76.79	8.05	0.000063		
0.02120	46072.22						
173.00	4389.51	9.53	1.54	673.83	0.09		
437.03	81.44	5.37	76.75	8.05	0.000059		
0.01967	46048.84						
174.00	4389.50	9.52	1.54	673.06	0.09		
435.90	81.41	5.35	76.69	8.06	0.000064		
0.02140	46011.81						
175.00	4389.46	9.48	1.58	683.19	0.09		
433.07	81.33	5.32	76.53	8.08	0.000069		
0.02295	45918.63						
176.00	4389.43	9.45	1.58	682.21	0.09		
430.80	81.27	5.30	76.41	8.09	0.000071		
0.02352	45844.17						
177.00	4389.40	9.43	1.58	676.31	0.09		
429.28	81.23	5.29	76.32	8.10	0.000066		
0.02189	45794.53						
178.00	4389.39	9.41	1.57	670.62	0.09		

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		HYCHAN.OUT					
428.12	81.19	5.27	76.26	8.10	0.000070		
0.02305	45756.58						
179.00	4389.38	9.40	1.56	665.10	0.09		
427.15	81.17	5.26	76.21	8.11	0.000068		
0.02222	45724.98						
180.00	4389.37	9.39	1.55	660.44	0.09		
426.33	81.15	5.25	76.16	8.12	0.000064		
0.02108	45698.10						
181.00	4389.37	9.39	1.52	648.56	0.09		
426.51	81.15	5.26	76.17	8.11	0.000060		
0.01963	45704.78						
182.00	4389.43	9.45	1.43	615.93	0.08		
430.67	81.27	5.30	76.41	8.09	0.000052		
0.01731	45843.17						
183.00	4389.47	9.49	1.39	602.06	0.08		
434.16	81.36	5.34	76.60	8.07	0.000052		
0.01719	45957.75						
184.00	4389.52	9.54	1.35	588.77	0.08		
437.70	81.46	5.37	76.79	8.05	0.000049		
0.01628	46074.75						
185.00	4389.55	9.57	1.34	590.02	0.08		
440.09	81.52	5.40	76.92	8.03	0.000048		
0.01632	46152.49						
186.00	4389.57	9.59	1.35	595.83	0.08		
441.35	81.56	5.41	76.99	8.03	0.000050		
0.01685	46192.99						
187.00	4389.58	9.60	1.36	599.36	0.08		
442.19	81.58	5.42	77.03	8.02	0.000052		
0.01751	46219.74						
188.00	4389.59	9.61	1.36	602.47	0.08		
442.54	81.59	5.42	77.05	8.02	0.000044		
0.01487	46230.82						
189.00	4389.59	9.61	1.36	602.39	0.08		
442.89	81.60	5.43	77.07	8.02	0.000050		
0.01695	46241.89						
190.00	4389.59	9.61	1.36	603.68	0.08		
442.99	81.60	5.43	77.07	8.02	0.000052		
0.01770	46244.70						
191.00	4389.59	9.61	1.36	604.30	0.08		
442.97	81.60	5.43	77.07	8.02	0.000046		
0.01572	46243.64						
192.00	4389.58	9.60	1.37	608.13	0.08		
442.43	81.58	5.42	77.04	8.02	0.000049		
0.01647	46225.79						
193.00	4389.55	9.57	1.42	622.50	0.08		
439.82	81.51	5.40	76.90	8.04	0.000055		
0.01839	46140.14						
194.00	4389.52	9.54	1.42	620.88	0.08		
438.02	81.46	5.38	76.80	8.05	0.000051		
0.01725	46081.29						
195.00	4389.51	9.53	1.41	617.00	0.08		
436.82	81.43	5.36	76.74	8.05	0.000057		
0.01903	46042.30						
196.00	4389.50	9.52	1.40	612.56	0.08		
436.11	81.41	5.36	76.70	8.06	0.000050		
0.01658	46019.10						
197.00	4389.49	9.51	1.40	610.07	0.08		
435.41	81.39	5.35	76.66	8.06	0.000056		
0.01877	45996.21						
198.00	4389.48	9.51	1.39	605.71	0.08		
435.14	81.39	5.35	76.65	8.06	0.000053		
0.01778	45987.43						
199.00	4389.48	9.50	1.39	604.01	0.08		

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434.67 81.37 HYCHAN.OUT 76.62 8.07 0.000055  
0.01840 45972.12 5.34

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4325

MAXIMUM DISCHARGE (CFS) = 3590.99 AT TIME = 91.15  
MAXIMUM STAGE = 4394.73 AT TIME = 91.81

AREA	TIME WETTED BED SHEAR STRESS (FT^2) (LB/FT^2)	ELEV. PERIMETER SURFACE AREA (FT) (FT)	THALWEG DEPTH HYDRAULIC RADIUS (FT) (FT)	VELOCITY TOP WIDTH (FPS) (FT)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY SLOPE	FLOW SLOPE
0.00	0.00	4379.79	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4379.79	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4379.79	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4379.79	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4379.79	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4379.79	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
93.34	6.00	4381.75	1.96	-0.76	-71.34	0.10	0.000000
0.00000	36.19	17830.58	2.58	34.96	17.85	0.03	0.000000
212.47	7.00	4385.29	5.50	-0.44	-93.07	0.02	0.000000
0.00000	61.79	29787.88	3.44	58.41	10.62	0.01	0.000000
233.55	8.00	4385.65	5.86	-0.30	-70.86	0.01	0.000000
0.00000	63.87	30746.43	3.66	60.29	10.28	0.01	0.000000
235.03	9.00	4385.68	5.89	-0.19	-45.41	0.01	0.000000
0.00000	64.00	30808.29	3.67	60.41	10.26	0.01	0.000000
230.73	10.00	4385.64	5.85	-0.11	-24.94	0.01	0.000000
0.00000	63.81	30722.09	3.62	60.24	10.29	0.00	0.000000
226.75	11.00	4385.59	5.80	0.04	7.98	0.00	0.000012
0.00276	63.53	30592.21	3.57	59.98	10.33	0.00	0.000000
224.70	12.00	4385.54	5.75	0.05	11.47	0.00	0.000000
0.00000	63.23	30454.32	3.55	59.71	10.38	0.01	0.000022
219.90	13.00	4385.45	5.66	0.09	18.79	0.01	0.000000
0.00476	62.73	30221.54	3.51	59.26	10.46	0.01	0.000000
213.12	14.00	4385.32	5.53	0.11	23.78	0.01	0.000000
0.00000	61.98	29876.45	3.44	58.58	10.58	0.01	0.000000
207.82	15.00	4385.23	5.44	0.08	17.20	0.01	0.000000
0.00000	61.43		3.38	58.08	10.68	0.01	0.000000

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		HYCHAN.OUT							
	0.00000	29620.60							
205.42	16.00	4385.19	5.40		0.04	9.23	0.00		
		61.21	3.36		57.88	10.71		0.000027	
	0.00570	29518.46							
204.28	17.00	4385.17	5.38		0.03	5.39	0.00		
		61.10	3.34		57.78	10.73		0.000000	
	0.00000	29469.78							
203.15	18.00	4385.16	5.37		0.01	2.58	0.00		
		61.04	3.33		57.73	10.74		0.000007	
	0.00150	29440.45							
0.00	19.00	4385.16	5.37		0.00	0.00	0.00		
		61.04	0.00		57.72	10.74		0.000000	
	0.00000	29438.91							
208.36	20.00	4385.22	5.43		-0.08	-15.97	0.01		
		61.39	3.39		58.04	10.68		0.000000	
	0.00000	29602.13							
215.43	21.00	4385.35	5.56		-0.12	-25.40	0.01		
		62.12	3.47		58.70	10.56		0.000000	
	0.00000	29938.57							
222.91	22.00	4385.48	5.69		-0.14	-30.60	0.01		
		62.90	3.54		59.42	10.43		0.000000	
	0.00000	30302.20							
227.91	23.00	4385.59	5.80		-0.12	-26.39	0.01		
		63.48	3.59		59.94	10.34		0.000000	
	0.00000	30569.27							
229.57	24.00	4385.63	5.84		-0.07	-16.07	0.01		
		63.74	3.60		60.17	10.30		0.000000	
	0.00000	30687.46							
236.30	25.00	4385.72	5.93		-0.13	-29.54	0.01		
		64.22	3.68		60.61	10.23		0.000000	
	0.00000	30910.37							
247.30	26.00	4385.89	6.10		-0.21	-51.67	0.01		
		65.21	3.79		61.50	10.08		0.000000	
	0.00000	31365.51							
258.85	27.00	4386.09	6.30		-0.26	-66.07	0.02		
		66.27	3.91		62.47	9.92		0.000000	
	0.00000	31857.56							
271.69	28.00	4386.32	6.53		-0.30	-81.72	0.02		
		67.51	4.02		63.58	9.74		0.000000	
	0.00000	32426.58							
279.13	29.00	4386.45	6.66		-0.23	-63.89	0.02		
		68.22	4.09		64.23	9.64		0.000000	
	0.00000	32756.49							
283.24	30.00	4386.53	6.74		-0.16	-46.53	0.01		
		68.63	4.13		64.59	9.59		0.000000	
	0.00000	32942.07							
287.99	31.00	4386.62	6.83		-0.18	-51.50	0.01		
		69.10	4.17		65.02	9.52		0.000000	
	0.00000	33158.46							
291.36	32.00	4386.68	6.89		-0.12	-34.92	0.01		
		69.45	4.20		65.34	9.48		0.000000	
	0.00000	33321.14							
293.13	33.00	4386.73	6.94		-0.09	-24.97	0.01		
		69.68	4.21		65.54	9.45		0.000000	
	0.00000	33427.48							
298.60	34.00	4386.80	7.01		-0.13	-38.03	0.01		
		70.06	4.26		65.89	9.40		0.000000	
	0.00000	33602.10							
301.05	35.00	4386.86	7.07		-0.08	-25.59	0.01		
		70.37	4.28		66.17	9.36		0.000000	
	0.00000	33744.86							
305.50	36.00	4386.90	7.11		-0.06	-17.07	0.00		
		70.55	4.33		66.33	9.33		0.000000	

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HYCHAN.OUT									
	0.00000	33829.23							
305.84	37.00	4386.92	7.13	-0.02	-5.26	0.00			
	0.00748	33890.27	4.33		66.45	9.32	0.000028		
303.59	38.00	4386.90	7.11	0.05	14.81	0.00			
	0.00000	33845.92	4.30		66.36	9.33	0.000000		
300.22	39.00	4386.84	7.05	0.11	31.54	0.01			
	0.00000	33700.45	4.27		66.08	9.37	0.000000		
297.26	40.00	4386.79	7.00	0.07	21.88	0.00			
	0.00000	33585.09	4.25		65.85	9.40	0.000000		
295.34	41.00	4386.77	6.98	0.03	10.32	0.00			
	0.00000	33528.40	4.23		65.74	9.42	0.000000		
294.55	42.00	4386.76	6.97	0.02	5.11	0.00			
	0.00000	33494.44	4.22		65.68	9.43	0.000000		
0.00	43.00	4386.75	6.96	0.00	0.00	0.00			
	0.00000	33479.58	0.00		65.65	9.43	0.000000		
295.77	44.00	4386.75	6.96	-0.02	-5.27	0.00			
	0.00000	33487.77	4.24		65.66	9.43	0.000000		
298.02	45.00	4386.80	7.01	-0.11	-33.34	0.01			
	0.00000	33605.73	4.25		65.89	9.40	0.000000		
301.34	46.00	4386.86	7.07	-0.09	-28.09	0.01			
	0.00000	33739.40	4.28		66.16	9.36	0.000000		
307.95	47.00	4386.94	7.15	-0.15	-46.36	0.01			
	0.00000	33934.13	4.35		66.54	9.30	0.000000		
315.03	48.00	4387.06	7.27	-0.20	-62.17	0.01			
	0.00000	34209.40	4.41		67.08	9.23	0.000000		
323.41	49.00	4387.19	7.40	-0.22	-72.08	0.01			
	0.00000	34512.04	4.49		67.67	9.15	0.000000		
331.57	50.00	4387.33	7.54	-0.24	-78.00	0.02			
	0.00000	34829.31	4.56		68.29	9.06	0.000000		
340.45	51.00	4387.47	7.68	-0.25	-85.07	0.02			
	0.00000	35153.24	4.64		68.93	8.98	0.000000		
350.70	52.00	4387.62	7.83	-0.27	-95.68	0.02			
	0.00000	35496.35	4.73		69.60	8.89	0.000000		
361.78	53.00	4387.80	8.01	-0.31	-112.43	0.02			
	0.00000	35892.95	4.82		70.38	8.79	0.000000		
370.49	54.00	4387.94	8.15	-0.25	-91.02	0.02			
	0.00000	36216.82	4.89		71.01	8.71	0.000000		
382.37	55.00	4388.10	8.31	-0.31	-119.83	0.02			
	0.00000	36555.25	5.01		71.68	8.63	0.000000		
398.01	56.00	4388.31	8.52	-0.45	-177.86	0.03			
	0.00000	37027.40	5.18		72.60	8.52	0.000000		
423.14	57.00	4388.68	8.89	-0.81	-341.78	0.05			
		77.51	5.46		74.16	8.34	0.000000		

		HYCHAN.OUT						
	0.00000	37820.24						
452.64	58.00	4389.13	9.34	-1.21	-547.03	8.13	0.07	0.000000
	0.00000	78.41	5.77		75.99			
	0.00000	38753.69						
480.88	59.00	4389.56	9.77	-1.52	-729.05	7.95	0.09	0.000000
	0.00000	79.25	6.07		77.68			
	0.00000	39618.22						
504.26	60.00	4389.90	10.11	-1.53	-773.25	7.82	0.09	0.000000
	0.00000	79.94	6.31		79.02			
	0.00000	40301.41						
531.45	61.00	4390.23	10.44	-1.20	-639.54	7.69	0.07	0.000000
	0.00000	80.60	6.59		80.29			
	0.00000	40948.88						
548.92	62.00	4390.44	10.65	-1.06	-582.12	7.61	0.06	0.000000
	0.00000	81.03	6.77		81.11			
	0.00000	41366.48						
556.59	63.00	4390.55	10.76	-1.00	-556.06	7.58	0.05	0.000000
	0.00000	81.23	6.85		81.50			
	0.00000	41566.36						
567.46	64.00	4390.69	10.90	-1.01	-574.84	7.53	0.05	0.000000
	0.00000	81.51	6.96		82.03			
	0.00000	41832.77						
583.58	65.00	4390.90	11.11	-1.02	-592.74	7.46	0.05	0.000000
	0.00000	81.93	7.12		82.81			
	0.00000	42232.80						
597.69	66.00	4391.08	11.29	-0.93	-555.27	7.39	0.05	0.000000
	0.00000	82.31	7.26		83.50			
	0.00000	42586.96						
607.72	67.00	4391.23	11.43	-0.71	-429.35	7.35	0.04	0.000000
	0.00000	82.59	7.36		84.02			
	0.00000	42850.52						
615.54	68.00	4391.37	11.58	-0.32	-193.92	7.30	0.02	0.000000
	0.00000	82.88	7.43		84.55			
	0.00000	43120.24						
624.54	69.00	4391.55	11.76	-0.08	-51.43	7.24	0.00	0.000000
	0.00000	83.25	7.50		85.22			
	0.00000	43459.76						
643.32	70.00	4391.74	11.95	0.23	150.29	7.19	0.01	0.000000
	0.00000	83.63	7.69		85.89			
	0.00000	43805.39						
656.93	71.00	4391.95	12.16	0.18	121.31	7.12	0.01	0.000010
	0.00498	84.04	7.82		86.63			
	0.00498	44180.91						
677.39	72.00	4392.18	12.39	0.20	133.07	7.06	0.01	0.000007
	0.00366	84.51	8.02		87.44			
	0.00366	44596.76						
689.98	73.00	4392.37	12.58	0.34	235.49	7.00	0.02	0.000000
	0.00000	84.89	8.13		88.11			
	0.00000	44937.88						
701.09	74.00	4392.53	12.74	0.48	338.95	6.96	0.02	0.000000
	0.00000	85.21	8.23		88.66			
	0.00000	45217.91						
710.50	75.00	4392.66	12.87	0.57	404.38	6.92	0.03	0.000017
	0.00862	85.47	8.31		89.11			
	0.00862	45448.02						
719.88	76.00	4392.80	13.01	0.70	501.40	6.89	0.03	0.000023
	0.01226	85.74	8.40		89.58			
	0.01226	45684.57						
729.99	77.00	4392.94	13.15	0.86	629.59	6.85	0.04	0.000000
	0.00000	86.03	8.49		90.07			
	0.00000	45935.51						
738.38	78.00	4393.05	13.26	1.08	797.91	6.82	0.05	0.000022
	0.00000	86.24	8.56		90.44			

HYCHAN.OUT									
0.01169	46123.18								
79.00	4393.17	13.38	1.19	887.91	0.06				
747.12	86.48	8.64		90.84	6.79	0.000046			
0.02494	46326.54								
80.00	4393.29	13.50	1.32	997.91	0.06				
756.28	86.72	8.72		91.25	6.76	0.000000			
0.00000	46535.91								
81.00	4393.45	13.66	1.46	1123.19	0.07				
768.04	87.03	8.82		91.77	6.72	0.000024			
0.01344	46801.00								
82.00	4393.61	13.82	1.67	1300.94	0.08				
780.39	87.36	8.93		92.31	6.68	0.000092			
0.05132	47080.05								
83.00	4393.81	14.02	1.89	1499.38	0.09				
795.29	87.75	9.06		92.97	6.63	0.000093			
0.05243	47412.23								
84.00	4393.98	14.19	2.06	1664.65	0.10				
808.41	88.11	9.18		93.55	6.59	0.000121			
0.06906	47709.13								
85.00	4394.14	14.35	2.46	2015.15	0.11				
818.78	88.42	9.26		94.05	6.56	0.000071			
0.04128	47967.07								
86.00	4394.27	14.48	2.82	2336.64	0.13				
828.09	88.68	9.34		94.48	6.53	0.000126			
0.07367	48184.90								
87.00	4394.40	14.61	3.15	2637.84	0.15				
836.86	88.93	9.41		94.89	6.50	0.000137			
0.08039	48393.12								
88.00	4394.52	14.73	3.43	2897.23	0.16				
845.17	89.18	9.48		95.28	6.47	0.000177			
0.10439	48592.86								
89.00	4394.62	14.83	3.71	3161.16	0.17				
852.15	89.38	9.53		95.61	6.45	0.000211			
0.12526	48762.85								
90.00	4394.71	14.92	3.92	3361.48	0.18				
858.25	89.57	9.58		95.90	6.43	0.000233			
0.13954	48910.48								
91.00	4394.77	14.98	4.06	3495.77	0.18				
861.90	89.68	9.61		96.08	6.41	0.000233			
0.13983	49001.62								
92.00	4394.79	15.00	4.12	3554.39	0.19				
863.52	89.72	9.62		96.15	6.41	0.000244			
0.14662	49035.90								
93.00	4394.78	14.99	4.10	3541.63	0.19				
863.24	89.71	9.62		96.13	6.41	0.000246			
0.14771	49028.05								
94.00	4394.75	14.96	4.05	3487.56	0.18				
860.93	89.64	9.60		96.03	6.42	0.000214			
0.12804	48972.97								
95.00	4394.68	14.89	3.92	3356.37	0.18				
856.43	89.51	9.57		95.81	6.43	0.000193			
0.11509	48863.99								
96.00	4394.60	14.81	3.76	3198.72	0.17				
850.85	89.35	9.52		95.56	6.45	0.000195			
0.11559	48734.55								
97.00	4394.52	14.73	3.57	3019.23	0.16				
844.66	89.17	9.47		95.27	6.47	0.000170			
0.10025	48589.68								
98.00	4394.42	14.63	3.41	2854.01	0.16				
837.96	88.98	9.42		94.96	6.49	0.000148			
0.08724	48427.30								
99.00	4394.32	14.53	3.22	2680.24	0.15				
831.51	88.79	9.37		94.65	6.51	0.000141			

HYCHAN.OUT									
0.08266	48271.68								
100.00	4394.22	14.43	3.00	2474.77	0.14				
824.66	88.59	9.31		94.33	6.54			0.000127	
0.07362	48109.18								
101.00	4394.05	14.26	2.54	2065.89	0.12				
812.65	88.25	9.21		93.78	6.57			0.000060	
0.03428	47827.14								
102.00	4393.85	14.06	2.15	1716.66	0.10				
796.91	87.83	9.07		93.10	6.62			0.000103	
0.05820	47478.76								
103.00	4393.61	13.82	2.07	1611.59	0.10				
777.84	87.37	8.90		92.32	6.68			0.000072	
0.03972	47083.70								
104.00	4393.44	13.65	2.08	1591.05	0.10				
763.84	87.02	8.78		91.75	6.72			0.000079	
0.04313	46790.88								
105.00	4393.35	13.56	2.16	1634.73	0.10				
757.18	86.84	8.72		91.45	6.74			0.000097	
0.05263	46637.19								
106.00	4393.24	13.45	2.30	1725.40	0.11				
749.35	86.61	8.65		91.07	6.77			0.000065	
0.03508	46443.82								
107.00	4393.14	13.35	2.35	1748.09	0.11				
742.37	86.42	8.59		90.75	6.80			0.000103	
0.05519	46280.27								
108.00	4393.00	13.21	2.38	1741.82	0.12				
731.00	86.14	8.49		90.26	6.83			0.000100	
0.05285	46031.78								
109.00	4392.83	13.04	2.41	1733.00	0.12				
718.19	85.80	8.37		89.68	6.88			0.000091	
0.04774	45738.48								
110.00	4392.67	12.88	2.43	1717.99	0.12				
706.53	85.48	8.27		89.14	6.92			0.000088	
0.04559	45461.11								
111.00	4392.53	12.74	2.43	1695.17	0.12				
696.47	85.20	8.17		88.66	6.96			0.000092	
0.04668	45214.89								
112.00	4392.39	12.60	2.44	1675.25	0.12				
686.22	84.92	8.08		88.16	7.00			0.000079	
0.03987	44963.59								
113.00	4392.25	12.46	2.42	1638.80	0.12				
675.89	84.64	7.99		87.67	7.04			0.000078	
0.03903	44713.62								
114.00	4392.10	12.31	2.42	1609.18	0.12				
664.70	84.33	7.88		87.14	7.08			0.000108	
0.05296	44441.94								
115.00	4391.94	12.15	2.40	1567.16	0.12				
653.60	84.02	7.78		86.60	7.13			0.000093	
0.04529	44163.64								
116.00	4391.80	12.01	2.29	1472.79	0.12				
643.28	83.74	7.68		86.09	7.17			0.000088	
0.04203	43906.72								
117.00	4391.71	11.92	2.19	1397.11	0.11				
636.52	83.56	7.62		85.77	7.20			0.000086	
0.04104	43740.30								
118.00	4391.63	11.84	2.16	1360.79	0.11				
630.54	83.39	7.56		85.47	7.22			0.000076	
0.03606	43591.39								
119.00	4391.56	11.77	2.13	1329.86	0.11				
625.32	83.25	7.51		85.22	7.24			0.000078	
0.03643	43462.43								
120.00	4391.50	11.71	2.06	1280.18	0.11				
621.47	83.15	7.47		85.03	7.26			0.000067	

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HYCHAN.OUT									
0.03128	43367.82								
121.00	4391.46	11.67	1.98	1224.56	0.10				
618.47	83.07	7.45		84.89	7.27	0.000067			
0.03119	43294.48								
122.00	4391.42	11.63	1.90	1172.47	0.10				
615.50	82.99	7.42		84.75	7.28	0.000052			
0.02404	43221.12								
123.00	4391.38	11.59	1.86	1136.93	0.10				
611.89	82.90	7.38		84.57	7.30	0.000053			
0.02460	43132.74								
124.00	4391.31	11.52	1.85	1123.16	0.10				
606.62	82.76	7.33		84.32	7.32	0.000062			
0.02831	43002.75								
125.00	4391.24	11.45	1.84	1107.76	0.10				
601.34	82.62	7.28		84.06	7.34	0.000056			
0.02543	42872.52								
126.00	4391.16	11.37	1.84	1097.76	0.10				
595.50	82.46	7.22		83.78	7.37	0.000050			
0.02231	42727.87								
127.00	4391.08	11.29	1.83	1078.62	0.10				
589.73	82.31	7.17		83.50	7.39	0.000070			
0.03147	42584.74								
128.00	4391.01	11.22	1.82	1060.85	0.10				
584.01	82.16	7.11		83.22	7.42	0.000068			
0.03020	42442.80								
129.00	4390.93	11.14	1.82	1048.98	0.10				
577.91	81.99	7.05		82.92	7.45	0.000073			
0.03198	42290.08								
130.00	4390.85	11.06	1.81	1033.06	0.10				
571.99	81.84	6.99		82.63	7.47	0.000062			
0.02716	42142.08								
131.00	4390.77	10.98	1.80	1017.20	0.10				
566.25	81.69	6.93		82.35	7.50	0.000076			
0.03278	41998.32								
132.00	4390.69	10.90	1.80	1008.04	0.10				
560.16	81.52	6.87		82.05	7.53	0.000063			
0.02721	41844.89								
133.00	4390.62	10.83	1.79	990.41	0.10				
554.70	81.38	6.82		81.78	7.55	0.000085			
0.03625	41706.75								
134.00	4390.58	10.79	1.73	954.73	0.09				
551.61	81.30	6.78		81.63	7.57	0.000069			
0.02931	41629.26								
135.00	4390.54	10.75	1.69	929.22	0.09				
548.68	81.22	6.76		81.48	7.58	0.000068			
0.02869	41554.89								
136.00	4390.50	10.71	1.67	912.88	0.09				
545.34	81.13	6.72		81.31	7.60	0.000061			
0.02575	41469.89								
137.00	4390.45	10.66	1.66	900.10	0.09				
541.99	81.04	6.69		81.15	7.61	0.000067			
0.02799	41383.95								
138.00	4390.41	10.62	1.64	882.28	0.09				
539.04	80.97	6.66		81.00	7.63	0.000050			
0.02081	41308.86								
139.00	4390.37	10.58	1.62	869.50	0.09				
536.18	80.89	6.63		80.85	7.64	0.000074			
0.03059	41235.72								
140.00	4390.34	10.55	1.60	853.37	0.09				
533.42	80.82	6.60		80.72	7.65	0.000064			
0.02654	41164.83								
141.00	4390.30	10.51	1.59	841.77	0.09				
530.38	80.74	6.57		80.56	7.67	0.000063			

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HYCHAN.OUT									
	0.02585	41086.91							
526.56	142.00	4390.25	10.46	6.53	1.60	80.37	840.60	7.69	0.000058
	0.02364	40988.21							
523.10	143.00	4390.20	10.41	6.49	1.59	80.19	833.29	7.70	0.000064
	0.02595	40899.04							
520.12	144.00	4390.16	10.37	6.46	1.58	80.04	822.59	7.72	0.000053
	0.02144	40822.12							
517.50	145.00	4390.13	10.34	6.44	1.57	79.91	810.24	7.73	0.000049
	0.01973	40754.41							
514.54	146.00	4390.09	10.30	6.41	1.56	79.76	801.10	7.75	0.000063
	0.02504	40677.42							
510.61	147.00	4390.04	10.25	6.37	1.57	79.56	800.61	7.77	0.000059
	0.02361	40574.04							
507.21	148.00	4389.99	10.20	6.33	1.57	79.37	794.11	7.78	0.000051
	0.02033	40480.50							
504.55	149.00	4389.95	10.16	6.30	1.56	79.23	786.22	7.80	0.000057
	0.02258	40406.95							
502.17	150.00	4389.92	10.13	6.28	1.55	79.10	777.08	7.81	0.000056
	0.02211	40340.68							
499.70	151.00	4389.88	10.09	6.25	1.53	78.96	766.54	7.82	0.000054
	0.02097	40271.81							
497.19	152.00	4389.85	10.06	6.23	1.53	78.83	758.27	7.84	0.000056
	0.02188	40201.38							
493.80	153.00	4389.80	10.01	6.19	1.53	78.64	757.44	7.86	0.000057
	0.02216	40106.18							
490.44	154.00	4389.75	9.96	6.16	1.54	78.45	755.73	7.88	0.000057
	0.02195	40011.24							
487.59	155.00	4389.71	9.92	6.13	1.54	78.30	749.32	7.89	0.000059
	0.02259	39930.66							
484.79	156.00	4389.67	9.88	6.10	1.54	78.14	744.81	7.91	0.000062
	0.02359	39851.20							
481.52	157.00	4389.62	9.83	6.07	1.55	77.96	744.65	7.93	0.000053
	0.01991	39757.74							
482.67	158.00	4389.64	9.85	6.08	1.48	78.02	712.71	7.92	0.000051
	0.01924	39791.84							
483.63	159.00	4389.66	9.87	6.09	1.44	78.08	695.93	7.91	0.000046
	0.01754	39819.04							
483.53	160.00	4389.65	9.86	6.09	1.43	78.07	690.81	7.91	0.000050
	0.01909	39816.06							
483.11	161.00	4389.65	9.86	6.08	1.42	78.05	686.83	7.92	0.000050
	0.01909	39804.23							
482.49	162.00	4389.64	9.85	6.08	1.42	78.01	684.41	7.92	0.000048



		HYCHAN.OUT						
	0.01808	39786.43						
481.78	163.00	4389.63	9.84	1.42	684.50	7.92	0.08	0.000050
	0.01887	39766.04	6.07		77.97			
481.28	164.00	4389.62	9.83	1.42	681.71	7.93	0.08	0.000047
	0.01771	39751.75	6.06		77.94			
480.76	165.00	4389.61	9.82	1.41	679.70	7.93	0.08	0.000048
	0.01798	39736.96	6.06		77.92			
479.89	166.00	4389.60	9.81	1.42	682.65	7.94	0.08	0.000051
	0.01941	39711.93	6.05		77.87			
476.98	167.00	4389.56	9.77	1.46	697.89	7.95	0.08	0.000055
	0.02047	39627.49	6.02		77.70			
474.85	168.00	4389.53	9.74	1.47	699.88	7.97	0.08	0.000057
	0.02124	39565.59	6.00		77.58			
473.70	169.00	4389.51	9.72	1.47	696.17	7.97	0.08	0.000048
	0.01795	39532.79	5.98		77.52			
472.87	170.00	4389.50	9.71	1.46	690.13	7.98	0.08	0.000054
	0.02013	39509.02	5.97		77.47			
472.07	171.00	4389.49	9.70	1.45	685.80	7.98	0.08	0.000052
	0.01924	39485.93	5.97		77.42			
471.37	172.00	4389.48	9.69	1.45	681.23	7.99	0.08	0.000045
	0.01687	39466.02	5.96		77.38			
470.71	173.00	4389.47	9.68	1.44	677.29	7.99	0.08	0.000056
	0.02068	39446.92	5.95		77.35			
469.57	174.00	4389.45	9.66	1.44	677.60	8.00	0.08	0.000056
	0.02079	39413.76	5.94		77.28			
466.73	175.00	4389.41	9.62	1.48	690.94	8.01	0.08	0.000057
	0.02113	39329.82	5.91		77.12			
464.54	176.00	4389.38	9.59	1.49	689.95	8.03	0.08	0.000059
	0.02176	39266.06	5.89		76.99			
463.11	177.00	4389.36	9.57	1.47	682.55	8.04	0.08	0.000056
	0.02066	39225.47	5.87		76.91			
462.03	178.00	4389.35	9.56	1.46	675.80	8.04	0.08	0.000058
	0.02117	39194.76	5.86		76.85			
461.06	179.00	4389.33	9.54	1.45	669.58	8.05	0.08	0.000055
	0.02017	39166.95	5.85		76.80			
460.39	180.00	4389.32	9.53	1.44	664.13	8.05	0.08	0.000051
	0.01849	39147.72	5.84		76.76			
460.67	181.00	4389.33	9.54	1.41	650.28	8.05	0.08	0.000046
	0.01675	39157.45	5.85		76.78			
464.99	182.00	4389.39	9.60	1.32	614.93	8.02	0.08	0.000042
	0.01536	39284.81	5.89		77.03			
468.49	183.00	4389.44	9.65	1.28	599.14	8.00	0.07	0.000033
		79.02	5.93		77.23			

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0.01227	39386.66							
184.00	4389.49	9.70	1.24	583.25	0.07			
471.99	79.13	5.97		77.43	7.98	0.000039		
0.01436	39489.23							
185.00	4389.52	9.73	1.23	585.67	0.07			
474.30	79.19	5.99		77.56	7.97	0.000039		
0.01461	39554.74							
186.00	4389.54	9.75	1.25	593.45	0.07			
475.38	79.22	6.00		77.62	7.96	0.000045		
0.01700	39584.66							
187.00	4389.55	9.76	1.26	598.13	0.07			
476.10	79.24	6.01		77.66	7.96	0.000044		
0.01641	39604.64							
188.00	4389.55	9.76	1.26	601.78	0.07			
476.40	79.25	6.01		77.67	7.96	0.000029		
0.01072	39612.98							
189.00	4389.56	9.77	1.26	601.95	0.07			
476.86	79.26	6.02		77.70	7.95	0.000040		
0.01515	39626.01							
190.00	4389.56	9.77	1.27	603.50	0.07			
476.88	79.26	6.02		77.70	7.95	0.000042		
0.01589	39626.42							
191.00	4389.56	9.77	1.27	604.13	0.07			
476.85	79.26	6.02		77.70	7.95	0.000034		
0.01293	39625.36							
192.00	4389.55	9.76	1.28	608.44	0.07			
476.27	79.24	6.01		77.66	7.96	0.000042		
0.01564	39608.86							
193.00	4389.51	9.72	1.32	623.83	0.07			
473.62	79.17	5.98		77.51	7.97	0.000045		
0.01671	39532.05							
194.00	4389.49	9.70	1.32	623.33	0.07			
471.79	79.12	5.96		77.41	7.98	0.000043		
0.01610	39478.75							
195.00	4389.47	9.68	1.32	619.64	0.07			
470.82	79.09	5.95		77.35	7.99	0.000047		
0.01733	39450.80							
196.00	4389.46	9.67	1.31	615.02	0.07			
470.14	79.07	5.95		77.32	7.99	0.000043		
0.01594	39431.18							
197.00	4389.45	9.66	1.30	612.56	0.07			
469.54	79.05	5.94		77.28	8.00	0.000048		
0.01778	39413.84							
198.00	4389.45	9.66	1.30	607.82	0.07			
469.09	79.04	5.93		77.26	8.00	0.000047		
0.01725	39401.01							
199.00	4389.44	9.65	1.29	605.96	0.07			
468.80	79.03	5.93		77.24	8.00	0.000044		
0.01631	39392.83							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4393

MAXIMUM DISCHARGE (CFS) = 3276.32 AT TIME = 91.26  
 MAXIMUM STAGE = 4394.62 AT TIME = 91.82

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)	(FT)		
(LB/FT^2)	(FT^2)					

HYCHAN.OUT									
0.00	0.00	4379.59	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4379.59	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4379.59	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4379.59	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4379.59	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4379.59	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
105.40	6.00	4381.91	2.32	-0.97	-102.66	0.11			0.000000
		39.47	2.67		37.99	16.41			
	0.00000	22796.16							
229.33	7.00	4385.30	5.71	-0.44	-100.78	0.03			0.000000
		63.00	3.64		59.50	10.42			
	0.00000	35702.40							
251.52	8.00	4385.66	6.07	-0.29	-71.90	0.02			0.000000
		65.01	3.87		61.32	10.11			
	0.00000	36793.75							
252.52	9.00	4385.68	6.09	-0.18	-45.06	0.01			0.000000
		65.13	3.88		61.43	10.09			
	0.00000	36857.83							
248.54	10.00	4385.64	6.05	-0.10	-24.69	0.01			0.000000
		64.94	3.83		61.26	10.12			
	0.00000	36753.09							
244.30	11.00	4385.59	6.00	0.04	8.83	0.00			0.000000
		64.66	3.78		61.00	10.16			
	0.00000	36601.56							
242.45	12.00	4385.54	5.95	0.05	11.57	0.00			0.000000
		64.36	3.77		60.74	10.20			
	0.00000	36441.46							
237.06	13.00	4385.45	5.86	0.09	20.32	0.01			0.000018
		63.86	3.71		60.28	10.28			
	0.00421	36170.08							
230.00	14.00	4385.32	5.73	0.11	24.52	0.01			0.000000
		63.13	3.64		59.62	10.40			
	0.00000	35773.66							
224.79	15.00	4385.23	5.64	0.08	17.52	0.01			0.000000
		62.59	3.59		59.13	10.49			
	0.00000	35478.15							
222.07	16.00	4385.19	5.60	0.05	10.03	0.00			0.000023
		62.37	3.56		58.94	10.52			
	0.00519	35361.66							
220.97	17.00	4385.17	5.58	0.02	5.33	0.00			0.000000
		62.27	3.55		58.84	10.54			
	0.00000	35303.00							
219.79	18.00	4385.16	5.57	0.01	2.77	0.00			0.000000
		62.21	3.53		58.79	10.55			
	0.00000	35272.02							
0.00	19.00	4385.16	5.57	0.00	0.00	0.00			0.000000
		62.20	0.00		58.78	10.55			
	0.00000	35269.18							
224.98	20.00	4385.22	5.63	-0.07	-16.87	0.01			0.000000
		62.56	3.60		59.10	10.49			
	0.00000	35459.89							

		HYCHAN.OUT						
232.38	21.00	4385.35	5.76	-0.11	59.75	-26.69	10.37	0.000000
	0.00000	63.27	3.67					
		35850.33						
240.16	22.00	4385.49	5.90	-0.13	60.45	-31.74	10.25	0.000000
	0.00000	64.05	3.75					
		36269.99						
245.25	23.00	4385.59	6.00	-0.11	60.96	-26.99	10.17	0.000000
	0.00000	64.61	3.80					
		36578.20						
247.44	24.00	4385.63	6.04	-0.07	61.19	-16.62	10.13	0.000000
	0.00000	64.86	3.81					
		36712.71						
254.14	25.00	4385.72	6.13	-0.12	61.62	-30.76	10.06	0.000000
	0.00000	65.34	3.89					
		36974.10						
265.52	26.00	4385.90	6.31	-0.20	62.51	-53.43	9.91	0.000000
	0.00000	66.32	4.00					
		37503.02						
277.45	27.00	4386.09	6.50	-0.25	63.46	-68.38	9.76	0.000000
	0.00000	67.37	4.12					
		38075.11						
291.14	28.00	4386.32	6.73	-0.29	64.56	-83.57	9.59	0.000000
	0.00000	68.59	4.24					
		38736.52						
298.45	29.00	4386.45	6.86	-0.22	65.19	-64.78	9.50	0.000000
	0.00000	69.29	4.31					
		39114.07						
302.11	30.00	4386.53	6.94	-0.16	65.55	-47.31	9.45	0.000000
	0.00000	69.68	4.34					
		39327.12						
308.24	31.00	4386.62	7.03	-0.17	65.96	-52.36	9.39	0.000000
	0.00000	70.15	4.39					
		39578.51						
311.41	32.00	4386.68	7.09	-0.11	66.28	-35.44	9.34	0.000000
	0.00000	70.49	4.42					
		39765.81						
313.53	33.00	4386.73	7.14	-0.08	66.48	-25.49	9.31	0.000000
	0.00000	70.72	4.43					
		39886.77						
318.87	34.00	4386.80	7.21	-0.12	66.82	-38.82	9.26	0.000000
	0.00000	71.09	4.49					
		40091.43						
321.79	35.00	4386.86	7.27	-0.08	67.09	-26.00	9.23	0.000000
	0.00000	71.40	4.51					
		40254.36						
326.15	36.00	4386.90	7.31	-0.05	67.26	-17.43	9.20	0.000011
	0.00318	71.58	4.56					
		40353.52						
326.70	37.00	4386.92	7.33	-0.02	67.37	-5.03	9.19	0.000012
	0.00341	71.70	4.56					
		40420.90						
324.59	38.00	4386.90	7.31	0.05	67.29	14.68	9.20	0.000000
	0.00000	71.61	4.53					
		40371.31						
321.27	39.00	4386.84	7.25	0.10	67.00	32.30	9.24	0.000026
	0.00724	71.30	4.51					
		40201.36						
317.95	40.00	4386.79	7.20	0.07	66.78	22.05	9.27	0.000000
	0.00000	71.05	4.47					
		40070.27						
315.90	41.00	4386.77	7.18	0.03	66.67	10.91	9.29	0.000000
	0.00000	70.93	4.45					
		40002.78						

HYCHAN.OUT									
315.04	42.00	4386.76	7.17	0.02	5.07	0.00	0.000000		
	0.00000	70.86	4.45		66.61	9.29			
		39964.07							
0.00	43.00	4386.75	7.16	0.00	0.00	0.00	0.000035		
	0.00000	70.83	0.00		66.58	9.30			
		39947.25							
315.98	44.00	4386.75	7.16	-0.02	-5.60	0.00	0.000000		
	0.00000	70.85	4.46		66.60	9.30			
		39957.95							
318.68	45.00	4386.80	7.21	-0.11	-33.81	0.01	0.000000		
	0.00000	71.10	4.48		66.82	9.26			
		40094.06							
321.87	46.00	4386.86	7.27	-0.09	-28.62	0.01	0.000000		
	0.00000	71.39	4.51		67.08	9.23			
		40249.12							
328.31	47.00	4386.94	7.35	-0.14	-47.47	0.01	0.000000		
	0.00000	71.81	4.57		67.46	9.18			
		40478.98							
336.04	48.00	4387.06	7.47	-0.19	-63.43	0.01	0.000000		
	0.00000	72.40	4.64		68.00	9.10			
		40798.27							
344.42	49.00	4387.19	7.60	-0.21	-73.54	0.01	0.000000		
	0.00000	73.05	4.71		68.58	9.02			
		41150.88							
353.43	50.00	4387.33	7.74	-0.22	-79.46	0.01	0.000000		
	0.00000	73.74	4.79		69.20	8.94			
		41520.47							
362.63	51.00	4387.47	7.88	-0.24	-86.51	0.01	0.000000		
	0.00000	74.43	4.87		69.83	8.86			
		41895.61							
373.21	52.00	4387.62	8.03	-0.26	-97.49	0.02	0.000000		
	0.00000	75.17	4.96		70.49	8.78			
		42295.30							
384.85	53.00	4387.80	8.21	-0.30	-114.27	0.02	0.000000		
	0.00000	76.03	5.06		71.26	8.68			
		42757.42							
393.87	54.00	4387.94	8.35	-0.23	-92.42	0.01	0.000000		
	0.00000	76.72	5.13		71.88	8.60			
		43130.12							
405.44	55.00	4388.10	8.51	-0.30	-121.97	0.02	0.000000		
	0.00000	77.45	5.23		72.54	8.53			
		43524.60							
421.35	56.00	4388.32	8.73	-0.43	-180.88	0.03	0.000000		
	0.00000	78.47	5.37		73.45	8.42			
		44072.14							
447.24	57.00	4388.68	9.09	-0.77	-346.43	0.05	0.000000		
	0.00000	80.16	5.58		74.97	8.25			
		44982.55							
478.40	58.00	4389.12	9.53	-1.15	-552.35	0.07	0.000000		
	0.00000	82.15	5.82		76.76	8.05			
		46054.90							
509.09	59.00	4389.55	9.96	-1.44	-733.36	0.08	0.000000		
	0.00000	84.05	6.06		78.46	7.87			
		47077.46							
533.94	60.00	4389.89	10.30	-1.46	-782.12	0.08	0.000000		
	0.00000	85.39	6.25		79.77	7.74			
		47859.08							
560.67	61.00	4390.24	10.65	-1.21	-677.70	0.07	0.000000		
	0.00000	86.10	6.51		81.11	7.61			
		48665.60							
578.38	62.00	4390.46	10.87	-1.09	-628.82	0.06	0.000000		
	0.00000	86.54	6.68		81.94	7.54			
		49165.59							

		HYCHAN.OUT					
586.28	63.00	4390.56	10.97	-1.04	-607.96	0.06	0.000000
	0.00000	86.74	6.76		82.32	7.50	
		49392.52					
597.66	64.00	4390.70	11.11	-1.04	-619.49	0.05	0.000000
	0.00000	87.02	6.87		82.84	7.45	
		49706.03					
614.53	65.00	4390.91	11.32	-0.98	-604.00	0.05	0.000000
	0.00000	87.44	7.03		83.62	7.38	
		50169.54					
629.21	66.00	4391.10	11.51	-0.89	-557.25	0.05	0.000000
	0.00000	87.81	7.17		84.29	7.32	
		50575.32					
639.27	67.00	4391.23	11.64	-0.67	-431.03	0.03	0.000000
	0.00000	88.08	7.26		84.78	7.28	
		50867.37					
647.36	68.00	4391.37	11.78	-0.30	-196.37	0.02	0.000000
	0.00000	88.36	7.33		85.28	7.24	
		51166.65					
659.02	69.00	4391.55	11.97	-0.10	-65.91	0.01	0.000000
	0.00000	88.72	7.43		85.93	7.18	
		51560.57					
676.25	70.00	4391.74	12.15	0.17	113.56	0.01	0.000000
	0.00000	89.10	7.59		86.60	7.13	
		51962.70					
691.49	71.00	4391.95	12.36	0.11	75.48	0.01	0.000000
	0.00000	89.51	7.72		87.33	7.07	
		52400.93					
711.99	72.00	4392.18	12.59	0.14	101.95	0.01	0.000000
	0.00000	89.97	7.91		88.13	7.00	
		52880.75					
725.16	73.00	4392.37	12.78	0.25	183.66	0.01	0.000015
	0.00732	90.35	8.03		88.78	6.95	
		53269.38					
736.71	74.00	4392.52	12.93	0.37	273.51	0.02	0.000000
	0.00000	90.66	8.13		89.32	6.91	
		53591.74					
746.65	75.00	4392.65	13.06	0.44	329.98	0.02	0.000000
	0.00000	90.91	8.21		89.76	6.87	
		53855.45					
756.55	76.00	4392.78	13.19	0.55	417.33	0.03	0.000000
	0.00000	91.18	8.30		90.21	6.84	
		54127.45					
767.20	77.00	4392.93	13.34	0.69	532.14	0.03	0.000015
	0.00772	91.47	8.39		90.70	6.80	
		54419.59					
775.34	78.00	4393.03	13.44	0.90	696.22	0.04	0.000000
	0.00000	91.68	8.46		91.06	6.77	
		54636.26					
785.24	79.00	4393.15	13.56	0.97	760.54	0.05	0.000035
	0.01848	91.92	8.54		91.45	6.74	
		54871.98					
794.25	80.00	4393.27	13.68	1.08	860.05	0.05	0.000015
	0.00783	92.16	8.62		91.85	6.71	
		55112.63					
806.06	81.00	4393.42	13.83	1.24	998.66	0.06	0.000034
	0.01848	92.45	8.72		92.35	6.68	
		55410.34					
818.25	82.00	4393.58	13.99	1.45	1185.76	0.07	0.000040
	0.02208	92.77	8.82		92.87	6.64	
		55720.31					
832.88	83.00	4393.77	14.18	1.70	1417.48	0.08	0.000085
	0.04747	93.14	8.94		93.49	6.60	
		56093.37					

HYCHAN.OUT							
846.65	84.00	4393.94	14.35	1.90	1607.31	0.09	0.000069
	0.03905	93.49	9.06	94.05	6.55		
		56432.37					
857.17	85.00	4394.08	14.49	2.25	1925.41	0.10	0.000079
	0.04517	93.77	9.14	94.50	6.52		
		56702.53					
866.05	86.00	4394.19	14.60	2.56	2214.16	0.12	0.000093
	0.05350	94.00	9.21	94.89	6.50		
		56931.35					
874.32	87.00	4394.31	14.72	2.83	2476.63	0.13	0.000122
	0.07049	94.23	9.28	95.24	6.47		
		57146.51					
882.31	88.00	4394.41	14.82	3.06	2698.87	0.14	0.000135
	0.07849	94.44	9.34	95.59	6.45		
		57354.18					
888.72	89.00	4394.50	14.91	3.30	2932.70	0.15	0.000162
	0.09486	94.62	9.39	95.87	6.43		
		57521.66					
894.50	90.00	4394.58	14.99	3.46	3094.63	0.16	0.000176
	0.10394	94.78	9.44	96.13	6.41		
		57676.78					
897.92	91.00	4394.63	15.04	3.56	3197.60	0.16	0.000178
	0.10534	94.88	9.46	96.29	6.40		
		57771.77					
899.47	92.00	4394.65	15.06	3.61	3242.97	0.16	0.000173
	0.10248	94.92	9.48	96.35	6.40		
		57810.52					
899.27	93.00	4394.65	15.06	3.58	3223.58	0.16	0.000186
	0.11006	94.91	9.47	96.34	6.40		
		57805.52					
896.93	94.00	4394.62	15.03	3.57	3199.62	0.16	0.000165
	0.09711	94.84	9.46	96.23	6.40		
		57740.41					
892.51	95.00	4394.55	14.96	3.48	3110.19	0.16	0.000155
	0.09131	94.72	9.42	96.03	6.42		
		57620.43					
887.17	96.00	4394.48	14.89	3.36	2981.74	0.15	0.000155
	0.09051	94.57	9.38	95.80	6.43		
		57482.36					
881.25	97.00	4394.40	14.81	3.21	2827.02	0.15	0.000145
	0.08464	94.42	9.33	95.55	6.45		
		57331.19					
874.52	98.00	4394.31	14.72	3.09	2698.08	0.14	0.000136
	0.07886	94.23	9.28	95.26	6.47		
		57155.61					
868.21	99.00	4394.23	14.64	2.94	2553.92	0.14	0.000108
	0.06228	94.06	9.23	94.99	6.49		
		56991.50					
861.71	100.00	4394.14	14.55	2.76	2375.28	0.13	0.000114
	0.06542	93.89	9.18	94.70	6.51		
		56822.69					
850.58	101.00	4393.99	14.40	2.35	1999.63	0.11	0.000078
	0.04396	93.59	9.09	94.22	6.54		
		56534.65					
835.27	102.00	4393.80	14.21	1.96	1637.95	0.09	0.000078
	0.04348	93.21	8.96	93.60	6.59		
		56161.54					
815.69	103.00	4393.57	13.98	1.77	1439.88	0.08	0.000066
	0.03609	92.76	8.79	92.85	6.64		
		55710.06					
801.07	104.00	4393.40	13.81	1.71	1369.44	0.08	0.000071
	0.03852	92.41	8.67	92.28	6.68		
		55369.63					



HYCHAN.OUT							
105.00	4393.30	13.71	1.84	1458.80	0.09		
793.83	92.22	8.61		91.96	6.71	0.000076	
0.04107	55178.00						
106.00	4393.18	13.59	2.05	1606.19	0.10		
784.77	91.97	8.53		91.54	6.74	0.000054	
0.02886	54926.91						
107.00	4393.08	13.49	2.11	1643.21	0.10		
777.16	91.77	8.47		91.21	6.76	0.000076	
0.04020	54727.36						
108.00	4392.94	13.35	2.10	1609.02	0.10		
765.21	91.48	8.36		90.73	6.80	0.000070	
0.03652	54435.74						
109.00	4392.76	13.17	2.13	1600.52	0.10		
751.49	91.14	8.25		90.14	6.84	0.000078	
0.04030	54085.60						
110.00	4392.60	13.01	2.17	1602.74	0.11		
738.94	90.82	8.14		89.59	6.89	0.000078	
0.03938	53754.86						
111.00	4392.46	12.87	2.21	1606.49	0.11		
728.01	90.53	8.04		89.10	6.92	0.000092	
0.04622	53460.30						
112.00	4392.31	12.72	2.25	1610.96	0.11		
716.90	90.24	7.94		88.60	6.96	0.000091	
0.04517	53160.59						
113.00	4392.17	12.58	2.25	1588.55	0.11		
705.85	89.96	7.85		88.11	7.00	0.000088	
0.04296	52865.30						
114.00	4392.02	12.43	2.27	1573.46	0.11		
693.85	89.65	7.74		87.57	7.05	0.000098	
0.04756	52543.17						
115.00	4391.86	12.27	2.28	1551.77	0.11		
681.49	89.33	7.63		87.01	7.09	0.000091	
0.04333	52205.70						
116.00	4391.72	12.13	2.19	1468.35	0.11		
670.72	89.05	7.53		86.52	7.13	0.000087	
0.04076	51914.13						
117.00	4391.63	12.04	2.10	1395.23	0.11		
663.89	88.88	7.47		86.22	7.16	0.000096	
0.04478	51730.38						
118.00	4391.56	11.97	2.07	1361.55	0.11		
657.72	88.73	7.41		85.94	7.18	0.000079	
0.03645	51563.85						
119.00	4391.49	11.90	2.04	1331.31	0.10		
652.45	88.59	7.36		85.70	7.20	0.000083	
0.03808	51421.17						
120.00	4391.44	11.85	1.98	1284.52	0.10		
648.58	88.49	7.33		85.53	7.22	0.000066	
0.02997	51315.35						
121.00	4391.41	11.82	1.91	1233.44	0.10		
646.00	88.43	7.31		85.41	7.23	0.000067	
0.03065	51243.67						
122.00	4391.37	11.78	1.84	1184.82	0.09		
643.12	88.35	7.28		85.27	7.24	0.000063	
0.02850	51163.88						
123.00	4391.32	11.73	1.80	1149.64	0.09		
639.48	88.26	7.25		85.11	7.25	0.000065	
0.02923	51065.06						
124.00	4391.25	11.66	1.80	1139.32	0.09		
633.91	88.12	7.19		84.85	7.27	0.000072	
0.03220	50911.98						
125.00	4391.18	11.59	1.79	1125.78	0.09		
628.32	87.98	7.14		84.60	7.30	0.000070	
0.03130	50758.72						

HYCHAN.OUT							
126.00	4391.11	11.52	1.80	1117.46	0.09		
622.15	87.82	7.08	84.31	7.32	0.000060		
0.02646	50588.93						
127.00	4391.03	11.44	1.78	1098.88	0.09		
616.05	87.67	7.03	84.03	7.35	0.000062		
0.02724	50420.67						
128.00	4390.95	11.36	1.77	1080.74	0.09		
610.00	87.52	6.97	83.76	7.37	0.000074		
0.03208	50254.14						
129.00	4390.87	11.28	1.77	1069.27	0.09		
603.55	87.36	6.91	83.46	7.40	0.000065		
0.02792	50075.27						
130.00	4390.79	11.20	1.76	1052.44	0.09		
597.26	87.20	6.85	83.17	7.42	0.000056		
0.02385	49900.99						
131.00	4390.72	11.13	1.75	1036.02	0.09		
591.24	87.05	6.79	82.89	7.45	0.000072		
0.03049	49733.66						
132.00	4390.63	11.04	1.76	1027.01	0.09		
584.66	86.88	6.73	82.58	7.48	0.000073		
0.03084	49549.68						
133.00	4390.56	10.97	1.74	1007.45	0.09		
578.97	86.74	6.67	82.32	7.50	0.000072		
0.02981	49390.59						
134.00	4390.53	10.94	1.68	967.00	0.09		
575.95	86.67	6.65	82.18	7.51	0.000072		
0.02979	49308.03						
135.00	4390.49	10.90	1.64	940.70	0.09		
572.97	86.59	6.62	82.04	7.53	0.000069		
0.02866	49224.50						
136.00	4390.45	10.86	1.62	923.97	0.09		
569.59	86.51	6.58	81.88	7.54	0.000064		
0.02615	49129.20						
137.00	4390.40	10.81	1.61	911.71	0.09		
566.14	86.42	6.55	81.72	7.56	0.000076		
0.03107	49031.19						
138.00	4390.36	10.77	1.59	893.30	0.09		
563.01	86.34	6.52	81.57	7.57	0.000055		
0.02238	48942.96						
139.00	4390.33	10.74	1.57	879.92	0.08		
560.14	86.27	6.49	81.44	7.58	0.000073		
0.02955	48861.42						
140.00	4390.29	10.70	1.55	863.64	0.08		
557.21	86.20	6.46	81.30	7.60	0.000062		
0.02495	48778.20						
141.00	4390.25	10.66	1.54	852.56	0.08		
553.97	86.11	6.43	81.14	7.61	0.000063		
0.02544	48685.95						
142.00	4390.20	10.61	1.55	852.31	0.08		
549.80	86.01	6.39	80.94	7.63	0.000065		
0.02588	48566.48						
143.00	4390.15	10.56	1.55	844.26	0.08		
546.19	85.92	6.36	80.77	7.65	0.000060		
0.02377	48463.29						
144.00	4390.11	10.52	1.53	832.40	0.08		
543.11	85.84	6.33	80.63	7.66	0.000053		
0.02103	48375.68						
145.00	4390.08	10.49	1.52	819.32	0.08		
540.38	85.77	6.30	80.50	7.67	0.000059		
0.02306	48297.58						
146.00	4390.04	10.45	1.51	810.56	0.08		
537.28	85.70	6.27	80.35	7.69	0.000061		
0.02375	48208.06						

HYCHAN.OUT							
147.00	4389.99	10.40	1.52	811.03	0.08		
532.93	85.59	6.23		80.14	7.71	0.000063	
0.02449	48082.27						
148.00	4389.94	10.35	1.52	803.74	0.08		
529.14	85.49	6.19		79.95	7.73	0.000059	
0.02274	47972.86						
149.00	4389.90	10.31	1.51	794.85	0.08		
526.19	85.42	6.16		79.81	7.74	0.000061	
0.02332	47887.89						
150.00	4389.87	10.28	1.50	784.39	0.08		
523.54	85.35	6.13		79.69	7.75	0.000061	
0.02321	47811.59						
151.00	4389.84	10.25	1.48	770.10	0.08		
520.86	85.27	6.11		79.56	7.77	0.000061	
0.02331	47734.16						
152.00	4389.80	10.21	1.47	760.76	0.08		
518.29	85.12	6.09		79.42	7.78	0.000059	
0.02244	47653.24						
153.00	4389.75	10.16	1.48	759.84	0.08		
514.75	84.91	6.06		79.23	7.80	0.000058	
0.02188	47540.19						
154.00	4389.70	10.11	1.48	757.90	0.08		
511.26	84.70	6.04		79.05	7.82	0.000061	
0.02301	47428.11						
155.00	4389.66	10.07	1.48	751.29	0.08		
508.34	84.53	6.01		78.89	7.83	0.000060	
0.02255	47333.65						
156.00	4389.62	10.03	1.48	746.82	0.08		
505.46	84.35	5.99		78.73	7.85	0.000059	
0.02198	47240.51						
157.00	4389.58	9.99	1.49	745.98	0.08		
502.07	84.15	5.97		78.55	7.87	0.000059	
0.02193	47130.57						
158.00	4389.60	10.01	1.42	713.52	0.08		
503.59	84.24	5.98		78.63	7.86	0.000051	
0.01903	47180.57						
159.00	4389.61	10.02	1.38	696.89	0.08		
504.79	84.31	5.99		78.70	7.85	0.000053	
0.01975	47219.28						
160.00	4389.61	10.02	1.37	691.91	0.08		
504.71	84.31	5.99		78.69	7.85	0.000045	
0.01687	47216.75						
161.00	4389.61	10.02	1.36	687.77	0.08		
504.28	84.28	5.98		78.67	7.85	0.000055	
0.02037	47202.66						
162.00	4389.60	10.01	1.36	685.31	0.08		
503.64	84.25	5.98		78.64	7.86	0.000051	
0.01892	47181.83						
163.00	4389.59	10.00	1.36	685.35	0.08		
502.96	84.20	5.97		78.60	7.86	0.000054	
0.02026	47159.82						
164.00	4389.58	9.99	1.36	682.51	0.08		
502.46	84.17	5.97		78.57	7.86	0.000045	
0.01685	47143.57						
165.00	4389.57	9.98	1.36	680.40	0.08		
501.91	84.14	5.97		78.54	7.87	0.000049	
0.01833	47125.54						
166.00	4389.56	9.97	1.36	683.53	0.08		
500.97	84.08	5.96		78.49	7.87	0.000054	
0.02009	47095.00						
167.00	4389.52	9.93	1.40	698.88	0.08		
497.79	83.89	5.93		78.32	7.89	0.000060	
0.02221	46991.14						

		HYCHAN.OUT					
168.00	4389.49	9.90	1.41	700.66	0.08		
495.58	83.75	5.92		78.20	7.90	0.000058	
0.02127	46918.41						
169.00	4389.47	9.88	1.41	696.67	0.08		
494.42	83.68	5.91		78.13	7.91	0.000051	
0.01874	46880.29						
170.00	4389.46	9.87	1.40	690.62	0.08		
493.63	83.64	5.90		78.09	7.91	0.000053	
0.01943	46854.50						
171.00	4389.45	9.86	1.39	686.28	0.08		
492.83	83.59	5.90		78.05	7.92	0.000050	
0.01830	46827.86						
172.00	4389.44	9.85	1.38	681.55	0.08		
492.18	83.55	5.89		78.01	7.92	0.000051	
0.01888	46806.45						
173.00	4389.43	9.84	1.38	677.78	0.08		
491.52	83.51	5.89		77.97	7.92	0.000059	
0.02157	46784.72						
174.00	4389.41	9.82	1.38	678.19	0.08		
490.32	83.43	5.88		77.91	7.93	0.000059	
0.02174	46745.21						
175.00	4389.37	9.78	1.42	691.55	0.08		
487.19	83.24	5.85		77.74	7.95	0.000057	
0.02097	46641.27						
176.00	4389.34	9.75	1.42	690.48	0.08		
484.93	83.10	5.84		77.61	7.96	0.000056	
0.02045	46565.88						
177.00	4389.32	9.73	1.41	682.87	0.08		
483.54	83.01	5.82		77.53	7.97	0.000055	
0.01990	46519.63						
178.00	4389.30	9.71	1.40	676.21	0.08		
482.51	82.95	5.82		77.48	7.98	0.000050	
0.01825	46485.03						
179.00	4389.29	9.70	1.39	669.83	0.08		
481.56	82.89	5.81		77.42	7.98	0.000053	
0.01927	46453.29						
180.00	4389.28	9.69	1.38	664.36	0.08		
480.89	82.85	5.80		77.39	7.99	0.000053	
0.01921	46431.03						
181.00	4389.29	9.70	1.35	649.98	0.08		
481.35	82.88	5.81		77.41	7.98	0.000045	
0.01635	46447.03						
182.00	4389.36	9.77	1.26	614.32	0.07		
486.25	83.18	5.85		77.69	7.95	0.000048	
0.01752	46611.07						
183.00	4389.41	9.82	1.22	598.63	0.07		
489.98	83.41	5.87		77.89	7.93	0.000042	
0.01543	46734.45						
184.00	4389.46	9.87	1.18	582.91	0.07		
493.72	83.64	5.90		78.10	7.91	0.000034	
0.01270	46857.89						
185.00	4389.49	9.90	1.18	585.58	0.07		
496.17	83.79	5.92		78.23	7.90	0.000046	
0.01711	46938.29						
186.00	4389.51	9.92	1.19	593.46	0.07		
497.21	83.86	5.93		78.29	7.89	0.000044	
0.01624	46972.41						
187.00	4389.52	9.93	1.20	598.28	0.07		
497.99	83.90	5.94		78.33	7.89	0.000021	
0.00789	46996.00						
188.00	4389.52	9.93	1.21	601.62	0.07		
498.45	83.92	5.94		78.34	7.89	0.000043	
0.01585	47006.47						

HYCHAN.OUT									
189.00	4389.53	9.94	1.21	602.13	0.07				
498.67	83.94	5.94	78.37	7.88	0.000034				
0.01256	47019.97								
190.00	4389.53	9.94	1.21	603.73	0.07				
498.70	83.95	5.94	78.37	7.88	0.000033				
0.01238	47020.93								
191.00	4389.53	9.94	1.21	604.06	0.07				
498.60	83.94	5.94	78.36	7.88	0.000045				
0.01669	47017.88								
192.00	4389.52	9.93	1.22	608.87	0.07				
497.98	83.90	5.94	78.33	7.89	0.000035				
0.01296	46997.46								
193.00	4389.48	9.89	1.26	624.27	0.07				
495.09	83.73	5.91	78.17	7.90	0.000052				
0.01902	46902.54								
194.00	4389.45	9.86	1.26	623.52	0.07				
493.09	83.60	5.90	78.06	7.92	0.000044				
0.01622	46836.63								
195.00	4389.44	9.85	1.26	619.77	0.07				
492.19	83.55	5.89	78.01	7.92	0.000048				
0.01751	46807.12								
196.00	4389.43	9.84	1.25	615.14	0.07				
491.47	83.50	5.89	77.97	7.92	0.000040				
0.01478	46783.35								
197.00	4389.42	9.83	1.25	612.70	0.07				
490.90	83.47	5.88	77.94	7.93	0.000039				
0.01447	46764.24								
198.00	4389.41	9.82	1.24	607.84	0.07				
490.46	83.44	5.88	77.92	7.93	0.000043				
0.01575	46749.87								
199.00	4389.41	9.82	1.24	606.01	0.07				
490.22	83.43	5.88	77.90	7.93	0.000035				
0.01284	46741.81								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4394

MAXIMUM DISCHARGE (CFS) = 3110.17 AT TIME = 91.43  
 MAXIMUM STAGE = 4394.53 AT TIME = 91.83

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
BED SHEAR STRESS	SURFACE AREA							
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)							
0.00	0.00	4379.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	0.00	4379.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	0.00	4379.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	0.00	4379.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	0.00	4379.40	0.00	0.00	0.00	0.00	0.00	0.000000
0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	0.00	4379.40	0.00	0.00	0.00	0.00	0.00	0.000000

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HYCHAN.OUT							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
118.98	6.00	4382.13	2.73	-1.11	-132.48	0.12	0.000000
	0.00000	42.95	2.77		41.20	15.11	0.000000
246.17	7.00	21013.94	5.91	-0.44	-107.71	0.03	0.000000
	0.00000	4385.31	3.84		60.53	10.24	0.000000
269.32	8.00	64.13	6.26	-0.27	-72.82	0.02	0.000000
	0.00000	30868.25	4.08		62.29	9.95	0.000000
269.58	9.00	66.08	6.28	-0.17	-44.73	0.01	0.000000
	0.00000	31766.58	4.07		62.38	9.93	0.000000
266.12	10.00	66.18	6.24	-0.09	-24.45	0.01	0.000000
	0.00000	31814.46	4.03		62.20	9.96	0.000000
261.72	11.00	65.98	6.19	0.04	9.18	0.00	0.000000
	0.00000	31723.54	3.98		61.95	10.00	0.000000
259.85	12.00	65.71	6.14	0.05	12.02	0.00	0.000021
	0.00532	31596.01	3.97		61.69	10.04	0.000000
254.43	13.00	65.42	6.05	0.08	21.36	0.01	0.000000
	0.00000	31461.96	3.92		61.24	10.12	0.000000
247.19	14.00	64.92	5.92	0.10	25.62	0.01	0.000017
	0.00399	31234.59	3.85		60.59	10.23	0.000000
241.90	15.00	64.20	5.83	0.07	18.09	0.01	0.000018
	0.00438	30900.64	3.80		60.12	10.31	0.000000
239.26	16.00	63.68	5.79	0.04	10.37	0.00	0.000000
	0.00000	30659.40	3.77		59.92	10.34	0.000000
237.66	17.00	63.46	5.77	0.02	5.45	0.00	0.000000
	0.00000	30559.96	3.75		59.82	10.36	0.000000
236.51	18.00	63.35	5.76	0.01	2.66	0.00	0.000000
	0.00000	30509.16	3.74		59.78	10.37	0.000000
0.00	19.00	63.30	5.76	0.00	0.00	0.00	0.000000
	0.00000	30485.97	0.00		59.77	10.37	0.000000
241.38	20.00	63.30	5.82	-0.07	-17.61	0.01	0.000000
	0.00000	30482.75	3.79		60.09	10.32	0.000000
249.47	21.00	63.64	5.95	-0.11	-27.84	0.01	0.000000
	0.00000	30643.64	3.88		60.73	10.21	0.000000
257.59	22.00	64.35	6.09	-0.13	-32.82	0.01	0.000000
	0.00000	30970.79	3.96		61.42	10.09	0.000000
262.35	23.00	65.11	6.19	-0.10	-27.50	0.01	0.000000
	0.00000	31321.89	4.00		61.92	10.01	0.000000
264.97	24.00	65.67	6.23	-0.06	-17.13	0.00	0.000000
	0.00000	31578.62	4.02		62.14	9.97	0.000000
271.49	25.00	65.91	6.32	-0.12	-31.84	0.01	0.000000
	0.00000	31689.81	4.09		62.57	9.90	0.000000
	0.00000	31910.71	6.50	-0.19	-55.03	0.01	0.000000
	26.00	4385.90					

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		HYCHAN.OUT					
283.39	67.35	4.21	63.44	9.76	0.000000		
0.00000	32355.74						
27.00	4386.09	6.69	-0.24	-70.48	0.02		
296.14	68.40	4.33	64.39	9.62	0.000000		
0.00000	32836.79						
28.00	4386.32	6.92	-0.27	-85.24	0.02		
310.32	69.60	4.46	65.47	9.46	0.000000		
0.00000	33392.18						
29.00	4386.45	7.05	-0.21	-65.58	0.01		
317.77	70.28	4.52	66.09	9.37	0.000000		
0.00000	33704.95						
30.00	4386.53	7.13	-0.15	-48.01	0.01		
322.11	70.67	4.56	66.44	9.32	0.000000		
0.00000	33883.50						
31.00	4386.62	7.22	-0.16	-53.16	0.01		
327.90	71.13	4.61	66.85	9.26	0.000000		
0.00000	34093.87						
32.00	4386.69	7.29	-0.11	-35.88	0.01		
331.26	71.47	4.64	67.15	9.22	0.000000		
0.00000	34249.04						
33.00	4386.73	7.33	-0.08	-25.92	0.01		
333.95	71.68	4.66	67.35	9.19	0.000000		
0.00000	34349.36						
34.00	4386.80	7.40	-0.12	-39.58	0.01		
339.00	72.06	4.70	67.69	9.14	0.000000		
0.00000	34523.00						
35.00	4386.86	7.46	-0.08	-26.33	0.00		
342.30	72.35	4.73	67.96	9.11	0.000000		
0.00000	34657.09						
36.00	4386.90	7.50	-0.05	-17.69	0.00		
347.28	72.54	4.79	68.12	9.09	0.000000		
0.00000	34741.70						
37.00	4386.92	7.52	-0.01	-4.95	0.00		
346.49	72.66	4.77	68.23	9.07	0.000000		
0.00000	34795.57						
38.00	4386.90	7.50	0.04	14.86	0.00		
344.96	72.57	4.75	68.15	9.08	0.000024		
0.00700	34755.98						
39.00	4386.84	7.44	0.10	33.25	0.01		
341.49	72.25	4.73	67.86	9.12	0.000014		
0.00414	34610.79						
40.00	4386.79	7.39	0.06	21.87	0.00		
338.14	72.02	4.70	67.65	9.15	0.000024		
0.00708	34503.30						
41.00	4386.77	7.37	0.03	11.02	0.00		
336.31	71.89	4.68	67.54	9.16	0.000000		
0.00000	34445.24						
42.00	4386.76	7.36	0.02	5.29	0.00		
335.34	71.83	4.67	67.48	9.17	0.000000		
0.00000	34415.67						
43.00	4386.75	7.35	0.00	0.00	0.00		
0.00	71.79	0.00	67.45	9.18	0.000014		
0.00000	34399.00						
44.00	4386.75	7.35	-0.02	-6.15	0.00		
336.01	71.82	4.68	67.47	9.17	0.000007		
0.00214	34409.72						
45.00	4386.80	7.40	-0.10	-34.21	0.01		
339.20	72.06	4.71	67.69	9.14	0.000000		
0.00000	34523.97						
46.00	4386.86	7.46	-0.09	-29.14	0.01		
342.44	72.35	4.73	67.95	9.11	0.000000		
0.00000	34652.98						
47.00	4386.94	7.54	-0.14	-48.48	0.01		

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		HYCHAN.OUT					
349.20	72.77	4.80	68.33	9.06	0.000000		
0.00000	34849.29						
48.00	4387.06	7.66	-0.18	-64.65	0.01		
357.19	73.36	4.87	68.86	8.99	0.000000		
0.00000	35118.54						
49.00	4387.19	7.79	-0.20	-74.79	0.01		
365.99	74.01	4.95	69.44	8.91	0.000000		
0.00000	35415.41						
50.00	4387.33	7.93	-0.22	-80.80	0.01		
375.13	74.68	5.02	70.05	8.83	0.000000		
0.00000	35725.21						
51.00	4387.47	8.07	-0.23	-87.84	0.01		
384.70	75.37	5.10	70.67	8.75	0.000000		
0.00000	36040.82						
52.00	4387.62	8.22	-0.25	-99.10	0.02		
395.37	76.10	5.20	71.33	8.67	0.000000		
0.00000	36377.42						
53.00	4387.80	8.40	-0.28	-115.96	0.02		
407.68	76.95	5.30	72.09	8.58	0.000000		
0.00000	36765.57						
54.00	4387.95	8.55	-0.22	-93.67	0.01		
416.86	77.63	5.37	72.70	8.51	0.000000		
0.00000	37076.86						
55.00	4388.10	8.70	-0.29	-123.92	0.02		
429.15	78.36	5.48	73.36	8.43	0.000000		
0.00000	37412.02						
56.00	4388.32	8.92	-0.41	-183.68	0.02		
445.62	79.37	5.61	74.27	8.33	0.000000		
0.00000	37876.07						
57.00	4388.70	9.30	-0.74	-350.77	0.04		
473.18	81.09	5.84	75.81	8.15	0.000000		
0.00000	38661.92						
58.00	4389.15	9.75	-1.10	-557.33	0.06		
506.51	83.13	6.09	77.64	7.96	0.000000		
0.00000	39595.19						
59.00	4389.60	10.20	-1.37	-738.68	0.08		
539.58	85.07	6.34	79.37	7.78	0.000000		
0.00000	40481.11						
60.00	4389.94	10.54	-1.43	-808.22	0.08		
565.50	85.86	6.59	80.67	7.66	0.000000		
0.00000	41140.74						
61.00	4390.28	10.88	-1.26	-747.25	0.07		
591.31	86.55	6.83	81.96	7.54	0.000000		
0.00000	41797.52						
62.00	4390.50	11.10	-1.20	-729.91	0.06		
608.53	86.99	7.00	82.78	7.46	0.000000		
0.00000	42217.33						
63.00	4390.60	11.20	-1.17	-722.33	0.06		
616.27	87.19	7.07	83.15	7.43	0.000000		
0.00000	42407.39						
64.00	4390.74	11.34	-1.18	-741.67	0.06		
627.59	87.48	7.17	83.68	7.38	0.000000		
0.00000	42676.07						
65.00	4390.94	11.54	-1.05	-678.90	0.05		
644.04	87.88	7.33	84.42	7.31	0.000000		
0.00000	43053.47						
66.00	4391.12	11.72	-0.88	-577.98	0.05		
658.45	88.23	7.46	85.04	7.26	0.000000		
0.00000	43371.26						
67.00	4391.24	11.84	-0.66	-437.71	0.03		
668.05	88.48	7.55	85.49	7.22	0.000000		
0.00000	43600.69						
68.00	4391.38	11.98	-0.30	-206.07	0.02		

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		HYCHAN.OUT					
676.06	88.74	7.62	85.97	7.18	0.000008		
0.00382	43844.77						
69.00	4391.56	12.16	-0.14	-96.76	0.01		
688.83	89.11	7.73	86.62	7.12	0.000024		
0.01149	44176.51						
70.00	4391.75	12.35	0.08	59.35	0.00		
704.95	89.49	7.88	87.29	7.07	0.000000		
0.00000	44517.15						
71.00	4391.95	12.55	0.05	32.56	0.00		
719.84	89.90	8.01	88.01	7.01	0.000000		
0.00000	44882.86						
72.00	4392.18	12.78	0.11	79.21	0.01		
741.38	90.35	8.21	88.79	6.95	0.000000		
0.00000	45281.64						
73.00	4392.36	12.96	0.20	147.98	0.01		
753.93	90.72	8.31	89.42	6.90	0.000011		
0.00577	45604.65						
74.00	4392.52	13.12	0.30	227.97	0.01		
765.18	91.02	8.41	89.95	6.86	0.000000		
0.00000	45873.20						
75.00	4392.64	13.24	0.36	278.64	0.02		
774.92	91.28	8.49	90.38	6.82	0.000007		
0.00371	46093.55						
76.00	4392.77	13.37	0.46	359.32	0.02		
784.88	91.54	8.57	90.82	6.79	0.000000		
0.00000	46319.62						
77.00	4392.92	13.52	0.58	463.89	0.03		
795.66	91.83	8.66	91.30	6.75	0.000025		
0.01356	46564.94						
78.00	4393.02	13.62	0.78	624.56	0.04		
803.58	92.04	8.73	91.66	6.73	0.000007		
0.00358	46745.39						
79.00	4393.14	13.74	0.82	664.36	0.04		
812.96	92.28	8.81	92.06	6.70	0.000022		
0.01224	46948.36						
80.00	4393.26	13.86	0.92	754.49	0.04		
822.39	92.51	8.89	92.45	6.67	0.000025		
0.01364	47148.32						
81.00	4393.40	14.00	1.09	905.25	0.05		
834.08	92.80	8.99	92.93	6.64	0.000045		
0.02535	47392.26						
82.00	4393.55	14.15	1.31	1103.89	0.06		
845.87	93.10	9.09	93.41	6.60	0.000015		
0.00854	47640.62						
83.00	4393.73	14.33	1.59	1365.93	0.07		
859.83	93.46	9.20	94.01	6.56	0.000058		
0.03319	47942.83						
84.00	4393.90	14.50	1.80	1574.63	0.08		
872.92	93.79	9.31	94.55	6.52	0.000046		
0.02680	48218.55						
85.00	4394.02	14.62	2.13	1878.26	0.10		
882.31	94.04	9.38	94.94	6.49	0.000100		
0.05846	48419.34						
86.00	4394.13	14.73	2.41	2148.08	0.11		
890.61	94.25	9.45	95.29	6.47	0.000104		
0.06130	48597.78						
87.00	4394.23	14.83	2.66	2390.97	0.12		
898.22	94.45	9.51	95.61	6.45	0.000124		
0.07343	48761.73						
88.00	4394.33	14.93	2.86	2592.52	0.13		
905.64	94.65	9.57	95.92	6.43	0.000134		
0.07978	48921.51						
89.00	4394.40	15.00	3.09	2811.81	0.14		

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		HYCHAN.OUT					
911.28	94.80	9.61	96.16	6.41	0.000148		
0.08898	49043.31						
90.00	4394.48	15.08	3.22	2947.64	0.15		
916.77	94.95	9.66	96.40	6.39	0.000154		
0.09274	49165.92						
91.00	4394.53	15.13	3.29	3028.29	0.15		
920.06	95.04	9.68	96.55	6.38	0.000164		
0.09918	49241.72						
92.00	4394.55	15.15	3.33	3064.59	0.15		
921.61	95.09	9.69	96.62	6.38	0.000149		
0.08984	49274.78						
93.00	4394.55	15.15	3.30	3040.86	0.15		
921.56	95.08	9.69	96.62	6.38	0.000159		
0.09632	49273.80						
94.00	4394.51	15.11	3.31	3039.09	0.15		
918.99	95.01	9.67	96.50	6.39	0.000157		
0.09502	49214.62						
95.00	4394.45	15.05	3.26	2981.84	0.15		
914.51	94.88	9.64	96.30	6.40	0.000154		
0.09274	49112.66						
96.00	4394.38	14.98	3.16	2871.14	0.14		
909.46	94.75	9.60	96.09	6.41	0.000142		
0.08475	49003.55						
97.00	4394.31	14.91	3.02	2730.81	0.14		
903.97	94.61	9.56	95.86	6.43	0.000137		
0.08198	48886.36						
98.00	4394.22	14.82	2.92	2624.50	0.13		
897.40	94.43	9.50	95.58	6.45	0.000132		
0.07813	48743.69						
99.00	4394.14	14.74	2.80	2495.37	0.13		
891.43	94.28	9.46	95.32	6.47	0.000112		
0.06598	48615.43						
100.00	4394.06	14.66	2.63	2329.10	0.12		
885.49	94.12	9.41	95.07	6.48	0.000095		
0.05570	48487.90						
101.00	4393.93	14.53	2.25	1969.58	0.10		
875.49	93.86	9.33	94.65	6.51	0.000088		
0.05127	48272.18						
102.00	4393.76	14.36	1.85	1590.89	0.09		
861.73	93.52	9.21	94.10	6.55	0.000036		
0.02094	47989.77						
103.00	4393.54	14.14	1.56	1314.44	0.07		
843.22	93.08	9.06	93.39	6.60	0.000052		
0.02918	47626.64						
104.00	4393.38	13.98	1.44	1196.97	0.07		
829.00	92.75	8.94	92.85	6.64	0.000052		
0.02874	47350.99						
105.00	4393.27	13.87	1.63	1334.24	0.08		
820.89	92.54	8.87	92.49	6.67	0.000056		
0.03097	47171.09						
106.00	4393.13	13.73	1.90	1537.24	0.09		
810.59	92.25	8.79	92.02	6.70	0.000066		
0.03597	46928.67						
107.00	4393.03	13.63	1.98	1585.59	0.09		
802.77	92.05	8.72	91.68	6.73	0.000056		
0.03056	46754.76						
108.00	4392.89	13.49	1.93	1528.22	0.09		
791.15	91.77	8.62	91.21	6.76	0.000057		
0.03043	46514.84						
109.00	4392.71	13.31	1.96	1520.06	0.09		
777.20	91.42	8.50	90.62	6.81	0.000069		
0.03671	46214.28						
110.00	4392.55	13.15	2.01	1536.31	0.10		

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		HYCHAN.OUT					
764.29	91.09	8.39	90.05	6.85	0.000074		
0.03866	45927.27						
111.00	4392.40	13.00	2.07	1561.07	0.10		
752.80	90.79	8.29	89.54	6.89	0.000079		
0.04105	45666.72						
112.00	4392.25	12.85	2.14	1585.17	0.11		
741.11	90.48	8.19	89.02	6.93	0.000085		
0.04363	45400.95						
113.00	4392.10	12.70	2.16	1572.85	0.11		
729.54	90.19	8.09	88.51	6.97	0.000089		
0.04516	45140.15						
114.00	4391.94	12.54	2.18	1565.39	0.11		
717.37	89.88	7.98	87.97	7.01	0.000088		
0.04388	44865.89						
115.00	4391.78	12.38	2.20	1551.63	0.11		
704.44	89.55	7.87	87.40	7.06	0.000080		
0.03930	44571.74						
116.00	4391.65	12.25	2.12	1469.41	0.11		
693.98	89.28	7.77	86.93	7.10	0.000080		
0.03884	44335.20						
117.00	4391.56	12.17	2.03	1396.34	0.10		
687.52	89.12	7.71	86.65	7.12	0.000082		
0.03926	44189.16						
118.00	4391.49	12.09	2.00	1364.98	0.10		
681.48	88.97	7.66	86.38	7.15	0.000075		
0.03603	44051.33						
119.00	4391.42	12.02	1.98	1339.53	0.10		
676.37	88.84	7.61	86.14	7.16	0.000078		
0.03708	43932.73						
120.00	4391.38	11.98	1.93	1299.78	0.10		
672.75	88.75	7.58	85.97	7.18	0.000068		
0.03238	43846.82						
121.00	4391.35	11.95	1.87	1255.69	0.10		
670.48	88.68	7.56	85.87	7.19	0.000059		
0.02772	43791.87						
122.00	4391.31	11.91	1.81	1211.18	0.09		
667.92	88.62	7.54	85.75	7.20	0.000057		
0.02659	43731.34						
123.00	4391.27	11.87	1.77	1175.32	0.09		
664.49	88.53	7.51	85.59	7.21	0.000060		
0.02812	43653.14						
124.00	4391.20	11.80	1.78	1170.45	0.09		
658.82	88.39	7.45	85.33	7.23	0.000062		
0.02887	43520.15						
125.00	4391.13	11.73	1.78	1159.59	0.09		
653.20	88.25	7.40	85.08	7.26	0.000060		
0.02782	43389.44						
126.00	4391.05	11.65	1.78	1153.94	0.09		
646.97	88.09	7.34	84.79	7.28	0.000058		
0.02668	43243.86						
127.00	4390.97	11.57	1.77	1135.90	0.09		
640.88	87.93	7.29	84.51	7.30	0.000053		
0.02406	43102.09						
128.00	4390.90	11.49	1.76	1117.75	0.09		
634.87	87.78	7.23	84.24	7.33	0.000058		
0.02610	42962.11						
129.00	4390.81	11.41	1.76	1108.14	0.09		
628.37	87.62	7.17	83.94	7.35	0.000056		
0.02511	42809.12						
130.00	4390.73	11.33	1.75	1091.48	0.09		
622.07	87.46	7.11	83.65	7.38	0.000058		
0.02577	42661.11						
131.00	4390.66	11.26	1.75	1075.04	0.09		

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		HYCHAN.OUT					
616.03	87.31	7.06	83.37	7.41	0.000062		
0.02734	42518.90						
132.00	4390.57	11.17	1.75	1067.65	0.09		
609.36	87.14	6.99	83.06	7.43	0.000061		
0.02682	42360.80						
133.00	4390.50	11.10	1.73	1045.37	0.09		
603.74	87.00	6.94	82.80	7.46	0.000059		
0.02565	42228.46						
134.00	4390.47	11.07	1.66	996.58	0.09		
600.99	86.93	6.91	82.68	7.47	0.000061		
0.02614	42167.00						
135.00	4390.44	11.04	1.62	967.54	0.09		
598.15	86.86	6.89	82.55	7.48	0.000057		
0.02446	42100.62						
136.00	4390.39	10.99	1.60	949.87	0.08		
594.84	86.78	6.85	82.40	7.49	0.000061		
0.02595	42022.18						
137.00	4390.35	10.95	1.58	937.52	0.08		
591.52	86.70	6.82	82.24	7.51	0.000059		
0.02498	41942.90						
138.00	4390.31	10.91	1.56	918.41	0.08		
588.39	86.62	6.79	82.09	7.52	0.000049		
0.02083	41868.28						
139.00	4390.28	10.88	1.54	904.08	0.08		
585.60	86.55	6.77	81.96	7.53	0.000056		
0.02360	41801.88						
140.00	4390.24	10.84	1.52	887.29	0.08		
582.70	86.48	6.74	81.83	7.55	0.000051		
0.02153	41732.29						
141.00	4390.20	10.80	1.51	877.08	0.08		
579.47	86.40	6.71	81.68	7.56	0.000052		
0.02185	41654.55						
142.00	4390.15	10.75	1.53	879.13	0.08		
575.21	86.29	6.67	81.47	7.58	0.000055		
0.02273	41550.74						
143.00	4390.10	10.70	1.52	870.78	0.08		
571.60	86.20	6.63	81.30	7.60	0.000050		
0.02058	41463.38						
144.00	4390.06	10.66	1.51	857.83	0.08		
568.58	86.12	6.60	81.16	7.61	0.000054		
0.02204	41390.73						
145.00	4390.03	10.63	1.49	843.69	0.08		
565.89	86.06	6.58	81.03	7.62	0.000054		
0.02232	41326.08						
146.00	4389.99	10.59	1.48	835.00	0.08		
562.79	85.98	6.55	80.88	7.64	0.000049		
0.02014	41250.76						
147.00	4389.94	10.54	1.50	837.15	0.08		
558.36	85.86	6.50	80.67	7.66	0.000054		
0.02178	41141.94						
148.00	4389.89	10.49	1.49	828.58	0.08		
554.55	85.77	6.47	80.49	7.67	0.000055		
0.02217	41049.41						
149.00	4389.85	10.45	1.48	818.79	0.08		
551.62	85.70	6.44	80.35	7.69	0.000052		
0.02095	40978.26						
150.00	4389.82	10.42	1.47	807.27	0.08		
549.02	85.63	6.41	80.23	7.70	0.000055		
0.02189	40914.96						
151.00	4389.79	10.39	1.45	792.38	0.08		
546.36	85.57	6.39	80.10	7.71	0.000053		
0.02111	40850.05						
152.00	4389.75	10.35	1.44	783.12	0.08		

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		HYCHAN.OUT							
543.59	85.50	6.36	79.96	7.73	0.000052				
0.02052	40781.93								
153.00	4389.70	10.30	1.45	784.35	0.08				
539.65	85.40	6.32	79.77	7.74	0.000052				
0.02037	40683.90								
154.00	4389.65	10.25	1.46	783.18	0.08				
535.77	85.30	6.28	79.58	7.76	0.000054				
0.02133	40587.04								
155.00	4389.61	10.21	1.45	773.02	0.08				
532.69	85.13	6.26	79.43	7.78	0.000051				
0.02005	40508.45								
156.00	4389.57	10.17	1.45	767.10	0.08				
529.70	84.96	6.23	79.27	7.79	0.000051				
0.01988	40430.11								
157.00	4389.52	10.13	1.45	764.58	0.08				
526.15	84.75	6.21	79.09	7.81	0.000055				
0.02140	40336.43								
158.00	4389.55	10.15	1.38	730.57	0.08				
528.04	84.87	6.22	79.19	7.80	0.000049				
0.01907	40388.02								
159.00	4389.57	10.17	1.35	713.30	0.07				
529.51	84.95	6.23	79.27	7.79	0.000047				
0.01818	40427.11								
160.00	4389.57	10.17	1.34	707.59	0.07				
529.48	84.95	6.23	79.27	7.79	0.000046				
0.01801	40426.65								
161.00	4389.56	10.16	1.33	702.82	0.07				
529.03	84.93	6.23	79.25	7.80	0.000046				
0.01804	40415.07								
162.00	4389.56	10.16	1.32	699.59	0.07				
528.37	84.89	6.22	79.21	7.80	0.000050				
0.01938	40397.99								
163.00	4389.55	10.15	1.32	699.07	0.07				
527.70	84.85	6.22	79.18	7.80	0.000046				
0.01772	40380.27								
164.00	4389.54	10.14	1.32	695.67	0.07				
527.19	84.82	6.22	79.15	7.81	0.000045				
0.01741	40366.97								
165.00	4389.53	10.13	1.32	692.99	0.07				
526.58	84.79	6.21	79.12	7.81	0.000045				
0.01733	40351.23								
166.00	4389.52	10.12	1.32	695.95	0.07				
525.56	84.73	6.20	79.07	7.81	0.000050				
0.01926	40324.20								
167.00	4389.47	10.07	1.36	710.94	0.08				
522.09	84.52	6.18	78.89	7.83	0.000054				
0.02083	40231.73								
168.00	4389.44	10.04	1.37	711.90	0.08				
519.75	84.39	6.16	78.76	7.84	0.000048				
0.01829	40169.19								
169.00	4389.42	10.02	1.36	707.30	0.08				
518.56	84.32	6.15	78.70	7.85	0.000049				
0.01882	40137.54								
170.00	4389.41	10.01	1.35	700.87	0.08				
517.80	84.27	6.14	78.66	7.85	0.000048				
0.01825	40117.27								
171.00	4389.40	10.00	1.35	696.20	0.08				
517.00	84.23	6.14	78.62	7.86	0.000043				
0.01647	40095.93								
172.00	4389.40	10.00	1.34	691.06	0.07				
516.36	84.19	6.13	78.59	7.86	0.000054				
0.02051	40078.80								
173.00	4389.39	9.99	1.33	686.99	0.07				

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		HYCHAN.OUT					
515.68	84.15	6.13	78.55	7.87	0.000047		
0.01790	40060.55						
174.00	4389.37	9.97	1.34	687.39	0.07		
514.43	84.08	6.12	78.48	7.87	0.000045		
0.01726	40026.93						
175.00	4389.32	9.92	1.37	700.81	0.08		
510.99	83.87	6.09	78.30	7.89	0.000051		
0.01930	39933.70						
176.00	4389.29	9.89	1.38	699.50	0.08		
508.60	83.73	6.07	78.17	7.90	0.000045		
0.01701	39868.89						
177.00	4389.27	9.87	1.36	691.33	0.08		
507.21	83.65	6.06	78.10	7.91	0.000049		
0.01863	39831.29						
178.00	4389.26	9.86	1.35	684.31	0.08		
506.22	83.59	6.06	78.05	7.92	0.000047		
0.01792	39804.50						
179.00	4389.25	9.85	1.34	677.55	0.08		
505.31	83.53	6.05	78.00	7.92	0.000050		
0.01886	39779.70						
180.00	4389.24	9.84	1.33	670.71	0.07		
504.62	83.49	6.04	77.96	7.93	0.000051		
0.01936	39761.55						
181.00	4389.25	9.85	1.30	655.18	0.07		
505.28	83.54	6.05	78.00	7.92	0.000049		
0.01833	39780.89						
182.00	4389.32	9.92	1.21	618.95	0.07		
510.79	83.87	6.09	78.30	7.89	0.000035		
0.01332	39931.39						
183.00	4389.38	9.98	1.17	603.24	0.07		
515.02	84.11	6.12	78.51	7.87	0.000033		
0.01260	40040.92						
184.00	4389.43	10.03	1.13	587.29	0.06		
518.99	84.35	6.15	78.73	7.85	0.000040		
0.01542	40150.75						
185.00	4389.47	10.07	1.13	590.57	0.06		
521.66	84.49	6.17	78.86	7.83	0.000026		
0.01000	40218.16						
186.00	4389.48	10.08	1.14	598.33	0.06		
523.29	84.56	6.19	78.92	7.83	0.000034		
0.01317	40246.66						
187.00	4389.49	10.09	1.15	602.85	0.06		
523.83	84.60	6.19	78.95	7.83	0.000036		
0.01398	40265.39						
188.00	4389.49	10.09	1.16	606.87	0.06		
524.70	84.62	6.20	78.97	7.82	0.000030		
0.01179	40274.77						
189.00	4389.50	10.10	1.16	606.81	0.06		
524.53	84.64	6.20	78.99	7.82	0.000042		
0.01616	40285.87						
190.00	4389.50	10.10	1.16	608.59	0.06		
524.47	84.64	6.20	78.99	7.82	0.000032		
0.01228	40286.04						
191.00	4389.50	10.10	1.16	609.03	0.06		
524.51	84.64	6.20	78.99	7.82	0.000029		
0.01126	40283.66						
192.00	4389.49	10.09	1.17	613.81	0.07		
523.70	84.60	6.19	78.95	7.83	0.000037		
0.01429	40265.21						
193.00	4389.45	10.05	1.21	629.69	0.07		
520.02	84.41	6.16	78.78	7.84	0.000034		
0.01298	40179.54						
194.00	4389.42	10.02	1.21	628.38	0.07		

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		HYCHAN.OUT							
517.83	84.28	6.14	78.67	7.85	0.000042				
0.01617	40121.06								
195.00	4389.40	10.00	1.21	624.68	0.07				
516.94	84.23	6.14	78.62	7.86	0.000042				
0.01624	40096.86								
196.00	4389.40	9.99	1.20	619.71	0.07				
516.23	84.19	6.13	78.58	7.86	0.000038				
0.01467	40077.89								
197.00	4389.39	9.99	1.20	617.50	0.07				
515.69	84.16	6.13	78.56	7.87	0.000036				
0.01371	40063.46								
198.00	4389.38	9.98	1.19	612.49	0.07				
515.31	84.13	6.13	78.53	7.87	0.000034				
0.01290	40051.70								
199.00	4389.38	9.98	1.19	610.55	0.07				
515.04	84.12	6.12	78.52	7.87	0.000042				
0.01596	40045.88								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4460

MAXIMUM DISCHARGE (CFS) = 2463.97 AT TIME = 91.44  
 MAXIMUM STAGE = 4394.44 AT TIME = 91.84

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4379.23	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4379.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4379.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4379.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4379.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4379.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4382.37	3.14	-1.28	-169.47	0.13			
131.99	46.18	2.86	44.17	14.09	0.000000			
0.00000	26499.26							
7.00	4385.32	6.09	-0.44	-115.84	0.03			
265.23	65.12	4.07	61.43	10.09	0.000000			
0.00000	36856.05							
8.00	4385.66	6.43	-0.26	-73.88	0.02			
289.13	67.01	4.31	63.14	9.81	0.000000			
0.00000	37881.71							
9.00	4385.68	6.45	-0.15	-44.32	0.01			
289.66	67.11	4.32	63.22	9.80	0.000000			
0.00000	37931.05							
10.00	4385.64	6.41	-0.08	-24.12	0.01			
286.12	66.90	4.28	63.04	9.83	0.000000			

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		HYCHAN.OUT						
	0.00000	37821.06						
281.74	11.00	4385.59	6.36	0.03	9.59	0.00		
		66.63	4.23		62.79	9.87	0.000023	
	0.00595	37672.01						
279.78	12.00	4385.54	6.31	0.05	12.97	0.00		
		66.35	4.22		62.53	9.91	0.000025	
	0.00650	37519.35						
274.05	13.00	4385.45	6.22	0.08	22.26	0.01		
		65.86	4.16		62.09	9.98	0.000019	
	0.00490	37256.79						
266.04	14.00	4385.32	6.09	0.10	27.05	0.01		
		65.14	4.08		61.44	10.09	0.000017	
	0.00429	36865.50						
260.49	15.00	4385.23	6.00	0.07	18.49	0.01		
		64.63	4.03		60.98	10.16	0.000017	
	0.00432	36587.20						
257.74	16.00	4385.19	5.96	0.04	10.72	0.00		
		64.42	4.00		60.79	10.20	0.000000	
	0.00000	36472.59						
256.43	17.00	4385.17	5.94	0.02	5.42	0.00		
		64.32	3.99		60.69	10.21	0.000000	
	0.00000	36416.25						
255.10	18.00	4385.16	5.93	0.01	2.90	0.00		
		64.26	3.97		60.65	10.22	0.000000	
	0.00000	36387.46						
0.00	19.00	4385.16	5.93	0.00	0.00	0.00		
		64.25	0.00		60.64	10.22	0.000020	
	0.00000	36383.47						
260.77	20.00	4385.22	5.99	-0.07	-18.57	0.01		
		64.60	4.04		60.95	10.17	0.000000	
	0.00000	36571.36						
268.32	21.00	4385.35	6.12	-0.11	-29.16	0.01		
		65.30	4.11		61.59	10.06	0.000000	
	0.00000	36952.32						
276.93	22.00	4385.49	6.26	-0.12	-34.13	0.01		
		66.05	4.19		62.27	9.95	0.000000	
	0.00000	37360.26						
282.41	23.00	4385.59	6.36	-0.10	-28.13	0.01		
		66.60	4.24		62.76	9.87	0.000000	
	0.00000	37655.32						
285.20	24.00	4385.63	6.40	-0.06	-17.68	0.00		
		66.83	4.27		62.97	9.84	0.000009	
	0.00238	37784.08						
291.85	25.00	4385.72	6.49	-0.11	-33.15	0.01		
		67.31	4.34		63.41	9.77	0.000000	
	0.00000	38043.14						
304.50	26.00	4385.90	6.67	-0.19	-56.95	0.01		
		68.27	4.46		64.27	9.64	0.000000	
	0.00000	38561.93						
317.62	27.00	4386.10	6.87	-0.23	-73.01	0.02		
		69.31	4.58		65.21	9.50	0.000000	
	0.00000	39124.26						
332.32	28.00	4386.33	7.10	-0.26	-87.21	0.02		
		70.50	4.71		66.28	9.34	0.000000	
	0.00000	39769.04						
340.10	29.00	4386.46	7.23	-0.20	-66.53	0.01		
		71.16	4.78		66.88	9.26	0.000000	
	0.00000	40129.14						
344.81	30.00	4386.53	7.30	-0.14	-48.86	0.01		
		71.55	4.82		67.23	9.21	0.000000	
	0.00000	40336.15						
350.78	31.00	4386.62	7.39	-0.15	-54.10	0.01		
		72.00	4.87		67.63	9.15	0.000000	

		HYCHAN.OUT						
	0.00000	40580.22						
354.11	32.00	4386.69	7.46	-0.10	-36.38	0.01		
	0.00000	40758.67	4.90		67.93	9.11	0.000000	
357.48	33.00	4386.73	7.50	-0.07	-26.58	0.00		
	0.00000	40874.36	4.93		68.12	9.09	0.000000	
363.08	34.00	4386.80	7.57	-0.11	-40.39	0.01		
	0.00000	41077.39	4.98		68.46	9.04	0.000000	
365.33	35.00	4386.86	7.63	-0.07	-26.71	0.00		
	0.00000	41231.59	4.99		68.72	9.01	0.000000	
370.99	36.00	4386.90	7.67	-0.05	-18.14	0.00		
	0.00000	41331.44	5.06		68.89	8.98	0.000000	
371.11	37.00	4386.92	7.69	-0.01	-4.85	0.00		
	0.00000	41391.25	5.05		68.99	8.97	0.000000	
368.85	38.00	4386.90	7.67	0.04	15.31	0.00		
	0.00000	41345.61	5.02		68.91	8.98	0.000000	
365.57	39.00	4386.84	7.61	0.09	33.90	0.01		
	0.00000	41178.40	5.00		68.63	9.02	0.000000	
362.25	40.00	4386.79	7.56	0.06	22.25	0.00		
	0.00000	41052.95	4.97		68.42	9.05	0.000000	
360.11	41.00	4386.77	7.54	0.03	10.90	0.00		
	0.00459	40986.50	4.95		68.31	9.06	0.000015	
358.89	42.00	4386.76	7.53	0.02	5.40	0.00		
	0.00251	40950.37	4.94		68.25	9.07	0.000008	
0.00	43.00	4386.75	7.52	0.00	0.00	0.00		
	0.00000	40930.84	0.00		68.22	9.07	0.000000	
360.10	44.00	4386.75	7.52	-0.02	-6.62	0.00		
	0.00441	40944.54	4.96		68.24	9.07	0.000014	
362.84	45.00	4386.80	7.57	-0.10	-34.85	0.01		
	0.00238	41078.95	4.98		68.46	9.04	0.000008	
366.60	46.00	4386.86	7.63	-0.08	-29.85	0.01		
	0.00000	41227.05	5.01		68.71	9.01	0.000000	
373.07	47.00	4386.95	7.72	-0.13	-49.60	0.01		
	0.00000	41460.36	5.07		69.10	8.96	0.000000	
381.54	48.00	4387.06	7.83	-0.17	-66.09	0.01		
	0.00000	41774.50	5.14		69.62	8.89	0.000000	
390.82	49.00	4387.20	7.97	-0.20	-76.26	0.01		
	0.00000	42120.27	5.22		70.20	8.81	0.000000	
400.72	50.00	4387.33	8.10	-0.21	-82.36	0.01		
	0.00000	42480.52	5.31		70.80	8.74	0.000000	
410.55	51.00	4387.47	8.24	-0.22	-89.50	0.01		
	0.00000	42848.58	5.39		71.41	8.66	0.000000	
422.06	52.00	4387.63	8.40	-0.24	-101.04	0.01		
		76.92	5.49		72.07	8.58	0.000000	

		HYCHAN.OUT						
	0.00000	43240.89						
434.51	53.00	4387.80	8.57	-0.27	-117.88	0.02		
	0.00000	77.76	5.59		72.82	8.49	0.000000	
	54.00	43692.77						
444.40	4387.95	78.43	8.72	-0.21	-95.21	0.01		
	0.00000	44054.83	5.67		73.42	8.42	0.000000	
	55.00	4388.11	8.88	-0.28	-126.16	0.02		
457.25	79.16	44447.96	5.78		74.08	8.35	0.000000	
	0.00000	4388.33	9.10	-0.39	-187.09	0.02		
474.63	80.18	44993.10	5.92		74.99	8.24	0.000000	
	0.00000	4388.71	9.48	-0.71	-356.07	0.04		
503.95	81.91	45927.70	6.15		76.55	8.07	0.000000	
	0.00000	4389.18	9.95	-1.04	-563.40	0.06		
539.74	83.99	47046.45	6.43		78.41	7.88	0.000000	
	0.00000	4389.64	10.41	-1.32	-756.36	0.07		
574.07	85.61	48108.51	6.71		80.18	7.70	0.000000	
	0.00000	4389.98	10.75	-1.44	-861.48	0.08		
597.73	86.29	48882.25	6.93		81.47	7.58	0.000000	
	0.00000	4390.30	11.07	-1.33	-826.77	0.07		
620.36	86.94	49614.93	7.14		82.69	7.47	0.000000	
	0.00000	4390.51	11.28	-1.27	-808.55	0.07		
635.64	87.36	50082.04	7.28		83.47	7.40	0.000000	
	0.00000	4390.61	11.38	-1.26	-806.92	0.07		
642.54	87.56	50296.84	7.34		83.83	7.36	0.000000	
	0.00000	4390.75	11.52	-1.19	-777.56	0.06		
652.50	87.82	50587.90	7.43		84.31	7.32	0.000000	
	0.00000	4390.94	11.71	-1.01	-670.46	0.05		
667.00	88.22	51020.99	7.56		85.03	7.26	0.000000	
	0.00000	4391.12	11.89	-0.80	-546.15	0.04		
679.57	88.57	51395.54	7.67		85.66	7.21	0.000000	
	0.00000	4391.24	12.01	-0.60	-412.78	0.03		
687.72	88.82	51659.31	7.74		86.10	7.17	0.000000	
	0.00000	4391.37	12.14	-0.28	-194.96	0.01		
694.96	89.08	51938.98	7.80		86.56	7.13	0.000000	
	0.00000	4391.55	12.32	-0.14	-98.56	0.01		
705.94	89.44	52319.86	7.89		87.20	7.08	0.000015	
	0.00761	4391.74	12.51	0.06	45.11	0.00		
720.09	89.81	52711.54	8.02		87.85	7.02	0.000011	
	0.00547	4391.95	12.72	-0.01	-9.56	0.00		
737.20	90.23	53154.48	8.17		88.59	6.96	0.000000	
	0.00000	4392.18	12.95	0.05	35.53	0.00		
753.39	90.69	53628.82	8.31		89.38	6.90	0.000000	
	0.00000	4392.37	13.14	0.07	52.50	0.00		
766.28	91.07		8.41		90.03	6.85	0.000000	

HYCHAN.OUT									
	0.00000	54016.89							
776.35	74.00	4392.53	13.30	0.13	98.21	0.01			
	0.00380	54335.00	8.50		90.56	6.81		0.000007	
785.03	75.00	4392.66	13.43	0.15	114.09	0.01			
	0.00575	54601.55	8.57		91.00	6.78		0.000011	
794.01	76.00	4392.79	13.56	0.18	145.01	0.01			
	0.00369	54876.01	8.64		91.46	6.74		0.000007	
803.72	77.00	4392.94	13.71	0.25	200.09	0.01			
	0.01053	55173.77	8.72		91.96	6.71		0.000019	
810.40	78.00	4393.05	13.82	0.40	327.19	0.02			
	0.00351	55389.93	8.77		92.32	6.68		0.000006	
818.32	79.00	4393.18	13.95	0.37	300.92	0.02			
	0.00476	55641.71	8.83		92.74	6.65		0.000009	
828.09	80.00	4393.30	14.07	0.41	340.66	0.02			
	0.01164	55885.52	8.91		93.14	6.62		0.000021	
839.66	81.00	4393.45	14.22	0.55	459.40	0.03			
	0.01681	56180.95	9.01		93.63	6.58		0.000030	
849.62	82.00	4393.60	14.37	0.74	625.72	0.03			
	0.01378	56474.41	9.08		94.12	6.55		0.000024	
862.75	83.00	4393.78	14.55	1.02	879.19	0.05			
	0.01179	56826.87	9.19		94.71	6.51		0.000021	
873.98	84.00	4393.94	14.71	1.25	1089.99	0.06			
	0.02336	57139.93	9.28		95.23	6.47		0.000040	
881.75	85.00	4394.06	14.83	1.53	1352.32	0.07			
	0.04580	57357.50	9.34		95.60	6.45		0.000079	
887.08	86.00	4394.15	14.92	1.80	1594.95	0.08			
	0.05398	57534.64	9.37		95.89	6.43		0.000092	
891.34	87.00	4394.24	15.01	2.04	1822.37	0.09			
	0.05948	57715.75	9.40		96.19	6.41		0.000101	
896.84	88.00	4394.34	15.11	2.24	2010.18	0.10			
	0.06817	57893.27	9.44		96.49	6.39		0.000116	
901.16	89.00	4394.40	15.17	2.44	2201.26	0.11			
	0.07398	58023.73	9.47		96.71	6.37		0.000125	
905.83	90.00	4394.48	15.25	2.56	2318.04	0.12			
	0.07587	58158.57	9.51		96.93	6.36		0.000128	
908.67	91.00	4394.52	15.29	2.63	2390.70	0.12			
	0.08416	58239.82	9.53		97.07	6.35		0.000142	
910.06	92.00	4394.54	15.31	2.66	2420.39	0.12			
	0.07530	58272.62	9.54		97.12	6.35		0.000127	
910.14	93.00	4394.53	15.30	2.63	2395.36	0.12			
	0.07811	58269.67	9.54		97.12	6.35		0.000131	
907.59	94.00	4394.50	15.27	2.65	2404.86	0.12			
		95.33	9.52		97.00	6.35		0.000137	

HYCHAN.OUT									
0.08127	58201.65								
95.00	4394.44	15.21	2.62	2363.34	0.12				
903.47	95.21	9.49		96.82	6.37	0.000134			
0.07923	58089.99								
96.00	4394.38	15.15	2.53	2274.84	0.11				
899.22	95.09	9.46		96.62	6.38	0.000118			
0.06946	57972.35								
97.00	4394.31	15.08	2.41	2155.71	0.11				
894.70	94.96	9.42		96.41	6.39	0.000113			
0.06641	57847.09								
98.00	4394.23	15.00	2.32	2059.90	0.11				
888.93	94.79	9.38		96.15	6.41	0.000107			
0.06241	57692.29								
99.00	4394.15	14.92	2.21	1948.75	0.10				
883.63	94.64	9.34		95.91	6.43	0.000098			
0.05724	57545.75								
100.00	4394.08	14.85	2.06	1811.68	0.09				
879.20	94.50	9.30		95.68	6.44	0.000072			
0.04182	57408.86								
101.00	4393.97	14.74	1.72	1502.54	0.08				
874.38	94.27	9.28		95.31	6.47	0.000065			
0.03775	57185.05								
102.00	4393.81	14.58	1.31	1129.39	0.06				
864.83	93.96	9.20		94.81	6.50	0.000022			
0.01246	56885.22								
103.00	4393.59	14.36	0.98	832.55	0.05				
850.27	93.52	9.09		94.10	6.55	0.000025			
0.01412	56459.32								
104.00	4393.42	14.19	0.85	715.12	0.04				
837.42	93.17	8.99		93.54	6.59	0.000025			
0.01417	56123.11								
105.00	4393.30	14.07	1.10	914.14	0.05				
827.83	92.94	8.91		93.16	6.62	0.000036			
0.02003	55893.12								
106.00	4393.14	13.91	1.52	1233.66	0.07				
813.67	92.60	8.79		92.60	6.66	0.000060			
0.03271	55559.03								
107.00	4393.02	13.79	1.64	1323.08	0.08				
806.16	92.38	8.73		92.23	6.69	0.000046			
0.02518	55336.01								
108.00	4392.88	13.65	1.61	1283.43	0.08				
795.92	92.09	8.64		91.74	6.72	0.000051			
0.02750	55044.21								
109.00	4392.70	13.47	1.68	1315.63	0.08				
783.42	91.72	8.54		91.13	6.77	0.000059			
0.03135	54678.53								
110.00	4392.50	13.28	1.82	1405.66	0.09				
770.88	91.34	8.44		90.49	6.82	0.000072			
0.03781	54293.16								
111.00	4392.34	13.11	1.96	1489.38	0.10				
760.22	91.02	8.35		89.94	6.86	0.000072			
0.03747	53964.46								
112.00	4392.19	12.96	2.06	1546.55	0.10				
749.54	90.71	8.26		89.41	6.90	0.000061			
0.03150	53644.52								
113.00	4392.04	12.81	2.09	1547.81	0.10				
739.05	90.41	8.17		88.89	6.94	0.000074			
0.03788	53336.59								
114.00	4391.88	12.65	2.13	1551.27	0.11				
727.82	90.09	8.08		88.35	6.98	0.000086			
0.04342	53007.38								
115.00	4391.71	12.48	2.17	1552.26	0.11				
715.71	89.75	7.97		87.75	7.03	0.000074			

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HYCHAN.OUT									
0.03687	52647.13								
116.00	4391.58	12.35	2.08	1471.61	0.10				
706.59	89.49	7.90		87.30	7.07	0.000072			
0.03564	52379.19								
117.00	4391.50	12.27	2.00	1400.48	0.10				
701.08	89.34	7.85		87.03	7.09	0.000069			
0.03395	52216.57								
118.00	4391.43	12.20	1.98	1378.16	0.10				
695.73	89.19	7.80		86.76	7.11	0.000073			
0.03556	52055.27								
119.00	4391.36	12.13	1.98	1365.70	0.10				
691.16	89.05	7.76		86.52	7.13	0.000074			
0.03603	51914.09								
120.00	4391.31	12.08	1.95	1341.68	0.10				
688.10	88.96	7.73		86.36	7.15	0.000064			
0.03090	51816.46								
121.00	4391.29	12.06	1.91	1308.85	0.10				
686.28	88.91	7.72		86.26	7.15	0.000051			
0.02462	51757.55								
122.00	4391.26	12.03	1.85	1269.14	0.09				
684.19	88.85	7.70		86.16	7.16	0.000049			
0.02364	51693.02								
123.00	4391.22	11.99	1.81	1230.83	0.09				
681.24	88.77	7.67		86.01	7.18	0.000055			
0.02658	51606.49								
124.00	4391.14	11.91	1.82	1233.53	0.09				
676.07	88.62	7.63		85.75	7.20	0.000051			
0.02435	51448.52								
125.00	4391.07	11.84	1.83	1225.94	0.09				
670.97	88.47	7.58		85.49	7.22	0.000054			
0.02550	51294.53								
126.00	4390.99	11.76	1.84	1224.11	0.09				
665.27	88.31	7.53		85.20	7.24	0.000059			
0.02772	51121.44								
127.00	4390.91	11.68	1.83	1205.88	0.09				
659.80	88.16	7.48		84.93	7.27	0.000051			
0.02382	50956.16								
128.00	4390.84	11.61	1.81	1186.90	0.09				
654.39	88.01	7.44		84.66	7.29	0.000049			
0.02285	50793.05								
129.00	4390.76	11.53	1.82	1178.36	0.09				
648.46	87.85	7.38		84.35	7.32	0.000052			
0.02375	50612.39								
130.00	4390.68	11.45	1.80	1159.62	0.09				
642.79	87.69	7.33		84.07	7.34	0.000058			
0.02634	50440.36								
131.00	4390.60	11.37	1.79	1141.99	0.09				
637.33	87.54	7.28		83.79	7.37	0.000059			
0.02693	50274.27								
132.00	4390.52	11.29	1.80	1135.23	0.09				
631.24	87.37	7.23		83.48	7.40	0.000052			
0.02323	50087.41								
133.00	4390.45	11.22	1.77	1107.21	0.09				
626.26	87.23	7.18		83.23	7.42	0.000056			
0.02518	49936.40								
134.00	4390.42	11.19	1.67	1044.92	0.09				
624.05	87.17	7.16		83.12	7.43	0.000053			
0.02390	49874.59								
135.00	4390.39	11.16	1.63	1011.73	0.09				
621.62	87.11	7.14		83.00	7.44	0.000049			
0.02169	49801.51								
136.00	4390.35	11.12	1.60	992.59	0.08				
618.71	87.03	7.11		82.85	7.45	0.000054			

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HYCHAN.OUT									
0.02380	49712.18								
137.00	4390.31	11.08	1.59	979.64	0.08				
615.77	86.95	7.08		82.70	7.47	0.000046			
0.02045	49621.43								
138.00	4390.27	11.04	1.56	959.19	0.08				
612.98	86.87	7.06		82.56	7.48	0.000041			
0.01805	49535.36								
139.00	4390.23	11.00	1.54	942.79	0.08				
610.55	86.80	7.03		82.43	7.49	0.000045			
0.01955	49460.66								
140.00	4390.20	10.97	1.52	924.65	0.08				
607.99	86.73	7.01		82.30	7.50	0.000043			
0.01891	49381.50								
141.00	4390.16	10.93	1.51	915.08	0.08				
605.07	86.65	6.98		82.15	7.52	0.000045			
0.01982	49290.43								
142.00	4390.10	10.87	1.53	919.29	0.08				
601.15	86.54	6.95		81.94	7.54	0.000045			
0.01963	49166.59								
143.00	4390.06	10.83	1.52	908.75	0.08				
597.89	86.45	6.92		81.78	7.55	0.000046			
0.01974	49065.42								
144.00	4390.02	10.79	1.50	892.81	0.08				
595.22	86.38	6.89		81.64	7.56	0.000047			
0.02014	48982.82								
145.00	4389.99	10.76	1.48	875.90	0.08				
592.84	86.31	6.87		81.52	7.58	0.000046			
0.01985	48909.27								
146.00	4389.95	10.72	1.47	866.64	0.08				
590.06	86.23	6.84		81.37	7.59	0.000046			
0.01977	48821.98								
147.00	4389.89	10.66	1.49	870.28	0.08				
585.96	86.12	6.80		81.15	7.61	0.000044			
0.01865	48691.89								
148.00	4389.85	10.62	1.47	858.85	0.08				
582.53	86.02	6.77		80.97	7.63	0.000048			
0.02035	48584.40								
149.00	4389.81	10.58	1.46	846.02	0.08				
579.91	85.95	6.75		80.84	7.64	0.000040			
0.01697	48502.69								
150.00	4389.78	10.55	1.44	831.48	0.08				
577.61	85.89	6.72		80.72	7.65	0.000044			
0.01860	48431.11								
151.00	4389.75	10.52	1.42	814.66	0.08				
575.28	85.83	6.70		80.60	7.66	0.000044			
0.01834	48357.91								
152.00	4389.71	10.48	1.40	803.95	0.08				
572.80	85.76	6.68		80.47	7.68	0.000044			
0.01842	48279.61								
153.00	4389.66	10.43	1.41	804.84	0.08				
569.17	85.66	6.64		80.27	7.69	0.000048			
0.01982	48164.03								
154.00	4389.61	10.38	1.42	801.28	0.08				
565.60	85.56	6.61		80.08	7.71	0.000046			
0.01889	48050.78								
155.00	4389.57	10.34	1.40	788.48	0.08				
562.68	85.48	6.58		79.93	7.73	0.000045			
0.01840	47959.71								
156.00	4389.53	10.30	1.40	781.47	0.08				
559.46	85.40	6.55		79.78	7.74	0.000047			
0.01908	47867.30								
157.00	4389.49	10.26	1.40	775.24	0.08				
555.59	85.30	6.51		79.60	7.76	0.000045			

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		HYCHAN.OUT						
	0.01835	47757.38						
158.00	4389.52	10.29	1.32	736.18	0.07			
557.96	85.37	6.54		79.71	7.75	0.000041		
	0.01654	47828.58						
159.00	4389.54	10.31	1.29	719.93	0.07			
559.80	85.41	6.55		79.80	7.74	0.000038		
	0.01561	47879.39						
160.00	4389.54	10.31	1.28	714.83	0.07			
559.87	85.41	6.56		79.80	7.74	0.000039		
	0.01605	47880.20						
161.00	4389.53	10.30	1.27	709.78	0.07			
559.40	85.40	6.55		79.78	7.74	0.000040		
	0.01624	47866.57						
162.00	4389.52	10.29	1.26	705.64	0.07			
558.74	85.38	6.54		79.75	7.75	0.000039		
	0.01610	47847.03						
163.00	4389.52	10.29	1.26	703.24	0.07			
558.14	85.37	6.54		79.71	7.75	0.000036		
	0.01485	47828.52						
164.00	4389.51	10.28	1.25	699.18	0.07			
557.39	85.35	6.53		79.69	7.75	0.000040		
	0.01621	47812.23						
165.00	4389.50	10.27	1.25	696.15	0.07			
556.86	85.34	6.53		79.66	7.76	0.000042		
	0.01698	47794.52						
166.00	4389.49	10.26	1.26	699.40	0.07			
555.75	85.31	6.51		79.60	7.76	0.000040		
	0.01635	47760.73						
167.00	4389.44	10.21	1.29	714.28	0.07			
551.78	85.11	6.48		79.41	7.78	0.000033		
	0.01334	47647.32						
168.00	4389.41	10.18	1.30	714.55	0.07			
549.38	84.97	6.47		79.29	7.79	0.000035		
	0.01432	47573.96						
169.00	4389.39	10.16	1.29	709.61	0.07			
548.27	84.91	6.46		79.23	7.80	0.000049		
	0.01983	47537.60						
170.00	4389.38	10.15	1.28	703.03	0.07			
547.36	84.86	6.45		79.19	7.80	0.000053		
	0.02131	47514.48						
171.00	4389.37	10.14	1.28	698.24	0.07			
546.76	84.82	6.45		79.15	7.81	0.000040		
	0.01592	47489.43						
172.00	4389.36	10.13	1.27	693.18	0.07			
546.11	84.79	6.44		79.12	7.81	0.000031		
	0.01229	47472.16						
173.00	4389.35	10.12	1.26	688.93	0.07			
545.35	84.75	6.44		79.08	7.81	0.000023		
	0.00943	47450.81						
174.00	4389.34	10.11	1.27	689.52	0.07			
544.13	84.67	6.43		79.02	7.82	0.000047		
	0.01886	47410.36						
175.00	4389.29	10.06	1.30	702.94	0.07			
540.09	84.46	6.39		78.83	7.84	0.000053		
	0.02133	47295.47						
176.00	4389.25	10.02	1.30	701.02	0.07			
537.57	84.32	6.38		78.70	7.85	0.000050		
	0.01996	47219.51						
177.00	4389.24	10.01	1.29	692.70	0.07			
536.14	84.23	6.36		78.63	7.86	0.000051		
	0.02013	47176.04						
178.00	4389.22	9.99	1.28	685.57	0.07			
535.16	84.18	6.36		78.58	7.86	0.000050		

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		HYCHAN.OUT						
	0.02000	47145.47						
534.33	179.00	4389.21	9.98	1.27	678.69	0.07		
		84.13	6.35		78.53	7.87	0.000042	
	0.01666	47118.62						
533.52	180.00	4389.20	9.97	1.26	671.76	0.07		
		84.08	6.35		78.49	7.87	0.000043	
	0.01710	47095.64						
534.58	181.00	4389.21	9.98	1.23	655.54	0.07		
		84.14	6.35		78.54	7.87	0.000029	
	0.01141	47125.50						
541.28	182.00	4389.29	10.06	1.14	618.76	0.06		
		84.49	6.41		78.86	7.83	0.000017	
	0.00668	47313.70						
546.19	183.00	4389.35	10.12	1.10	603.28	0.06		
		84.74	6.45		79.08	7.81	0.000032	
	0.01305	47445.44						
550.87	184.00	4389.41	10.18	1.07	587.77	0.06		
		84.99	6.48		79.30	7.79	0.000018	
	0.00723	47579.47						
554.24	185.00	4389.44	10.21	1.07	590.84	0.06		
		85.13	6.51		79.43	7.78	0.000039	
	0.01573	47658.13						
555.65	186.00	4389.46	10.23	1.08	599.11	0.06		
		85.19	6.52		79.48	7.77	0.000016	
	0.00649	47689.48						
556.33	187.00	4389.47	10.24	1.09	603.62	0.06		
		85.23	6.53		79.52	7.77	0.000025	
	0.01014	47711.48						
556.97	188.00	4389.47	10.24	1.09	607.13	0.06		
		85.25	6.53		79.54	7.77	0.000038	
	0.01539	47721.85						
557.23	189.00	4389.48	10.25	1.09	607.79	0.06		
		85.28	6.53		79.56	7.76	0.000023	
	0.00951	47735.29						
557.18	190.00	4389.48	10.25	1.09	609.20	0.06		
		85.27	6.53		79.56	7.76	0.000041	
	0.01668	47735.07						
557.14	191.00	4389.47	10.24	1.09	609.44	0.06		
		85.27	6.53		79.55	7.77	0.000036	
	0.01463	47732.24						
556.14	192.00	4389.46	10.23	1.11	615.13	0.06		
		85.23	6.53		79.51	7.77	0.000032	
	0.01306	47708.89						
551.77	193.00	4389.42	10.19	1.14	630.66	0.06		
		85.03	6.49		79.34	7.79	0.000027	
	0.01103	47604.25						
548.95	194.00	4389.39	10.16	1.15	629.37	0.06		
		84.90	6.47		79.23	7.80	0.000029	
	0.01152	47535.83						
548.21	195.00	4389.38	10.15	1.14	625.37	0.06		
		84.85	6.46		79.18	7.80	0.000021	
	0.00849	47506.76						
547.39	196.00	4389.37	10.14	1.13	620.36	0.06		
		84.81	6.45		79.14	7.81	0.000042	
	0.01675	47485.68						
546.87	197.00	4389.36	10.13	1.13	618.11	0.06		
		84.78	6.45		79.11	7.81	0.000019	
	0.00759	47468.38						
546.56	198.00	4389.36	10.13	1.12	612.98	0.06		
		84.76	6.45		79.10	7.81	0.000044	
	0.01774	47457.57						
546.34	199.00	4389.35	10.12	1.12	611.32	0.06		
		84.75	6.45		79.09	7.81	0.000028	

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## HYCHAN.OUT

0.01121 47451.06

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4524

MAXIMUM DISCHARGE (CFS) = 1762.28 AT TIME = 91.34

MAXIMUM STAGE = 4394.43 AT TIME = 91.85

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
SHEAR	STRESS	SURFACE	AREA						
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
	(LB/FT^2)	(FT)	(FT^2)		(FT)				
0.00	0.00	4379.07	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4379.07	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4379.07	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4379.07	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4379.07	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4379.07	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
145.96	6.00	4382.67	3.60	2.93	-1.43	-208.99	0.13	0.00	0.000000
	0.00000	49.83	2.93	47.62	13.24	0.03	0.00	0.000000	0.000000
284.53	7.00	4385.33	6.26	4.83	-0.44	-124.11	0.03	0.00	0.000000
	0.00000	58.93	4.83	55.58	8.88	0.02	0.00	0.000000	0.000000
309.22	8.00	4385.67	6.60	5.16	-0.24	-74.92	0.02	0.00	0.000000
	0.00000	59.88	5.16	56.40	8.55	0.01	0.00	0.000000	0.000000
310.11	9.00	4385.68	6.61	5.17	-0.14	-43.90	0.01	0.00	0.000000
	0.00000	59.93	5.17	56.44	8.54	0.01	0.00	0.000000	0.000000
306.45	10.00	4385.64	6.57	5.12	-0.08	-23.78	0.01	0.00	0.000000
	0.00000	59.82	5.12	56.35	8.57	0.00	0.00	0.000000	0.000000
301.84	11.00	4385.59	6.52	5.06	0.03	10.37	0.00	0.00	0.000011
	0.00343	59.68	5.06	56.23	8.62	0.00	0.00	0.000000	0.000000
299.75	12.00	4385.54	6.47	5.03	0.05	13.56	0.00	0.00	0.000000
	0.00000	59.54	5.03	56.10	8.67	0.01	0.00	0.000000	0.000000
293.65	13.00	4385.45	6.38	4.95	0.08	23.46	0.01	0.00	0.000000
	0.00000	59.29	4.95	55.88	8.76	0.01	0.00	0.000000	0.000000
285.61	14.00	4385.32	6.25	4.85	0.10	28.35	0.01	0.00	0.000000
	0.00000	58.92	4.85	55.57	8.89	0.00	0.00	0.000000	0.000000
279.79	15.00	4385.23	6.16	4.77	0.07	19.17	0.00	0.00	0.000017
	0.00518	58.65	4.77	55.33	8.98	0.00	0.00	0.000000	0.000017
		31539.17							

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HYCHAN.OUT									
276.89	16.00	4385.19	6.12	0.04	55.24	10.87	9.02	0.00	0.000000
	0.00000	58.55	4.73						
	17.00	31487.28							
275.30	0.00657	4385.17	6.10	0.02	55.19	5.46	9.04	0.00	0.000022
	18.00	58.49	4.71						
	0.00000	31459.85							
273.77	18.00	4385.16	6.09	0.01	55.17	2.76	9.05	0.00	0.000000
	0.00000	58.46	4.68						
	19.00	31446.78							
0.00	0.00000	4385.16	6.09	0.00	55.17	0.00	9.05	0.00	0.000022
	20.00	58.46	0.00						
	0.00000	31444.62							
279.68	20.00	4385.23	6.16	-0.07	55.32	-19.86	8.99	0.01	0.000000
	0.00000	58.64	4.77						
	21.00	31534.38							
287.53	0.00000	4385.35	6.28	-0.11	55.64	-30.53	8.86	0.01	0.000000
	22.00	59.00	4.87						
	0.00000	31713.76							
296.52	22.00	4385.49	6.42	-0.12	55.97	-35.46	8.72	0.01	0.000000
	0.00000	59.39	4.99						
	23.00	31904.88							
302.38	0.00000	4385.59	6.52	-0.10	56.21	-28.78	8.62	0.01	0.000000
	24.00	59.67	5.07						
	0.00000	32041.72							
305.39	24.00	4385.63	6.56	-0.06	56.32	-18.12	8.58	0.00	0.000000
	0.00000	59.79	5.11						
	25.00	32101.17							
312.57	0.00000	4385.72	6.65	-0.11	56.53	-34.68	8.50	0.01	0.000000
	26.00	60.03	5.21						
	0.00000	32223.06							
324.83	26.00	4385.90	6.83	-0.18	56.95	-58.90	8.34	0.01	0.000000
	0.00000	60.52	5.37						
	27.00	32463.84							
339.38	0.00000	4386.10	7.03	-0.22	57.41	-75.63	8.17	0.01	0.000000
	28.00	61.05	5.56						
	0.00000	32723.98							
354.46	28.00	4386.33	7.26	-0.25	57.93	-89.27	7.98	0.02	0.000000
	0.00000	61.64	5.75						
	29.00	33018.27							
362.67	0.00000	4386.46	7.39	-0.19	58.21	-67.48	7.88	0.01	0.000000
	30.00	61.97	5.85						
	0.00000	33180.89							
367.52	30.00	4386.53	7.46	-0.14	58.38	-49.68	7.82	0.01	0.000000
	0.00000	62.16	5.91						
	31.00	33274.45							
374.19	0.00000	4386.62	7.55	-0.15	58.57	-55.13	7.76	0.01	0.000000
	32.00	62.39	6.00						
	0.00000	33384.75							
377.71	32.00	4386.69	7.62	-0.10	58.71	-36.88	7.71	0.01	0.000000
	0.00000	62.55	6.04						
	33.00	33463.47							
380.98	0.00000	4386.73	7.66	-0.07	58.80	-27.26	7.68	0.00	0.000000
	34.00	62.65	6.08						
	0.00000	33516.24							
386.34	34.00	4386.80	7.73	-0.11	58.96	-41.20	7.62	0.01	0.000000
	0.00000	62.84	6.15						
	35.00	33608.50							
389.55	0.00000	4386.86	7.79	-0.07	59.08	-27.18	7.58	0.00	0.000000
	36.00	62.98	6.19						
	0.00000	33675.91							
395.53	36.00	4386.90	7.83	-0.05	59.16	-18.64	7.56	0.00	0.000000
	0.00000	63.07	6.27						
		33722.12							

		HYCHAN.OUT							
395.54	37.00	4386.92	7.85	-0.01	59.21	-4.81	7.54	0.00	0.000000
	0.00000	63.12	6.27						
	38.00	33747.66	7.83	0.04	59.17	15.29	7.55	0.00	0.000000
393.13		63.08	6.23						
	0.00000	33727.44	7.77	0.09	59.04	34.98	7.60	0.01	0.000000
389.44	39.00	4386.84	6.19						
	0.00000	62.93	7.72	0.06	58.94	22.68	7.63	0.00	0.000000
	40.00	33652.20	6.14						
385.81		62.82	7.70	0.03	58.89	11.30	7.65	0.00	0.000017
	0.00000	33596.45	6.12						
383.78	41.00	4386.77	7.69	0.01	58.86	5.55	7.66	0.00	0.000021
	0.00645	62.76	6.10						
	42.00	33567.20	7.68	0.00	58.85	0.00	7.66	0.00	0.000000
382.85		62.72	6.12	-0.02	58.86	-6.68	7.66	0.00	0.000000
	0.00785	33550.21	7.73	-0.09	58.96	-35.46	7.62	0.01	0.000009
0.00	43.00	4386.75	6.15						
	0.00000	62.71	7.79	-0.08	59.08	-30.76	7.58	0.00	0.000000
	44.00	33542.10	6.20						
383.88		62.72	7.88	-0.13	59.26	-50.79	7.52	0.01	0.000000
	0.00000	33548.40	6.28						
	45.00	4386.80	8.00	-0.17	59.51	-67.58	7.44	0.01	0.000000
386.69		62.84	6.39						
	0.00340	33608.89	8.13	-0.19	59.78	-77.82	7.36	0.01	0.000000
	46.00	4386.86	6.52						
390.63		62.98	8.27	-0.20	60.07	-83.91	7.27	0.01	0.000000
	0.00000	33675.18	6.65						
	47.00	4386.95	8.41	-0.21	60.35	-91.20	7.18	0.01	0.000000
397.15		63.19	6.78						
	0.00000	33780.90	8.56	-0.23	60.66	-103.08	7.09	0.01	0.000000
	48.00	4387.07	7.08						
405.92		63.48	8.74	-0.26	61.00	-119.79	6.98	0.02	0.000000
	0.00000	33922.50	7.20						
	49.00	4387.20	8.88	-0.21	61.28	-96.87	6.90	0.01	0.000000
415.84		63.79	9.04	-0.26	61.58	-128.52	6.81	0.02	0.000000
	0.00000	34076.17	7.37						
	50.00	4387.34	9.26	-0.38	62.00	-190.59	6.69	0.02	0.000000
426.09		64.12	7.59						
	0.00000	34237.12	9.65	-0.68	62.72	-361.64	6.50	0.04	0.000000
	51.00	4387.48	7.96						
436.81		64.45							
	0.00000	34399.94							
	52.00	4387.63							
448.81		64.80							
	0.00000	34573.45							
	53.00	4387.81							
461.50		65.21							
	0.00000	34771.64							
	54.00	4387.95							
471.68		65.53							
	0.00000	34930.07							
	55.00	4388.11							
485.43		65.88							
	0.00000	35102.58							
	56.00	4388.33							
503.67		66.37							
	0.00000	35340.71							
	57.00	4388.72							
534.79		67.20							
	0.00000	35749.66							

HYCHAN.OUT							
572.73	58.00	4389.20	10.13	-0.99	-569.74	0.06	0.000000
	0.00000	68.20	8.40	63.57	6.28		
		36237.49					
607.48	59.00	4389.67	10.60	-1.29	-784.63	0.07	0.000000
	0.00000	69.14	8.79	64.38	6.07		
		36698.92					
631.90	60.00	4390.02	10.95	-1.50	-947.64	0.08	0.000000
	0.00000	69.85	9.05	64.97	5.93		
		37033.82					
654.42	61.00	4390.34	11.27	-1.42	-927.84	0.07	0.000000
	0.00000	70.48	9.28	65.49	5.81		
		37331.51					
668.50	62.00	4390.55	11.48	-1.35	-905.71	0.07	0.000000
	0.00000	70.90	9.43	65.83	5.74		
		37521.68					
674.68	63.00	4390.64	11.57	-1.34	-907.33	0.07	0.000000
	0.00000	71.09	9.49	65.98	5.70		
		37609.25					
683.28	64.00	4390.77	11.70	-1.20	-820.96	0.06	0.000000
	0.00000	71.34	9.58	66.18	5.66		
		37722.48					
696.04	65.00	4390.96	11.89	-0.95	-662.48	0.05	0.000000
	0.00000	71.72	9.71	66.48	5.59		
		37891.17					
706.83	66.00	4391.12	12.05	-0.73	-513.69	0.04	0.000000
	0.00000	72.05	9.81	66.73	5.54		
		38037.45					
714.00	67.00	4391.24	12.17	-0.54	-386.17	0.03	0.000000
	0.00000	72.29	9.88	66.92	5.50		
		38142.43					
720.42	68.00	4391.37	12.30	-0.25	-182.14	0.01	0.000000
	0.00000	72.55	9.93	67.11	5.46		
		38254.97					
730.96	69.00	4391.55	12.48	-0.14	-99.41	0.01	0.000000
	0.00000	72.90	10.03	67.39	5.40		
		38409.73					
742.18	70.00	4391.74	12.67	0.04	32.87	0.00	0.000010
	0.00602	73.28	10.13	67.67	5.34		
		38569.52					
757.11	71.00	4391.95	12.88	-0.07	-50.19	0.00	0.000014
	0.00909	73.71	10.27	67.98	5.28		
		38750.63					
0.00	72.00	4392.18	13.11	0.00	0.00	0.00	0.000000
	0.00000	74.17	0.00	68.32	5.21		
		38941.84					
783.41	73.00	4392.38	13.31	-0.06	-44.31	0.00	0.000000
	0.00000	74.55	10.51	68.60	5.16		
		39100.34					
793.48	74.00	4392.53	13.46	-0.04	-34.16	0.00	0.000007
	0.00447	74.87	10.60	68.82	5.11		
		39229.92					
801.91	75.00	4392.67	13.60	-0.07	-56.78	0.00	0.000000
	0.00000	75.14	10.67	69.02	5.08		
		39338.91					
810.89	76.00	4392.81	13.74	-0.10	-80.59	0.00	0.000000
	0.00000	75.42	10.75	69.21	5.04		
		39451.99					
818.33	77.00	4392.96	13.89	-0.09	-75.27	0.00	0.000000
	0.00000	75.72	10.81	69.42	5.00		
		39571.48					
826.48	78.00	4393.07	14.00	0.02	16.23	0.00	0.000007
	0.00453	75.94	10.88	69.58	4.97		
		39658.23					



HYCHAN.OUT							
834.68	79.00	4393.20	14.13	-0.09	69.76	-77.22	0.00
	0.00000	76.20	10.95		4.94		0.000000
		39760.77					
840.44	80.00	4393.33	14.26	-0.12	69.93	-99.21	0.01
	0.00000	76.46	10.99		4.90		0.000000
		39862.83					
847.82	81.00	4393.49	14.42	-0.04	70.15	-33.16	0.00
	0.00000	76.78	11.04		4.87		0.000000
		39987.71					
861.65	82.00	4393.64	14.57	0.10	70.36	88.70	0.00
	0.00705	77.09	11.18		4.83		0.000010
		40106.55					
873.47	83.00	4393.83	14.76	0.36	70.61	314.56	0.02
	0.00000	77.46	11.28		4.78		0.000000
		40249.16					
884.62	84.00	4393.99	14.92	0.59	70.83	524.05	0.03
	0.00822	77.78	11.37		4.75		0.000012
		40371.24					
891.41	85.00	4394.11	15.04	0.82	70.98	734.81	0.04
	0.01389	78.02	11.43		4.72		0.000019
		40458.80					
896.92	86.00	4394.20	15.13	1.06	71.10	950.38	0.05
	0.01939	78.20	11.47		4.70		0.000027
		40527.10					
902.66	87.00	4394.29	15.22	1.29	71.22	1160.85	0.06
	0.02326	78.39	11.52		4.68		0.000032
		40596.91					
908.08	88.00	4394.38	15.31	1.48	71.34	1342.55	0.07
	0.03125	78.56	11.56		4.66		0.000043
		40662.74					
911.74	89.00	4394.45	15.38	1.66	71.42	1511.21	0.07
	0.03437	78.70	11.59		4.64		0.000048
		40711.83					
915.85	90.00	4394.52	15.45	1.76	71.52	1612.06	0.08
	0.03762	78.84	11.62		4.63		0.000052
		40763.77					
918.28	91.00	4394.56	15.49	1.83	71.57	1682.04	0.08
	0.04213	78.92	11.64		4.62		0.000058
		40793.91					
919.57	92.00	4394.57	15.50	1.86	71.59	1711.97	0.08
	0.03760	78.95	11.65		4.62		0.000052
		40804.85					
919.68	93.00	4394.57	15.50	1.83	71.58	1686.07	0.08
	0.03810	78.94	11.65		4.62		0.000052
		40803.20					
917.25	94.00	4394.53	15.46	1.86	71.54	1710.37	0.08
	0.04160	78.87	11.63		4.63		0.000057
		40775.18					
913.52	95.00	4394.47	15.40	1.84	71.46	1682.49	0.08
	0.03869	78.75	11.60		4.64		0.000053
		40731.96					
909.78	96.00	4394.42	15.35	1.77	71.38	1609.41	0.08
	0.03318	78.63	11.57		4.65		0.000046
		40688.14					
905.85	97.00	4394.35	15.28	1.66	71.30	1505.85	0.07
	0.02958	78.51	11.54		4.67		0.000041
		40641.70					
900.79	98.00	4394.27	15.20	1.57	71.20	1418.55	0.07
	0.02638	78.35	11.50		4.68		0.000037
		40583.42					
896.14	99.00	4394.20	15.13	1.48	71.10	1324.55	0.07
	0.02308	78.20	11.46		4.70		0.000032
		40527.68					

HYCHAN.OUT							
100.00	4394.13	15.06	1.36	1216.87	0.06		
891.95	78.06	11.43		71.01	4.72	0.000025	
0.01754	40475.01						
101.00	4394.02	14.95	1.08	951.97	0.05		
885.44	77.83	11.38		70.86	4.74	0.000007	
0.00515	40390.52						
102.00	4393.87	14.80	0.66	575.51	0.03		
876.44	77.54	11.30		70.67	4.77	0.000000	
0.00000	40279.32						
103.00	4393.66	14.59	0.28	244.27	0.01		
862.22	77.12	11.18		70.38	4.82	0.000000	
0.00000	40118.63						
104.00	4393.49	14.42	0.16	131.57	0.01		
847.72	76.77	11.04		70.15	4.87	0.000000	
0.00000	39984.69						
105.00	4393.35	14.28	0.52	434.02	0.02		
840.97	76.50	10.99		69.96	4.90	0.000011	
0.00740	39879.03						
106.00	4393.15	14.08	1.11	918.64	0.05		
830.22	76.10	10.91		69.69	4.95	0.000031	
0.02128	39722.17						
107.00	4393.03	13.96	1.29	1059.92	0.06		
822.43	75.86	10.84		69.52	4.98	0.000026	
0.01775	39626.02						
108.00	4392.88	13.81	1.29	1045.71	0.06		
812.72	75.56	10.76		69.31	5.02	0.000027	
0.01801	39507.17						
109.00	4392.69	13.62	1.41	1126.97	0.07		
799.65	75.17	10.64		69.04	5.07	0.000034	
0.02272	39352.81						
110.00	4392.48	13.41	1.65	1300.77	0.08		
787.34	74.75	10.53		68.74	5.13	0.000045	
0.02955	39182.16						
111.00	4392.30	13.23	1.86	1443.10	0.09		
777.02	74.40	10.44		68.49	5.18	0.000045	
0.02907	39037.79						
112.00	4392.14	13.07	1.99	1527.04	0.10		
767.11	74.07	10.36		68.25	5.22	0.000068	
0.04421	38903.55						
113.00	4391.98	12.91	2.03	1538.07	0.10		
757.39	73.77	10.27		68.03	5.27	0.000055	
0.03500	38776.59						
114.00	4391.82	12.75	2.07	1548.29	0.10		
747.01	73.45	10.17		67.79	5.32	0.000067	
0.04251	38640.03						
115.00	4391.65	12.58	2.11	1555.52	0.11		
735.66	73.09	10.06		67.53	5.37	0.000070	
0.04397	38490.11						
116.00	4391.52	12.45	2.03	1480.66	0.10		
727.70	72.84	9.99		67.34	5.41	0.000062	
0.03870	38383.38						
117.00	4391.45	12.38	1.96	1414.10	0.10		
722.97	72.70	9.95		67.23	5.43	0.000058	
0.03591	38319.56						
118.00	4391.37	12.30	1.96	1409.10	0.10		
718.15	72.54	9.90		67.11	5.46	0.000063	
0.03911	38251.34						
119.00	4391.30	12.23	1.99	1417.35	0.10		
714.03	72.40	9.86		67.00	5.48	0.000057	
0.03511	38191.21						
120.00	4391.25	12.18	1.99	1416.65	0.10		
711.32	72.30	9.84		66.93	5.49	0.000056	
0.03452	38149.32						

HYCHAN.OUT							
121.00	4391.22	12.15	1.97	1398.21	0.10		
709.83	72.25	9.82		66.89	5.50	0.000048	
0.02966	38125.84						
122.00	4391.20	12.13	1.92	1363.09	0.10		
708.11	72.19	9.81		66.84	5.51	0.000046	
0.02803	38101.35						
123.00	4391.16	12.09	1.87	1319.28	0.09		
705.58	72.12	9.78		66.79	5.52	0.000054	
0.03270	38068.52						
124.00	4391.08	12.01	1.90	1333.70	0.10		
700.83	71.97	9.74		66.67	5.55	0.000046	
0.02775	38001.00						
125.00	4391.01	11.94	1.91	1331.55	0.10		
696.17	71.82	9.69		66.55	5.57	0.000051	
0.03109	37936.13						
126.00	4390.93	11.86	1.93	1336.45	0.10		
690.96	71.65	9.64		66.43	5.60	0.000054	
0.03246	37862.95						
127.00	4390.85	11.78	1.92	1317.39	0.10		
686.04	71.50	9.59		66.31	5.63	0.000050	
0.02980	37795.07						
128.00	4390.78	11.71	1.90	1296.33	0.10		
681.20	71.35	9.55		66.19	5.65	0.000044	
0.02642	37728.71						
129.00	4390.69	11.62	1.91	1290.24	0.10		
675.80	71.19	9.49		66.06	5.68	0.000050	
0.02938	37652.84						
130.00	4390.61	11.54	1.89	1268.18	0.10		
670.71	71.03	9.44		65.93	5.71	0.000053	
0.03122	37582.33						
131.00	4390.54	11.47	1.87	1247.36	0.10		
665.80	70.88	9.39		65.81	5.74	0.000053	
0.03083	37514.12						
132.00	4390.45	11.38	1.88	1242.10	0.10		
660.24	70.71	9.34		65.68	5.77	0.000047	
0.02761	37435.46						
133.00	4390.39	11.32	1.84	1205.36	0.10		
655.75	70.58	9.29		65.57	5.79	0.000047	
0.02700	37375.05						
134.00	4390.37	11.30	1.71	1121.05	0.09		
653.85	70.54	9.27		65.54	5.80	0.000048	
0.02793	37356.52						
135.00	4390.34	11.27	1.66	1080.57	0.09		
651.51	70.48	9.24		65.49	5.81	0.000042	
0.02446	37329.13						
136.00	4390.30	11.23	1.63	1059.12	0.09		
648.57	70.40	9.21		65.43	5.83	0.000040	
0.02277	37292.95						
137.00	4390.26	11.19	1.62	1044.57	0.09		
645.61	70.32	9.18		65.36	5.84	0.000037	
0.02139	37256.21						
138.00	4390.22	11.15	1.59	1021.91	0.08		
642.80	70.25	9.15		65.30	5.86	0.000038	
0.02173	37221.40						
139.00	4390.19	11.12	1.56	1002.17	0.08		
640.37	70.18	9.12		65.25	5.87	0.000032	
0.01847	37191.43						
140.00	4390.16	11.09	1.54	981.73	0.08		
637.80	70.11	9.10		65.19	5.88	0.000039	
0.02210	37159.36						
141.00	4390.12	11.05	1.53	972.76	0.08		
634.83	70.03	9.06		65.13	5.90	0.000038	
0.02156	37121.62						

HYCHAN.OUT							
142.00	4390.06	10.99	1.55	980.57	0.08		
630.72	69.92	9.02	65.03	5.92	0.000038		
0.02148	37068.09						
143.00	4390.01	10.94	1.54	967.03	0.08		
627.41	69.83	8.98	64.96	5.94	0.000041		
0.02293	37026.42						
144.00	4389.98	10.91	1.52	946.57	0.08		
624.73	69.76	8.96	64.90	5.95	0.000032		
0.01789	36993.04						
145.00	4389.95	10.88	1.49	925.55	0.08		
622.36	69.70	8.93	64.85	5.96	0.000032		
0.01761	36963.43						
146.00	4389.91	10.84	1.48	915.22	0.08		
619.55	69.62	8.90	64.78	5.98	0.000044		
0.02432	36927.36						
147.00	4389.85	10.78	1.50	921.29	0.08		
615.28	69.50	8.85	64.69	6.00	0.000037		
0.02071	36871.19						
148.00	4389.80	10.73	1.48	905.85	0.08		
611.84	69.41	8.81	64.61	6.02	0.000038		
0.02110	36827.12						
149.00	4389.77	10.70	1.46	888.46	0.08		
609.20	69.34	8.79	64.55	6.03	0.000033		
0.01784	36793.70						
150.00	4389.74	10.67	1.43	869.93	0.08		
606.91	69.28	8.76	64.50	6.05	0.000034		
0.01880	36764.66						
151.00	4389.71	10.64	1.41	850.02	0.08		
604.63	69.22	8.74	64.45	6.06	0.000036		
0.01974	36735.41						
152.00	4389.68	10.61	1.39	837.00	0.08		
602.14	69.15	8.71	64.39	6.07	0.000035		
0.01919	36703.09						
153.00	4389.62	10.55	1.40	837.91	0.08		
598.39	69.05	8.67	64.30	6.09	0.000038		
0.02075	36653.30						
154.00	4389.57	10.50	1.40	831.13	0.08		
594.76	68.95	8.63	64.22	6.11	0.000035		
0.01901	36605.65						
155.00	4389.54	10.47	1.38	814.65	0.08		
591.88	68.87	8.59	64.15	6.13	0.000034		
0.01837	36568.02						
156.00	4389.50	10.43	1.37	806.01	0.07		
588.94	68.79	8.56	64.09	6.15	0.000040		
0.02152	36529.06						
157.00	4389.45	10.38	1.36	795.48	0.07		
585.47	68.70	8.52	64.01	6.17	0.000034		
0.01814	36483.34						
158.00	4389.49	10.42	1.27	748.48	0.07		
587.96	68.77	8.55	64.07	6.15	0.000023		
0.01245	36518.82						
159.00	4389.51	10.44	1.24	732.88	0.07		
590.81	68.82	8.58	64.11	6.14	0.000035		
0.01897	36543.73						
160.00	4389.51	10.44	1.23	727.64	0.07		
591.11	68.82	8.59	64.11	6.14	0.000024		
0.01268	36544.13						
161.00	4389.51	10.44	1.22	722.36	0.07		
590.74	68.81	8.58	64.10	6.14	0.000032		
0.01724	36539.07						
162.00	4389.50	10.43	1.22	717.54	0.07		
590.18	68.80	8.58	64.09	6.15	0.000021		
0.01145	36530.44						

HYCHAN.OUT							
163.00	4389.49	10.42	1.21	713.22	0.07		
589.68	68.78	8.57	64.08	6.15	0.000036		
0.01913	36523.61						
164.00	4389.48	10.41	1.20	708.72	0.07		
589.31	68.77	8.57	64.06	6.15	0.000021		
0.01097	36516.52						
165.00	4389.48	10.41	1.20	705.45	0.07		
588.33	68.75	8.56	64.05	6.16	0.000036		
0.01929	36509.05						
166.00	4389.46	10.39	1.21	709.55	0.07		
587.17	68.72	8.54	64.02	6.16	0.000022		
0.01181	36493.79						
167.00	4389.41	10.34	1.24	721.49	0.07		
583.64	68.62	8.50	63.94	6.18	0.000038		
0.02037	36445.66						
168.00	4389.38	10.31	1.24	719.32	0.07		
581.60	68.56	8.48	63.89	6.20	0.000043		
0.02299	36415.02						
169.00	4389.36	10.30	1.23	714.01	0.07		
580.42	68.53	8.47	63.86	6.20	0.000021		
0.01090	36400.14						
170.00	4389.35	10.28	1.22	706.89	0.07		
579.81	68.51	8.46	63.84	6.21	0.000021		
0.01095	36389.95						
171.00	4389.34	10.27	1.21	701.48	0.07		
579.00	68.49	8.45	63.83	6.21	0.000030		
0.01607	36380.35						
172.00	4389.34	10.27	1.20	696.19	0.07		
578.36	68.47	8.45	63.81	6.22	0.000044		
0.02302	36372.61						
173.00	4389.33	10.26	1.20	691.81	0.07		
577.73	68.46	8.44	63.80	6.22	0.000035		
0.01823	36364.21						
174.00	4389.31	10.24	1.20	692.95	0.07		
576.22	68.42	8.42	63.77	6.23	0.000021		
0.01128	36346.30						
175.00	4389.26	10.19	1.23	705.78	0.07		
571.55	68.32	8.37	63.68	6.25	0.000021		
0.01085	36295.78						
176.00	4389.23	10.16	1.24	703.43	0.07		
569.39	68.25	8.34	63.62	6.26	0.000021		
0.01087	36263.47						
177.00	4389.21	10.14	1.22	694.94	0.07		
567.81	68.21	8.32	63.59	6.27	0.000021		
0.01116	36245.57						
178.00	4389.20	10.13	1.21	687.72	0.07		
566.83	68.19	8.31	63.57	6.28	0.000020		
0.01058	36232.96						
179.00	4389.19	10.12	1.20	680.67	0.07		
566.06	68.17	8.30	63.55	6.28	0.000022		
0.01150	36222.07						
180.00	4389.18	10.11	1.19	673.81	0.07		
565.34	68.15	8.30	63.53	6.29	0.000022		
0.01151	36212.38						
181.00	4389.19	10.12	1.16	656.49	0.06		
566.54	68.18	8.31	63.56	6.28	0.000027		
0.01385	36226.67						
182.00	4389.27	10.20	1.08	619.58	0.06		
573.43	68.35	8.39	63.70	6.24	0.000038		
0.01973	36309.74						
183.00	4389.33	10.26	1.05	604.80	0.06		
578.22	68.46	8.45	63.80	6.22	0.000013		
0.00681	36366.50						

HYCHAN.OUT									
184.00	4389.39	10.32	1.01	588.46	0.06				
582.91	68.58	8.50	63.90	6.19	0.000033				
0.01726	36424.20								
185.00	4389.42	10.35	1.01	592.89	0.06				
585.76	68.65	8.53	63.96	6.18	0.000019				
0.01033	36457.00								
186.00	4389.44	10.37	1.02	600.26	0.06				
587.04	68.68	8.55	63.98	6.17	0.000029				
0.01522	36471.29								
187.00	4389.45	10.38	1.03	605.08	0.06				
587.58	68.69	8.55	64.00	6.17	0.000029				
0.01574	36479.73								
188.00	4389.45	10.38	1.04	609.56	0.06				
587.96	68.70	8.56	64.01	6.17	0.000021				
0.01114	36484.36								
189.00	4389.46	10.39	1.04	609.43	0.06				
588.28	68.71	8.56	64.02	6.16	0.000026				
0.01367	36489.99								
190.00	4389.46	10.39	1.04	611.76	0.06				
588.37	68.71	8.56	64.02	6.16	0.000013				
0.00669	36488.68								
191.00	4389.45	10.38	1.04	611.78	0.06				
588.17	68.71	8.56	64.02	6.16	0.000020				
0.01051	36488.57								
192.00	4389.44	10.37	1.05	617.47	0.06				
587.51	68.69	8.55	64.00	6.17	0.000036				
0.01920	36477.78								
193.00	4389.40	10.33	1.09	633.58	0.06				
583.64	68.60	8.51	63.92	6.19	0.000030				
0.01603	36432.46								
194.00	4389.37	10.30	1.09	631.53	0.06				
581.26	68.54	8.48	63.87	6.20	0.000020				
0.01068	36403.58								
195.00	4389.36	10.29	1.08	627.29	0.06				
580.21	68.51	8.47	63.85	6.21	0.000030				
0.01583	36391.72								
196.00	4389.35	10.28	1.07	622.15	0.06				
579.55	68.49	8.46	63.83	6.21	0.000014				
0.00742	36382.21								
197.00	4389.34	10.27	1.07	619.20	0.06				
578.90	68.48	8.45	63.82	6.21	0.000035				
0.01825	36375.68								
198.00	4389.34	10.27	1.06	614.89	0.06				
578.61	68.47	8.45	63.81	6.22	0.000013				
0.00707	36370.99								
199.00	4389.33	10.26	1.06	612.24	0.06				
578.40	68.47	8.45	63.80	6.22	0.000034				
0.01783	36368.38								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4581

MAXIMUM DISCHARGE (CFS) = 1597.14 AT TIME = 114.45  
 MAXIMUM STAGE = 4394.44 AT TIME = 91.85

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)			
(LB/FT^2)	(FT^2)					
0.00	4378.92	0.00	0.00	0.00	0.00	

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HYCHAN.OUT									
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4378.92	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4378.92	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4378.92	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4378.92	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4378.92	0.00	-0.01	-0.11	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
162.80	6.00	4382.98	4.06	-1.53	-248.75	0.13	0.00	0.00	0.000000
308.25	0.00000	51.71	3.15	49.27	12.13	0.00	0.00	0.00	0.000000
334.27	7.00	4385.33	6.41	-0.43	-132.03	0.03	0.00	0.00	0.000000
334.73	0.00000	59.37	5.19	55.96	8.73	0.00	0.00	0.00	0.000000
331.90	8.00	4385.67	6.75	-0.23	-75.94	0.02	0.00	0.00	0.000000
327.18	0.00000	60.30	5.54	56.76	8.41	0.00	0.00	0.00	0.000000
324.61	9.00	4385.68	6.76	-0.13	-43.40	0.01	0.00	0.00	0.000000
309.72	0.00000	60.34	5.55	56.80	8.40	0.00	0.00	0.00	0.000000
303.47	10.00	4385.64	6.72	-0.07	-23.54	0.00	0.00	0.00	0.000000
300.46	0.00000	60.23	5.51	56.70	8.43	0.00	0.00	0.00	0.000000
299.05	11.00	4385.59	6.67	0.03	11.00	0.00	0.00	0.00	0.000000
0.00	0.00000	60.09	5.44	56.58	8.48	0.00	0.00	0.00	0.000000
0.00	12.00	4385.54	6.62	0.04	13.78	0.00	0.00	0.00	0.000000
0.00	0.00000	59.95	5.41	56.46	8.53	0.00	0.00	0.00	0.000000
0.00	13.00	4385.45	6.53	0.08	24.59	0.01	0.00	0.00	0.000000
0.00	0.00000	59.70	5.33	56.25	8.61	0.00	0.00	0.00	0.000000
0.00	14.00	4385.32	6.40	0.10	30.18	0.01	0.00	0.00	0.000000
0.00	0.00000	59.34	5.22	55.93	8.74	0.00	0.00	0.00	0.000000
0.00	15.00	4385.23	6.31	0.07	19.83	0.00	0.00	0.00	0.000000
0.00	0.00000	59.08	5.14	55.71	8.83	0.00	0.00	0.00	0.000000
0.00	16.00	4385.19	6.27	0.04	10.53	0.00	0.00	0.00	0.000000
0.00	0.00516	58.98	5.09	55.61	8.87	0.00	0.00	0.00	0.000016
0.00	17.00	4385.17	6.25	0.02	6.21	0.00	0.00	0.00	0.000000
0.00	0.00000	58.92	5.08	55.57	8.89	0.00	0.00	0.00	0.000000
0.00	18.00	4385.16	6.24	0.00	0.00	0.00	0.00	0.00	0.000015
0.00	0.00000	58.90	0.00	55.54	8.90	0.00	0.00	0.00	0.000000
0.00	19.00	4385.16	6.24	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	58.89	0.00	55.54	8.90	0.00	0.00	0.00	0.000000
0.00	20.00	4385.23	6.31	-0.07	-21.24	0.00	0.00	0.00	0.000000
0.00	0.00000	59.07	5.13	55.70	8.83	0.00	0.00	0.00	0.000000
0.00	21.00	4385.35	6.43	-0.10	-31.84	0.01	0.00	0.00	0.000000

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		HYCHAN.OUT					
311.75	59.43	5.25	56.01	8.71	0.000000		
0.00000	30803.83						
22.00	4385.49	6.57	-0.11	-36.78	0.01		
321.05	59.81	5.37	56.34	8.58	0.000000		
0.00000	30985.24						
23.00	4385.59	6.67	-0.09	-29.45	0.01		
327.32	60.08	5.45	56.57	8.48	0.000000		
0.00000	31113.92						
24.00	4385.63	6.71	-0.06	-18.54	0.00		
330.69	60.20	5.49	56.67	8.44	0.000000		
0.00000	31170.49						
25.00	4385.72	6.80	-0.11	-36.13	0.01		
337.93	60.44	5.59	56.89	8.36	0.000000		
0.00000	31287.60						
26.00	4385.90	6.98	-0.17	-60.80	0.01		
350.93	60.92	5.76	57.30	8.21	0.000000		
0.00000	31517.28						
27.00	4386.10	7.18	-0.21	-78.16	0.01		
366.30	61.45	5.96	57.75	8.04	0.000000		
0.00000	31765.03						
28.00	4386.33	7.41	-0.24	-91.30	0.02		
382.15	62.03	6.16	58.26	7.86	0.000000		
0.00000	32044.78						
29.00	4386.46	7.54	-0.17	-68.40	0.01		
391.22	62.36	6.27	58.54	7.77	0.000000		
0.00000	32198.10						
30.00	4386.53	7.61	-0.13	-50.48	0.01		
396.63	62.54	6.34	58.70	7.71	0.000000		
0.00000	32286.42						
31.00	4386.62	7.70	-0.14	-56.12	0.01		
403.33	62.76	6.43	58.89	7.65	0.000000		
0.00000	32391.58						
32.00	4386.69	7.77	-0.09	-37.33	0.01		
406.93	62.92	6.47	59.03	7.60	0.000000		
0.00000	32465.17						
33.00	4386.73	7.81	-0.07	-27.88	0.00		
410.60	63.02	6.52	59.12	7.57	0.000000		
0.00000	32515.33						
34.00	4386.80	7.88	-0.10	-42.08	0.01		
416.50	63.21	6.59	59.28	7.52	0.000000		
0.00000	32603.55						
35.00	4386.86	7.94	-0.07	-27.57	0.00		
419.82	63.34	6.63	59.39	7.48	0.000000		
0.00000	32666.56						
36.00	4386.90	7.98	-0.04	-19.09	0.00		
425.64	63.44	6.71	59.48	7.45	0.000000		
0.00000	32712.03						
37.00	4386.92	8.00	-0.01	-4.85	0.00		
425.72	63.48	6.71	59.52	7.44	0.000000		
0.00000	32734.50						
38.00	4386.90	7.98	0.04	16.01	0.00		
423.42	63.45	6.67	59.48	7.45	0.000047		
0.01943	32716.33						
39.00	4386.84	7.92	0.08	35.46	0.01		
419.45	63.30	6.63	59.35	7.49	0.000013		
0.00531	32644.64						
40.00	4386.79	7.87	0.06	23.03	0.00		
415.68	63.18	6.58	59.26	7.53	0.000021		
0.00865	32591.74						
41.00	4386.77	7.85	0.03	11.63	0.00		
413.52	63.13	6.55	59.21	7.54	0.000000		
0.00000	32564.01						
42.00	4386.76	7.84	0.01	5.72	0.00		

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HYCHAN.OUT							
412.47	0.00000	63.09	6.54	59.18	7.55	0.000000	
	43.00	32547.78					
0.00	0.00000	4386.75	7.83	0.00	0.00	0.00	
	44.00	63.08	0.00	59.16	7.56	0.000007	
	0.00000	32540.58					
413.61	0.00000	4386.76	7.84	-0.02	-7.03	0.00	
	45.00	63.09	6.56	59.18	7.55	0.000000	
	0.00000	32546.81					
416.40	0.00000	4386.80	7.88	-0.09	-36.00	0.01	
	46.00	63.21	6.59	59.28	7.52	0.000000	
	0.00000	32603.90					
420.92	0.00000	4386.86	7.94	-0.08	-31.60	0.00	
	47.00	63.34	6.65	59.39	7.48	0.000000	
	0.00000	32666.92					
427.96	0.00000	4386.95	8.03	-0.12	-51.96	0.01	
	48.00	63.56	6.73	59.58	7.42	0.000000	
	0.00000	32768.06					
436.92	0.00000	4387.07	8.15	-0.16	-69.01	0.01	
	49.00	63.84	6.84	59.83	7.34	0.000000	
	0.00000	32903.77					
447.33	0.00000	4387.20	8.28	-0.18	-79.42	0.01	
	50.00	64.15	6.97	60.09	7.26	0.000000	
	0.00000	33050.48					
458.06	0.00000	4387.34	8.42	-0.19	-85.39	0.01	
	51.00	64.47	7.10	60.37	7.17	0.000000	
	0.00000	33203.97					
469.34	0.00000	4387.48	8.56	-0.20	-92.85	0.01	
	52.00	64.80	7.24	60.65	7.09	0.000000	
	0.00000	33359.41					
482.06	0.00000	4387.63	8.71	-0.22	-105.09	0.01	
	53.00	65.15	7.40	60.95	7.00	0.000000	
	0.00000	33525.15					
495.51	0.00000	4387.81	8.89	-0.25	-121.62	0.01	
	54.00	65.55	7.56	61.30	6.90	0.000000	
	0.00000	33713.74					
506.66	0.00000	4387.95	9.03	-0.19	-98.56	0.01	
	55.00	65.87	7.69	61.57	6.82	0.000000	
	0.00000	33863.65					
520.95	0.00000	4388.11	9.19	-0.25	-130.79	0.01	
	56.00	66.22	7.87	61.87	6.73	0.000000	
	0.00000	34029.96					
540.29	0.00000	4388.33	9.41	-0.36	-193.99	0.02	
	57.00	66.70	8.10	62.29	6.62	0.000000	
	0.00000	34257.87					
573.27	0.00000	4388.73	9.81	-0.64	-367.12	0.04	
	58.00	67.53	8.49	63.00	6.42	0.000000	
	0.00000	34651.23					
614.02	0.00000	4389.22	10.30	-0.94	-576.06	0.05	
	59.00	68.53	8.96	63.86	6.20	0.000000	
	0.00000	35123.30					
654.29	0.00000	4389.69	10.77	-1.21	-789.66	0.06	
	60.00	69.47	9.42	64.66	6.01	0.000000	
	0.00000	35565.35					
683.79	0.00000	4390.03	11.11	-1.39	-951.47	0.07	
	61.00	70.13	9.75	65.23	5.87	0.000000	
	0.00000	35876.81					
709.41	0.00000	4390.34	11.42	-1.32	-935.88	0.07	
	62.00	70.73	10.03	65.74	5.76	0.000000	
	0.00000	36155.30					
725.94	0.00000	4390.55	11.63	-1.27	-922.35	0.07	
	63.00	71.15	10.20	66.07	5.68	0.000000	
	0.00000	36338.05					
	63.00	4390.65	11.73	-1.28	-937.17	0.07	

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HYCHAN.OUT						
733.54	71.34	10.28	66.22	5.65	0.000000	
0.00000	36423.58					
64.00	4390.78	11.86	-1.16	-860.60	0.06	
743.78	71.62	10.39	66.44	5.60	0.000000	
0.00000	36541.52					
65.00	4390.97	12.05	-0.87	-658.19	0.04	
758.94	71.98	10.54	66.72	5.54	0.000000	
0.00000	36698.39					
66.00	4391.13	12.21	-0.62	-475.45	0.03	
771.72	72.30	10.67	66.97	5.49	0.000000	
0.00000	36831.85					
67.00	4391.24	12.32	-0.45	-349.53	0.02	
780.24	72.53	10.76	67.15	5.45	0.000000	
0.00000	36930.34					
68.00	4391.37	12.45	-0.20	-160.77	0.01	
786.78	72.79	10.81	67.34	5.41	0.000000	
0.00000	37036.30					
69.00	4391.55	12.63	-0.12	-97.27	0.01	
797.84	73.15	10.91	67.61	5.35	0.000000	
0.00000	37185.06					
70.00	4391.74	12.82	0.03	24.47	0.00	
807.98	73.52	10.99	67.89	5.30	0.000000	
0.00000	37337.72					
71.00	4391.95	13.03	-0.11	-87.96	0.01	
824.86	73.95	11.15	68.20	5.23	0.000006	
0.00432	37511.45					
72.00	4392.18	13.26	-0.06	-52.58	0.00	
842.90	74.41	11.33	68.54	5.17	0.000000	
0.00000	37695.33					
73.00	4392.38	13.46	-0.17	-146.03	0.01	
853.35	74.80	11.41	68.81	5.11	0.000000	
0.00000	37847.55					
74.00	4392.54	13.62	-0.20	-171.23	0.01	
863.79	75.12	11.50	69.04	5.07	0.000000	
0.00000	37971.81					
75.00	4392.67	13.75	-0.27	-231.28	0.01	
872.69	75.39	11.58	69.23	5.04	0.000000	
0.00000	38075.71					
76.00	4392.81	13.89	-0.35	-310.34	0.02	
881.64	75.67	11.65	69.43	5.00	0.000000	
0.00000	38184.77					
77.00	4392.96	14.04	-0.40	-353.52	0.02	
890.41	75.97	11.72	69.63	4.96	0.000000	
0.00000	38298.06					
78.00	4393.07	14.15	-0.33	-298.66	0.02	
897.26	76.18	11.78	69.78	4.93	0.000000	
0.00000	38381.50					
79.00	4393.20	14.28	-0.50	-449.95	0.02	
905.54	76.44	11.85	69.96	4.90	0.000000	
0.00000	38479.47					
80.00	4393.33	14.41	-0.57	-522.48	0.03	
913.03	76.70	11.90	70.14	4.87	0.000000	
0.00000	38574.45					
81.00	4393.48	14.56	-0.54	-501.81	0.03	
922.72	77.02	11.98	70.35	4.83	0.000000	
0.00000	38692.36					
82.00	4393.64	14.72	-0.47	-434.32	0.02	
932.10	77.33	12.05	70.56	4.79	0.000000	
0.00000	38808.77					
83.00	4393.84	14.92	-0.28	-266.48	0.01	
942.85	77.73	12.13	70.82	4.75	0.000000	
0.00000	38953.27					
84.00	4394.01	15.09	-0.10	-90.85	0.00	

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HYCHAN.OUT						
951.93	78.07	12.19	71.05	4.71	0.000000	
0.00000	39079.62					
85.00	4394.13	15.21	0.07	66.63	0.00	
962.51	78.31	12.29	71.21	4.68	0.000000	
0.00000	39164.89					
86.00	4394.23	15.31	0.26	251.67	0.01	
968.77	78.50	12.34	71.33	4.66	0.000000	
0.00000	39232.52					
87.00	4394.32	15.40	0.45	441.98	0.02	
974.80	78.69	12.39	71.46	4.64	0.000000	
0.00000	39301.07					
88.00	4394.41	15.49	0.63	620.83	0.03	
980.36	78.87	12.43	71.57	4.62	0.000000	
0.00000	39363.98					
89.00	4394.48	15.56	0.78	771.04	0.04	
984.14	79.00	12.46	71.66	4.61	0.000000	
0.00000	39411.26					
90.00	4394.55	15.63	0.87	862.07	0.04	
988.34	79.14	12.49	71.75	4.59	0.000010	
0.00743	39460.48					
91.00	4394.59	15.67	0.94	935.80	0.04	
990.84	79.22	12.51	71.80	4.58	0.000011	
0.00839	39488.05					
92.00	4394.60	15.68	0.97	965.53	0.04	
992.20	79.25	12.52	71.82	4.58	0.000009	
0.00670	39498.71					
93.00	4394.60	15.68	0.95	941.41	0.04	
992.27	79.24	12.52	71.81	4.58	0.000009	
0.00717	39496.26					
94.00	4394.56	15.64	0.99	978.83	0.04	
989.78	79.17	12.50	71.76	4.59	0.000011	
0.00897	39469.27					
95.00	4394.50	15.58	0.97	954.36	0.04	
985.94	79.05	12.47	71.69	4.60	0.000009	
0.00689	39429.50					
96.00	4394.45	15.53	0.91	890.27	0.04	
982.09	78.94	12.44	71.62	4.61	0.000007	
0.00549	39388.77					
97.00	4394.38	15.46	0.82	799.66	0.04	
978.01	78.81	12.41	71.54	4.63	0.000000	
0.00000	39344.79					
98.00	4394.31	15.39	0.74	718.57	0.03	
972.84	78.66	12.37	71.44	4.64	0.000000	
0.00000	39289.60					
99.00	4394.23	15.31	0.66	640.99	0.03	
968.13	78.51	12.33	71.34	4.66	0.000000	
0.00000	39236.28					
100.00	4394.16	15.24	0.59	563.83	0.03	
963.73	78.37	12.30	71.25	4.67	0.000000	
0.00000	39185.05					
101.00	4394.05	15.13	0.36	343.60	0.02	
957.19	78.14	12.25	71.10	4.70	0.000000	
0.00000	39103.58					
102.00	4393.90	14.98	-0.02	-16.53	0.00	
916.50	77.84	11.77	70.90	4.73	0.000000	
0.00000	38993.77					
103.00	4393.67	14.75	-0.36	-336.29	0.02	
930.78	77.38	12.03	70.60	4.79	0.000000	
0.00000	38827.89					
104.00	4393.48	14.56	-0.45	-415.07	0.02	
919.80	77.00	11.94	70.34	4.83	0.000000	
0.00000	38688.31					
105.00	4393.35	14.43	-0.04	-36.89	0.00	

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HYCHAN.OUT						
926.38	76.75	12.07	70.17	4.86	0.000000	
0.00000	38594.20					
106.00	4393.16	14.24	0.65	587.35	0.03	
900.33	76.36	11.79	69.90	4.91	0.000010	
0.00727	38446.67					
107.00	4393.03	14.11	0.87	777.36	0.04	
894.17	76.11	11.75	69.73	4.94	0.000011	
0.00840	38353.93					
108.00	4392.88	13.96	0.90	797.89	0.04	
884.08	75.81	11.66	69.52	4.98	0.000012	
0.00849	38237.28					
109.00	4392.68	13.76	1.08	935.75	0.05	
870.27	75.41	11.54	69.24	5.03	0.000014	
0.01015	38083.73					
110.00	4392.45	13.53	1.40	1198.40	0.07	
856.06	74.95	11.42	68.92	5.09	0.000036	
0.02570	37908.59					
111.00	4392.27	13.35	1.66	1400.38	0.08	
845.08	74.58	11.33	68.66	5.14	0.000045	
0.03206	37762.98					
112.00	4392.10	13.18	1.81	1511.48	0.09	
834.53	74.25	11.24	68.42	5.19	0.000059	
0.04140	37628.84					
113.00	4391.95	13.03	1.86	1530.12	0.09	
824.36	73.94	11.15	68.19	5.24	0.000070	
0.04844	37505.79					
114.00	4391.78	12.86	1.90	1546.30	0.09	
812.98	73.61	11.04	67.95	5.28	0.000032	
0.02189	37372.41					
115.00	4391.60	12.68	1.95	1561.16	0.10	
800.12	73.24	10.92	67.68	5.34	0.000059	
0.04054	37224.62					
116.00	4391.48	12.56	1.89	1495.25	0.09	
792.08	73.00	10.85	67.50	5.38	0.000041	
0.02798	37123.14					
117.00	4391.40	12.48	1.82	1434.81	0.09	
787.44	72.86	10.81	67.39	5.40	0.000044	
0.02966	37064.21					
118.00	4391.32	12.40	1.86	1455.93	0.09	
782.45	72.69	10.76	67.27	5.42	0.000044	
0.02978	36996.26					
119.00	4391.25	12.33	1.92	1490.88	0.10	
778.04	72.55	10.72	67.16	5.45	0.000044	
0.02962	36936.02					
120.00	4391.20	12.28	1.95	1513.47	0.10	
774.68	72.45	10.69	67.08	5.46	0.000048	
0.03171	36894.91					
121.00	4391.18	12.26	1.95	1507.64	0.10	
772.91	72.40	10.68	67.04	5.47	0.000051	
0.03388	36873.68					
122.00	4391.15	12.23	1.91	1475.42	0.10	
770.94	72.35	10.66	67.00	5.48	0.000046	
0.03035	36852.27					
123.00	4391.11	12.19	1.86	1426.37	0.09	
767.89	72.28	10.62	66.95	5.49	0.000045	
0.02984	36821.81					
124.00	4391.04	12.12	1.91	1451.74	0.10	
761.88	72.12	10.56	66.83	5.52	0.000046	
0.03040	36756.02					
125.00	4390.96	12.04	1.92	1452.67	0.10	
756.04	71.97	10.50	66.72	5.54	0.000053	
0.03450	36693.68					
126.00	4390.88	11.96	1.95	1458.23	0.10	

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HYCHAN.OUT						
749.53	71.81	10.44	66.59	5.57	0.000044	
0.02883	36624.29					
127.00	4390.81	11.89	1.92	1431.10	0.10	
743.44	71.66	10.37	66.47	5.59	0.000053	
0.03458	36560.88					
128.00	4390.74	11.82	1.90	1400.63	0.10	
737.50	71.52	10.31	66.36	5.62	0.000048	
0.03063	36499.29					
129.00	4390.65	11.73	1.90	1386.76	0.10	
730.74	71.35	10.24	66.23	5.64	0.000051	
0.03264	36427.89					
130.00	4390.58	11.66	1.87	1351.64	0.10	
724.57	71.20	10.18	66.12	5.67	0.000049	
0.03106	36363.59					
131.00	4390.51	11.59	1.84	1319.47	0.10	
718.60	71.06	10.11	66.00	5.70	0.000045	
0.02823	36300.98					
132.00	4390.42	11.50	1.83	1305.59	0.10	
711.73	70.89	10.04	65.87	5.73	0.000049	
0.03050	36227.43					
133.00	4390.36	11.44	1.77	1252.96	0.09	
706.50	70.77	9.98	65.77	5.75	0.000032	
0.01982	36173.08					
134.00	4390.34	11.42	1.64	1155.07	0.09	
704.81	70.73	9.96	65.74	5.75	0.000034	
0.02127	36157.60					
135.00	4390.32	11.40	1.58	1108.48	0.08	
702.47	70.68	9.94	65.70	5.76	0.000035	
0.02182	36133.02					
136.00	4390.28	11.36	1.54	1079.81	0.08	
699.39	70.61	9.91	65.64	5.78	0.000039	
0.02417	36100.52					
137.00	4390.24	11.32	1.51	1052.68	0.08	
696.17	70.54	9.87	65.58	5.79	0.000032	
0.01987	36067.99					
138.00	4390.21	11.29	1.48	1027.10	0.08	
692.97	70.47	9.83	65.52	5.80	0.000039	
0.02396	36036.50					
139.00	4390.18	11.26	1.46	1005.64	0.08	
690.44	70.41	9.81	65.47	5.82	0.000033	
0.01996	36007.75					
140.00	4390.14	11.22	1.43	983.77	0.08	
687.57	70.34	9.77	65.41	5.83	0.000037	
0.02232	35977.48					
141.00	4390.10	11.18	1.42	973.87	0.08	
683.69	70.27	9.73	65.35	5.84	0.000031	
0.01888	35942.05					
142.00	4390.04	11.12	1.45	981.60	0.08	
678.79	70.16	9.67	65.26	5.87	0.000023	
0.01405	35890.95					
143.00	4390.00	11.08	1.43	967.87	0.08	
674.72	70.07	9.63	65.18	5.88	0.000028	
0.01706	35850.70					
144.00	4389.96	11.04	1.41	947.07	0.07	
671.59	70.01	9.59	65.12	5.90	0.000043	
0.02598	35818.57					
145.00	4389.93	11.01	1.38	926.15	0.07	
669.13	69.95	9.57	65.07	5.91	0.000026	
0.01579	35790.07					
146.00	4389.90	10.98	1.38	916.22	0.07	
665.71	69.87	9.53	65.01	5.92	0.000026	
0.01529	35755.76					
147.00	4389.84	10.92	1.40	922.08	0.07	

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		HYCHAN.OUT					
660.40	69.76	9.47	64.91	5.95	0.000037		
0.02183	35701.47						
148.00	4389.79	10.87	1.38	906.49	0.07		
656.55	69.67	9.42	64.84	5.96	0.000023		
0.01343	35659.32						
149.00	4389.75	10.83	1.36	888.78	0.07		
653.49	69.60	9.39	64.78	5.98	0.000033		
0.01950	35627.11						
150.00	4389.72	10.80	1.34	870.40	0.07		
650.95	69.54	9.36	64.72	5.99	0.000023		
0.01358	35598.54						
151.00	4389.69	10.77	1.31	850.37	0.07		
648.17	69.48	9.33	64.67	6.00	0.000029		
0.01682	35571.20						
152.00	4389.66	10.74	1.30	837.51	0.07		
645.51	69.42	9.30	64.62	6.02	0.000035		
0.02059	35540.20						
153.00	4389.61	10.69	1.31	838.63	0.07		
640.46	69.31	9.24	64.53	6.04	0.000025		
0.01468	35491.61						
154.00	4389.56	10.64	1.31	831.68	0.07		
636.21	69.21	9.19	64.45	6.06	0.000027		
0.01531	35445.39						
155.00	4389.52	10.60	1.29	815.04	0.07		
633.04	69.14	9.16	64.38	6.07	0.000029		
0.01674	35409.30						
156.00	4389.48	10.56	1.28	806.83	0.07		
629.41	69.06	9.11	64.31	6.09	0.000023		
0.01287	35371.46						
157.00	4389.43	10.51	1.27	795.48	0.07		
625.75	68.96	9.07	64.23	6.11	0.000023		
0.01310	35327.74						
158.00	4389.47	10.55	1.19	747.77	0.06		
629.20	69.04	9.11	64.30	6.09	0.000032		
0.01828	35363.07						
159.00	4389.49	10.57	1.16	732.98	0.06		
632.28	69.09	9.15	64.34	6.08	0.000019		
0.01086	35386.55						
160.00	4389.49	10.57	1.15	727.53	0.06		
632.38	69.09	9.15	64.34	6.08	0.000030		
0.01725	35386.74						
161.00	4389.49	10.57	1.14	722.60	0.06		
631.93	69.08	9.15	64.33	6.09	0.000015		
0.00881	35381.69						
162.00	4389.48	10.56	1.14	717.48	0.06		
631.18	69.06	9.14	64.32	6.09	0.000032		
0.01813	35373.46						
163.00	4389.47	10.55	1.13	713.52	0.06		
630.45	69.05	9.13	64.30	6.09	0.000021		
0.01213	35366.39						
164.00	4389.47	10.55	1.12	708.54	0.06		
629.90	69.03	9.12	64.29	6.10	0.000027		
0.01546	35359.93						
165.00	4389.46	10.54	1.12	705.86	0.06		
629.09	69.02	9.11	64.28	6.10	0.000012		
0.00682	35353.21						
166.00	4389.44	10.52	1.13	709.73	0.06		
627.56	68.99	9.10	64.25	6.11	0.000029		
0.01624	35338.69						
167.00	4389.39	10.47	1.16	722.45	0.06		
623.78	68.89	9.06	64.17	6.13	0.000026		
0.01478	35290.77						
168.00	4389.36	10.44	1.16	719.60	0.06		

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		HYCHAN.OUT					
621.33	68.82	9.03	64.11	6.14	0.000023		
0.01305	35259.89						
169.00	4389.35	10.43	1.15	713.61	0.06		
620.20	68.79	9.02	64.08	6.15	0.000023		
0.01312	35246.61						
170.00	4389.33	10.42	1.14	707.02	0.06		
619.30	68.77	9.01	64.07	6.15	0.000028		
0.01553	35236.80						
171.00	4389.33	10.41	1.13	701.80	0.06		
618.53	68.75	9.00	64.05	6.16	0.000021		
0.01170	35227.66						
172.00	4389.32	10.40	1.13	696.68	0.06		
617.94	68.74	8.99	64.04	6.16	0.000022		
0.01211	35220.34						
173.00	4389.31	10.39	1.12	691.70	0.06		
617.24	68.72	8.98	64.02	6.16	0.000028		
0.01587	35212.29						
174.00	4389.29	10.37	1.13	693.02	0.06		
615.67	68.68	8.96	63.99	6.17	0.000029		
0.01612	35195.12						
175.00	4389.24	10.32	1.16	706.36	0.06		
610.95	68.58	8.91	63.90	6.19	0.000027		
0.01502	35146.28						
176.00	4389.21	10.29	1.16	703.69	0.06		
608.45	68.51	8.88	63.85	6.21	0.000025		
0.01362	35114.89						
177.00	4389.19	10.27	1.15	695.18	0.06		
606.90	68.48	8.86	63.81	6.21	0.000029		
0.01594	35098.18						
178.00	4389.18	10.26	1.14	687.91	0.06		
605.77	68.45	8.85	63.79	6.22	0.000030		
0.01659	35086.22						
179.00	4389.17	10.25	1.13	680.89	0.06		
604.90	68.43	8.84	63.77	6.22	0.000027		
0.01481	35075.98						
180.00	4389.16	10.24	1.12	673.93	0.06		
604.05	68.41	8.83	63.76	6.23	0.000027		
0.01467	35066.68						
181.00	4389.17	10.25	1.08	656.11	0.06		
605.37	68.44	8.84	63.78	6.22	0.000023		
0.01286	35081.37						
182.00	4389.26	10.34	1.01	618.76	0.06		
612.87	68.61	8.93	63.93	6.18	0.000018		
0.00992	35162.48						
183.00	4389.31	10.39	0.98	603.52	0.05		
617.90	68.73	8.99	64.03	6.16	0.000019		
0.01084	35217.67						
184.00	4389.37	10.45	0.94	588.53	0.05		
622.92	68.85	9.05	64.13	6.13	0.000025		
0.01431	35273.78						
185.00	4389.41	10.49	0.95	592.09	0.05		
625.99	68.92	9.08	64.19	6.12	0.000018		
0.01027	35305.53						
186.00	4389.42	10.50	0.96	600.48	0.05		
627.34	68.95	9.10	64.22	6.11	0.000017		
0.00970	35319.52						
187.00	4389.43	10.51	0.96	605.12	0.05		
628.00	68.97	9.11	64.23	6.11	0.000029		
0.01656	35328.28						
188.00	4389.44	10.52	0.97	608.92	0.05		
628.59	68.98	9.11	64.24	6.11	0.000015		
0.00873	35333.08						
189.00	4389.44	10.52	0.97	609.85	0.05		

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HYCHAN.OUT									
628.77	0.01131	68.98	35337.12	9.11	64.25	6.11	0.000020		
190.00		4389.44		10.52	0.97	611.38	0.05		
628.91	0.00999	68.99	35337.44	9.12	64.25	6.11	0.000018		
191.00		4389.44		10.52	0.97	611.73	0.05		
628.78	0.00861	68.98	35336.09	9.12	64.25	6.11	0.000015		
192.00		4389.43		10.51	0.99	618.48	0.05		
627.87	0.01081	68.96	35326.09	9.10	64.23	6.11	0.000019		
193.00		4389.38		10.46	1.02	633.81	0.06		
623.64	0.01084	68.86	35279.43	9.06	64.14	6.13	0.000019		
194.00		4389.35		10.43	1.02	631.73	0.06		
621.06	0.01340	68.81	35252.61	9.03	64.10	6.14	0.000024		
195.00		4389.34		10.42	1.01	627.61	0.06		
620.06	0.00886	68.78	35240.71	9.02	64.07	6.15	0.000016		
196.00		4389.33		10.41	1.00	621.88	0.05		
619.22	0.01386	68.76	35232.28	9.01	64.06	6.15	0.000025		
197.00		4389.32		10.40	1.00	619.70	0.05		
618.69	0.01152	68.75	35225.73	9.00	64.05	6.16	0.000021		
198.00		4389.32		10.40	0.99	614.41	0.05		
618.23	0.01298	68.74	35221.38	8.99	64.04	6.16	0.000023		
199.00		4389.32		10.40	0.99	612.94	0.05		
618.00	0.00968	68.73	35218.66	8.99	64.03	6.16	0.000017		

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4635

MAXIMUM DISCHARGE (CFS) = 1665.63 AT TIME = 114.08  
 MAXIMUM STAGE = 4394.46 AT TIME = 91.86

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRONDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
STRESS	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(FT^2)	(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)				
0.00	0.00	4378.79	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4378.79	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4378.79	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4378.79	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4378.79	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4378.84	0.05	-0.15	-5.08	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00000	0.00								
192.14	6.00	4383.26	4.47	-1.53	-293.09	0.13			
		53.22	3.61		50.60	11.32	0.000000		
	0.00000	30359.97							
332.08	7.00	4385.34	6.55	-0.43	-141.43	0.03			
		59.75	5.56		56.29	8.60	0.000000		
	0.00000	33772.29							
359.59	8.00	4385.67	6.88	-0.21	-77.19	0.01			
		60.65	5.93		57.07	8.29	0.000000		
	0.00000	34240.62							
360.10	9.00	4385.68	6.89	-0.12	-42.81	0.01			
		60.69	5.93		57.10	8.28	0.000000		
	0.00000	34259.51							
356.95	10.00	4385.64	6.85	-0.07	-23.22	0.00			
		60.58	5.89		57.01	8.32	0.000000		
	0.00000	34203.39							
351.68	11.00	4385.59	6.80	0.03	11.90	0.00			
		60.44	5.82		56.89	8.36	0.000000		
	0.00000	34132.15							
349.16	12.00	4385.54	6.75	0.04	14.19	0.00			
		60.30	5.79		56.77	8.41	0.000038		
	0.01359	34059.98							
342.39	13.00	4385.45	6.66	0.08	26.38	0.01			
		60.06	5.70		56.55	8.49	0.000048		
	0.01714	33932.74							
333.28	14.00	4385.32	6.53	0.09	31.27	0.01			
		59.71	5.58		56.25	8.61	0.000000		
	0.00000	33748.08							
326.86	15.00	4385.23	6.44	0.06	20.49	0.00			
		59.45	5.50		56.02	8.70	0.000000		
	0.00000	33614.94							
323.40	16.00	4385.19	6.40	0.04	11.59	0.00			
		59.34	5.45		55.93	8.74	0.000020		
	0.00673	33558.25							
321.98	17.00	4385.17	6.38	0.02	5.54	0.00			
		59.29	5.43		55.89	8.75	0.000000		
	0.00000	33533.18							
0.00	18.00	4385.16	6.37	0.00	0.00	0.00			
		59.26	0.00		55.86	8.76	0.000011		
	0.00000	33518.32							
0.00	19.00	4385.16	6.37	0.00	0.00	0.00			
		59.26	0.00		55.86	8.77	0.000000		
	0.00000	33517.25							
326.47	20.00	4385.23	6.44	-0.07	-22.65	0.00			
		59.44	5.49		56.02	8.70	0.000000		
	0.00000	33609.19							
335.50	21.00	4385.35	6.56	-0.10	-33.43	0.01			
		59.79	5.61		56.32	8.58	0.000000		
	0.00000	33792.61							
345.41	22.00	4385.49	6.70	-0.11	-38.42	0.01			
		60.17	5.74		56.65	8.46	0.000000		
	0.00000	33987.98							
352.16	23.00	4385.59	6.80	-0.09	-30.18	0.01			
		60.43	5.83		56.88	8.37	0.000000		
	0.00000	34125.66							
355.69	24.00	4385.63	6.84	-0.05	-19.21	0.00			
		60.55	5.87		56.98	8.33	0.000000		
	0.00000	34186.52							
363.37	25.00	4385.72	6.93	-0.10	-37.80	0.01			
		60.79	5.98		57.19	8.25	0.000000		
	0.00000	34313.48							
377.25	26.00	4385.90	7.11	-0.17	-63.14	0.01			
		61.27	6.16		57.60	8.10	0.000000		

		HYCHAN.OUT						
	0.00000	34561.85						
393.49	27.00	4386.10	7.31	-0.21	-81.20	0.01		
	0.00000	61.79	6.37		58.05	7.94	0.000000	
	28.00	34829.81						
410.41	0.00000	4386.33	7.54	-0.23	-93.74	0.01		
	0.00000	62.37	6.58		58.55	7.76	0.000000	
	29.00	35130.23						
419.68	0.00000	4386.46	7.67	-0.17	-69.56	0.01		
	0.00000	62.68	6.70		58.83	7.67	0.000000	
	30.00	35295.13						
425.10	0.00000	4386.53	7.74	-0.12	-51.39	0.01		
	0.00000	62.86	6.76		58.98	7.62	0.000000	
	31.00	35389.18						
432.15	0.00000	4386.62	7.83	-0.13	-57.30	0.01		
	0.00000	63.08	6.85		59.17	7.55	0.000000	
	32.00	35502.71						
436.27	0.00000	4386.68	7.89	-0.09	-37.87	0.01		
	0.00000	63.23	6.90		59.30	7.51	0.000000	
	33.00	35580.50						
439.96	0.00000	4386.73	7.94	-0.07	-28.65	0.00		
	0.00000	63.34	6.95		59.39	7.48	0.000000	
	34.00	35634.77						
446.30	0.00000	4386.80	8.01	-0.10	-43.09	0.01		
	0.00000	63.52	7.03		59.55	7.43	0.000000	
	35.00	35730.23						
449.81	0.00000	4386.86	8.07	-0.06	-28.03	0.00		
	0.00000	63.65	7.07		59.66	7.39	0.000000	
	36.00	35797.11						
455.70	0.00000	4386.90	8.11	-0.04	-19.65	0.00		
	0.00000	63.75	7.15		59.75	7.37	0.000000	
	37.00	35847.10						
455.60	0.00000	4386.92	8.13	-0.01	-5.00	0.00		
	0.00000	63.79	7.14		59.78	7.36	0.000000	
	38.00	35869.96						
453.33	0.00000	4386.90	8.11	0.04	17.12	0.00		
	0.00000	63.76	7.11		59.75	7.37	0.000000	
	39.00	35851.23						
449.40	0.00000	4386.84	8.05	0.08	35.95	0.00		
	0.00000	63.61	7.07		59.62	7.41	0.000000	
	40.00	35774.21						
445.65	0.00000	4386.79	8.00	0.05	23.72	0.00		
	0.00712	63.50	7.02		59.53	7.44	0.000016	
	41.00	35716.72						
443.02	0.00000	4386.77	7.98	0.03	11.62	0.00		
	0.00000	63.44	6.98		59.48	7.45	0.000000	
	42.00	35686.95						
441.70	0.00000	4386.76	7.97	0.01	6.03	0.00		
	0.00000	63.41	6.97		59.45	7.46	0.000000	
	43.00	35669.96						
0.00	0.00000	4386.75	7.96	0.00	0.00	0.00		
	0.00000	63.39	0.00		59.44	7.47	0.000000	
	44.00	35661.98						
443.08	0.00000	4386.76	7.97	-0.02	-7.42	0.00		
	0.00000	63.41	6.99		59.45	7.46	0.000000	
	45.00	35669.41						
446.20	0.00000	4386.80	8.01	-0.08	-36.62	0.01		
	0.00000	63.52	7.02		59.55	7.43	0.000000	
	46.00	35730.05						
450.67	0.00000	4386.86	8.07	-0.07	-32.60	0.00		
	0.00000	63.66	7.08		59.66	7.39	0.000000	
	47.00	35798.66						
458.15	0.00000	4386.95	8.16	-0.12	-53.39	0.01		
	0.00000	63.87	7.17		59.85	7.34	0.000000	

		HYCHAN.OUT						
	0.00000	35908.36						
467.87	48.00	4387.07	8.28	-0.15	-70.70	0.01		
		64.15	7.29		60.09	7.26	0.000000	
	0.00000	36055.16						
478.92	49.00	4387.20	8.41	-0.17	-81.33	0.01		
		64.46	7.43		60.36	7.18	0.000000	
	0.00000	36214.23						
490.43	50.00	4387.34	8.55	-0.18	-87.19	0.01		
		64.78	7.57		60.63	7.09	0.000000	
	0.00000	36379.78						
502.11	51.00	4387.48	8.69	-0.19	-94.85	0.01		
		65.10	7.71		60.91	7.01	0.000000	
	0.00000	36547.62						
515.56	52.00	4387.64	8.85	-0.21	-107.47	0.01		
		65.45	7.88		61.21	6.92	0.000000	
	0.00000	36726.98						
529.89	53.00	4387.81	9.02	-0.23	-123.93	0.01		
		65.84	8.05		61.55	6.82	0.000000	
	0.00000	36930.15						
541.35	54.00	4387.95	9.16	-0.19	-100.54	0.01		
		66.16	8.18		61.82	6.75	0.000000	
	0.00000	37091.68						
556.69	55.00	4388.12	9.33	-0.24	-133.51	0.01		
		66.51	8.37		62.12	6.66	0.000000	
	0.00000	37272.84						
577.13	56.00	4388.34	9.55	-0.34	-196.62	0.02		
		66.98	8.62		62.53	6.55	0.000000	
	0.00000	37519.27						
612.23	57.00	4388.73	9.94	-0.60	-369.79	0.03		
		67.81	9.03		63.25	6.36	0.000000	
	0.00000	37947.07						
656.25	58.00	4389.23	10.44	-0.88	-577.78	0.05		
		68.82	9.54		64.11	6.14	0.000000	
	0.00000	38463.18						
699.91	59.00	4389.71	10.92	-1.12	-787.34	0.06		
		69.76	10.03		64.91	5.95	0.000000	
	0.00000	38947.04						
731.92	60.00	4390.05	11.26	-1.29	-945.09	0.07		
		70.42	10.39		65.48	5.81	0.000000	
	0.00000	39287.68						
759.70	61.00	4390.36	11.57	-1.22	-927.31	0.06		
		71.00	10.70		65.97	5.70	0.000000	
	0.00000	39583.95						
778.90	62.00	4390.56	11.77	-1.17	-909.40	0.06		
		71.37	10.91		66.30	5.63	0.000000	
	0.00000	39777.52						
787.89	63.00	4390.66	11.87	-1.17	-921.33	0.06		
		71.55	11.01		66.44	5.60	0.000000	
	0.00000	39866.91						
799.31	64.00	4390.79	12.00	-1.06	-844.73	0.05		
		71.79	11.13		66.65	5.55	0.000000	
	0.00000	39989.27						
816.08	65.00	4390.98	12.19	-0.78	-639.85	0.04		
		72.12	11.31		66.94	5.49	0.000000	
	0.00000	40162.48						
828.82	66.00	4391.14	12.35	-0.55	-452.94	0.03		
		72.41	11.45		67.18	5.44	0.000000	
	0.00000	40309.98						
835.79	67.00	4391.25	12.46	-0.37	-309.74	0.02		
		72.64	11.51		67.35	5.41	0.000000	
	0.00000	40412.84						
841.59	68.00	4391.37	12.58	-0.14	-115.56	0.01		
		72.88	11.55		67.54	5.37	0.000000	

		HYCHAN.OUT						
	0.00000	40521.41						
852.86	69.00	4391.55	12.76	-0.07	-63.31	0.00		0.000000
		73.24	11.65		67.80	5.31		
	0.00000	40681.27						
865.29	70.00	4391.74	12.95	0.06	50.22	0.00		0.000000
		73.61	11.75		68.08	5.26		
	0.00000	40846.50						
880.88	71.00	4391.95	13.16	-0.10	-89.53	0.00		0.000000
		74.04	11.90		68.39	5.20		
	0.00000	41034.20						
900.53	72.00	4392.18	13.39	-0.06	-58.27	0.00		0.000000
		74.50	12.09		68.72	5.13		
	0.00000	41234.48						
910.38	73.00	4392.38	13.59	-0.22	-199.75	0.01		0.000000
		74.89	12.16		69.00	5.08		
	0.00000	41398.07						
920.76	74.00	4392.53	13.74	-0.27	-250.04	0.01		0.000000
		75.20	12.24		69.22	5.04		
	0.00000	41532.40						
929.58	75.00	4392.67	13.88	-0.36	-335.70	0.02		0.000000
		75.47	12.32		69.41	5.00		
	0.00000	41644.75						
938.70	76.00	4392.81	14.02	-0.49	-458.27	0.02		0.000000
		75.75	12.39		69.61	4.96		
	0.00000	41763.20						
947.60	77.00	4392.96	14.17	-0.56	-535.36	0.03		0.000000
		76.05	12.46		69.81	4.93		
	0.00000	41884.69						
954.61	78.00	4393.06	14.27	-0.52	-497.29	0.02		0.000000
		76.26	12.52		69.96	4.90		
	0.00000	41973.22						
963.19	79.00	4393.20	14.41	-0.72	-695.44	0.03		0.000000
		76.53	12.59		70.14	4.87		
	0.00000	42083.78						
970.99	80.00	4393.33	14.54	-0.82	-799.31	0.04		0.000000
		76.79	12.64		70.31	4.84		
	0.00000	42187.66						
980.82	81.00	4393.48	14.69	-0.82	-805.56	0.04		0.000000
		77.10	12.72		70.52	4.80		
	0.00000	42314.69						
990.32	82.00	4393.64	14.85	-0.78	-771.65	0.04		0.000000
		77.41	12.79		70.73	4.76		
	0.00000	42436.55						
1001.92	83.00	4393.82	15.03	-0.64	-640.70	0.03		0.000000
		77.78	12.88		70.98	4.72		
	0.00000	42585.20						
1012.93	84.00	4393.99	15.20	-0.49	-491.53	0.02		0.000000
		78.12	12.97		71.19	4.68		
	0.00000	42716.92						
1020.04	85.00	4394.11	15.32	-0.38	-384.51	0.02		0.000000
		78.36	13.02		71.35	4.66		
	0.00000	42809.57						
1025.95	86.00	4394.22	15.43	-0.24	-246.84	0.01		0.000000
		78.57	13.06		71.49	4.63		
	0.00000	42891.95						
1028.21	87.00	4394.32	15.53	-0.09	-94.57	0.00		0.000000
		78.78	13.05		71.62	4.61		
	0.00000	42973.98						
1038.30	88.00	4394.42	15.63	0.06	61.94	0.00		0.000000
		78.98	13.15		71.75	4.59		
	0.00000	43049.76						
1042.90	89.00	4394.49	15.70	0.18	192.17	0.01		0.000000
		79.11	13.18		71.84	4.58		

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HYCHAN.OUT									
	0.00000	43101.63							
90.00	4394.56	15.77	0.26	268.84	0.01				
1047.11	79.25	13.21	71.92	4.56	0.000000				
	0.00000	43154.76							
91.00	4394.60	15.81	0.32	335.80	0.01				
1049.71	79.33	13.23	71.98	4.55	0.000000				
	0.00000	43186.57							
92.00	4394.62	15.83	0.34	354.97	0.01				
1051.07	79.37	13.24	72.00	4.55	0.000000				
	0.00000	43200.56							
93.00	4394.61	15.82	0.32	334.89	0.01				
1051.11	79.36	13.25	71.99	4.55	0.000000				
	0.00000	43196.31							
94.00	4394.57	15.78	0.36	380.50	0.02				
1048.67	79.28	13.23	71.95	4.56	0.000000				
	0.00000	43167.63							
95.00	4394.52	15.73	0.35	361.91	0.02				
1044.80	79.17	13.20	71.87	4.57	0.000000				
	0.00000	43123.12							
96.00	4394.46	15.67	0.30	311.27	0.01				
1040.90	79.05	13.17	71.79	4.58	0.000000				
	0.00000	43076.71							
97.00	4394.39	15.60	0.23	238.95	0.01				
1036.70	78.91	13.14	71.71	4.60	0.000000				
	0.00000	43025.88							
98.00	4394.31	15.52	0.16	164.74	0.01				
1031.45	78.76	13.10	71.61	4.61	0.000000				
	0.00000	42965.63							
99.00	4394.24	15.45	0.10	98.38	0.00				
1026.51	78.61	13.06	71.52	4.63	0.000000				
	0.00000	42909.18							
100.00	4394.16	15.37	0.05	54.12	0.00				
1021.55	78.46	13.02	71.42	4.65	0.000000				
	0.00000	42850.65							
101.00	4394.04	15.25	-0.11	-111.82	0.00				
1013.20	78.22	12.95	71.26	4.67	0.000000				
	0.00000	42756.53							
102.00	4393.87	15.08	-0.42	-418.37	0.02				
1003.23	77.88	12.88	71.04	4.71	0.000000				
	0.00000	42623.07							
103.00	4393.65	14.86	-0.73	-723.30	0.03				
989.36	77.43	12.78	70.74	4.76	0.000000				
	0.00000	42444.25							
104.00	4393.46	14.67	-0.79	-772.53	0.04				
977.71	77.05	12.69	70.49	4.81	0.000000				
	0.00000	42293.66							
105.00	4393.32	14.53	-0.32	-313.93	0.01				
970.53	76.78	12.64	70.30	4.84	0.000006				
	0.00470	42181.91							
106.00	4393.14	14.35	0.42	403.42	0.02				
954.42	76.42	12.49	70.06	4.88	0.000000				
	0.00000	42036.71							
107.00	4393.02	14.23	0.66	627.61	0.03				
948.01	76.18	12.44	69.90	4.91	0.000006				
	0.00492	41940.47							
108.00	4392.87	14.08	0.72	674.87	0.03				
938.19	75.88	12.36	69.69	4.95	0.000012				
	0.00964	41813.41							
109.00	4392.67	13.88	0.93	857.77	0.04				
925.43	75.47	12.26	69.41	5.00	0.000019				
	0.01455	41645.20							
110.00	4392.44	13.65	1.31	1189.39	0.06				
911.34	75.01	12.15	69.09	5.06	0.000029				



HYCHAN.OUT							
0.02168	41452.59						
111.00	4392.25	13.46	1.60	1436.52	0.08		
900.06	74.63	12.06		68.82	5.11	0.000056	
0.04250	41291.06						
112.00	4392.08	13.29	1.76	1567.68	0.09		
889.18	74.29	11.97		68.57	5.16	0.000000	
0.00000	41141.66						
113.00	4391.92	13.13	1.81	1589.28	0.09		
878.61	73.98	11.88		68.35	5.20	0.000040	
0.02967	41007.33						
114.00	4391.75	12.96	1.85	1604.17	0.09		
867.15	73.64	11.77		68.10	5.25	0.000045	
0.03293	40861.20						
115.00	4391.57	12.78	1.90	1623.20	0.09		
854.27	73.28	11.66		67.83	5.31	0.000039	
0.02866	40698.96						
116.00	4391.45	12.66	1.85	1561.52	0.09		
846.22	73.03	11.59		67.65	5.34	0.000043	
0.03112	40590.13						
117.00	4391.38	12.59	1.78	1500.29	0.09		
841.56	72.89	11.55		67.55	5.37	0.000028	
0.02016	40527.29						
118.00	4391.30	12.51	1.83	1526.60	0.09		
836.20	72.73	11.50		67.42	5.39	0.000035	
0.02542	40453.77						
119.00	4391.23	12.44	1.88	1560.68	0.09		
831.59	72.59	11.46		67.32	5.41	0.000045	
0.03205	40391.32						
120.00	4391.18	12.39	1.91	1579.12	0.10		
828.56	72.50	11.43		67.25	5.43	0.000052	
0.03676	40350.69						
121.00	4391.16	12.37	1.90	1570.48	0.10		
827.03	72.46	11.41		67.22	5.43	0.000059	
0.04228	40330.32						
122.00	4391.14	12.35	1.86	1533.29	0.09		
825.50	72.42	11.40		67.19	5.44	0.000099	
0.07033	40311.56						
123.00	4391.11	12.32	1.80	1474.79	0.09		
821.15	72.35	11.35		67.13	5.45	0.000111	
0.07864	40280.37						
124.00	4391.03	12.24	1.83	1487.82	0.09		
813.42	72.22	11.26		67.02	5.48	0.000106	
0.07434	40211.69						
125.00	4390.96	12.17	1.84	1484.93	0.09		
806.27	72.09	11.18		66.91	5.50	0.000115	
0.08010	40144.45						
126.00	4390.88	12.09	1.86	1486.37	0.09		
798.26	71.94	11.10		66.78	5.53	0.000128	
0.08863	40068.53						
127.00	4390.80	12.01	1.84	1458.00	0.09		
791.26	71.81	11.02		66.66	5.55	0.000103	
0.07086	39998.71						
128.00	4390.73	11.94	1.82	1426.23	0.09		
784.51	71.67	10.95		66.55	5.58	0.000124	
0.08497	39930.72						
129.00	4390.64	11.85	1.82	1411.69	0.09		
776.43	71.52	10.86		66.42	5.60	0.000114	
0.07695	39850.75						
130.00	4390.57	11.78	1.79	1375.21	0.09		
769.56	71.38	10.78		66.30	5.63	0.000106	
0.07122	39779.66						
131.00	4390.49	11.70	1.76	1342.70	0.09		
762.85	71.24	10.71		66.18	5.66	0.000113	

HYCHAN.OUT							
0.07520	39710.80						
132.00	4390.40	11.61	1.76	1328.36	0.09		
754.63	71.08	10.62		66.05	5.69	0.000119	
0.07899	39627.36						
133.00	4390.34	11.55	1.70	1274.35	0.09		
749.15	70.97	10.56		65.95	5.71	0.000092	
0.06080	39568.40						
134.00	4390.33	11.54	1.57	1175.95	0.08		
748.13	70.94	10.55		65.92	5.71	0.000084	
0.05547	39553.71						
135.00	4390.30	11.51	1.51	1129.04	0.08		
745.74	70.89	10.52		65.88	5.72	0.000083	
0.05468	39527.68						
136.00	4390.26	11.47	1.48	1100.12	0.08		
742.29	70.82	10.48		65.82	5.74	0.000076	
0.04947	39491.67						
137.00	4390.22	11.43	1.45	1072.11	0.08		
738.66	70.74	10.44		65.76	5.75	0.000060	
0.03913	39454.01						
138.00	4390.19	11.40	1.42	1046.64	0.07		
735.45	70.68	10.41		65.70	5.76	0.000066	
0.04265	39420.22						
139.00	4390.16	11.37	1.40	1025.18	0.07		
732.39	70.62	10.37		65.65	5.78	0.000067	
0.04350	39388.35						
140.00	4390.12	11.33	1.38	1003.27	0.07		
729.32	70.55	10.34		65.59	5.79	0.000071	
0.04578	39356.08						
141.00	4390.08	11.29	1.37	993.57	0.07		
725.64	70.48	10.30		65.53	5.80	0.000082	
0.05275	39317.43						
142.00	4390.03	11.24	1.39	1000.65	0.07		
720.35	70.37	10.24		65.44	5.82	0.000079	
0.05052	39261.58						
143.00	4389.98	11.19	1.38	986.06	0.07		
716.31	70.29	10.19		65.36	5.84	0.000062	
0.03920	39218.62						
144.00	4389.95	11.16	1.35	964.49	0.07		
713.10	70.22	10.16		65.31	5.85	0.000060	
0.03788	39184.39						
145.00	4389.92	11.12	1.33	942.23	0.07		
710.22	70.16	10.12		65.26	5.87	0.000069	
0.04390	39153.66						
146.00	4389.88	11.09	1.32	932.94	0.07		
706.72	70.09	10.08		65.19	5.88	0.000068	
0.04268	39116.09						
147.00	4389.82	11.03	1.34	938.72	0.07		
701.27	69.97	10.02		65.10	5.90	0.000055	
0.03446	39057.27						
148.00	4389.77	10.98	1.32	921.77	0.07		
697.05	69.88	9.97		65.02	5.92	0.000070	
0.04336	39011.56						
149.00	4389.74	10.95	1.30	904.41	0.07		
693.92	69.82	9.94		64.96	5.93	0.000058	
0.03579	38977.33						
150.00	4389.71	10.92	1.28	885.26	0.07		
691.08	69.76	9.91		64.91	5.95	0.000062	
0.03856	38946.36						
151.00	4389.68	10.89	1.26	864.40	0.07		
688.48	69.70	9.88		64.86	5.96	0.000060	
0.03727	38917.81						
152.00	4389.64	10.85	1.24	851.35	0.07		
685.37	69.63	9.84		64.81	5.97	0.000060	

		HYCHAN.OUT						
	0.03695	38883.65						
680.64	153.00	4389.59	10.80	1.25	851.71	0.07		
		69.53	9.79		64.72	5.99	0.000059	
	0.03614	38831.39						
676.19	154.00	4389.54	10.75	1.25	844.41	0.07		
		69.44	9.74		64.64	6.01	0.000063	
	0.03848	38781.81						
672.64	155.00	4389.50	10.71	1.23	826.08	0.07		
		69.36	9.70		64.57	6.03	0.000045	
	0.02717	38742.25						
669.01	156.00	4389.46	10.67	1.22	814.45	0.07		
		69.28	9.66		64.50	6.04	0.000055	
	0.03323	38701.63						
664.79	157.00	4389.41	10.62	1.20	799.15	0.07		
		69.19	9.61		64.42	6.06	0.000061	
	0.03680	38654.09						
668.26	158.00	4389.45	10.66	1.12	748.31	0.06		
		69.26	9.65		64.49	6.05	0.000039	
	0.02368	38693.57						
670.38	159.00	4389.48	10.69	1.09	732.52	0.06		
		69.31	9.67		64.53	6.04	0.000050	
	0.03017	38717.20						
670.38	160.00	4389.48	10.69	1.09	727.86	0.06		
		69.31	9.67		64.53	6.04	0.000040	
	0.02424	38716.96						
669.95	161.00	4389.47	10.68	1.08	722.42	0.06		
		69.30	9.67		64.52	6.04	0.000048	
	0.02925	38712.25						
669.13	162.00	4389.46	10.67	1.07	718.00	0.06		
		69.28	9.66		64.50	6.04	0.000042	
	0.02511	38702.96						
668.53	163.00	4389.46	10.67	1.07	713.30	0.06		
		69.27	9.65		64.49	6.05	0.000044	
	0.02638	38696.30						
667.83	164.00	4389.45	10.66	1.06	708.90	0.06		
		69.25	9.64		64.48	6.05	0.000041	
	0.02496	38688.42						
667.29	165.00	4389.44	10.65	1.06	705.57	0.06		
		69.24	9.64		64.47	6.05	0.000040	
	0.02384	38682.38						
665.86	166.00	4389.43	10.64	1.07	710.68	0.06		
		69.21	9.62		64.44	6.06	0.000047	
	0.02793	38666.17						
661.13	167.00	4389.37	10.58	1.09	722.87	0.06		
		69.11	9.57		64.35	6.08	0.000038	
	0.02276	38612.66						
658.22	168.00	4389.34	10.55	1.09	719.85	0.06		
		69.04	9.53		64.30	6.09	0.000041	
	0.02463	38579.55						
656.97	169.00	4389.33	10.54	1.09	714.10	0.06		
		69.01	9.52		64.28	6.10	0.000056	
	0.03349	38565.21						
656.03	170.00	4389.32	10.53	1.08	707.36	0.06		
		68.99	9.51		64.26	6.10	0.000048	
	0.02850	38554.54						
655.20	171.00	4389.31	10.52	1.07	701.48	0.06		
		68.98	9.50		64.24	6.11	0.000045	
	0.02690	38545.11						
654.52	172.00	4389.30	10.51	1.06	696.62	0.06		
		68.96	9.49		64.23	6.11	0.000031	
	0.01829	38537.37						
653.80	173.00	4389.29	10.50	1.06	691.91	0.06		
		68.94	9.48		64.21	6.11	0.000039	

HYCHAN.OUT									
0.02312	38528.99								
174.00	4389.27	10.48	1.06	694.09	0.06				
652.12	68.91	9.46		64.18	6.12	0.000051			
0.03035	38509.68								
175.00	4389.22	10.43	1.09	707.02	0.06				
647.44	68.80	9.41		64.09	6.14	0.000052			
0.03030	38455.90								
176.00	4389.19	10.40	1.09	703.95	0.06				
644.54	68.74	9.38		64.04	6.16	0.000051			
0.02975	38422.32								
177.00	4389.17	10.38	1.08	695.50	0.06				
642.98	68.70	9.36		64.01	6.17	0.000046			
0.02672	38404.32								
178.00	4389.16	10.37	1.07	688.04	0.06				
641.89	68.68	9.35		63.99	6.17	0.000042			
0.02439	38391.63								
179.00	4389.15	10.36	1.06	680.81	0.06				
640.93	68.66	9.34		63.97	6.18	0.000042			
0.02468	38380.57								
180.00	4389.14	10.35	1.05	674.07	0.06				
640.10	68.64	9.33		63.95	6.18	0.000041			
0.02364	38370.85								
181.00	4389.15	10.36	1.02	654.90	0.06				
641.54	68.67	9.34		63.98	6.17	0.000028			
0.01638	38387.88								
182.00	4389.24	10.45	0.95	617.39	0.05				
649.64	68.84	9.44		64.13	6.14	0.000034			
0.01980	38477.60								
183.00	4389.30	10.51	0.92	603.19	0.05				
655.07	68.96	9.50		64.23	6.11	0.000037			
0.02204	38537.64								
184.00	4389.36	10.57	0.89	587.39	0.05				
660.72	69.08	9.56		64.33	6.09	0.000018			
0.01064	38598.62								
185.00	4389.39	10.60	0.89	592.31	0.05				
663.65	69.15	9.60		64.39	6.07	0.000027			
0.01590	38633.23								
186.00	4389.41	10.62	0.90	599.70	0.05				
665.07	69.18	9.61		64.41	6.07	0.000034			
0.02032	38648.77								
187.00	4389.42	10.63	0.91	605.12	0.05				
665.46	69.19	9.62		64.43	6.06	0.000013			
0.00772	38657.20								
188.00	4389.42	10.63	0.91	609.30	0.05				
666.08	69.21	9.62		64.44	6.06	0.000041			
0.02468	38663.19								
189.00	4389.43	10.64	0.91	609.27	0.05				
665.98	69.21	9.62		64.45	6.06	0.000024			
0.01448	38667.19								
190.00	4389.43	10.64	0.92	611.81	0.05				
666.37	69.21	9.63		64.45	6.06	0.000028			
0.01655	38667.04								
191.00	4389.43	10.64	0.92	611.71	0.05				
666.42	69.21	9.63		64.44	6.06	0.000043			
0.02583	38666.57								
192.00	4389.42	10.63	0.93	618.66	0.05				
665.15	69.19	9.61		64.42	6.06	0.000024			
0.01459	38654.85								
193.00	4389.37	10.58	0.96	634.61	0.05				
660.91	69.09	9.57		64.34	6.08	0.000033			
0.01962	38604.55								
194.00	4389.34	10.55	0.96	632.01	0.05				
658.34	69.03	9.54		64.29	6.10	0.000038			

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## HYCHAN.OUT

0.02246	38574.52							
195.00	4389.32	10.53	0.95	627.52	0.05			
657.11	69.01	9.52		64.27	6.10	0.000036		
0.02168	38562.19							
196.00	4389.31	10.52	0.95	622.48	0.05			
656.42	68.99	9.51		64.25	6.11	0.000031		
0.01868	38552.45							
197.00	4389.31	10.52	0.94	619.28	0.05			
656.01	68.98	9.51		64.24	6.11	0.000037		
0.02202	38546.06							
198.00	4389.30	10.51	0.94	615.16	0.05			
655.43	68.97	9.50		64.24	6.11	0.000038		
0.02227	38541.00							
199.00	4389.30	10.51	0.93	612.33	0.05			
655.10	68.96	9.50		64.23	6.11	0.000032		
0.01901	38538.25							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4636

MAXIMUM DISCHARGE (CFS) = 1670.51 AT TIME = 114.40  
 MAXIMUM STAGE = 4394.47 AT TIME = 91.72

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE	
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	4378.67	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4378.67	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4378.67	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4378.67	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4378.67	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4378.89	0.22	-0.30	-19.03	0.11	0.000000
63.40	21.42	2.96	21.89	98.67	0.12	0.000000
0.00000	11820.96					
6.00	4383.54	4.87	-1.46	-324.65	0.12	0.000000
221.73	54.61	4.06	51.81	10.65	0.03	0.000000
0.00000	27978.69					
7.00	4385.35	6.68	-0.43	-149.66	0.01	0.000000
349.37	60.11	5.81	56.60	8.47	0.01	0.000000
0.00000	30562.17					
8.00	4385.67	7.00	-0.21	-78.29	0.01	0.000000
377.18	60.98	6.19	57.35	8.19	0.01	0.000000
0.00000	30968.68					
9.00	4385.68	7.01	-0.11	-42.31	0.01	0.000000
377.28	61.01	6.18	57.38	8.18	0.00	0.000000
0.00000	30982.93					
10.00	4385.64	6.97	-0.06	-22.89	0.00	0.000000
374.43	60.90	6.15	57.28	8.21	0.00	0.000000
0.00000	30932.20					

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HYCHAN.OUT									
369.01	11.00	4385.59	6.92	0.03	12.59	0.00	0.000000		
	0.00000	60.76	6.07		57.17	8.26			
		30869.21							
366.09	12.00	4385.54	6.87	0.04	15.15	0.00	0.000013		
	0.00472	60.63	6.04		57.05	8.30			
		30804.35							
359.09	13.00	4385.45	6.78	0.08	27.82	0.01	0.000000		
	0.00000	60.39	5.95		56.84	8.38			
		30692.18							
350.08	14.00	4385.32	6.65	0.09	32.12	0.01	0.000018		
	0.00662	60.03	5.83		56.53	8.50			
		30527.29							
343.42	15.00	4385.23	6.56	0.06	20.74	0.00	0.000030		
	0.01092	59.78	5.74		56.32	8.58			
		30410.23							
340.03	16.00	4385.19	6.52	0.04	12.31	0.00	0.000000		
	0.00000	59.68	5.70		56.22	8.62			
		30359.71							
338.26	17.00	4385.17	6.50	0.02	5.48	0.00	0.000022		
	0.00761	59.63	5.67		56.18	8.64			
		30337.21							
337.37	18.00	4385.16	6.49	0.01	3.37	0.00	0.000000		
	0.00000	59.60	5.66		56.16	8.65			
		30324.28							
0.00	19.00	4385.16	6.49	0.00	0.00	0.00	0.000000		
	0.00000	59.60	0.00		56.16	8.65			
		30323.70							
342.89	20.00	4385.23	6.56	-0.07	-23.69	0.00	0.000000		
	0.00000	59.77	5.74		56.31	8.59			
		30404.74							
352.28	21.00	4385.35	6.68	-0.10	-34.91	0.01	0.000000		
	0.00000	60.12	5.86		56.61	8.47			
		30568.53							
362.63	22.00	4385.49	6.82	-0.11	-39.92	0.01	0.000000		
	0.00000	60.49	5.99		56.93	8.35			
		30742.33							
368.95	23.00	4385.59	6.92	-0.08	-30.79	0.01	0.000000		
	0.00000	60.75	6.07		57.15	8.26			
		30863.23							
372.96	24.00	4385.63	6.96	-0.05	-19.81	0.00	0.000000		
	0.00000	60.87	6.13		57.25	8.23			
		30917.51							
380.90	25.00	4385.72	7.05	-0.10	-39.44	0.01	0.000000		
	0.00000	61.11	6.23		57.47	8.15			
		31031.76							
395.14	26.00	4385.91	7.24	-0.16	-65.19	0.01	0.000000		
	0.00000	61.59	6.42		57.88	8.00			
		31253.95							
411.79	27.00	4386.11	7.44	-0.20	-84.00	0.01	0.000000		
	0.00000	62.10	6.63		58.32	7.84			
		31493.16							
429.24	28.00	4386.34	7.67	-0.22	-95.90	0.01	0.000000		
	0.00000	62.67	6.85		58.82	7.67			
		31760.44							
438.99	29.00	4386.46	7.79	-0.16	-70.55	0.01	0.000000		
	0.00000	62.98	6.97		59.09	7.58			
		31905.91							
444.32	30.00	4386.53	7.86	-0.12	-52.27	0.01	0.000000		
	0.00000	63.16	7.03		59.24	7.53			
		31988.07							
451.77	31.00	4386.62	7.95	-0.13	-58.41	0.01	0.000000		
	0.00000	63.38	7.13		59.42	7.47			
		32089.41							

		HYCHAN.OUT							
455.71	32.00	4386.68	8.01	-0.08	59.55	-38.31	7.43	0.01	0.000000
	0.00000	63.52	7.17						
	33.00	32157.50	8.06	-0.06	59.64	-29.35	7.40	0.00	0.000000
459.74	0.00000	63.63	7.23						
	34.00	32205.78	8.13	-0.09	59.80	-44.01	7.35	0.01	0.000000
466.08	0.00000	63.81	7.30						
	35.00	32291.49	8.19	-0.06	59.91	-28.47	7.32	0.00	0.000000
469.29	0.00000	63.94	7.34						
	36.00	32350.13	8.23	-0.04	59.99	-20.26	7.29	0.00	0.000000
475.95	0.00000	64.03	7.43						
	37.00	32395.29	8.25	-0.01	60.03	-4.97	7.28	0.00	0.000011
475.21	0.00527	64.08	7.42						
	38.00	32414.78	8.23	0.04	60.00	17.64	7.29	0.00	0.000000
473.48	0.00000	64.04	7.39						
	39.00	32398.16	8.17	0.08	59.87	36.83	7.33	0.00	0.000000
468.89	0.00000	63.89	7.34						
	40.00	32328.74	8.12	0.05	59.78	24.37	7.36	0.00	0.000000
465.11	0.00000	63.78	7.29						
	41.00	32279.29	8.10	0.02	59.73	11.32	7.37	0.00	0.000000
462.91	0.00000	63.73	7.26						
	42.00	32252.34	8.09	0.01	59.70	6.27	7.38	0.00	0.000000
461.76	0.00000	63.69	7.25						
	43.00	32237.05	8.08	0.00	59.69	0.00	7.39	0.00	0.000006
0.00	0.00000	63.68	0.00						
	44.00	32230.16	8.09	-0.02	59.70	-7.92	7.38	0.00	0.000000
462.79	0.00000	63.69	7.27						
	45.00	32237.15	8.13	-0.08	59.80	-37.28	7.35	0.00	0.000000
465.94	0.00000	63.81	7.30						
	46.00	32291.01	8.19	-0.07	59.91	-33.39	7.32	0.00	0.000000
470.84	0.00000	63.94	7.36						
	47.00	32351.95	8.28	-0.11	60.09	-54.73	7.26	0.01	0.000000
478.45	0.00000	64.15	7.46						
	48.00	32450.56	8.40	-0.15	60.34	-72.22	7.18	0.01	0.000000
488.47	0.00000	64.44	7.58						
	49.00	32582.15	8.53	-0.17	60.60	-82.98	7.10	0.01	0.000000
499.80	0.00000	64.74	7.72						
	50.00	32724.43	8.67	-0.17	60.87	-88.96	7.02	0.01	0.000000
511.61	0.00000	65.06	7.86						
	51.00	32872.34	8.81	-0.18	61.15	-96.61	6.94	0.01	0.000000
523.52	0.00000	65.38	8.01						
	52.00	33021.77	8.97	-0.20	61.45	-109.74	6.85	0.01	0.000000
537.70	0.00000	65.73	8.18						
		33182.61							



		HYCHAN.OUT					
552.33	53.00	4387.82	9.15	-0.23	-125.98	0.01	0.000000
	0.00000	66.12	8.35		61.78	6.76	
		33363.66					
564.18	54.00	4387.96	9.29	-0.18	-102.32	0.01	0.000000
	0.00000	66.42	8.49		62.05	6.68	
		33506.59					
579.85	55.00	4388.12	9.45	-0.23	-135.98	0.01	0.000000
	0.00000	66.77	8.68		62.35	6.60	
		33669.20					
601.41	56.00	4388.35	9.68	-0.33	-200.45	0.02	0.000000
	0.00000	67.25	8.94		62.76	6.49	
		33892.89					
638.33	57.00	4388.75	10.08	-0.59	-376.05	0.03	0.000000
	0.00000	68.10	9.37		63.49	6.30	
		34286.06					
684.79	58.00	4389.27	10.60	-0.85	-585.07	0.05	0.000000
	0.00000	69.13	9.91		64.38	6.08	
		34763.14					
730.98	59.00	4389.77	11.10	-1.09	-793.26	0.06	0.000000
	0.00000	70.10	10.43		65.21	5.88	
		35212.89					
764.87	60.00	4390.13	11.46	-1.24	-949.33	0.06	0.000000
	0.00000	70.79	10.80		65.80	5.74	
		35529.66					
792.82	61.00	4390.43	11.76	-1.17	-931.13	0.06	0.000000
	0.00000	71.34	11.11		66.27	5.64	
		35784.72					
812.18	62.00	4390.62	11.95	-1.12	-911.27	0.06	0.000000
	0.00000	71.70	11.33		66.58	5.57	
		35952.35					
821.42	63.00	4390.72	12.05	-1.12	-922.40	0.06	0.000000
	0.00000	71.88	11.43		66.73	5.54	
		36031.82					
832.41	64.00	4390.84	12.17	-1.02	-847.21	0.05	0.000000
	0.00000	72.09	11.55		66.91	5.50	
		36130.62					
847.35	65.00	4391.00	12.33	-0.76	-641.44	0.04	0.000000
	0.00000	72.39	11.71		67.16	5.45	
		36266.71					
858.93	66.00	4391.14	12.47	-0.50	-433.74	0.03	0.000000
	0.00000	72.66	11.82		67.37	5.40	
		36380.47					
867.37	67.00	4391.25	12.58	-0.33	-282.22	0.02	0.000000
	0.00000	72.88	11.90		67.53	5.37	
		36467.75					
874.01	68.00	4391.37	12.70	-0.11	-92.26	0.01	0.000000
	0.00000	73.11	11.95		67.71	5.33	
		36563.35					
888.36	69.00	4391.55	12.88	-0.06	-56.57	0.00	0.000010
	0.00779	73.47	12.09		67.98	5.28	
		36707.81					
902.72	70.00	4391.74	13.07	0.05	43.86	0.00	0.000000
	0.00000	73.85	12.22		68.25	5.22	
		36856.82					
924.20	71.00	4391.95	13.28	-0.13	-123.89	0.01	0.000000
	0.00000	74.28	12.44		68.56	5.16	
		37024.45					
944.96	72.00	4392.19	13.52	-0.11	-104.18	0.01	0.000000
	0.00000	74.75	12.64		68.90	5.10	
		37205.15					
955.48	73.00	4392.38	13.71	-0.32	-303.15	0.02	0.000000
	0.00000	75.14	12.72		69.17	5.05	
		37353.76					

HYCHAN.OUT							
966.07	74.00	4392.54	13.87	-0.40	-390.30	0.02	0.000000
	0.00000	75.46	12.80		69.40	5.00	
		37475.40					
974.78	75.00	4392.68	14.01	-0.53	-516.87	0.02	0.000000
	0.00000	75.73	12.87		69.59	4.97	
		37578.35					
984.25	76.00	4392.83	14.16	-0.72	-703.95	0.03	0.000000
	0.00000	76.03	12.95		69.79	4.93	
		37688.79					
993.37	77.00	4392.97	14.30	-0.84	-832.05	0.04	0.000000
	0.00000	76.33	13.02		70.00	4.89	
		37798.71					
1000.37	78.00	4393.09	14.42	-0.83	-833.28	0.04	0.000000
	0.00000	76.55	13.07		70.15	4.87	
		37880.86					
1009.17	79.00	4393.23	14.56	-1.10	-1113.98	0.05	0.000000
	0.00000	76.84	13.13		70.35	4.83	
		37987.40					
1017.48	80.00	4393.37	14.70	-1.26	-1283.62	0.06	0.000000
	0.00000	77.11	13.20		70.53	4.80	
		38084.39					
1028.09	81.00	4393.53	14.86	-1.32	-1360.66	0.06	0.000000
	0.00000	77.44	13.28		70.75	4.76	
		38202.52					
1037.75	82.00	4393.68	15.01	-1.32	-1373.80	0.06	0.000000
	0.00000	77.74	13.35		70.95	4.73	
		38311.83					
1049.52	83.00	4393.87	15.20	-1.25	-1311.47	0.06	0.000000
	0.00000	78.12	13.43		71.20	4.68	
		38447.27					
1060.35	84.00	4394.05	15.38	-1.15	-1215.47	0.05	0.000000
	0.00000	78.47	13.51		71.42	4.65	
		38567.69					
1067.47	85.00	4394.16	15.49	-1.09	-1166.55	0.05	0.000000
	0.00000	78.70	13.56		71.57	4.62	
		38650.32					
1073.54	86.00	4394.27	15.60	-1.01	-1086.21	0.05	0.000000
	0.00000	78.91	13.60		71.71	4.60	
		38722.98					
1079.45	87.00	4394.37	15.70	-0.90	-966.42	0.04	0.000000
	0.00000	79.11	13.64		71.84	4.58	
		38792.29					
1085.62	88.00	4394.47	15.80	-0.79	-855.46	0.03	0.000000
	0.00000	79.33	13.69		71.97	4.55	
		38865.21					
1089.76	89.00	4394.56	15.89	-0.72	-787.07	0.03	0.000000
	0.00000	79.49	13.71		72.08	4.54	
		38922.75					
1094.09	90.00	4394.64	15.97	-0.68	-740.25	0.03	0.000000
	0.00000	79.65	13.74		72.18	4.52	
		38975.17					
1096.63	91.00	4394.68	16.01	-0.63	-689.67	0.03	0.000000
	0.00000	79.74	13.75		72.24	4.51	
		39007.08					
1098.28	92.00	4394.70	16.03	-0.61	-675.08	0.03	0.000000
	0.00000	79.78	13.77		72.26	4.51	
		39018.81					
1098.15	93.00	4394.69	16.02	-0.61	-673.07	0.03	0.000000
	0.00000	79.75	13.77		72.24	4.51	
		39010.33					
1095.62	94.00	4394.66	15.99	-0.58	-638.12	0.03	0.000000
	0.00000	79.69	13.75		72.20	4.52	
		38989.92					

HYCHAN.OUT							
1091.71	95.00	4394.60	15.93	-0.61	-662.04	0.03	0.000000
	0.00000	79.58	13.72		72.14	4.53	
		38953.37					
1087.69	96.00	4394.54	15.87	-0.63	-683.79	0.03	0.000000
	0.00000	79.46	13.69		72.06	4.54	
		38910.18					
1083.39	97.00	4394.47	15.80	-0.66	-710.15	0.03	0.000000
	0.00000	79.31	13.66		71.96	4.56	
		38860.29					
1078.16	98.00	4394.39	15.72	-0.71	-768.10	0.03	0.000000
	0.00000	79.15	13.62		71.86	4.57	
		38805.22					
1073.29	99.00	4394.31	15.64	-0.75	-801.87	0.03	0.000000
	0.00000	78.99	13.59		71.76	4.59	
		38750.35					
1068.57	100.00	4394.23	15.56	-0.74	-791.39	0.03	0.000000
	0.00000	78.83	13.56		71.66	4.61	
		38694.27					
1061.38	101.00	4394.10	15.43	-0.83	-882.33	0.04	0.000000
	0.00000	78.58	13.51		71.50	4.63	
		38608.34					
1051.21	102.00	4393.93	15.26	-1.05	-1107.08	0.05	0.000000
	0.00000	78.24	13.44		71.28	4.67	
		38489.52					
1037.09	103.00	4393.71	15.04	-1.32	-1365.20	0.06	0.000000
	0.00000	77.79	13.33		70.98	4.72	
		38329.33					
1024.85	104.00	4393.51	14.84	-1.31	-1340.74	0.06	0.000000
	0.00000	77.39	13.24		70.72	4.77	
		38186.17					
1015.88	105.00	4393.35	14.68	-0.76	-777.13	0.04	0.000000
	0.00000	77.07	13.18		70.50	4.80	
		38071.49					
992.49	106.00	4393.16	14.49	0.05	53.87	0.00	0.000000
	0.00000	76.70	12.94		70.25	4.85	
		37934.75					
992.75	107.00	4393.04	14.37	0.32	321.18	0.02	0.000000
	0.00000	76.46	12.98		70.09	4.88	
		37847.65					
982.54	108.00	4392.88	14.21	0.43	423.72	0.02	0.000007
	0.00583	76.14	12.91		69.87	4.92	
		37728.79					
970.26	109.00	4392.67	14.00	0.70	674.43	0.03	0.000031
	0.02477	75.72	12.81		69.58	4.97	
		37572.26					
955.11	110.00	4392.43	13.76	1.15	1095.59	0.05	0.000000
	0.00000	75.23	12.70		69.24	5.03	
		37388.48					
942.50	111.00	4392.22	13.55	1.49	1401.98	0.07	0.000012
	0.00913	74.82	12.60		68.95	5.09	
		37232.73					
930.82	112.00	4392.04	13.37	1.67	1556.72	0.08	0.000036
	0.02793	74.46	12.50		68.69	5.14	
		37094.61					
918.20	113.00	4391.89	13.22	1.73	1585.67	0.08	0.000000
	0.00000	74.15	12.38		68.47	5.18	
		36973.34					
903.57	114.00	4391.72	13.05	1.78	1604.16	0.09	0.000066
	0.05041	73.81	12.24		68.23	5.23	
		36842.11					
887.25	115.00	4391.53	12.86	1.84	1633.86	0.09	0.000043
	0.03227	73.45	12.08		67.96	5.28	
		36696.41					

HYCHAN.OUT							
116.00	4391.41	12.74	1.81	1586.81	0.09		
877.27	73.20	11.98	67.78	5.32	0.000053		
0.04001	36599.05						
117.00	4391.34	12.67	1.76	1530.63	0.09		
871.55	73.06	11.93	67.67	5.34	0.000037		
0.02779	36543.41						
118.00	4391.26	12.59	1.82	1569.53	0.09		
864.63	72.89	11.86	67.55	5.37	0.000061		
0.04510	36474.95						
119.00	4391.19	12.52	1.87	1606.51	0.09		
858.73	72.75	11.80	67.44	5.39	0.000059		
0.04359	36417.36						
120.00	4391.14	12.47	1.90	1623.99	0.09		
854.87	72.66	11.77	67.37	5.40	0.000054		
0.03969	36380.19						
121.00	4391.12	12.45	1.89	1613.95	0.09		
852.98	72.62	11.75	67.34	5.41	0.000047		
0.03478	36362.13						
122.00	4391.07	12.40	1.86	1577.37	0.09		
848.87	72.51	11.71	67.26	5.42	0.000103		
0.07544	36320.30						
123.00	4390.96	12.29	1.80	1508.57	0.09		
839.07	72.31	11.60	67.10	5.46	0.000106		
0.07672	36233.44						
124.00	4390.88	12.21	1.82	1510.91	0.09		
830.75	72.16	11.51	66.97	5.49	0.000132		
0.09455	36164.47						
125.00	4390.80	12.13	1.82	1497.86	0.09		
823.40	72.03	11.43	66.86	5.51	0.000104		
0.07395	36102.89						
126.00	4390.72	12.05	1.83	1491.10	0.09		
814.56	71.88	11.33	66.73	5.54	0.000119		
0.08397	36032.71						
127.00	4390.65	11.98	1.81	1459.35	0.09		
807.81	71.75	11.26	66.62	5.56	0.000120		
0.08456	35972.57						
128.00	4390.58	11.91	1.78	1427.85	0.09		
800.96	71.62	11.18	66.51	5.58	0.000104		
0.07272	35914.18						
129.00	4390.49	11.82	1.78	1412.64	0.09		
792.63	71.47	11.09	66.37	5.61	0.000119		
0.08233	35841.78						
130.00	4390.42	11.75	1.75	1376.10	0.09		
785.82	71.34	11.02	66.26	5.64	0.000114		
0.07846	35781.95						
131.00	4390.35	11.68	1.72	1344.03	0.09		
779.19	71.21	10.94	66.15	5.66	0.000100		
0.06810	35722.68						
132.00	4390.26	11.59	1.73	1329.61	0.09		
770.74	71.04	10.85	66.01	5.69	0.000101		
0.06819	35647.22						
133.00	4390.21	11.54	1.66	1274.37	0.09		
766.37	70.95	10.80	65.93	5.71	0.000085		
0.05731	35602.16						
134.00	4390.22	11.55	1.53	1176.11	0.08		
767.48	70.95	10.82	65.94	5.71	0.000069		
0.04627	35604.98						
135.00	4390.20	11.53	1.48	1129.42	0.08		
765.69	70.92	10.80	65.90	5.72	0.000070		
0.04692	35588.11						
136.00	4390.16	11.49	1.44	1100.46	0.08		
762.68	70.85	10.76	65.85	5.73	0.000063		
0.04220	35559.38						

HYCHAN.OUT							
137.00	4390.13	11.46	1.41	1072.28	0.07		
759.38	70.79	10.73		65.79	5.74	0.000068	
0.04537	35528.86						
138.00	4390.10	11.43	1.38	1047.20	0.07		
756.44	70.73	10.69		65.74	5.75	0.000069	
0.04636	35501.44						
139.00	4390.07	11.40	1.36	1025.67	0.07		
753.57	70.67	10.66		65.70	5.77	0.000057	
0.03821	35475.30						
140.00	4390.03	11.36	1.34	1003.90	0.07		
750.63	70.61	10.63		65.65	5.78	0.000056	
0.03711	35448.85						
141.00	4390.00	11.33	1.33	994.56	0.07		
746.99	70.54	10.59		65.58	5.79	0.000049	
0.03228	35414.45						
142.00	4389.94	11.27	1.35	1001.34	0.07		
741.19	70.43	10.52		65.49	5.81	0.000065	
0.04253	35362.16						
143.00	4389.89	11.22	1.34	986.25	0.07		
737.29	70.35	10.48		65.42	5.83	0.000078	
0.05092	35325.13						
144.00	4389.86	11.19	1.31	964.69	0.07		
734.41	70.29	10.45		65.36	5.84	0.000063	
0.04076	35296.62						
145.00	4389.83	11.16	1.29	942.90	0.07		
731.62	70.23	10.42		65.32	5.85	0.000060	
0.03921	35271.74						
146.00	4389.79	11.13	1.28	933.86	0.07		
728.21	70.16	10.38		65.26	5.87	0.000060	
0.03896	35238.57						
147.00	4389.73	11.06	1.30	939.09	0.07		
722.39	70.04	10.31		65.15	5.89	0.000074	
0.04764	35183.64						
148.00	4389.69	11.02	1.28	922.69	0.07		
718.10	69.96	10.27		65.08	5.91	0.000055	
0.03545	35144.04						
149.00	4389.66	10.99	1.26	904.50	0.07		
715.25	69.89	10.23		65.03	5.92	0.000073	
0.04672	35115.78						
150.00	4389.63	10.96	1.24	885.86	0.07		
712.61	69.84	10.20		64.98	5.93	0.000054	
0.03467	35089.71						
151.00	4389.60	10.93	1.22	864.75	0.06		
710.17	69.79	10.18		64.94	5.94	0.000060	
0.03812	35067.29						
152.00	4389.57	10.90	1.20	851.89	0.06		
707.21	69.72	10.14		64.88	5.95	0.000048	
0.03022	35037.27						
153.00	4389.52	10.85	1.21	852.49	0.06		
702.22	69.62	10.09		64.80	5.97	0.000065	
0.04085	34989.77						
154.00	4389.47	10.80	1.21	845.07	0.06		
697.58	69.53	10.03		64.71	5.99	0.000043	
0.02676	34945.13						
155.00	4389.43	10.76	1.19	826.09	0.06		
694.26	69.45	10.00		64.65	6.01	0.000067	
0.04201	34912.15						
156.00	4389.39	10.72	1.18	815.60	0.06		
690.67	69.38	9.96		64.59	6.02	0.000061	
0.03764	34876.57						
157.00	4389.35	10.68	1.16	799.27	0.06		
686.59	69.29	9.91		64.51	6.04	0.000035	
0.02154	34835.61						

HYCHAN.OUT							
158.00	4389.39	10.72	1.08	747.03	0.06		
691.22	69.38	9.96		64.59	6.02	0.000049	
0.03041	34879.72						
159.00	4389.42	10.75	1.06	732.92	0.06		
693.39	69.43	9.99		64.64	6.01	0.000048	
0.03013	34903.01						
160.00	4389.42	10.75	1.05	727.49	0.06		
693.55	69.44	9.99		64.64	6.01	0.000049	
0.03036	34903.67						
161.00	4389.42	10.75	1.04	722.91	0.06		
693.06	69.43	9.98		64.63	6.01	0.000045	
0.02818	34899.89						
162.00	4389.41	10.74	1.04	717.73	0.06		
692.33	69.41	9.97		64.62	6.02	0.000042	
0.02589	34892.24						
163.00	4389.40	10.73	1.03	713.73	0.06		
691.65	69.40	9.97		64.60	6.02	0.000044	
0.02706	34886.62						
164.00	4389.39	10.72	1.03	708.61	0.06		
691.08	69.39	9.96		64.59	6.02	0.000039	
0.02436	34880.06						
165.00	4389.39	10.72	1.02	706.00	0.06		
690.58	69.37	9.95		64.58	6.03	0.000041	
0.02556	34874.98						
166.00	4389.37	10.70	1.03	710.98	0.06		
689.10	69.34	9.94		64.55	6.03	0.000040	
0.02482	34859.33						
167.00	4389.32	10.65	1.06	723.75	0.06		
683.72	69.23	9.88		64.46	6.05	0.000062	
0.03810	34809.26						
168.00	4389.28	10.61	1.06	720.25	0.06		
680.73	69.17	9.84		64.41	6.07	0.000042	
0.02562	34779.23						
169.00	4389.27	10.60	1.05	714.00	0.06		
679.71	69.14	9.83		64.38	6.07	0.000033	
0.02016	34767.04						
170.00	4389.26	10.59	1.04	707.27	0.06		
678.73	69.12	9.82		64.37	6.08	0.000039	
0.02369	34758.57						
171.00	4389.25	10.58	1.04	701.78	0.06		
678.02	69.11	9.81		64.35	6.08	0.000056	
0.03415	34750.60						
172.00	4389.25	10.58	1.03	696.84	0.06		
677.44	69.09	9.80		64.34	6.08	0.000050	
0.03050	34744.10						
173.00	4389.24	10.57	1.02	691.99	0.06		
676.87	69.08	9.80		64.33	6.09	0.000038	
0.02343	34737.21						
174.00	4389.22	10.55	1.03	694.41	0.06		
674.92	69.04	9.78		64.30	6.10	0.000035	
0.02128	34719.31						
175.00	4389.16	10.49	1.06	707.67	0.06		
669.70	68.93	9.72		64.20	6.12	0.000041	
0.02471	34668.39						
176.00	4389.13	10.46	1.06	704.20	0.06		
666.81	68.86	9.68		64.15	6.13	0.000045	
0.02702	34638.32						
177.00	4389.11	10.44	1.05	695.66	0.06		
665.35	68.83	9.67		64.12	6.14	0.000041	
0.02496	34623.05						
178.00	4389.10	10.43	1.04	688.16	0.06		
664.31	68.81	9.65		64.10	6.14	0.000045	
0.02700	34612.80						

HYCHAN.OUT							
179.00	4389.09	10.42	1.03	681.04	0.06		
663.39	68.79	9.64	64.08	6.15	0.000053		
0.03180	34603.59						
180.00	4389.08	10.41	1.02	674.13	0.06		
662.64	68.77	9.64	64.07	6.15	0.000053		
0.03166	34595.86						
181.00	4389.10	10.43	0.98	654.18	0.05		
664.54	68.81	9.66	64.10	6.14	0.000051		
0.03045	34614.29						
182.00	4389.20	10.53	0.92	616.63	0.05		
673.62	69.00	9.76	64.26	6.10	0.000035		
0.02153	34701.27						
183.00	4389.26	10.59	0.89	601.89	0.05		
679.43	69.12	9.83	64.37	6.08	0.000025		
0.01555	34758.21						
184.00	4389.32	10.65	0.86	587.01	0.05		
685.34	69.25	9.90	64.47	6.05	0.000035		
0.02145	34816.29						
185.00	4389.36	10.69	0.86	591.64	0.05		
688.37	69.31	9.93	64.53	6.04	0.000033		
0.02023	34846.33						
186.00	4389.37	10.70	0.87	600.13	0.05		
689.74	69.34	9.95	64.55	6.03	0.000030		
0.01847	34859.68						
187.00	4389.38	10.71	0.88	604.68	0.05		
690.15	69.35	9.95	64.57	6.03	0.000043		
0.02651	34865.98						
188.00	4389.38	10.71	0.88	609.26	0.05		
690.67	69.36	9.96	64.58	6.03	0.000021		
0.01319	34870.76						
189.00	4389.39	10.72	0.88	609.34	0.05		
690.72	69.37	9.96	64.58	6.03	0.000037		
0.02296	34873.45						
190.00	4389.39	10.72	0.88	611.44	0.05		
690.92	69.37	9.96	64.58	6.03	0.000038		
0.02359	34874.34						
191.00	4389.39	10.72	0.89	612.02	0.05		
691.02	69.37	9.96	64.58	6.03	0.000022		
0.01338	34873.66						
192.00	4389.37	10.70	0.90	619.32	0.05		
689.65	69.35	9.95	64.56	6.03	0.000044		
0.02752	34861.71						
193.00	4389.32	10.65	0.93	635.06	0.05		
685.00	69.24	9.89	64.47	6.05	0.000036		
0.02234	34813.86						
194.00	4389.29	10.62	0.93	632.35	0.05		
682.36	69.18	9.86	64.42	6.06	0.000042		
0.02603	34787.23						
195.00	4389.28	10.61	0.92	627.85	0.05		
681.21	69.16	9.85	64.40	6.07	0.000034		
0.02072	34776.30						
196.00	4389.27	10.60	0.91	622.04	0.05		
680.47	69.14	9.84	64.39	6.07	0.000037		
0.02244	34768.81						
197.00	4389.27	10.60	0.91	619.98	0.05		
680.05	69.13	9.84	64.38	6.08	0.000033		
0.02007	34763.16						
198.00	4389.26	10.59	0.90	614.62	0.05		
679.68	69.12	9.83	64.37	6.08	0.000021		
0.01301	34759.54						
199.00	4389.26	10.59	0.90	612.98	0.05		
679.25	69.12	9.83	64.36	6.08	0.000038		
0.02357	34757.05						



## HYCHAN.OUT

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4637

MAXIMUM DISCHARGE (CFS) = 1719.75 AT TIME = 114.42  
 MAXIMUM STAGE = 4394.49 AT TIME = 91.72

AREA (FT^2)	TIME (HRS)	ELEV. SURFACE (FT)	THALWEG DEPTH (FT)	HYDRAULIC RADIUS (FT)	VELOCITY TOP (FPS)	DISCHARGE WIDTH/DEPTH (CFS)	FROUDE NO. ENERGY	FLOW SLOPE
0.00	0.00	4378.54	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4378.54	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4378.54	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4378.54	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4378.54	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
88.12	5.00	4379.01	0.47	3.28	-0.46	-40.24	0.12	0.000000
253.29	0.00000	26.85	5.16	4.56	-1.41	-358.06	0.11	0.000000
377.59	6.00	4383.70	6.82	6.24	-0.42	-159.07	0.03	0.000000
406.09	0.00000	55.58	7.13	6.62	-0.20	-79.57	0.01	0.000000
405.59	7.00	4385.36	7.14	6.61	-0.10	-41.58	0.01	0.000006
402.18	0.00000	60.48	7.10	6.57	-0.06	-22.61	0.00	0.000000
396.72	8.00	4385.67	7.05	6.49	0.03	13.44	0.00	0.000000
393.31	0.00000	61.32	7.00	6.45	0.04	15.99	0.00	0.000000
386.34	9.00	4385.68	6.91	6.36	0.07	28.97	0.01	0.000000
376.62	0.00000	34588.54	6.78	6.24	0.09	34.12	0.01	0.000018
369.47	0.00255	34601.89	6.69	6.14	0.06	21.74	0.00	0.000021
	10.00	4385.64	6.65		0.03	12.34	0.00	
	0.00000	61.24						
	11.00	4385.59						
	0.00000	61.11						
	12.00	4385.54						
	0.00000	60.97						
	13.00	4385.45						
	0.00000	60.73						
	14.00	4385.32						
	0.00712	60.39						
	15.00	4385.23						
	0.00806	60.14						
	16.00	4385.19						

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HYCHAN.OUT									
365.66	0.00000	60.03	6.09	56.53	8.50	0.000000			
	17.00	33919.39							
363.37	0.00567	4385.17	6.63	0.02	5.66	0.00			
	18.00	59.99	6.06	56.49	8.52	0.000015			
0.00	0.00000	33894.27							
	19.00	4385.16	6.62	0.00	0.00	0.00			
0.00	0.00000	59.96	0.00	56.47	8.52	0.000000			
	20.00	33880.25							
0.00	0.00000	4385.16	6.62	0.00	0.00	0.00			
	21.00	59.96	0.00	56.47	8.53	0.000000			
369.18	0.00000	33879.89							
	22.00	4385.23	6.69	-0.07	-24.92	0.00			
379.03	0.00000	60.13	6.14	56.61	8.47	0.000000			
	23.00	33968.68							
390.17	0.00000	4385.35	6.81	-0.10	-36.63	0.01			
	24.00	60.47	6.27	56.91	8.35	0.000000			
396.27	0.00000	34148.54							
	25.00	4385.49	6.95	-0.11	-41.70	0.01			
400.93	0.00000	60.84	6.41	57.23	8.23	0.000000			
	26.00	34339.15							
409.48	0.00000	4385.59	7.05	-0.08	-31.41	0.01			
	27.00	61.09	6.49	57.45	8.15	0.000000			
424.58	0.00000	34470.48							
	28.00	4385.63	7.09	-0.05	-20.46	0.00			
442.50	0.00000	61.21	6.55	57.55	8.12	0.000000			
	29.00	34530.23							
471.17	0.00000	4385.72	7.18	-0.10	-41.45	0.01			
	30.00	61.45	6.66	57.76	8.04	0.000000			
484.32	0.00000	34656.97							
	31.00	4385.91	7.37	-0.16	-67.56	0.01			
492.63	0.00000	61.92	6.86	58.17	7.90	0.000000			
	32.00	34900.93							
502.56	0.00000	4386.11	7.57	-0.20	-87.31	0.01			
	33.00	62.43	7.09	58.61	7.74	0.000000			
508.60	0.00000	35164.95							
	34.00	4386.34	7.80	-0.21	-98.45	0.01			
	35.00	63.00	7.32	59.10	7.58	0.000000			
	36.00	35458.05							
	37.00	4386.46	7.92	-0.15	-71.67	0.01			
	38.00	63.30	7.44	59.36	7.49	0.000000			
	39.00	35616.59							
	40.00	4386.53	7.99	-0.11	-53.32	0.01			
	41.00	63.48	7.49	59.51	7.44	0.000000			
	42.00	35705.85							
	43.00	4386.62	8.08	-0.12	-59.56	0.01			
	44.00	63.69	7.60	59.70	7.38	0.000000			
	45.00	35817.32							
	46.00	4386.68	8.14	-0.08	-38.88	0.00			
	47.00	63.83	7.65	59.82	7.34	0.000000			
	48.00	35890.82							
	49.00	4386.73	8.19	-0.06	-30.25	0.00			
	50.00	63.94	7.70	59.91	7.32	0.000000			
	51.00	35944.10							
	52.00	4386.81	8.27	-0.09	-45.02	0.01			
	53.00	64.12	7.78	60.06	7.27	0.000000			
	54.00	36038.68							
	55.00	4386.86	8.32	-0.06	-28.96	0.00			
	56.00	64.24	7.82	60.17	7.23	0.000000			
	57.00	36101.78							
	58.00	4386.90	8.36	-0.04	-21.05	0.00			
	59.00	64.34	7.90	60.25	7.21	0.000000			
	60.00	36152.71							
	61.00	4386.92	8.38	0.00	0.00	0.00			

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HYCHAN.OUT							
0.00	64.38	0.00	60.29	7.20	0.000012		
0.00000	36172.68						
38.00	4386.90	8.36	0.04	17.90	0.00		
506.75	64.34	7.88	60.26	7.21	0.000008		
0.00413	36155.23						
39.00	4386.84	8.30	0.08	37.91	0.00		
502.33	64.20	7.83	60.13	7.25	0.000000		
0.00000	36078.47						
40.00	4386.79	8.25	0.05	24.61	0.00		
498.31	64.09	7.77	60.04	7.27	0.000000		
0.00000	36025.44						
41.00	4386.77	8.23	0.02	11.66	0.00		
495.50	64.03	7.74	59.99	7.29	0.000008		
0.00375	35995.13						
42.00	4386.76	8.22	0.01	6.53	0.00		
494.13	64.00	7.72	59.96	7.30	0.000000		
0.00000	35978.68						
43.00	4386.75	8.21	0.00	0.00	0.00		
0.00	63.99	0.00	59.95	7.30	0.000000		
0.00000	35970.62						
44.00	4386.76	8.22	-0.02	-8.38	0.00		
496.16	64.00	7.75	59.97	7.30	0.000000		
0.00000	35979.07						
45.00	4386.80	8.26	-0.08	-37.97	0.00		
499.19	64.12	7.79	60.06	7.27	0.000000		
0.00000	36037.84						
46.00	4386.86	8.32	-0.07	-34.45	0.00		
503.94	64.25	7.84	60.17	7.23	0.000000		
0.00000	36104.84						
47.00	4386.95	8.41	-0.11	-56.27	0.01		
512.31	64.46	7.95	60.36	7.18	0.000000		
0.00000	36213.83						
48.00	4387.07	8.53	-0.14	-74.10	0.01		
522.68	64.74	8.07	60.60	7.10	0.000000		
0.00000	36358.93						
49.00	4387.20	8.66	-0.16	-84.86	0.01		
534.42	65.04	8.22	60.86	7.02	0.000000		
0.00000	36515.89						
50.00	4387.34	8.80	-0.17	-91.12	0.01		
547.85	65.36	8.38	61.13	6.94	0.000000		
0.00000	36678.45						
51.00	4387.49	8.95	-0.18	-98.56	0.01		
560.21	65.67	8.53	61.41	6.86	0.000000		
0.00000	36843.02						
52.00	4387.64	9.10	-0.20	-112.35	0.01		
575.49	66.02	8.72	61.70	6.78	0.000000		
0.00000	37020.54						
53.00	4387.82	9.28	-0.22	-128.41	0.01		
590.38	66.40	8.89	62.03	6.69	0.000000		
0.00000	37219.73						
54.00	4387.96	9.42	-0.17	-104.38	0.01		
602.64	66.71	9.03	62.29	6.61	0.000000		
0.00000	37376.08						
55.00	4388.12	9.58	-0.22	-138.89	0.01		
619.91	67.06	9.24	62.59	6.53	0.000000		
0.00000	37555.88						
56.00	4388.35	9.81	-0.32	-204.97	0.02		
642.54	67.53	9.51	63.00	6.42	0.000000		
0.00000	37802.89						
57.00	4388.76	10.22	-0.56	-383.41	0.03		
682.03	68.38	9.97	63.73	6.23	0.000000		
0.00000	38239.93						
58.00	4389.28	10.74	-0.81	-593.70	0.04		

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HYCHAN.OUT						
731.35	69.41	10.54	64.62	6.02	0.000000	
0.00000	38770.08					
59.00	4389.78	11.24	-1.03	-800.25	0.05	
780.43	70.39	11.09	65.45	5.82	0.000000	
0.00000	39271.02					
60.00	4390.15	11.61	-1.17	-954.29	0.06	
816.43	71.07	11.49	66.04	5.69	0.000000	
0.00000	39623.54					
61.00	4390.44	11.90	-1.11	-935.50	0.06	
845.47	71.61	11.81	66.50	5.59	0.000000	
0.00000	39900.89					
62.00	4390.64	12.10	-1.06	-913.46	0.05	
865.57	71.97	12.03	66.81	5.52	0.000000	
0.00000	40083.36					
63.00	4390.74	12.20	-1.06	-923.64	0.05	
875.24	72.14	12.13	66.95	5.49	0.000000	
0.00000	40170.94					
64.00	4390.85	12.31	-0.96	-850.00	0.05	
886.41	72.35	12.25	67.13	5.45	0.000000	
0.00000	40275.92					
65.00	4391.01	12.47	-0.71	-643.89	0.04	
901.79	72.63	12.42	67.37	5.40	0.000000	
0.00000	40419.83					
66.00	4391.15	12.61	-0.48	-435.73	0.02	
915.76	72.87	12.57	67.58	5.36	0.000000	
0.00000	40546.96					
67.00	4391.26	12.72	-0.31	-284.12	0.02	
926.37	73.06	12.68	67.74	5.33	0.000000	
0.00000	40643.55					
68.00	4391.37	12.83	-0.10	-94.45	0.00	
933.06	73.26	12.74	67.91	5.29	0.000000	
0.00000	40745.64					
69.00	4391.55	13.01	-0.06	-59.70	0.00	
951.33	73.57	12.93	68.17	5.24	0.000000	
0.00000	40902.30					
70.00	4391.74	13.20	0.04	40.19	0.00	
968.74	73.89	13.11	68.44	5.19	0.000000	
0.00000	41064.95					
71.00	4391.95	13.41	-0.13	-129.64	0.01	
991.55	74.25	13.35	68.74	5.13	0.000000	
0.00000	41244.39					
72.00	4392.18	13.64	-0.12	-124.87	0.01	
1011.96	74.73	13.54	69.08	5.06	0.000000	
0.00000	41445.57					
73.00	4392.37	13.83	-0.35	-353.22	0.02	
1023.50	75.10	13.63	69.34	5.01	0.000000	
0.00000	41605.08					
74.00	4392.53	13.99	-0.45	-470.35	0.02	
1034.03	75.42	13.71	69.56	4.97	0.000000	
0.00000	41738.29					
75.00	4392.67	14.13	-0.61	-631.43	0.03	
1043.26	75.70	13.78	69.75	4.94	0.000000	
0.00000	41851.90					
76.00	4392.82	14.28	-0.83	-872.37	0.04	
1053.22	76.00	13.86	69.96	4.90	0.000000	
0.00000	41975.33					
77.00	4392.97	14.43	-0.99	-1056.88	0.05	
1062.67	76.30	13.93	70.16	4.86	0.000000	
0.00000	42098.88					
78.00	4393.08	14.54	-1.03	-1104.04	0.05	
1069.78	76.52	13.98	70.31	4.84	0.000000	
0.00000	42187.59					
79.00	4393.22	14.68	-1.35	-1457.35	0.06	

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		HYCHAN.OUT					
1079.14	76.80	14.05	70.50	4.80	0.000000		
0.00000	42302.59						
80.00	4393.36	14.82	-1.57	-1707.73	0.07		
1088.25	77.09	14.12	70.70	4.77	0.000000		
0.00000	42417.36						
81.00	4393.55	15.01	-1.73	-1907.84	0.08		
1100.04	77.47	14.20	70.95	4.73	0.000000		
0.00000	42569.89						
82.00	4393.72	15.18	-1.83	-2036.51	0.08		
1110.25	77.81	14.27	71.17	4.69	0.000000		
0.00000	42701.28						
83.00	4393.93	15.39	-1.90	-2130.29	0.09		
1122.55	78.22	14.35	71.44	4.64	0.000000		
0.00000	42861.82						
84.00	4394.11	15.57	-1.92	-2173.38	0.09		
1133.64	78.59	14.43	71.67	4.60	0.000000		
0.00000	43004.76						
85.00	4394.24	15.70	-1.96	-2234.27	0.09		
1141.09	78.84	14.47	71.84	4.58	0.000000		
0.00000	43102.13						
86.00	4394.35	15.81	-1.97	-2257.48	0.09		
1147.38	79.06	14.51	71.98	4.55	0.000000		
0.00000	43186.64						
87.00	4394.45	15.91	-1.92	-2216.70	0.08		
1153.26	79.27	14.55	72.11	4.53	0.000000		
0.00000	43266.43						
88.00	4394.56	16.02	-1.87	-2166.72	0.08		
1159.28	79.48	14.59	72.24	4.51	0.000000		
0.00000	43345.45						
89.00	4394.64	16.10	-1.88	-2191.03	0.08		
1163.52	79.65	14.61	72.35	4.49	0.000000		
0.00000	43410.52						
90.00	4394.72	16.18	-1.87	-2188.72	0.08		
1167.83	79.81	14.63	72.45	4.48	0.000000		
0.00000	43468.72						
91.00	4394.77	16.23	-1.84	-2150.00	0.08		
1170.23	79.90	14.65	72.50	4.47	0.000000		
0.00000	43501.28						
92.00	4394.78	16.24	-1.82	-2128.41	0.08		
1171.77	79.92	14.66	72.52	4.47	0.000000		
0.00000	43510.84						
93.00	4394.76	16.22	-1.78	-2082.74	0.08		
1171.48	79.88	14.66	72.49	4.47	0.000000		
0.00000	43496.95						
94.00	4394.73	16.19	-1.75	-2047.28	0.08		
1168.85	79.82	14.64	72.45	4.48	0.000000		
0.00000	43472.16						
95.00	4394.67	16.13	-1.77	-2063.49	0.08		
1165.00	79.71	14.62	72.39	4.49	0.000000		
0.00000	43431.21						
96.00	4394.61	16.07	-1.77	-2057.98	0.08		
1160.95	79.59	14.59	72.31	4.50	0.000000		
0.00000	43386.04						
97.00	4394.54	16.00	-1.76	-2031.99	0.08		
1156.54	79.45	14.56	72.22	4.51	0.000000		
0.00000	43332.72						
98.00	4394.46	15.92	-1.78	-2049.72	0.08		
1151.36	79.29	14.52	72.12	4.53	0.000000		
0.00000	43271.47						
99.00	4394.38	15.84	-1.76	-2018.92	0.08		
1146.34	79.12	14.49	72.01	4.55	0.000000		
0.00000	43208.26						
100.00	4394.29	15.75	-1.68	-1918.22	0.07		

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		HYCHAN.OUT					
1141.23	78.94	14.46	71.90	4.57	0.000000		
0.000000	43141.53						
101.00	4394.16	15.62	-1.67	-1895.10	0.07		
1134.00	78.69	14.41	71.74	4.59	0.000000		
0.000000	43045.12						
102.00	4393.99	15.45	-1.75	-1964.71	0.08		
1124.04	78.34	14.35	71.52	4.63	0.000000		
0.000000	42909.00						
103.00	4393.74	15.20	-1.84	-2036.93	0.08		
1109.75	77.84	14.26	71.19	4.68	0.000000		
0.000000	42715.33						
104.00	4393.52	14.98	-1.70	-1863.83	0.08		
1096.54	77.40	14.17	70.90	4.73	0.000000		
0.000000	42541.23						
105.00	4393.33	14.79	-1.09	-1182.48	0.05		
1085.50	77.03	14.09	70.66	4.78	0.000000		
0.000000	42394.56						
106.00	4393.13	14.59	-0.22	-236.36	0.01		
1071.76	76.63	13.99	70.39	4.82	0.000000		
0.000000	42232.67						
107.00	4393.01	14.47	0.08	82.56	0.00		
1059.72	76.39	13.87	70.23	4.85	0.000000		
0.000000	42135.89						
108.00	4392.85	14.31	0.24	251.07	0.01		
1048.94	76.06	13.79	70.01	4.89	0.000000		
0.000000	42003.04						
109.00	4392.64	14.10	0.55	571.26	0.03		
1035.88	75.64	13.69	69.72	4.94	0.000000		
0.000000	41830.10						
110.00	4392.40	13.86	1.03	1051.81	0.05		
1020.84	75.16	13.58	69.38	5.01	0.000040		
0.03365	41627.26						
111.00	4392.19	13.65	1.38	1391.64	0.07		
1007.80	74.74	13.48	69.09	5.06	0.000024		
0.02031	41452.07						
112.00	4392.01	13.47	1.56	1558.49	0.08		
995.85	74.38	13.39	68.83	5.11	0.000091		
0.07635	41297.61						
113.00	4391.85	13.31	1.61	1587.43	0.08		
984.87	74.08	13.29	68.61	5.15	0.000085		
0.07013	41163.77						
114.00	4391.68	13.14	1.66	1608.27	0.08		
967.55	73.79	13.11	68.36	5.20	0.000021		
0.01682	41017.21						
115.00	4391.50	12.96	1.73	1636.48	0.08		
947.32	73.48	12.89	68.10	5.25	0.000070		
0.05666	40857.82						
116.00	4391.38	12.84	1.70	1588.13	0.08		
935.19	73.28	12.76	67.92	5.29	0.000024		
0.01904	40753.60						
117.00	4391.32	12.78	1.65	1531.63	0.08		
928.25	73.16	12.69	67.82	5.31	0.000080		
0.06346	40694.86						
118.00	4391.23	12.69	1.71	1571.49	0.08		
918.96	73.01	12.59	67.70	5.33	0.000039		
0.03068	40617.86						
119.00	4391.16	12.62	1.76	1607.50	0.09		
911.39	72.89	12.50	67.59	5.36	0.000026		
0.02023	40552.55						
120.00	4391.11	12.57	1.79	1624.20	0.09		
906.20	72.80	12.45	67.52	5.37	0.000042		
0.03229	40509.95						
121.00	4391.09	12.55	1.79	1614.15	0.09		

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HYCHAN.OUT						
904.13	72.76	12.43	67.48	5.38	0.000046	
0.03534	40490.28					
122.00	4391.04	12.50	1.76	1579.28	0.09	
899.28	72.68	12.37	67.41	5.39	0.000053	
0.04111	40444.80					
123.00	4390.93	12.39	1.70	1509.81	0.09	
888.10	72.48	12.25	67.24	5.43	0.000042	
0.03231	40345.96					
124.00	4390.84	12.30	1.72	1512.97	0.09	
879.20	72.33	12.16	67.11	5.46	0.000037	
0.02806	40267.10					
125.00	4390.77	12.23	1.72	1498.47	0.09	
871.45	72.19	12.07	67.00	5.48	0.000070	
0.05265	40197.90					
126.00	4390.68	12.14	1.73	1492.51	0.09	
862.36	72.04	11.97	66.86	5.51	0.000046	
0.03407	40117.67					
127.00	4390.61	12.07	1.71	1460.89	0.09	
855.18	71.91	11.89	66.75	5.53	0.000038	
0.02843	40052.12					
128.00	4390.54	12.00	1.68	1428.46	0.09	
848.31	71.78	11.82	66.65	5.55	0.000054	
0.04010	39987.76					
129.00	4390.45	11.91	1.69	1414.64	0.09	
839.43	71.63	11.72	66.51	5.58	0.000054	
0.03976	39907.21					
130.00	4390.38	11.84	1.65	1377.05	0.08	
832.55	71.50	11.64	66.40	5.61	0.000021	
0.01536	39841.89					
131.00	4390.31	11.77	1.63	1344.89	0.08	
825.55	71.37	11.57	66.30	5.63	0.000046	
0.03339	39777.33					
132.00	4390.22	11.68	1.63	1331.00	0.08	
816.50	71.21	11.47	66.16	5.66	0.000054	
0.03859	39693.09					
133.00	4390.17	11.63	1.57	1274.37	0.08	
812.03	71.12	11.42	66.08	5.68	0.000061	
0.04372	39646.47					
134.00	4390.18	11.64	1.45	1176.00	0.07	
813.18	71.13	11.43	66.09	5.68	0.000054	
0.03873	39654.27					
135.00	4390.17	11.63	1.39	1130.07	0.07	
811.48	71.10	11.41	66.06	5.68	0.000049	
0.03490	39637.19					
136.00	4390.13	11.59	1.36	1101.15	0.07	
808.45	71.04	11.38	66.01	5.69	0.000049	
0.03456	39606.50					
137.00	4390.10	11.56	1.33	1072.90	0.07	
804.97	70.98	11.34	65.96	5.71	0.000052	
0.03660	39573.70					
138.00	4390.07	11.53	1.31	1047.75	0.07	
801.95	70.92	11.31	65.91	5.72	0.000049	
0.03422	39544.09					
139.00	4390.04	11.50	1.28	1025.94	0.07	
799.02	70.86	11.28	65.86	5.73	0.000051	
0.03621	39515.90					
140.00	4390.01	11.47	1.26	1004.38	0.07	
796.06	70.81	11.24	65.81	5.74	0.000049	
0.03460	39487.43					
141.00	4389.97	11.43	1.26	995.07	0.07	
792.22	70.73	11.20	65.75	5.75	0.000046	
0.03244	39449.26					
142.00	4389.91	11.37	1.28	1002.34	0.07	



HYCHAN.OUT							
786.14	0.02496	70.62	11.13	65.65	5.78	0.000036	
143.00		39390.67					
782.03	0.01187	4389.87	11.33	1.26	987.40	0.07	
144.00		70.54	11.09		65.58	5.79	0.000017
779.01	0.01877	39350.14					
145.00		4389.84	11.30	1.24	965.27	0.06	
776.20	0.01877	70.48	11.05		65.53	5.80	0.000027
146.00		39320.16					
772.61	0.02910	4389.81	11.27	1.21	942.92	0.06	
147.00		70.43	11.02		65.49	5.81	0.000042
766.38	0.02682	39293.06					
148.00		4389.77	11.23	1.21	934.59	0.06	
762.07	0.02682	70.36	10.98		65.43	5.83	0.000039
149.00		39256.28					
759.06	0.01099	4389.71	11.17	1.23	940.69	0.06	
150.00		70.24	10.91		65.32	5.85	0.000016
756.35	0.01099	39194.97					
151.00		4389.66	11.12	1.21	922.44	0.06	
754.04	0.03203	70.16	10.86		65.25	5.87	0.000047
152.00		39151.81					
750.72	0.00987	4389.63	11.09	1.19	905.69	0.06	
153.00		70.10	10.83		65.20	5.88	0.000015
745.63	0.00987	39120.86					
154.00		4389.60	11.06	1.17	885.69	0.06	
740.75	0.02615	70.04	10.80		65.16	5.89	0.000039
155.00		39093.61					
737.35	0.02798	4389.58	11.04	1.15	865.47	0.06	
156.00		69.99	10.77		65.11	5.90	0.000013
733.49	0.00844	39068.86					
157.00		4389.55	11.01	1.14	852.43	0.06	
729.22	0.02179	69.93	10.74		65.06	5.91	0.000033
158.00		39036.84					
736.88	0.01300	4389.49	10.95	1.14	853.56	0.06	
159.00		69.83	10.68		64.97	5.93	0.000020
736.86	0.01300	38983.18					
160.00		4389.44	10.90	1.14	845.24	0.06	
735.65	0.02798	69.73	10.62		64.89	5.95	0.000042
161.00		38934.78					
735.65	0.00468	4389.41	10.87	1.12	827.37	0.06	
162.00		69.66	10.58		64.83	5.97	0.000007
735.65	0.00468	38898.31					
163.00		4389.37	10.83	1.11	816.09	0.06	
735.65	0.00864	69.59	10.54		64.76	5.98	0.000013
163.00		38858.94					
735.65	0.00864	4389.32	10.78	1.10	798.74	0.06	
163.00		69.50	10.49		64.69	6.00	0.000038
735.65	0.02510	38815.55					
163.00		4389.38	10.84	1.02	746.95	0.05	
735.65	0.01053	69.60	10.55		64.78	5.98	0.000016
163.00		38866.52					
735.65	0.01053	4389.40	10.86	0.99	732.36	0.05	
163.00		69.65	10.58		64.82	5.97	0.000022
735.65	0.01443	38891.98					
163.00		4389.40	10.86	0.99	727.88	0.05	
735.65	0.01366	69.65	10.58		64.82	5.97	0.000021
163.00		38893.22					
735.65	0.01313	4389.40	10.86	0.98	722.59	0.05	
163.00		69.64	10.58		64.81	5.97	0.000020
735.65	0.01313	38888.58					
163.00		4389.39	10.85	0.98	718.22	0.05	
735.65	0.00988	69.63	10.57		64.80	5.97	0.000015
163.00		38880.89					
735.65	0.00988	4389.38	10.84	0.97	713.51	0.05	

HYCHAN.OUT						
735.32	69.62	10.56	64.79	5.98	0.000023	
0.01524	38874.44					
164.00	4389.38	10.84	0.97	708.92	0.05	
734.51	69.60	10.55	64.78	5.98	0.000026	
0.01737	38867.60					
165.00	4389.37	10.83	0.96	705.70	0.05	
733.98	69.59	10.55	64.77	5.98	0.000022	
0.01460	38862.12					
166.00	4389.35	10.81	0.97	712.02	0.05	
732.28	69.56	10.53	64.74	5.99	0.000021	
0.01378	38844.68					
167.00	4389.30	10.76	1.00	724.77	0.05	
726.79	69.45	10.47	64.65	6.01	0.000000	
0.00000	38788.07					
168.00	4389.26	10.72	0.99	719.93	0.05	
723.56	69.38	10.43	64.59	6.02	0.000032	
0.02109	38755.40					
169.00	4389.25	10.71	0.99	714.30	0.05	
722.29	69.36	10.41	64.57	6.03	0.000044	
0.02835	38742.47					
170.00	4389.24	10.70	0.98	707.83	0.05	
721.37	69.34	10.40	64.55	6.03	0.000019	
0.01224	38732.91					
171.00	4389.23	10.69	0.97	701.91	0.05	
720.58	69.32	10.39	64.54	6.04	0.000000	
0.00000	38724.33					
172.00	4389.23	10.69	0.97	696.56	0.05	
720.15	69.31	10.39	64.53	6.04	0.000017	
0.01073	38717.72					
173.00	4389.22	10.68	0.96	691.92	0.05	
719.32	69.30	10.38	64.52	6.04	0.000042	
0.02697	38710.62					
174.00	4389.20	10.66	0.97	695.49	0.05	
717.28	69.26	10.36	64.48	6.05	0.000034	
0.02202	38690.21					
175.00	4389.14	10.60	1.00	708.50	0.05	
711.85	69.15	10.29	64.39	6.07	0.000033	
0.02112	38632.90					
176.00	4389.11	10.57	0.99	704.60	0.05	
708.89	69.08	10.26	64.33	6.09	0.000028	
0.01776	38600.23					
177.00	4389.09	10.55	0.98	695.88	0.05	
707.19	69.05	10.24	64.31	6.09	0.000023	
0.01453	38583.36					
178.00	4389.08	10.54	0.97	688.39	0.05	
706.31	69.03	10.23	64.29	6.10	0.000014	
0.00888	38572.39					
179.00	4389.07	10.53	0.97	681.19	0.05	
705.27	69.01	10.22	64.27	6.10	0.000000	
0.00000	38562.36					
180.00	4389.07	10.53	0.96	674.33	0.05	
704.63	68.99	10.21	64.26	6.10	0.000000	
0.00000	38553.70					
181.00	4389.09	10.55	0.92	652.91	0.05	
706.76	69.04	10.24	64.29	6.10	0.000000	
0.00000	38575.57					
182.00	4389.19	10.64	0.86	614.84	0.05	
716.30	69.23	10.35	64.46	6.06	0.000026	
0.01653	38674.74					
183.00	4389.25	10.71	0.83	601.27	0.04	
722.37	69.35	10.42	64.56	6.03	0.000020	
0.01316	38738.39					
184.00	4389.31	10.77	0.80	586.07	0.04	

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HYCHAN.OUT									
728.82		69.48	10.49	64.67	6.00	0.000015			
	0.01001	38803.11							
185.00		4389.34	10.80	0.81	591.79	0.04			
731.66		69.54	10.52	64.73	5.99	0.000000			
	0.00000	38836.02							
186.00		4389.36	10.82	0.82	599.24	0.04			
733.18		69.57	10.54	64.75	5.98	0.000026			
	0.01679	38850.59							
187.00		4389.37	10.83	0.82	605.00	0.04			
733.74		69.58	10.55	64.76	5.98	0.000000			
	0.00000	38856.41							
188.00		4389.37	10.83	0.83	609.07	0.04			
734.02		69.59	10.55	64.77	5.98	0.000025			
	0.01628	38862.18							
189.00		4389.37	10.83	0.83	609.18	0.04			
734.37		69.60	10.55	64.77	5.98	0.000030			
	0.01965	38863.83							
190.00		4389.37	10.83	0.83	611.92	0.04			
734.55		69.60	10.55	64.78	5.98	0.000010			
	0.00633	38865.68							
191.00		4389.37	10.83	0.83	611.52	0.04			
734.47		69.60	10.55	64.78	5.98	0.000030			
	0.02004	38865.33							
192.00		4389.36	10.82	0.85	620.14	0.05			
732.97		69.57	10.54	64.75	5.98	0.000000			
	0.00000	38850.42							
193.00		4389.31	10.77	0.87	635.70	0.05			
727.92		69.47	10.48	64.66	6.01	0.000032			
	0.02104	38798.91							
194.00		4389.28	10.74	0.87	632.80	0.05			
725.07		69.41	10.45	64.61	6.02	0.000000			
	0.00000	38768.43							
195.00		4389.27	10.73	0.87	627.52	0.05			
724.04		69.39	10.43	64.60	6.02	0.000027			
	0.01764	38757.45							
196.00		4389.26	10.72	0.86	622.77	0.05			
723.20		69.37	10.42	64.58	6.03	0.000006			
	0.00377	38749.12							
197.00		4389.25	10.71	0.86	619.40	0.05			
722.86		69.36	10.42	64.57	6.03	0.000022			
	0.01448	38743.59							
198.00		4389.25	10.71	0.85	615.12	0.05			
722.33		69.35	10.42	64.57	6.03	0.000019			
	0.01225	38739.78							
199.00		4389.25	10.71	0.85	612.76	0.05			
722.17		69.35	10.41	64.56	6.03	0.000008			
	0.00516	38735.77							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4690

MAXIMUM DISCHARGE (CFS) = 1766.32 AT TIME = 114.44  
 MAXIMUM STAGE = 4394.59 AT TIME = 91.73

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE AREA					
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)			
0.00	0.00	4378.35	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	

HYCHAN.OUT									
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4378.35	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4378.35	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4378.35	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4378.35	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
116.53	5.00	4379.13	0.78	-0.58	-67.88	0.12			0.000000
		31.35	3.72		31.08	39.89			
299.04	6.00	4383.83	5.48	-1.30	-390.07	0.10			0.000000
		56.60	5.28		53.54	9.78			
424.61	7.00	4385.36	7.01	-0.40	-168.73	0.03			0.000000
		61.00	6.96		57.37	8.18			
453.36	8.00	4385.67	7.32	-0.18	-80.92	0.01			0.000000
		61.81	7.33		58.07	7.93			
451.52	9.00	4385.68	7.33	-0.09	-40.76	0.01			0.000000
		61.84	7.30		58.09	7.92			
448.21	10.00	4385.64	7.29	-0.05	-22.35	0.00			0.000000
		61.73	7.26		58.00	7.95			
441.91	11.00	4385.59	7.24	0.03	14.14	0.00			0.000014
		61.60	7.17		57.89	7.99			
437.67	12.00	4385.54	7.19	0.04	16.87	0.00			0.000000
		61.47	7.12		57.77	8.04			
429.77	13.00	4385.45	7.10	0.07	30.82	0.00			0.000000
		61.23	7.02		57.57	8.11			
419.83	14.00	4385.32	6.97	0.09	35.99	0.01			0.000000
		60.90	6.89		57.28	8.22			
411.56	15.00	4385.23	6.88	0.05	22.09	0.00			0.000000
		60.65	6.79		57.07	8.30			
407.06	16.00	4385.19	6.84	0.03	12.18	0.00			0.000008
		60.55	6.72		56.98	8.33			
403.97	17.00	4385.17	6.82	0.02	6.50	0.00			0.000006
		60.50	6.68		56.94	8.34			
0.00	18.00	4385.16	6.81	0.00	0.00	0.00			0.000007
		60.48	0.00		56.91	8.35			
0.00	19.00	4385.16	6.81	0.00	0.00	0.00			0.000006
		60.47	0.00		56.91	8.35			
412.15	20.00	4385.23	6.88	-0.06	-26.36	0.00			0.000000
		60.64	6.80		57.06	8.30			
423.49	21.00	4385.35	7.00	-0.09	-38.46	0.01			0.000000
		60.98	6.94		57.35	8.19			

		HYCHAN.OUT						
	0.00000	34412.38						
435.16	22.00	4385.49	7.14	-0.10	-43.56	0.01		
	0.00000	61.34	7.09		57.66	8.07	0.000000	
	23.00	34598.89						
440.65	0.00000	4385.59	7.24	-0.07	-32.11	0.00		
	0.00000	61.59	7.15		57.88	8.00	0.000000	
	24.00	34726.32						
445.37	0.00000	4385.63	7.28	-0.05	-21.27	0.00		
	0.00000	61.70	7.22		57.98	7.96	0.000000	
	25.00	34785.58						
455.57	0.00000	4385.73	7.38	-0.10	-43.34	0.01		
	0.00000	61.94	7.35		58.18	7.89	0.000000	
	26.00	34910.97						
473.76	0.00000	4385.91	7.56	-0.15	-70.25	0.01		
	0.00000	62.41	7.59		58.59	7.75	0.000000	
	27.00	35151.15						
494.36	0.00000	4386.11	7.76	-0.18	-90.73	0.01		
	0.00000	62.91	7.86		59.02	7.60	0.000000	
	28.00	35411.72						
513.45	0.00000	4386.34	7.99	-0.20	-101.10	0.01		
	0.00000	63.46	8.09		59.50	7.45	0.000000	
	29.00	35699.09						
522.39	0.00000	4386.46	8.11	-0.14	-72.92	0.01		
	0.00000	63.76	8.19		59.76	7.36	0.000000	
	30.00	35854.43						
528.63	0.00000	4386.53	8.18	-0.10	-54.37	0.01		
	0.00000	63.93	8.27		59.90	7.32	0.000000	
	31.00	35940.50						
536.93	0.00000	4386.62	8.28	-0.11	-60.76	0.01		
	0.00000	64.14	8.37		60.08	7.26	0.000000	
	32.00	36050.85						
540.19	0.00000	4386.68	8.33	-0.07	-39.56	0.00		
	0.00000	64.28	8.40		60.20	7.22	0.000000	
	33.00	36122.14						
546.74	0.00000	4386.73	8.38	-0.06	-31.14	0.00		
	0.00000	64.38	8.49		60.29	7.20	0.000000	
	34.00	36174.70						
552.17	0.00000	4386.81	8.45	-0.08	-46.09	0.01		
	0.00000	64.56	8.55		60.45	7.15	0.000000	
	35.00	36267.69						
555.44	0.00000	4386.86	8.51	-0.05	-29.55	0.00		
	0.00000	64.68	8.59		60.55	7.12	0.000000	
	36.00	36329.07						
564.43	0.00000	4386.90	8.55	-0.04	-21.77	0.00		
	0.00000	64.78	8.71		60.63	7.09	0.000000	
	37.00	36380.32						
0.00	0.00000	4386.92	8.57	0.00	0.00	0.00		
	0.00000	64.81	0.00		60.66	7.08	0.000000	
	38.00	36398.84						
560.46	0.00915	4386.90	8.55	0.03	18.42	0.00		
	0.00915	64.78	8.65		60.64	7.09	0.000017	
	39.00	36382.19						
555.25	0.00896	4386.84	8.49	0.07	38.84	0.00		
	0.00896	64.64	8.59		60.51	7.13	0.000017	
	40.00	36307.05						
550.39	0.00939	4386.79	8.44	0.04	24.64	0.00		
	0.00939	64.54	8.53		60.42	7.16	0.000018	
	41.00	36254.49						
547.35	0.00916	4386.77	8.42	0.02	12.20	0.00		
	0.00916	64.48	8.49		60.37	7.17	0.000017	
	42.00	36224.58						
544.75	0.00000	4386.76	8.41	0.01	6.62	0.00		
	0.00000	64.45	8.45		60.35	7.18	0.000000	

		HYCHAN.OUT						
	0.00000	36208.95						
0.00	43.00	4386.75	8.40	0.00	0.00	0.00	0.00	
		64.43	0.00	60.33	7.18	0.000000		
	0.00000	36200.37						
	44.00	4386.76	8.41	-0.02	60.35	-8.86	0.00	
549.14		64.45	8.52			7.18	0.000000	
	0.00000	36209.67						
	45.00	4386.80	8.45	-0.07	60.45	-38.62	0.00	
552.65		64.56	8.56			7.15	0.000000	
	0.00000	36267.13						
	46.00	4386.86	8.51	-0.06	60.56	-35.48	0.00	
557.50		64.69	8.62			7.12	0.000000	
	0.00000	36333.01						
	47.00	4386.95	8.60	-0.10	60.73	-57.99	0.01	
567.18		64.90	8.74			7.06	0.000000	
	0.00000	36440.98						
	48.00	4387.07	8.72	-0.13	60.97	-76.12	0.01	
579.15		65.17	8.89			6.99	0.000000	
	0.00000	36583.80						
	49.00	4387.21	8.85	-0.15	61.23	-86.82	0.01	
592.00		65.47	9.04			6.91	0.000000	
	0.00000	36738.34						
	50.00	4387.34	8.99	-0.15	61.50	-93.28	0.01	
605.43		65.78	9.20			6.84	0.000000	
	0.00000	36899.54						
	51.00	4387.49	9.14	-0.16	61.77	-100.70	0.01	
619.03		66.10	9.37			6.76	0.000000	
	0.00000	37061.47						
	52.00	4387.64	9.29	-0.18	62.06	-115.07	0.01	
636.26		66.44	9.58			6.68	0.000000	
	0.00000	37237.14						
	53.00	4387.82	9.47	-0.20	62.39	-130.94	0.01	
652.65		66.82	9.77			6.59	0.000000	
	0.00000	37433.03						
	54.00	4387.96	9.61	-0.16	62.64	-106.49	0.01	
665.53		67.11	9.92			6.52	0.000000	
	0.00000	37586.25						
	55.00	4388.12	9.77	-0.21	62.94	-142.02	0.01	
684.84		67.46	10.15			6.44	0.000000	
	0.00000	37764.97						
	56.00	4388.35	10.00	-0.30	63.35	-209.78	0.02	
710.05		67.94	10.45			6.33	0.000000	
	0.00000	38009.76						
	57.00	4388.77	10.42	-0.52	64.07	-391.24	0.03	
753.55		68.78	10.96			6.15	0.000000	
	0.00000	38443.54						
	58.00	4389.29	10.94	-0.75	64.95	-602.84	0.04	
807.26		69.80	11.56			5.94	0.000000	
	0.00000	38971.12						
	59.00	4389.80	11.45	-0.94	65.78	-807.70	0.05	
860.60		70.78	12.16			5.74	0.000000	
	0.00000	39470.37						
	60.00	4390.17	11.82	-1.07	66.37	-959.48	0.05	
899.60		71.46	12.59			5.61	0.000000	
	0.00000	39821.77						
	61.00	4390.46	12.11	-1.01	66.82	-940.03	0.05	
930.52		71.99	12.93			5.52	0.000000	
	0.00000	40092.71						
	62.00	4390.66	12.31	-0.96	67.12	-915.80	0.05	
951.83		72.34	13.16			5.45	0.000000	
	0.00000	40270.90						
	63.00	4390.75	12.40	-0.96	67.26	-924.84	0.05	
962.23		72.50	13.27			5.42	0.000000	

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HYCHAN.OUT							
0.00000	40356.78						
64.00	4390.86	12.51	-0.88	-852.79	0.04		
973.61	72.70	13.39		67.43	5.39	0.000000	
0.00000	40457.44						
65.00	4391.01	12.66	-0.65	-646.45	0.03		
989.27	72.97	13.56		67.66	5.34	0.000000	
0.00000	40595.30						
66.00	4391.15	12.80	-0.44	-437.80	0.02		
1003.29	73.21	13.70		67.86	5.30	0.000000	
0.00000	40719.00						
67.00	4391.26	12.91	-0.28	-286.07	0.01		
1014.43	73.40	13.82		68.02	5.27	0.000000	
0.00000	40813.89						
68.00	4391.37	13.02	-0.10	-97.24	0.00		
1017.78	73.59	13.83		68.19	5.24	0.000000	
0.00000	40912.40						
69.00	4391.55	13.20	-0.06	-62.52	0.00		
1038.29	73.89	14.05		68.45	5.19	0.000000	
0.00000	41067.47						
70.00	4391.74	13.39	0.03	35.75	0.00		
1052.79	74.22	14.18		68.72	5.13	0.000008	
0.00701	41229.79						
71.00	4391.95	13.60	-0.13	-143.26	0.01		
1079.72	74.64	14.47		69.01	5.08	0.000011	
0.01015	41408.00						
72.00	4392.18	13.83	-0.13	-148.88	0.01		
1107.56	75.11	14.75		69.35	5.01	0.000000	
0.00000	41607.68						
73.00	4392.37	14.02	-0.35	-394.34	0.02		
1125.99	75.49	14.92		69.61	4.96	0.000000	
0.00000	41765.42						
74.00	4392.53	14.18	-0.46	-529.19	0.02		
1140.46	75.80	15.04		69.83	4.92	0.000000	
0.00000	41895.63						
75.00	4392.67	14.32	-0.62	-710.25	0.03		
1150.47	76.08	15.12		70.01	4.89	0.000000	
0.00000	42007.26						
76.00	4392.81	14.46	-0.84	-979.78	0.04		
1161.23	76.37	15.20		70.22	4.85	0.000000	
0.00000	42129.27						
77.00	4392.96	14.61	-1.02	-1194.33	0.05		
1171.07	76.67	15.27		70.42	4.82	0.000000	
0.00000	42250.25						
78.00	4393.07	14.72	-1.08	-1266.90	0.05		
1178.47	76.89	15.33		70.56	4.79	0.000000	
0.00000	42338.55						
79.00	4393.22	14.87	-1.40	-1666.15	0.06		
1188.63	77.19	15.40		70.76	4.76	0.000000	
0.00000	42458.83						
80.00	4393.37	15.02	-1.64	-1967.37	0.07		
1198.43	77.49	15.47		70.96	4.72	0.000000	
0.00000	42576.50						
81.00	4393.57	15.22	-1.85	-2239.85	0.08		
1210.97	77.88	15.55		71.22	4.68	0.000000	
0.00000	42729.19						
82.00	4393.73	15.38	-2.00	-2437.67	0.09		
1221.83	78.21	15.62		71.43	4.64	0.000000	
0.00000	42860.25						
83.00	4393.94	15.59	-2.13	-2626.08	0.09		
1234.81	78.62	15.71		71.70	4.60	0.000000	
0.00000	43018.41						
84.00	4394.12	15.77	-2.21	-2754.05	0.10		
1246.96	78.99	15.79		71.93	4.56	0.000000	

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HYCHAN.OUT									
	0.00000	43158.37							
1255.21	85.00	4394.25	15.90	15.84	-2.30	-2881.14	0.10	0.000000	
	0.00000	79.24				72.09	4.53		
	0.00000	43254.54							
1261.97	86.00	4394.36	16.01	15.88	-2.35	-2964.45	0.10	0.000000	
	0.00000	79.46				72.23	4.51		
	0.00000	43335.88							
1268.02	87.00	4394.45	16.10	15.92	-2.35	-2975.48	0.10	0.000000	
	0.00000	79.65				72.35	4.49		
	0.00000	43410.38							
1274.20	88.00	4394.56	16.20	15.96	-2.34	-2976.75	0.10	0.000000	
	0.00000	79.85				72.48	4.47		
	0.00000	43485.88							
1278.87	89.00	4394.63	16.28	15.98	-2.38	-3048.14	0.10	0.000000	
	0.00000	80.01				72.58	4.46		
	0.00000	43545.39							
1283.37	90.00	4394.71	16.36	16.01	-2.40	-3083.34	0.10	0.000000	
	0.00000	80.16				72.67	4.44		
	0.00000	43601.27							
1285.69	91.00	4394.75	16.40	16.02	-2.38	-3059.02	0.10	0.000000	
	0.00000	80.24				72.72	4.43		
	0.00000	43630.96							
1287.19	92.00	4394.77	16.42	16.03	-2.37	-3047.92	0.10	0.000000	
	0.00000	80.28				72.74	4.43		
	0.00000	43644.27							
1286.59	93.00	4394.75	16.40	16.03	-2.32	-2987.72	0.10	0.000000	
	0.00000	80.25				72.72	4.43		
	0.00000	43633.41							
1283.80	94.00	4394.71	16.36	16.01	-2.28	-2931.09	0.10	0.000000	
	0.00000	80.17				72.67	4.44		
	0.00000	43603.41							
1279.89	95.00	4394.65	16.30	15.99	-2.28	-2919.16	0.10	0.000000	
	0.00000	80.05				72.60	4.45		
	0.00000	43559.38							
1275.65	96.00	4394.59	16.24	15.96	-2.26	-2877.51	0.10	0.000000	
	0.00000	79.92				72.52	4.47		
	0.00000	43511.02							
1270.92	97.00	4394.52	16.17	15.93	-2.21	-2808.39	0.10	0.000000	
	0.00000	79.77				72.43	4.48		
	0.00000	43456.05							
1265.59	98.00	4394.43	16.08	15.90	-2.20	-2784.33	0.10	0.000000	
	0.00000	79.61				72.32	4.50		
	0.00000	43393.80							
1260.18	99.00	4394.35	16.00	15.86	-2.15	-2706.52	0.09	0.000000	
	0.00000	79.44				72.22	4.51		
	0.00000	43329.81							
1254.42	100.00	4394.26	15.91	15.83	-2.03	-2552.29	0.09	0.000000	
	0.00000	79.26				72.10	4.53		
	0.00000	43261.72							
1246.76	101.00	4394.14	15.79	15.78	-1.98	-2465.38	0.09	0.000000	
	0.00000	79.02				71.95	4.56		
	0.00000	43169.90							
1236.51	102.00	4393.97	15.62	15.71	-1.98	-2453.89	0.09	0.000000	
	0.00000	78.69				71.74	4.59		
	0.00000	43045.09							
1221.64	103.00	4393.74	15.39	15.62	-1.99	-2425.09	0.09	0.000000	
	0.00000	78.22				71.44	4.64		
	0.00000	42863.34							
1207.21	104.00	4393.52	15.17	15.52	-1.79	-2164.46	0.08	0.000000	
	0.00000	77.78				71.15	4.69		
	0.00000	42689.43							
1194.22	105.00	4393.31	14.96	15.44	-1.17	-1402.10	0.05	0.000000	
	0.00000	77.36				70.88	4.74		

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0.00000	42526.59							
106.00	4393.10	14.75	-0.33	-391.28	0.02			
1176.50	76.94	15.29		70.60	4.79	0.000000		
0.00000	42358.71							
107.00	4392.99	14.64	-0.04	-46.61	0.00			
1165.35	76.72	15.19		70.45	4.81	0.000000		
0.00000	42267.77							
108.00	4392.83	14.48	0.14	156.09	0.01			
1152.50	76.40	15.08		70.24	4.85	0.000009		
0.00810	42141.12							
109.00	4392.62	14.27	0.45	511.98	0.02			
1138.76	75.99	14.99		69.95	4.90	0.000000		
0.00000	41972.14							
110.00	4392.38	14.03	0.92	1026.65	0.04			
1117.55	75.50	14.80		69.62	4.96	0.000051		
0.04725	41770.41							
111.00	4392.17	13.82	1.26	1384.05	0.06			
1098.74	75.08	14.64		69.32	5.02	0.000078		
0.07122	41592.89							
112.00	4391.98	13.63	1.44	1559.76	0.07			
1081.49	74.71	14.48		69.06	5.07	0.000025		
0.02222	41437.18							
113.00	4391.83	13.48	1.49	1592.94	0.07			
1067.40	74.40	14.35		68.84	5.11	0.000062		
0.05517	41304.90							
114.00	4391.65	13.30	1.53	1609.66	0.07			
1051.51	74.07	14.20		68.60	5.16	0.000078		
0.06878	41157.05							
115.00	4391.47	13.12	1.59	1640.67	0.08			
1032.35	73.75	14.00		68.32	5.21	0.000013		
0.01159	40994.79							
116.00	4391.35	13.00	1.56	1588.50	0.08			
1019.18	73.55	13.86		68.15	5.24	0.000058		
0.05040	40892.79							
117.00	4391.28	12.93	1.52	1534.03	0.07			
1011.91	73.44	13.78		68.06	5.26	0.000017		
0.01443	40834.38							
118.00	4391.20	12.85	1.57	1571.81	0.08			
1001.79	73.28	13.67		67.93	5.29	0.000061		
0.05167	40756.56							
119.00	4391.12	12.77	1.62	1608.45	0.08			
993.32	73.15	13.58		67.82	5.31	0.000073		
0.06222	40690.29							
120.00	4391.07	12.72	1.65	1625.46	0.08			
987.78	73.07	13.52		67.75	5.32	0.000056		
0.04699	40647.08							
121.00	4391.05	12.70	1.64	1614.80	0.08			
985.49	73.03	13.49		67.71	5.33	0.000052		
0.04353	40627.52							
122.00	4391.00	12.65	1.61	1581.11	0.08			
980.15	72.95	13.44		67.64	5.35	0.000035		
0.02957	40583.82							
123.00	4390.89	12.54	1.56	1511.29	0.08			
968.15	72.76	13.31		67.48	5.38	0.000057		
0.04699	40486.61							
124.00	4390.81	12.46	1.58	1513.55	0.08			
958.56	72.60	13.20		67.35	5.41	0.000062		
0.05083	40407.68							
125.00	4390.73	12.38	1.58	1501.18	0.08			
950.06	72.47	13.11		67.23	5.43	0.000028		
0.02281	40338.66							
126.00	4390.64	12.29	1.59	1493.58	0.08			
940.35	72.31	13.00		67.10	5.46	0.000036		

HYCHAN.OUT							
0.02941	40259.42						
127.00	4390.57	12.22	1.57	1461.08	0.08		
932.92	72.19	12.92		66.99	5.48	0.000063	
0.05098	40194.55						
128.00	4390.50	12.15	1.55	1431.09	0.08		
925.35	72.06	12.84		66.89	5.50	0.000041	
0.03302	40131.53						
129.00	4390.42	12.07	1.55	1415.65	0.08		
916.06	71.91	12.74		66.75	5.53	0.000031	
0.02447	40050.72						
130.00	4390.35	12.00	1.52	1377.26	0.08		
908.64	71.78	12.66		66.65	5.55	0.000066	
0.05182	39988.12						
131.00	4390.28	11.93	1.50	1347.27	0.08		
901.17	71.66	12.58		66.54	5.58	0.000041	
0.03216	39923.59						
132.00	4390.19	11.84	1.49	1332.62	0.08		
891.48	71.50	12.47		66.40	5.61	0.000019	
0.01513	39840.00						
133.00	4390.14	11.79	1.44	1274.66	0.07		
886.71	71.41	12.42		66.33	5.62	0.000021	
0.01611	39796.73						
134.00	4390.16	11.81	1.32	1176.09	0.07		
888.35	71.43	12.44		66.35	5.62	0.000010	
0.00760	39808.60						
135.00	4390.14	11.79	1.27	1130.31	0.07		
886.71	71.40	12.42		66.32	5.63	0.000000	
0.00000	39792.88						
136.00	4390.11	11.76	1.25	1101.54	0.06		
883.55	71.35	12.38		66.27	5.64	0.000015	
0.01124	39763.51						
137.00	4390.07	11.72	1.22	1073.20	0.06		
879.80	71.28	12.34		66.22	5.65	0.000019	
0.01496	39731.70						
138.00	4390.04	11.69	1.20	1048.42	0.06		
876.83	71.23	12.31		66.17	5.66	0.000011	
0.00826	39703.27						
139.00	4390.02	11.67	1.18	1026.56	0.06		
873.46	71.18	12.27		66.13	5.67	0.000000	
0.00000	39675.98						
140.00	4389.99	11.64	1.15	1005.11	0.06		
870.37	71.12	12.24		66.08	5.68	0.000000	
0.00000	39648.48						
141.00	4389.95	11.60	1.15	996.20	0.06		
866.31	71.05	12.19		66.02	5.69	0.000000	
0.00000	39610.78						
142.00	4389.89	11.54	1.17	1002.92	0.06		
859.87	70.94	12.12		65.92	5.71	0.000011	
0.00830	39552.30						
143.00	4389.84	11.49	1.15	987.04	0.06		
855.46	70.86	12.07		65.85	5.73	0.000042	
0.03190	39512.43						
144.00	4389.81	11.46	1.13	965.76	0.06		
852.36	70.80	12.04		65.80	5.74	0.000034	
0.02542	39482.79						
145.00	4389.79	11.44	1.11	944.18	0.06		
849.40	70.75	12.01		65.76	5.75	0.000000	
0.00000	39457.10						
146.00	4389.75	11.40	1.11	935.66	0.06		
845.50	70.68	11.96		65.70	5.76	0.000007	
0.00530	39421.16						
147.00	4389.69	11.34	1.12	940.45	0.06		
838.78	70.56	11.89		65.60	5.79	0.000051	

HYCHAN.OUT							
0.03752	39359.24						
148.00	4389.64	11.29	1.11	924.49	0.06		
834.11	70.48	11.84		65.53	5.80	0.000000	
0.00000	39316.89						
149.00	4389.61	11.26	1.09	904.82	0.06		
830.90	70.42	11.80		65.48	5.81	0.000045	
0.03329	39287.41						
150.00	4389.58	11.23	1.07	887.14	0.06		
828.29	70.37	11.77		65.43	5.82	0.000000	
0.00000	39260.61						
151.00	4389.56	11.21	1.05	865.18	0.06		
825.58	70.32	11.74		65.40	5.83	0.000040	
0.02966	39237.76						
152.00	4389.53	11.18	1.04	853.66	0.05		
822.28	70.26	11.70		65.34	5.85	0.000010	
0.00703	39204.79						
153.00	4389.47	11.12	1.05	854.19	0.06		
816.78	70.16	11.64		65.26	5.87	0.000026	
0.01913	39153.12						
154.00	4389.42	11.07	1.04	846.68	0.06		
811.62	70.06	11.58		65.17	5.88	0.000000	
0.00000	39104.36						
155.00	4389.39	11.04	1.02	826.31	0.05		
807.82	70.00	11.54		65.12	5.90	0.000053	
0.03782	39069.66						
156.00	4389.35	11.00	1.02	817.67	0.05		
803.65	69.92	11.49		65.05	5.91	0.000033	
0.02391	39031.04						
157.00	4389.31	10.96	1.00	799.66	0.05		
799.58	69.84	11.45		64.98	5.93	0.000000	
0.00000	38988.14						
158.00	4389.36	11.01	0.93	744.73	0.05		
805.04	69.94	11.51		65.07	5.91	0.000042	
0.03024	39040.77						
159.00	4389.39	11.04	0.91	733.09	0.05		
807.78	69.99	11.54		65.11	5.90	0.000000	
0.00000	39067.06						
160.00	4389.39	11.04	0.90	727.36	0.05		
808.02	69.99	11.54		65.11	5.90	0.000033	
0.02377	39067.67						
161.00	4389.38	11.03	0.90	723.22	0.05		
807.54	69.98	11.54		65.11	5.90	0.000000	
0.00000	39063.86						
162.00	4389.38	11.03	0.89	717.68	0.05		
806.74	69.97	11.53		65.09	5.90	0.000038	
0.02734	39055.82						
163.00	4389.37	11.02	0.89	714.34	0.05		
806.21	69.96	11.52		65.08	5.91	0.000000	
0.00000	39050.39						
164.00	4389.36	11.01	0.88	708.57	0.05		
805.59	69.94	11.52		65.07	5.91	0.000024	
0.01716	39042.86						
165.00	4389.36	11.01	0.88	706.17	0.05		
804.69	69.94	11.51		65.06	5.91	0.000010	
0.00717	39038.78						
166.00	4389.34	10.99	0.89	712.21	0.05		
803.06	69.90	11.49		65.03	5.92	0.000017	
0.01237	39019.60						
167.00	4389.28	10.93	0.91	725.14	0.05		
796.90	69.79	11.42		64.94	5.94	0.000048	
0.03427	38963.64						
168.00	4389.25	10.90	0.91	721.54	0.05		
793.32	69.73	11.38		64.88	5.95	0.000000	

HYCHAN.OUT							
0.00000	38930.97						
169.00	4389.24	10.89	0.90	714.46	0.05		
792.31	69.70	11.37		64.86	5.96	0.000000	
0.00000	38917.71						
170.00	4389.23	10.88	0.89	706.98	0.05		
791.28	69.68	11.36		64.85	5.96	0.000033	
0.02342	38908.97						
171.00	4389.22	10.87	0.89	701.83	0.05		
790.61	69.67	11.35		64.84	5.96	0.000048	
0.03423	38901.23						
172.00	4389.21	10.86	0.88	697.31	0.05		
789.91	69.65	11.34		64.82	5.97	0.000017	
0.01187	38894.43						
173.00	4389.21	10.86	0.88	692.71	0.05		
789.04	69.64	11.33		64.81	5.97	0.000000	
0.00000	38887.21						
174.00	4389.19	10.84	0.88	695.58	0.05		
786.93	69.60	11.31		64.78	5.98	0.000009	
0.00657	38867.06						
175.00	4389.13	10.78	0.91	709.29	0.05		
781.04	69.49	11.24		64.68	6.00	0.000009	
0.00606	38809.63						
176.00	4389.10	10.75	0.91	704.75	0.05		
777.81	69.43	11.20		64.63	6.01	0.000026	
0.01818	38777.56						
177.00	4389.08	10.73	0.90	695.95	0.05		
776.03	69.40	11.18		64.60	6.02	0.000025	
0.01714	38761.32						
178.00	4389.07	10.72	0.89	688.29	0.05		
774.98	69.38	11.17		64.58	6.02	0.000040	
0.02768	38750.76						
179.00	4389.06	10.71	0.88	681.21	0.05		
773.98	69.36	11.16		64.57	6.03	0.000049	
0.03404	38741.02						
180.00	4389.05	10.70	0.87	674.28	0.05		
773.61	69.34	11.16		64.55	6.03	0.000049	
0.03438	38732.89						
181.00	4389.08	10.73	0.84	651.75	0.05		
775.94	69.39	11.18		64.59	6.02	0.000038	
0.02638	38756.18						
182.00	4389.17	10.82	0.78	614.62	0.04		
786.14	69.58	11.30		64.76	5.98	0.000000	
0.00000	38854.99						
183.00	4389.24	10.89	0.76	599.56	0.04		
792.57	69.70	11.37		64.86	5.96	0.000017	
0.01210	38917.70						
184.00	4389.30	10.95	0.73	585.45	0.04		
799.30	69.83	11.45		64.97	5.93	0.000007	
0.00483	38983.64						
185.00	4389.33	10.98	0.74	590.73	0.04		
802.82	69.89	11.49		65.02	5.92	0.000029	
0.02050	39014.98						
186.00	4389.35	11.00	0.75	600.30	0.04		
804.03	69.92	11.50		65.05	5.91	0.000000	
0.00000	39029.54						
187.00	4389.35	11.00	0.75	603.91	0.04		
804.93	69.93	11.51		65.06	5.91	0.000031	
0.02208	39035.51						
188.00	4389.36	11.01	0.76	609.62	0.04		
805.36	69.94	11.52		65.07	5.91	0.000000	
0.00000	39039.95						
189.00	4389.36	11.01	0.76	609.40	0.04		
805.47	69.94	11.52		65.07	5.91	0.000000	

## HYCHAN.OUT

0.00000	39042.85							
190.00	4389.36	11.01	0.76	610.90	0.04			
805.83	69.95	11.52		65.07	5.91	0.000040		
0.02906	39043.60							
191.00	4389.36	11.01	0.76	612.53	0.04			
805.76	69.94	11.52		65.07	5.91	0.000000		
0.00000	39043.33							
192.00	4389.35	11.00	0.77	620.16	0.04			
803.85	69.92	11.50		65.05	5.91	0.000021		
0.01517	39028.95							
193.00	4389.30	10.95	0.80	637.04	0.04			
798.76	69.82	11.44		64.96	5.93	0.000000		
0.00000	38976.81							
194.00	4389.27	10.92	0.79	632.35	0.04			
795.52	69.76	11.40		64.91	5.95	0.000037		
0.02607	38948.06							
195.00	4389.25	10.90	0.79	628.62	0.04			
794.36	69.74	11.39		64.89	5.95	0.000000		
0.00000	38936.08							
196.00	4389.25	10.90	0.78	621.63	0.04			
793.70	69.72	11.38		64.88	5.95	0.000040		
0.02873	38928.79							
197.00	4389.24	10.89	0.78	620.74	0.04			
793.14	69.71	11.38		64.87	5.96	0.000000		
0.00000	38923.14							
198.00	4389.24	10.89	0.77	614.36	0.04			
792.88	69.70	11.38		64.87	5.96	0.000029		
0.02054	38919.05							
199.00	4389.23	10.88	0.77	613.26	0.04			
792.23	69.70	11.37		64.86	5.96	0.000000		
0.00000	38915.96							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4691

MAXIMUM DISCHARGE (CFS) = 1851.17 AT TIME = 114.42  
 MAXIMUM STAGE = 4394.68 AT TIME = 91.79

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)			
(LB/FT^2)	(FT^2)					
0.00	4378.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4378.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4378.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4378.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4378.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4379.15	1.15	-0.68	-104.43	0.11	0.000000
154.26	35.25	4.38	34.63	30.17		
0.00000	20776.46					

		HYCHAN.OUT					
385.75	6.00	4383.91	5.91	-1.10	-423.52	0.08	0.000000
	0.00000	57.93	6.66		54.71	9.25	
	7.00	32824.55	7.37	-0.34	-179.23	0.02	0.000000
527.18		61.92	8.51		58.17	7.90	0.000000
	0.00000	34899.71	7.68	-0.15	-82.37	0.01	0.000000
560.88	8.00	4385.68	8.95		58.84	7.67	0.000000
	0.00000	62.70	7.68	-0.07	-39.89	0.00	0.000000
	9.00	35302.78	8.91		58.85	7.66	0.000000
558.89		62.72	7.64	-0.04	-22.12	0.00	0.000000
	0.00000	35311.91	8.90		58.77	7.69	0.000000
557.24	10.00	4385.64	7.59	0.03	15.58	0.00	0.000000
	0.00000	62.61	8.79		58.66	7.73	0.000000
	11.00	35259.01	7.54	0.03	17.29	0.00	0.000000
549.26		62.49	8.72		58.54	7.76	0.000000
	0.00000	35193.11	7.45	0.06	32.21	0.00	0.000011
543.48	12.00	4385.54	8.62		58.35	7.83	0.000000
	0.00000	62.36	7.32	0.07	38.31	0.00	0.000000
	13.00	35126.58	8.46		58.06	7.93	0.000000
535.27		62.13	7.23	0.05	23.49	0.00	0.000000
	0.00581	35008.43	8.34		57.86	8.00	0.000000
522.77	14.00	4385.32	7.19	0.02	12.42	0.00	0.000000
	0.00000	61.80	8.22		57.78	8.03	0.000000
	15.00	34838.96	7.17	0.01	6.65	0.00	0.000000
513.39		61.57	8.16		57.74	8.05	0.000000
	0.00000	34717.93	7.16	0.00	0.00	0.00	0.000000
505.47	16.00	4385.19	0.00		57.72	8.06	0.000000
	0.00000	61.47	7.16	0.00	0.00	0.00	0.000000
	17.00	34666.41	0.00		57.71	8.06	0.000000
501.32		61.43	7.23	-0.05	-27.90	0.00	0.000000
	0.00000	34642.43	8.37		57.86	8.01	0.000000
0.00	18.00	4385.16	7.36	-0.08	-40.61	0.01	0.000000
	0.00000	61.40	8.51		58.14	7.90	0.000000
	19.00	34629.20	7.49	-0.08	-45.51	0.01	0.000000
0.00		61.40	8.66		58.44	7.80	0.000000
	0.00000	34628.45	7.59	-0.06	-32.90	0.00	0.000000
515.34	20.00	4385.23	8.77		58.64	7.73	0.000000
	0.00000	61.56	7.63	-0.04	-22.20	0.00	0.000000
	21.00	34713.62	8.86		58.74	7.70	0.000000
526.78		61.89	7.73	-0.08	-45.36	0.01	0.000000
	0.00000	34884.61	9.01		58.94	7.63	0.000000
538.91	22.00	4385.49	7.91	-0.13	-73.28	0.01	0.000000
	0.00000	62.24	9.26		59.33	7.50	0.000000
	23.00	35064.25					
547.91		62.47					
	0.00000	35186.23					
554.36	24.00	4385.63					
	0.00000	62.58					
	25.00	35244.13					
565.79		62.82					
	0.00000	35366.06					
586.12	26.00	4385.91					
	0.00000	63.27					
		35599.51					



		HYCHAN.OUT							
611.43	27.00	4386.11	8.11	-0.15	59.75	-94.52	7.37	0.01	0.000000
	0.00000	63.76	9.59						
633.71	28.00	35852.45	8.34	-0.16	60.22	-104.04	7.22	0.01	0.000000
	0.00000	64.30	9.86						
642.94	29.00	36130.64	8.47	-0.12	60.47	-74.21	7.14	0.01	0.000000
	0.00000	64.59	9.95						
650.26	30.00	36280.34	8.54	-0.09	60.61	-55.64	7.10	0.01	0.000000
	0.00000	64.75	10.04						
658.90	31.00	36363.61	8.63	-0.09	60.78	-62.05	7.05	0.01	0.000000
	0.00000	64.95	10.14						
663.62	32.00	36470.19	8.68	-0.06	60.90	-40.27	7.01	0.00	0.000000
	0.00000	65.09	10.20						
671.67	33.00	36538.73	8.73	-0.05	60.98	-32.10	6.99	0.00	0.000000
	0.00000	65.19	10.30						
679.13	34.00	36590.48	8.81	-0.07	61.13	-47.25	6.94	0.00	0.000000
	0.00000	65.36	10.39						
684.11	35.00	36680.57	8.86	-0.04	61.23	-30.18	6.91	0.00	0.000000
	0.00000	65.47	10.45						
693.82	36.00	36739.53	8.90	-0.03	61.32	-22.59	6.89	0.00	0.000011
	0.00734	65.57	10.58						
0.00	37.00	36790.11	8.91	0.00	61.35	0.00	6.88	0.00	0.000000
	0.00000	65.60	0.00						
688.54	38.00	36807.11	8.90	0.03	61.32	19.40	6.89	0.00	0.000000
	0.00000	65.57	10.50						
683.03	39.00	36791.17	8.84	0.06	61.20	40.13	6.92	0.00	0.000000
	0.00000	65.43	10.44						
678.67	40.00	36718.61	8.79	0.04	61.11	24.93	6.95	0.00	0.000000
	0.00000	65.33	10.39						
673.62	41.00	36667.21	8.77	0.02	61.06	12.57	6.96	0.00	0.000000
	0.00000	65.28	10.32						
0.00	42.00	36638.89	8.76	0.00	61.04	0.00	6.97	0.00	0.000014
	0.00000	65.25	0.00						
0.00	43.00	36623.04	8.75	0.00	61.03	0.00	6.97	0.00	0.000000
	0.00000	65.23	0.00						
677.71	44.00	36615.62	8.76	-0.01	61.04	-9.34	6.97	0.00	0.000007
	0.00475	65.25	10.39						
680.69	45.00	36624.70	8.80	-0.06	61.13	-39.23	6.94	0.00	0.000000
	0.00000	65.36	10.41						
685.58	46.00	36679.68	8.86	-0.05	61.24	-36.62	6.91	0.00	0.000000
	0.00000	65.48	10.47						
696.84	47.00	36744.05	8.95	-0.09	61.42	-59.92	6.86	0.01	0.000000
	0.00000	65.69	10.61						
		36849.55							

HYCHAN.OUT							
710.25	48.00	4387.07	9.07	-0.11	61.65	-78.32	0.01
	0.00541	65.96	10.77		6.79		0.000008
		36989.07					
725.14	49.00	4387.21	9.21	-0.12	61.90	-89.09	0.01
	0.00000	66.25	10.95		6.72		0.000000
		37139.45					
742.70	50.00	4387.35	9.35	-0.13	62.16	-95.58	0.01
	0.00000	66.55	11.16		6.65		0.000000
		37296.19					
757.02	51.00	4387.49	9.49	-0.14	62.42	-103.06	0.01
	0.00000	66.86	11.32		6.58		0.000000
		37453.42					
777.18	52.00	4387.65	9.65	-0.15	62.71	-118.06	0.01
	0.00000	67.19	11.57		6.50		0.000000
		37625.04					
796.94	53.00	4387.82	9.82	-0.17	63.03	-133.78	0.01
	0.00000	67.56	11.80		6.42		0.000000
		37816.20					
810.76	54.00	4387.96	9.96	-0.13	63.27	-108.72	0.01
	0.00000	67.85	11.95		6.35		0.000000
		37964.40					
836.11	55.00	4388.13	10.13	-0.17	63.57	-145.51	0.01
	0.00000	68.19	12.26		6.28		0.000000
		38139.87					
866.25	56.00	4388.36	10.36	-0.25	63.97	-215.09	0.01
	0.00000	68.65	12.62		6.18		0.000000
		38379.42					
917.13	57.00	4388.77	10.77	-0.44	64.67	-400.06	0.02
	0.00000	69.48	13.20		6.00		0.000000
		38804.88					
980.82	58.00	4389.30	11.30	-0.62	65.54	-612.87	0.03
	0.00000	70.49	13.91		5.80		0.000000
		39322.88					
1043.87	59.00	4389.81	11.81	-0.78	66.36	-815.80	0.04
	0.00000	71.44	14.61		5.62		0.000000
		39813.48					
1088.86	60.00	4390.18	12.18	-0.89	66.93	-965.14	0.04
	0.00000	72.12	15.10		5.49		0.000000
		40158.41					
1123.57	61.00	4390.47	12.47	-0.84	67.37	-945.18	0.04
	0.00000	72.63	15.47		5.40		0.000000
		40421.19					
1148.55	62.00	4390.66	12.66	-0.80	67.66	-918.30	0.04
	0.00000	72.97	15.74		5.34		0.000000
		40595.05					
1160.67	63.00	4390.76	12.76	-0.80	67.80	-926.18	0.04
	0.00000	73.13	15.87		5.31		0.000000
		40679.04					
1173.67	64.00	4390.87	12.87	-0.73	67.96	-855.78	0.04
	0.00000	73.32	16.01		5.28		0.000000
		40775.61					
1194.22	65.00	4391.02	13.02	-0.54	68.18	-649.13	0.03
	0.00000	73.58	16.23		5.24		0.000000
		40908.67					
1212.03	66.00	4391.16	13.16	-0.36	68.38	-440.25	0.02
	0.00000	73.82	16.42		5.20		0.000000
		41028.80					
1221.74	67.00	4391.26	13.26	-0.24	68.54	-288.03	0.01
	0.00000	74.00	16.51		5.17		0.000000
		41121.25					
1226.12	68.00	4391.37	13.37	-0.08	68.69	-100.61	0.00
	0.00000	74.18	16.53		5.14		0.000000
		41215.54					

HYCHAN.OUT							
1253.67	69.00	4391.55	13.55	-0.05	-65.45	0.00	0.000000
	0.00000	74.48	16.83		68.95	5.09	
1270.86	70.00	41367.65	13.74	0.03	31.95	0.00	0.000000
	0.00000	74.79	16.99		69.21	5.04	0.000000
1309.98	71.00	41528.02	13.94	-0.11	-147.89	0.01	0.000009
	0.00962	75.13	17.44		69.50	4.98	
1349.56	72.00	41701.02	14.18	-0.11	-153.59	0.01	0.000000
	0.00000	75.51	17.87		69.83	4.92	
1371.71	73.00	41896.57	14.37	-0.29	-397.15	0.01	0.000000
	0.00000	75.82	18.09		70.08	4.88	
1388.47	74.00	42050.20	14.52	-0.39	-537.58	0.02	0.000000
	0.00000	76.13	18.24		70.29	4.84	
1402.42	75.00	42176.70	14.66	-0.52	-729.74	0.02	0.000000
	0.00000	76.40	18.36		70.48	4.81	
1418.98	76.00	42285.89	14.81	-0.72	-1028.71	0.03	0.000000
	0.00000	76.71	18.50		70.68	4.77	
1433.25	77.00	42408.26	14.96	-0.89	-1273.51	0.04	0.000000
	0.00000	77.01	18.61		70.88	4.74	
1447.16	78.00	42529.03	15.07	-0.95	-1373.94	0.04	0.000000
	0.00000	77.23	18.74		71.03	4.71	
1467.06	79.00	42617.55	15.23	-1.24	-1823.38	0.06	0.000000
	0.00000	77.55	18.92		71.24	4.68	
1483.53	80.00	42742.10	15.39	-1.47	-2183.07	0.07	0.000000
	0.00000	77.86	19.05		71.44	4.64	
1504.07	81.00	42863.23	15.59	-1.69	-2546.94	0.08	0.000000
	0.00000	78.27	19.22		71.70	4.60	
1522.31	82.00	43020.78	15.77	-1.86	-2837.12	0.08	0.000000
	0.00000	78.62	19.36		71.93	4.56	
1544.32	83.00	43156.57	15.98	-2.04	-3154.03	0.09	0.000000
	0.00000	79.05	19.53		72.20	4.52	
1565.71	84.00	43320.05	16.20	-2.19	-3431.21	0.10	0.000000
	0.00000	79.48	19.70		72.47	4.47	
1578.60	85.00	43481.33	16.35	-2.33	-3677.59	0.10	0.000000
	0.00000	79.78	19.79		72.65	4.44	
1586.17	86.00	43592.36	16.47	-2.44	-3870.03	0.11	0.000000
	0.00000	80.03	19.82		72.81	4.42	
1592.77	87.00	43683.42	16.58	-2.49	-3973.31	0.11	0.000000
	0.00000	80.24	19.85		72.94	4.40	
1599.48	88.00	43764.27	16.69	-2.54	-4066.92	0.11	0.000000
	0.00000	80.47	19.88		73.08	4.38	
1604.80	89.00	43847.09	16.79	-2.64	-4242.05	0.11	0.000000
	0.00000	80.67	19.89		73.20	4.36	
		43918.90					

		HYCHAN.OUT					
1609.73	90.00	4394.88	16.88	-2.70	-4354.11	0.12	0.000000
	0.00000	80.84	19.91	73.30	4.34		
		43982.50					
1612.15	91.00	4394.92	16.92	-2.71	-4361.58	0.12	0.000000
	0.00000	80.93	19.92	73.36	4.33		
		44014.59					
1613.71	92.00	4394.94	16.94	-2.70	-4354.49	0.12	0.000000
	0.00000	80.96	19.93	73.38	4.33		
		44025.12					
1612.80	93.00	4394.91	16.91	-2.63	-4248.41	0.11	0.000000
	0.00000	80.91	19.93	73.34	4.34		
		44005.90					
1609.73	94.00	4394.87	16.87	-2.58	-4158.10	0.11	0.000000
	0.00000	80.82	19.92	73.29	4.35		
		43973.52					
1605.53	95.00	4394.80	16.80	-2.55	-4101.81	0.11	0.000000
	0.00000	80.69	19.90	73.21	4.36		
		43927.39					
1600.87	96.00	4394.73	16.73	-2.50	-3997.73	0.11	0.000000
	0.00000	80.54	19.88	73.12	4.37		
		43874.32					
1595.63	97.00	4394.65	16.64	-2.41	-3849.49	0.10	0.000000
	0.00000	80.38	19.85	73.02	4.39		
		43812.10					
1589.85	98.00	4394.55	16.55	-2.36	-3753.56	0.10	0.000000
	0.00000	80.19	19.83	72.91	4.40		
		43744.86					
1583.84	99.00	4394.45	16.45	-2.26	-3583.33	0.10	0.000000
	0.00000	79.99	19.80	72.79	4.42		
		43671.41					
1576.98	100.00	4394.35	16.35	-2.11	-3330.98	0.09	0.000000
	0.00000	79.78	19.77	72.65	4.44		
		43591.96					
1564.79	101.00	4394.21	16.21	-2.01	-3140.78	0.09	0.000000
	0.00000	79.51	19.68	72.49	4.47		
		43491.84					
1547.72	102.00	4394.04	16.04	-1.94	-3002.49	0.09	0.000000
	0.00000	79.16	19.55	72.27	4.51		
		43359.26					
1522.52	103.00	4393.78	15.78	-1.85	-2820.86	0.08	0.000000
	0.00000	78.65	19.36	71.95	4.56		
		43167.57					
1496.45	104.00	4393.54	15.54	-1.63	-2434.49	0.07	0.000000
	0.00000	78.16	19.15	71.63	4.61		
		42978.50					
1467.26	105.00	4393.31	15.31	-1.07	-1574.16	0.05	0.000000
	0.00000	77.70	18.88	71.34	4.66		
		42801.57					
1444.31	106.00	4393.09	15.09	-0.34	-490.08	0.02	0.000007
	0.00799	77.26	18.69	71.04	4.71		
		42626.16					
1426.02	107.00	4392.97	14.97	-0.08	-118.25	0.00	0.000000
	0.00000	77.03	18.51	70.89	4.74		
		42534.84					
1405.24	108.00	4392.81	14.81	0.08	117.99	0.00	0.000009
	0.00985	76.71	18.32	70.68	4.77		
		42410.49					
1387.75	109.00	4392.61	14.61	0.36	505.36	0.02	0.000023
	0.02657	76.30	18.19	70.41	4.82		
		42243.71					
1362.48	110.00	4392.36	14.36	0.76	1030.93	0.04	0.000000
	0.00000	75.81	17.97	70.08	4.88		
		42045.50					

HYCHAN.OUT							
111.00	4392.15	14.15	1.04	1388.54	0.05		
1338.22	75.46	17.73	69.78	4.93	0.000000		
0.00000	41868.42						
112.00	4391.96	13.96	1.19	1561.71	0.06		
1313.67	75.16	17.48	69.52	4.98	0.000000		
0.00000	41713.81						
113.00	4391.81	13.81	1.23	1596.58	0.06		
1292.98	74.90	17.26	69.31	5.02	0.000000		
0.00000	41584.14						
114.00	4391.63	13.63	1.27	1614.95	0.06		
1269.67	74.62	17.02	69.06	5.07	0.000000		
0.00000	41438.88						
115.00	4391.45	13.45	1.32	1641.36	0.06		
1246.26	74.31	16.77	68.80	5.12	0.000034		
0.03598	41279.97						
116.00	4391.33	13.33	1.29	1591.55	0.06		
1230.96	74.11	16.61	68.63	5.15	0.000010		
0.01058	41178.40						
117.00	4391.27	13.27	1.25	1533.87	0.06		
1222.44	74.00	16.52	68.54	5.17	0.000046		
0.04744	41123.66						
118.00	4391.17	13.17	1.30	1575.55	0.06		
1210.32	73.85	16.39	68.41	5.19	0.000000		
0.00000	41043.88						
119.00	4391.10	13.10	1.34	1609.91	0.07		
1200.42	73.71	16.28	68.30	5.21	0.000009		
0.00869	40977.12						
120.00	4391.05	13.05	1.36	1624.97	0.07		
1193.84	73.63	16.21	68.22	5.23	0.000021		
0.02111	40934.54						
121.00	4391.03	13.03	1.36	1614.92	0.07		
1191.01	73.59	16.18	68.19	5.24	0.000025		
0.02488	40915.77						
122.00	4390.98	12.98	1.34	1582.81	0.07		
1184.86	73.51	16.12	68.12	5.25	0.000016		
0.01603	40873.58						
123.00	4390.87	12.87	1.29	1513.34	0.06		
1170.85	73.33	15.97	67.96	5.28	0.000020		
0.02040	40778.70						
124.00	4390.78	12.78	1.31	1516.21	0.06		
1159.08	73.18	15.84	67.84	5.31	0.000000		
0.00000	40701.28						
125.00	4390.71	12.71	1.31	1500.69	0.06		
1149.64	73.04	15.74	67.72	5.33	0.000050		
0.04870	40632.81						
126.00	4390.62	12.62	1.31	1495.42	0.07		
1138.33	72.89	15.62	67.59	5.36	0.000040		
0.03929	40553.07						
127.00	4390.55	12.55	1.30	1463.88	0.06		
1129.14	72.77	15.52	67.49	5.38	0.000010		
0.00963	40491.71						
128.00	4390.48	12.48	1.28	1430.89	0.06		
1120.44	72.64	15.42	67.38	5.40	0.000049		
0.04683	40428.65						
129.00	4390.39	12.39	1.28	1417.67	0.06		
1109.15	72.49	15.30	67.25	5.43	0.000025		
0.02414	40350.69						
130.00	4390.32	12.32	1.25	1379.49	0.06		
1100.69	72.37	15.21	67.15	5.45	0.000009		
0.00897	40287.64						
131.00	4390.26	12.26	1.23	1347.47	0.06		
1092.05	72.25	15.12	67.04	5.47	0.000039		
0.03632	40225.45						

HYCHAN.OUT									
1080.56	132.00	4390.17	12.17	1.23	1333.62	0.06	0.000051		
	0.04803	72.09	14.99	66.91	5.50				
		40143.79							
1074.98	133.00	4390.12	12.12	1.19	1274.76	0.06	0.000045		
	0.04191	72.01	14.93	66.84	5.51				
		40102.90							
1077.09	134.00	4390.14	12.14	1.09	1175.51	0.06	0.000048		
	0.04492	72.04	14.95	66.86	5.51				
		40118.23							
1075.43	135.00	4390.12	12.12	1.05	1130.91	0.05	0.000042		
	0.03921	72.01	14.93	66.84	5.51				
		40104.29							
1071.46	136.00	4390.09	12.09	1.03	1102.79	0.05	0.000029		
	0.02677	71.96	14.89	66.79	5.52				
		40075.94							
1067.38	137.00	4390.06	12.06	1.01	1074.13	0.05	0.000026		
	0.02408	71.90	14.85	66.74	5.53				
		40045.27							
1063.67	138.00	4390.03	12.03	0.99	1048.62	0.05	0.000025		
	0.02329	71.84	14.81	66.70	5.54				
		40017.55							
1059.87	139.00	4390.00	12.00	0.97	1026.78	0.05	0.000031		
	0.02848	71.79	14.76	66.65	5.55				
		39991.27							
1056.45	140.00	4389.97	11.97	0.95	1005.36	0.05	0.000039		
	0.03572	71.74	14.73	66.61	5.56				
		39965.13							
1051.41	141.00	4389.93	11.93	0.95	996.96	0.05	0.000041		
	0.03718	71.67	14.67	66.55	5.58				
		39927.76							
1043.74	142.00	4389.87	11.87	0.96	1004.33	0.05	0.000038		
	0.03455	71.55	14.59	66.45	5.60				
		39869.28							
1038.63	143.00	4389.83	11.83	0.95	989.42	0.05	0.000000		
	0.00000	71.48	14.53	66.39	5.61				
		39831.20							
1034.70	144.00	4389.80	11.80	0.93	966.22	0.05	0.000000		
	0.00000	71.43	14.49	66.34	5.62				
		39803.77							
1031.65	145.00	4389.77	11.77	0.91	943.17	0.05	0.000035		
	0.03145	71.38	14.45	66.30	5.63				
		39778.20							
1026.80	146.00	4389.74	11.74	0.91	936.64	0.05	0.000037		
	0.03358	71.30	14.40	66.24	5.64				
		39741.84							
1018.80	147.00	4389.67	11.67	0.93	943.73	0.05	0.000000		
	0.00000	71.19	14.31	66.14	5.67				
		39681.97							
1013.60	148.00	4389.63	11.63	0.91	922.51	0.05	0.000041		
	0.03672	71.11	14.25	66.07	5.68				
		39640.80							
1009.62	149.00	4389.60	11.60	0.90	907.68	0.05	0.000000		
	0.00000	71.05	14.21	66.02	5.69				
		39611.55							
1006.51	150.00	4389.57	11.57	0.88	885.54	0.05	0.000037		
	0.03252	71.00	14.18	65.98	5.70				
		39586.98							
1003.75	151.00	4389.55	11.55	0.86	867.25	0.04	0.000000		
	0.00000	70.96	14.15	65.94	5.71				
		39563.36							
999.49	152.00	4389.52	11.52	0.85	853.23	0.04	0.000026		
	0.02250	70.90	14.10	65.89	5.72				
		39533.34							

HYCHAN.OUT							
153.00	4389.46	11.46	0.86	855.94	0.04		
993.10	70.79	14.03		65.80	5.74	0.000015	
0.01272	39479.75						
154.00	4389.41	11.41	0.86	845.83	0.04		
986.82	70.71	13.96		65.72	5.76	0.000048	
0.04214	39434.22						
155.00	4389.38	11.38	0.84	829.80	0.04		
982.55	70.64	13.91		65.67	5.77	0.000000	
0.00000	39399.79						
156.00	4389.34	11.34	0.84	817.57	0.04		
977.79	70.56	13.86		65.60	5.79	0.000012	
0.01022	39361.26						
157.00	4389.30	11.30	0.82	797.60	0.04		
972.60	70.49	13.80		65.54	5.80	0.000046	
0.03949	39321.66						
158.00	4389.35	11.35	0.76	746.36	0.04		
979.28	70.59	13.87		65.62	5.78	0.000000	
0.00000	39374.12						
159.00	4389.38	11.38	0.74	731.01	0.04		
982.75	70.64	13.91		65.67	5.77	0.000028	
0.02390	39399.04						
160.00	4389.38	11.38	0.74	728.88	0.04		
982.66	70.64	13.91		65.67	5.77	0.000000	
0.00000	39401.47						
161.00	4389.37	11.37	0.73	721.79	0.04		
982.51	70.63	13.91		65.66	5.77	0.000028	
0.02420	39395.65						
162.00	4389.37	11.37	0.73	719.48	0.04		
981.39	70.62	13.90		65.65	5.78	0.000000	
0.00000	39390.34						
163.00	4389.36	11.36	0.73	712.83	0.04		
980.95	70.61	13.89		65.64	5.78	0.000029	
0.02525	39382.80						
164.00	4389.35	11.35	0.72	709.76	0.04		
979.69	70.60	13.88		65.63	5.78	0.000000	
0.00000	39377.67						
165.00	4389.35	11.35	0.72	705.30	0.04		
979.46	70.58	13.88		65.62	5.78	0.000024	
0.02065	39371.80						
166.00	4389.33	11.33	0.73	713.83	0.04		
976.89	70.55	13.85		65.59	5.79	0.000012	
0.01080	39354.84						
167.00	4389.27	11.27	0.75	727.21	0.04		
969.88	70.44	13.77		65.50	5.81	0.000000	
0.00000	39297.11						
168.00	4389.24	11.24	0.74	719.30	0.04		
965.84	70.38	13.72		65.44	5.82	0.000028	
0.02407	39266.92						
169.00	4389.23	11.23	0.74	714.97	0.04		
964.25	70.36	13.71		65.42	5.83	0.000030	
0.02573	39254.46						
170.00	4389.22	11.22	0.74	708.92	0.04		
963.24	70.34	13.69		65.41	5.83	0.000000	
0.00000	39245.03						
171.00	4389.21	11.21	0.73	702.41	0.04		
962.17	70.32	13.68		65.39	5.83	0.000000	
0.00000	39236.61						
172.00	4389.20	11.20	0.72	695.89	0.04		
961.55	70.31	13.68		65.38	5.84	0.000023	
0.01979	39230.88						
173.00	4389.20	11.20	0.72	691.68	0.04		
960.50	70.30	13.66		65.37	5.84	0.000043	
0.03658	39224.96						



HYCHAN.OUT							
174.00	4389.18	11.18	0.73	697.71	0.04		
957.98	70.26	13.63		65.34	5.85	0.000020	
0.01663	39204.78						
175.00	4389.12	11.12	0.75	710.17	0.04		
950.96	70.15	13.56		65.25	5.87	0.000012	
0.00999	39147.52						
176.00	4389.09	11.09	0.75	705.78	0.04		
947.11	70.09	13.51		65.19	5.88	0.000000	
0.00000	39116.13						
177.00	4389.07	11.07	0.74	696.16	0.04		
945.23	70.06	13.49		65.17	5.89	0.000000	
0.00000	39100.68						
178.00	4389.06	11.06	0.73	689.00	0.04		
943.99	70.04	13.48		65.15	5.89	0.000000	
0.00000	39089.89						
179.00	4389.05	11.05	0.72	681.65	0.04		
942.86	70.02	13.47		65.13	5.89	0.000000	
0.00000	39080.70						
180.00	4389.04	11.04	0.72	674.73	0.04		
941.90	70.00	13.46		65.12	5.90	0.000000	
0.00000	39072.38						
181.00	4389.07	11.07	0.69	649.99	0.04		
944.89	70.05	13.49		65.16	5.89	0.000000	
0.00000	39095.59						
182.00	4389.17	11.17	0.64	611.17	0.03		
956.84	70.24	13.62		65.32	5.85	0.000032	
0.02688	39194.22						
183.00	4389.23	11.23	0.62	599.59	0.03		
964.41	70.36	13.71		65.43	5.83	0.000000	
0.00000	39257.20						
184.00	4389.30	11.30	0.60	584.13	0.03		
973.08	70.48	13.81		65.53	5.80	0.000017	
0.01461	39320.08						
185.00	4389.33	11.33	0.61	591.46	0.03		
976.65	70.55	13.84		65.59	5.79	0.000000	
0.00000	39352.63						
186.00	4389.34	11.34	0.61	597.82	0.03		
978.53	70.57	13.87		65.61	5.78	0.000051	
0.04411	39366.03						
187.00	4389.35	11.35	0.62	605.81	0.03		
979.33	70.58	13.88		65.62	5.78	0.000000	
0.00000	39370.67						
188.00	4389.35	11.35	0.62	608.44	0.03		
979.77	70.59	13.88		65.63	5.78	0.000015	
0.01310	39377.10						
189.00	4389.35	11.35	0.62	608.88	0.03		
980.18	70.59	13.88		65.63	5.78	0.000042	
0.03652	39377.49						
190.00	4389.36	11.36	0.63	613.06	0.03		
980.27	70.60	13.89		65.63	5.78	0.000000	
0.00000	39379.44						
191.00	4389.36	11.36	0.62	610.19	0.03		
980.24	70.60	13.88		65.63	5.78	0.000032	
0.02770	39379.95						
192.00	4389.34	11.34	0.64	622.14	0.03		
978.30	70.57	13.86		65.61	5.79	0.000000	
0.00000	39363.62						
193.00	4389.29	11.29	0.66	636.71	0.03		
971.79	70.47	13.79		65.52	5.80	0.000043	
0.03661	39314.16						
194.00	4389.26	11.26	0.66	634.52	0.03		
968.28	70.41	13.75		65.47	5.82	0.000000	
0.00000	39284.04						

HYCHAN.OUT							
195.00	4389.25	11.25	0.65	626.66	0.03		
966.86	70.39	13.73		65.46	5.82	0.000052	
0.04468	39274.55						
196.00	4389.24	11.24	0.65	624.20	0.03		
965.86	70.38	13.72		65.44	5.82	0.000000	
0.00000	39266.04						
197.00	4389.23	11.23	0.64	618.46	0.03		
965.35	70.37	13.72		65.43	5.82	0.000044	
0.03761	39261.00						
198.00	4389.23	11.23	0.64	616.21	0.03		
964.84	70.36	13.71		65.43	5.83	0.000000	
0.00000	39257.59						
199.00	4389.23	11.23	0.63	611.90	0.03		
964.52	70.35	13.71		65.42	5.83	0.000033	
0.02781	39253.36						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4692

MAXIMUM DISCHARGE (CFS) = 1895.97 AT TIME = 114.32  
 MAXIMUM STAGE = 4394.76 AT TIME = 91.75

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4377.65	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4379.16	1.51	-0.90	-149.49	0.13	0.000000
165.97	38.28	4.34	37.35	24.80		0.000000
0.00000	19424.24					
6.00	4383.96	6.31	-1.04	-459.10	0.07	0.000000
441.96	59.07	7.48	55.70	8.83		0.000000
0.00000	28962.64					
7.00	4385.37	7.72	-0.31	-190.54	0.02	0.000000
608.41	62.80	9.69	58.93	7.63		0.000000
0.00000	30643.16					
8.00	4385.68	8.03	-0.13	-83.98	0.01	0.000000
645.10	63.55	10.15	59.58	7.42		0.000000
0.00000	30979.14					
9.00	4385.68	8.03	-0.06	-39.00	0.00	0.000000
644.31	63.57	10.14	59.59	7.42		0.000000
0.00000	30985.50					
10.00	4385.64	7.99	-0.03	-21.73	0.00	0.000000
641.08	63.47	10.10	59.50	7.45		0.000000
0.00000	30942.15					
11.00	4385.59	7.94	0.03	16.56	0.00	

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HYCHAN.OUT									
632.51	0.00000	63.35	9.99	59.40	7.48	0.000000			
	12.00	30886.44	7.89	0.03	18.18	0.00			
624.91	0.01131	63.22	9.88	59.29	7.52	0.000018			
	13.00	30830.53	7.80	0.06	34.81	0.00			
615.42	0.01298	63.00	9.77	59.10	7.58	0.000021			
	14.00	30731.82	7.67	0.07	39.71	0.00			
601.14	0.00000	62.69	9.59	58.83	7.67	0.000000			
	15.00	30589.91	7.58	0.04	23.89	0.00			
586.83	0.00000	62.46	9.40	58.63	7.74	0.000000			
	16.00	30488.23	7.54	0.02	12.88	0.00			
578.55	0.01001	62.36	9.28	58.55	7.76	0.000017			
	17.00	30444.29	7.52	0.01	7.40	0.00			
569.36	0.00000	62.32	9.14	58.51	7.78	0.000000			
	18.00	30424.80	7.51	0.00	0.00	0.00			
0.00	0.00000	62.30	0.00	58.49	7.78	0.000008			
	19.00	30414.73	7.51	0.00	0.00	0.00			
0.00	0.00000	62.29	0.00	58.49	7.78	0.000000			
	20.00	30413.78	7.58	-0.05	-29.74	0.00			
591.84	0.00000	62.45	9.48	58.62	7.74	0.000000			
	21.00	30484.91	7.71	-0.07	-42.86	0.00			
605.44	0.00000	62.77	9.65	58.90	7.64	0.000000			
	22.00	30628.24	7.84	-0.08	-47.65	0.00			
622.14	0.00000	63.10	9.86	59.19	7.55	0.000000			
	23.00	30778.17	7.93	-0.05	-33.70	0.00			
628.99	0.00000	63.33	9.93	59.39	7.48	0.000000			
	24.00	30880.27	7.98	-0.04	-23.19	0.00			
640.83	0.00000	63.44	10.10	59.48	7.45	0.000000			
	25.00	30929.51	8.08	-0.07	-47.76	0.00			
654.10	0.00000	63.67	10.27	59.68	7.39	0.000000			
	26.00	31031.96	8.26	-0.11	-76.45	0.01			
675.68	0.00000	64.11	10.54	60.06	7.27	0.000000			
	27.00	31228.65	8.46	-0.14	-98.63	0.01			
709.36	0.00000	64.58	10.98	60.47	7.14	0.000000			
	28.00	31442.31	8.69	-0.15	-107.30	0.01			
738.23	0.00000	65.10	11.34	60.91	7.01	0.000000			
	29.00	31675.60	8.82	-0.10	-75.63	0.01			
747.04	0.00000	65.38	11.43	61.15	6.94	0.000000			
	30.00	31800.40	8.89	-0.08	-56.97	0.00			
756.45	0.00000	65.54	11.54	61.29	6.90	0.000000			
	31.00	31870.13	8.98	-0.08	-63.49	0.00			
768.91	0.00000	65.74	11.70	61.46	6.85	0.000000			
	32.00	31959.88	9.03	-0.05	-41.01	0.00			
		4386.68							

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HYCHAN.OUT									
777.61	0.00000	65.87	11.81	61.57	6.82	0.000000			
	33.00	4386.73	9.08	-0.04	-33.21	0.00			
787.61	0.00000	65.97	11.94	61.66	6.79	0.000000			
	34.00	4386.80	9.15	-0.06	-48.48	0.00			
794.61	0.00000	66.14	12.01	61.80	6.75	0.000000			
	35.00	4386.86	9.21	-0.04	-30.84	0.00			
800.98	0.00000	66.25	12.09	61.90	6.72	0.000000			
	36.00	4386.90	9.25	-0.03	-23.22	0.00			
814.86	0.00679	66.34	12.28	61.98	6.70	0.000009			
	37.00	4386.91	9.26	0.00	0.00	0.00			
0.00	0.00000	66.37	0.00	62.01	6.69	0.000000			
	38.00	4386.90	9.25	0.02	19.67	0.00			
805.74	0.00000	66.34	12.14	61.98	6.70	0.000000			
	39.00	4386.84	9.19	0.05	40.90	0.00			
798.83	0.00000	66.21	12.07	61.86	6.73	0.000000			
	40.00	4386.79	9.14	0.03	25.89	0.00			
790.88	0.00000	66.11	11.96	61.78	6.76	0.000000			
	41.00	4386.77	9.12	0.02	13.22	0.00			
785.50	0.00000	66.06	11.89	61.73	6.77	0.000000			
	42.00	4386.76	9.11	0.00	0.00	0.00			
0.00	0.00000	66.03	0.00	61.71	6.78	0.000000			
	43.00	4386.75	9.10	0.00	0.00	0.00			
0.00	0.00000	66.01	0.00	61.70	6.78	0.000006			
	44.00	4386.76	9.11	-0.01	-9.65	0.00			
794.81	0.00596	66.03	12.04	61.71	6.78	0.000008			
	45.00	4386.80	9.15	-0.05	-40.31	0.00			
795.58	0.00000	66.14	12.03	61.80	6.75	0.000000			
	46.00	4386.86	9.21	-0.05	-37.86	0.00			
804.03	0.00000	66.26	12.14	61.91	6.72	0.000000			
	47.00	4386.95	9.30	-0.08	-61.92	0.00			
818.20	0.00000	66.45	12.31	62.08	6.67	0.000000			
	48.00	4387.07	9.42	-0.10	-80.46	0.01			
833.14	0.00754	66.72	12.49	62.30	6.61	0.000010			
	49.00	4387.21	9.56	-0.11	-91.77	0.01			
852.90	0.00000	67.00	12.73	62.55	6.55	0.000000			
	50.00	4387.35	9.70	-0.11	-98.10	0.01			
872.60	0.00000	67.30	12.97	62.80	6.48	0.000000			
	51.00	4387.49	9.84	-0.12	-105.73	0.01			
893.37	0.00000	67.59	13.22	63.06	6.41	0.000000			
	52.00	4387.65	10.00	-0.13	-121.23	0.01			
916.91	0.00000	67.92	13.50	63.34	6.34	0.000000			
	53.00	4387.82	10.17	-0.14	-136.69	0.01			

HYCHAN.OUT						
942.93	68.28	13.81	63.65	6.26	0.000000	
0.00000	33096.75					
54.00	4387.96	10.31	-0.12	-111.31	0.01	
960.63	68.56	14.01	63.89	6.20	0.000000	
0.00000	33221.05					
55.00	4388.13	10.48	-0.15	-149.30	0.01	
994.72	68.90	14.44	64.17	6.12	0.000000	
0.00000	33370.81					
56.00	4388.36	10.71	-0.21	-220.87	0.01	
1033.14	69.35	14.90	64.57	6.03	0.000000	
0.00000	33573.88					
57.00	4388.78	11.13	-0.37	-409.63	0.02	
1102.33	70.16	15.71	65.26	5.87	0.000000	
0.00000	33934.85					
58.00	4389.30	11.65	-0.53	-623.81	0.03	
1184.43	71.15	16.65	66.10	5.67	0.000000	
0.00000	34374.52					
59.00	4389.82	12.17	-0.65	-824.68	0.03	
1265.42	72.09	17.55	66.91	5.50	0.000000	
0.00000	34790.64					
60.00	4390.19	12.54	-0.73	-971.35	0.04	
1323.02	72.75	18.19	67.47	5.38	0.000000	
0.00000	35083.35					
61.00	4390.47	12.82	-0.69	-950.62	0.03	
1369.92	73.25	18.70	67.90	5.29	0.000000	
0.00000	35305.53					
62.00	4390.67	13.02	-0.66	-920.94	0.03	
1404.36	73.58	19.09	68.18	5.24	0.000000	
0.00000	35453.36					
63.00	4390.76	13.11	-0.65	-927.67	0.03	
1419.47	73.74	19.25	68.32	5.21	0.000000	
0.00000	35524.25					
64.00	4390.87	13.22	-0.60	-858.92	0.03	
1436.98	73.92	19.44	68.47	5.18	0.000000	
0.00000	35606.34					
65.00	4391.02	13.37	-0.44	-652.12	0.02	
1466.76	74.18	19.77	68.69	5.14	0.000000	
0.00000	35719.36					
66.00	4391.16	13.51	-0.30	-442.87	0.01	
1490.83	74.41	20.04	68.89	5.10	0.000000	
0.00000	35821.23					
67.00	4391.26	13.61	-0.19	-290.14	0.01	
1500.46	74.58	20.12	69.04	5.07	0.000000	
0.00000	35898.57					
68.00	4391.37	13.72	-0.07	-104.28	0.00	
1508.42	74.76	20.18	69.19	5.04	0.000000	
0.00000	35977.84					
69.00	4391.55	13.90	-0.04	-68.77	0.00	
1546.54	75.06	20.61	69.44	5.00	0.000000	
0.00000	36107.75					
70.00	4391.74	14.09	0.02	27.93	0.00	
1561.72	75.36	20.72	69.70	4.95	0.000000	
0.00000	36244.41					
71.00	4391.94	14.29	-0.09	-152.88	0.00	
1621.75	75.70	21.42	69.98	4.90	0.000000	
0.00000	36391.84					
72.00	4392.18	14.53	-0.09	-158.70	0.00	
1674.33	76.08	22.01	70.31	4.84	0.000000	
0.00000	36559.44					
73.00	4392.37	14.72	-0.23	-400.49	0.01	
1711.12	76.37	22.40	70.56	4.79	0.000000	
0.00000	36690.81					
74.00	4392.52	14.87	-0.31	-540.58	0.01	

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		HYCHAN.OUT					
1741.31	76.61	22.73	70.77	4.76	0.000000		
0.00000	36797.82						
75.00	4392.66	15.01	-0.41	-732.55	0.02		
1768.28	76.82	23.02	70.94	4.73	0.000000		
0.00000	36889.50						
76.00	4392.80	15.15	-0.58	-1032.34	0.03		
1791.80	77.05	23.26	71.13	4.69	0.000000		
0.00000	36989.70						
77.00	4392.95	15.30	-0.71	-1276.09	0.03		
1803.62	77.27	23.34	71.32	4.66	0.000000		
0.00000	37088.23						
78.00	4393.06	15.41	-0.76	-1376.48	0.03		
1822.19	77.44	23.53	71.46	4.64	0.000000		
0.00000	37161.07						
79.00	4393.21	15.56	-0.99	-1826.82	0.04		
1843.19	77.67	23.73	71.66	4.60	0.000000		
0.00000	37264.82						
80.00	4393.36	15.71	-1.17	-2187.18	0.05		
1865.69	77.89	23.95	71.85	4.57	0.000000		
0.00000	37362.83						
81.00	4393.54	15.89	-1.34	-2550.49	0.06		
1900.02	78.17	24.31	72.08	4.54	0.000000		
0.00000	37483.83						
82.00	4393.71	16.06	-1.47	-2841.20	0.06		
1931.86	78.41	24.64	72.29	4.50	0.000000		
0.00000	37590.98						
83.00	4393.91	16.26	-1.60	-3158.52	0.07		
1970.78	78.70	25.04	72.54	4.46	0.000000		
0.00000	37720.43						
84.00	4394.10	16.45	-1.71	-3433.70	0.07		
2004.34	79.03	25.36	72.78	4.42	0.000000		
0.00000	37843.84						
85.00	4394.23	16.58	-1.82	-3692.76	0.08		
2024.27	79.30	25.53	72.94	4.40	0.000000		
0.00000	37928.04						
86.00	4394.34	16.69	-1.91	-3902.97	0.08		
2041.28	79.52	25.67	73.08	4.38	0.000000		
0.00000	38000.01						
87.00	4394.45	16.80	-1.96	-4038.74	0.08		
2056.43	79.73	25.79	73.20	4.36	0.000000		
0.00000	38066.14						
88.00	4394.55	16.90	-2.02	-4177.23	0.09		
2071.76	79.95	25.91	73.33	4.34	0.000000		
0.00000	38134.10						
89.00	4394.64	16.99	-2.10	-4387.01	0.09		
2084.21	80.12	26.01	73.44	4.32	0.000000		
0.00000	38189.14						
90.00	4394.72	17.07	-2.16	-4530.71	0.09		
2095.58	80.28	26.10	73.54	4.31	0.000000		
0.00000	38239.39						
91.00	4394.76	17.11	-2.17	-4549.52	0.09		
2101.09	80.36	26.15	73.58	4.30	0.000000		
0.00000	38263.28						
92.00	4394.78	17.13	-2.16	-4547.30	0.09		
2104.56	80.40	26.17	73.61	4.30	0.000000		
0.00000	38276.79						
93.00	4394.76	17.11	-2.10	-4423.66	0.09		
2102.18	80.36	26.16	73.58	4.30	0.000000		
0.00000	38264.20						
94.00	4394.71	17.06	-2.06	-4308.88	0.09		
2095.14	80.26	26.10	73.53	4.31	0.000000		
0.00000	38233.34						
95.00	4394.64	16.99	-2.03	-4224.64	0.09		

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				HYCHAN.OUT					
2085.55	80.13	26.03	73.45	4.32	0.000000				
0.00000	38191.53								
96.00	4394.57	16.92	-1.97	-4092.89	0.08				
2074.86	79.98	25.94	73.36	4.34	0.000000				
0.00000	38144.98								
97.00	4394.49	16.84	-1.90	-3917.40	0.08				
2062.81	79.82	25.84	73.26	4.35	0.000000				
0.00000	38092.80								
98.00	4394.40	16.75	-1.85	-3792.96	0.08				
2049.71	79.64	25.74	73.15	4.37	0.000000				
0.00000	38035.75								
99.00	4394.30	16.65	-1.77	-3600.14	0.08				
2035.94	79.45	25.63	73.03	4.39	0.000000				
0.00000	37976.29								
100.00	4394.20	16.55	-1.65	-3337.14	0.07				
2021.35	79.25	25.51	72.91	4.40	0.000000				
0.00000	37912.93								
101.00	4394.09	16.44	-1.57	-3139.44	0.07				
2003.75	79.01	25.36	72.76	4.43	0.000000				
0.00000	37836.99								
102.00	4393.93	16.28	-1.52	-2997.65	0.07				
1976.61	78.75	25.10	72.58	4.46	0.000000				
0.00000	37739.43								
103.00	4393.71	16.06	-1.46	-2815.08	0.06				
1932.16	78.41	24.64	72.29	4.50	0.000000				
0.00000	37591.22								
104.00	4393.48	15.83	-1.29	-2429.71	0.06				
1888.95	78.07	24.19	72.00	4.55	0.000000				
0.00000	37442.54								
105.00	4393.27	15.62	-0.85	-1568.32	0.04				
1852.25	77.76	23.82	71.74	4.59	0.000000				
0.00000	37302.91								
106.00	4393.06	15.41	-0.27	-486.38	0.01				
1817.54	77.44	23.47	71.47	4.64	0.000000				
0.00000	37163.68								
107.00	4392.95	15.30	-0.06	-115.72	0.00				
1799.39	77.27	23.29	71.33	4.66	0.000000				
0.00000	37089.25								
108.00	4392.80	15.15	0.07	122.41	0.00				
1768.70	77.05	22.96	71.13	4.69	0.000000				
0.00000	36988.40								
109.00	4392.60	14.95	0.29	510.51	0.01				
1738.61	76.73	22.66	70.87	4.74	0.000023				
0.03204	36850.77								
110.00	4392.36	14.71	0.61	1034.78	0.03				
1697.23	76.36	22.23	70.55	4.80	0.000017				
0.02322	36684.89								
111.00	4392.15	14.50	0.84	1392.78	0.04				
1659.83	76.02	21.83	70.26	4.85	0.000000				
0.00000	36533.83								
112.00	4391.96	14.31	0.96	1566.70	0.04				
1626.79	75.72	21.48	70.01	4.89	0.000022				
0.02935	36402.95								
113.00	4391.80	14.15	1.00	1598.75	0.05				
1599.17	75.47	21.19	69.79	4.93	0.000034				
0.04522	36291.96								
114.00	4391.63	13.98	1.03	1618.54	0.05				
1566.96	75.19	20.84	69.55	4.97	0.000000				
0.00000	36167.32								
115.00	4391.44	13.79	1.07	1647.72	0.05				
1534.21	74.88	20.49	69.29	5.02	0.000025				
0.03232	36031.09								
116.00	4391.33	13.68	1.05	1591.14	0.05				

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				HYCHAN.OUT			
1513.89		74.69		20.27	69.13	5.05	0.000000
	0.00000	35946.97					
117.00	4391.26		13.61	1.02	1537.98	0.05	
1502.06		74.58		20.14	69.03	5.07	0.000022
	0.02805	35898.00					
118.00	4391.17		13.52	1.06	1574.41	0.05	
1485.96		74.43		19.96	68.91	5.10	0.000000
	0.00000	35831.15					
119.00	4391.09		13.44	1.09	1611.23	0.05	
1472.59		74.30		19.82	68.80	5.12	0.000000
	0.00000	35774.52					
120.00	4391.05		13.40	1.11	1626.91	0.05	
1463.65		74.22		19.72	68.73	5.13	0.000007
	0.00915	35738.11					
121.00	4391.02		13.37	1.11	1615.81	0.05	
1460.19		74.18		19.68	68.70	5.14	0.000007
	0.00896	35721.67					
122.00	4390.98		13.33	1.09	1584.73	0.05	
1452.13		74.10		19.60	68.63	5.15	0.000000
	0.00000	35686.15					
123.00	4390.87		13.22	1.06	1515.32	0.05	
1433.02		73.92		19.39	68.47	5.18	0.000010
	0.01217	35605.12					
124.00	4390.78		13.13	1.07	1515.98	0.05	
1418.12		73.77		19.22	68.34	5.21	0.000000
	0.00000	35538.60					
125.00	4390.70		13.05	1.07	1505.90	0.05	
1403.71		73.64		19.06	68.23	5.23	0.000017
	0.01982	35480.02					
126.00	4390.62		12.97	1.08	1496.35	0.05	
1389.13		73.49		18.90	68.10	5.25	0.000018
	0.02144	35413.88					
127.00	4390.54		12.90	1.06	1463.07	0.05	
1377.38		73.37		18.77	68.00	5.27	0.000000
	0.00000	35360.34					
128.00	4390.48		12.83	1.05	1435.40	0.05	
1365.30		73.25		18.64	67.90	5.29	0.000012
	0.01428	35307.64					
129.00	4390.39		12.74	1.05	1418.17	0.05	
1350.69		73.10		18.48	67.77	5.32	0.000010
	0.01173	35239.89					
130.00	4390.32		12.67	1.03	1379.16	0.05	
1338.76		72.98		18.34	67.67	5.34	0.000000
	0.00000	35188.31					
131.00	4390.25		12.60	1.02	1351.21	0.05	
1326.91		72.86		18.21	67.57	5.36	0.000000
	0.00000	35134.33					
132.00	4390.16		12.51	1.02	1335.97	0.05	
1312.29		72.70		18.05	67.43	5.39	0.000015
	0.01661	35064.88					
133.00	4390.12		12.47	0.98	1274.92	0.05	
1305.19		72.63		17.97	67.37	5.40	0.000009
	0.00958	35030.64					
134.00	4390.14		12.49	0.90	1175.89	0.04	
1307.78		72.66		18.00	67.39	5.40	0.000013
	0.01466	35043.74					
135.00	4390.12		12.47	0.87	1130.98	0.04	
1305.63		72.63		17.98	67.37	5.40	0.000020
	0.02291	35032.03					
136.00	4390.09		12.44	0.85	1102.79	0.04	
1300.17		72.58		17.91	67.32	5.41	0.000010
	0.01093	35008.04					
137.00	4390.06		12.41	0.83	1074.35	0.04	

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		HYCHAN.OUT					
1294.77	72.52	17.85	67.27	5.42	0.000010		
0.01120	34982.13						
138.00	4390.03	12.38	0.81	1049.56	0.04		
1289.69	72.47	17.80	67.23	5.43	0.000010		
0.01104	34958.72						
139.00	4390.00	12.35	0.80	1027.61	0.04		
1284.88	72.42	17.74	67.19	5.44	0.000018		
0.02000	34936.54						
140.00	4389.97	12.32	0.79	1006.48	0.04		
1280.59	72.37	17.70	67.14	5.45	0.000015		
0.01645	34914.45						
141.00	4389.93	12.28	0.78	998.35	0.04		
1273.77	72.29	17.62	67.08	5.46	0.000029		
0.03190	34882.68						
142.00	4389.87	12.22	0.80	1004.98	0.04		
1263.39	72.18	17.50	66.99	5.48	0.000017		
0.01824	34833.18						
143.00	4389.83	12.18	0.79	987.71	0.04		
1256.82	72.11	17.43	66.93	5.50	0.000000		
0.00000	34801.04						
144.00	4389.80	12.15	0.77	966.67	0.04		
1251.78	72.05	17.37	66.88	5.51	0.000000		
0.00000	34776.21						
145.00	4389.77	12.12	0.76	945.93	0.04		
1247.55	72.01	17.33	66.84	5.51	0.000020		
0.02178	34755.40						
146.00	4389.73	12.08	0.76	937.99	0.04		
1240.97	71.94	17.25	66.78	5.53	0.000009		
0.01000	34725.52						
147.00	4389.67	12.02	0.77	941.81	0.04		
1230.76	71.82	17.14	66.68	5.55	0.000000		
0.00000	34673.53						
148.00	4389.63	11.98	0.76	926.79	0.04		
1223.89	71.75	17.06	66.61	5.56	0.000018		
0.01893	34638.80						
149.00	4389.60	11.95	0.74	904.81	0.04		
1218.91	71.69	17.00	66.57	5.57	0.000000		
0.00000	34614.97						
150.00	4389.57	11.92	0.73	889.03	0.04		
1214.55	71.64	16.95	66.52	5.58	0.000014		
0.01442	34592.23						
151.00	4389.55	11.90	0.71	865.57	0.04		
1210.69	71.60	16.91	66.49	5.59	0.000000		
0.00000	34574.74						
152.00	4389.51	11.86	0.71	855.71	0.04		
1205.37	71.54	16.85	66.44	5.60	0.000010		
0.01045	34546.33						
153.00	4389.46	11.81	0.72	856.24	0.04		
1196.74	71.44	16.75	66.35	5.62	0.000000		
0.00000	34503.71						
154.00	4389.41	11.76	0.71	848.75	0.04		
1188.55	71.35	16.66	66.27	5.64	0.000021		
0.02191	34462.48						
155.00	4389.38	11.73	0.70	826.32	0.04		
1183.16	71.29	16.60	66.22	5.65	0.000000		
0.00000	34435.24						
156.00	4389.34	11.69	0.70	820.36	0.04		
1176.63	71.21	16.52	66.16	5.66	0.000000		
0.00000	34402.76						
157.00	4389.29	11.64	0.68	799.92	0.04		
1170.03	71.14	16.45	66.09	5.68	0.000020		
0.02031	34367.52						
158.00	4389.35	11.70	0.63	741.68	0.03		

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		HYCHAN.OUT					
1179.06	71.24	16.55	66.18	5.66	0.000000		
0.00000	34413.07						
159.00	4389.38	11.73	0.62	733.39	0.03		
1183.13	71.29	16.60	66.22	5.65	0.000010		
0.01079	34435.17						
160.00	4389.38	11.73	0.61	726.99	0.03		
1183.34	71.29	16.60	66.22	5.65	0.000000		
0.00000	34435.02						
161.00	4389.37	11.72	0.61	723.92	0.03		
1182.66	71.28	16.59	66.22	5.65	0.000015		
0.01550	34432.56						
162.00	4389.36	11.71	0.61	717.38	0.03		
1181.55	71.27	16.58	66.20	5.65	0.000000		
0.00000	34425.52						
163.00	4389.36	11.71	0.61	715.33	0.03		
1180.41	71.26	16.57	66.20	5.65	0.000010		
0.01084	34421.43						
164.00	4389.35	11.70	0.60	708.21	0.03		
1179.62	71.24	16.56	66.18	5.66	0.000000		
0.00000	34414.50						
165.00	4389.35	11.70	0.60	706.78	0.03		
1178.43	71.24	16.54	66.18	5.66	0.000008		
0.00829	34412.25						
166.00	4389.33	11.68	0.61	713.57	0.03		
1175.86	71.20	16.52	66.14	5.66	0.000000		
0.00000	34395.02						
167.00	4389.27	11.62	0.62	726.61	0.03		
1166.32	71.09	16.41	66.06	5.68	0.000000		
0.00000	34349.19						
168.00	4389.24	11.59	0.62	722.90	0.03		
1161.13	71.03	16.35	66.00	5.70	0.000026		
0.02619	34322.01						
169.00	4389.22	11.57	0.62	715.15	0.03		
1159.19	71.01	16.33	65.98	5.70	0.000009		
0.00879	34310.20						
170.00	4389.22	11.57	0.61	706.30	0.03		
1157.87	70.99	16.31	65.97	5.70	0.000000		
0.00000	34303.86						
171.00	4389.21	11.56	0.61	702.11	0.03		
1156.45	70.98	16.29	65.96	5.71	0.000000		
0.00000	34297.61						
172.00	4389.20	11.55	0.60	698.40	0.03		
1155.13	70.96	16.28	65.95	5.71	0.000000		
0.00000	34291.73						
173.00	4389.19	11.54	0.60	693.25	0.03		
1154.20	70.95	16.27	65.93	5.71	0.000014		
0.01379	34285.65						
174.00	4389.17	11.52	0.61	696.93	0.03		
1151.09	70.91	16.23	65.90	5.72	0.000008		
0.00828	34268.64						
175.00	4389.12	11.47	0.62	710.91	0.03		
1141.62	70.81	16.12	65.81	5.74	0.000000		
0.00000	34220.79						
176.00	4389.08	11.43	0.62	705.20	0.03		
1136.67	70.75	16.07	65.76	5.75	0.000000		
0.00000	34194.32						
177.00	4389.07	11.42	0.61	696.42	0.03		
1134.32	70.72	16.04	65.73	5.76	0.000000		
0.00000	34181.07						
178.00	4389.06	11.41	0.61	688.54	0.03		
1132.54	70.70	16.02	65.72	5.76	0.000000		
0.00000	34172.39						
179.00	4389.05	11.40	0.60	681.48	0.03		

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		HYCHAN.OUT					
1131.01	70.68	16.00	65.70	5.76	0.000000		
0.00000	34164.59						
180.00	4389.04	11.39	0.60	674.32	0.03		
1129.94	70.66	15.99	65.69	5.77	0.000000		
0.00000	34157.46						
181.00	4389.06	11.42	0.57	649.14	0.03		
1133.69	70.71	16.03	65.73	5.76	0.000000		
0.00000	34177.87						
182.00	4389.16	11.51	0.53	612.16	0.03		
1149.23	70.89	16.21	65.89	5.72	0.000011		
0.01124	34260.41						
183.00	4389.23	11.58	0.51	596.66	0.03		
1159.39	71.01	16.33	65.99	5.70	0.000000		
0.00000	34312.86						
184.00	4389.29	11.64	0.50	583.84	0.03		
1169.96	71.14	16.45	66.09	5.68	0.000000		
0.00000	34368.41						
185.00	4389.33	11.68	0.50	589.23	0.03		
1175.47	71.19	16.51	66.14	5.66	0.000000		
0.00000	34393.65						
186.00	4389.34	11.69	0.51	601.39	0.03		
1177.62	71.22	16.53	66.17	5.66	0.000000		
0.00000	34405.84						
187.00	4389.35	11.70	0.51	602.63	0.03		
1178.34	71.23	16.54	66.18	5.66	0.000000		
0.00000	34411.04						
188.00	4389.35	11.70	0.52	609.85	0.03		
1179.53	71.24	16.56	66.18	5.66	0.000008		
0.00786	34413.80						
189.00	4389.35	11.70	0.52	609.97	0.03		
1179.55	71.25	16.56	66.19	5.66	0.000010		
0.01003	34416.86						
190.00	4389.35	11.70	0.52	609.31	0.03		
1179.96	71.25	16.56	66.19	5.65	0.000000		
0.00000	34417.29						
191.00	4389.35	11.70	0.52	613.67	0.03		
1179.96	71.25	16.56	66.19	5.66	0.000014		
0.01403	34416.78						
192.00	4389.34	11.69	0.53	621.04	0.03		
1177.12	71.22	16.53	66.16	5.66	0.000000		
0.00000	34405.41						
193.00	4389.29	11.64	0.55	639.69	0.03		
1168.99	71.12	16.44	66.08	5.68	0.000014		
0.01409	34360.43						
194.00	4389.26	11.61	0.54	632.13	0.03		
1163.90	71.07	16.38	66.03	5.69	0.000000		
0.00000	34337.89						
195.00	4389.24	11.59	0.54	630.17	0.03		
1162.33	71.04	16.36	66.01	5.69	0.000008		
0.00783	34327.20						
196.00	4389.24	11.59	0.53	620.17	0.03		
1160.90	71.03	16.34	66.00	5.70	0.000000		
0.00000	34321.92						
197.00	4389.23	11.58	0.54	622.41	0.03		
1160.26	71.02	16.34	65.99	5.70	0.000008		
0.00778	34316.75						
198.00	4389.23	11.58	0.53	613.16	0.03		
1159.69	71.01	16.33	65.99	5.70	0.000009		
0.00965	34313.28						
199.00	4389.23	11.58	0.53	614.32	0.03		
1159.16	71.01	16.32	65.98	5.70	0.000007		
0.00689	34311.51						

## HYCHAN.OUT

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4693

MAXIMUM DISCHARGE (CFS) = 1787.23 AT TIME = 114.30  
 MAXIMUM STAGE = 4394.75 AT TIME = 91.74

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
SHEAR STRESS	WETTED PERIMETER	SURFACE AREA	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)			(FT)			
0.00	0.00	4377.20	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4377.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4377.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4377.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4377.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4379.15	1.95	8.42	-1.12	-191.81	0.14		0.000000
171.32	20.35	10214.35	6.78	-1.12	-497.64	0.08		0.000000
0.00000	4383.98	49.66	8.98	-1.12	-497.64	0.08		0.000000
445.82	22929.96	8.17	10.88	-0.33	-203.84	0.02		0.000000
0.00000	4385.37	56.75	10.88	-0.33	-203.84	0.02		0.000000
617.30	25880.10	8.48	11.24	-0.13	-85.88	0.01		0.000000
0.00000	4385.68	58.27	11.24	-0.13	-85.88	0.01		0.000000
654.71	26505.79	8.48	11.09	-0.06	-37.83	0.00		0.000000
0.00000	4385.68	58.30	11.09	-0.06	-37.83	0.00		0.000000
646.51	26516.71	8.44	11.09	-0.03	-21.33	0.00		0.000000
0.00000	4385.64	58.10	11.09	-0.03	-21.33	0.00		0.000000
644.33	26436.11	8.39	11.04	0.03	18.09	0.00		0.000000
0.00000	4385.59	57.84	11.04	0.03	18.09	0.00		0.000000
638.84	26329.98	8.34	10.95	0.03	19.52	0.00		0.000014
0.00000	4385.54	57.59	10.95	0.03	19.52	0.00		0.000014
630.48	26225.57	8.25	10.85	0.06	36.72	0.00		0.000000
0.00978	4385.45	57.14	10.85	0.06	36.72	0.00		0.000000
619.85	26041.39	8.12	10.72	0.07	41.96	0.00		0.000011
0.00000	4385.32	56.50	10.72	0.07	41.96	0.00		0.000011
605.47	25776.68	8.03	10.57	0.04	24.99	0.00		0.000029
0.00717	4385.23	56.05	10.57	0.04	24.99	0.00		0.000029
592.47	25589.96	7.99	10.41	0.02	14.46	0.00		0.000009
0.01886	4385.19	55.86	10.41	0.02	14.46	0.00		0.000009
581.79	55.86							

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		HYCHAN.OUT						
	0.00593	25510.33						
572.42	17.00	4385.17	7.97	0.01	6.51	0.00		
		55.77	10.26		49.95	6.26	0.000012	
	0.00785	25473.89						
0.00	18.00	4385.16	7.96	0.00	0.00	0.00		
		55.72	0.00		49.91	6.27	0.000000	
	0.00000	25453.21						
0.00	19.00	4385.16	7.96	0.00	0.00	0.00		
		55.72	0.00		49.91	6.27	0.000000	
	0.00000	25453.88						
595.29	20.00	4385.23	8.03	-0.05	-31.88	0.00		
		56.04	10.62		50.17	6.25	0.000000	
	0.00000	25584.29						
609.02	21.00	4385.35	8.16	-0.07	-45.48	0.00		
		56.68	10.75		50.68	6.21	0.000006	
	0.00425	25848.69						
627.25	22.00	4385.49	8.29	-0.08	-50.35	0.00		
		57.36	10.94		51.23	6.18	0.000000	
	0.00000	26128.32						
634.67	23.00	4385.58	8.38	-0.05	-34.72	0.00		
		57.82	10.98		51.61	6.15	0.000000	
	0.00000	26318.62						
646.87	24.00	4385.63	8.43	-0.04	-24.20	0.00		
		58.05	11.14		51.79	6.14	0.000000	
	0.00000	26412.98						
660.47	25.00	4385.73	8.53	-0.08	-51.02	0.00		
		58.52	11.29		52.17	6.12	0.000000	
	0.00000	26606.92						
684.31	26.00	4385.91	8.71	-0.12	-79.99	0.01		
		59.42	11.52		52.90	6.07	0.000000	
	0.00000	26979.35						
720.61	27.00	4386.12	8.92	-0.14	-103.73	0.01		
		60.42	11.93		53.71	6.02	0.000000	
	0.00000	27391.27						
751.32	28.00	4386.34	9.14	-0.15	-111.21	0.01		
		61.52	12.21		54.59	5.97	0.000000	
	0.00000	27842.56						
760.23	29.00	4386.46	9.27	-0.10	-77.38	0.01		
		62.11	12.24		55.07	5.94	0.000000	
	0.00000	28084.10						
771.01	30.00	4386.53	9.33	-0.08	-58.60	0.00		
		62.44	12.35		55.34	5.93	0.000000	
	0.00000	28220.88						
785.19	31.00	4386.62	9.42	-0.08	-65.29	0.00		
		62.87	12.49		55.68	5.91	0.000000	
	0.00000	28397.21						
788.01	32.00	4386.68	9.48	-0.05	-41.94	0.00		
		63.15	12.48		55.90	5.90	0.000000	
	0.00000	28510.99						
797.06	33.00	4386.73	9.53	-0.04	-34.60	0.00		
		63.37	12.58		56.08	5.89	0.000000	
	0.00000	28599.00						
812.26	34.00	4386.80	9.60	-0.06	-50.01	0.00		
		63.73	12.74		56.37	5.87	0.000000	
	0.00000	28748.67						
815.52	35.00	4386.85	9.66	-0.04	-31.60	0.00		
		63.97	12.75		56.56	5.86	0.000000	
	0.00000	28847.08						
831.92	36.00	4386.90	9.70	-0.03	-24.13	0.00		
		64.19	12.96		56.73	5.85	0.000000	
	0.00000	28934.49						
0.00	37.00	4386.91	9.71	0.00	0.00	0.00		
		64.25	0.00		56.79	5.85	0.000000	

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	0.00000	28961.64							
823.12	38.00	4386.90	9.70	0.02	20.25	0.00			
		64.18	12.82		56.73	5.85		0.000032	
	0.02535	28932.80							
813.59	39.00	4386.84	9.64	0.05	42.48	0.00			
		63.89	12.73		56.49	5.86		0.000032	
	0.02567	28811.76							
805.94	40.00	4386.79	9.59	0.03	27.07	0.00			
		63.68	12.66		56.33	5.87		0.000008	
	0.00633	28728.40							
800.97	41.00	4386.77	9.57	0.02	13.40	0.00			
		63.56	12.60		56.23	5.88		0.000000	
	0.00000	28679.59							
0.00	42.00	4386.75	9.56	0.00	0.00	0.00			
		63.50	0.00		56.18	5.88		0.000000	
	0.00000	28652.79							
0.00	43.00	4386.75	9.55	0.00	0.00	0.00			
		63.47	0.00		56.16	5.88		0.000000	
	0.00000	28641.73							
810.42	44.00	4386.76	9.56	-0.01	-10.26	0.00			
		63.51	12.76		56.19	5.88		0.000000	
	0.00000	28657.98							
814.26	45.00	4386.80	9.60	-0.05	-41.49	0.00			
		63.73	12.78		56.37	5.87		0.000000	
	0.00000	28749.21							
822.02	46.00	4386.86	9.66	-0.05	-39.51	0.00			
		64.00	12.84		56.58	5.86		0.000000	
	0.00000	28856.47							
835.47	47.00	4386.95	9.75	-0.08	-64.35	0.00			
		64.43	12.97		56.93	5.84		0.000000	
	0.00000	29034.14							
853.79	48.00	4387.07	9.87	-0.10	-83.14	0.01			
		65.01	13.13		57.39	5.81		0.000000	
	0.00000	29269.37							
873.09	49.00	4387.21	10.01	-0.11	-95.09	0.01			
		65.63	13.30		57.89	5.79		0.000000	
	0.00000	29525.54							
896.83	50.00	4387.35	10.15	-0.11	-101.36	0.01			
		66.29	13.53		58.42	5.76		0.000000	
	0.00000	29793.61							
918.64	51.00	4387.49	10.29	-0.12	-109.34	0.01			
		66.96	13.72		58.95	5.73		0.000000	
	0.00000	30063.80							
945.86	52.00	4387.65	10.45	-0.13	-125.31	0.01			
		67.69	13.97		59.53	5.70		0.000000	
	0.00000	30361.69							
970.09	53.00	4387.82	10.62	-0.14	-140.37	0.01			
		68.51	14.16		60.19	5.67		0.000000	
	0.00000	30695.99							
995.38	54.00	4387.96	10.76	-0.12	-114.63	0.01			
		69.14	14.40		60.69	5.64		0.000000	
	0.00000	30952.10							
1034.07	55.00	4388.13	10.93	-0.15	-154.27	0.01			
		69.92	14.79		61.31	5.61		0.000000	
	0.00000	31267.22							
1081.03	56.00	4388.36	11.16	-0.21	-228.53	0.01			
		70.97	15.23		62.15	5.57		0.000000	
	0.00000	31694.49							
1154.01	57.00	4388.78	11.58	-0.37	-422.17	0.02			
		72.88	15.83		63.66	5.50		0.000000	
	0.00000	32464.84							
1246.58	58.00	4389.31	12.11	-0.51	-638.63	0.03			
		75.24	16.57		65.52	5.41		0.000000	

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	0.00000	33415.45						
1338.84	59.00	4389.82	12.62	-0.62	-836.78	0.03		
	0.00000	77.51	17.27		67.31	5.33	0.000000	
	0.00000	34329.70						
1407.75	60.00	4390.19	12.99	-0.70	-979.86	0.03		
	0.00000	79.13	17.79		68.59	5.28	0.000000	
	0.00000	34981.16						
1459.63	61.00	4390.48	13.28	-0.66	-958.01	0.03		
	0.00000	80.38	18.16		69.57	5.24	0.000000	
	0.00000	35481.37						
1497.90	62.00	4390.67	13.47	-0.62	-924.68	0.03		
	0.00000	81.22	18.44		70.23	5.21	0.000000	
	0.00000	35816.54						
1516.28	63.00	4390.76	13.56	-0.61	-929.96	0.03		
	0.00000	81.62	18.58		70.54	5.20	0.000000	
	0.00000	35977.55						
1534.22	64.00	4390.87	13.67	-0.56	-863.25	0.03		
	0.00000	82.09	18.69		70.91	5.19	0.000000	
	0.00000	36164.35						
1562.80	65.00	4391.02	13.82	-0.42	-656.25	0.02		
	0.00000	82.74	18.89		71.42	5.17	0.000000	
	0.00000	36424.31						
1588.53	66.00	4391.16	13.96	-0.28	-446.55	0.01		
	0.00000	83.33	19.06		71.88	5.15	0.000000	
	0.00000	36658.14						
1593.88	67.00	4391.26	14.06	-0.18	-292.99	0.01		
	0.00000	83.77	19.03		72.22	5.14	0.000000	
	0.00000	36834.30						
1601.31	68.00	4391.37	14.17	-0.07	-109.54	0.00		
	0.00000	84.23	19.01		72.58	5.12	0.000000	
	0.00000	37016.83						
1643.47	69.00	4391.55	14.35	-0.04	-73.01	0.00		
	0.01838	84.99	19.34		73.18	5.10	0.000015	
	0.00000	37320.10						
1650.23	70.00	4391.74	14.54	0.01	21.17	0.00		
	0.00000	85.79	19.24		73.80	5.08	0.000000	
	0.00000	37639.39						
1729.98	71.00	4391.95	14.75	-0.09	-159.89	0.00		
	0.00000	86.67	19.96		74.48	5.05	0.000000	
	0.00000	37987.16						
1789.95	72.00	4392.18	14.98	-0.09	-165.54	0.00		
	0.00866	87.67	20.42		75.26	5.02	0.000007	
	0.00000	38384.41						
1834.64	73.00	4392.37	15.17	-0.22	-405.61	0.01		
	0.00000	88.46	20.74		75.88	5.00	0.000000	
	0.00000	38697.28						
1875.86	74.00	4392.53	15.33	-0.29	-544.88	0.01		
	0.00000	89.10	21.05		76.38	4.98	0.000000	
	0.00000	38953.61						
1905.99	75.00	4392.66	15.46	-0.39	-736.56	0.02		
	0.00000	89.66	21.26		76.81	4.97	0.000000	
	0.00000	39174.93						
1940.04	76.00	4392.81	15.61	-0.53	-1037.66	0.02		
	0.00000	90.27	21.49		77.28	4.95	0.000000	
	0.00000	39415.35						
1966.25	77.00	4392.95	15.75	-0.65	-1279.84	0.03		
	0.00000	90.86	21.64		77.74	4.94	0.000000	
	0.00000	39648.29						
1990.57	78.00	4393.06	15.86	-0.69	-1380.24	0.03		
	0.00000	91.30	21.80		78.09	4.92	0.000000	
	0.00000	39824.57						
2030.82	79.00	4393.21	16.01	-0.90	-1831.81	0.04		
	0.00000	91.94	22.09		78.58	4.91	0.000000	

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HYCHAN.OUT									
	0.00000	40074.88							
2065.18	80.00	4393.36	16.16	22.32	-1.06	-2193.24	0.05	0.000000	
	0.00000	92.53				79.04	4.89		
	0.00000	40311.63							
2105.28	81.00	4393.54	16.34	22.57	-1.21	-2555.64	0.05	0.000000	
	0.00000	93.28				79.62	4.87		
	0.00000	40604.45							
2142.80	82.00	4393.70	16.50	22.81	-1.33	-2847.24	0.06	0.000000	
	0.00000	93.94				80.13	4.86		
	0.00000	40865.19							
2187.81	83.00	4393.90	16.70	23.09	-1.45	-3165.25	0.06	0.000000	
	0.00000	94.74				80.75	4.84		
	0.00000	41181.01							
2231.53	84.00	4394.08	16.88	23.37	-1.54	-3439.17	0.07	0.000000	
	0.00000	95.51				81.34	4.82		
	0.00000	41483.76							
2261.09	85.00	4394.21	17.01	23.55	-1.63	-3696.20	0.07	0.000000	
	0.00000	96.02				81.74	4.80		
	0.00000	41686.25							
2273.57	86.00	4394.32	17.12	23.57	-1.72	-3906.74	0.07	0.000000	
	0.00000	96.46				82.07	4.79		
	0.00000	41857.71							
2292.76	87.00	4394.42	17.22	23.67	-1.76	-4042.08	0.07	0.000006	
	0.00913	96.85				82.37	4.78		
	0.00913	42010.84							
2314.35	88.00	4394.51	17.31	23.80	-1.81	-4179.75	0.08	0.000007	
	0.01107	97.24				82.68	4.78		
	0.01107	42165.66							
2333.01	89.00	4394.59	17.39	23.91	-1.88	-4389.50	0.08	0.000000	
	0.00000	97.56				82.92	4.77		
	0.00000	42289.51							
2347.42	90.00	4394.66	17.46	23.99	-1.93	-4533.23	0.08	0.000010	
	0.01555	97.84				83.14	4.76		
	0.01555	42402.65							
2352.76	91.00	4394.70	17.50	24.01	-1.93	-4549.75	0.08	0.000009	
	0.01392	97.98				83.25	4.76		
	0.01392	42457.14							
2357.58	92.00	4394.72	17.52	24.04	-1.93	-4548.41	0.08	0.000009	
	0.01326	98.07				83.32	4.76		
	0.01326	42492.04							
2354.06	93.00	4394.70	17.51	24.02	-1.88	-4422.09	0.08	0.000000	
	0.00000	98.01				83.27	4.76		
	0.00000	42468.13							
2345.51	94.00	4394.66	17.46	23.97	-1.84	-4307.05	0.08	0.000009	
	0.01309	97.83				83.13	4.76		
	0.01309	42398.66							
2331.64	95.00	4394.60	17.40	23.89	-1.81	-4222.04	0.08	0.000000	
	0.00000	97.59				82.95	4.77		
	0.00000	42302.41							
2315.78	96.00	4394.53	17.33	23.80	-1.77	-4090.50	0.07	0.000000	
	0.00000	97.32				82.74	4.77		
	0.00000	42195.30							
2299.00	97.00	4394.46	17.26	23.70	-1.70	-3914.95	0.07	0.000000	
	0.00000	97.01				82.50	4.78		
	0.00000	42075.29							
2279.85	98.00	4394.37	17.17	23.58	-1.66	-3789.66	0.07	0.000006	
	0.00861	96.67				82.24	4.79		
	0.00861	41943.09							
2259.51	99.00	4394.29	17.09	23.46	-1.59	-3597.40	0.07	0.000008	
	0.01146	96.32				81.97	4.80		
	0.01146	41804.31							
2237.60	100.00	4394.19	16.99	23.32	-1.49	-3333.10	0.06	0.000006	
		95.94				81.67	4.81		

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	0.00929	41652.81						
101.00	4394.07	16.88	-1.42	-3135.44	0.06			
2213.27	95.47	23.18		81.31	4.82	0.000007		
	0.00954	41468.48						
102.00	4393.92	16.73	-1.36	-2990.76	0.06			
2191.22	94.86	23.10		80.84	4.83	0.000000		
	0.00000	41228.33						
103.00	4393.70	16.50	-1.31	-2807.38	0.06			
2142.79	93.93	22.81		80.13	4.86	0.000000		
	0.00000	40863.88						
104.00	4393.47	16.27	-1.16	-2423.15	0.05			
2087.21	93.01	22.44		79.41	4.88	0.000007		
	0.00957	40500.89						
105.00	4393.26	16.06	-0.77	-1560.16	0.03			
2021.52	92.15	21.94		78.75	4.90	0.000000		
	0.00000	40161.49						
106.00	4393.06	15.86	-0.24	-481.59	0.01			
1965.99	91.31	21.53		78.09	4.92	0.000000		
	0.00000	39825.95						
107.00	4392.95	15.75	-0.06	-112.43	0.00			
1936.80	90.86	21.32		77.75	4.94	0.000000		
	0.00000	39650.20						
108.00	4392.80	15.60	0.07	128.62	0.00			
1895.42	90.24	21.00		77.27	4.95	0.000000		
	0.00000	39406.14						
109.00	4392.60	15.40	0.28	517.82	0.01			
1862.52	89.41	20.83		76.62	4.98	0.000000		
	0.00000	39075.80						
110.00	4392.36	15.16	0.58	1043.16	0.03			
1812.83	88.42	20.50		75.85	5.00	0.000022		
	0.02841	38682.07						
111.00	4392.15	14.95	0.79	1398.57	0.04			
1769.18	87.52	20.21		75.15	5.03	0.000031		
	0.03908	38326.04						
112.00	4391.96	14.76	0.91	1571.25	0.04			
1732.07	86.74	19.97		74.54	5.05	0.000000		
	0.00000	38016.54						
113.00	4391.81	14.61	0.94	1604.76	0.04			
1699.90	86.09	19.75		74.03	5.07	0.000024		
	0.02908	37756.37						
114.00	4391.63	14.43	0.98	1623.35	0.05			
1662.69	85.35	19.48		73.46	5.09	0.000048		
	0.05805	37464.56						
115.00	4391.45	14.25	1.02	1651.47	0.05			
1624.26	84.55	19.21		72.84	5.11	0.000000		
	0.00000	37147.05						
116.00	4391.33	14.13	1.00	1594.58	0.05			
1602.04	84.06	19.06		72.45	5.13	0.000019		
	0.02260	36948.63						
117.00	4391.27	14.07	0.97	1538.73	0.05			
1588.82	83.78	18.96		72.23	5.14	0.000000		
	0.00000	36838.74						
118.00	4391.17	13.97	1.01	1578.72	0.05			
1568.88	83.39	18.81		71.92	5.15	0.000038		
	0.04515	36681.25						
119.00	4391.10	13.90	1.04	1613.83	0.05			
1555.26	83.06	18.73		71.67	5.16	0.000034		
	0.04028	36549.92						
120.00	4391.05	13.85	1.05	1626.77	0.05			
1545.53	82.85	18.65		71.50	5.16	0.000000		
	0.00000	36466.70						
121.00	4391.03	13.83	1.05	1615.99	0.05			
1540.56	82.76	18.62		71.43	5.17	0.000000		

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HYCHAN.OUT									
	0.00000	36429.83							
1531.82	122.00	4390.98	13.78	18.56	1.04	1587.20	0.05	0.000000	
	0.00000	82.55				71.27	5.17		
1510.57	123.00	4390.87	13.67	18.40	1.01	1518.76	0.05	0.000007	
	0.00748	82.08				70.91	5.19		
1492.77	124.00	4390.78	13.58	18.27	1.02	1518.93	0.05	0.000050	
	0.05728	81.71				70.61	5.20		
1476.24	125.00	4390.70	13.50	18.14	1.02	1506.29	0.05	0.000000	
	0.00000	81.37				70.35	5.21		
1460.67	126.00	4390.61	13.42	18.04	1.03	1499.43	0.05	0.000000	
	0.00000	80.99				70.04	5.22		
1447.04	127.00	4390.55	13.35	17.93	1.01	1466.22	0.05	0.000034	
	0.03852	80.69				69.81	5.23		
1433.98	128.00	4390.48	13.28	17.84	1.00	1435.93	0.05	0.000000	
	0.00000	80.38				69.57	5.24		
1416.60	129.00	4390.39	13.19	17.71	1.00	1420.88	0.05	0.000000	
	0.00000	80.01				69.28	5.25		
1404.54	130.00	4390.32	13.12	17.62	0.98	1382.22	0.05	0.000044	
	0.04878	79.71				69.04	5.26		
1391.81	131.00	4390.25	13.05	17.53	0.97	1351.78	0.05	0.000000	
	0.00000	79.41				68.81	5.27		
1374.34	132.00	4390.16	12.96	17.39	0.97	1337.83	0.05	0.000000	
	0.00000	79.02				68.50	5.28		
1367.33	133.00	4390.12	12.92	17.34	0.93	1274.72	0.05	0.000000	
	0.00000	78.83				68.35	5.29		
1370.87	134.00	4390.14	12.94	17.37	0.86	1175.32	0.04	0.000000	
	0.00000	78.91				68.41	5.29		
1367.73	135.00	4390.12	12.92	17.35	0.83	1132.15	0.04	0.000000	
	0.00000	78.84				68.36	5.29		
1362.60	136.00	4390.09	12.89	17.31	0.81	1104.09	0.04	0.000000	
	0.00000	78.70				68.25	5.29		
1356.45	137.00	4390.06	12.86	17.27	0.79	1075.68	0.04	0.000000	
	0.00000	78.56				68.14	5.30		
1351.43	138.00	4390.03	12.83	17.23	0.78	1049.99	0.04	0.000000	
	0.00000	78.43				68.04	5.30		
1345.64	139.00	4390.00	12.80	17.18	0.76	1028.26	0.04	0.000000	
	0.00000	78.31				67.94	5.31		
1341.53	140.00	4389.97	12.77	17.16	0.75	1006.77	0.04	0.000000	
	0.00000	78.18				67.84	5.31		
1333.56	141.00	4389.93	12.73	17.10	0.75	1000.18	0.04	0.000000	
	0.00000	78.00				67.70	5.32		
1322.67	142.00	4389.87	12.67	17.02	0.76	1006.60	0.04	0.000000	
	0.00000	77.73				67.49	5.33		

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HYCHAN.OUT									
	0.00000	34417.93							
1315.33	143.00	4389.83	12.63	16.96	0.75	990.19	0.04	0.000032	
	0.03420	77.55				67.35	5.33		
		34346.90							
1309.14	144.00	4389.80	12.60	16.91	0.74	967.50	0.04	0.000028	
	0.02918	77.42				67.24	5.34		
		34294.71							
1304.81	145.00	4389.77	12.57	16.88	0.72	945.35	0.04	0.000000	
	0.00000	77.30				67.15	5.34		
		34246.45							
1297.54	146.00	4389.73	12.53	16.82	0.72	939.04	0.04	0.000000	
	0.00000	77.13				67.02	5.35		
		34178.14							
1285.39	147.00	4389.67	12.47	16.73	0.74	945.79	0.04	0.000039	
	0.04061	76.85				66.80	5.36		
		34065.50							
1278.23	148.00	4389.63	12.43	16.67	0.72	925.06	0.04	0.000000	
	0.00000	76.66				66.64	5.36		
		33988.89							
1272.93	149.00	4389.60	12.40	16.63	0.71	908.41	0.04	0.000036	
	0.03760	76.53				66.54	5.37		
		33934.64							
1267.98	150.00	4389.57	12.37	16.59	0.70	887.10	0.04	0.000000	
	0.00000	76.41				66.45	5.37		
		33887.50							
1264.21	151.00	4389.54	12.35	16.57	0.69	868.03	0.03	0.000018	
	0.01837	76.30				66.36	5.38		
		33844.00							
1257.91	152.00	4389.51	12.31	16.52	0.68	855.52	0.03	0.000000	
	0.00000	76.16				66.25	5.38		
		33786.42							
1248.53	153.00	4389.46	12.26	16.45	0.69	858.74	0.03	0.000000	
	0.00000	75.91				66.05	5.39		
		33687.61							
1239.25	154.00	4389.41	12.21	16.37	0.68	848.07	0.03	0.000000	
	0.00000	75.70				65.89	5.40		
		33602.33							
1233.28	155.00	4389.37	12.17	16.33	0.67	829.85	0.03	0.000056	
	0.05742	75.54				65.76	5.40		
		33539.17							
1226.18	156.00	4389.33	12.13	16.27	0.67	820.95	0.03	0.000018	
	0.01791	75.36				65.62	5.41		
		33467.38							
1219.03	157.00	4389.29	12.09	16.21	0.65	797.77	0.03	0.000000	
	0.00000	75.18				65.48	5.41		
		33394.88							
1228.81	158.00	4389.35	12.15	16.29	0.60	742.66	0.03	0.000044	
	0.04427	75.42				65.67	5.41		
		33491.34							
1234.01	159.00	4389.37	12.17	16.34	0.59	731.45	0.03	0.000000	
	0.00000	75.54				65.76	5.40		
		33537.24							
1232.99	160.00	4389.38	12.18	16.32	0.59	728.30	0.03	0.000037	
	0.03776	75.55				65.77	5.40		
		33540.71							
1233.19	161.00	4389.37	12.17	16.33	0.59	722.96	0.03	0.000000	
	0.00000	75.52				65.75	5.40		
		33530.30							
1231.31	162.00	4389.36	12.16	16.31	0.58	718.87	0.03	0.000043	
	0.04369	75.49				65.72	5.40		
		33519.61							
1230.65	163.00	4389.36	12.16	16.31	0.58	714.08	0.03	0.000000	
		75.46				65.70	5.40		

HYCHAN.OUT									
	0.00000	33506.27							
1228.98	164.00	4389.35	12.15	16.29	0.58	709.28	0.03	0.000020	
	0.02061	75.44				65.68	5.41		
		33496.07							
1228.69	165.00	4389.34	12.14	16.29	0.57	706.02	0.03	0.000000	
		75.41				65.66	5.41		
	0.00000	33485.88							
1224.71	166.00	4389.33	12.13	16.26	0.58	715.44	0.03	0.000008	
		75.33				65.59	5.41		
	0.00815	33453.33							
1214.64	167.00	4389.27	12.07	16.18	0.60	729.10	0.03	0.000052	
		75.07				65.39	5.42		
	0.05212	33348.64							
1209.30	168.00	4389.24	12.04	16.14	0.60	721.40	0.03	0.000000	
		74.93				65.28	5.42		
	0.00000	33291.98							
1206.73	169.00	4389.22	12.02	16.12	0.59	715.03	0.03	0.000000	
		74.87				65.23	5.43		
	0.00000	33268.78							
1205.35	170.00	4389.21	12.01	16.11	0.59	708.55	0.03	0.000041	
		74.83				65.20	5.43		
	0.04078	33252.22							
1204.06	171.00	4389.21	12.01	16.10	0.58	703.03	0.03	0.000042	
		74.79				65.17	5.43		
	0.04172	33237.30							
1202.88	172.00	4389.20	12.00	16.09	0.58	696.71	0.03	0.000000	
		74.76				65.15	5.43		
	0.00000	33225.84							
1201.54	173.00	4389.19	11.99	16.08	0.58	692.21	0.03	0.000000	
		74.74				65.13	5.43		
	0.00000	33214.59							
1197.85	174.00	4389.17	11.97	16.05	0.58	699.63	0.03	0.000000	
		74.64				65.05	5.43		
	0.00000	33177.31							
1187.58	175.00	4389.11	11.91	15.97	0.60	712.15	0.03	0.000000	
		74.38				64.85	5.44		
	0.00000	33072.21							
1181.81	176.00	4389.08	11.88	15.92	0.60	706.55	0.03	0.000020	
		74.24				64.73	5.45		
	0.02005	33014.59							
1179.52	177.00	4389.07	11.87	15.90	0.59	696.58	0.03	0.000021	
		74.17				64.68	5.45		
	0.02077	32986.28							
1177.38	178.00	4389.06	11.86	15.88	0.59	689.47	0.03	0.000039	
		74.12				64.64	5.45		
	0.03833	32966.22							
1176.11	179.00	4389.05	11.85	15.88	0.58	681.81	0.03	0.000058	
		74.08				64.61	5.45		
	0.05722	32950.00							
1174.95	180.00	4389.04	11.84	15.87	0.57	674.87	0.03	0.000063	
		74.04				64.58	5.45		
	0.06207	32935.52							
1179.01	181.00	4389.06	11.86	15.90	0.55	646.76	0.03	0.000040	
		74.15				64.66	5.45		
	0.03926	32978.35							
1196.35	182.00	4389.16	11.96	16.04	0.51	607.99	0.03	0.000000	
		74.60				65.02	5.43		
	0.00000	33158.68							
1207.10	183.00	4389.23	12.03	16.12	0.49	596.27	0.03	0.000006	
		74.88				65.24	5.42		
	0.00601	33273.29							
1219.49	184.00	4389.29	12.09	16.22	0.48	582.10	0.02	0.000000	
		75.17				65.47	5.41		

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HYCHAN.OUT									
	0.00000	33389.09							
1224.49	185.00	4389.32	12.12	16.26	0.48	589.79	0.02	0.000042	
	0.04286	33448.83							
1227.65	186.00	4389.34	12.14	16.29	0.49	598.35	0.02	0.000000	
	0.00000	33473.11							
1228.42	187.00	4389.34	12.14	16.29	0.49	604.85	0.02	0.000022	
	0.02208	33482.35							
1229.17	188.00	4389.35	12.15	16.30	0.50	608.72	0.03	0.000000	
	0.00000	33493.82							
1229.47	189.00	4389.35	12.15	16.30	0.50	609.37	0.03	0.000000	
	0.00000	33494.29							
1229.72	190.00	4389.35	12.15	16.30	0.50	611.98	0.03	0.000047	
	0.04789	33498.10							
1229.61	191.00	4389.35	12.15	16.30	0.50	610.89	0.03	0.000000	
	0.00000	33499.23							
1227.04	192.00	4389.33	12.14	16.28	0.51	623.57	0.03	0.000018	
	0.01801	33469.05							
1217.54	193.00	4389.28	12.08	16.20	0.53	639.51	0.03	0.000000	
	0.00000	33377.52							
1212.60	194.00	4389.25	12.05	16.17	0.52	634.66	0.03	0.000032	
	0.03238	33322.57							
1210.44	195.00	4389.24	12.04	16.15	0.52	627.71	0.03	0.000000	
	0.00000	33304.21							
1209.19	196.00	4389.23	12.04	16.14	0.52	623.57	0.03	0.000049	
	0.04933	33289.12							
1208.32	197.00	4389.23	12.03	16.13	0.51	619.44	0.03	0.000000	
	0.00000	33279.87							
1207.48	198.00	4389.23	12.03	16.13	0.51	615.85	0.03	0.000029	
	0.02965	33272.62							
1207.26	199.00	4389.22	12.02	16.13	0.51	612.35	0.03	0.000000	
	0.00000	33265.82							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4746

MAXIMUM DISCHARGE (CFS) = 1743.85 AT TIME = 114.62  
 MAXIMUM STAGE = 4394.76 AT TIME = 91.73

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	0.00	4376.60	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT									
0.00	1.00	4376.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4376.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4376.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4376.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
184.43	5.00	4379.15	2.55	-1.38	-253.97	0.15			0.000000
	0.00000	27.62	6.68		26.37	10.34			
412.74	6.00	4384.02	7.42	-1.32	-545.60	0.09			0.000000
	0.00000	57.26	7.21		50.68	6.83			
547.03	7.00	4385.37	8.77	-0.40	-220.55	0.02			0.000000
	0.00000	64.22	8.52		56.16	6.40			
583.35	8.00	4385.68	9.08	-0.15	-88.22	0.01			0.000000
	0.00000	65.73	8.88		57.35	6.32			
583.65	9.00	4385.68	9.08	-0.06	-36.36	0.00			0.000000
	0.00000	65.75	8.88		57.36	6.32			
579.90	10.00	4385.64	9.04	-0.04	-20.76	0.00			0.000000
	0.00000	65.56	8.85		57.21	6.33			
573.09	11.00	4385.59	8.99	0.03	19.18	0.00			0.000012
	0.00632	65.30	8.78		57.01	6.34			
567.88	12.00	4385.54	8.94	0.04	21.76	0.00			0.000000
	0.00000	65.05	8.73		56.81	6.36			
558.31	13.00	4385.45	8.85	0.07	39.61	0.00			0.000000
	0.00000	64.60	8.64		56.46	6.38			
546.46	14.00	4385.32	8.72	0.08	44.92	0.00			0.000016
	0.00851	63.95	8.54		55.96	6.42			
536.68	15.00	4385.23	8.63	0.05	26.36	0.00			0.000020
	0.01042	63.50	8.45		55.60	6.44			
532.20	16.00	4385.19	8.59	0.03	14.37	0.00			0.000000
	0.00000	63.31	8.41		55.45	6.45			
530.00	17.00	4385.17	8.57	0.01	7.73	0.00			0.000000
	0.00000	63.22	8.38		55.38	6.46			
0.00	18.00	4385.16	8.56	0.00	0.00	0.00			0.000000
	0.00000	63.17	0.00		55.35	6.46			
0.00	19.00	4385.16	8.56	0.00	0.00	0.00			0.000000
	0.00000	63.17	0.00		55.35	6.46			
536.60	20.00	4385.23	8.63	-0.06	-34.37	0.00			0.000000
	0.00000	63.49	8.45		55.59	6.44			
549.48	21.00	4385.35	8.75	-0.09	-48.78	0.01			0.000000
	0.00000	64.13	8.57		56.10	6.41			
		39267.13							

		HYCHAN.OUT						
563.62	22.00	4385.49	8.89	-0.10	-53.69	0.01	0.000000	
	0.00000	64.81	8.70		56.63	6.37		
	23.00	39639.95	8.98	-0.06	-36.17	0.00	0.000000	
572.12	0.00000	65.27	8.77		56.99	6.34		
	24.00	39891.54	9.03	-0.04	-25.55	0.00	0.000000	
578.64	0.00000	65.50	8.83		57.17	6.33		
	25.00	40019.18	9.13	-0.09	-54.97	0.01	0.000010	
589.84	0.00579	65.98	8.94		57.54	6.31		
	26.00	40278.62	9.31	-0.14	-84.61	0.01	0.000000	
608.61	0.00000	66.88	9.10		58.25	6.26		
	27.00	40773.56	9.52	-0.17	-110.22	0.01	0.000000	
633.52	0.00000	67.89	9.33		59.03	6.20		
	28.00	41323.33	9.74	-0.18	-116.13	0.01	0.000000	
657.78	0.00000	68.99	9.53		59.89	6.15		
	29.00	41923.58	9.86	-0.12	-79.53	0.01	0.000000	
669.71	0.00000	69.58	9.63		60.35	6.12		
	30.00	42242.43	9.93	-0.09	-60.70	0.01	0.000000	
678.15	0.00000	69.91	9.70		60.61	6.10		
	31.00	42424.79	10.02	-0.10	-67.54	0.01	0.000000	
687.98	0.00000	70.34	9.78		60.94	6.08		
	32.00	42659.00	10.08	-0.06	-43.11	0.00	0.000000	
693.31	0.00000	70.62	9.82		61.16	6.07		
	33.00	42809.10	10.13	-0.05	-36.38	0.00	0.000000	
699.98	0.00000	70.84	9.88		61.32	6.06		
	34.00	42926.98	10.20	-0.07	-51.90	0.00	0.000000	
708.52	0.00000	71.20	9.95		61.61	6.04		
	35.00	43126.39	10.25	-0.05	-32.62	0.00	0.000000	
713.38	0.00000	71.44	9.99		61.79	6.03		
	36.00	43256.45	10.30	-0.04	-25.89	0.00	0.000000	
722.26	0.00000	71.66	10.08		61.96	6.02		
	37.00	43374.44	10.31	0.00	0.00	0.00	0.000000	
0.00	0.00000	71.73	0.00		62.01	6.01		
	38.00	43409.21	10.30	0.03	22.38	0.00	0.000008	
718.99	0.00472	71.65	10.03		61.96	6.02		
	39.00	43370.88	10.24	0.06	43.75	0.00	0.000000	
713.07	0.00000	71.36	9.99		61.73	6.03		
	40.00	43212.14	10.19	0.04	27.41	0.00	0.000000	
708.11	0.00000	71.15	9.95		61.57	6.04		
	41.00	43099.14	10.17	0.02	13.87	0.00	0.000000	
704.10	0.00000	71.03	9.91		61.48	6.05		
	42.00	43034.50	10.16	0.01	7.45	0.00	0.000000	
701.87	0.00000	70.97	9.89		61.43	6.05		
		43000.18						

HYCHAN.OUT								
0.00	43.00	4386.75	10.15	0.00	0.00	0.00	0.00	0.000000
	0.00000	70.94	0.00	61.41	6.05			
	44.00	42983.83						
705.43		4386.76	10.16	-0.02	-11.32	0.00		
	0.00000	70.99	9.94	61.44	6.05	0.000000		
	45.00	43007.74						
708.99		4386.80	10.20	-0.06	-42.55	0.00		
	0.00000	71.21	9.96	61.61	6.04	0.000000		
	46.00	43128.45						
715.64		4386.86	10.26	-0.06	-41.49	0.00		
	0.00000	71.47	10.01	61.82	6.03	0.000000		
	47.00	43271.27						
726.67		4386.95	10.35	-0.09	-67.60	0.01		
	0.00416	71.91	10.11	62.15	6.00	0.000007		
	48.00	43506.79						
740.57		4387.07	10.47	-0.12	-87.01	0.01		
	0.00000	72.48	10.22	62.60	5.98	0.000000		
	49.00	43819.33						
756.39		4387.21	10.61	-0.13	-98.73	0.01		
	0.00000	73.11	10.35	63.09	5.95	0.000000		
	50.00	44159.77						
773.09		4387.35	10.75	-0.14	-105.53	0.01		
	0.00000	73.77	10.48	63.59	5.92	0.000000		
	51.00	44516.00						
789.98		4387.49	10.89	-0.14	-113.92	0.01		
	0.00000	74.43	10.61	64.11	5.89	0.000000		
	52.00	44875.13						
809.77		4387.65	11.05	-0.16	-130.63	0.01		
	0.00000	75.17	10.77	64.67	5.85	0.000000		
	53.00	45271.92						
830.70		4387.82	11.22	-0.17	-144.79	0.01		
	0.00000	75.99	10.93	65.31	5.82	0.000000		
	54.00	45714.02						
847.65		4387.96	11.36	-0.14	-118.75	0.01		
	0.00000	76.62	11.06	65.79	5.79	0.000000		
	55.00	46054.27						
871.34		4388.13	11.53	-0.18	-160.50	0.01		
	0.00000	77.40	11.26	66.39	5.76	0.000000		
	56.00	46475.72						
904.58		4388.36	11.76	-0.26	-238.27	0.01		
	0.00000	78.46	11.53	67.21	5.71	0.000000		
	57.00	47043.69						
959.80		4388.78	12.18	-0.46	-437.85	0.02		
	0.00000	80.37	11.94	68.67	5.64	0.000000		
	58.00	48067.75						
1029.56		4389.31	12.71	-0.64	-657.28	0.03		
	0.00000	82.72	12.45	70.47	5.54	0.000000		
	59.00	49328.59						
1099.22		4389.82	13.22	-0.78	-852.00	0.04		
	0.00000	84.99	12.93	72.20	5.46	0.000000		
	60.00	50539.28						
1150.46		4390.19	13.59	-0.86	-990.26	0.04		
	0.00000	86.61	13.28	73.43	5.40	0.000000		
	61.00	51400.85						
1190.40		4390.48	13.88	-0.81	-967.44	0.04		
	0.00000	87.85	13.55	74.37	5.36	0.000000		
	62.00	52060.46						
1218.60		4390.67	14.07	-0.76	-929.41	0.04		
	0.00000	88.69	13.74	75.00	5.33	0.000000		
	63.00	52503.27						
1232.09		4390.77	14.17	-0.76	-932.66	0.04		
	0.00000	89.09	13.83	75.31	5.32	0.000000		
		52715.46						

HYCHAN.OUT							
1247.23	64.00	4390.87	14.27	-0.70	-868.56	0.03	0.000000
	0.00000	89.55	13.93		75.66	5.30	
		52961.89					
1268.56	65.00	4391.02	14.42	-0.52	-661.46	0.02	0.000000
	0.00000	90.20	14.06		76.15	5.28	
		53302.70					
1287.31	66.00	4391.16	14.56	-0.35	-451.16	0.02	0.000000
	0.00000	90.78	14.18		76.59	5.26	
		53609.85					
1300.92	67.00	4391.26	14.66	-0.23	-296.51	0.01	0.000000
	0.00000	91.21	14.26		76.91	5.25	
		53839.01					
1312.86	68.00	4391.37	14.77	-0.09	-115.99	0.00	0.000013
	0.01143	91.66	14.32		77.26	5.23	
		54078.88					
1339.46	69.00	4391.55	14.95	-0.06	-77.99	0.00	0.000008
	0.00680	92.42	14.49		77.83	5.21	
		54479.98					
0.00	70.00	4391.74	15.14	0.00	0.00	0.00	
	0.00000	93.22	0.00		78.43	5.18	0.000012
		54901.41					
1402.80	71.00	4391.95	15.35	-0.12	-168.42	0.01	0.000015
	0.01409	94.09	14.91		79.09	5.15	
		55360.70					
1444.46	72.00	4392.18	15.58	-0.12	-173.86	0.01	0.000000
	0.00000	95.09	15.19		79.84	5.12	
		55885.66					
1472.80	73.00	4392.37	15.77	-0.28	-412.27	0.01	0.000000
	0.00000	95.87	15.36		80.43	5.10	
		56299.10					
1497.88	74.00	4392.53	15.93	-0.37	-550.30	0.02	0.000000
	0.00000	96.52	15.52		80.91	5.08	
		56638.86					
1519.78	75.00	4392.66	16.06	-0.49	-741.68	0.02	0.000000
	0.00000	97.08	15.66		81.33	5.06	
		56931.71					
1544.26	76.00	4392.81	16.21	-0.68	-1044.31	0.03	0.000000
	0.00000	97.68	15.81		81.79	5.05	
		57249.59					
1566.55	77.00	4392.95	16.35	-0.82	-1284.39	0.04	0.000000
	0.00000	98.26	15.94		82.22	5.03	
		57555.75					
1584.36	78.00	4393.06	16.46	-0.87	-1385.10	0.04	0.000000
	0.00000	98.71	16.05		82.55	5.02	
		57788.04					
1610.60	79.00	4393.22	16.62	-1.14	-1838.03	0.05	0.000000
	0.00000	99.34	16.21		83.03	5.00	
		58121.46					
1635.15	80.00	4393.36	16.76	-1.35	-2200.90	0.06	0.000000
	0.00000	99.94	16.36		83.48	4.98	
		58436.18					
1665.00	81.00	4393.55	16.95	-1.54	-2562.12	0.07	0.000000
	0.00000	100.69	16.54		84.04	4.96	
		58825.12					
1693.52	82.00	4393.71	17.11	-1.69	-2854.83	0.07	0.000000
	0.00000	101.35	16.71		84.53	4.94	
		59172.04					
1727.18	83.00	4393.91	17.31	-1.84	-3173.69	0.08	0.000000
	0.00000	102.15	16.91		85.13	4.92	
		59590.73					
1759.73	84.00	4394.10	17.50	-1.96	-3446.05	0.08	0.000000
	0.00000	102.92	17.10		85.70	4.90	
		59991.41					

HYCHAN.OUT							
1782.00	85.00	4394.23	17.63	-2.08	-3700.42	0.09	0.000000
	0.00000	103.43	17.23		86.09	4.88	
		60260.48					
1799.16	86.00	4394.32	17.72	-2.17	-3910.21	0.09	0.000000
	0.00000	103.82	17.33		86.38	4.87	
		60465.51					
1815.65	87.00	4394.42	17.82	-2.23	-4044.70	0.09	0.000000
	0.00000	104.21	17.42		86.66	4.86	
		60665.02					
1832.75	88.00	4394.52	17.92	-2.28	-4182.42	0.10	0.000000
	0.00000	104.60	17.52		86.96	4.85	
		60868.82					
1843.97	89.00	4394.60	18.00	-2.38	-4391.70	0.10	0.000000
	0.00000	104.91	17.58		87.19	4.84	
		61031.59					
1851.58	90.00	4394.67	18.07	-2.45	-4532.21	0.10	0.000000
	0.00000	105.19	17.60		87.40	4.84	
		61180.49					
1855.23	91.00	4394.70	18.10	-2.45	-4546.01	0.10	0.000000
	0.00000	105.29	17.62		87.51	4.83	
		61254.34					
1857.40	92.00	4394.73	18.13	-2.45	-4545.84	0.10	0.000000
	0.00000	105.33	17.63		87.57	4.83	
		61298.57					
1855.52	93.00	4394.71	18.11	-2.38	-4420.70	0.10	0.000000
	0.00000	105.30	17.62		87.52	4.83	
		61266.64					
1850.69	94.00	4394.67	18.07	-2.33	-4304.18	0.10	0.000000
	0.00000	105.18	17.60		87.39	4.84	
		61173.80					
1844.26	95.00	4394.60	18.00	-2.29	-4218.92	0.10	0.000000
	0.00000	104.94	17.57		87.21	4.84	
		61046.61					
1835.27	96.00	4394.54	17.94	-2.23	-4087.00	0.09	0.000000
	0.00000	104.67	17.53		87.01	4.85	
		60905.96					
1821.94	97.00	4394.46	17.86	-2.15	-3911.13	0.09	0.000000
	0.00000	104.37	17.46		86.78	4.86	
		60748.19					
1807.41	98.00	4394.38	17.78	-2.09	-3785.58	0.09	0.000000
	0.00000	104.03	17.37		86.54	4.87	
		60574.54					
1792.07	99.00	4394.29	17.69	-2.01	-3593.15	0.08	0.000000
	0.00000	103.68	17.28		86.27	4.88	
		60392.04					
1775.26	100.00	4394.19	17.59	-1.87	-3328.48	0.08	0.000000
	0.00000	103.30	17.19		85.99	4.89	
		60192.98					
1755.42	101.00	4394.08	17.48	-1.78	-3130.07	0.08	0.000000
	0.00000	102.84	17.07		85.65	4.90	
		59951.76					
1730.89	102.00	4393.93	17.33	-1.72	-2982.55	0.07	0.000000
	0.00000	102.26	16.93		85.21	4.92	
		59646.57					
1693.12	103.00	4393.71	17.11	-1.65	-2797.73	0.07	0.000000
	0.00000	101.34	16.71		84.53	4.94	
		59169.20					
1654.83	104.00	4393.48	16.88	-1.46	-2414.42	0.06	0.000000
	0.00000	100.42	16.48		83.84	4.97	
		58684.76					
1619.51	105.00	4393.26	16.66	-0.96	-1550.19	0.04	0.000000
	0.00000	99.54	16.27		83.18	4.99	
		58226.28					

HYCHAN.OUT							
1580.87	106.00	4393.06	16.46	-0.30	-475.59	0.01	0.000000
	0.00000	98.69	16.02		82.54	5.02	
		57778.93					
1561.42	107.00	4392.95	16.35	-0.07	-108.03	0.00	0.000000
	0.00000	98.25	15.89		82.21	5.03	
		57548.54					
1527.45	108.00	4392.80	16.20	0.09	136.14	0.00	0.000000
	0.00000	97.64	15.64		81.75	5.05	
		57226.69					
1500.41	109.00	4392.60	16.00	0.35	526.25	0.02	0.000008
	0.00817	96.81	15.50		81.13	5.07	
		56791.56					
1464.02	110.00	4392.36	15.76	0.72	1052.11	0.03	0.000005
	0.00509	95.81	15.28		80.38	5.10	
		56268.82					
1430.62	111.00	4392.14	15.54	0.98	1406.59	0.04	0.000000
	0.00000	94.92	15.07		79.71	5.13	
		55798.57					
1401.91	112.00	4391.96	15.36	1.13	1577.46	0.05	0.000017
	0.01534	94.15	14.89		79.13	5.15	
		55390.39					
1377.76	113.00	4391.80	15.20	1.17	1610.61	0.05	0.000000
	0.00000	93.49	14.74		78.64	5.17	
		55045.30					
1350.88	114.00	4391.63	15.03	1.21	1631.43	0.05	0.000000
	0.00000	92.76	14.56		78.08	5.20	
		54657.95					
1321.88	115.00	4391.44	14.84	1.25	1657.72	0.06	0.000032
	0.02890	91.96	14.37		77.48	5.22	
		54236.29					
1305.11	116.00	4391.32	14.72	1.22	1596.71	0.06	0.000000
	0.00000	91.47	14.27		77.11	5.24	
		53975.79					
1295.25	117.00	4391.26	14.66	1.19	1542.82	0.05	0.000011
	0.00962	91.19	14.20		76.90	5.25	
		53829.22					
1280.87	118.00	4391.17	14.56	1.23	1581.41	0.06	0.000000
	0.00000	90.79	14.11		76.60	5.26	
		53619.68					
1269.11	119.00	4391.09	14.49	1.27	1615.65	0.06	0.000000
	0.00000	90.46	14.03		76.35	5.27	
		53444.24					
1262.14	120.00	4391.04	14.44	1.29	1627.77	0.06	0.000017
	0.01480	90.26	13.98		76.19	5.28	
		53334.40					
1258.34	121.00	4391.02	14.42	1.29	1617.54	0.06	0.000006
	0.00537	90.16	13.96		76.12	5.28	
		53284.18					
1251.57	122.00	4390.97	14.37	1.27	1590.58	0.06	0.000000
	0.00000	89.96	13.91		75.97	5.29	
		53177.71					
1236.13	123.00	4390.86	14.26	1.23	1522.33	0.06	0.000014
	0.01201	89.50	13.81		75.62	5.30	
		52931.98					
1222.86	124.00	4390.77	14.17	1.24	1521.58	0.06	0.000000
	0.00000	89.11	13.72		75.33	5.32	
		52728.73					
1211.53	125.00	4390.69	14.09	1.25	1510.49	0.06	0.000008
	0.00715	88.78	13.65		75.07	5.33	
		52551.98					
1198.65	126.00	4390.60	14.00	1.25	1501.39	0.06	0.000019
	0.01627	88.39	13.56		74.78	5.34	
		52348.05					

HYCHAN.OUT							
1189.11	127.00	4390.54	13.94	1.23	1468.15	0.06	0.000000
	0.00000	88.10	13.50		74.56	5.35	
1179.23	128.00	4390.47	13.87	1.22	1439.05	0.06	0.000025
	0.02068	87.80	13.43		74.33	5.36	
1166.55	129.00	4390.38	13.78	1.22	1423.94	0.06	0.000019
	0.01613	87.42	13.34		74.04	5.37	
1157.30	130.00	4390.31	13.71	1.20	1384.41	0.06	0.000000
	0.00000	87.13	13.28		73.82	5.38	
1147.30	131.00	4390.24	13.64	1.18	1355.31	0.06	0.000009
	0.00722	86.83	13.21		73.59	5.39	
1135.06	132.00	4390.15	13.55	1.18	1340.76	0.06	0.000014
	0.01148	86.44	13.13		73.30	5.41	
1129.45	133.00	4390.11	13.51	1.13	1274.34	0.05	0.000012
	0.01004	86.26	13.09		73.16	5.41	
1132.71	134.00	4390.13	13.53	1.04	1175.36	0.05	0.000012
	0.01012	86.34	13.12		73.22	5.41	
1131.20	135.00	4390.12	13.52	1.00	1133.21	0.05	0.000006
	0.00501	86.27	13.11		73.17	5.41	
1127.29	136.00	4390.08	13.48	0.98	1105.13	0.05	0.000006
	0.00526	86.14	13.09		73.07	5.42	
1122.29	137.00	4390.05	13.45	0.96	1076.49	0.05	0.000007
	0.00599	86.00	13.05		72.96	5.42	
1118.56	138.00	4390.02	13.42	0.94	1050.92	0.05	0.000021
	0.01689	85.87	13.03		72.86	5.43	
1114.85	139.00	4389.99	13.39	0.92	1028.96	0.04	0.000022
	0.01773	85.75	13.00		72.77	5.43	
1111.10	140.00	4389.97	13.37	0.91	1008.00	0.04	0.000041
	0.03323	85.62	12.98		72.68	5.44	
1105.35	141.00	4389.93	13.33	0.91	1001.93	0.04	0.000042
	0.03367	85.45	12.94		72.54	5.44	
1096.72	142.00	4389.86	13.26	0.92	1008.62	0.04	0.000024
	0.01904	85.17	12.88		72.33	5.45	
1091.05	143.00	4389.82	13.22	0.91	990.98	0.04	0.000000
	0.00000	85.00	12.84		72.20	5.46	
1086.97	144.00	4389.79	13.19	0.89	968.19	0.04	0.000000
	0.00000	84.86	12.81		72.10	5.46	
1083.60	145.00	4389.77	13.17	0.87	946.51	0.04	0.000026
	0.02040	84.75	12.79		72.01	5.47	
1077.96	146.00	4389.73	13.13	0.87	941.61	0.04	0.000010
	0.00788	84.58	12.75		71.88	5.48	
1069.33	147.00	4389.66	13.06	0.89	946.41	0.04	0.000000
	0.00000	84.30	12.69		71.67	5.49	
		50168.56					



HYCHAN.OUT									
1063.53	148.00	4389.62	13.02	0.87	927.64	0.04	0.000012		
	0.00953	84.11	12.64		71.52	5.49			
		50067.04							
1059.36	149.00	4389.59	12.99	0.86	907.97	0.04	0.000000		
	0.00000	83.97	12.62		71.42	5.50			
		49996.43							
1055.68	150.00	4389.56	12.96	0.84	889.22	0.04	0.000011		
	0.00903	83.85	12.59		71.33	5.50			
		49932.21							
1052.54	151.00	4389.54	12.94	0.82	867.81	0.04	0.000007		
	0.00587	83.75	12.57		71.25	5.51			
		49877.95							
1048.30	152.00	4389.51	12.91	0.82	858.07	0.04	0.000000		
	0.00000	83.60	12.54		71.14	5.51			
		49798.43							
1040.64	153.00	4389.45	12.85	0.83	859.52	0.04	0.000012		
	0.00922	83.36	12.48		70.96	5.52			
		49670.20							
1034.03	154.00	4389.40	12.80	0.82	850.46	0.04	0.000036		
	0.02777	83.15	12.44		70.79	5.53			
		49555.09							
1029.29	155.00	4389.37	12.77	0.81	830.19	0.04	0.000000		
	0.00000	83.00	12.40		70.68	5.53			
		49473.50							
1023.87	156.00	4389.33	12.73	0.80	823.25	0.04	0.000000		
	0.00000	82.82	12.36		70.54	5.54			
		49379.52							
1018.68	157.00	4389.29	12.69	0.78	797.33	0.04	0.000041		
	0.03126	82.64	12.33		70.40	5.55			
		49282.72							
1026.04	158.00	4389.34	12.74	0.72	740.53	0.04	0.000000		
	0.00000	82.88	12.38		70.59	5.54			
		49412.34							
1029.68	159.00	4389.37	12.77	0.71	731.36	0.04	0.000028		
	0.02165	83.00	12.41		70.68	5.53			
		49474.67							
1029.68	160.00	4389.37	12.77	0.71	728.60	0.03	0.000000		
	0.00000	83.00	12.41		70.68	5.53			
		49476.54							
1029.29	161.00	4389.37	12.77	0.70	722.72	0.03	0.000030		
	0.02308	82.98	12.40		70.67	5.54			
		49466.03							
1028.20	162.00	4389.36	12.76	0.70	719.49	0.03	0.000000		
	0.00000	82.95	12.40		70.64	5.54			
		49449.09							
1027.08	163.00	4389.35	12.75	0.70	713.98	0.03	0.000032		
	0.02489	82.92	12.39		70.62	5.54			
		49434.52							
1026.65	164.00	4389.35	12.75	0.69	709.79	0.03	0.000000		
	0.00000	82.89	12.39		70.60	5.54			
		49417.91							
1025.80	165.00	4389.34	12.74	0.69	705.94	0.03	0.000030		
	0.02324	82.87	12.38		70.58	5.54			
		49407.71							
1023.28	166.00	4389.32	12.72	0.70	717.23	0.03	0.000000		
	0.00000	82.78	12.36		70.52	5.54			
		49360.54							
1015.67	167.00	4389.27	12.67	0.72	730.29	0.04	0.000000		
	0.00000	82.53	12.31		70.32	5.55			
		49224.55							
1011.32	168.00	4389.23	12.63	0.71	722.44	0.04	0.000035		
	0.02698	82.39	12.28		70.21	5.56			
		49148.41							

HYCHAN.OUT									
1009.37	169.00	4389.22	12.62	0.71	715.74	0.04	0.000021		
	0.01624	82.33	12.26		70.17	5.56			
		49116.62							
1008.11	170.00	4389.21	12.61	0.70	708.32	0.03	0.000000		
	0.00000	82.29	12.25		70.14	5.56			
		49095.91							
1007.08	171.00	4389.20	12.60	0.70	702.43	0.03	0.000000		
	0.00000	82.25	12.24		70.11	5.56			
		49077.05							
1006.31	172.00	4389.20	12.60	0.69	697.91	0.03	0.000000		
	0.00000	82.22	12.24		70.09	5.56			
		49061.31							
1005.54	173.00	4389.19	12.59	0.69	693.10	0.03	0.000017		
	0.01299	82.19	12.23		70.07	5.57			
		49045.68							
1002.86	174.00	4389.17	12.57	0.70	700.48	0.03	0.000006		
	0.00465	82.10	12.22		69.99	5.57			
		48995.08							
994.67	175.00	4389.11	12.51	0.72	713.81	0.04	0.000014		
	0.01050	81.84	12.15		69.79	5.58			
		48856.40							
990.56	176.00	4389.08	12.48	0.71	706.60	0.04	0.000008		
	0.00606	81.70	12.12		69.69	5.58			
		48780.63							
988.54	177.00	4389.06	12.46	0.71	697.11	0.04	0.000013		
	0.01008	81.63	12.11		69.63	5.59			
		48742.93							
987.22	178.00	4389.05	12.45	0.70	689.53	0.03	0.000000		
	0.00000	81.58	12.10		69.60	5.59			
		48717.55							
986.12	179.00	4389.04	12.44	0.69	682.52	0.03	0.000000		
	0.00000	81.54	12.09		69.57	5.59			
		48696.34							
985.08	180.00	4389.04	12.44	0.69	675.03	0.03	0.000000		
	0.00000	81.50	12.09		69.54	5.59			
		48676.19							
988.36	181.00	4389.06	12.46	0.65	644.13	0.03	0.000000		
	0.00000	81.61	12.11		69.62	5.59			
		48735.73							
1001.71	182.00	4389.16	12.56	0.60	605.80	0.03	0.000013		
	0.00953	82.06	12.21		69.96	5.57			
		48973.79							
1010.21	183.00	4389.22	12.62	0.59	593.17	0.03	0.000014		
	0.01059	82.34	12.27		70.18	5.56			
		49125.35							
1019.21	184.00	4389.29	12.69	0.57	581.04	0.03	0.000000		
	0.00000	82.64	12.33		70.40	5.55			
		49282.62							
1023.01	185.00	4389.32	12.72	0.58	588.57	0.03	0.000000		
	0.00000	82.78	12.36		70.51	5.54			
		49357.59							
1025.41	186.00	4389.34	12.74	0.58	599.14	0.03	0.000026		
	0.02020	82.84	12.38		70.56	5.54			
		49390.55							
1026.01	187.00	4389.34	12.74	0.59	603.68	0.03	0.000000		
	0.00000	82.87	12.38		70.58	5.54			
		49404.91							
1026.76	188.00	4389.35	12.75	0.59	609.12	0.03	0.000013		
	0.00981	82.89	12.39		70.59	5.54			
		49416.48							
1026.88	189.00	4389.35	12.75	0.59	609.80	0.03	0.000000		
	0.00000	82.90	12.39		70.60	5.54			
		49421.28							

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HYCHAN.OUT							
190.00	4389.35	12.75	0.59	610.50	0.03		
1027.10	82.90	12.39		70.61	5.54	0.000000	
0.00000	49423.55						
191.00	4389.35	12.75	0.60	612.25	0.03		
1027.29	82.90	12.39		70.61	5.54	0.000018	
0.01368	49424.42						
192.00	4389.33	12.73	0.61	624.19	0.03		
1024.89	82.83	12.37		70.55	5.54	0.000000	
0.00000	49386.46						
193.00	4389.28	12.68	0.63	641.80	0.03		
1017.97	82.60	12.32		70.37	5.55	0.000021	
0.01591	49261.97						
194.00	4389.25	12.65	0.63	634.37	0.03		
1013.60	82.47	12.29		70.27	5.55	0.000000	
0.00000	49192.46						
195.00	4389.24	12.64	0.62	629.09	0.03		
1012.52	82.42	12.29		70.24	5.56	0.000028	
0.02174	49164.86						
196.00	4389.23	12.63	0.62	622.29	0.03		
1011.17	82.39	12.27		70.21	5.56	0.000000	
0.00000	49147.58						
197.00	4389.23	12.63	0.61	621.04	0.03		
1010.65	82.36	12.27		70.19	5.56	0.000018	
0.01358	49134.23						
198.00	4389.22	12.62	0.61	614.72	0.03		
1010.09	82.34	12.27		70.18	5.56	0.000000	
0.00000	49124.36						
199.00	4389.22	12.62	0.61	613.60	0.03		
1009.51	82.33	12.26		70.17	5.56	0.000007	
0.00503	49116.89						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4791

MAXIMUM DISCHARGE (CFS) = 1775.59 AT TIME = 114.20  
 MAXIMUM STAGE = 4394.86 AT TIME = 91.72

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	SURFACE	AREA						
(HRS)	(FT)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(LB/FT^2)	(FT^2)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4376.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4376.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4376.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4376.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4376.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
198.05	5.00	4379.59	3.14	-1.57	-311.50	0.16		
	0.00000	53.93	3.67	51.81	16.51	0.000000		
		36629.01						
	6.00	4384.10	7.65	-1.56	-575.75	0.10		

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		HYCHAN.OUT					
368.89	85.20	4.33	80.40	10.50	0.000000		
0.00000	56846.22						
7.00	4385.38	8.93	-0.51	-231.05	0.03		
456.47	92.20	4.95	86.74	9.72	0.000000		
0.00000	61326.77						
8.00	4385.68	9.23	-0.19	-89.71	0.01		
481.87	93.77	5.14	88.16	9.56	0.000000		
0.00000	62330.11						
9.00	4385.68	9.23	-0.07	-35.40	0.00		
481.84	93.78	5.14	88.17	9.55	0.000000		
0.00000	62339.17						
10.00	4385.64	9.19	-0.04	-20.41	0.00		
479.68	93.58	5.13	87.99	9.57	0.000000		
0.00000	62211.15						
11.00	4385.59	9.14	0.04	20.74	0.00		
474.36	93.31	5.08	87.75	9.60	0.000000		
0.00000	62036.17						
12.00	4385.54	9.09	0.05	21.71	0.00		
470.87	93.04	5.06	87.51	9.63	0.000000		
0.00000	61867.21						
13.00	4385.45	9.00	0.09	41.96	0.01		
464.06	92.56	5.01	87.07	9.68	0.000000		
0.00000	61560.39						
14.00	4385.32	8.87	0.10	47.27	0.01		
454.94	91.89	4.95	86.46	9.75	0.000000		
0.00000	61130.54						
15.00	4385.23	8.78	0.06	27.38	0.00		
448.46	91.40	4.91	86.02	9.80	0.000000		
0.00000	60819.42						
16.00	4385.19	8.74	0.03	14.33	0.00		
445.27	91.20	4.88	85.84	9.82	0.000008		
0.00239	60690.90						
17.00	4385.17	8.72	0.02	7.74	0.00		
443.35	91.10	4.87	85.76	9.83	0.000000		
0.00000	60629.09						
18.00	4385.16	8.71	0.00	0.00	0.00		
0.00	91.05	0.00	85.71	9.84	0.000000		
0.00000	60597.57						
19.00	4385.16	8.71	0.00	0.00	0.00		
0.00	91.06	0.00	85.71	9.84	0.000000		
0.00000	60598.05						
20.00	4385.23	8.78	-0.08	-36.10	0.00		
448.23	91.39	4.90	86.02	9.80	0.000000		
0.00000	60813.28						
21.00	4385.35	8.90	-0.11	-51.02	0.01		
457.49	92.07	4.97	86.63	9.73	0.000000		
0.00000	61249.01						
22.00	4385.49	9.04	-0.12	-55.65	0.01		
467.59	92.79	5.04	87.28	9.65	0.000005		
0.00156	61708.46						
23.00	4385.58	9.13	-0.08	-37.02	0.00		
474.08	93.27	5.08	87.72	9.61	0.000000		
0.00000	62015.34						
24.00	4385.63	9.18	-0.06	-26.62	0.00		
478.47	93.52	5.12	87.94	9.58	0.000000		
0.00000	62175.89						
25.00	4385.73	9.28	-0.12	-57.07	0.01		
486.29	94.03	5.17	88.40	9.53	0.000006		
0.00182	62496.59						
26.00	4385.91	9.46	-0.18	-87.95	0.01		
499.79	94.98	5.26	89.26	9.43	0.000000		
0.00000	63105.47						
27.00	4386.12	9.67	-0.22	-114.25	0.01		

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HYCHAN.OUT									
517.46	0.00000	96.04	5.39	90.22	9.33	0.000000			
	28.00	4386.35	9.89	-0.22	-119.05	0.01			
534.20	0.00000	97.19	5.50	91.25	9.22	0.000000			
	29.00	4386.46	10.01	-0.15	-80.84	0.01			
543.17	0.00000	97.79	5.55	91.80	9.17	0.000000			
	30.00	4386.53	10.08	-0.11	-62.09	0.01			
548.56	0.00000	98.14	5.59	92.11	9.13	0.000000			
	31.00	4386.62	10.17	-0.12	-68.95	0.01			
555.37	0.00000	98.59	5.63	92.51	9.09	0.000000			
	32.00	4386.68	10.23	-0.08	-43.76	0.00			
559.58	0.00000	98.87	5.66	92.77	9.07	0.000000			
	33.00	4386.73	10.28	-0.07	-37.48	0.00			
563.56	0.00000	99.09	5.69	92.97	9.05	0.000000			
	34.00	4386.80	10.35	-0.09	-53.10	0.01			
569.24	0.00000	99.48	5.72	93.32	9.01	0.000000			
	35.00	4386.85	10.40	-0.06	-33.26	0.00			
572.70	0.00000	99.72	5.74	93.54	8.99	0.000000			
	36.00	4386.90	10.45	-0.05	-26.56	0.00			
579.19	0.00000	99.95	5.79	93.74	8.97	0.000000			
	37.00	4386.91	10.46	0.00	0.00	0.00			
0.00	0.00000	100.01	0.00	93.80	8.97	0.000020			
	38.00	4386.90	10.45	0.04	23.33	0.00			
576.80	0.00000	99.94	5.77	93.73	8.97	0.000000			
	39.00	4386.84	10.39	0.08	44.62	0.00			
572.36	0.00000	99.64	5.74	93.46	9.00	0.000000			
	40.00	4386.79	10.34	0.05	28.41	0.00			
568.95	0.00473	99.43	5.72	93.27	9.02	0.000013			
	41.00	4386.77	10.32	0.02	13.73	0.00			
566.32	0.00263	99.30	5.70	93.16	9.03	0.000007			
	42.00	4386.76	10.31	0.01	7.33	0.00			
564.68	0.00258	99.24	5.69	93.10	9.03	0.000007			
	43.00	4386.75	10.30	0.00	0.00	0.00			
0.00	0.00000	99.20	0.00	93.07	9.04	0.000000			
	44.00	4386.76	10.31	-0.02	-11.55	0.00			
567.39	0.00000	99.25	5.72	93.11	9.03	0.000000			
	45.00	4386.80	10.35	-0.08	-43.68	0.00			
569.92	0.00000	99.48	5.73	93.32	9.01	0.000000			
	46.00	4386.86	10.41	-0.07	-42.63	0.00			
574.64	0.00382	99.75	5.76	93.56	8.99	0.000011			
	47.00	4386.95	10.50	-0.12	-69.35	0.01			
582.15	0.00000	100.20	5.81	93.97	8.95	0.000000			
	48.00	4387.07	10.62	-0.15	-89.64	0.01			

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		HYCHAN.OUT					
591.85	100.80	5.87	94.51	8.90	0.000000		
0.00000	66816.28						
49.00	4387.21	10.76	-0.17	-101.14	0.01		
602.65	101.44	5.94	95.09	8.84	0.000000		
0.00000	67227.91						
50.00	4387.35	10.90	-0.18	-108.09	0.01		
614.00	102.12	6.01	95.70	8.78	0.000010		
0.00364	67658.78						
51.00	4387.49	11.04	-0.19	-116.24	0.01		
625.82	102.80	6.09	96.31	8.72	0.000000		
0.00000	68092.34						
52.00	4387.65	11.20	-0.21	-133.91	0.01		
639.45	103.56	6.17	96.99	8.66	0.000012		
0.00462	68571.82						
53.00	4387.82	11.37	-0.23	-147.63	0.01		
653.68	104.39	6.26	97.74	8.59	0.000000		
0.00000	69103.48						
54.00	4387.96	11.51	-0.18	-121.29	0.01		
665.00	105.03	6.33	98.32	8.54	0.000015		
0.00589	69510.02						
55.00	4388.13	11.68	-0.24	-164.45	0.01		
680.69	105.84	6.43	99.04	8.48	0.000000		
0.00000	70022.66						
56.00	4388.36	11.91	-0.35	-243.73	0.02		
703.29	106.91	6.58	100.00	8.39	0.000000		
0.00000	70702.77						
57.00	4388.79	12.34	-0.60	-447.23	0.03		
740.27	108.84	6.80	101.75	8.25	0.000000		
0.00000	71934.51						
58.00	4389.32	12.87	-0.85	-668.08	0.04		
787.12	111.22	7.08	103.88	8.07	0.000000		
0.00000	73442.15						
59.00	4389.84	13.39	-1.03	-860.83	0.05		
833.49	113.49	7.34	105.92	7.91	0.000000		
0.00000	74884.42						
60.00	4390.21	13.76	-1.15	-996.21	0.05		
867.24	115.10	7.53	107.36	7.80	0.000000		
0.00000	75902.15						
61.00	4390.49	14.04	-1.09	-972.58	0.05		
892.67	116.31	7.68	108.44	7.72	0.000000		
0.00000	76666.94						
62.00	4390.68	14.23	-1.02	-932.05	0.05		
910.56	117.12	7.77	109.17	7.67	0.000000		
0.00000	77183.47						
63.00	4390.78	14.33	-1.02	-934.13	0.05		
919.17	117.51	7.82	109.52	7.64	0.000000		
0.00000	77430.33						
64.00	4390.88	14.43	-0.94	-871.62	0.04		
928.64	117.96	7.87	109.92	7.62	0.000000		
0.00000	77714.62						
65.00	4391.03	14.58	-0.71	-664.47	0.03		
941.75	118.57	7.94	110.47	7.58	0.000000		
0.00000	78102.63						
66.00	4391.16	14.71	-0.48	-453.60	0.02		
953.68	119.13	8.01	110.97	7.54	0.000000		
0.00000	78455.38						
67.00	4391.26	14.81	-0.31	-298.31	0.01		
962.38	119.55	8.05	111.34	7.52	0.000000		
0.00000	78719.28						
68.00	4391.37	14.92	-0.12	-119.12	0.01		
969.67	119.98	8.08	111.73	7.49	0.000000		
0.00000	78992.18						
69.00	4391.55	15.10	-0.08	-81.07	0.00		

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HYCHAN.OUT							
986.37	0.00000	120.72	8.17	112.39	7.44	0.000000	
	70.00	79458.29	15.29	0.00	0.00	0.00	
0.00	0.00000	4391.74	0.00	113.09	7.40	0.000020	
	71.00	121.49	15.50	-0.17	-173.03	0.01	
1026.64	0.00611	79951.47	8.39	113.84	7.35	0.000012	
	72.00	4391.95	15.74	-0.17	-179.27	0.01	
1053.02	0.00000	122.34	8.54	114.70	7.29	0.000000	
	73.00	80483.27	15.93	-0.39	-415.64	0.02	
1070.91	0.00000	4392.19	8.63	115.39	7.24	0.000000	
	74.00	123.30	16.08	-0.51	-553.25	0.02	
1086.71	0.00000	81094.73	8.71	115.95	7.21	0.000000	
	75.00	4392.38	16.22	-0.68	-744.45	0.03	
1100.66	0.00000	124.07	8.79	116.43	7.18	0.000000	
	76.00	81579.16	16.37	-0.94	-1047.97	0.04	
1116.67	0.00000	4392.53	8.87	116.96	7.14	0.000000	
	77.00	124.70	16.52	-1.14	-1286.71	0.05	
1131.10	0.00000	81974.21	8.95	117.47	7.11	0.000000	
	78.00	4392.67	16.63	-1.21	-1388.04	0.05	
1142.80	0.00000	125.24	9.01	117.86	7.09	0.000000	
	79.00	82316.07	16.79	-1.59	-1841.39	0.07	
1161.63	0.00000	4392.82	9.11	118.44	7.05	0.000000	
	80.00	125.83	16.95	-1.87	-2204.96	0.08	
1178.86	0.00000	82693.25	9.20	118.98	7.02	0.000000	
	81.00	4392.97	17.13	-2.14	-2565.97	0.09	
1199.18	0.00000	126.40	9.31	119.62	6.98	0.000000	
	82.00	83051.54	17.31	-2.34	-2858.93	0.10	
1219.18	0.00000	4393.08	9.41	120.24	6.94	0.000000	
	83.00	126.84	17.52	-2.56	-3178.37	0.11	
1242.01	0.00000	83326.80	9.53	120.95	6.90	0.000000	
	84.00	4393.24	17.72	-2.73	-3449.83	0.11	
1263.79	0.00000	127.49	9.64	121.62	6.86	0.000000	
	85.00	83737.74	17.86	-2.89	-3702.82	0.12	
1279.28	0.00000	4393.40	9.72	122.08	6.84	0.000000	
	86.00	128.09	17.96	-3.03	-3911.17	0.13	
1291.36	0.00000	84115.57	9.79	122.43	6.82	0.000000	
	87.00	4393.58	18.06	-3.11	-4045.69	0.13	
1302.27	0.00000	128.80	9.84	122.76	6.80	0.000000	
	88.00	84568.94	18.16	-3.18	-4183.77	0.13	
1313.69	0.00000	4393.76	9.90	123.10	6.78	0.000000	
	89.00	129.50	18.25	-3.32	-4393.58	0.14	
1324.10	0.00000	85009.12	9.95	123.39	6.76	0.000000	
	90.00	4394.17	18.33	-3.40	-4533.82	0.14	
		131.05					
		85984.93					
		4394.31					
		131.57					
		86310.44					
		4394.41					
		131.96					
		86559.09					
		4394.51					
		132.33					
		86793.35					
		4394.61					
		132.72					
		87034.90					
		4394.70					
		133.04					
		87239.61					
		4394.78					



		HYCHAN.OUT					
1332.93	133.33	10.00	123.65	6.75	0.000000		
0.00000	87421.22						
91.00	4394.81	18.36	-3.40	-4546.41	0.14		
1336.58	133.46	10.01	123.77	6.74	0.000000		
0.00000	87504.55						
92.00	4394.83	18.38	-3.40	-4546.23	0.14		
1338.71	133.54	10.02	123.84	6.74	0.000000		
0.00000	87554.22						
93.00	4394.81	18.36	-3.31	-4419.65	0.14		
1335.55	133.46	10.01	123.77	6.74	0.000000		
0.00000	87503.37						
94.00	4394.76	18.31	-3.24	-4302.80	0.13		
1329.67	133.27	9.98	123.60	6.75	0.000000		
0.00000	87387.34						
95.00	4394.70	18.25	-3.19	-4217.38	0.13		
1322.49	133.03	9.94	123.39	6.76	0.000000		
0.00000	87235.12						
96.00	4394.62	18.17	-3.11	-4085.16	0.13		
1314.15	132.76	9.90	123.15	6.78	0.000000		
0.00000	87063.69						
97.00	4394.54	18.09	-3.00	-3909.10	0.12		
1304.58	132.45	9.85	122.87	6.79	0.000000		
0.00000	86870.79						
98.00	4394.46	18.01	-2.92	-3783.61	0.12		
1294.84	132.13	9.80	122.58	6.81	0.000000		
0.00000	86664.52						
99.00	4394.36	17.91	-2.80	-3591.02	0.12		
1284.00	131.77	9.74	122.27	6.83	0.000000		
0.00000	86441.77						
100.00	4394.26	17.81	-2.62	-3325.72	0.11		
1271.66	131.38	9.68	121.91	6.85	0.000000		
0.00000	86193.31						
101.00	4394.14	17.69	-2.49	-3127.47	0.10		
1258.25	130.93	9.61	121.51	6.87	0.000000		
0.00000	85906.77						
102.00	4393.99	17.54	-2.40	-2978.00	0.10		
1242.35	130.36	9.53	121.01	6.90	0.000000		
0.00000	85550.69						
103.00	4393.76	17.31	-2.29	-2792.47	0.10		
1218.15	129.48	9.41	120.22	6.95	0.000000		
0.00000	84995.41						
104.00	4393.52	17.07	-2.02	-2409.16	0.09		
1191.99	128.55	9.27	119.39	7.00	0.000000		
0.00000	84410.98						
105.00	4393.28	16.83	-1.33	-1544.55	0.06		
1165.27	127.63	9.13	118.56	7.05	0.000000		
0.00000	83824.58						
106.00	4393.06	16.61	-0.41	-472.11	0.02		
1138.90	126.76	8.98	117.79	7.09	0.000000		
0.00000	83278.31						
107.00	4392.95	16.50	-0.09	-105.85	0.00		
1126.95	126.33	8.92	117.41	7.12	0.000010		
0.00580	83008.21						
108.00	4392.80	16.35	0.13	140.22	0.01		
1105.41	125.74	8.79	116.88	7.15	0.000017		
0.00944	82634.78						
109.00	4392.59	16.14	0.49	531.78	0.02		
1088.08	124.93	8.71	116.16	7.20	0.000000		
0.00000	82123.89						
110.00	4392.34	15.89	0.99	1057.88	0.04		
1063.64	123.94	8.58	115.27	7.25	0.000009		
0.00476	81494.98						
111.00	4392.12	15.67	1.35	1410.01	0.06		

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		HYCHAN.OUT					
1040.66	123.04	8.46	114.46	7.31	0.000060		
0.03188	80926.47						
112.00	4391.93	15.48	1.55	1581.91	0.07		
1021.33	122.27	8.35	113.78	7.35	0.000035		
0.01805	80440.70						
113.00	4391.77	15.32	1.60	1613.87	0.07		
1005.54	121.63	8.27	113.21	7.39	0.000054		
0.02768	80036.78						
114.00	4391.60	15.15	1.65	1634.31	0.07		
988.39	120.91	8.17	112.56	7.43	0.000086		
0.04386	79583.45						
115.00	4391.41	14.95	1.71	1662.26	0.08		
969.78	120.13	8.07	111.86	7.48	0.000023		
0.01140	79086.37						
116.00	4391.29	14.84	1.67	1597.81	0.08		
959.36	119.65	8.02	111.44	7.51	0.000031		
0.01560	78786.66						
117.00	4391.23	14.78	1.62	1543.56	0.07		
953.58	119.39	7.99	111.20	7.53	0.000068		
0.03413	78620.45						
118.00	4391.13	14.68	1.68	1583.77	0.08		
943.78	118.99	7.93	110.85	7.55	0.000078		
0.03865	78367.86						
119.00	4391.05	14.60	1.73	1617.49	0.08		
936.13	118.66	7.89	110.55	7.57	0.000049		
0.02417	78158.24						
120.00	4391.00	14.55	1.75	1628.85	0.08		
931.31	118.45	7.86	110.36	7.58	0.000048		
0.02331	78027.09						
121.00	4390.98	14.53	1.74	1617.25	0.08		
929.39	118.36	7.85	110.28	7.59	0.000081		
0.03981	77970.94						
122.00	4390.93	14.48	1.72	1591.50	0.08		
925.16	118.17	7.83	110.11	7.60	0.000086		
0.04190	77847.04						
123.00	4390.83	14.38	1.67	1525.73	0.08		
915.40	117.72	7.78	109.71	7.63	0.000033		
0.01595	77563.57						
124.00	4390.74	14.29	1.68	1522.59	0.08		
906.85	117.34	7.73	109.37	7.66	0.000084		
0.04066	77324.34						
125.00	4390.66	14.21	1.68	1511.59	0.08		
899.64	117.01	7.69	109.07	7.68	0.000081		
0.03878	77115.95						
126.00	4390.57	14.12	1.69	1504.07	0.08		
891.18	116.63	7.64	108.73	7.70	0.000045		
0.02132	76873.73						
127.00	4390.50	14.05	1.66	1468.72	0.08		
885.14	116.35	7.61	108.48	7.72	0.000099		
0.04701	76695.30						
128.00	4390.43	13.98	1.64	1441.53	0.08		
878.75	116.06	7.57	108.22	7.74	0.000051		
0.02432	76508.77						
129.00	4390.35	13.90	1.64	1425.35	0.08		
870.77	115.68	7.53	107.88	7.76	0.000042		
0.01978	76272.09						
130.00	4390.28	13.83	1.60	1384.94	0.08		
864.82	115.40	7.49	107.63	7.78	0.000075		
0.03507	76092.22						
131.00	4390.21	13.76	1.58	1357.11	0.08		
858.60	115.10	7.46	107.36	7.80	0.000080		
0.03724	75905.57						
132.00	4390.12	13.67	1.58	1342.11	0.08		

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HYCHAN.OUT							
850.35	114.72	7.41	107.02	7.83	0.000077		
0.03572	75662.46						
133.00	4390.08	13.63	1.50	1274.03	0.07		
847.32	114.55	7.40	106.87	7.84	0.000065		
0.02980	75555.95						
134.00	4390.10	13.65	1.38	1175.13	0.07		
850.35	114.65	7.42	106.96	7.83	0.000071		
0.03295	75617.48						
135.00	4390.09	13.64	1.33	1133.73	0.06		
849.53	114.59	7.41	106.90	7.84	0.000063		
0.02927	75579.05						
136.00	4390.06	13.61	1.31	1105.99	0.06		
846.97	114.46	7.40	106.79	7.85	0.000052		
0.02407	75497.35						
137.00	4390.03	13.58	1.28	1077.44	0.06		
844.27	114.32	7.38	106.66	7.86	0.000042		
0.01957	75411.32						
138.00	4390.00	13.55	1.25	1051.81	0.06		
841.68	114.19	7.37	106.55	7.86	0.000023		
0.01051	75328.66						
139.00	4389.97	13.52	1.23	1029.37	0.06		
839.36	114.08	7.36	106.44	7.87	0.000030		
0.01368	75255.87						
140.00	4389.95	13.50	1.21	1009.05	0.06		
837.07	113.96	7.35	106.34	7.88	0.000010		
0.00467	75181.27						
141.00	4389.90	13.45	1.20	1003.30	0.06		
833.29	113.78	7.32	106.18	7.89	0.000006		
0.00265	75068.76						
142.00	4389.84	13.39	1.22	1009.20	0.06		
827.46	113.51	7.29	105.93	7.91	0.000034		
0.01556	74894.59						
143.00	4389.80	13.35	1.20	990.98	0.06		
824.07	113.34	7.27	105.78	7.92	0.000069		
0.03116	74785.25						
144.00	4389.77	13.32	1.18	969.52	0.06		
821.49	113.21	7.26	105.66	7.93	0.000024		
0.01091	74703.73						
145.00	4389.75	13.30	1.16	947.12	0.06		
819.31	113.10	7.24	105.57	7.94	0.000012		
0.00532	74635.34						
146.00	4389.71	13.26	1.15	941.78	0.06		
815.77	112.93	7.22	105.41	7.95	0.000061		
0.02764	74525.33						
147.00	4389.64	13.19	1.17	948.85	0.06		
809.96	112.65	7.19	105.16	7.97	0.000012		
0.00540	74348.11						
148.00	4389.60	13.15	1.15	926.93	0.06		
806.20	112.46	7.17	105.00	7.98	0.000059		
0.02656	74231.52						
149.00	4389.57	13.12	1.13	909.56	0.06		
803.60	112.33	7.15	104.88	7.99	0.000021		
0.00953	74146.91						
150.00	4389.55	13.10	1.11	888.89	0.05		
801.29	112.22	7.14	104.77	8.00	0.000041		
0.01806	74075.52						
151.00	4389.52	13.07	1.09	869.26	0.05		
799.39	112.11	7.13	104.68	8.01	0.000009		
0.00383	74010.27						
152.00	4389.49	13.04	1.08	857.77	0.05		
796.56	111.97	7.11	104.55	8.02	0.000058		
0.02594	73919.83						
153.00	4389.43	12.98	1.09	861.86	0.05		

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HYCHAN.OUT							
791.54	111.73	7.08	104.34	8.04	0.000013		
0.00559	73764.90						
154.00	4389.39	12.94	1.08	850.68	0.05		
787.25	111.51	7.06	104.14	8.05	0.000013		
0.00553	73628.30						
155.00	4389.35	12.90	1.06	830.08	0.05		
784.36	111.37	7.04	104.01	8.06	0.000066		
0.02904	73536.60						
156.00	4389.31	12.86	1.06	824.52	0.05		
780.76	111.19	7.02	103.85	8.07	0.000055		
0.02401	73422.47						
157.00	4389.27	12.82	1.03	797.75	0.05		
777.44	111.01	7.00	103.69	8.09	0.000000		
0.00000	73311.61						
158.00	4389.33	12.88	0.94	738.90	0.05		
782.72	111.26	7.03	103.92	8.07	0.000041		
0.01804	73469.30						
159.00	4389.36	12.91	0.93	731.88	0.05		
785.06	111.38	7.05	104.02	8.06	0.000010		
0.00441	73544.26						
160.00	4389.36	12.91	0.93	727.68	0.05		
785.21	111.38	7.05	104.03	8.06	0.000047		
0.02075	73546.98						
161.00	4389.35	12.90	0.92	723.98	0.05		
784.82	111.36	7.05	104.01	8.06	0.000000		
0.00000	73533.06						
162.00	4389.35	12.90	0.92	718.51	0.04		
784.22	111.34	7.04	103.98	8.06	0.000051		
0.02231	73515.55						
163.00	4389.34	12.89	0.91	715.20	0.04		
783.70	111.31	7.04	103.96	8.07	0.000000		
0.00000	73497.38						
164.00	4389.33	12.88	0.91	708.87	0.04		
783.09	111.28	7.04	103.93	8.07	0.000052		
0.02296	73478.57						
165.00	4389.33	12.88	0.90	706.95	0.04		
782.72	111.26	7.04	103.91	8.07	0.000000		
0.00000	73466.57						
166.00	4389.31	12.86	0.92	717.46	0.05		
780.92	111.17	7.02	103.83	8.08	0.000028		
0.01220	73408.49						
167.00	4389.25	12.80	0.94	731.11	0.05		
775.70	110.91	6.99	103.60	8.09	0.000053		
0.02297	73247.52						
168.00	4389.22	12.77	0.94	723.57	0.05		
772.85	110.77	6.98	103.47	8.10	0.000000		
0.00000	73155.70						
169.00	4389.21	12.76	0.93	715.14	0.05		
771.82	110.71	6.97	103.42	8.11	0.000023		
0.01007	73120.51						
170.00	4389.20	12.75	0.92	708.63	0.05		
770.93	110.67	6.97	103.39	8.11	0.000041		
0.01771	73095.90						
171.00	4389.19	12.74	0.91	703.34	0.05		
770.33	110.64	6.96	103.36	8.11	0.000000		
0.00000	73072.86						
172.00	4389.18	12.73	0.91	697.21	0.04		
769.75	110.61	6.96	103.33	8.12	0.000035		
0.01541	73054.73						
173.00	4389.18	12.73	0.90	692.82	0.04		
769.29	110.58	6.96	103.31	8.12	0.000046		
0.02011	73038.98						
174.00	4389.15	12.70	0.91	701.88	0.05		

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		HYCHAN.OUT					
767.27	110.49	6.94	103.22	8.12	0.000033		
0.01425	72976.60						
175.00	4389.10	12.65	0.94	715.16	0.05		
762.03	110.22	6.91	102.98	8.14	0.000012		
0.00538	72810.25						
176.00	4389.06	12.61	0.93	707.36	0.05		
759.26	110.08	6.90	102.86	8.15	0.000000		
0.00000	72719.94						
177.00	4389.05	12.60	0.92	697.30	0.05		
757.88	110.01	6.89	102.79	8.16	0.000000		
0.00000	72675.05						
178.00	4389.04	12.59	0.91	689.19	0.05		
757.09	109.97	6.88	102.75	8.16	0.000029		
0.01250	72646.12						
179.00	4389.03	12.58	0.90	682.10	0.04		
756.30	109.93	6.88	102.72	8.17	0.000052		
0.02214	72622.93						
180.00	4389.02	12.57	0.89	675.20	0.04		
755.68	109.89	6.88	102.68	8.17	0.000053		
0.02276	72598.05						
181.00	4389.05	12.60	0.85	642.80	0.04		
758.11	110.01	6.89	102.79	8.16	0.000039		
0.01683	72672.12						
182.00	4389.15	12.70	0.79	603.88	0.04		
767.20	110.46	6.95	103.20	8.13	0.000039		
0.01672	72960.14						
183.00	4389.21	12.76	0.77	593.11	0.04		
772.84	110.75	6.98	103.45	8.11	0.000000		
0.00000	73141.27						
184.00	4389.28	12.83	0.74	578.82	0.04		
778.78	111.04	7.01	103.72	8.08	0.000049		
0.02137	73327.84						
185.00	4389.31	12.86	0.75	589.33	0.04		
781.61	111.18	7.03	103.84	8.07	0.000000		
0.00000	73416.66						
186.00	4389.32	12.87	0.76	597.99	0.04		
782.73	111.24	7.04	103.90	8.07	0.000026		
0.01135	73456.09						
187.00	4389.33	12.88	0.77	603.79	0.04		
783.27	111.26	7.04	103.92	8.07	0.000029		
0.01273	73469.82						
188.00	4389.34	12.89	0.78	609.40	0.04		
783.60	111.29	7.04	103.94	8.07	0.000000		
0.00000	73486.50						
189.00	4389.34	12.89	0.78	608.98	0.04		
783.79	111.29	7.04	103.95	8.07	0.000038		
0.01663	73489.16						
190.00	4389.34	12.89	0.78	611.60	0.04		
783.92	111.30	7.04	103.95	8.07	0.000008		
0.00349	73492.32						
191.00	4389.34	12.89	0.78	611.68	0.04		
784.02	111.31	7.04	103.96	8.07	0.000021		
0.00934	73496.53						
192.00	4389.32	12.87	0.80	625.27	0.04		
782.41	111.22	7.03	103.88	8.07	0.000017		
0.00764	73445.30						
193.00	4389.27	12.82	0.83	642.46	0.04		
777.66	110.99	7.01	103.68	8.09	0.000018		
0.00776	73299.55						
194.00	4389.24	12.79	0.82	634.84	0.04		
775.09	110.86	6.99	103.56	8.10	0.000028		
0.01203	73215.27						
195.00	4389.23	12.78	0.81	628.94	0.04		

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HYCHAN.OUT							
774.00	110.81	6.98	103.51	8.10	0.000025		
0.01110	73184.66						
196.00	4389.22	12.77	0.81	622.90	0.04		
773.45	110.78	6.98	103.48	8.10	0.000023		
0.00994	73162.64						
197.00	4389.22	12.77	0.80	620.31	0.04		
773.00	110.76	6.98	103.47	8.10	0.000028		
0.01203	73149.84						
198.00	4389.21	12.76	0.80	616.00	0.04		
772.72	110.74	6.98	103.45	8.11	0.000000		
0.00000	73137.18						
199.00	4389.21	12.76	0.79	612.47	0.04		
772.33	110.72	6.98	103.43	8.11	0.000034		
0.01480	73128.25						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4830

MAXIMUM DISCHARGE (CFS) = 1852.46 AT TIME = 114.16  
 MAXIMUM STAGE = 4395.21 AT TIME = 91.71

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRONDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)			
(LB/FT^2)	(FT^2)					
0.00	4376.33	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4376.33	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4376.33	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4376.33	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4376.33	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4380.27	3.94	-1.57	-371.62	0.14	0.000000
237.46	60.60	3.92	57.96	14.71		
0.00000	40976.65					
6.00	4384.31	7.98	-1.45	-597.10	0.09	0.000000
411.49	87.05	4.73	82.09	10.28		
0.00000	58034.53					
7.00	4385.40	9.07	-0.49	-239.12	0.03	0.000000
485.98	92.92	5.23	87.40	9.64		
0.00000	61792.41					
8.00	4385.68	9.35	-0.18	-90.94	0.01	0.000000
509.79	94.40	5.40	88.73	9.49		
0.00000	62734.96					
9.00	4385.68	9.35	-0.07	-34.56	0.00	0.000000
509.03	94.40	5.39	88.74	9.49		
0.00000	62736.19					
10.00	4385.64	9.31	-0.04	-20.13	0.00	0.000000
508.17	94.20	5.39	88.56	9.51		
0.00000	62610.37					
11.00	4385.59	9.26	0.04	21.24	0.00	0.000000
502.15	93.93	5.35	88.31	9.54		

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		HYCHAN.OUT						
	0.00000	62436.01						
498.67	12.00	4385.54	9.21	0.05	22.99	0.00		
		93.67	5.32		88.07	9.57	0.000000	
	0.00000	62267.18						
491.82	13.00	4385.45	9.12	0.09	43.13	0.01		
		93.19	5.28		87.64	9.61	0.000034	
	0.01104	61963.26						
482.73	14.00	4385.32	8.99	0.10	49.14	0.01		
		92.52	5.22		87.03	9.68	0.000000	
	0.00000	61533.50						
475.88	15.00	4385.23	8.90	0.06	27.78	0.00		
		92.04	5.17		86.61	9.73	0.000000	
	0.00000	61230.36						
472.43	16.00	4385.19	8.86	0.03	14.98	0.00		
		91.84	5.14		86.42	9.75	0.000017	
	0.00549	61100.06						
470.42	17.00	4385.17	8.84	0.02	8.15	0.00		
		91.74	5.13		86.33	9.76	0.000000	
	0.00000	61038.43						
0.00	18.00	4385.16	8.83	0.00	0.00	0.00		
		91.70	0.00		86.29	9.77	0.000000	
	0.00000	61009.38						
0.00	19.00	4385.16	8.83	0.00	0.00	0.00		
		91.70	0.00		86.29	9.77	0.000000	
	0.00000	61007.76						
476.41	20.00	4385.23	8.90	-0.08	-37.40	0.00		
		92.04	5.18		86.60	9.73	0.000011	
	0.00364	61225.77						
485.56	21.00	4385.36	9.03	-0.11	-52.86	0.01		
		92.71	5.24		87.21	9.66	0.000000	
	0.00000	61657.65						
495.56	22.00	4385.49	9.16	-0.12	-57.33	0.01		
		93.43	5.30		87.86	9.59	0.000000	
	0.00000	62116.28						
502.46	23.00	4385.58	9.25	-0.08	-38.02	0.00		
		93.90	5.35		88.28	9.54	0.000015	
	0.00500	62415.38						
506.91	24.00	4385.63	9.30	-0.05	-27.20	0.00		
		94.15	5.38		88.51	9.52	0.000000	
	0.00000	62576.57						
514.67	25.00	4385.73	9.40	-0.11	-59.09	0.01		
		94.65	5.44		88.96	9.47	0.000000	
	0.00000	62897.48						
527.94	26.00	4385.91	9.58	-0.17	-90.71	0.01		
		95.61	5.52		89.83	9.37	0.000000	
	0.00000	63506.87						
545.68	27.00	4386.12	9.79	-0.22	-117.54	0.01		
		96.67	5.64		90.78	9.27	0.000000	
	0.00000	64184.61						
562.47	28.00	4386.35	10.02	-0.22	-121.60	0.01		
		97.81	5.75		91.81	9.16	0.000000	
	0.00000	64909.80						
571.08	29.00	4386.47	10.14	-0.14	-81.87	0.01		
		98.40	5.80		92.35	9.11	0.000000	
	0.00000	65288.84						
576.37	30.00	4386.54	10.21	-0.11	-63.29	0.01		
		98.74	5.84		92.65	9.08	0.000000	
	0.00000	65506.62						
583.24	31.00	4386.62	10.29	-0.12	-70.11	0.01		
		99.18	5.88		93.05	9.04	0.000000	
	0.00000	65788.24						
586.97	32.00	4386.68	10.35	-0.08	-44.30	0.00		
		99.46	5.90		93.30	9.01	0.000000	



HYCHAN.OUT									
	0.00000	65965.39							
591.41	33.00	4386.73	10.40	-0.06	-38.40	0.00			
	0.00000	99.69	5.93		93.51	8.99		0.000000	
	34.00	66108.88							
597.35	4386.80	100.07	10.47	-0.09	-54.13	0.00			
	0.00000	100.30	5.97		93.85	8.96		0.000000	
	35.00	66350.17							
600.66	4386.85	100.30	10.52	-0.06	-33.66	0.00			
	0.00000	100.54	5.99		94.06	8.94		0.000000	
	36.00	66502.07							
607.76	4386.90	100.54	10.57	-0.05	-27.97	0.00			
	0.00630	66652.38	6.04		94.27	8.92		0.000017	
	37.00	4386.91	10.58	0.00	0.00	0.00			
0.00	100.60	0.00	0.00		94.33	8.91		0.000000	
	0.00000	66688.29							
604.75	38.00	4386.90	10.57	0.04	22.98	0.00			
	100.53	6.02		94.26	8.92		0.000035		
	0.01311	66644.30							
600.86	39.00	4386.84	10.51	0.08	46.15	0.00			
	100.22	6.00		93.99	8.95		0.000000		
	0.00000	66450.66							
597.14	40.00	4386.79	10.46	0.05	28.94	0.00			
	100.02	5.97		93.80	8.96		0.000000		
	0.00000	66318.34							
594.00	41.00	4386.77	10.44	0.02	13.80	0.00			
	99.89	5.95		93.69	8.98		0.000011		
	0.00411	66240.87							
592.19	42.00	4386.76	10.43	0.01	7.55	0.00			
	99.83	5.93		93.63	8.98		0.000010		
	0.00384	66199.37							
0.00	43.00	4386.75	10.42	0.00	0.00	0.00			
	99.80	0.00		93.60	8.98		0.000028		
	0.00000	66178.48							
596.38	44.00	4386.76	10.43	-0.02	-11.96	0.00			
	99.85	5.97		93.65	8.98		0.000010		
	0.00355	66210.38							
598.99	45.00	4386.81	10.47	-0.07	-44.22	0.00			
	100.07	5.99		93.85	8.96		0.000013		
	0.00500	66353.78							
603.46	46.00	4386.86	10.53	-0.07	-43.07	0.00			
	100.34	6.01		94.10	8.94		0.000000		
	0.00000	66525.25							
610.96	47.00	4386.95	10.62	-0.12	-71.49	0.01			
	100.79	6.06		94.50	8.90		0.000000		
	0.00000	66812.35							
620.56	48.00	4387.08	10.75	-0.15	-91.73	0.01			
	101.39	6.12		95.04	8.84		0.000030		
	0.01158	67193.20							
631.25	49.00	4387.21	10.88	-0.16	-103.08	0.01			
	102.03	6.19		95.62	8.79		0.000016		
	0.00632	67603.21							
642.53	50.00	4387.35	11.02	-0.17	-109.45	0.01			
	102.70	6.26		96.22	8.73		0.000000		
	0.00000	68029.77							
654.35	51.00	4387.49	11.16	-0.18	-118.80	0.01			
	103.39	6.33		96.84	8.68		0.000019		
	0.00750	68463.64							
667.78	52.00	4387.65	11.32	-0.20	-136.23	0.01			
	104.14	6.41		97.52	8.61		0.000000		
	0.00000	68944.06							
681.86	53.00	4387.83	11.50	-0.22	-150.09	0.01			
	104.97	6.50		98.26	8.55		0.000000		

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		HYCHAN.OUT						
	0.00000	69471.79						
693.57	54.00	4387.96	11.63	-0.18	-122.87	0.01		
	0.00000	105.60	6.57		98.83	8.50	0.000000	
	55.00	69872.89						
709.31	4388.14	11.81	-0.24	-168.15	0.01			
	106.41	6.67		99.56	8.43	0.000000		
	0.00000	70388.55						
731.34	56.00	4388.37	12.04	-0.34	-248.41	0.02		
	107.49	6.80		100.53	8.35	0.000000		
	0.00000	71073.60						
768.84	57.00	4388.81	12.48	-0.59	-455.04	0.03		
	109.46	7.02		102.30	8.20	0.000000		
	0.00000	72324.80						
816.35	58.00	4389.35	13.02	-0.83	-676.96	0.04		
	111.88	7.30		104.47	8.02	0.000000		
	0.00000	73861.05						
863.10	59.00	4389.88	13.55	-1.01	-868.11	0.05		
	114.19	7.56		106.54	7.86	0.000000		
	0.00000	75325.51						
896.99	60.00	4390.26	13.93	-1.12	-1000.97	0.05		
	115.81	7.75		108.00	7.76	0.000000		
	0.00000	76356.04						
921.38	61.00	4390.53	14.20	-1.06	-976.56	0.05		
	116.99	7.88		109.05	7.68	0.000000		
	0.00000	77098.92						
938.43	62.00	4390.72	14.39	-1.00	-934.15	0.05		
	117.78	7.97		109.76	7.63	0.000000		
	0.00000	77598.23						
946.81	63.00	4390.81	14.48	-0.99	-935.32	0.05		
	118.16	8.01		110.10	7.60	0.000000		
	0.00000	77841.58						
955.57	64.00	4390.91	14.58	-0.91	-873.84	0.04		
	118.58	8.06		110.48	7.58	0.000000		
	0.00000	78109.66						
967.08	65.00	4391.05	14.72	-0.69	-666.47	0.03		
	119.14	8.12		110.98	7.54	0.000000		
	0.00000	78462.88						
977.58	66.00	4391.17	14.84	-0.47	-455.49	0.02		
	119.66	8.17		111.44	7.51	0.000000		
	0.00000	78790.45						
985.77	67.00	4391.27	14.94	-0.30	-300.01	0.01		
	120.06	8.21		111.80	7.48	0.000000		
	0.00000	79045.16						
992.98	68.00	4391.37	15.04	-0.12	-122.38	0.01		
	120.48	8.24		112.17	7.46	0.000000		
	0.00000	79306.89						
1010.32	69.00	4391.55	15.22	-0.08	-83.05	0.00		
	121.20	8.34		112.82	7.41	0.000018		
	0.00940	79766.67						
0.00	70.00	4391.74	15.41	0.00	0.00	0.00		
	121.99	0.00		113.52	7.37	0.000000		
	0.00000	80261.59						
1049.40	71.00	4391.95	15.62	-0.17	-176.98	0.01		
	122.83	8.54		114.28	7.32	0.000000		
	0.00000	80793.90						
1075.17	72.00	4392.19	15.86	-0.17	-184.21	0.01		
	123.80	8.69		115.14	7.26	0.000020		
	0.01104	81405.55						
1092.33	73.00	4392.38	16.05	-0.38	-417.74	0.02		
	124.58	8.77		115.84	7.22	0.000000		
	0.00000	81898.85						
1107.89	74.00	4392.54	16.21	-0.50	-555.61	0.02		
	125.21	8.85		116.41	7.18	0.000000		

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HYCHAN.OUT									
	0.00000	82301.41							
1122.15	75.00	4392.69	16.36	8.92	-0.67	-746.96	0.03	0.000000	
	0.00000	82655.70							
1139.21	76.00	4392.85	16.52	9.01	-0.92	-1050.84	0.04	0.000000	
	0.00000	83071.46							
1154.20	77.00	4393.01	16.68	9.09	-1.12	-1288.71	0.05	0.000000	
	0.00000	83452.69							
1166.36	78.00	4393.13	16.80	9.15	-1.19	-1390.53	0.05	0.000000	
	0.00000	83748.90							
1188.13	79.00	4393.33	17.00	9.26	-1.55	-1845.02	0.07	0.000000	
	0.00000	84253.71							
1207.88	80.00	4393.52	17.19	9.36	-1.83	-2208.77	0.08	0.000000	
	0.00000	84708.82							
1230.69	81.00	4393.74	17.41	9.48	-2.09	-2569.34	0.09	0.000000	
	0.00000	85240.40							
1252.78	82.00	4393.95	17.62	9.59	-2.29	-2862.65	0.10	0.000000	
	0.00000	85746.76							
1277.79	83.00	4394.19	17.86	9.71	-2.49	-3182.55	0.10	0.000000	
	0.00000	86318.15							
1301.32	84.00	4394.41	18.08	9.83	-2.65	-3453.27	0.11	0.000000	
	0.00000	86851.70							
1318.79	85.00	4394.58	18.25	9.91	-2.81	-3705.14	0.12	0.000000	
	0.00000	87238.07							
1332.62	86.00	4394.71	18.38	9.98	-2.94	-3912.43	0.12	0.000000	
	0.00000	87539.11							
1344.28	87.00	4394.82	18.49	10.04	-3.01	-4046.51	0.12	0.000000	
	0.00000	87799.92							
1356.66	88.00	4394.93	18.60	10.10	-3.08	-4185.23	0.13	0.000000	
	0.00000	88071.42							
1369.04	89.00	4395.04	18.71	10.16	-3.21	-4395.50	0.13	0.000000	
	0.00000	88331.99							
1378.87	90.00	4395.14	18.81	10.21	-3.29	-4535.08	0.13	0.000000	
	0.00000	88544.19							
1382.26	91.00	4395.17	18.84	10.22	-3.29	-4546.86	0.13	0.000000	
	0.00000	88623.02							
1384.16	92.00	4395.19	18.86	10.23	-3.28	-4546.33	0.13	0.000000	
	0.00000	88667.76							
1379.50	93.00	4395.15	18.82	10.21	-3.20	-4418.42	0.13	0.000000	
	0.00000	88576.91							
1372.63	94.00	4395.09	18.76	10.17	-3.13	-4301.60	0.13	0.000000	
	0.00000	88432.16							
1364.96	95.00	4395.02	18.69	10.14	-3.09	-4216.07	0.13	0.000000	
		134.67							

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HYCHAN.OUT							
0.00000	88264.10						
96.00	4394.93	18.60	-3.01	-4083.31	0.12		
1355.56	134.34	10.09		124.56	6.70	0.000000	
0.00000	88061.26						
97.00	4394.83	18.50	-2.91	-3907.19	0.12		
1344.49	133.97	10.04		124.22	6.72	0.000000	
0.00000	87824.11						
98.00	4394.73	18.40	-2.84	-3781.86	0.12		
1333.92	133.60	9.98		123.89	6.73	0.000000	
0.00000	87590.75						
99.00	4394.61	18.28	-2.72	-3588.91	0.11		
1321.47	133.17	9.92		123.51	6.76	0.000000	
0.00000	87320.04						
100.00	4394.48	18.15	-2.54	-3322.99	0.11		
1306.77	132.66	9.85		123.06	6.78	0.000000	
0.00000	87002.63						
101.00	4394.34	18.01	-2.42	-3125.34	0.10		
1292.05	132.14	9.78		122.59	6.81	0.000000	
0.00000	86674.22						
102.00	4394.18	17.85	-2.33	-2973.97	0.10		
1275.47	131.54	9.70		122.05	6.84	0.000000	
0.00000	86290.99						
103.00	4393.93	17.60	-2.23	-2788.04	0.09		
1250.72	130.61	9.58		121.23	6.89	0.000000	
0.00000	85706.98						
104.00	4393.65	17.32	-1.97	-2404.08	0.08		
1221.90	129.54	9.43		120.28	6.94	0.000000	
0.00000	85034.72						
105.00	4393.33	17.00	-1.29	-1538.41	0.06		
1189.09	128.31	9.27		119.17	7.01	0.000000	
0.00000	84253.76						
106.00	4393.06	16.73	-0.41	-469.34	0.02		
1158.00	127.25	9.10		118.23	7.07	0.000017	
0.00962	83585.57						
107.00	4392.95	16.62	-0.09	-103.38	0.00		
1146.78	126.80	9.04		117.83	7.09	0.000000	
0.00000	83303.89						
108.00	4392.79	16.46	0.13	143.70	0.01		
1125.65	126.20	8.92		117.29	7.12	0.000000	
0.00000	82925.82						
109.00	4392.58	16.25	0.48	534.63	0.02		
1107.95	125.36	8.84		116.54	7.17	0.000061	
0.03354	82396.97						
110.00	4392.30	15.97	0.98	1062.32	0.04		
1080.96	124.25	8.70		115.55	7.23	0.000080	
0.04358	81694.59						
111.00	4392.05	15.72	1.34	1415.25	0.06		
1055.92	123.23	8.57		114.64	7.29	0.000043	
0.02287	81048.12						
112.00	4391.84	15.51	1.53	1583.70	0.07		
1035.33	122.38	8.46		113.88	7.34	0.000088	
0.04646	80511.99						
113.00	4391.67	15.34	1.59	1617.14	0.07		
1019.54	121.71	8.38		113.28	7.38	0.000083	
0.04315	80088.45						
114.00	4391.49	15.16	1.64	1639.18	0.07		
1002.03	120.96	8.28		112.61	7.43	0.000064	
0.03285	79614.64						
115.00	4391.29	14.96	1.69	1662.71	0.08		
983.23	120.14	8.18		111.88	7.48	0.000146	
0.07461	79096.93						
116.00	4391.18	14.85	1.64	1599.19	0.08		
973.31	119.69	8.13		111.47	7.51	0.000148	

HYCHAN.OUT							
0.07528	78811.36						
117.00	4391.12	14.79	1.60	1546.83	0.07		
968.10	119.45	8.10	111.26	7.52	0.000124		
0.06272	78657.47						
118.00	4391.02	14.69	1.65	1585.34	0.08		
958.07	119.01	8.05	110.87	7.55	0.000137		
0.06864	78381.91						
119.00	4390.93	14.60	1.70	1617.28	0.08		
949.72	118.65	8.00	110.54	7.57	0.000165		
0.08251	78152.83						
120.00	4390.88	14.55	1.72	1629.06	0.08		
944.69	118.43	7.98	110.34	7.59	0.000123		
0.06144	78011.98						
121.00	4390.86	14.53	1.72	1619.14	0.08		
942.82	118.34	7.97	110.27	7.59	0.000077		
0.03815	77958.23						
122.00	4390.81	14.48	1.70	1593.35	0.08		
938.97	118.17	7.95	110.11	7.60	0.000102		
0.05040	77844.58						
123.00	4390.71	14.38	1.64	1525.44	0.08		
930.15	117.74	7.90	109.73	7.63	0.000154		
0.07610	77576.75						
124.00	4390.62	14.29	1.66	1525.49	0.08		
921.49	117.35	7.85	109.37	7.65	0.000069		
0.03368	77327.31						
125.00	4390.54	14.21	1.66	1513.52	0.08		
914.27	117.02	7.81	109.08	7.68	0.000118		
0.05772	77121.08						
126.00	4390.45	14.12	1.66	1503.40	0.08		
905.95	116.63	7.77	108.73	7.70	0.000117		
0.05665	76873.34						
127.00	4390.39	14.06	1.63	1471.39	0.08		
900.32	116.36	7.74	108.49	7.72	0.000079		
0.03792	76703.26						
128.00	4390.32	13.99	1.61	1441.16	0.08		
894.39	116.08	7.71	108.23	7.74	0.000111		
0.05357	76521.30						
129.00	4390.23	13.90	1.61	1426.65	0.08		
886.48	115.71	7.66	107.90	7.76	0.000157		
0.07528	76287.54						
130.00	4390.17	13.84	1.57	1387.00	0.07		
881.07	115.44	7.63	107.66	7.78	0.000117		
0.05566	76116.99						
131.00	4390.10	13.77	1.55	1358.66	0.07		
875.18	115.15	7.60	107.40	7.80	0.000064		
0.03012	75933.46						
132.00	4390.01	13.68	1.55	1343.49	0.07		
867.11	114.77	7.56	107.06	7.82	0.000089		
0.04207	75693.21						
133.00	4389.98	13.65	1.47	1273.37	0.07		
864.99	114.65	7.54	106.95	7.83	0.000082		
0.03863	75615.18						
134.00	4390.02	13.69	1.35	1175.24	0.06		
869.02	114.81	7.57	107.10	7.82	0.000049		
0.02294	75716.55						
135.00	4390.01	13.68	1.31	1134.00	0.06		
868.52	114.77	7.57	107.06	7.82	0.000060		
0.02819	75693.87						
136.00	4389.99	13.66	1.28	1106.09	0.06		
866.28	114.65	7.56	106.96	7.83	0.000060		
0.02848	75620.80						
137.00	4389.96	13.63	1.25	1077.43	0.06		
863.89	114.53	7.54	106.85	7.84	0.000082		

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0.03847	75543.51						
138.00	4389.93	13.60	1.22	1051.60	0.06		
861.52	114.41	7.53		106.74	7.85	0.000095	
0.04460	75466.98						
139.00	4389.91	13.58	1.20	1029.97	0.06		
859.45	114.31	7.52		106.65	7.86	0.000093	
0.04384	75400.92						
140.00	4389.88	13.55	1.18	1008.71	0.06		
857.34	114.20	7.51		106.55	7.86	0.000101	
0.04752	75331.79						
141.00	4389.84	13.51	1.18	1003.95	0.06		
853.63	114.02	7.49		106.39	7.88	0.000097	
0.04524	75218.85						
142.00	4389.77	13.44	1.19	1011.06	0.06		
847.71	113.74	7.45		106.14	7.90	0.000046	
0.02145	75037.95						
143.00	4389.74	13.41	1.18	992.53	0.06		
844.47	113.58	7.44		105.99	7.91	0.000023	
0.01065	74937.35						
144.00	4389.71	13.38	1.15	968.36	0.06		
842.21	113.46	7.42		105.89	7.91	0.000085	
0.03950	74863.77						
145.00	4389.69	13.36	1.13	947.17	0.05		
840.24	113.35	7.41		105.79	7.92	0.000064	
0.02938	74796.49						
146.00	4389.65	13.32	1.13	944.68	0.05		
836.73	113.18	7.39		105.64	7.93	0.000027	
0.01259	74688.90						
147.00	4389.58	13.25	1.14	947.51	0.06		
830.79	112.90	7.36		105.38	7.95	0.000093	
0.04283	74507.16						
148.00	4389.54	13.21	1.12	929.69	0.05		
827.31	112.72	7.34		105.22	7.97	0.000020	
0.00895	74392.88						
149.00	4389.51	13.18	1.10	908.16	0.05		
824.99	112.60	7.33		105.12	7.97	0.000089	
0.04086	74319.45						
150.00	4389.49	13.16	1.08	890.33	0.05		
822.89	112.49	7.32		105.02	7.98	0.000026	
0.01195	74248.28						
151.00	4389.47	13.14	1.06	868.29	0.05		
821.23	112.41	7.31		104.95	7.99	0.000081	
0.03684	74196.34						
152.00	4389.44	13.11	1.05	860.43	0.05		
818.41	112.26	7.29		104.81	8.00	0.000022	
0.00996	74102.58						
153.00	4389.38	13.05	1.06	860.59	0.05		
813.47	112.01	7.26		104.59	8.02	0.000064	
0.02914	73946.77						
154.00	4389.33	13.00	1.05	852.10	0.05		
809.17	111.80	7.24		104.40	8.03	0.000082	
0.03706	73813.00						
155.00	4389.30	12.97	1.03	832.00	0.05		
806.59	111.66	7.22		104.28	8.04	0.000015	
0.00665	73724.73						
156.00	4389.26	12.93	1.03	825.17	0.05		
802.97	111.49	7.20		104.12	8.05	0.000011	
0.00473	73611.25						
157.00	4389.22	12.89	0.99	795.68	0.05		
799.97	111.33	7.19		103.98	8.06	0.000070	
0.03132	73512.98						
158.00	4389.29	12.96	0.92	739.47	0.04		
805.87	111.61	7.22		104.23	8.04	0.000031	

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0.01385	73691.77						
159.00	4389.32	12.99	0.90	730.67	0.04		
808.40	111.73	7.24	104.34	8.04	0.000040		
0.01822	73767.08						
160.00	4389.32	12.99	0.90	729.18	0.04		
808.48	111.74	7.24	104.35	8.03	0.000012		
0.00556	73773.02						
161.00	4389.31	12.98	0.89	722.33	0.04		
808.10	111.72	7.23	104.33	8.04	0.000060		
0.02726	73758.41						
162.00	4389.31	12.98	0.89	720.41	0.04		
807.61	111.69	7.23	104.30	8.04	0.000000		
0.00000	73742.84						
163.00	4389.30	12.97	0.88	713.40	0.04		
807.13	111.67	7.23	104.28	8.04	0.000066		
0.02985	73727.02						
164.00	4389.29	12.96	0.88	710.85	0.04		
806.56	111.64	7.22	104.25	8.04	0.000000		
0.00000	73707.87						
165.00	4389.29	12.96	0.87	705.21	0.04		
806.25	111.62	7.22	104.24	8.04	0.000062		
0.02779	73696.78						
166.00	4389.27	12.94	0.89	719.42	0.04		
804.16	111.52	7.21	104.15	8.05	0.000049		
0.02221	73635.14						
167.00	4389.21	12.88	0.92	732.54	0.05		
798.87	111.26	7.18	103.91	8.07	0.000000		
0.00000	73465.11						
168.00	4389.18	12.85	0.91	722.01	0.04		
796.24	111.12	7.17	103.79	8.08	0.000062		
0.02761	73379.02						
169.00	4389.17	12.84	0.90	716.41	0.04		
795.20	111.07	7.16	103.74	8.08	0.000050		
0.02249	73346.24						
170.00	4389.16	12.83	0.89	709.06	0.04		
794.50	111.03	7.16	103.71	8.09	0.000000		
0.00000	73319.60						
171.00	4389.15	12.82	0.88	701.81	0.04		
793.95	111.00	7.15	103.68	8.09	0.000069		
0.03066	73303.83						
172.00	4389.14	12.81	0.88	698.85	0.04		
793.36	110.97	7.15	103.66	8.09	0.000031		
0.01373	73284.95						
173.00	4389.14	12.81	0.87	693.55	0.04		
792.91	110.94	7.15	103.63	8.09	0.000000		
0.00000	73267.30						
174.00	4389.11	12.78	0.89	702.01	0.04		
790.80	110.84	7.13	103.54	8.10	0.000015		
0.00655	73201.81						
175.00	4389.05	12.72	0.91	715.07	0.04		
785.48	110.57	7.10	103.30	8.12	0.000035		
0.01544	73031.27						
176.00	4389.02	12.69	0.90	706.84	0.04		
782.81	110.43	7.09	103.17	8.13	0.000069		
0.03039	72944.09						
177.00	4389.01	12.68	0.89	697.86	0.04		
781.53	110.37	7.08	103.11	8.13	0.000070		
0.03103	72901.44						
178.00	4389.00	12.67	0.88	690.06	0.04		
780.77	110.33	7.08	103.08	8.14	0.000045		
0.01965	72874.76						
179.00	4388.99	12.66	0.88	683.25	0.04		
780.15	110.29	7.07	103.04	8.14	0.000013		

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HYCHAN.OUT									
0.00588	72852.12								
180.00	4388.98	12.65	0.87	675.39	0.04				
779.39	110.26	7.07	103.01	8.14	0.000015				
0.00683	72830.91								
181.00	4389.01	12.68	0.82	641.15	0.04				
782.28	110.39	7.09	103.14	8.13	0.000020				
0.00876	72918.71								
182.00	4389.12	12.79	0.76	602.82	0.04				
791.84	110.87	7.14	103.56	8.10	0.000000				
0.00000	73218.12								
183.00	4389.19	12.86	0.74	589.98	0.04				
797.60	111.16	7.18	103.83	8.08	0.000053				
0.02375	73405.85								
184.00	4389.25	12.92	0.72	580.30	0.04				
803.55	111.46	7.21	104.09	8.05	0.000000				
0.00000	73594.14								
185.00	4389.29	12.96	0.73	587.13	0.04				
806.33	111.60	7.23	104.22	8.04	0.000052				
0.02365	73684.29								
186.00	4389.30	12.97	0.74	599.22	0.04				
807.37	111.65	7.23	104.26	8.04	0.000000				
0.00000	73714.80								
187.00	4389.30	12.97	0.75	603.44	0.04				
807.82	111.68	7.23	104.29	8.04	0.000027				
0.01197	73734.55								
188.00	4389.31	12.98	0.75	608.41	0.04				
808.20	111.70	7.24	104.31	8.04	0.000038				
0.01698	73744.05								
189.00	4389.31	12.98	0.76	610.60	0.04				
808.33	111.70	7.24	104.31	8.04	0.000000				
0.00000	73750.08								
190.00	4389.31	12.98	0.75	609.99	0.04				
808.42	111.71	7.24	104.32	8.04	0.000051				
0.02284	73753.28								
191.00	4389.31	12.98	0.76	612.57	0.04				
808.48	111.71	7.24	104.32	8.04	0.000008				
0.00372	73752.44								
192.00	4389.29	12.96	0.78	625.54	0.04				
806.69	111.63	7.23	104.25	8.04	0.000053				
0.02368	73702.45								
193.00	4389.24	12.91	0.80	643.49	0.04				
801.81	111.38	7.20	104.02	8.06	0.000010				
0.00443	73545.52								
194.00	4389.21	12.88	0.79	635.13	0.04				
799.37	111.26	7.18	103.92	8.07	0.000036				
0.01601	73469.89								
195.00	4389.20	12.87	0.79	629.47	0.04				
798.39	111.21	7.18	103.87	8.07	0.000007				
0.00318	73433.08								
196.00	4389.19	12.86	0.78	622.27	0.04				
797.91	111.19	7.18	103.85	8.07	0.000035				
0.01562	73420.66								
197.00	4389.19	12.86	0.78	621.19	0.04				
797.51	111.16	7.17	103.82	8.08	0.000000				
0.00000	73401.97								
198.00	4389.18	12.85	0.77	614.54	0.04				
797.20	111.15	7.17	103.81	8.08	0.000060				
0.02672	73396.23								
199.00	4389.18	12.85	0.77	614.21	0.04				
796.96	111.13	7.17	103.80	8.08	0.000000				
0.00000	73383.59								

HYCHAN.OUT  
CHANNEL HYDROGRAPH FOR ELEMENT NO: 4867

MAXIMUM DISCHARGE (CFS) = 2040.34 AT TIME = 114.24  
MAXIMUM STAGE = 4395.50 AT TIME = 91.73

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT^2)								
0.00	0.00	4376.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	1.00	4376.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	2.00	4376.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	3.00	4376.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	4.00	4376.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
310.67	5.00	4380.90	4.70	-1.45	-450.79	0.12	0.000000		
	0.00000	66.36	4.68	63.24	13.45	0.000000			
492.33	6.00	4384.50	8.30	-1.26	-618.43	0.08	0.000000		
	0.00000	88.83	5.54	83.70	10.08	0.000000			
550.32	7.00	4385.42	9.21	-0.45	-247.80	0.03	0.000000		
	0.00000	93.70	5.87	88.11	9.56	0.000000			
551.50	8.00	4385.68	9.48	-0.17	-92.30	0.01	0.000000		
	0.00000	95.08	5.80	89.35	9.42	0.000000			
541.54	9.00	4385.68	9.48	-0.06	-33.51	0.00	0.000000		
	0.00000	95.07	5.70	89.34	9.43	0.000000			
571.82	10.00	4385.64	9.44	-0.03	-19.78	0.00	0.000000		
	0.00000	94.87	6.03	89.16	9.44	0.000000			
517.21	11.00	4385.59	9.39	0.04	22.26	0.00	0.000000		
	0.00000	94.60	5.47	88.92	9.47	0.000000			
518.00	12.00	4385.54	9.34	0.05	23.42	0.00	0.000059		
	0.02033	94.34	5.49	88.68	9.50	0.000000			
520.00	13.00	4385.45	9.25	0.09	46.58	0.01	0.000000		
	0.00000	93.86	5.54	88.25	9.55	0.000000			
509.98	14.00	4385.32	9.12	0.10	49.92	0.01	0.000000		
	0.00000	93.20	5.47	87.65	9.61	0.000000			
497.21	15.00	4385.23	9.03	0.06	29.40	0.00	0.000000		
	0.00000	92.73	5.36	87.23	9.66	0.000000			
484.21	16.00	4385.19	8.99	0.03	15.38	0.00	0.000000		
	0.00000	92.53	5.23	87.04	9.68	0.000000			
		60928.36							

HYCHAN.OUT									
445.00	17.00	4385.17	8.97	0.02	6.71	0.00	0.000046		
	0.01370	92.44	4.81		86.96	9.69			
	18.00	60871.54							
408.47		4385.16	8.96	0.01	4.10	0.00	0.000075		
	0.02082	92.39	4.42		86.92	9.70			
	19.00	60841.23							
0.00		4385.16	8.96	0.00	0.00	0.00	0.000000		
	0.00000	92.39	0.00		86.92	9.70			
	20.00	60842.07							
527.08		4385.23	9.03	-0.07	-38.82	0.00	0.000000		
	0.00000	92.73	5.68		87.22	9.66			
	21.00	61056.75							
534.51		4385.36	9.16	-0.10	-55.63	0.01	0.000014		
	0.00511	93.40	5.72		87.83	9.59			
	22.00	61481.53							
545.05		4385.49	9.29	-0.11	-59.38	0.01	0.000008		
	0.00294	94.11	5.79		88.47	9.52			
	23.00	61928.98							
554.05		4385.58	9.38	-0.07	-38.13	0.00	0.000000		
	0.00000	94.57	5.86		88.89	9.47			
	24.00	62223.21							
567.01		4385.63	9.43	-0.05	-29.16	0.00	0.000055		
	0.02048	94.83	5.98		89.12	9.45			
	25.00	62384.30							
562.24		4385.73	9.53	-0.11	-60.91	0.01	0.000000		
	0.00000	95.33	5.90		89.58	9.40			
	26.00	62703.27							
572.90		4385.92	9.72	-0.16	-93.97	0.01	0.000000		
	0.00000	96.28	5.95		90.43	9.31			
	27.00	63302.71							
596.89		4386.13	9.93	-0.20	-121.62	0.01	0.000000		
	0.00000	97.34	6.13		91.39	9.21			
	28.00	63974.01							
610.40		4386.35	10.15	-0.20	-124.62	0.01	0.000000		
	0.00000	98.47	6.20		92.41	9.10			
	29.00	64686.01							
613.78		4386.47	10.27	-0.14	-83.11	0.01	0.000000		
	0.00000	99.05	6.20		92.93	9.05			
	30.00	65052.77							
622.02		4386.54	10.34	-0.10	-64.63	0.01	0.000000		
	0.00000	99.39	6.26		93.24	9.02			
	31.00	65267.74							
626.11		4386.63	10.43	-0.11	-71.48	0.01	0.000000		
	0.00000	99.83	6.27		93.63	8.98			
	32.00	65542.62							
619.34		4386.68	10.48	-0.07	-44.91	0.00	0.000000		
	0.00000	100.10	6.19		93.88	8.96			
	33.00	65713.50							
622.56		4386.73	10.53	-0.06	-39.56	0.00	0.000000		
	0.00000	100.32	6.21		94.08	8.94			
	34.00	65854.97							
636.06		4386.80	10.60	-0.09	-55.26	0.00	0.000000		
	0.00000	100.70	6.32		94.42	8.90			
	35.00	66094.62							
630.24		4386.85	10.65	-0.05	-34.10	0.00	0.000000		
	0.00000	100.94	6.24		94.63	8.88			
	36.00	66241.34							
658.98		4386.90	10.70	-0.04	-28.20	0.00	0.000000		
	0.00000	101.17	6.51		94.84	8.86			
	37.00	66390.11							
0.00		4386.91	10.71	0.00	0.00	0.00	0.000080		
	0.00000	101.23	0.00		94.90	8.86			
		66427.08							

HYCHAN.OUT									
603.37	38.00	4386.90	10.70	0.04	26.08	0.00	0.000000		
	0.00000	101.16	5.96	94.83	8.86				
	39.00	4386.84	10.64	0.07	45.75	0.00			
618.16		100.85	6.13	94.56	8.89	0.000054			
	0.02082	66190.48							
	40.00	4386.79	10.59	0.05	29.08	0.00			
599.92		100.66	5.96	94.38	8.91	0.000027			
	0.00989	66064.97							
	41.00	4386.77	10.57	0.03	14.90	0.00			
573.54		100.53	5.71	94.26	8.92	0.000016			
	0.00587	65985.21							
	42.00	4386.76	10.56	0.01	7.41	0.00			
513.49		100.46	5.11	94.21	8.93	0.000007			
	0.00237	65944.40							
	43.00	4386.75	10.55	0.00	0.00	0.00			
0.00		100.43	0.00	94.18	8.93	0.000000			
	0.00000	65924.11							
	44.00	4386.76	10.56	-0.02	-12.84	0.00			
720.99		100.48	7.18	94.22	8.92	0.000000			
	0.00000	65955.84							
	45.00	4386.81	10.61	-0.07	-45.20	0.00			
661.43		100.71	6.57	94.43	8.90	0.000000			
	0.00000	66100.51							
	46.00	4386.86	10.66	-0.07	-45.95	0.00			
665.56		100.98	6.59	94.67	8.88	0.000089			
	0.03669	66268.12							
	47.00	4386.95	10.75	-0.11	-71.84	0.01			
662.03		101.42	6.53	95.07	8.84	0.000000			
	0.00000	66549.84							
	48.00	4387.08	10.88	-0.14	-93.35	0.01			
664.85		102.02	6.52	95.61	8.79	0.000000			
	0.00000	66926.68							
	49.00	4387.21	11.01	-0.16	-105.94	0.01			
676.79		102.66	6.59	96.19	8.74	0.000000			
	0.00000	67330.53							
	50.00	4387.35	11.15	-0.17	-113.52	0.01			
686.83		103.33	6.65	96.79	8.68	0.000045			
	0.01853	67750.88							
	51.00	4387.49	11.29	-0.17	-119.38	0.01			
698.61		104.01	6.72	97.40	8.62	0.000000			
	0.00000	68178.34							
	52.00	4387.65	11.45	-0.20	-140.86	0.01			
711.43		104.76	6.79	98.08	8.56	0.000053			
	0.02243	68653.54							
	53.00	4387.83	11.63	-0.21	-153.25	0.01			
722.82		105.59	6.85	98.82	8.50	0.000068			
	0.02895	69173.30							
	54.00	4387.96	11.76	-0.17	-125.66	0.01			
737.39		106.21	6.94	99.38	8.45	0.000080			
	0.03476	69563.30							
	55.00	4388.14	11.94	-0.23	-171.30	0.01			
755.15		107.03	7.06	100.11	8.38	0.000051			
	0.02252	70080.00							
	56.00	4388.38	12.18	-0.32	-253.71	0.02			
790.23		108.11	7.31	101.09	8.30	0.000000			
	0.00000	70760.92							
	57.00	4388.82	12.62	-0.56	-464.59	0.03			
835.11		110.12	7.58	102.89	8.15	0.000000			
	0.00000	72026.02							
	58.00	4389.38	13.18	-0.78	-687.93	0.04			
883.37		112.60	7.85	105.11	7.97	0.000000			
	0.00000	73579.67							

				HYCHAN.OUT			
929.89	59.00	4389.92	13.72	-0.94	-877.00	0.04	0.000000
	0.00000	114.94	8.09	107.22	7.81		
	60.00	75054.02	14.11	-1.04	-1006.70	0.05	0.000000
963.47	0.00000	4390.31	8.26	108.70	7.70		
	61.00	116.59	14.38	-0.99	-981.18	0.05	0.000000
986.65	0.00000	4390.58	8.38	109.71	7.63		
	62.00	117.73	14.56	-0.93	-936.64	0.04	0.000000
1002.72	0.00000	4390.76	8.46	110.39	7.58		
	63.00	118.49	14.65	-0.93	-936.73	0.04	0.000000
1010.79	0.00000	4390.85	8.50	110.73	7.56		
	64.00	118.87	14.75	-0.86	-876.21	0.04	0.000000
1017.53	0.00000	4390.95	8.53	111.09	7.53		
	65.00	119.26	14.86	-0.66	-668.53	0.03	0.000000
1020.47	0.00000	4391.06	8.52	111.52	7.50		
	66.00	119.75	14.98	-0.45	-457.74	0.02	0.000000
1023.29	0.00000	4391.18	8.51	111.95	7.47		
	67.00	120.23	15.07	-0.29	-301.58	0.01	0.000000
1025.79	0.00000	4391.27	8.50	112.30	7.45		
	68.00	120.61	15.17	-0.12	-125.33	0.01	0.000000
1015.90	0.00000	4391.37	8.40	112.65	7.43		
	69.00	121.01	15.35	-0.08	-85.37	0.00	0.000000
1062.88	0.00000	4391.55	8.73	113.30	7.38		
	70.00	121.73	15.54	0.00	0.00	0.00	0.000082
0.00	0.00000	4391.74	0.00	114.00	7.34		
	71.00	122.52	15.75	-0.17	-180.59	0.01	0.000008
1081.67	0.00419	4391.95	8.77	114.74	7.29		
	72.00	123.35	15.99	-0.17	-187.60	0.01	0.000000
1108.24	0.00000	4392.19	8.91	115.62	7.23		
	73.00	124.32	16.19	-0.37	-422.10	0.02	0.000000
1135.19	0.00000	4392.39	9.07	116.32	7.19		
	74.00	125.11	16.35	-0.48	-558.54	0.02	0.000000
1158.22	0.00000	4392.55	9.21	116.90	7.15		
	75.00	125.76	16.50	-0.64	-750.19	0.03	0.000000
1174.59	0.00000	4392.70	9.30	117.42	7.12		
	76.00	126.35	16.68	-0.88	-1054.78	0.04	0.000000
1194.69	0.00000	4392.88	9.40	118.06	7.08		
	77.00	127.06	16.85	-1.07	-1291.12	0.05	0.000000
1211.14	0.00000	4393.05	9.48	118.63	7.04		
	78.00	127.70	16.97	-1.14	-1394.02	0.05	0.000000
1223.20	0.00000	4393.17	9.54	119.07	7.01		
	79.00	128.19	17.21	-1.48	-1849.67	0.06	0.000000
1247.00	0.00000	4393.41	9.66	119.88	6.97		
		129.11					
		83919.43					

		HYCHAN.OUT					
1268.28	80.00	4393.63	17.43	-1.75	-2214.32	0.07	0.000000
	0.00000	129.93	9.76		120.62	6.92	
		84434.01					
1291.99	81.00	4393.87	17.67	-1.99	-2573.77	0.08	0.000000
	0.00000	130.88	9.87		121.46	6.87	
		85025.40					
1314.44	82.00	4394.11	17.91	-2.18	-2867.66	0.09	0.000000
	0.00000	131.76	9.98		122.26	6.83	
		85579.06					
1339.66	83.00	4394.37	18.17	-2.38	-3187.94	0.10	0.000000
	0.00000	132.76	10.09		123.14	6.78	
		86198.55					
1363.09	84.00	4394.62	18.42	-2.54	-3457.94	0.10	0.000000
	0.00000	133.67	10.20		123.96	6.73	
		86769.17					
1380.94	85.00	4394.80	18.60	-2.69	-3708.53	0.11	0.000000
	0.00000	134.36	10.28		124.57	6.70	
		87196.20					
1395.20	86.00	4394.95	18.75	-2.81	-3913.82	0.11	0.000000
	0.00000	134.89	10.34		125.05	6.67	
		87532.16					
1407.28	87.00	4395.07	18.87	-2.88	-4047.37	0.12	0.000000
	0.00000	135.33	10.40		125.44	6.65	
		87806.86					
1420.52	88.00	4395.19	18.99	-2.95	-4187.10	0.12	0.000000
	0.00000	135.80	10.46		125.85	6.63	
		88098.30					
1434.45	89.00	4395.33	19.12	-3.07	-4398.43	0.12	0.000000
	0.00000	136.28	10.53		126.28	6.60	
		88397.06					
1445.08	90.00	4395.43	19.23	-3.14	-4536.92	0.13	0.000000
	0.00000	136.65	10.57		126.61	6.59	
		88628.66					
1448.17	91.00	4395.46	19.26	-3.14	-4546.94	0.13	0.000000
	0.00000	136.77	10.59		126.72	6.58	
		88702.04					
1449.93	92.00	4395.48	19.28	-3.14	-4546.37	0.13	0.000000
	0.00000	136.83	10.60		126.77	6.58	
		88742.20					
1444.24	93.00	4395.42	19.22	-3.06	-4416.68	0.12	0.000000
	0.00000	136.64	10.57		126.60	6.59	
		88622.48					
1436.58	94.00	4395.35	19.15	-2.99	-4300.10	0.12	0.000000
	0.00000	136.38	10.53		126.37	6.60	
		88458.79					
1428.48	95.00	4395.27	19.07	-2.95	-4214.39	0.12	0.000000
	0.00000	136.09	10.50		126.12	6.61	
		88280.66					
1418.15	96.00	4395.18	18.98	-2.88	-4080.87	0.12	0.000000
	0.00000	135.73	10.45		125.79	6.63	
		88056.06					
1405.85	97.00	4395.06	18.86	-2.78	-3904.52	0.11	0.000000
	0.00000	135.31	10.39		125.41	6.65	
		87789.34					
1394.82	98.00	4394.95	18.75	-2.71	-3779.56	0.11	0.000000
	0.00000	134.91	10.34		125.06	6.67	
		87539.35					
1381.95	99.00	4394.82	18.62	-2.59	-3585.84	0.11	0.000000
	0.00000	134.42	10.28		124.62	6.69	
		87235.38					
1366.42	100.00	4394.66	18.46	-2.43	-3319.17	0.10	0.000000
	0.00000	133.83	10.21		124.10	6.72	
		86869.42					

HYCHAN.OUT							
101.00	4394.51	18.31	-2.31	-3122.50	0.10		
1351.58	133.26	10.14	123.59	6.75	0.000000		
0.00000	86513.35						
102.00	4394.34	18.14	-2.22	-2969.03	0.09		
1335.47	132.62	10.07	123.02	6.78	0.000000		
0.00000	86114.24						
103.00	4394.08	17.88	-2.12	-2782.42	0.09		
1311.66	131.66	9.96	122.16	6.83	0.000000		
0.00000	85515.36						
104.00	4393.77	17.57	-1.87	-2397.10	0.08		
1282.37	130.48	9.83	121.11	6.89	0.000000		
0.00000	84780.37						
105.00	4393.38	17.18	-1.23	-1529.27	0.05		
1244.80	129.00	9.65	119.79	6.97	0.000000		
0.00000	83853.35						
106.00	4393.06	16.86	-0.39	-464.90	0.02		
1185.99	127.77	9.28	118.69	7.04	0.000000		
0.00000	83082.63						
107.00	4392.95	16.75	-0.09	-103.15	0.00		
1181.83	127.30	9.28	118.28	7.06	0.000081		
0.04716	82794.05						
108.00	4392.79	16.59	0.13	147.93	0.01		
1130.72	126.70	8.92	117.74	7.10	0.000088		
0.04922	82416.70						
109.00	4392.57	16.37	0.48	543.21	0.02		
1120.96	125.83	8.91	116.96	7.14	0.000000		
0.00000	81874.46						
110.00	4392.27	16.07	0.98	1068.61	0.04		
1094.10	124.62	8.78	115.88	7.21	0.000000		
0.00000	81118.28						
111.00	4391.98	15.78	1.32	1417.08	0.06		
1070.20	123.48	8.67	114.86	7.28	0.000179		
0.09687	80404.39						
112.00	4391.75	15.55	1.52	1589.95	0.07		
1046.17	122.55	8.54	114.03	7.33	0.000096		
0.05132	79822.05						
113.00	4391.58	15.38	1.57	1620.01	0.07		
1031.36	121.86	8.46	113.41	7.38	0.000109		
0.05736	79385.47						
114.00	4391.39	15.19	1.62	1640.78	0.07		
1013.65	121.08	8.37	112.71	7.42	0.000239		
0.12461	78897.13						
115.00	4391.18	14.98	1.68	1670.69	0.08		
994.16	120.22	8.27	111.94	7.47	0.000047		
0.02418	78360.54						
116.00	4391.07	14.87	1.62	1599.52	0.07		
985.47	119.79	8.23	111.56	7.50	0.000000		
0.00000	78092.61						
117.00	4391.02	14.82	1.58	1546.40	0.07		
981.52	119.57	8.21	111.36	7.51	0.000066		
0.03387	77953.30						
118.00	4390.91	14.71	1.64	1588.00	0.08		
969.33	119.10	8.14	110.94	7.54	0.000053		
0.02693	77658.19						
119.00	4390.81	14.61	1.69	1620.46	0.08		
960.68	118.71	8.09	110.59	7.57	0.000014		
0.00691	77414.23						
120.00	4390.76	14.56	1.70	1628.59	0.08		
955.38	118.48	8.06	110.38	7.58	0.000071		
0.03593	77268.95						
121.00	4390.74	14.54	1.69	1616.67	0.08		
953.97	118.39	8.06	110.31	7.59	0.000230		
0.11548	77217.56						



HYCHAN.OUT							
122.00	4390.69	14.49	1.68	1594.81	0.08		
950.36	118.22	8.04	110.15	7.60	0.000115		
0.05746	77105.13						
123.00	4390.60	14.40	1.63	1531.04	0.08		
941.79	117.83	7.99	109.80	7.62	0.000018		
0.00913	76860.73						
124.00	4390.51	14.31	1.63	1523.21	0.08		
934.02	117.42	7.95	109.44	7.65	0.000223		
0.11078	76608.07						
125.00	4390.43	14.23	1.63	1516.00	0.08		
927.86	117.08	7.92	109.14	7.67	0.000105		
0.05216	76395.23						
126.00	4390.33	14.13	1.64	1506.77	0.08		
919.01	116.70	7.88	108.79	7.70	0.000131		
0.06423	76153.25						
127.00	4390.27	14.07	1.61	1469.89	0.08		
915.05	116.43	7.86	108.55	7.71	0.000180		
0.08839	75987.72						
128.00	4390.21	14.01	1.59	1445.01	0.07		
909.18	116.16	7.83	108.31	7.73	0.000137		
0.06670	75817.02						
129.00	4390.12	13.92	1.59	1429.72	0.07		
901.61	115.78	7.79	107.97	7.76	0.000000		
0.00000	75577.09						
130.00	4390.06	13.86	1.55	1386.04	0.07		
895.96	115.53	7.75	107.75	7.77	0.000076		
0.03694	75423.43						
131.00	4390.00	13.80	1.53	1358.43	0.07		
890.05	115.26	7.72	107.50	7.79	0.000229		
0.11051	75250.67						
132.00	4389.91	13.71	1.52	1345.59	0.07		
882.48	114.87	7.68	107.15	7.82	0.000143		
0.06869	75007.45						
133.00	4389.89	13.69	1.45	1272.89	0.07		
880.77	114.80	7.67	107.09	7.82	0.000086		
0.04096	74961.16						
134.00	4389.94	13.74	1.32	1173.80	0.06		
885.89	115.02	7.70	107.29	7.81	0.000145		
0.06947	75102.79						
135.00	4389.94	13.74	1.28	1134.80	0.06		
885.72	115.00	7.70	107.27	7.81	0.000122		
0.05876	75091.19						
136.00	4389.91	13.71	1.25	1106.99	0.06		
883.59	114.90	7.69	107.18	7.82	0.000076		
0.03646	75028.59						
137.00	4389.89	13.69	1.22	1079.29	0.06		
881.89	114.79	7.68	107.09	7.82	0.000030		
0.01434	74959.88						
138.00	4389.86	13.66	1.20	1052.92	0.06		
880.66	114.69	7.68	106.99	7.83	0.000000		
0.00000	74891.87						
139.00	4389.84	13.64	1.17	1030.35	0.06		
879.27	114.59	7.67	106.90	7.84	0.000000		
0.00000	74831.25						
140.00	4389.82	13.62	1.15	1010.21	0.06		
876.94	114.49	7.66	106.82	7.84	0.000000		
0.00000	74770.85						
141.00	4389.78	13.58	1.15	1005.14	0.06		
872.83	114.31	7.64	106.66	7.86	0.000000		
0.00000	74658.76						
142.00	4389.71	13.51	1.16	1009.58	0.06		
868.17	114.02	7.61	106.39	7.88	0.000123		
0.05860	74474.81						

HYCHAN.OUT							
143.00	4389.67	13.47	1.15	991.47	0.06		
865.48	113.86	7.60	106.25	7.89	0.000150		
0.07109	74374.98						
144.00	4389.65	13.45	1.13	972.17	0.05		
862.87	113.76	7.59	106.15	7.89	0.000000		
0.00000	74308.21						
145.00	4389.63	13.43	1.10	946.92	0.05		
860.34	113.67	7.57	106.08	7.90	0.000072		
0.03416	74255.61						
146.00	4389.59	13.39	1.10	943.14	0.05		
857.88	113.49	7.56	105.92	7.91	0.000142		
0.06709	74142.19						
147.00	4389.52	13.32	1.12	952.60	0.05		
851.87	113.20	7.53	105.65	7.93	0.000000		
0.00000	73957.03						
148.00	4389.48	13.28	1.09	925.96	0.05		
848.76	113.03	7.51	105.50	7.94	0.000150		
0.07023	73853.48						
149.00	4389.45	13.25	1.08	912.45	0.05		
846.57	112.91	7.50	105.40	7.95	0.000000		
0.00000	73779.30						
150.00	4389.43	13.23	1.05	887.62	0.05		
845.00	112.83	7.49	105.32	7.96	0.000133		
0.06226	73724.47						
151.00	4389.41	13.21	1.03	871.77	0.05		
844.15	112.74	7.49	105.24	7.96	0.000000		
0.00000	73667.73						
152.00	4389.38	13.18	1.02	857.90	0.05		
840.60	112.60	7.47	105.12	7.97	0.000130		
0.06033	73583.73						
153.00	4389.33	13.13	1.03	864.87	0.05		
836.15	112.35	7.44	104.89	7.99	0.000026		
0.01217	73426.32						
154.00	4389.28	13.08	1.02	852.48	0.05		
832.66	112.14	7.43	104.70	8.01	0.000000		
0.00000	73290.29						
155.00	4389.25	13.05	1.00	829.35	0.05		
829.84	112.01	7.41	104.59	8.02	0.000122		
0.05633	73213.95						
156.00	4389.21	13.01	1.00	826.30	0.05		
825.48	111.84	7.38	104.43	8.03	0.000143		
0.06593	73102.30						
157.00	4389.18	12.98	0.97	798.41	0.05		
823.15	111.69	7.37	104.30	8.04	0.000000		
0.00000	73010.85						
158.00	4389.25	13.05	0.89	736.10	0.04		
830.58	112.00	7.42	104.58	8.02	0.000033		
0.01534	73206.07						
159.00	4389.28	13.08	0.88	731.81	0.04		
830.99	112.14	7.41	104.70	8.01	0.000026		
0.01201	73290.73						
160.00	4389.28	13.08	0.87	726.91	0.04		
832.87	112.14	7.43	104.70	8.01	0.000083		
0.03861	73291.05						
161.00	4389.27	13.07	0.87	725.63	0.04		
831.42	112.12	7.42	104.69	8.01	0.000000		
0.00000	73281.39						
162.00	4389.27	13.07	0.86	716.91	0.04		
831.96	112.10	7.42	104.67	8.01	0.000112		
0.05206	73265.95						
163.00	4389.26	13.06	0.86	717.32	0.04		
830.43	112.07	7.41	104.64	8.01	0.000000		
0.00000	73249.68						

HYCHAN.OUT							
164.00	4389.26	13.06	0.85	707.23	0.04		
830.95	112.05	7.42	104.62	8.01	0.000110		
0.05081	73234.65						
165.00	4389.25	13.05	0.85	708.47	0.04		
830.52	112.03	7.41	104.61	8.01	0.000000		
0.00000	73224.07						
166.00	4389.23	13.03	0.87	719.10	0.04		
829.08	111.92	7.41	104.51	8.02	0.000000		
0.00000	73153.75						
167.00	4389.17	12.97	0.89	731.37	0.04		
823.74	111.66	7.38	104.27	8.04	0.000111		
0.05111	72989.05						
168.00	4389.14	12.94	0.89	725.57	0.04		
819.16	111.51	7.35	104.14	8.05	0.000000		
0.00000	72900.35						
169.00	4389.12	12.92	0.87	715.45	0.04		
819.61	111.46	7.35	104.10	8.05	0.000015		
0.00683	72867.41						
170.00	4389.12	12.92	0.87	707.62	0.04		
817.79	111.43	7.34	104.07	8.06	0.000112		
0.05110	72850.20						
171.00	4389.11	12.91	0.86	705.28	0.04		
818.18	111.40	7.34	104.04	8.06	0.000000		
0.00000	72829.61						
172.00	4389.10	12.90	0.85	696.63	0.04		
818.03	111.38	7.34	104.02	8.06	0.000026		
0.01191	72813.39						
173.00	4389.10	12.90	0.85	692.05	0.04		
817.73	111.36	7.34	104.00	8.06	0.000108		
0.04964	72802.44						
174.00	4389.08	12.88	0.86	703.65	0.04		
815.61	111.25	7.33	103.90	8.07	0.000085		
0.03892	72731.10						
175.00	4389.01	12.81	0.89	717.50	0.04		
809.59	110.97	7.30	103.65	8.09	0.000060		
0.02722	72555.85						
176.00	4388.98	12.78	0.88	708.76	0.04		
806.17	110.83	7.27	103.53	8.10	0.000000		
0.00000	72469.82						
177.00	4388.97	12.77	0.87	697.76	0.04		
806.47	110.77	7.28	103.47	8.10	0.000000		
0.00000	72429.54						
178.00	4388.96	12.76	0.86	688.96	0.04		
805.32	110.73	7.27	103.44	8.11	0.000009		
0.00405	72406.91						
179.00	4388.95	12.75	0.85	681.48	0.04		
804.56	110.70	7.27	103.41	8.11	0.000100		
0.04519	72388.89						
180.00	4388.95	12.75	0.84	675.57	0.04		
803.85	110.67	7.26	103.38	8.11	0.000065		
0.02968	72367.51						
181.00	4388.98	12.78	0.79	640.04	0.04		
806.11	110.82	7.27	103.52	8.10	0.000020		
0.00904	72465.62						
182.00	4389.09	12.89	0.74	600.12	0.04		
815.93	111.32	7.33	103.97	8.06	0.000098		
0.04473	72780.75						
183.00	4389.16	12.96	0.72	592.24	0.04		
822.34	111.62	7.37	104.24	8.04	0.000000		
0.00000	72967.11						
184.00	4389.23	13.03	0.69	575.71	0.03		
829.38	111.93	7.41	104.51	8.02	0.000077		
0.03538	73159.46						

HYCHAN.OUT									
831.73	185.00	4389.26	13.06	0.71	590.27	8.01	0.03	0.000000	
	0.00000	112.06	7.42	104.63					
831.88	186.00	4389.27	13.07	0.72	596.21	8.01	0.03	0.000073	
	0.03358	112.12	7.42	104.68					
833.20	187.00	4389.28	13.08	0.73	604.28	8.01	0.04	0.000019	
	0.00886	112.13	7.43	104.70					
832.47	188.00	4389.28	13.08	0.73	609.34	8.00	0.04	0.000013	
	0.00617	112.16	7.42	104.72					
834.00	189.00	4389.28	13.08	0.73	608.05	8.00	0.04	0.000102	
	0.04720	112.16	7.44	104.72					
833.36	190.00	4389.28	13.08	0.74	613.04	8.00	0.04	0.000000	
	0.00000	112.16	7.43	104.72					
833.28	191.00	4389.28	13.08	0.73	610.67	8.00	0.04	0.000065	
	0.03005	112.17	7.43	104.73					
832.14	192.00	4389.26	13.06	0.75	628.17	8.01	0.04	0.000000	
	0.00000	112.07	7.43	104.64					
826.83	193.00	4389.21	13.01	0.78	642.53	8.03	0.04	0.000076	
	0.03512	111.83	7.39	104.42					
824.88	194.00	4389.18	12.98	0.77	636.42	8.04	0.04	0.000007	
	0.00345	111.70	7.39	104.31					
822.89	195.00	4389.17	12.97	0.76	628.27	8.04	0.04	0.000078	
	0.03566	111.66	7.37	104.27					
823.20	196.00	4389.16	12.96	0.76	623.89	8.04	0.04	0.000000	
	0.00000	111.63	7.37	104.24					
822.32	197.00	4389.16	12.96	0.75	619.29	8.04	0.04	0.000093	
	0.04286	111.61	7.37	104.23					
822.22	198.00	4389.15	12.95	0.75	617.90	8.05	0.04	0.000000	
	0.00000	111.59	7.37	104.21					
822.24	199.00	4389.15	12.95	0.74	610.75	8.05	0.04	0.000091	
	0.04201	111.58	7.37	104.21					
		72943.69							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4903

MAXIMUM DISCHARGE (CFS) = 2464.79 AT TIME = 113.86  
 MAXIMUM STAGE = 4395.74 AT TIME = 91.72

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	SURFACE AREA	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4374.40	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	1.00	4374.40	0.00	0.00	0.00	0.00	0.00	0.00	

HYCHAN.OUT									
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
	2.00	4374.40	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
	3.00	4374.40	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
	4.00	4374.40	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
	5.00	4381.12	6.72	1.37	55.07	440.18	0.09	0.000000	
320.96	0.000000	60.38	5.32			8.20		0.000000	
	6.00	4384.62	10.22	1.26	61.76	618.43	0.07	0.000000	
492.33	0.000000	69.24	7.11			6.04		0.000000	
	7.00	4385.43	11.03	0.45	63.05	247.80	0.02	0.000000	
550.32	0.000000	70.97	7.75			5.72		0.000000	
	8.00	4385.68	11.28	0.17	63.45	92.30	0.01	0.000000	
551.50	0.000000	71.50	7.71			5.62		0.000000	
	9.00	4385.68	11.28	0.06	63.44	33.51	0.00	0.000000	
541.54	0.000000	71.49	7.57			5.63		0.000000	
	10.00	4385.64	11.24	0.03	63.39	19.78	0.00	0.000000	
571.82	0.000000	71.42	8.01			5.64		0.000000	
	11.00	4385.59	11.19	-0.04	63.30	-22.26	0.00	0.000000	
517.21	0.000000	71.30	7.25			5.66		0.000000	
	12.00	4385.54	11.14	-0.05	63.22	-23.42	0.00	0.000000	
518.00	0.000000	71.20	7.28			5.68		0.000000	
	13.00	4385.45	11.05	-0.09	63.08	-46.58	0.00	0.000000	
520.00	0.000000	71.01	7.32			5.71		0.000000	
	14.00	4385.32	10.92	-0.10	62.88	-49.92	0.01	0.000000	
509.98	0.000000	70.74	7.21			5.76		0.000000	
	15.00	4385.23	10.83	-0.06	62.74	-29.40	0.00	0.000000	
497.21	0.000000	70.55	7.05			5.79		0.000000	
	16.00	4385.19	10.79	-0.03	62.68	-15.38	0.00	0.000000	
484.21	0.000000	70.47	6.87			5.81		0.000000	
	17.00	4385.17	10.77	-0.02	62.65	-6.71	0.00	0.000000	
445.00	0.000000	70.43	6.32			5.82		0.000000	
	18.00	4385.16	10.76	-0.01	62.64	-4.10	0.00	0.000000	
408.47	0.000000	70.41	5.80			5.82		0.000000	
	19.00	4385.17	10.77	0.00	62.64	0.00	0.00	0.000000	
0.00	0.000000	70.42	0.00			5.82		0.000000	
	20.00	4385.23	10.83	0.07	62.74	38.82	0.00	0.000000	
527.08	0.000000	70.56	7.47			5.79		0.000000	
	21.00	4385.36	10.96	0.10	62.94	55.63	0.01	0.000000	
534.51	0.000000	70.83	7.55			5.74		0.000000	
	22.00	4385.50	11.10	0.11		59.38	0.01		

HYCHAN.OUT									
545.05		71.11		7.66		63.16		5.69	0.000000
	0.00000	44210.55							
	23.00	4385.58	11.18		0.07	38.13		0.00	
554.05		71.30		7.77		63.29		5.66	0.000000
	0.00000	44305.36							
	24.00	4385.63	11.23		0.05	29.16		0.00	
567.01		71.40		7.94		63.37		5.64	0.000000
	0.00000	44358.82							
	25.00	4385.73	11.33		0.11	60.91		0.01	
562.24		71.60		7.85		63.52		5.61	0.000000
	0.00000	44464.77							
	26.00	4385.92	11.52		0.16	93.97		0.01	
572.90		71.99		7.96		63.81		5.54	0.000000
	0.00000	44664.52							
	27.00	4386.13	11.73		0.20	121.62		0.01	
596.89		72.41		8.24		64.12		5.47	0.000000
	0.00000	44884.21							
	28.00	4386.35	11.95		0.20	124.62		0.01	
610.40		72.86		8.38		64.45		5.39	0.000000
	0.00000	45117.79							
	29.00	4386.47	12.07		0.14	83.11		0.01	
613.78		73.09		8.40		64.62		5.35	0.000000
	0.00000	45237.25							
	30.00	4386.54	12.14		0.10	64.63		0.01	
622.02		73.23		8.49		64.73		5.33	0.000000
	0.00000	45307.95							
	31.00	4386.63	12.23		0.11	71.48		0.01	
626.11		73.40		8.53		64.85		5.30	0.000000
	0.00000	45397.76							
	32.00	4386.68	12.28		0.07	44.91		0.00	
619.34		73.51		8.43		64.93		5.29	0.000000
	0.00000	45452.41							
	33.00	4386.73	12.33		0.06	39.56		0.00	
622.56		73.60		8.46		65.00		5.27	0.000000
	0.00000	45498.66							
	34.00	4386.80	12.40		0.09	55.26		0.00	
636.06		73.75		8.62		65.11		5.25	0.000000
	0.00000	45577.54							
	35.00	4386.85	12.45		0.05	34.10		0.00	
630.24		73.84		8.54		65.18		5.23	0.000000
	0.00000	45624.36							
	36.00	4386.90	12.50		0.04	28.20		0.00	
658.98		73.94		8.91		65.25		5.22	0.000000
	0.00000	45675.51							
	37.00	4386.91	12.51		0.00	0.00		0.00	
0.00		73.95	0.00			65.26		5.22	0.000000
	0.00000	45683.39							
	38.00	4386.90	12.50		-0.04	-26.08		0.00	
603.37		73.93		8.16		65.24		5.22	0.000000
	0.00000	45670.49							
	39.00	4386.83	12.43		-0.07	-45.75		0.00	
618.16		73.81		8.38		65.15		5.24	0.000000
	0.00000	45607.87							
	40.00	4386.79	12.39		-0.05	-29.08		0.00	
599.92		73.72		8.14		65.09		5.25	0.000000
	0.00000	45564.86							
	41.00	4386.77	12.37		-0.03	-14.90		0.00	
573.54		73.68		7.78		65.06		5.26	0.000000
	0.00000	45541.07							
	42.00	4386.76	12.36		-0.01	-7.41		0.00	
513.49		73.65		6.97		65.04		5.26	0.000000
	0.00000	45528.41							
	43.00	4386.75	12.35		0.00	0.00		0.00	

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HYCHAN.OUT							
0.00	73.64	0.00	65.03	5.27	0.000000		
0.000000	45523.04						
44.00	4386.76	12.36	0.02	12.84	0.00		
720.99	73.66	9.79	65.05	5.26	0.000000		
0.000000	45534.21						
45.00	4386.80	12.40	0.07	45.20	0.00		
661.43	73.75	8.97	65.11	5.25	0.000000		
0.000000	45577.82						
46.00	4386.86	12.46	0.07	45.95	0.00		
665.56	73.86	9.01	65.19	5.23	0.000000		
0.000000	45635.91						
47.00	4386.96	12.56	0.11	71.84	0.01		
662.03	74.04	8.94	65.33	5.20	0.000000		
0.000000	45729.96						
48.00	4387.08	12.68	0.14	93.35	0.01		
664.85	74.27	8.95	65.50	5.17	0.000000		
0.000000	45849.90						
49.00	4387.21	12.81	0.16	105.94	0.01		
676.79	74.53	9.08	65.69	5.13	0.000000		
0.000000	45983.27						
50.00	4387.35	12.95	0.17	113.52	0.01		
686.83	74.79	9.18	65.88	5.09	0.000000		
0.000000	46118.61						
51.00	4387.50	13.10	0.17	119.38	0.01		
698.61	75.06	9.31	66.08	5.05	0.000000		
0.000000	46256.92						
52.00	4387.66	13.26	0.20	140.86	0.01		
711.43	75.36	9.44	66.30	5.00	0.000000		
0.000000	46412.30						
53.00	4387.83	13.43	0.21	153.25	0.01		
722.82	75.69	9.55	66.54	4.95	0.000000		
0.000000	46578.86						
54.00	4387.97	13.57	0.17	125.66	0.01		
737.39	75.93	9.71	66.72	4.92	0.000000		
0.000000	46706.71						
55.00	4388.15	13.75	0.23	171.30	0.01		
755.15	76.26	9.90	66.96	4.87	0.000000		
0.000000	46872.36						
56.00	4388.38	13.98	0.32	253.71	0.02		
790.23	76.69	10.30	67.28	4.81	0.000000		
0.000000	47093.82						
57.00	4388.84	14.44	0.56	464.59	0.03		
835.11	77.49	10.78	67.87	4.70	0.000000		
0.000000	47505.66						
58.00	4389.41	15.01	0.78	687.93	0.04		
883.37	78.47	11.26	68.59	4.57	0.000000		
0.000000	48010.59						
59.00	4389.96	15.56	0.94	877.00	0.04		
929.89	79.40	11.71	69.26	4.45	0.000000		
0.000000	48485.31						
60.00	4390.35	15.95	1.04	1006.70	0.05		
963.47	80.05	12.04	69.74	4.37	0.000000		
0.000000	48815.74						
61.00	4390.61	16.21	0.99	981.18	0.04		
986.65	80.48	12.26	70.05	4.32	0.000000		
0.000000	49034.84						
62.00	4390.79	16.39	0.93	936.64	0.04		
1002.72	80.76	12.42	70.26	4.29	0.000000		
0.000000	49180.17						
63.00	4390.88	16.48	0.93	936.73	0.04		
1010.79	80.91	12.49	70.36	4.27	0.000000		
0.000000	49253.91						
64.00	4390.97	16.57	0.86	876.21	0.04		

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				HYCHAN.OUT			
1017.53	81.05	12.55	70.47	4.25	0.000000		
0.000000	49325.87						
65.00	4391.08	16.68	0.66	668.53	0.03		
1020.47	81.22	12.56	70.59	4.23	0.000000		
0.000000	49413.21						
66.00	4391.19	16.79	0.45	457.74	0.02		
1023.29	81.39	12.57	70.72	4.21	0.000000		
0.000000	49501.48						
67.00	4391.28	16.88	0.29	301.58	0.01		
1025.79	81.54	12.58	70.82	4.20	0.000000		
0.000000	49575.06						
68.00	4391.37	16.97	0.12	125.33	0.01		
1015.90	81.68	12.44	70.93	4.18	0.000000		
0.000000	49650.41						
69.00	4391.55	17.15	0.08	85.37	0.00		
1062.88	81.96	12.97	71.13	4.15	0.000000		
0.000000	49788.89						
70.00	4391.74	17.34	0.00	0.00	0.00		
0.00	82.25	0.00	71.34	4.11	0.000000		
0.000000	49940.76						
71.00	4391.95	17.55	0.17	180.59	0.01		
1081.67	82.58	13.10	71.58	4.08	0.000000		
0.000000	50107.82						
72.00	4392.19	17.79	0.17	187.60	0.01		
1108.24	82.94	13.36	71.84	4.04	0.000000		
0.000000	50289.58						
73.00	4392.38	17.98	0.37	422.10	0.02		
1135.19	83.24	13.64	72.06	4.01	0.000000		
0.000000	50439.22						
74.00	4392.54	18.14	0.48	558.54	0.02		
1158.22	83.48	13.87	72.23	3.98	0.000000		
0.000000	50563.02						
75.00	4392.69	18.29	0.64	750.19	0.03		
1174.59	83.70	14.03	72.39	3.96	0.000000		
0.000000	50674.19						
76.00	4392.87	18.47	0.88	1054.78	0.04		
1194.69	84.00	14.22	72.59	3.93	0.000000		
0.000000	50809.85						
77.00	4393.03	18.63	1.07	1291.12	0.04		
1211.14	84.33	14.36	72.76	3.90	0.000000		
0.000000	50932.94						
78.00	4393.16	18.76	1.14	1394.02	0.05		
1223.20	84.58	14.46	72.89	3.89	0.000000		
0.000000	51025.91						
79.00	4393.41	19.01	1.48	1849.67	0.06		
1247.00	85.07	14.66	73.16	3.85	0.000000		
0.000000	51209.45						
80.00	4393.64	19.24	1.75	2214.32	0.07		
1268.28	85.55	14.83	73.40	3.81	0.000000		
0.000000	51383.13						
81.00	4393.94	19.54	1.99	2573.77	0.08		
1291.99	86.13	15.00	73.71	3.77	0.000000		
0.000000	51595.17						
82.00	4394.20	19.80	2.18	2867.66	0.09		
1314.44	86.67	15.17	73.98	3.74	0.000000		
0.000000	51786.25						
83.00	4394.50	20.10	2.38	3187.94	0.09		
1339.66	87.26	15.35	74.28	3.70	0.000000		
0.000000	51997.64						
84.00	4394.77	20.37	2.54	3457.94	0.10		
1363.09	87.80	15.52	74.56	3.66	0.000000		
0.000000	52188.83						
85.00	4394.98	20.58	2.69	3708.53	0.10		

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		HYCHAN.OUT					
1380.94	88.22	15.65	74.76	3.63	0.000000		
0.00000	52333.31						
86.00	4395.14	20.74	2.81	3913.82	0.11		
1395.20	88.55	15.76		74.92	3.61	0.000000	
0.00000	52446.54						
87.00	4395.27	20.87	2.88	4047.37	0.11		
1407.28	88.80	15.85		75.05	3.60	0.000000	
0.00000	52534.95						
88.00	4395.41	21.01	2.95	4187.10	0.11		
1420.52	89.08	15.95		75.18	3.58	0.000000	
0.00000	52628.68						
89.00	4395.56	21.16	3.07	4398.43	0.12		
1434.45	89.37	16.05		75.33	3.56	0.000000	
0.00000	52728.65						
90.00	4395.67	21.27	3.14	4536.92	0.12		
1445.08	89.59	16.13		75.43	3.55	0.000000	
0.00000	52803.87						
91.00	4395.70	21.30	3.14	4546.94	0.12		
1448.17	89.65	16.15		75.46	3.54	0.000000	
0.00000	52823.66						
92.00	4395.71	21.31	3.14	4546.37	0.12		
1449.93	89.69	16.17		75.48	3.54	0.000000	
0.00000	52836.44						
93.00	4395.65	21.25	3.06	4416.68	0.12		
1444.24	89.57	16.12		75.42	3.55	0.000000	
0.00000	52795.13						
94.00	4395.57	21.17	2.99	4300.10	0.11		
1436.58	89.40	16.07		75.34	3.56	0.000000	
0.00000	52739.77						
95.00	4395.49	21.09	2.95	4214.39	0.11		
1428.48	89.23	16.01		75.26	3.57	0.000000	
0.00000	52682.24						
96.00	4395.38	20.98	2.88	4080.87	0.11		
1418.15	89.02	15.93		75.15	3.58	0.000000	
0.00000	52608.20						
97.00	4395.25	20.85	2.78	3904.52	0.11		
1405.85	88.76	15.84		75.03	3.60	0.000000	
0.00000	52519.09						
98.00	4395.13	20.73	2.71	3779.56	0.10		
1394.82	88.52	15.76		74.91	3.61	0.000000	
0.00000	52436.66						
99.00	4394.98	20.58	2.59	3585.84	0.10		
1381.95	88.22	15.66		74.76	3.63	0.000000	
0.00000	52333.29						
100.00	4394.80	20.40	2.43	3319.17	0.09		
1366.42	87.86	15.55		74.58	3.66	0.000000	
0.00000	52208.05						
101.00	4394.63	20.23	2.31	3122.50	0.09		
1351.58	87.51	15.44		74.41	3.68	0.000000	
0.00000	52087.17						
102.00	4394.44	20.04	2.22	2969.03	0.09		
1335.47	87.13	15.33		74.22	3.70	0.000000	
0.00000	51952.14						
103.00	4394.15	19.75	2.12	2782.42	0.08		
1311.66	86.57	15.15		73.93	3.74	0.000000	
0.00000	51751.32						
104.00	4393.79	19.39	1.87	2397.10	0.07		
1282.37	85.84	14.94		73.55	3.79	0.000000	
0.00000	51488.40						
105.00	4393.34	18.94	1.23	1529.27	0.05		
1244.80	84.94	14.65		73.09	3.86	0.000000	
0.00000	51161.57						
106.00	4393.02	18.62	0.39	464.90	0.02		

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		HYCHAN.OUT					
1185.99	84.29	14.07	72.74	3.91	0.000000		
0.000000	50920.48						
107.00	4392.91	18.51	0.09	103.15	0.00		
1181.83	84.08	14.06	72.63	3.92	0.000000		
0.000000	50839.01						
108.00	4392.76	18.36	-0.13	-147.93	0.01		
1130.72	83.81	13.49	72.47	3.95	0.000000		
0.000000	50728.76						
109.00	4392.54	18.14	-0.48	-543.21	0.02		
1120.96	83.48	13.43	72.23	3.98	0.000000		
0.000000	50562.26						
110.00	4392.21	17.81	-0.98	-1068.61	0.04		
1094.10	82.98	13.18	71.87	4.03	0.000000		
0.000000	50311.16						
111.00	4391.91	17.51	-1.32	-1417.08	0.06		
1070.20	82.52	12.97	71.54	4.09	0.000000		
0.000000	50075.45						
112.00	4391.66	17.26	-1.52	-1589.95	0.06		
1046.17	82.14	12.74	71.26	4.13	0.000000		
0.000000	49882.59						
113.00	4391.49	17.09	-1.57	-1620.01	0.07		
1031.36	81.86	12.60	71.06	4.16	0.000000		
0.000000	49740.36						
114.00	4391.29	16.89	-1.62	-1640.78	0.07		
1013.65	81.55	12.43	70.83	4.19	0.000000		
0.000000	49581.86						
115.00	4391.07	16.67	-1.68	-1670.69	0.07		
994.16	81.20	12.24	70.58	4.23	0.000000		
0.000000	49405.47						
116.00	4390.97	16.57	-1.62	-1599.52	0.07		
985.47	81.05	12.16	70.47	4.25	0.000000		
0.000000	49328.16						
117.00	4390.92	16.52	-1.58	-1546.40	0.07		
981.52	80.97	12.12	70.41	4.26	0.000000		
0.000000	49288.04						
118.00	4390.80	16.40	-1.64	-1588.00	0.07		
969.33	80.77	12.00	70.27	4.28	0.000000		
0.000000	49186.50						
119.00	4390.70	16.30	-1.69	-1620.46	0.07		
960.68	80.61	11.92	70.15	4.30	0.000000		
0.000000	49102.82						
120.00	4390.64	16.24	-1.70	-1628.59	0.07		
955.38	80.51	11.87	70.08	4.32	0.000000		
0.000000	49054.12						
121.00	4390.62	16.22	-1.69	-1616.67	0.07		
953.97	80.49	11.85	70.06	4.32	0.000000		
0.000000	49040.19						
122.00	4390.58	16.18	-1.68	-1594.81	0.07		
950.36	80.43	11.82	70.02	4.33	0.000000		
0.000000	49010.59						
123.00	4390.49	16.09	-1.63	-1531.04	0.07		
941.79	80.28	11.73	69.91	4.34	0.000000		
0.000000	48933.76						
124.00	4390.39	15.99	-1.63	-1523.21	0.07		
934.02	80.12	11.66	69.79	4.36	0.000000		
0.000000	48851.93						
125.00	4390.32	15.92	-1.63	-1516.00	0.07		
927.86	79.99	11.60	69.70	4.38	0.000000		
0.000000	48788.05						
126.00	4390.22	15.82	-1.64	-1506.77	0.07		
919.01	79.83	11.51	69.58	4.40	0.000000		
0.000000	48703.39						
127.00	4390.16	15.76	-1.61	-1469.89	0.07		

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HYCHAN.OUT						
915.05	79.74	11.48	69.51	4.41	0.000000	
0.00000	48660.07					
128.00	4390.10	15.70	-1.59	-1445.01	0.07	
909.18	79.63	11.42	69.43	4.42	0.000000	
0.00000	48601.89					
129.00	4390.01	15.61	-1.59	-1429.72	0.07	
901.61	79.49	11.34	69.33	4.44	0.000000	
0.00000	48531.66					
130.00	4389.96	15.56	-1.55	-1386.04	0.07	
895.96	79.40	11.28	69.26	4.45	0.000000	
0.00000	48484.79					
131.00	4389.89	15.49	-1.53	-1358.43	0.07	
890.05	79.29	11.23	69.18	4.47	0.000000	
0.00000	48427.89					
132.00	4389.80	15.40	-1.52	-1345.59	0.07	
882.48	79.14	11.15	69.08	4.48	0.000000	
0.00000	48354.18					
133.00	4389.80	15.40	-1.45	-1272.89	0.06	
880.77	79.13	11.13	69.07	4.49	0.000000	
0.00000	48347.52					
134.00	4389.86	15.46	-1.32	-1173.80	0.06	
885.89	79.24	11.18	69.15	4.47	0.000000	
0.00000	48404.32					
135.00	4389.87	15.47	-1.28	-1134.80	0.06	
885.72	79.25	11.18	69.15	4.47	0.000000	
0.00000	48406.18					
136.00	4389.85	15.45	-1.25	-1106.99	0.06	
883.59	79.21	11.15	69.13	4.48	0.000000	
0.00000	48388.61					
137.00	4389.82	15.42	-1.22	-1079.29	0.05	
881.89	79.17	11.14	69.10	4.48	0.000000	
0.00000	48369.18					
138.00	4389.80	15.40	-1.20	-1052.92	0.05	
880.66	79.14	11.13	69.07	4.49	0.000000	
0.00000	48349.77					
139.00	4389.78	15.38	-1.17	-1030.35	0.05	
879.27	79.10	11.12	69.05	4.49	0.000000	
0.00000	48332.77					
140.00	4389.76	15.36	-1.15	-1010.21	0.05	
876.94	79.07	11.09	69.02	4.49	0.000000	
0.00000	48314.36					
141.00	4389.72	15.32	-1.15	-1005.14	0.05	
872.83	78.99	11.05	68.97	4.50	0.000000	
0.00000	48277.21					
142.00	4389.65	15.25	-1.16	-1009.58	0.05	
868.17	78.88	11.01	68.88	4.52	0.000000	
0.00000	48218.05					
143.00	4389.62	15.22	-1.15	-991.47	0.05	
865.48	78.83	10.98	68.84	4.52	0.000000	
0.00000	48190.93					
144.00	4389.59	15.19	-1.13	-972.17	0.05	
862.87	78.79	10.95	68.82	4.53	0.000000	
0.00000	48171.45					
145.00	4389.57	15.17	-1.10	-946.92	0.05	
860.34	78.75	10.93	68.79	4.53	0.000000	
0.00000	48151.11					
146.00	4389.53	15.13	-1.10	-943.14	0.05	
857.88	78.69	10.90	68.74	4.54	0.000000	
0.00000	48120.23					
147.00	4389.46	15.06	-1.12	-952.60	0.05	
851.87	78.57	10.84	68.65	4.56	0.000000	
0.00000	48058.20					
148.00	4389.43	15.03	-1.09	-925.96	0.05	

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HYCHAN.OUT						
848.76	78.50	10.81	68.61	4.57	0.000000	
0.00000	48026.26					
149.00	4389.40	15.00	-1.08	-912.45	0.05	
846.57	78.47	10.79	68.58	4.57	0.000000	
0.00000	48006.75					
150.00	4389.38	14.98	-1.05	-887.62	0.05	
845.00	78.43	10.77	68.55	4.58	0.000000	
0.00000	47986.49					
151.00	4389.37	14.97	-1.03	-871.77	0.05	
844.15	78.40	10.77	68.54	4.58	0.000000	
0.00000	47975.69					
152.00	4389.33	14.93	-1.02	-857.90	0.05	
840.60	78.35	10.73	68.49	4.59	0.000000	
0.00000	47945.14					
153.00	4389.27	14.87	-1.03	-864.87	0.05	
836.15	78.24	10.69	68.42	4.60	0.000000	
0.00000	47893.54					
154.00	4389.23	14.83	-1.02	-852.48	0.05	
832.66	78.17	10.65	68.37	4.61	0.000000	
0.00000	47855.61					
155.00	4389.20	14.80	-1.00	-829.35	0.05	
829.84	78.12	10.62	68.33	4.62	0.000000	
0.00000	47829.08					
156.00	4389.16	14.76	-1.00	-826.30	0.05	
825.48	78.05	10.58	68.27	4.63	0.000000	
0.00000	47792.50					
157.00	4389.13	14.73	-0.97	-798.41	0.04	
823.15	78.00	10.55	68.24	4.63	0.000000	
0.00000	47767.73					
158.00	4389.21	14.81	-0.89	-736.10	0.04	
830.58	78.14	10.63	68.34	4.61	0.000000	
0.00000	47838.81					
159.00	4389.24	14.84	-0.88	-731.81	0.04	
830.99	78.18	10.63	68.37	4.61	0.000000	
0.00000	47861.20					
160.00	4389.24	14.84	-0.87	-726.91	0.04	
832.87	78.19	10.65	68.38	4.61	0.000000	
0.00000	47867.01					
161.00	4389.24	14.84	-0.87	-725.63	0.04	
831.42	78.18	10.63	68.37	4.61	0.000000	
0.00000	47860.16					
162.00	4389.23	14.83	-0.86	-716.91	0.04	
831.96	78.18	10.64	68.37	4.61	0.000000	
0.00000	47858.18					
163.00	4389.23	14.83	-0.86	-717.32	0.04	
830.43	78.16	10.62	68.36	4.61	0.000000	
0.00000	47852.05					
164.00	4389.22	14.82	-0.85	-707.23	0.04	
830.95	78.16	10.63	68.35	4.61	0.000000	
0.00000	47848.10					
165.00	4389.22	14.82	-0.85	-708.47	0.04	
830.52	78.15	10.63	68.35	4.61	0.000000	
0.00000	47844.03					
166.00	4389.19	14.79	-0.87	-719.10	0.04	
829.08	78.11	10.61	68.32	4.62	0.000000	
0.00000	47823.26					
167.00	4389.13	14.73	-0.89	-731.37	0.04	
823.74	77.99	10.56	68.24	4.63	0.000000	
0.00000	47764.57					
168.00	4389.10	14.70	-0.89	-725.57	0.04	
819.16	77.94	10.51	68.20	4.64	0.000000	
0.00000	47739.27					
169.00	4389.09	14.69	-0.87	-715.45	0.04	

HYCHAN.OUT						
819.61	77.93	10.52	68.19	4.64	0.000000	
0.00000	47730.92					
170.00	4389.08	14.68	-0.87	-707.62	0.04	
817.79	77.91	10.50	68.17	4.64	0.000000	
0.00000	47721.45					
171.00	4389.08	14.68	-0.86	-705.28	0.04	
818.18	77.90	10.50	68.17	4.64	0.000000	
0.00000	47718.86					
172.00	4389.07	14.67	-0.85	-696.63	0.04	
818.03	77.90	10.50	68.16	4.65	0.000000	
0.00000	47714.79					
173.00	4389.06	14.66	-0.85	-692.05	0.04	
817.73	77.88	10.50	68.15	4.65	0.000000	
0.00000	47708.15					
174.00	4389.04	14.64	-0.86	-703.65	0.04	
815.61	77.84	10.48	68.12	4.65	0.000000	
0.00000	47684.56					
175.00	4388.97	14.57	-0.89	-717.50	0.04	
809.59	77.73	10.42	68.04	4.67	0.000000	
0.00000	47627.98					
176.00	4388.94	14.54	-0.88	-708.76	0.04	
806.17	77.68	10.38	68.00	4.68	0.000000	
0.00000	47601.65					
177.00	4388.93	14.53	-0.87	-697.76	0.04	
806.47	77.65	10.39	67.99	4.68	0.000000	
0.00000	47590.54					
178.00	4388.92	14.52	-0.86	-688.96	0.04	
805.32	77.64	10.37	67.98	4.68	0.000000	
0.00000	47583.50					
179.00	4388.92	14.52	-0.85	-681.48	0.04	
804.56	77.63	10.36	67.97	4.68	0.000000	
0.00000	47576.30					
180.00	4388.91	14.51	-0.84	-675.57	0.04	
803.85	77.62	10.36	67.96	4.68	0.000000	
0.00000	47571.50					
181.00	4388.95	14.55	-0.79	-640.04	0.04	
806.11	77.69	10.38	68.01	4.67	0.000000	
0.00000	47606.88					
182.00	4389.06	14.66	-0.74	-600.12	0.03	
815.93	77.88	10.48	68.15	4.65	0.000000	
0.00000	47707.91					
183.00	4389.14	14.74	-0.72	-592.24	0.03	
822.34	78.01	10.54	68.25	4.63	0.000000	
0.00000	47772.00					
184.00	4389.21	14.81	-0.69	-575.71	0.03	
829.38	78.13	10.62	68.33	4.62	0.000000	
0.00000	47834.03					
185.00	4389.24	14.84	-0.71	-590.27	0.03	
831.73	78.18	10.64	68.37	4.61	0.000000	
0.00000	47860.32					
186.00	4389.24	14.84	-0.72	-596.21	0.03	
831.88	78.19	10.64	68.38	4.61	0.000000	
0.00000	47867.89					
187.00	4389.25	14.85	-0.73	-604.28	0.03	
833.20	78.21	10.65	68.39	4.60	0.000000	
0.00000	47875.71					
188.00	4389.25	14.85	-0.73	-609.34	0.03	
832.47	78.21	10.64	68.39	4.60	0.000000	
0.00000	47875.32					
189.00	4389.26	14.86	-0.73	-608.05	0.03	
834.00	78.22	10.66	68.40	4.60	0.000000	
0.00000	47879.16					
190.00	4389.26	14.86	-0.74	-613.04	0.03	

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HYCHAN.OUT						
833.36	78.22	10.65	68.40	4.60	0.000000	
0.00000	47879.82					
191.00	4389.26	14.86	-0.73	-610.67	0.03	
833.28	78.21	10.65	68.40	4.60	0.000000	
0.00000	47877.44					
192.00	4389.24	14.84	-0.75	-628.17	0.03	
832.14	78.18	10.64	68.37	4.61	0.000000	
0.00000	47861.21					
193.00	4389.17	14.77	-0.78	-642.53	0.04	
826.83	78.07	10.59	68.29	4.62	0.000000	
0.00000	47805.40					
194.00	4389.15	14.75	-0.77	-636.42	0.04	
824.88	78.03	10.57	68.27	4.63	0.000000	
0.00000	47785.97					
195.00	4389.14	14.74	-0.76	-628.27	0.04	
822.89	78.01	10.55	68.25	4.63	0.000000	
0.00000	47772.36					
196.00	4389.14	14.74	-0.76	-623.89	0.03	
823.20	78.01	10.55	68.25	4.63	0.000000	
0.00000	47772.80					
197.00	4389.13	14.73	-0.75	-619.29	0.03	
822.32	77.99	10.54	68.23	4.63	0.000000	
0.00000	47764.25					
198.00	4389.13	14.73	-0.75	-617.90	0.03	
822.22	77.99	10.54	68.24	4.63	0.000000	
0.00000	47765.08					
199.00	4389.12	14.72	-0.74	-610.75	0.03	
822.24	77.98	10.54	68.23	4.63	0.000000	
0.00000	47759.95					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2341

MAXIMUM DISCHARGE (CFS) = 1923.50 AT TIME = 88.02  
 MAXIMUM STAGE = 4421.46 AT TIME = 88.02

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
STRESS	(HRS)	(FT)	AREA	(FT)	(FPS)	(CFS)		
(FT^2)	(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)			
0.00	0.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00					
1.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00					
2.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00					
3.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00					
4.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00					
5.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00					
6.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000		0.00	0.00					



HYCHAN.OUT							
0.00000	0.00						
7.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
8.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
9.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
10.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
11.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
12.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
13.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
14.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
15.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
16.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
17.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
18.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
19.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
20.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
21.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
22.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
23.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
24.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
25.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
26.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
27.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4413.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00000	0.00						
49.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
50.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
51.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
52.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
53.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
54.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
55.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
56.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
57.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
58.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
59.00	4413.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
60.00	4413.71	0.01	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
61.00	4414.00	0.30	0.46	6.63	0.15		0.000000
14.46	41.20	0.35	41.04	137.68			0.000000
0.00000	24626.01						
62.00	4414.27	0.57	1.30	24.30	0.30		0.000000
18.70	42.28	0.44	41.98	74.20			0.000000
0.00000	25188.11						
63.00	4414.44	0.74	1.55	38.45	0.32		0.000000
24.83	42.98	0.58	42.59	57.61			0.000000
0.00000	25552.41						
64.00	4414.62	0.92	1.75	54.22	0.32		0.000000
30.89	43.69	0.71	43.20	47.21			0.000000
0.00000	25921.55						
65.00	4414.72	1.02	1.87	64.29	0.33		0.000000
34.47	44.11	0.78	43.56	42.79			0.000000
0.00000	26138.01						
66.00	4414.97	1.27	2.11	91.99	0.33		0.000000
43.57	45.14	0.97	44.46	34.90			0.000000
0.00000	26674.75						
67.00	4415.40	1.70	2.49	146.76	0.34		0.000000
58.90	46.87	1.26	45.96	27.00			0.000000
0.00000	27574.07						
68.00	4415.83	2.13	2.84	211.86	0.34		0.000000
74.65	48.60	1.54	47.46	22.27			0.000000
0.00000	28475.41						
69.00	4416.25	2.55	3.15	284.51	0.35		0.000000
90.45	50.27	1.80	48.91	19.21			0.000000

		HYCHAN.OUT						
	0.00000	29348.22						
100.93	70.00	4416.52	2.82	3.33	336.52	0.35		
	0.00000	51.36	1.97		49.86	17.70	0.000000	
	71.00	29914.02						
105.65	4416.64	51.84	2.93	3.41	360.68	0.35		
	0.00000	30163.27	2.04		50.27	17.13	0.000000	
	72.00	4416.87	3.17	3.57	411.11	0.35		
115.21	52.79	30660.90	2.18		51.10	16.11	0.000000	
	0.00000	4417.23	3.53	3.79	492.80	0.36		
129.88	54.23	31409.69	2.39		52.35	14.84	0.000000	
	0.00000	4417.51	3.81	3.97	561.75	0.36		
141.66	55.36	31997.17	2.56		53.33	14.00	0.000000	
	0.00000	4417.78	4.08	4.13	633.70	0.36		
153.46	56.47	32574.62	2.72		54.29	13.30	0.000000	
	0.00000	4418.11	4.41	4.32	724.84	0.36		
167.84	57.79	33262.52	2.90		55.44	12.57	0.000000	
	0.00000	4418.46	4.76	4.51	828.65	0.36		
183.64	59.20	33997.25	3.10		56.66	11.90	0.000000	
	0.00000	4418.82	5.12	4.70	942.64	0.37		
200.36	60.66	34754.83	3.30		57.92	11.31	0.000000	
	0.00000	4419.15	5.45	4.88	1051.81	0.37		
215.72	61.97	35437.75	3.48		59.06	10.84	0.000000	
	0.00000	4419.53	5.83	5.07	1186.94	0.37		
234.13	63.50	36236.32	3.69		60.39	10.36	0.000000	
	0.00000	4419.97	6.27	5.29	1354.73	0.37		
256.21	65.30	37168.91	3.92		61.95	9.88	0.000000	
	0.00000	4420.40	6.70	5.44	1514.08	0.37		
278.56	67.02	38068.66	4.16		63.45	9.47	0.000000	
	0.00000	4420.73	7.03	5.52	1634.04	0.37		
296.27	68.34	38753.09	4.34		64.59	9.19	0.000000	
	0.00000	4420.92	7.22	5.56	1707.54	0.36		
307.04	69.12	39161.40	4.44		65.27	9.04	0.000000	
	0.00000	4421.08	7.38	5.60	1770.64	0.36		
316.16	69.78	39505.03	4.53		65.84	8.92	0.000000	
	0.00000	4421.23	7.53	5.63	1830.71	0.36		
325.04	70.39	39818.88	4.62		66.36	8.81	0.000000	
	0.00000	4421.35	7.65	5.66	1876.37	0.36		
331.63	70.85	40061.13	4.68		66.77	8.73	0.000000	
	0.00000	4421.44	7.74	5.68	1914.82	0.36		
337.22	71.24	40262.99	4.73		67.10	8.67	0.000000	
	0.00000	4421.46	7.76	5.68	1919.50	0.36		
337.95	71.29	40289.68	4.74		67.15	8.66	0.000000	
	0.00000	4421.44	7.74	5.68	1912.69	0.36		
336.80	71.22		4.73		67.09	8.67	0.000000	

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		HYCHAN.OUT						
	0.00000	40253.08						
333.17	91.00	4421.38	7.68	5.67	1887.59	0.36		
	0.00000	40123.43	4.69		66.87	8.71	0.000000	
327.35	92.00	4421.28	7.58	5.64	1847.82	0.36		
	0.00000	39913.78	4.64		66.52	8.78	0.000000	
322.58	93.00	4421.20	7.49	5.63	1814.81	0.36		
	0.00000	39739.45	4.59		66.23	8.84	0.000000	
316.75	94.00	4421.09	7.39	5.60	1774.28	0.36		
	0.00000	39521.30	4.54		65.87	8.91	0.000000	
310.06	95.00	4420.97	7.27	5.57	1728.23	0.36		
	0.00000	39271.29	4.47		65.45	9.00	0.000000	
303.60	96.00	4420.86	7.16	5.55	1683.70	0.37		
	0.00000	39026.04	4.41		65.04	9.09	0.000000	
297.47	97.00	4420.75	7.04	5.52	1641.99	0.37		
	0.00000	38794.24	4.35		64.66	9.18	0.000000	
292.80	98.00	4420.66	6.96	5.50	1610.11	0.37		
	0.00000	38614.82	4.30		64.36	9.25	0.000000	
286.77	99.00	4420.55	6.85	5.47	1569.34	0.37		
	0.00000	38381.68	4.24		63.97	9.34	0.000000	
273.03	100.00	4420.29	6.59	5.41	1476.02	0.37		
	0.00000	37837.89	4.10		63.06	9.57	0.000000	
253.73	101.00	4419.92	6.22	5.26	1334.98	0.37		
	0.00000	37054.00	3.90		61.76	9.93	0.000000	
238.20	102.00	4419.61	5.91	5.11	1216.75	0.37		
	0.00000	36400.80	3.73		60.67	10.27	0.000000	
224.73	103.00	4419.33	5.63	4.97	1116.62	0.37		
	0.00000	35821.11	3.58		59.70	10.61	0.000000	
212.30	104.00	4419.07	5.37	4.84	1026.66	0.37		
	0.00000	35278.68	3.44		58.80	10.95	0.000000	
201.09	105.00	4418.83	5.13	4.71	947.28	0.37		
	0.00000	34779.13	3.31		57.97	11.29	0.000000	
189.20	106.00	4418.58	4.88	4.57	865.44	0.37		
	0.00000	34241.39	3.17		57.07	11.70	0.000000	
177.45	107.00	4418.32	4.62	4.44	787.17	0.36		
	0.00000	33703.52	3.03		56.17	12.16	0.000000	
162.14	108.00	4417.97	4.27	4.24	687.43	0.36		
	0.00000	32974.25	2.83		54.96	12.86	0.000000	
146.15	109.00	4417.61	3.91	4.03	588.53	0.36		
	0.00000	32210.03	2.62		53.68	13.73	0.000000	
136.23	110.00	4417.38	3.68	3.89	529.29	0.36		
	0.00000	31719.72	2.48		52.87	14.38	0.000000	
125.97	111.00	4417.13	3.43	3.73	470.15	0.36		
		53.83	2.34		52.00	15.16	0.000000	

		HYCHAN.OUT					
	0.00000	31201.78					
116.76	112.00	4416.91	3.21	3.59	419.34	0.35	
	0.00000	52.94	2.21		51.23	15.97	0.000000
110.05	113.00	30735.08	3.04	3.48	383.36	0.35	
	0.00000	52.27	2.11		50.64	16.65	0.000000
103.13	114.00	30386.71	2.87	3.37	347.34	0.35	
	0.00000	51.57	2.00		50.04	17.45	0.000000
105.14	115.00	30022.57	2.92	3.40	357.81	0.35	
	0.00000	51.78	2.03		50.23	17.19	0.000000
99.73	116.00	30135.13	2.77	3.30	329.04	0.35	
	0.00000	51.17	1.95		49.69	17.95	0.000000
80.89	117.00	29814.21	2.29	2.96	239.71	0.34	
	0.00000	49.26	1.64		48.03	20.93	0.000000
72.73	118.00	28818.37	2.08	2.80	203.62	0.34	
	0.00000	48.38	1.50		47.27	22.75	0.000000
64.16	119.00	28363.80	1.85	2.61	167.76	0.34	
	0.00000	47.44	1.35		46.46	25.17	0.000000
54.95	120.00	27875.46	1.59	2.40	131.93	0.34	
	0.00000	46.42	1.18		45.57	28.65	0.000000
46.86	121.00	27340.36	1.37	2.20	103.20	0.33	
	0.00000	45.52	1.03		44.79	32.76	0.000000
42.28	122.00	26871.20	1.24	2.08	88.09	0.33	
	0.00000	45.00	0.94		44.34	35.74	0.000000
39.41	123.00	26605.11	1.16	2.01	79.09	0.33	
	0.00000	44.67	0.88		44.06	38.02	0.000000
36.45	124.00	26433.60	1.07	1.92	70.11	0.33	
	0.00000	44.33	0.82		43.76	40.76	0.000000
33.39	125.00	26254.42	0.99	1.83	61.14	0.33	
	0.00000	43.97	0.76		43.45	44.10	0.000000
30.16	126.00	26069.22	0.89	1.73	52.18	0.32	
	0.00000	43.60	0.69		43.12	48.34	0.000000
26.89	127.00	25873.24	0.80	1.62	43.63	0.32	
	0.00000	43.22	0.62		42.79	53.65	0.000000
25.00	128.00	25674.93	0.75	1.56	39.04	0.32	
	0.00000	43.01	0.58		42.61	57.08	0.000000
24.98	129.00	25567.66	0.75	1.56	39.00	0.32	
	0.00000	43.01	0.58		42.61	57.07	0.000000
24.99	130.00	25568.00	0.75	1.56	39.00	0.32	
	0.00000	43.01	0.58		42.61	57.06	0.000000
24.99	131.00	25568.40	0.75	1.56	39.00	0.32	
	0.00000	43.01	0.58		42.61	57.08	0.000000
25.02	132.00	25567.85	0.75	1.56	39.02	0.32	
	0.00000	43.01	0.58		42.61	57.14	0.000000

HYCHAN.OUT							
	0.00000	25565.96					
25.00	133.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.15		0.000000
	0.00000	25565.58					
25.01	134.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.17					
25.01	135.00	4414.45	0.75	1.56	39.01	0.32	
		43.01	0.58	42.61	57.14		0.000000
	0.00000	25565.99					
25.01	136.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.11					
25.02	137.00	4414.45	0.75	1.56	39.02	0.32	
		43.01	0.58	42.61	57.15		0.000000
	0.00000	25565.60					
25.00	138.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.43					
25.02	139.00	4414.45	0.75	1.56	39.01	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.10					
25.01	140.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.56					
25.01	141.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.21					
25.02	142.00	4414.45	0.75	1.56	39.02	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.30					
25.00	143.00	4414.45	0.75	1.56	38.98	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.28					
25.02	144.00	4414.45	0.75	1.56	39.01	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25564.98					
25.01	145.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.31					
25.01	146.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.18		0.000000
	0.00000	25564.75					
25.02	147.00	4414.45	0.75	1.56	39.02	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.46					
25.01	148.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.40					
25.02	149.00	4414.45	0.74	1.56	39.01	0.32	
		43.00	0.58	42.61	57.20		0.000000
	0.00000	25564.30					
25.01	150.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.18		0.000000
	0.00000	25564.71					
25.00	151.00	4414.44	0.74	1.56	38.99	0.32	
		43.00	0.58	42.61	57.21		0.000000
	0.00000	25564.06					
25.02	152.00	4414.45	0.75	1.56	39.02	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.10					
25.00	153.00	4414.44	0.74	1.56	38.99	0.32	
		43.00	0.58	42.61	57.20		0.000000



HYCHAN.OUT							
	0.00000	25564.23					
25.01	154.00	4414.44	0.74	1.56	39.01	0.32	
		43.00	0.58	42.61	57.21		0.000000
	0.00000	25563.96					
25.01	155.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.18		0.000000
	0.00000	25564.83					
25.00	156.00	4414.44	0.74	1.56	38.99	0.32	
		43.00	0.58	42.61	57.20		0.000000
	0.00000	25564.12					
25.02	157.00	4414.45	0.75	1.56	39.02	0.32	
		43.01	0.58	42.61	57.18		0.000000
	0.00000	25564.89					
25.00	158.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.19		0.000000
	0.00000	25564.57					
25.01	159.00	4414.44	0.74	1.56	39.00	0.32	
		43.00	0.58	42.61	57.21		0.000000
	0.00000	25563.91					
25.00	160.00	4414.44	0.74	1.56	39.01	0.32	
		43.00	0.58	42.61	57.20		0.000000
	0.00000	25564.22					
25.00	161.00	4414.45	0.74	1.56	38.98	0.32	
		43.00	0.58	42.61	57.20		0.000000
	0.00000	25564.24					
25.02	162.00	4414.44	0.74	1.56	39.02	0.32	
		43.00	0.58	42.61	57.21		0.000000
	0.00000	25564.10					
25.00	163.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.04					
25.00	164.00	4414.45	0.75	1.56	39.01	0.32	
		43.01	0.58	42.61	57.18		0.000000
	0.00000	25564.90					
24.99	165.00	4414.45	0.75	1.56	38.98	0.32	
		43.01	0.58	42.61	57.14		0.000000
	0.00000	25566.11					
25.01	166.00	4414.45	0.75	1.56	39.02	0.32	
		43.01	0.58	42.61	57.15		0.000000
	0.00000	25565.61					
24.99	167.00	4414.45	0.75	1.56	38.98	0.32	
		43.01	0.58	42.61	57.14		0.000000
	0.00000	25565.87					
25.01	168.00	4414.45	0.75	1.56	39.02	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.55					
24.99	169.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.14		0.000000
	0.00000	25565.86					
25.01	170.00	4414.45	0.75	1.56	39.02	0.32	
		43.01	0.58	42.61	57.18		0.000000
	0.00000	25564.96					
24.99	171.00	4414.45	0.75	1.56	38.98	0.32	
		43.01	0.58	42.61	57.18		0.000000
	0.00000	25564.84					
25.00	172.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.27					
24.99	173.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.16		0.000000
	0.00000	25565.43					
25.00	174.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.16		0.000000

HYCHAN.OUT							
	0.00000	25565.40					
25.01	175.00	4414.45	0.74	1.56	39.01	0.32	
		43.00	0.58	42.61	57.20		0.000000
	0.00000	25564.35					
25.00	176.00	4414.44	0.74	1.56	38.99	0.32	
		43.00	0.58	42.61	57.20		0.000000
	0.00000	25564.15					
25.02	177.00	4414.44	0.74	1.56	39.01	0.32	
		43.00	0.58	42.61	57.21		0.000000
	0.00000	25563.96					
25.00	178.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.19		0.000000
	0.00000	25564.64					
25.01	179.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.19		0.000000
	0.00000	25564.52					
25.01	180.00	4414.45	0.74	1.56	39.01	0.32	
		43.01	0.58	42.61	57.19		0.000000
	0.00000	25564.46					
25.00	181.00	4414.45	0.75	1.56	38.98	0.32	
		43.01	0.58	42.61	57.19		0.000000
	0.00000	25564.55					
25.02	182.00	4414.45	0.74	1.56	39.01	0.32	
		43.00	0.58	42.61	57.20		0.000000
	0.00000	25564.25					
25.00	183.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.18		0.000000
	0.00000	25564.78					
25.01	184.00	4414.45	0.74	1.56	39.00	0.32	
		43.00	0.58	42.61	57.20		0.000000
	0.00000	25564.24					
25.01	185.00	4414.45	0.74	1.56	39.00	0.32	
		43.01	0.58	42.61	57.19		0.000000
	0.00000	25564.50					
24.99	186.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.17					
25.00	187.00	4414.45	0.75	1.56	39.01	0.32	
		43.01	0.58	42.61	57.15		0.000000
	0.00000	25565.60					
24.99	188.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.19		0.000000
	0.00000	25564.65					
24.99	189.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.15		0.000000
	0.00000	25565.81					
25.00	190.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.03					
24.99	191.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.15		0.000000
	0.00000	25565.76					
25.00	192.00	4414.45	0.75	1.56	39.00	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.01					
24.99	193.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.14		0.000000
	0.00000	25565.96					
25.01	194.00	4414.45	0.75	1.56	39.01	0.32	
		43.01	0.58	42.61	57.17		0.000000
	0.00000	25565.13					
24.99	195.00	4414.45	0.75	1.56	38.99	0.32	
		43.01	0.58	42.61	57.15		0.000000

## HYCHAN.OUT

0.00000	25565.82						
196.00	4414.45	0.75	1.56	39.01	0.32		
25.00	43.01	0.58	42.61	57.16		0.000000	
0.00000	25565.31						
197.00	4414.45	0.75	1.56	38.98	0.32		
24.99	43.01	0.58	42.61	57.15		0.000000	
0.00000	25565.78						
198.00	4414.45	0.75	1.56	39.02	0.32		
25.01	43.01	0.58	42.61	57.15		0.000000	
0.00000	25565.73						
199.00	4414.45	0.75	1.56	38.98	0.32		
24.98	43.01	0.58	42.61	57.16		0.000000	
0.00000	25565.31						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2342

MAXIMUM DISCHARGE (CFS) = 1934.71 AT TIME = 88.03  
 MAXIMUM STAGE = 4418.34 AT TIME = 88.02

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
	(LB/FT^2)	(FT)	(FT)	(FT)	(FT)				
0.00	0.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	12.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4411.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	33.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	34.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	35.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	36.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	37.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	38.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	39.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	40.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	41.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	42.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	43.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	44.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	45.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	46.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	47.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	48.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	49.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	50.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	51.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	52.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	53.00	4411.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	

HYCHAN.OUT								
0.00	54.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4411.50	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4411.51	0.01	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	4411.52	0.02	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
13.63	61.00	4411.79	0.29	0.39	5.32	0.13		0.002581
	0.10151	21.62	0.63	21.52	75.13			
16.75	62.00	4412.15	0.65	1.40	23.50	0.31		0.002764
	0.12206	23.67	0.71	23.43	36.19			
21.88	63.00	4412.35	0.85	1.72	37.54	0.33		0.002776
	0.15277	24.81	0.88	24.50	28.86			
27.14	64.00	4412.54	1.04	1.98	53.78	0.34		0.002782
	0.18192	25.90	1.05	25.52	24.51			
30.12	65.00	4412.65	1.15	2.12	63.93	0.35		0.002791
	0.19800	26.49	1.14	26.07	22.76			
37.29	66.00	4412.89	1.39	2.43	90.46	0.36		0.002843
	0.23745	27.86	1.34	27.36	19.71			
49.78	67.00	4413.29	1.79	2.92	145.13	0.38		0.002888
	0.29761	30.14	1.65	29.49	16.47			
62.50	68.00	4413.67	2.17	3.36	210.21	0.40		0.002933
	0.35438	32.28	1.94	31.49	14.52			
75.22	69.00	4414.03	2.53	3.76	282.91	0.42		0.002974
	0.40675	34.31	2.19	33.39	13.22			
83.86	70.00	4414.26	2.76	4.01	336.00	0.43		0.002980
	0.43767	35.63	2.35	34.62	12.55			
87.66	71.00	4414.36	2.86	4.11	360.25	0.43		0.002991
	0.45201	36.20	2.42	35.15	12.30			
95.07	72.00	4414.55	3.05	4.31	409.56	0.43		0.003036
	0.48293	37.30	2.55	36.19	11.85			
106.79	73.00	4414.85	3.35	4.60	491.31	0.44		0.003070
	0.52492	38.98	2.74	37.75	11.27			
116.27	74.00	4415.08	3.58	4.82	560.82	0.45		0.003088
	0.55617	40.29	2.89	38.98	10.89			
		19879.41						

		HYCHAN.OUT					
125.55	75.00	4415.30	3.80	5.04	632.19	0.46	0.003126
	0.58960	41.54	3.02		40.15	10.56	
	76.00	20476.56					
136.96		4415.57	4.07	5.28	723.36	0.46	
	0.62680	43.04	3.18		41.55	10.22	0.003156
	77.00	21191.55					
149.40		4415.85	4.35	5.53	826.75	0.47	
	0.66761	44.64	3.35		43.05	9.90	0.003196
	78.00	21954.81					
162.67		4416.14	4.64	5.78	941.00	0.47	
	0.70776	46.29	3.51		44.60	9.61	0.003228
	79.00	22744.86					
174.82		4416.40	4.90	6.01	1050.23	0.48	
	0.74391	47.76	3.66		45.97	9.38	0.003257
	80.00	23444.79					
189.23		4416.70	5.20	6.26	1184.61	0.48	
	0.78856	49.46	3.83		47.56	9.15	0.003303
	81.00	24255.23					
206.48		4417.05	5.55	6.55	1352.27	0.49	
	0.83871	51.45	4.01		49.42	8.90	0.003349
	82.00	25204.11					
223.52		4417.41	5.91	6.76	1511.66	0.49	
	0.88711	53.46	4.18		51.30	8.69	0.003400
	83.00	26165.06					
236.87		4417.69	6.19	6.89	1632.47	0.49	
	0.92181	55.05	4.30		52.79	8.53	0.003433
	84.00	26923.17					
244.98		4417.85	6.35	6.97	1706.60	0.49	
	0.94227	56.00	4.37		53.68	8.45	0.003452
	85.00	27375.90					
251.77		4417.99	6.49	7.03	1769.49	0.49	
	0.96171	56.79	4.43		54.42	8.38	0.003476
	86.00	27752.17					
259.11		4418.13	6.63	7.09	1836.83	0.49	
	0.97511	57.58	4.50		55.16	8.32	0.003472
	87.00	28129.10					
264.00		4418.23	6.73	7.13	1882.68	0.48	
	0.98931	58.14	4.54		55.68	8.27	0.003491
	88.00	28396.09					
268.18		4418.32	6.82	7.17	1922.38	0.48	
	0.99821	58.61	4.58		56.13	8.23	0.003496
	89.00	28624.13					
268.60		4418.33	6.83	7.17	1926.36	0.48	
	1.00053	58.67	4.58		56.18	8.23	0.003503
	90.00	28653.09					
267.59		4418.31	6.81	7.16	1917.17	0.48	
	0.99774	58.57	4.57		56.08	8.24	0.003500
	91.00	28601.93					
264.82		4418.25	6.75	7.14	1891.02	0.48	
	0.98973	58.26	4.55		55.79	8.26	0.003489
	92.00	28453.95					
260.38		4418.16	6.66	7.10	1849.60	0.49	
	0.97737	57.75	4.51		55.32	8.30	0.003474
	93.00	28214.61					
256.77		4418.09	6.59	7.07	1815.82	0.49	
	0.96982	57.35	4.48		54.94	8.33	0.003471
	94.00	28019.44					
252.47		4418.00	6.50	7.03	1775.53	0.49	
	0.95588	56.85	4.44		54.47	8.37	0.003449
	95.00	27781.33					
247.44		4417.90	6.40	6.99	1729.06	0.49	
	0.94330	56.27	4.40		53.93	8.42	0.003437
		27504.57					



HYCHAN.OUT							
242.65	96.00	4417.80	6.30	6.94	1684.77	0.49	0.003417
	0.92871	55.70	4.36	53.40	8.47		
		27236.48					
238.03	97.00	4417.71	6.21	6.90	1642.64	0.49	0.003409
	0.91794	55.17	4.31	52.90	8.52		
		26979.11					
234.56	98.00	4417.63	6.13	6.87	1610.82	0.49	0.003396
	0.90768	54.75	4.28	52.51	8.56		
		26782.14					
230.08	99.00	4417.54	6.04	6.82	1570.23	0.49	0.003379
	0.89485	54.22	4.24	52.01	8.61		
		26525.70					
220.01	100.00	4417.32	5.82	6.72	1478.49	0.49	0.003322
	0.86075	52.98	4.15	50.86	8.74		
		25936.57					
205.16	101.00	4417.02	5.52	6.52	1336.94	0.49	0.003286
	0.82086	51.25	4.00	49.24	8.93		
		25110.95					
192.93	102.00	4416.77	5.27	6.31	1218.28	0.48	0.003263
	0.78783	49.86	3.87	47.93	9.09		
		24445.38					
182.34	103.00	4416.55	5.05	6.13	1118.15	0.48	0.003237
	0.75748	48.62	3.75	46.78	9.26		
		23855.41					
172.51	104.00	4416.35	4.85	5.96	1027.94	0.48	0.003214
	0.72903	47.45	3.64	45.69	9.43		
		23299.99					
163.65	105.00	4416.16	4.66	5.80	948.54	0.47	0.003190
	0.70235	46.38	3.53	44.68	9.59		
		22788.27					
154.28	106.00	4415.95	4.45	5.62	866.78	0.47	0.003162
	0.67323	45.22	3.41	43.59	9.79		
		22232.87					
144.98	107.00	4415.74	4.24	5.44	788.35	0.47	0.003138
	0.64472	44.04	3.29	42.49	10.01		
		21669.43					
133.02	108.00	4415.47	3.97	5.18	689.58	0.46	0.003086
	0.60332	42.46	3.13	41.02	10.34		
		20918.71					
120.18	109.00	4415.17	3.67	4.91	589.66	0.45	0.003067
	0.56398	40.78	2.95	39.44	10.75		
		20116.44					
112.28	110.00	4414.98	3.48	4.72	530.28	0.45	0.003044
	0.53715	39.71	2.83	38.44	11.05		
		19603.56					
104.15	111.00	4414.78	3.28	4.53	471.35	0.44	0.003015
	0.50815	38.57	2.70	37.37	11.40		
		19058.44					
96.73	112.00	4414.59	3.09	4.34	420.07	0.44	0.003001
	0.48278	37.51	2.58	36.39	11.77		
		18556.43					
91.37	113.00	4414.45	2.95	4.20	384.06	0.43	0.002983
	0.46299	36.73	2.49	35.65	12.07		
		18182.39					
85.85	114.00	4414.31	2.81	4.05	348.08	0.43	0.002963
	0.44202	35.91	2.39	34.88	12.42		
		17790.21					
87.08	115.00	4414.35	2.85	4.10	356.60	0.43	0.003006
	0.45218	36.13	2.41	35.09	12.33		
		17894.21					
83.45	116.00	4414.23	2.73	3.97	331.66	0.42	0.002914
	0.42780	35.47	2.35	34.48	12.62		
		17582.65					

HYCHAN.OUT							
68.06	117.00	4413.82	2.32	3.54	240.67	0.41	0.002900
	0.37165	33.14	2.05	32.29	13.92		
	118.00	16469.56					
61.47	0.34414	4413.63	2.13	3.33	204.48	0.40	0.002877
	119.00	32.07	1.92	31.29	14.69		
	0.34414	15959.15					
54.52	0.31391	4413.43	1.93	3.09	168.68	0.39	0.002852
	120.00	30.91	1.76	30.21	15.68		
	0.31391	15406.75					
47.04	0.27988	4413.20	1.70	2.83	132.93	0.38	0.002824
	121.00	29.62	1.59	29.00	17.08		
	0.27988	14790.61					
40.39	0.24900	4412.99	1.49	2.57	103.85	0.37	0.002809
	122.00	28.43	1.42	27.89	18.74		
	0.24900	14223.49					
36.60	0.23077	4412.86	1.36	2.42	88.42	0.36	0.002801
	123.00	27.73	1.32	27.23	19.97		
	0.23077	13885.98					
34.27	0.21889	4412.79	1.29	2.32	79.39	0.36	0.002793
	124.00	27.28	1.26	26.81	20.86		
	0.21889	13673.93					
31.85	0.20631	4412.70	1.20	2.21	70.43	0.36	0.002784
	125.00	26.82	1.19	26.38	21.92		
	0.20631	13452.28					
29.32	0.19290	4412.62	1.12	2.10	61.47	0.35	0.002775
	126.00	26.32	1.11	25.91	23.23		
	0.19290	13215.58					
26.65	0.17836	4412.52	1.02	1.97	52.53	0.34	0.002765
	127.00	25.79	1.03	25.41	24.88		
	0.17836	12960.44					
23.93	0.16318	4412.42	0.92	1.84	43.97	0.34	0.002757
	128.00	25.23	0.95	24.89	26.97		
	0.16318	12694.48					
22.29	0.15419	4412.36	0.86	1.75	39.10	0.33	0.002757
	129.00	24.87	0.90	24.56	28.54		
	0.15419	12525.84					
22.27	0.15434	4412.36	0.86	1.75	38.99	0.33	0.002762
	130.00	24.86	0.90	24.55	28.61		
	0.15434	12519.61					
22.28	0.15417	4412.36	0.86	1.75	39.01	0.33	0.002757
	131.00	24.86	0.90	24.55	28.60		
	0.15417	12520.44					
22.28	0.15446	4412.36	0.86	1.75	39.00	0.33	0.002763
	132.00	24.87	0.90	24.55	28.58		
	0.15446	12521.69					
22.29	0.15389	4412.36	0.86	1.75	39.01	0.33	0.002753
	133.00	24.89	0.90	24.57	28.47		
	0.15389	12533.18					
22.27	0.15439	4412.36	0.86	1.75	38.98	0.33	0.002764
	134.00	24.88	0.90	24.57	28.50		
	0.15439	12530.64					
22.31	0.15409	4412.36	0.86	1.75	39.05	0.33	0.002755
	135.00	24.89	0.90	24.58	28.47		
	0.15409	12533.60					
22.27	0.15408	4412.36	0.86	1.75	38.95	0.33	0.002759
	136.00	24.89	0.89	24.57	28.49		
	0.15408	12530.97					
22.30	0.15447	4412.36	0.86	1.75	39.03	0.33	0.002763
	137.00	24.89	0.90	24.57	28.48		
	0.15447	12531.97					
22.28	0.15386	4412.36	0.86	1.75	38.99	0.33	0.002754
		24.89	0.90	24.58	28.46		
		12534.44					

HYCHAN.OUT							
22.28	138.00	4412.36	0.86	1.75	38.99	0.33	0.002765
	0.15444	24.89	0.90	24.57	28.49		
		12531.08					
22.30	139.00	4412.36	0.86	1.75	39.04	0.33	0.002755
	0.15403	24.89	0.90	24.58	28.45		
		12535.31					
22.27	140.00	4412.36	0.86	1.75	38.95	0.33	0.002760
	0.15409	24.89	0.89	24.57	28.47		
		12533.01					
22.30	141.00	4412.36	0.86	1.75	39.04	0.33	0.002761
	0.15440	24.89	0.90	24.57	28.48		
		12532.19					
22.28	142.00	4412.36	0.86	1.75	38.98	0.33	0.002754
	0.15382	24.89	0.89	24.58	28.45		
		12535.17					
22.28	143.00	4412.36	0.86	1.75	39.00	0.33	0.002765
	0.15450	24.88	0.90	24.57	28.49		
		12530.73					
22.30	144.00	4412.36	0.86	1.75	39.03	0.33	0.002754
	0.15392	24.90	0.90	24.58	28.44		
		12536.12					
22.27	145.00	4412.36	0.86	1.75	38.96	0.33	0.002762
	0.15415	24.89	0.89	24.57	28.47		
		12533.18					
22.30	146.00	4412.36	0.86	1.75	39.04	0.33	0.002761
	0.15434	24.89	0.90	24.58	28.46		
		12534.01					
22.28	147.00	4412.36	0.86	1.75	38.98	0.33	0.002755
	0.15385	24.89	0.89	24.58	28.45		
		12535.24					
22.28	148.00	4412.36	0.86	1.75	39.00	0.33	0.002765
	0.15448	24.89	0.90	24.57	28.49		
		12531.26					
22.30	149.00	4412.36	0.86	1.75	39.03	0.33	0.002754
	0.15387	24.90	0.90	24.58	28.43		
		12536.78					
22.26	150.00	4412.36	0.86	1.75	38.96	0.33	0.002761
	0.15412	24.89	0.89	24.57	28.47		
		12533.16					
22.29	151.00	4412.36	0.86	1.75	39.04	0.33	0.002761
	0.15429	24.89	0.90	24.58	28.47		
		12533.60					
22.27	152.00	4412.36	0.86	1.75	38.98	0.33	0.002755
	0.15382	24.89	0.89	24.58	28.46		
		12534.68					
22.27	153.00	4412.36	0.86	1.75	39.00	0.33	0.002765
	0.15443	24.89	0.90	24.57	28.48		
		12532.03					
22.29	154.00	4412.36	0.86	1.75	39.03	0.33	0.002754
	0.15386	24.90	0.90	24.58	28.44		
		12536.57					
22.26	155.00	4412.36	0.86	1.75	38.95	0.33	0.002761
	0.15406	24.89	0.89	24.57	28.47		
		12532.81					
22.29	156.00	4412.36	0.86	1.75	39.04	0.33	0.002762
	0.15435	24.89	0.90	24.58	28.47		
		12533.53					
22.27	157.00	4412.36	0.86	1.75	38.99	0.33	0.002754
	0.15373	24.90	0.89	24.58	28.44		
		12536.28					
22.27	158.00	4412.36	0.86	1.75	38.99	0.33	0.002764
	0.15437	24.89	0.89	24.57	28.49		
		12531.52					

HYCHAN.OUT							
22.29	159.00	4412.36	0.86	1.75	39.04	0.33	0.002756
	0.15398	24.89	0.90	24.58	28.45		
		12535.39					
22.26	160.00	4412.36	0.86	1.75	38.96	0.33	0.002759
	0.15393	24.89	0.89	24.58	28.46		
		12533.95					
22.28	161.00	4412.36	0.86	1.75	39.02	0.33	0.002764
	0.15443	24.89	0.90	24.57	28.48		
		12532.38					
22.28	162.00	4412.36	0.86	1.75	39.01	0.33	0.002754
	0.15377	24.90	0.89	24.58	28.44		
		12536.43					
22.27	163.00	4412.36	0.86	1.75	38.97	0.33	0.002763
	0.15427	24.88	0.89	24.57	28.49		
		12530.84					
22.30	164.00	4412.36	0.86	1.75	39.04	0.33	0.002753
	0.15394	24.89	0.90	24.57	28.48		
		12531.79					
22.27	165.00	4412.36	0.86	1.75	38.96	0.33	0.002765
	0.15445	24.87	0.90	24.56	28.54		
		12526.01					
22.29	166.00	4412.36	0.86	1.75	39.02	0.33	0.002754
	0.15397	24.89	0.90	24.57	28.49		
		12531.42					
22.28	167.00	4412.36	0.86	1.75	38.99	0.33	0.002763
	0.15442	24.88	0.90	24.56	28.54		
		12526.32					
22.29	168.00	4412.36	0.86	1.75	39.01	0.33	0.002754
	0.15392	24.89	0.90	24.57	28.49		
		12531.63					
22.28	169.00	4412.36	0.86	1.75	39.00	0.33	0.002762
	0.15441	24.88	0.90	24.56	28.54		
		12526.43					
22.28	170.00	4412.36	0.86	1.75	39.00	0.33	0.002754
	0.15382	24.89	0.90	24.58	28.46		
		12533.73					
22.28	171.00	4412.36	0.86	1.75	38.99	0.33	0.002763
	0.15437	24.88	0.90	24.57	28.51		
		12528.85					
22.30	172.00	4412.36	0.86	1.75	39.02	0.33	0.002755
	0.15405	24.89	0.90	24.57	28.49		
		12531.01					
22.27	173.00	4412.36	0.86	1.75	38.97	0.33	0.002761
	0.15423	24.88	0.90	24.57	28.52		
		12528.67					
22.30	174.00	4412.36	0.86	1.75	39.04	0.33	0.002757
	0.15417	24.88	0.90	24.57	28.50		
		12530.11					
22.26	175.00	4412.36	0.86	1.75	38.96	0.33	0.002757
	0.15387	24.89	0.89	24.58	28.45		
		12535.10					
22.28	176.00	4412.36	0.86	1.75	39.02	0.33	0.002764
	0.15442	24.89	0.90	24.57	28.48		
		12532.45					
22.28	177.00	4412.36	0.86	1.75	39.01	0.33	0.002753
	0.15375	24.90	0.89	24.58	28.44		
		12536.66					
22.26	178.00	4412.36	0.86	1.75	38.96	0.33	0.002763
	0.15422	24.89	0.89	24.57	28.48		
		12532.24					
22.30	179.00	4412.36	0.86	1.75	39.05	0.33	0.002758
	0.15419	24.89	0.90	24.58	28.46		
		12533.71					

HYCHAN.OUT							
22.27	180.00	4412.36	0.86	1.75	38.97	0.33	
	0.15390	24.89	0.89	24.58	28.45		0.002757
		12534.77					
22.28	181.00	4412.36	0.86	1.75	39.01	0.33	
	0.15443	24.89	0.90	24.57	28.48		0.002764
		12532.32					
22.29	182.00	4412.36	0.86	1.75	39.02	0.33	
	0.15382	24.90	0.90	24.58	28.44		0.002753
		12536.36					
22.26	183.00	4412.36	0.86	1.75	38.96	0.33	
	0.15417	24.89	0.89	24.57	28.48		0.002762
		12532.48					
22.30	184.00	4412.36	0.86	1.75	39.05	0.33	
	0.15408	24.89	0.90	24.58	28.46		0.002757
		12533.84					
22.26	185.00	4412.36	0.86	1.75	38.96	0.33	
	0.15393	24.89	0.89	24.58	28.46		0.002758
		12534.07					
22.30	186.00	4412.36	0.86	1.75	39.04	0.33	
	0.15424	24.88	0.90	24.57	28.51		0.002758
		12528.94					
22.27	187.00	4412.36	0.86	1.75	38.96	0.33	
	0.15414	24.88	0.90	24.57	28.51		0.002760
		12528.73					
22.30	188.00	4412.36	0.86	1.75	39.05	0.33	
	0.15413	24.88	0.90	24.57	28.51		0.002756
		12529.04					
22.27	189.00	4412.36	0.86	1.75	38.95	0.33	
	0.15421	24.88	0.89	24.56	28.52		0.002761
		12527.81					
22.30	190.00	4412.36	0.86	1.75	39.04	0.33	
	0.15408	24.88	0.90	24.57	28.50		0.002755
		12529.79					
22.27	191.00	4412.36	0.86	1.75	38.96	0.33	
	0.15430	24.88	0.90	24.56	28.53		0.002762
		12527.01					
22.30	192.00	4412.36	0.86	1.75	39.04	0.33	
	0.15406	24.88	0.90	24.57	28.50		0.002755
		12530.37					
22.27	193.00	4412.36	0.86	1.75	38.96	0.33	
	0.15439	24.88	0.90	24.56	28.54		0.002764
		12526.49					
22.30	194.00	4412.36	0.86	1.75	39.03	0.33	
	0.15398	24.89	0.90	24.57	28.48		0.002754
		12532.09					
22.28	195.00	4412.36	0.86	1.75	38.98	0.33	
	0.15440	24.88	0.90	24.56	28.53		0.002763
		12527.08					
22.29	196.00	4412.36	0.86	1.75	39.02	0.33	
	0.15391	24.89	0.90	24.57	28.49		0.002753
		12531.38					
22.28	197.00	4412.36	0.86	1.75	38.98	0.33	
	0.15446	24.88	0.90	24.56	28.54		0.002764
		12526.21					
22.29	198.00	4412.36	0.86	1.75	39.01	0.33	
	0.15395	24.89	0.90	24.57	28.48		0.002755
		12531.78					
22.29	199.00	4412.36	0.86	1.75	39.00	0.33	
	0.15391	24.88	0.90	24.56	28.53		0.002753
		12526.74					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2343

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## HYCHAN.OUT

MAXIMUM DISCHARGE (CFS) = 1936.35 AT TIME = 88.03  
 MAXIMUM STAGE = 4415.63 AT TIME = 88.03

AREA	TIME WETTED PERIMETER BED SHEAR STRESS	ELEV. SURFACE AREA	THALWEG DEPTH HYDRAULIC RADIUS	VELOCITY TOP WIDTH	DISCHARGE WIDTH/DEPTH	FOUDE NO. ENERGY SLOPE	FLOW
(FT^2)	(HRS) (LB/FT^2)	(FT) (FT^2)	(FT) (FT)	(FPS) (FT)	(CFS)		
0.00	0.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4409.30	0.00	0.00	0.00	0.00	0.000000

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HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4409.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4409.30	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4409.30	0.00	0.00	0.00	0.00
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4409.30	0.00	0.00	0.00	0.00

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	4409.31	0.01	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
13.05	61.00	4409.43	0.13	0.13	1.66	0.06	0.002871
	0.06596	17678.39	0.37	35.36	277.47		
19.35	62.00	4409.84	0.54	1.26	24.34	0.30	0.002870
	0.09402	18256.48	0.52	36.51	67.57		
24.20	63.00	4409.98	0.68	1.51	36.47	0.32	0.002924
	0.11817	18458.87	0.65	36.92	53.90		
30.46	64.00	4410.14	0.84	1.75	53.25	0.34	0.002922
	0.14652	18682.20	0.80	37.36	44.25		
33.93	65.00	4410.23	0.93	1.87	63.49	0.34	0.002927
	0.16220	18804.77	0.89	37.61	40.35		
41.71	66.00	4410.43	1.13	2.13	88.71	0.35	0.002963
	0.19828	19079.70	1.07	38.16	33.82		
56.03	67.00	4410.78	1.48	2.56	143.22	0.37	0.002966
	0.25852	19574.56	1.40	39.15	26.42		
70.70	68.00	4411.13	1.83	2.95	208.26	0.38	0.002964
	0.31634	20068.36	1.71	40.14	21.88		
85.22	69.00	4411.48	2.18	3.30	281.04	0.39	0.002958
	0.37010	20546.47	2.00	41.09	18.88		
95.10	70.00	4411.71	2.41	3.53	335.34	0.40	0.002950
	0.40431	20870.47	2.20	41.74	17.34		
99.36	71.00	4411.81	2.51	3.62	359.74	0.40	0.002949
	0.41898	21007.81	2.28	42.02	16.77		
107.55	72.00	4411.99	2.69	3.79	407.86	0.41	0.002947
	0.44677	21264.23	2.43	42.53	15.82		
120.60	73.00	4412.28	2.98	4.06	489.66	0.41	0.002940
	0.48855	21673.21	2.66	43.35	14.54		
131.11	74.00	4412.51	3.21	4.27	559.74	0.42	0.002932
	0.52048	21998.72	2.85	44.00	13.69		
141.31	75.00	4412.73	3.43	4.46	630.55	0.42	0.002923
	0.55022	22307.44	3.02	44.61	12.99		
153.80	76.00	4413.00	3.70	4.69	721.75	0.43	0.002913
	0.58519	22681.46	3.22	45.36	12.26		
167.22	77.00	4413.28	3.98	4.93	824.76	0.44	0.002905
	0.62197	23076.52	3.43	46.15	11.59		
181.50	78.00	4413.58	4.28	5.17	939.25	0.44	0.002893
	0.65850	23490.57	3.65	46.98	10.98		
194.54	79.00	4413.84	4.54	5.39	1048.56	0.45	0.002881
	0.69006	23862.32	3.84	47.72	10.50		
80.00	4414.15		4.85	5.64	1182.23	0.45	

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		HYCHAN.OUT					
209.74	51.73	4.05	48.58	10.02	0.002868		
0.72574	24290.55						
81.00	4414.51	5.21	5.92	1349.87	0.46		
227.86	52.96	4.30	49.58	9.52	0.002861		
0.76802	24789.55						
82.00	4414.83	5.53	6.17	1509.68	0.46		
244.50	54.08	4.52	50.49	9.13	0.002885		
0.81402	25243.92						
83.00	4415.07	5.77	6.35	1631.21	0.47		
256.84	54.90	4.68	51.16	8.87	0.002899		
0.84619	25578.56						
84.00	4415.21	5.91	6.46	1705.88	0.47		
264.26	55.39	4.77	51.56	8.72	0.002907		
0.86535	25777.50						
85.00	4415.33	6.03	6.54	1768.57	0.47		
270.37	55.80	4.85	51.88	8.60	0.002918		
0.88236	25941.81						
86.00	4415.46	6.16	6.63	1840.72	0.47		
277.47	56.25	4.93	52.25	8.48	0.002911		
0.89614	26126.02						
87.00	4415.54	6.24	6.69	1886.58	0.47		
281.80	56.53	4.98	52.48	8.41	0.002919		
0.90794	26240.63						
88.00	4415.61	6.31	6.75	1926.29	0.47		
285.49	56.77	5.03	52.67	8.34	0.002929		
0.91899	26337.49						
89.00	4415.62	6.32	6.75	1929.28	0.47		
285.73	56.79	5.03	52.69	8.34	0.002934		
0.92106	26344.41						
90.00	4415.60	6.30	6.74	1919.39	0.47		
284.80	56.73	5.02	52.64	8.36	0.002926		
0.91675	26320.13						
91.00	4415.55	6.25	6.70	1892.91	0.47		
282.35	56.57	4.99	52.51	8.40	0.002922		
0.91014	26255.03						
92.00	4415.48	6.18	6.65	1850.70	0.47		
278.36	56.31	4.94	52.30	8.46	0.002915		
0.89920	26150.27						
93.00	4415.42	6.12	6.60	1816.50	0.47		
275.08	56.10	4.90	52.13	8.52	0.002912		
0.89094	26064.27						
94.00	4415.34	6.04	6.55	1776.45	0.47		
271.27	55.85	4.86	51.92	8.59	0.002900		
0.87888	25961.91						
95.00	4415.26	5.96	6.49	1729.69	0.47		
266.71	55.55	4.80	51.68	8.67	0.002896		
0.86768	25840.53						
96.00	4415.17	5.87	6.42	1685.60	0.47		
262.41	55.26	4.75	51.45	8.76	0.002885		
0.85489	25724.31						
97.00	4415.09	5.79	6.36	1643.13	0.47		
258.18	54.98	4.70	51.22	8.84	0.002882		
0.84459	25611.32						
98.00	4415.03	5.73	6.32	1611.37	0.47		
255.02	54.77	4.66	51.05	8.91	0.002875		
0.83536	25525.91						
99.00	4414.95	5.65	6.26	1570.94	0.46		
250.96	54.50	4.60	50.83	8.99	0.002865		
0.82332	25415.64						
100.00	4414.77	5.47	6.12	1480.50	0.46		
241.89	53.88	4.49	50.33	9.19	0.002840		
0.79554	25164.39						
101.00	4414.49	5.19	5.90	1338.89	0.46		

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		HYCHAN.OUT					
227.09	52.89	4.29	49.52	9.55	0.002851		
0.76396	24760.74						
102.00	4414.23	4.93	5.69	1219.84	0.45		
214.20	52.01	4.12	48.81	9.89	0.002862		
0.73544	24406.45						
103.00	4414.01	4.71	5.52	1119.71	0.45		
203.00	51.24	3.96	48.19	10.23	0.002870		
0.70946	24093.13						
104.00	4413.80	4.50	5.35	1029.24	0.44		
192.50	50.51	3.81	47.59	10.58	0.002880		
0.68489	23796.98						
105.00	4413.60	4.30	5.19	949.84	0.44		
183.02	49.84	3.67	47.05	10.93	0.002887		
0.66140	23525.63						
106.00	4413.40	4.10	5.02	868.17	0.44		
173.00	49.13	3.52	46.47	11.34	0.002892		
0.63549	23235.85						
107.00	4413.19	3.89	4.84	789.62	0.43		
162.98	48.41	3.37	45.89	11.80	0.002899		
0.60909	22943.97						
108.00	4412.91	3.61	4.61	691.88	0.43		
150.15	47.46	3.16	45.12	12.49	0.002905		
0.57338	22558.77						
109.00	4412.61	3.31	4.35	590.96	0.42		
135.88	46.42	2.93	44.27	13.37	0.002919		
0.53328	22134.74						
110.00	4412.42	3.12	4.18	531.39	0.42		
127.10	45.76	2.78	43.73	14.02	0.002926		
0.50722	21867.30						
111.00	4412.22	2.92	4.00	472.66	0.41		
118.12	45.07	2.62	43.18	14.78	0.002929		
0.47905	21588.66						
112.00	4412.04	2.74	3.83	420.90	0.41		
109.79	44.44	2.47	42.66	15.59	0.002934		
0.45233	21330.04						
113.00	4411.90	2.60	3.71	384.87	0.41		
103.81	43.97	2.36	42.28	16.26	0.002939		
0.43290	21140.84						
114.00	4411.76	2.46	3.57	348.91	0.40		
97.62	43.48	2.25	41.89	17.03	0.002941		
0.41197	20943.67						
115.00	4411.79	2.49	3.60	355.31	0.40		
98.65	43.57	2.26	41.96	16.88	0.002951		
0.41696	20980.65						
116.00	4411.69	2.39	3.51	334.57	0.40		
95.33	43.25	2.20	41.70	17.43	0.002923		
0.40200	20850.16						
117.00	4411.29	1.99	3.11	241.80	0.39		
77.67	41.88	1.85	40.58	20.35	0.002941		
0.34043	20291.37						
118.00	4411.12	1.82	2.93	205.51	0.38		
70.17	41.26	1.70	40.08	22.07	0.002939		
0.31190	20042.18						
119.00	4410.92	1.62	2.73	169.78	0.38		
62.28	40.60	1.53	39.55	24.35	0.002936		
0.28098	19773.34						
120.00	4410.71	1.41	2.49	134.12	0.37		
53.76	39.88	1.35	38.96	27.56	0.002928		
0.24636	19479.38						
121.00	4410.53	1.23	2.27	104.62	0.36		
46.07	39.23	1.17	38.44	31.33	0.002926		
0.21442	19217.68						
122.00	4410.42	1.12	2.13	88.79	0.36		

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HYCHAN.OUT						
41.63	0.19554	38.86	1.07	38.14	34.04	0.002925
123.00		19068.44				
38.96	0.18375	4410.35	1.05	2.05	79.76	0.35
124.00		38.63	1.01	37.95	36.02	0.002920
36.19	0.17151	18974.82	0.98	1.96	70.80	0.35
125.00		4410.28	0.94	37.75	38.40	0.002916
33.30	0.15848	38.39	0.91	1.86	61.87	0.34
126.00		18876.55	0.87	37.55	41.28	0.002909
30.25	0.14458	4410.21	0.83	1.75	52.95	0.34
127.00		38.14	0.80	37.33	44.89	0.002901
27.13	0.13033	18664.07	0.75	1.64	44.37	0.33
128.00		4410.13	0.72	37.10	49.36	0.002894
25.17	0.12143	37.59	0.71	1.55	39.13	0.33
129.00		18552.33	0.67	36.98	52.38	0.002894
25.15	0.12145	4410.01	0.71	1.55	39.01	0.33
130.00		37.43	0.67	36.98	52.35	0.002897
25.13	0.12131	18488.37	0.71	1.55	38.97	0.33
131.00		4410.01	0.67	36.98	52.32	0.002896
25.17	0.12135	37.44	0.71	1.55	39.04	0.33
132.00		18488.83	0.67	36.98	52.36	0.002892
25.09	0.12126	4410.00	0.70	1.55	38.94	0.33
133.00		37.43	0.67	36.97	52.48	0.002899
25.15	0.12177	18486.28	0.70	1.55	39.06	0.33
134.00		4410.00	0.67	36.97	52.52	0.002905
25.12	0.12078	37.43	0.70	1.55	38.98	0.33
135.00		18485.56	0.67	36.97	52.45	0.002885
25.11	0.12183	4410.00	0.70	1.55	38.98	0.33
136.00		37.43	0.67	36.97	52.55	0.002910
25.15	0.12112	18485.02	0.70	1.55	39.05	0.33
137.00		4410.00	0.67	36.97	52.46	0.002889
25.09	0.12140	18486.79	0.70	1.55	38.93	0.33
138.00		4410.00	0.67	36.97	52.54	0.002902
25.15	0.12168	37.43	0.70	1.55	39.07	0.33
139.00		18485.13	0.67	36.97	52.51	0.002901
25.12	0.12087	4410.00	0.70	1.55	38.97	0.33
140.00		37.43	0.67	36.97	52.49	0.002887
25.12	0.12191	18486.07	0.70	1.55	38.99	0.33
141.00		4410.00	0.67	36.97	52.59	0.002910
25.15	0.12097	37.42	0.71	1.55	39.04	0.33
142.00		18484.13	0.67	36.97	52.44	0.002886
25.09	0.12155	4410.00	0.70	1.55	38.93	0.33
143.00		37.42	0.67	36.97	52.58	0.002905
		18484.38	0.70	1.55	39.07	0.33

		HYCHAN.OUT				
25.16	0.12152	37.43	0.67	36.97	52.49	0.002897
	144.00	4410.00	0.70	1.55	38.96	0.33
25.11	0.12093	37.43	0.67	36.97	52.53	0.002889
	145.00	4410.00	0.70	1.55	39.01	0.33
25.13	0.12190	37.42	0.67	36.97	52.60	0.002909
	146.00	4410.00	0.70	1.55	39.03	0.33
25.15	0.12097	37.43	0.67	36.97	52.49	0.002886
	147.00	4410.00	0.70	1.55	38.94	0.33
25.10	0.12159	37.42	0.67	36.97	52.58	0.002906
	148.00	4410.00	0.70	1.55	39.07	0.33
25.16	0.12147	37.43	0.67	36.97	52.49	0.002896
	149.00	4410.00	0.70	1.55	38.95	0.33
25.11	0.12099	37.43	0.67	36.97	52.54	0.002890
	150.00	4410.00	0.70	1.55	39.01	0.33
25.13	0.12190	37.42	0.67	36.97	52.61	0.002909
	151.00	4410.00	0.70	1.55	39.03	0.33
25.14	0.12097	37.43	0.67	36.97	52.50	0.002886
	152.00	4410.00	0.70	1.55	38.94	0.33
25.09	0.12154	37.42	0.67	36.97	52.58	0.002905
	153.00	4410.00	0.70	1.55	39.07	0.33
25.15	0.12153	37.43	0.67	36.97	52.54	0.002898
	154.00	4410.00	0.70	1.55	38.95	0.33
25.10	0.12087	37.43	0.67	36.97	52.56	0.002888
	155.00	4410.00	0.70	1.55	39.00	0.33
25.12	0.12191	37.42	0.67	36.97	52.62	0.002911
	156.00	4410.00	0.70	1.55	39.04	0.33
25.14	0.12101	37.43	0.67	36.97	52.50	0.002887
	157.00	4410.00	0.70	1.55	38.93	0.33
25.09	0.12144	37.42	0.67	36.97	52.61	0.002903
	158.00	4410.00	0.70	1.55	39.07	0.33
25.15	0.12165	37.43	0.67	36.97	52.55	0.002901
	159.00	4410.00	0.70	1.55	38.97	0.33
25.11	0.12081	37.43	0.67	36.97	52.53	0.002886
	160.00	4410.00	0.70	1.55	38.98	0.33
25.11	0.12181	37.42	0.67	36.97	52.63	0.002909
	161.00	4410.00	0.70	1.55	39.05	0.33
25.15	0.12120	37.43	0.67	36.97	52.51	0.002891
	162.00	4410.00	0.70	1.55	38.93	0.33
25.09	0.12118	37.42	0.67	36.97	52.59	0.002897
	163.00	4410.00	0.70	1.55	39.04	0.33
25.15	0.12175	37.43	0.67	36.97	52.55	0.002904
	164.00	4410.00	0.71	1.55	38.97	0.33

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		HYCHAN.OUT					
25.13	0.12113	37.43	0.67	36.97	52.44	0.002891	
	165.00	4410.00	0.70	1.55	39.04	0.33	
25.16	0.12161	37.43	0.67	36.97	52.46	0.002899	
	166.00	4410.00	0.70	1.55	38.95	0.33	
25.12	0.12132	37.43	0.67	36.97	52.45	0.002897	
	167.00	4410.00	0.71	1.55	39.05	0.33	
25.17	0.12147	37.43	0.67	36.97	52.43	0.002895	
	168.00	4410.00	0.70	1.55	38.94	0.33	
25.12	0.12140	37.43	0.67	36.97	52.47	0.002899	
	169.00	4410.01	0.71	1.55	39.06	0.33	
25.18	0.12137	37.43	0.67	36.98	52.41	0.002892	
	170.00	4410.00	0.70	1.55	38.94	0.33	
25.10	0.12148	37.43	0.67	36.97	52.54	0.002902	
	171.00	4410.00	0.70	1.55	39.06	0.33	
25.17	0.12163	37.43	0.67	36.97	52.48	0.002899	
	172.00	4410.00	0.71	1.55	38.96	0.33	
25.13	0.12105	37.43	0.67	36.97	52.44	0.002890	
	173.00	4410.00	0.70	1.55	39.02	0.33	
25.15	0.12186	37.43	0.67	36.97	52.50	0.002906	
	174.00	4410.01	0.71	1.55	39.01	0.33	
25.15	0.12092	37.43	0.67	36.98	52.40	0.002884	
	175.00	4410.00	0.70	1.55	38.97	0.33	
25.10	0.12176	37.42	0.67	36.97	52.64	0.002909	
	176.00	4410.00	0.70	1.55	39.06	0.33	
25.15	0.12128	37.43	0.67	36.97	52.51	0.002892	
	177.00	4410.00	0.70	1.55	38.94	0.33	
25.09	0.12109	37.42	0.67	36.97	52.59	0.002895	
	178.00	4410.00	0.70	1.55	39.04	0.33	
25.13	0.12187	37.42	0.67	36.97	52.60	0.002908	
	179.00	4410.00	0.70	1.55	39.01	0.33	
25.13	0.12084	37.43	0.67	36.97	52.48	0.002885	
	180.00	4410.00	0.70	1.55	38.96	0.33	
25.10	0.12168	37.42	0.67	36.97	52.62	0.002907	
	181.00	4410.00	0.70	1.55	39.06	0.33	
25.15	0.12139	37.43	0.67	36.97	52.52	0.002895	
	182.00	4410.00	0.70	1.55	38.94	0.33	
25.10	0.12101	37.43	0.67	36.97	52.56	0.002892	
	183.00	4410.00	0.70	1.55	39.02	0.33	
25.13	0.12189	37.42	0.67	36.97	52.60	0.002909	
	184.00	4410.00	0.70	1.55	39.01	0.33	
25.13	0.12087	37.43	0.67	36.97	52.49	0.002885	
	185.00	4410.00	0.70	1.55	38.97	0.33	

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HYCHAN.OUT						
25.10	0.12171	37.42	0.67	36.97	52.63	0.002908
	186.00	18483.43				
25.17	0.12105	4410.01	0.71	1.55	39.03	0.33
	187.00	37.43	0.67	36.98	52.40	0.002885
	187.00	18487.81				
25.13	0.12177	4410.00	0.70	1.55	38.98	0.33
	188.00	37.43	0.67	36.97	52.50	0.002907
	188.00	18485.91				
25.15	0.12095	4410.01	0.71	1.55	39.01	0.33
	189.00	37.43	0.67	36.98	52.39	0.002885
	189.00	18488.17				
25.14	0.12178	4410.00	0.70	1.55	39.00	0.33
	190.00	37.43	0.67	36.97	52.50	0.002906
	190.00	18485.90				
25.14	0.12109	4410.01	0.71	1.55	38.99	0.33
	191.00	37.43	0.67	36.98	52.41	0.002889
	191.00	18487.69				
25.15	0.12180	4410.00	0.70	1.55	39.01	0.33
	192.00	37.43	0.67	36.97	52.48	0.002905
	192.00	18486.39				
25.14	0.12111	4410.01	0.71	1.55	38.98	0.33
	193.00	37.43	0.67	36.97	52.42	0.002890
	193.00	18487.48				
25.16	0.12170	4410.00	0.70	1.55	39.03	0.33
	194.00	37.43	0.67	36.97	52.46	0.002902
	194.00	18486.77				
25.13	0.12122	4410.00	0.70	1.55	38.96	0.33
	195.00	37.43	0.67	36.97	52.45	0.002893
	195.00	18486.82				
25.17	0.12168	4410.00	0.70	1.55	39.04	0.33
	196.00	37.43	0.67	36.97	52.45	0.002900
	196.00	18486.86				
25.12	0.12127	4410.00	0.70	1.55	38.95	0.33
	197.00	37.43	0.67	36.97	52.45	0.002896
	197.00	18486.87				
25.18	0.12151	4410.00	0.71	1.55	39.06	0.33
	198.00	37.43	0.67	36.97	52.43	0.002895
	198.00	18487.31				
25.12	0.12144	4410.00	0.70	1.55	38.94	0.33
	199.00	37.43	0.67	36.97	52.48	0.002900
	199.00	18486.36				
25.18	0.12136	4410.01	0.71	1.55	39.06	0.33
		37.43	0.67	36.98	52.41	0.002891
		18487.80				

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2344

MAXIMUM DISCHARGE (CFS) = 1935.99 AT TIME = 88.02  
 MAXIMUM STAGE = 4413.96 AT TIME = 87.98

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FOUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)			
0.00	0.00	4407.30	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4407.30	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00000	0.00						
2.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
3.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
4.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
5.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
6.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
7.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
8.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
9.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
10.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
11.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
12.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
13.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
14.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
15.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
16.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
17.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
18.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
19.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
20.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
21.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00						
22.00	4407.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT

	0.00000	0.00					
0.00	23.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	24.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	25.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	26.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	27.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	28.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	29.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	30.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	31.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	32.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	33.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	34.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	35.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	36.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	37.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	38.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	39.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	40.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	41.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	42.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	43.00	4407.30	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4407.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	4407.31	0.01	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	61.00	4407.33	0.03	0.01	0.05	0.00	0.003356
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
17.69	62.00	4407.84	0.54	1.31	23.14	0.31	0.002808
	0.08404	36.87	0.48	36.52	67.37		
22.23	63.00	4407.95	0.65	1.60	35.51	0.35	0.002786
	0.10372	37.26	0.60	36.83	56.30		
28.30	64.00	4408.14	0.84	1.86	52.61	0.36	0.002762
		37.89	0.75	37.35	44.53		

		HYCHAN.OUT					
	0.12872	18674.30					
31.64	65.00	4408.24	0.94	1.99	63.01	0.36	
		38.23	0.83	37.62	40.17		0.002753
	0.14217	18811.31					
38.68	66.00	4408.44	1.14	2.25	86.86	0.37	
		38.93	0.99	38.19	33.53		0.002733
	0.16944	19094.29					
52.31	67.00	4408.83	1.53	2.70	141.09	0.38	
		40.27	1.30	39.28	25.70		0.002696
	0.21857	19639.55					
66.38	68.00	4409.22	1.92	3.11	206.12	0.40	
		41.61	1.60	40.36	21.07		0.002661
	0.26486	20181.96					
80.40	69.00	4409.59	2.29	3.47	278.99	0.40	
		42.89	1.87	41.41	18.09		0.002631
	0.30774	20704.54					
90.15	70.00	4409.84	2.54	3.71	334.64	0.41	
		43.75	2.06	42.10	16.59		0.002614
	0.33612	21052.39					
94.30	71.00	4409.94	2.64	3.81	359.20	0.41	
		44.11	2.14	42.40	16.05		0.002607
	0.34769	21198.66					
102.06	72.00	4410.14	2.84	3.98	406.00	0.42	
		44.80	2.28	42.95	15.12		0.002590
	0.36823	21477.44					
114.77	73.00	4410.45	3.15	4.25	487.87	0.42	
		45.88	2.50	43.83	13.90		0.002568
	0.40085	21916.09					
125.11	74.00	4410.70	3.40	4.46	558.59	0.43	
		46.73	2.68	44.53	13.09		0.002554
	0.42671	22263.10					
135.00	75.00	4410.94	3.64	4.66	628.76	0.43	
		47.55	2.84	45.19	12.42		0.002537
	0.44958	22592.86					
147.25	76.00	4411.22	3.92	4.89	720.02	0.44	
		48.53	3.03	45.98	11.72		0.002520
	0.47719	22991.33					
160.38	77.00	4411.52	4.22	5.13	822.63	0.44	
		49.56	3.24	46.82	11.09		0.002504
	0.50562	23410.90					
174.39	78.00	4411.84	4.54	5.38	937.37	0.44	
		50.64	3.44	47.70	10.52		0.002489
	0.53483	23849.89					
187.19	79.00	4412.12	4.82	5.59	1046.79	0.45	
		51.61	3.63	48.49	10.07		0.002478
	0.56075	24243.25					
202.02	80.00	4412.44	5.14	5.84	1179.68	0.45	
		52.71	3.83	49.38	9.62		0.002466
	0.58967	24689.79					
219.88	81.00	4412.81	5.51	6.13	1347.33	0.46	
		54.01	4.07	50.43	9.15		0.002454
	0.62331	25216.03					
236.19	82.00	4413.15	5.85	6.38	1507.62	0.47	
		55.17	4.28	51.37	8.79		0.002450
	0.65448	25686.30					
248.21	83.00	4413.39	6.09	6.57	1629.91	0.47	
		56.01	4.43	52.05	8.55		0.002443
	0.67568	26026.81					
255.45	84.00	4413.53	6.24	6.67	1705.10	0.47	
		56.50	4.52	52.46	8.41		0.002443
	0.68928	26229.02					
261.32	85.00	4413.65	6.35	6.76	1767.65	0.47	
		56.91	4.59	52.79	8.31		0.002441

		HYCHAN.OUT						
	0.69954	26392.66						
268.33	86.00	4413.79	6.49	6.86	1841.79	0.48		
	0.71107	26584.21	4.68	53.17	8.19	0.002437		
	87.00	4413.87	6.57	6.93	1887.46	0.48		
272.50	57.66	26698.83	4.73	53.40	8.13	0.002438		
	0.71905	26797.14	6.64	6.98	1927.19	0.48		
276.09	88.00	4413.94	4.77	53.59	8.07	0.002437		
	0.72519	26797.14	6.65	6.98	1929.88	0.48		
276.29	89.00	4413.95	4.77	53.61	8.07	0.002437		
	0.72538	26803.54	6.63	6.97	1919.90	0.48		
275.41	90.00	4413.93	4.76	53.56	8.08	0.002438		
	0.72415	26779.31	6.58	6.93	1893.67	0.48		
273.07	91.00	4413.88	4.73	53.43	8.12	0.002441		
	0.72095	26714.86	6.51	6.88	1851.35	0.48		
269.20	92.00	4413.81	4.69	53.22	8.18	0.002439		
	0.71337	26608.47	6.44	6.83	1816.92	0.47		
266.02	93.00	4413.74	4.65	53.04	8.23	0.002440		
	0.70777	26520.79	6.37	6.77	1777.22	0.47		
262.35	94.00	4413.67	4.60	52.84	8.29	0.002438		
	0.70068	26419.16	6.28	6.71	1730.22	0.47		
257.93	95.00	4413.58	4.55	52.59	8.37	0.002438		
	0.69241	26296.86	6.20	6.65	1686.34	0.47		
253.77	96.00	4413.50	4.50	52.36	8.44	0.002439		
	0.68497	26180.89	6.12	6.58	1643.59	0.47		
249.64	97.00	4413.42	4.45	52.13	8.52	0.002438		
	0.67708	26066.02	6.06	6.54	1611.88	0.47		
246.58	98.00	4413.36	4.41	51.96	8.58	0.002441		
	0.67195	25979.74	5.98	6.48	1571.58	0.47		
242.66	99.00	4413.28	4.36	51.74	8.66	0.002440		
	0.66433	25868.62	5.80	6.34	1482.53	0.46		
233.99	100.00	4413.10	4.25	51.24	8.84	0.002441		
	0.64795	25617.89	5.50	6.11	1340.96	0.46		
219.50	101.00	4412.80	4.07	50.40	9.16	0.002455		
	0.62297	25199.32	5.23	5.91	1221.46	0.46		
206.80	102.00	4412.53	3.90	49.65	9.49	0.002461		
	0.59856	24827.31	5.00	5.73	1121.34	0.45		
195.80	103.00	4412.30	3.75	49.00	9.80	0.002469		
	0.57732	24499.46	4.78	5.56	1030.62	0.45		
185.49	104.00	4412.08	3.60	48.38	10.13	0.002480		
	0.55754	24188.15	4.57	5.40	951.22	0.45		
176.18	105.00	4411.87	3.47	47.81	10.45	0.002490		
	0.53904	23902.98	4.35	5.23	869.67	0.44		
166.32	106.00	4411.65	3.33	47.19	10.84	0.002503		
	50.02							

		HYCHAN.OUT						
	0.51932	23596.59						
156.47	107.00	4411.43	4.13	5.05	790.97	0.44		
	0.49865	23286.46	3.18		46.57	11.27	0.002515	
143.98	108.00	4411.14	3.84	4.82	694.35	0.43		
	0.47175	22881.02	2.98		45.76	11.91	0.002534	
129.92	109.00	4410.82	3.52	4.56	592.39	0.43		
	0.43915	22424.34	2.76		44.85	12.75	0.002553	
121.32	110.00	4410.61	3.31	4.39	532.59	0.43		
	0.41855	22137.27	2.61		44.27	13.37	0.002567	
112.62	111.00	4410.40	3.10	4.21	474.09	0.42		
	0.39666	21839.54	2.46		43.68	14.09	0.002579	
104.44	112.00	4410.20	2.90	4.04	421.80	0.42		
	0.37569	21560.10	2.32		43.12	14.87	0.002594	
98.61	113.00	4410.05	2.75	3.91	385.75	0.42		
	0.36041	21356.88	2.22		42.71	15.50	0.002606	
92.66	114.00	4409.90	2.60	3.78	349.82	0.41		
	0.34394	21144.60	2.11		42.29	16.24	0.002616	
93.47	115.00	4409.93	2.63	3.79	353.93	0.41		
	0.34515	21176.04	2.12		42.35	16.13	0.002607	
90.80	116.00	4409.84	2.54	3.72	337.56	0.41		
	0.33867	21062.84	2.07		42.13	16.55	0.002617	
73.51	117.00	4409.40	2.10	3.31	243.15	0.40		
	0.28819	20446.42	1.74		40.89	19.43	0.002655	
66.28	118.00	4409.21	1.91	3.12	206.61	0.40		
	0.26546	20176.47	1.59		40.35	21.11	0.002670	
58.81	119.00	4409.01	1.71	2.91	170.95	0.39		
	0.24092	19891.18	1.44		39.78	23.29	0.002685	
50.81	120.00	4408.78	1.48	2.67	135.41	0.39		
	0.21337	19578.03	1.27		39.16	26.38	0.002700	
43.43	121.00	4408.58	1.28	2.43	105.49	0.38		
	0.18702	19287.71	1.10		38.58	30.21	0.002719	
39.10	122.00	4408.45	1.15	2.28	89.24	0.37		
	0.17120	19115.75	1.00		38.23	33.13	0.002735	
36.57	123.00	4408.38	1.08	2.19	80.14	0.37		
	0.16142	19013.09	0.94		38.03	35.18	0.002740	
33.98	124.00	4408.30	1.00	2.10	71.22	0.37		
	0.15134	18906.52	0.88		37.81	37.64	0.002745	
31.28	125.00	4408.22	0.92	1.99	62.30	0.37		
	0.14065	18794.52	0.82		37.59	40.65	0.002752	
28.44	126.00	4408.14	0.84	1.88	53.41	0.36		
	0.12920	18675.45	0.75		37.35	44.49	0.002758	
25.53	127.00	4408.05	0.75	1.76	44.82	0.36		
		37.59	0.68		37.11	49.35	0.002767	



## HYCHAN.OUT

	0.11723	18552.71					
23.51	128.00	4407.99	0.69	1.67	39.21	0.35	
		37.39	0.63	36.94	53.29		0.002778
	0.10899	18470.50					
23.45	129.00	4407.99	0.69	1.66	39.03	0.35	
		37.39	0.63	36.94	53.40		0.002769
	0.10836	18468.44					
23.45	130.00	4407.99	0.69	1.66	38.97	0.35	
		37.38	0.63	36.93	53.52		0.002789
	0.10920	18466.12					
23.48	131.00	4407.99	0.69	1.66	39.02	0.35	
		37.39	0.63	36.94	53.31		0.002762
	0.10821	18470.09					
23.44	132.00	4407.99	0.69	1.66	38.96	0.35	
		37.38	0.63	36.93	53.49		0.002796
	0.10943	18466.60					
23.50	133.00	4407.99	0.69	1.66	39.09	0.35	
		37.39	0.63	36.94	53.25		0.002760
	0.10823	18471.27					
23.42	134.00	4407.99	0.69	1.66	38.90	0.35	
		37.38	0.63	36.94	53.43		0.002788
	0.10898	18467.82					
23.49	135.00	4407.99	0.69	1.66	39.09	0.35	
		37.39	0.63	36.94	53.36		0.002779
	0.10893	18469.07					
23.44	136.00	4407.99	0.69	1.66	38.96	0.35	
		37.39	0.63	36.94	53.28		0.002764
	0.10813	18470.61					
23.45	137.00	4407.99	0.69	1.66	38.98	0.35	
		37.38	0.63	36.94	53.44		0.002795
	0.10939	18467.66					
23.49	138.00	4407.99	0.69	1.66	39.07	0.35	
		37.39	0.63	36.94	53.22		0.002759
	0.10813	18471.83					
23.42	139.00	4407.99	0.69	1.66	38.90	0.35	
		37.39	0.63	36.94	53.39		0.002790
	0.10906	18468.63					
23.50	140.00	4407.99	0.69	1.66	39.10	0.35	
		37.39	0.63	36.94	53.27		0.002775
	0.10883	18470.87					
23.42	141.00	4407.99	0.69	1.66	38.93	0.35	
		37.39	0.63	36.94	53.31		0.002770
	0.10826	18470.02					
23.46	142.00	4407.99	0.69	1.66	39.02	0.35	
		37.39	0.63	36.94	53.39		0.002794
	0.10938	18468.57					
23.46	143.00	4407.99	0.69	1.66	39.04	0.35	
		37.39	0.63	36.94	53.23		0.002758
	0.10800	18471.71					
23.42	144.00	4407.99	0.69	1.66	38.91	0.35	
		37.39	0.63	36.94	53.38		0.002793
	0.10919	18468.78					
23.50	145.00	4407.99	0.69	1.66	39.10	0.35	
		37.39	0.63	36.94	53.23		0.002771
	0.10863	18471.70					
23.42	146.00	4407.99	0.69	1.66	38.92	0.35	
		37.39	0.63	36.94	53.27		0.002771
	0.10832	18470.83					
23.46	147.00	4407.99	0.69	1.66	39.02	0.35	
		37.39	0.63	36.94	53.38		0.002792
	0.10933	18468.85					
23.46	148.00	4407.99	0.69	1.66	39.03	0.35	
		37.39	0.63	36.94	53.22		0.002759

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		HYCHAN.OUT					
	0.10799	18471.81					
23.43	149.00	4407.99	0.69	1.66	38.93	0.35	
		37.39	0.63	36.94	53.37		0.002795
	0.10926	18468.98					
23.49	150.00	4407.99	0.69	1.66	39.10	0.35	
		37.39	0.63	36.94	53.22		0.002771
	0.10861	18471.74					
23.42	151.00	4407.99	0.69	1.66	38.92	0.35	
		37.39	0.63	36.94	53.29		0.002771
	0.10829	18470.54					
23.46	152.00	4407.99	0.69	1.66	39.02	0.35	
		37.39	0.63	36.94	53.39		0.002792
	0.10932	18468.49					
23.47	153.00	4407.99	0.69	1.66	39.04	0.35	
		37.40	0.63	36.94	53.19		0.002758
	0.10799	18472.42					
23.41	154.00	4407.99	0.69	1.66	38.91	0.35	
		37.39	0.63	36.94	53.38		0.002794
	0.10919	18468.71					
23.49	155.00	4407.99	0.69	1.66	39.10	0.35	
		37.39	0.63	36.94	53.26		0.002775
	0.10876	18471.15					
23.42	156.00	4407.99	0.69	1.66	38.93	0.35	
		37.39	0.63	36.94	53.27		0.002769
	0.10822	18470.95					
23.46	157.00	4407.99	0.69	1.66	39.00	0.35	
		37.39	0.63	36.94	53.36		0.002795
	0.10942	18469.05					
23.48	158.00	4407.99	0.69	1.66	39.06	0.35	
		37.39	0.63	36.94	53.20		0.002758
	0.10804	18472.20					
23.41	159.00	4407.99	0.69	1.66	38.90	0.35	
		37.39	0.63	36.94	53.37		0.002790
	0.10902	18468.94					
23.48	160.00	4407.99	0.69	1.66	39.09	0.35	
		37.39	0.63	36.94	53.28		0.002781
	0.10901	18470.62					
23.44	161.00	4407.99	0.69	1.66	38.97	0.35	
		37.39	0.63	36.94	53.24		0.002762
	0.10802	18471.43					
23.43	162.00	4407.99	0.69	1.66	38.96	0.35	
		37.39	0.63	36.94	53.39		0.002797
	0.10939	18468.63					
23.48	163.00	4407.99	0.69	1.66	39.08	0.35	
		37.39	0.63	36.94	53.21		0.002764
	0.10831	18471.97					
23.41	164.00	4407.99	0.69	1.66	38.91	0.35	
		37.39	0.63	36.94	53.36		0.002793
	0.10913	18469.11					
23.48	165.00	4407.99	0.69	1.66	39.08	0.35	
		37.39	0.63	36.94	53.24		0.002762
	0.10822	18471.46					
23.42	166.00	4407.99	0.69	1.66	38.94	0.35	
		37.39	0.63	36.94	53.40		0.002793
	0.10918	18468.39					
23.47	167.00	4407.99	0.69	1.66	39.04	0.35	
		37.39	0.63	36.94	53.24		0.002762
	0.10817	18471.38					
23.43	168.00	4407.99	0.69	1.66	38.96	0.35	
		37.39	0.63	36.94	53.40		0.002794
	0.10927	18468.47					
23.46	169.00	4407.99	0.69	1.66	39.03	0.35	
		37.39	0.63	36.94	53.24		0.002763

## HYCHAN.OUT

	0.10818	18471.51					
23.44	170.00	4407.99	0.69	1.66	38.98	0.35	
		37.39	0.63	36.94	53.39		0.002795
	0.10937	18468.63					
23.47	171.00	4407.99	0.69	1.66	39.06	0.35	
		37.40	0.63	36.94	53.20		0.002760
	0.10810	18472.22					
23.42	172.00	4407.99	0.69	1.66	38.91	0.35	
		37.39	0.63	36.94	53.38		0.002793
	0.10916	18468.69					
23.49	173.00	4407.99	0.69	1.66	39.09	0.35	
		37.39	0.63	36.94	53.24		0.002771
	0.10858	18471.38					
23.40	174.00	4407.99	0.69	1.66	38.91	0.35	
		37.39	0.63	36.94	53.34		0.002785
	0.10879	18469.50					
23.48	175.00	4407.99	0.69	1.66	39.08	0.35	
		37.39	0.63	36.94	53.30		0.002784
	0.10910	18470.22					
23.44	176.00	4407.99	0.69	1.66	38.99	0.35	
		37.39	0.63	36.94	53.23		0.002761
	0.10802	18471.63					
23.43	177.00	4407.99	0.69	1.66	38.94	0.35	
		37.39	0.63	36.94	53.39		0.002798
	0.10940	18468.57					
23.49	178.00	4407.99	0.69	1.66	39.09	0.35	
		37.39	0.63	36.94	53.21		0.002765
	0.10836	18472.01					
23.40	179.00	4407.99	0.69	1.66	38.90	0.35	
		37.39	0.63	36.94	53.36		0.002782
	0.10863	18469.23					
23.48	180.00	4407.99	0.69	1.66	39.07	0.35	
		37.39	0.63	36.94	53.32		0.002786
	0.10917	18469.97					
23.45	181.00	4407.99	0.69	1.66	39.00	0.35	
		37.39	0.63	36.94	53.22		0.002759
	0.10797	18471.82					
23.43	182.00	4407.99	0.69	1.66	38.93	0.35	
		37.39	0.63	36.94	53.39		0.002796
	0.10933	18468.58					
23.49	183.00	4407.99	0.69	1.66	39.10	0.35	
		37.39	0.63	36.94	53.22		0.002768
	0.10849	18471.80					
23.40	184.00	4407.99	0.69	1.66	38.90	0.35	
		37.39	0.63	36.94	53.34		0.002785
	0.10877	18469.54					
23.48	185.00	4407.99	0.69	1.66	39.07	0.35	
		37.39	0.63	36.94	53.31		0.002785
	0.10912	18470.14					
23.42	186.00	4407.99	0.69	1.66	38.94	0.35	
		37.39	0.63	36.94	53.26		0.002776
	0.10852	18471.09					
23.48	187.00	4407.99	0.69	1.66	39.07	0.35	
		37.39	0.63	36.94	53.34		0.002779
	0.10892	18469.46					
23.41	188.00	4407.99	0.69	1.66	38.92	0.35	
		37.39	0.63	36.94	53.34		0.002785
	0.10880	18469.54					
23.49	189.00	4407.99	0.69	1.66	39.09	0.35	
		37.39	0.63	36.94	53.29		0.002770
	0.10855	18470.49					
23.41	190.00	4407.99	0.69	1.66	38.92	0.35	
		37.39	0.63	36.94	53.36		0.002787

## HYCHAN.OUT

	0.10890	18469.12						
23.49	191.00	4407.99	0.69	1.66	39.09	0.35		
		37.39	0.63	36.94	53.29		0.002768	
	0.10852	18470.50						
23.41	192.00	4407.99	0.69	1.66	38.91	0.35		
		37.39	0.63	36.94	53.37		0.002791	
	0.10902	18468.88						
23.49	193.00	4407.99	0.69	1.66	39.08	0.35		
		37.39	0.63	36.94	53.27		0.002763	
	0.10829	18470.93						
23.41	194.00	4407.99	0.69	1.66	38.92	0.35		
		37.39	0.63	36.94	53.36		0.002793	
	0.10911	18469.16						
23.48	195.00	4407.99	0.69	1.66	39.08	0.35		
		37.39	0.63	36.94	53.22		0.002761	
	0.10821	18471.81						
23.41	196.00	4407.99	0.69	1.66	38.92	0.35		
		37.39	0.63	36.94	53.40		0.002795	
	0.10923	18468.34						
23.48	197.00	4407.99	0.69	1.66	39.06	0.35		
		37.39	0.63	36.94	53.22		0.002761	
	0.10815	18471.81						
23.43	198.00	4407.99	0.69	1.66	38.96	0.35		
		37.39	0.63	36.94	53.39		0.002794	
	0.10924	18468.48						
23.46	199.00	4407.99	0.69	1.66	39.03	0.35		
		37.39	0.63	36.94	53.23		0.002763	
	0.10819	18471.69						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2345

MAXIMUM DISCHARGE (CFS) = 1935.75 AT TIME = 88.09  
 MAXIMUM STAGE = 4411.96 AT TIME = 87.94

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4405.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	1.00	4405.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	2.00	4405.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	3.00	4405.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	4.00	4405.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	5.00	4405.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	6.00	4405.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00		
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	7.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4405.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	28.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	29.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	30.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	31.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	32.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	33.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	34.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	35.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	36.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	37.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	38.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	39.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	40.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	41.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	42.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	43.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	44.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	45.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	46.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	47.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	48.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	

HYCHAN.OUT							
0.00	49.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	50.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	51.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	52.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	53.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	54.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	55.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	56.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	57.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	58.00	4405.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	59.00	4405.01	0.01	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	60.00	4405.02	0.01	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	61.00	4405.02	0.02	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
17.55	62.00	4405.59	0.59	1.19	20.88	0.27	0.002863
	0.11448	27.38	0.64	27.07	45.81		
21.60	63.00	4405.79	0.79	1.60	34.59	0.32	0.002828
	0.13530	28.17	0.77	27.75	35.30		
27.83	64.00	4405.98	0.98	1.87	52.07	0.33	0.002815
	0.16886	28.96	0.96	28.43	28.97		
31.24	65.00	4406.09	1.09	2.00	62.62	0.34	0.002807
	0.18622	29.38	1.06	28.80	26.50		
38.00	66.00	4406.29	1.29	2.25	85.38	0.35	0.002801
	0.21981	30.22	1.26	29.52	22.84		
51.82	67.00	4406.70	1.70	2.69	139.35	0.36	0.002777
	0.28200	31.85	1.63	30.94	18.22		
66.26	68.00	4407.10	2.10	3.08	204.32	0.37	0.002754
	0.34005	33.48	1.98	32.36	15.39		
80.74	69.00	4407.49	2.49	3.43	277.26	0.38	0.002737
	0.39347	35.05	2.30	33.72	13.53		
		16860.64					



HYCHAN.OUT									
91.22	70.00	4407.76	2.76	3.66	333.98	0.39			
	0.42785	36.15	2.52	34.67	12.55		0.002717		
	71.00	17336.78							
95.60	4407.88	2.88	3.75	358.73	0.39				
	36.60	2.61	35.06	12.19		0.002712			
	0.44210	17532.01							
103.23	4408.07	3.07	3.92	404.45	0.39				
	37.39	2.76	35.75	11.64		0.002716			
	0.46791	17873.65							
116.38	4408.40	3.40	4.18	486.30	0.40				
	38.70	3.01	36.89	10.86		0.002705			
	0.50754	18444.84							
127.26	4408.66	3.66	4.38	557.57	0.40				
	39.76	3.20	37.81	10.33		0.002695			
	0.53835	18903.54							
137.34	4408.90	3.90	4.57	627.21	0.41				
	40.73	3.37	38.65	9.91		0.002695			
	0.56718	19323.62							
150.06	4409.19	4.19	4.79	718.47	0.41				
	41.92	3.58	39.68	9.46		0.002692			
	0.60139	19838.69							
163.48	4409.50	4.50	5.02	820.74	0.42				
	43.15	3.79	40.75	9.06		0.002696			
	0.63726	20374.80							
177.94	4409.82	4.82	5.26	935.68	0.42				
	44.45	4.00	41.87	8.69		0.002693			
	0.67288	20936.07							
191.16	4410.11	5.11	5.47	1045.20	0.43				
	45.60	4.19	42.87	8.40		0.002697			
	0.70550	21435.82							
206.37	4410.43	5.43	5.71	1177.42	0.43				
	46.90	4.40	44.00	8.11		0.002705			
	0.74271	21999.18							
224.79	4410.81	5.81	5.98	1345.02	0.44				
	48.43	4.64	45.33	7.80		0.002710			
	0.78501	22663.97							
241.70	4411.15	6.15	6.23	1505.78	0.44				
	49.80	4.85	46.52	7.57		0.002715			
	0.82226	23257.67							
254.16	4411.39	6.39	6.41	1628.70	0.45				
	50.79	5.00	47.37	7.41		0.002716			
	0.84816	23686.53							
261.70	4411.54	6.54	6.51	1704.43	0.45				
	51.37	5.09	47.88	7.32		0.002719			
	0.86424	23941.59							
267.72	4411.65	6.65	6.60	1766.80	0.45				
	51.84	5.16	48.29	7.26		0.002724			
	0.87771	24144.93							
275.19	4411.79	6.79	6.69	1842.12	0.45				
	52.40	5.25	48.78	7.18		0.002718			
	0.89080	24387.70							
279.47	4411.87	6.87	6.75	1887.57	0.45				
	52.73	5.30	49.06	7.14		0.002726			
	0.90165	24530.29							
283.13	4411.94	6.94	6.81	1927.37	0.46				
	53.01	5.34	49.30	7.10		0.002725			
	0.90829	24652.08							
283.30	4411.95	6.95	6.81	1929.96	0.46				
	53.03	5.34	49.32	7.10		0.002726			
	0.90867	24658.23							
282.49	4411.93	6.93	6.80	1920.07	0.46				
	52.96	5.33	49.26	7.11		0.002726			
	0.90735	24628.60							

HYCHAN.OUT							
280.14	91.00	4411.89	6.89	5.31	6.76	1894.17	0.45
	0.90124	52.77				49.10	7.13
		24549.21					0.002721
276.14	92.00	4411.81	6.81	5.26	6.71	1851.81	0.45
	0.89295	52.47				48.83	7.17
		24417.48					0.002719
272.84	93.00	4411.75	6.75	5.22	6.66	1817.31	0.45
	0.88578	52.22				48.62	7.20
		24308.84					0.002717
269.08	94.00	4411.68	6.68	5.18	6.61	1777.86	0.45
	0.87794	51.93				48.36	7.25
		24181.91					0.002715
264.47	95.00	4411.59	6.59	5.13	6.54	1730.69	0.45
	0.86821	51.57				48.06	7.30
		24028.27					0.002713
260.16	96.00	4411.50	6.50	5.08	6.48	1687.01	0.45
	0.85875	51.24				47.77	7.34
		23882.83					0.002710
255.84	97.00	4411.42	6.42	5.03	6.43	1643.97	0.45
	0.84960	50.90				47.48	7.39
		23737.87					0.002709
252.69	98.00	4411.36	6.36	4.99	6.38	1612.35	0.45
	0.84311	50.66				47.26	7.43
		23630.01					0.002709
248.67	99.00	4411.28	6.28	4.94	6.32	1572.18	0.44
	0.83348	50.33				46.98	7.48
		23490.82					0.002704
239.92	100.00	4411.10	6.10	4.83	6.19	1484.35	0.44
	0.81232	49.62				46.36	7.60
		23181.19					0.002692
225.02	101.00	4410.80	5.80	4.65	5.97	1342.85	0.44
	0.77965	48.41				45.31	7.81
		22654.92					0.002688
211.86	102.00	4410.53	5.53	4.48	5.77	1222.89	0.43
	0.74985	47.32				44.37	8.02
		22184.65					0.002684
200.52	103.00	4410.30	5.30	4.33	5.60	1122.82	0.43
	0.72385	46.36				43.54	8.22
		21767.99					0.002682
189.86	104.00	4410.07	5.07	4.18	5.43	1031.84	0.43
	0.69844	45.45				42.74	8.43
		21372.27					0.002680
180.25	105.00	4409.86	4.86	4.04	5.28	952.48	0.42
	0.67601	44.61				42.01	8.64
		21007.45					0.002681
170.13	106.00	4409.64	4.64	3.89	5.12	871.02	0.42
	0.65052	43.70				41.23	8.89
		20614.43					0.002678
159.99	107.00	4409.41	4.41	3.74	4.95	792.19	0.42
	0.62549	42.79				40.43	9.17
		20216.41					0.002681
147.26	108.00	4409.11	4.11	3.54	4.73	696.52	0.41
	0.59143	41.59				39.40	9.58
		19697.80					0.002677
132.62	109.00	4408.77	3.77	3.30	4.48	593.67	0.41
	0.55285	40.23				38.21	10.12
		19105.25					0.002687
123.70	110.00	4408.56	3.56	3.14	4.31	533.65	0.40
	0.52748	39.37				37.47	10.52
		18732.64					0.002690
114.79	111.00	4408.34	3.34	2.98	4.14	475.30	0.40
	0.50139	38.49				36.70	10.98
		18351.62					0.002694

		HYCHAN.OUT					
106.26	112.00	4408.13	3.13	3.98	422.61	0.40	
	0.47624	37.64	2.82		35.97	11.48	0.002704
		17984.33					
100.24	113.00	4407.98	2.98	3.86	386.52	0.39	
	0.45742	37.03	2.71		35.44	11.88	0.002708
		17718.30					
94.11	114.00	4407.83	2.83	3.73	350.58	0.39	
	0.43754	36.40	2.59		34.89	12.34	0.002712
		17446.49					
94.42	115.00	4407.85	2.85	3.74	352.78	0.39	
	0.43980	36.48	2.59		34.96	12.29	0.002723
		17479.81					
92.57	116.00	4407.77	2.77	3.67	340.05	0.39	
	0.43147	36.18	2.56		34.70	12.52	0.002703
		17351.94					
74.51	117.00	4407.31	2.31	3.28	244.33	0.38	
	0.37040	34.31	2.17		33.08	14.33	0.002733
		16539.40					
67.00	118.00	4407.11	2.11	3.10	207.53	0.38	
	0.34213	33.50	2.00		32.37	15.37	0.002741
		16185.57					
59.36	119.00	4406.89	1.89	2.90	171.93	0.37	
	0.31241	32.64	1.82		31.63	16.71	0.002753
		15813.00					
51.15	120.00	4406.66	1.66	2.67	136.45	0.36	
	0.27850	31.70	1.61		30.82	18.54	0.002766
		15408.42					
43.54	121.00	4406.45	1.45	2.44	106.21	0.36	
	0.24504	30.83	1.41		30.06	20.80	0.002780
		15028.90					
39.07	122.00	4406.32	1.32	2.29	89.62	0.35	
	0.22424	30.31	1.29		29.60	22.51	0.002788
		14801.89					
36.48	123.00	4406.24	1.24	2.21	80.45	0.35	
	0.21205	30.00	1.22		29.33	23.69	0.002794
		14667.25					
33.86	124.00	4406.16	1.16	2.11	71.54	0.35	
	0.19923	29.68	1.14		29.06	25.05	0.002798
		14530.08					
31.14	125.00	4406.08	1.08	2.01	62.64	0.34	
	0.18571	29.35	1.06		28.77	26.71	0.002805
		14385.23					
28.29	126.00	4405.99	0.99	1.90	53.76	0.34	
	0.17100	28.99	0.98		28.47	28.75	0.002809
		14232.50					
25.36	127.00	4405.90	0.90	1.78	45.17	0.33	
	0.15557	28.63	0.89		28.15	31.30	0.002814
		14073.68					
23.26	128.00	4405.83	0.83	1.69	39.29	0.33	
	0.14443	28.37	0.82		27.92	33.45	0.002823
		13960.59					
23.17	129.00	4405.83	0.83	1.68	38.99	0.33	
	0.14382	28.36	0.82		27.91	33.54	0.002820
		13956.54					
23.20	130.00	4405.83	0.83	1.68	39.06	0.32	
	0.14375	28.37	0.82		27.92	33.46	0.002817
		13960.33					
23.13	131.00	4405.83	0.83	1.68	38.89	0.32	
	0.14393	28.36	0.82		27.91	33.52	0.002829
		13957.49					
23.22	132.00	4405.83	0.83	1.68	39.10	0.33	
	0.14401	28.36	0.82		27.92	33.50	0.002819
		13958.53					

HYCHAN.OUT							
23.15	133.00	4405.83	0.83	1.68	38.94	0.32	0.002811
	0.14315	28.36	0.82	27.92	33.51		
	134.00	13957.97					
23.18	134.00	4405.83	0.83	1.68	39.00	0.33	0.002837
	0.14474	28.35	0.82	27.91	33.60		
	135.00	13953.30					
23.20	135.00	4405.83	0.83	1.68	39.07	0.33	0.002801
	0.14293	28.37	0.82	27.92	33.47		
	136.00	13959.86					
23.14	136.00	4405.83	0.83	1.68	38.88	0.33	0.002837
	0.14449	28.35	0.82	27.90	33.63		
	137.00	13951.86					
23.22	137.00	4405.83	0.83	1.68	39.11	0.33	0.002814
	0.14380	28.36	0.82	27.91	33.52		
	138.00	13957.15					
23.15	138.00	4405.83	0.83	1.68	38.92	0.33	0.002814
	0.14337	28.35	0.82	27.91	33.56		
	139.00	13955.43					
23.19	139.00	4405.83	0.83	1.68	39.02	0.33	0.002835
	0.14475	28.35	0.82	27.90	33.63		
	140.00	13952.15					
23.20	140.00	4405.83	0.83	1.68	39.05	0.33	0.002800
	0.14292	28.36	0.82	27.92	33.50		
	141.00	13958.54					
23.15	141.00	4405.83	0.83	1.68	38.89	0.33	0.002839
	0.14470	28.34	0.82	27.90	33.67		
	142.00	13949.99					
23.23	142.00	4405.83	0.83	1.68	39.12	0.33	0.002807
	0.14351	28.36	0.82	27.91	33.53		
	143.00	13956.85					
23.15	143.00	4405.83	0.83	1.68	38.90	0.33	0.002821
	0.14373	28.35	0.82	27.91	33.61		
	144.00	13952.78					
23.21	144.00	4405.83	0.83	1.68	39.05	0.33	0.002831
	0.14465	28.35	0.82	27.90	33.63		
	145.00	13951.81					
23.20	145.00	4405.83	0.83	1.68	39.02	0.33	0.002802
	0.14299	28.36	0.82	27.91	33.54		
	146.00	13956.63					
23.16	146.00	4405.83	0.83	1.68	38.91	0.33	0.002839
	0.14477	28.34	0.82	27.90	33.69		
	147.00	13949.07					
23.24	147.00	4405.83	0.83	1.68	39.12	0.33	0.002806
	0.14348	28.36	0.82	27.91	33.54		
	148.00	13956.36					
23.15	148.00	4405.83	0.83	1.68	38.89	0.33	0.002824
	0.14390	28.35	0.82	27.90	33.64		
	149.00	13951.66					
23.22	149.00	4405.83	0.83	1.68	39.07	0.33	0.002829
	0.14460	28.35	0.82	27.90	33.63		
	150.00	13952.19					
23.19	150.00	4405.83	0.83	1.68	39.01	0.33	0.002801
	0.14294	28.36	0.82	27.91	33.55		
	151.00	13956.12					
23.16	151.00	4405.83	0.83	1.68	38.91	0.33	0.002839
	0.14476	28.34	0.82	27.90	33.69		
	152.00	13949.31					
23.24	152.00	4405.83	0.83	1.68	39.12	0.33	0.002806
	0.14349	28.36	0.82	27.91	33.53		
	153.00	13956.65					
23.15	153.00	4405.83	0.83	1.68	38.90	0.33	0.002820
	0.14367	28.35	0.82	27.90	33.63		
		13951.86					

HYCHAN.OUT							
23.21	154.00	4405.83	0.83	1.68	39.05	0.33	0.002831
	0.14463	28.34	0.82	27.90	33.65		
		13951.13					
23.21	155.00	4405.83	0.83	1.68	39.03	0.32	0.002799
	0.14295	28.36	0.82	27.91	33.53		
		13956.91					
23.15	156.00	4405.83	0.83	1.68	38.90	0.33	0.002839
	0.14468	28.34	0.82	27.90	33.70		
		13948.62					
23.24	157.00	4405.83	0.83	1.68	39.11	0.33	0.002810
	0.14374	28.36	0.82	27.91	33.55		
		13955.69					
23.16	158.00	4405.83	0.83	1.68	38.91	0.33	0.002815
	0.14347	28.35	0.82	27.91	33.60		
		13953.40					
23.20	159.00	4405.83	0.83	1.68	39.03	0.33	0.002835
	0.14479	28.34	0.82	27.90	33.66		
		13950.62					
23.21	160.00	4405.83	0.83	1.68	39.06	0.33	0.002799
	0.14299	28.36	0.82	27.91	33.53		
		13956.95					
23.14	161.00	4405.83	0.83	1.68	38.88	0.33	0.002833
	0.14435	28.34	0.82	27.90	33.68		
		13949.78					
23.23	162.00	4405.83	0.83	1.68	39.10	0.33	0.002820
	0.14418	28.35	0.82	27.91	33.60		
		13953.65					
23.17	163.00	4405.83	0.83	1.68	38.95	0.33	0.002808
	0.14322	28.35	0.82	27.91	33.58		
		13954.64					
23.20	164.00	4405.83	0.83	1.68	39.02	0.33	0.002829
	0.14450	28.34	0.82	27.90	33.67		
		13949.96					
23.18	165.00	4405.83	0.83	1.68	38.96	0.32	0.002813
	0.14347	28.36	0.82	27.91	33.56		
		13955.52					
23.23	166.00	4405.83	0.83	1.68	39.06	0.33	0.002820
	0.14418	28.35	0.82	27.90	33.62		
		13952.33					
23.16	167.00	4405.83	0.83	1.68	38.91	0.32	0.002821
	0.14378	28.35	0.82	27.91	33.58		
		13954.29					
23.23	168.00	4405.83	0.83	1.68	39.10	0.33	0.002816
	0.14400	28.35	0.82	27.91	33.60		
		13953.36					
23.15	169.00	4405.83	0.83	1.68	38.89	0.33	0.002829
	0.14414	28.35	0.82	27.91	33.61		
		13952.78					
23.24	170.00	4405.83	0.83	1.68	39.12	0.33	0.002813
	0.14386	28.35	0.82	27.91	33.58		
		13954.68					
23.16	171.00	4405.83	0.83	1.68	38.91	0.33	0.002816
	0.14356	28.35	0.82	27.91	33.62		
		13952.67					
23.21	172.00	4405.83	0.83	1.68	39.05	0.33	0.002830
	0.14459	28.35	0.82	27.90	33.64		
		13951.54					
23.18	173.00	4405.83	0.83	1.68	39.01	0.33	0.002803
	0.14300	28.36	0.82	27.91	33.55		
		13955.88					
23.17	174.00	4405.83	0.83	1.68	38.96	0.33	0.002838
	0.14480	28.34	0.82	27.90	33.70		
		13948.75					

HYCHAN.OUT							
23.23	175.00	4405.83	0.83	1.68	39.09	0.33	0.002801
	0.14313	28.36	0.82	27.91	33.52		
	176.00	13957.12					
23.15	176.00	4405.83	0.83	1.68	38.88	0.33	0.002827
	0.14409	28.34	0.82	27.90	33.66		
	177.00	13950.51					
23.23	177.00	4405.83	0.83	1.68	39.09	0.33	0.002822
	0.14427	28.35	0.82	27.91	33.61		
	178.00	13953.12					
23.18	178.00	4405.83	0.83	1.68	38.97	0.32	0.002804
	0.14306	28.35	0.82	27.91	33.56		
	179.00	13955.33					
23.17	179.00	4405.83	0.83	1.68	38.96	0.33	0.002839
	0.14485	28.34	0.82	27.90	33.70		
	180.00	13948.86					
23.23	180.00	4405.83	0.83	1.68	39.09	0.33	0.002802
	0.14320	28.36	0.82	27.92	33.52		
	181.00	13957.51					
23.15	181.00	4405.83	0.83	1.68	38.88	0.33	0.002827
	0.14403	28.34	0.82	27.90	33.65		
	182.00	13950.90					
23.22	182.00	4405.83	0.83	1.68	39.08	0.33	0.002825
	0.14444	28.35	0.82	27.91	33.61		
	183.00	13952.90					
23.18	183.00	4405.83	0.83	1.68	38.99	0.33	0.002803
	0.14296	28.36	0.82	27.91	33.55		
	184.00	13955.79					
23.18	184.00	4405.83	0.83	1.68	38.96	0.33	0.002839
	0.14492	28.34	0.82	27.90	33.70		
	185.00	13948.72					
23.23	185.00	4405.83	0.83	1.68	39.09	0.33	0.002802
	0.14317	28.36	0.82	27.91	33.52		
	186.00	13957.30					
23.14	186.00	4405.83	0.83	1.68	38.88	0.33	0.002838
	0.14463	28.34	0.82	27.90	33.70		
	187.00	13948.59					
23.24	187.00	4405.83	0.83	1.68	39.11	0.33	0.002800
	0.14316	28.36	0.82	27.92	33.50		
	188.00	13958.23					
23.17	188.00	4405.83	0.83	1.68	38.92	0.33	0.002837
	0.14472	28.34	0.82	27.90	33.68		
	189.00	13949.80					
23.21	189.00	4405.83	0.83	1.68	39.04	0.32	0.002803
	0.14314	28.36	0.82	27.91	33.52		
	190.00	13957.47					
23.19	190.00	4405.83	0.83	1.68	38.98	0.33	0.002834
	0.14470	28.34	0.82	27.90	33.67		
	191.00	13949.98					
23.21	191.00	4405.83	0.83	1.68	39.02	0.32	0.002804
	0.14317	28.36	0.82	27.92	33.51		
	192.00	13957.82					
23.19	192.00	4405.83	0.83	1.68	38.99	0.33	0.002832
	0.14460	28.34	0.82	27.90	33.67		
	193.00	13950.08					
23.19	193.00	4405.83	0.83	1.68	38.98	0.32	0.002810
	0.14337	28.36	0.82	27.91	33.53		
	194.00	13956.88					
23.21	194.00	4405.83	0.83	1.68	39.03	0.33	0.002828
	0.14450	28.34	0.82	27.90	33.67		
	195.00	13949.96					
23.17	195.00	4405.83	0.83	1.68	38.96	0.33	0.002813
	0.14344	28.35	0.82	27.91	33.56		
		13955.26					

HYCHAN.OUT							
23.22	196.00	4405.83	0.83	1.68	39.06	0.33	
	0.14431	28.35	0.82	27.90	33.64		0.002824
		13951.59					
23.16	197.00	4405.83	0.83	1.68	38.92	0.33	
	0.14376	28.35	0.82	27.91	33.58		0.002820
		13954.26					
23.23	198.00	4405.83	0.83	1.68	39.09	0.33	
	0.14400	28.35	0.82	27.91	33.61		0.002816
		13953.23					
23.15	199.00	4405.83	0.83	1.68	38.90	0.33	
	0.14406	28.35	0.82	27.91	33.61		0.002827
		13952.89					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2346

MAXIMUM DISCHARGE (CFS) = 1937.53 AT TIME = 88.04  
 MAXIMUM STAGE = 4410.06 AT TIME = 87.99

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	5.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	6.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	7.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	8.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	9.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	10.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	11.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	12.00	4403.00	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4403.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4403.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4403.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4403.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4403.01	0.01	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	4403.01	0.01	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	61.00	4403.02	0.02	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
20.56	62.00	4403.50	0.50	0.90	18.40	0.22	0.002260
	0.09000	32.21	0.64	31.95	63.80		
24.83	63.00	4403.71	0.71	1.35	33.47	0.28	0.002285
	0.10688	33.12	0.75	32.76	46.26		
32.46	64.00	4403.92	0.92	1.58	51.40	0.29	0.002257
	0.13419	34.07	0.95	33.61	36.35		
36.62	65.00	4404.04	1.04	1.70	62.12	0.29	0.002245
	0.14845	34.57	1.06	34.05	32.82		
44.14	66.00	4404.24	1.24	1.89	83.59	0.30	0.002237
	0.17364	35.47	1.24	34.85	28.03		
60.35	67.00	4404.68	1.68	2.27	137.14	0.31	0.002201
	0.22173	37.38	1.61	36.54	21.80		
77.25	68.00	4405.11	2.11	2.62	202.04	0.32	0.002174
	0.26676	39.28	1.97	38.22	18.13		
94.08	69.00	4405.52	2.52	2.92	275.10	0.32	0.002152
	0.30738	41.11	2.29	39.84	15.79		
106.40	70.00	4405.82	2.82	3.13	333.10	0.33	0.002136
	0.33451	42.40	2.51	40.99	14.55		
111.45	71.00	4405.94	2.93	3.21	358.14	0.33	0.002130
	0.34509	42.92	2.60	41.45	14.12		
119.96	72.00	4406.13	3.13	3.36	402.59	0.33	0.002129
	0.36401	43.79	2.74	42.21	13.48		
134.91	73.00	4406.47	3.47	3.59	484.36	0.34	0.002120
	0.39423	45.27	2.98	43.53	12.55		
147.35	74.00	4406.74	3.74	3.78	556.30	0.34	0.002110
	0.41734	46.48	3.17	44.60	11.92		
	75.00	4406.99	3.99	3.94	625.35	0.35	

		HYCHAN.OUT					
158.62	47.55	3.34	45.54	11.43	0.002108		
0.43890	22771.03						
76.00	4407.29	4.29	4.14	716.61	0.35		
172.91	48.87	3.54	46.72	10.90	0.002106		
0.46484	23359.56						
77.00	4407.59	4.59	4.36	818.53	0.36		
187.89	50.22	3.74	47.91	10.43	0.002106		
0.49161	23956.91						
78.00	4407.92	4.92	4.58	933.67	0.36		
204.06	51.65	3.95	49.18	10.00	0.002103		
0.51835	24587.84						
79.00	4408.21	5.21	4.77	1043.32	0.37		
218.78	52.92	4.13	50.30	9.66	0.002103		
0.54260	25150.11						
80.00	4408.53	5.53	4.99	1174.75	0.37		
235.57	54.33	4.34	51.55	9.33	0.002105		
0.56957	25776.58						
81.00	4408.91	5.91	5.24	1342.31	0.38		
255.97	56.01	4.57	53.04	8.98	0.002108		
0.60125	26518.81						
82.00	4409.25	6.25	5.47	1503.58	0.39		
274.70	57.51	4.78	54.37	8.70	0.002108		
0.62830	27182.55						
83.00	4409.49	6.49	5.64	1627.28	0.39		
288.51	58.59	4.92	55.32	8.52	0.002109		
0.64794	27661.65						
84.00	4409.64	6.64	5.74	1703.61	0.39		
296.88	59.23	5.01	55.89	8.42	0.002106		
0.65855	27947.00						
85.00	4409.75	6.75	5.82	1765.83	0.39		
303.50	59.74	5.08	56.34	8.34	0.002112		
0.66964	28171.64						
86.00	4409.90	6.90	5.91	1844.01	0.40		
311.94	60.37	5.17	56.90	8.25	0.002102		
0.67780	28452.03						
87.00	4409.98	6.98	5.97	1889.38	0.40		
316.63	60.73	5.21	57.22	8.20	0.002107		
0.68540	28608.49						
88.00	4410.05	7.05	6.02	1928.81	0.40		
320.63	61.03	5.25	57.48	8.16	0.002107		
0.69076	28741.45						
89.00	4410.05	7.05	6.02	1930.80	0.40		
320.81	61.04	5.26	57.49	8.16	0.002108		
0.69135	28747.49						
90.00	4410.04	7.04	6.00	1920.91	0.40		
320.13	60.98	5.25	57.44	8.16	0.002104		
0.68931	28720.85						
91.00	4409.99	6.99	5.97	1895.36	0.40		
317.64	60.79	5.23	57.27	8.19	0.002097		
0.68391	28636.43						
92.00	4409.92	6.92	5.92	1852.90	0.40		
313.22	60.46	5.18	56.98	8.24	0.002104		
0.68011	28489.50						
93.00	4409.85	6.85	5.87	1818.13	0.40		
309.52	60.18	5.14	56.73	8.28	0.002097		
0.67309	28366.91						
94.00	4409.78	6.78	5.82	1778.97	0.39		
305.42	59.87	5.10	56.46	8.32	0.002098		
0.66787	28228.66						
95.00	4409.70	6.70	5.77	1731.53	0.39		
300.27	59.48	5.05	56.11	8.38	0.002101		
0.66171	28056.20						
96.00	4409.61	6.61	5.71	1688.02	0.39		

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		HYCHAN.OUT					
295.45	59.11	5.00	55.79	8.44	0.002100		
0.65502	27893.95						
97.00	4409.53	6.53	5.66	1644.55	0.39		
290.59	58.74	4.95	55.46	8.50	0.002103		
0.64918	27730.12						
98.00	4409.47	6.47	5.62	1612.92	0.39		
287.14	58.47	4.91	55.22	8.54	0.002098		
0.64288	27610.98						
99.00	4409.39	6.39	5.56	1572.87	0.39		
282.74	58.13	4.86	54.92	8.60	0.002097		
0.63658	27458.38						
100.00	4409.22	6.22	5.44	1486.47	0.38		
273.27	57.37	4.76	54.25	8.73	0.002088		
0.62052	27122.57						
101.00	4408.92	5.92	5.24	1345.06	0.38		
256.89	56.06	4.58	53.08	8.97	0.002085		
0.59631	26540.76						
102.00	4408.65	5.65	5.05	1224.61	0.37		
242.28	54.87	4.42	52.03	9.21	0.002087		
0.57500	26013.73						
103.00	4408.41	5.41	4.89	1124.57	0.37		
229.74	53.82	4.27	51.10	9.44	0.002086		
0.55560	25551.36						
104.00	4408.18	5.18	4.74	1033.30	0.37		
217.87	52.82	4.12	50.21	9.69	0.002085		
0.53667	25107.04						
105.00	4407.97	4.97	4.60	953.96	0.36		
207.21	51.90	3.99	49.40	9.93	0.002086		
0.51967	24700.61						
106.00	4407.75	4.75	4.45	872.58	0.36		
195.96	50.92	3.85	48.53	10.21	0.002085		
0.50065	24265.96						
107.00	4407.52	4.52	4.30	793.65	0.36		
184.63	49.92	3.70	47.64	10.53	0.002088		
0.48180	23821.10						
108.00	4407.23	4.23	4.10	699.07	0.35		
170.52	48.62	3.51	46.49	10.99	0.002085		
0.45622	23247.03						
109.00	4406.88	3.88	3.87	595.25	0.35		
153.96	47.09	3.27	45.14	11.63	0.002094		
0.42720	22568.23						
110.00	4406.66	3.66	3.72	534.92	0.34		
143.87	46.13	3.12	44.29	12.09	0.002098		
0.40833	22142.97						
111.00	4406.44	3.44	3.56	476.80	0.34		
133.77	45.14	2.96	43.41	12.62	0.002106		
0.38946	21707.43						
112.00	4406.22	3.22	3.41	423.61	0.34		
124.05	44.19	2.81	42.57	13.21	0.002112		
0.37004	21283.34						
113.00	4406.07	3.07	3.31	387.45	0.33		
117.21	43.50	2.69	41.96	13.69	0.002115		
0.35569	20978.16						
114.00	4405.90	2.90	3.19	351.53	0.33		
110.17	42.78	2.58	41.32	14.24	0.002124		
0.34138	20659.67						
115.00	4405.90	2.90	3.20	351.49	0.33		
110.01	42.77	2.57	41.32	14.24	0.002135		
0.34259	20657.68						
116.00	4405.86	2.86	3.15	342.88	0.33		
108.71	42.58	2.55	41.15	14.40	0.002112		
0.33647	20573.48						
117.00	4405.36	2.36	2.80	245.91	0.32		

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HYCHAN.OUT						
87.79	0.29090	40.41	2.17	39.22	16.59	0.002146
118.00		19611.07				
79.03	0.26962	4405.15	2.15	2.64	208.67	0.32
119.00		39.46	2.00	38.38	17.86	0.002158
70.18	0.24698	19190.09				
120.00		4404.92	1.92	2.47	173.16	0.31
60.63	0.22133	38.47	1.82	37.51	19.49	0.002170
51.63	0.19559	18753.05				
46.25	0.17909	4404.68	1.68	2.27	137.78	0.31
43.19	0.16957	37.37	1.62	36.53	21.81	0.002186
40.11	0.15974	18266.36				
36.90	0.14905	4404.44	1.44	2.08	107.14	0.31
33.54	0.13763	36.33	1.42	35.61	24.75	0.002206
30.08	0.12554	17805.27				
27.49	0.11640	4404.30	1.30	1.95	90.10	0.30
27.34	0.11631	35.71	1.30	35.06	27.04	0.002216
27.32	0.11463	17528.63				
27.26	0.11656	4404.21	1.21	1.87	80.86	0.30
27.30	0.11441	35.34	1.22	34.73	28.62	0.002224
27.22	0.11651	17366.35				
27.30	0.11497	4404.13	1.13	1.79	71.95	0.30
27.20	0.11524	34.97	1.15	34.40	30.49	0.002232
27.26	0.11624	17200.24				
27.24	0.11429	4404.04	1.04	1.71	63.08	0.30
138.00		34.57	1.07	34.05	32.78	0.002238
		17025.90				
		4403.94	0.94	1.62	54.21	0.29
		34.16	0.98	33.68	35.68	0.002247
		16841.05				
		4403.85	0.85	1.52	45.61	0.29
		33.72	0.89	33.30	39.36	0.002255
		16649.72				
		4403.78	0.78	1.43	39.43	0.29
		33.41	0.82	33.02	42.60	0.002267
		16511.55				
		4403.77	0.77	1.43	38.99	0.29
		33.40	0.82	33.01	42.75	0.002277
		16505.67				
		4403.77	0.77	1.43	39.04	0.29
		33.40	0.82	33.01	42.77	0.002246
		16505.00				
		4403.77	0.77	1.43	38.94	0.29
		33.38	0.82	33.00	42.92	0.002288
		16499.08				
		4403.77	0.77	1.43	39.07	0.29
		33.41	0.82	33.02	42.67	0.002244
		16508.79				
		4403.77	0.77	1.43	38.91	0.29
		33.39	0.82	33.00	42.87	0.002290
		16501.19				
		4403.77	0.77	1.43	39.11	0.29
		33.41	0.82	33.02	42.66	0.002255
		16509.30				
		4403.77	0.77	1.43	38.91	0.29
		33.40	0.81	33.01	42.76	0.002267
		16505.57				
		4403.77	0.77	1.43	39.04	0.29
		33.40	0.82	33.01	42.76	0.002283
		16505.60				
		4403.77	0.77	1.43	39.02	0.29
		33.41	0.82	33.02	42.62	0.002246
		16510.88				
		4403.77	0.77	1.43	38.92	0.29

		HYCHAN.OUT					
27.20	0.11651	33.40	0.81	33.01	42.80	0.002292	
	139.00	4403.78	0.78	1.43	39.10	0.29	
27.27	0.11473	33.41	0.82	33.02	42.59	0.002253	
	140.00	4403.77	0.77	1.43	38.91	0.29	
27.18	0.11543	33.40	0.81	33.01	42.72	0.002273	
	141.00	4403.77	0.77	1.43	39.06	0.29	
27.24	0.11593	33.41	0.82	33.02	42.68	0.002278	
	142.00	4403.78	0.78	1.43	38.99	0.29	
27.21	0.11435	33.41	0.81	33.02	42.59	0.002251	
	143.00	4403.77	0.77	1.43	38.95	0.29	
27.19	0.11656	33.40	0.81	33.01	42.74	0.002295	
	144.00	4403.78	0.78	1.44	39.09	0.29	
27.23	0.11443	33.42	0.81	33.03	42.53	0.002250	
	145.00	4403.77	0.77	1.43	38.90	0.29	
27.16	0.11565	33.41	0.81	33.02	42.69	0.002280	
	146.00	4403.77	0.77	1.43	39.07	0.29	
27.23	0.11579	33.41	0.81	33.02	42.62	0.002277	
	147.00	4403.78	0.78	1.43	38.98	0.29	
27.19	0.11437	33.42	0.81	33.03	42.56	0.002253	
	148.00	4403.77	0.77	1.43	38.96	0.29	
27.19	0.11649	33.40	0.81	33.01	42.71	0.002294	
	149.00	4403.78	0.78	1.44	39.09	0.29	
27.23	0.11438	33.42	0.81	33.03	42.52	0.002250	
	150.00	4403.77	0.77	1.43	38.90	0.29	
27.15	0.11567	33.40	0.81	33.02	42.70	0.002281	
	151.00	4403.77	0.77	1.44	39.07	0.29	
27.22	0.11585	33.41	0.81	33.02	42.63	0.002279	
	152.00	4403.78	0.78	1.43	38.98	0.29	
27.18	0.11437	33.42	0.81	33.03	42.57	0.002253	
	153.00	4403.77	0.77	1.43	38.96	0.29	
27.17	0.11652	33.40	0.81	33.01	42.73	0.002295	
	154.00	4403.78	0.78	1.44	39.09	0.29	
27.22	0.11442	33.42	0.81	33.03	42.53	0.002251	
	155.00	4403.77	0.77	1.43	38.91	0.29	
27.16	0.11541	33.41	0.81	33.02	42.66	0.002275	
	156.00	4403.77	0.77	1.44	39.06	0.29	
27.21	0.11588	33.41	0.81	33.02	42.65	0.002280	
	157.00	4403.78	0.78	1.43	38.99	0.29	
27.20	0.11426	33.42	0.81	33.03	42.54	0.002250	
	158.00	4403.77	0.77	1.43	38.94	0.29	
27.17	0.11652	33.40	0.81	33.01	42.73	0.002296	
	159.00	4403.78	0.78	1.44	39.11	0.29	



		HYCHAN.OUT					
27.23	0.11463	33.42	0.81	33.03	42.54	0.002255	
	160.00	4403.77	0.77	1.43	38.92	0.29	
27.15	0.11496	33.41	0.81	33.02	42.64	0.002267	
	161.00	4403.77	0.77	1.43	39.03	0.29	
27.20	0.11628	33.41	0.81	33.02	42.68	0.002289	
	162.00	4403.78	0.78	1.43	39.04	0.29	
27.21	0.11415	33.42	0.81	33.03	42.51	0.002247	
	163.00	4403.77	0.77	1.43	38.90	0.29	
27.16	0.11624	33.40	0.81	33.01	42.71	0.002291	
	164.00	4403.78	0.78	1.44	39.12	0.29	
27.24	0.11446	33.42	0.82	33.03	42.54	0.002250	
	165.00	4403.77	0.77	1.43	38.87	0.29	
27.14	0.11633	33.40	0.81	33.01	42.71	0.002294	
	166.00	4403.78	0.78	1.44	39.11	0.29	
27.23	0.11435	33.42	0.81	33.03	42.50	0.002249	
	167.00	4403.77	0.77	1.43	38.91	0.29	
27.15	0.11647	33.40	0.81	33.01	42.74	0.002296	
	168.00	4403.78	0.78	1.44	39.08	0.29	
27.22	0.11428	33.42	0.81	33.03	42.50	0.002249	
	169.00	4403.77	0.77	1.43	38.95	0.29	
27.17	0.11638	33.40	0.81	33.01	42.74	0.002293	
	170.00	4403.78	0.78	1.44	39.05	0.29	
27.21	0.11416	33.42	0.81	33.03	42.51	0.002247	
	171.00	4403.77	0.77	1.43	38.92	0.29	
27.17	0.11656	33.40	0.81	33.01	42.71	0.002296	
	172.00	4403.78	0.78	1.44	39.10	0.29	
27.23	0.11440	33.42	0.81	33.03	42.53	0.002250	
	173.00	4403.77	0.77	1.43	38.90	0.29	
27.14	0.11571	33.40	0.81	33.02	42.71	0.002282	
	174.00	4403.78	0.78	1.44	39.10	0.29	
27.24	0.11500	33.41	0.82	33.02	42.59	0.002261	
	175.00	4403.77	0.78	1.43	38.93	0.29	
27.16	0.11484	33.41	0.81	33.02	42.61	0.002264	
	176.00	4403.77	0.77	1.43	38.99	0.29	
27.19	0.11640	33.40	0.81	33.02	42.69	0.002292	
	177.00	4403.78	0.78	1.44	39.07	0.29	
27.22	0.11416	33.42	0.81	33.03	42.51	0.002247	
	178.00	4403.77	0.77	1.43	38.90	0.29	
27.15	0.11603	33.40	0.81	33.02	42.70	0.002287	
	179.00	4403.78	0.78	1.44	39.10	0.29	
27.23	0.11509	33.41	0.81	33.02	42.58	0.002263	
	180.00	4403.77	0.77	1.43	38.94	0.29	

		HYCHAN.OUT				
27.17	33.41	0.81	33.02	42.61	0.002260	
0.11469	16511.17					
181.00	4403.77	0.77	1.43	38.98	0.29	
27.19	33.40	0.81	33.01	42.71	0.002293	
0.11646	16507.43					
182.00	4403.78	0.78	1.44	39.07	0.29	
27.22	33.42	0.81	33.03	42.52	0.002248	
0.11426	16514.75					
183.00	4403.77	0.77	1.43	38.90	0.29	
27.15	33.40	0.81	33.01	42.71	0.002285	
0.11587	16507.24					
184.00	4403.78	0.78	1.44	39.11	0.29	
27.25	33.42	0.82	33.03	42.55	0.002261	
0.11502	16513.44					
185.00	4403.77	0.77	1.43	38.93	0.29	
27.16	33.41	0.81	33.02	42.61	0.002262	
0.11474	16511.05					
186.00	4403.77	0.77	1.43	39.04	0.29	
27.21	33.41	0.81	33.02	42.66	0.002276	
0.11570	16509.14					
187.00	4403.78	0.78	1.43	38.93	0.29	
27.15	33.41	0.81	33.02	42.60	0.002268	
0.11503	16511.65					
188.00	4403.77	0.77	1.44	39.09	0.29	
27.23	33.41	0.81	33.02	42.61	0.002264	
0.11511	16511.19					
189.00	4403.77	0.77	1.43	38.89	0.29	
27.14	33.41	0.81	33.02	42.66	0.002284	
0.11576	16509.26					
190.00	4403.78	0.78	1.44	39.12	0.29	
27.25	33.42	0.82	33.03	42.54	0.002258	
0.11489	16513.82					
191.00	4403.77	0.77	1.43	38.88	0.29	
27.13	33.41	0.81	33.02	42.69	0.002285	
0.11581	16508.28					
192.00	4403.78	0.78	1.44	39.12	0.29	
27.24	33.42	0.82	33.03	42.55	0.002253	
0.11461	16513.71					
193.00	4403.77	0.77	1.43	38.87	0.29	
27.13	33.40	0.81	33.01	42.71	0.002293	
0.11623	16507.15					
194.00	4403.78	0.78	1.44	39.12	0.29	
27.25	33.42	0.82	33.03	42.49	0.002249	
0.11444	16515.76					
195.00	4403.77	0.77	1.43	38.88	0.29	
27.15	33.40	0.81	33.01	42.74	0.002295	
0.11641	16506.37					
196.00	4403.78	0.78	1.44	39.11	0.29	
27.24	33.42	0.82	33.03	42.51	0.002248	
0.11432	16514.97					
197.00	4403.77	0.77	1.43	38.90	0.29	
27.15	33.40	0.81	33.01	42.74	0.002297	
0.11650	16506.19					
198.00	4403.78	0.78	1.44	39.08	0.29	
27.22	33.42	0.81	33.03	42.50	0.002249	
0.11428	16515.65					
199.00	4403.77	0.77	1.43	38.94	0.29	
27.17	33.40	0.81	33.01	42.73	0.002294	
0.11643	16506.41					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2347

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HYCHAN.OUT

MAXIMUM DISCHARGE (CFS) = 1938.91 AT TIME = 88.00  
 MAXIMUM STAGE = 4408.99 AT TIME = 88.00

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
	(LB/FT^2)	(FT)	(FT^2)		(FT)			
0.00	0.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4401.50	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4401.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4401.51	0.01	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
	0.00000	0.00							
0.00	60.00	4401.51	0.01	0.00	0.00	0.00	0.00	0.000000	
		0.00	0.00	0.00	0.00	0.00	0.00		
	0.00000	0.00							
0.00	61.00	4401.52	0.02	0.00	0.00	0.00	0.00	0.000000	
		0.00	0.00	0.00	0.00	0.00	0.00		
	0.00000	0.00							
22.08	62.00	4402.00	0.50	0.68	15.05	0.17			
		32.21	0.69	31.96	63.55		0.001609		
	0.06879	15980.71							
26.54	63.00	4402.36	0.86	1.22	32.49	0.23			
		33.77	0.79	33.34	38.90		0.001568		
	0.07687	16671.62							
34.93	64.00	4402.60	1.10	1.45	50.54	0.24			
		34.86	1.00	34.30	31.10		0.001545		
	0.09663	17150.49							
39.33	65.00	4402.73	1.23	1.57	61.56	0.25			
		35.44	1.11	34.82	28.20		0.001543		
	0.10690	17407.52							
46.75	66.00	4402.95	1.45	1.75	81.69	0.26			
		36.37	1.29	35.64	24.64		0.001546		
	0.12399	17820.27							
63.63	67.00	4403.41	1.91	2.12	134.69	0.27			
		38.42	1.66	37.46	19.59		0.001524		
	0.15751	18728.52							
81.28	68.00	4403.87	2.37	2.46	199.57	0.28			
		40.45	2.01	39.26	16.54		0.001509		
	0.18915	19629.96							
98.75	69.00	4404.31	2.81	2.76	272.75	0.29			
		42.38	2.33	40.97	14.57		0.001495		
	0.21735	20484.44							
111.59	70.00	4404.63	3.13	2.98	332.14	0.30			
		43.76	2.55	42.19	13.50		0.001485		
	0.23629	21094.90							
116.80	71.00	4404.75	3.25	3.06	357.49	0.30			
		44.31	2.64	42.67	13.13		0.001484		
	0.24416	21336.12							
125.41	72.00	4404.95	3.45	3.19	400.64	0.30			
		45.19	2.78	43.45	12.60		0.001483		
	0.25677	21727.09							
140.73	73.00	4405.30	3.80	3.43	482.31	0.31			
		46.73	3.01	44.82	11.79		0.001478		
	0.27766	22410.34							
153.49	74.00	4405.58	4.08	3.62	554.92	0.32			
		47.98	3.20	45.93	11.24		0.001472		
	0.29378	22965.43							
164.95	75.00	4405.83	4.33	3.78	623.40	0.32			
		49.08	3.36	46.90	10.82		0.001472		
	0.30865	23450.23							
179.47	76.00	4406.14	4.64	3.98	714.65	0.33			
		50.44	3.56	48.11	10.36		0.001468		
	0.32588	24053.18							
194.75	77.00	4406.46	4.96	4.19	816.17	0.33			
		51.83	3.76	49.34	9.95		0.001464		
	0.34316	24669.98							
211.24	78.00	4406.79	5.29	4.41	931.53	0.34			
		53.30	3.96	50.64	9.57		0.001460		
	0.36110	25320.52							
226.22	79.00	4407.09	5.59	4.60	1041.34	0.34			
		54.60	4.14	51.79	9.27		0.001458		
	0.37702	25896.34							
243.22	80.00	4407.41	5.91	4.82	1171.96	0.35			
		56.04	4.34	53.07	8.97		0.001458		

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## HYCHAN.OUT

	0.39487	26533.48						
263.94	81.00	4407.80	6.30	5.07	1339.45	0.36		
		57.75	4.57		54.58	8.66	0.001456	
	0.41510	27291.06						
283.00	82.00	4408.15	6.65	5.30	1501.27	0.36		
		59.28	4.77		55.94	8.41	0.001452	
	0.43237	27970.08						
297.05	83.00	4408.40	6.90	5.47	1625.79	0.37		
		60.39	4.92		56.92	8.25	0.001449	
	0.44471	28460.77						
305.63	84.00	4408.55	7.05	5.57	1702.74	0.37		
		61.06	5.01		57.51	8.15	0.001446	
	0.45163	28754.38						
312.35	85.00	4408.67	7.17	5.65	1764.83	0.37		
		61.57	5.07		57.97	8.08	0.001446	
	0.45760	28983.14						
321.04	86.00	4408.82	7.32	5.75	1844.68	0.37		
		62.23	5.16		58.55	8.00	0.001437	
	0.46261	29273.76						
325.78	87.00	4408.90	7.40	5.80	1890.12	0.38		
		62.59	5.21		58.87	7.95	0.001441	
	0.46793	29432.80						
329.84	88.00	4408.97	7.47	5.85	1929.63	0.38		
		62.89	5.24		59.14	7.92	0.001442	
	0.47178	29568.59						
330.11	89.00	4408.97	7.47	5.85	1931.12	0.38		
		62.91	5.25		59.15	7.91	0.001438	
	0.47085	29575.20						
329.83	90.00	4408.96	7.46	5.82	1921.16	0.38		
		62.87	5.25		59.11	7.92	0.001431	
	0.46862	29556.55						
327.43	91.00	4408.92	7.42	5.79	1896.01	0.37		
		62.68	5.22		58.95	7.94	0.001432	
	0.46667	29473.49						
322.86	92.00	4408.85	7.34	5.74	1853.57	0.37		
		62.34	5.18		58.65	7.98	0.001438	
	0.46489	29322.70						
319.01	93.00	4408.78	7.28	5.70	1818.56	0.37		
		62.05	5.14		58.39	8.02	0.001436	
	0.46081	29195.69						
314.84	94.00	4408.71	7.21	5.65	1779.79	0.37		
		61.73	5.10		58.11	8.06	0.001436	
	0.45698	29055.05						
309.53	95.00	4408.62	7.12	5.60	1732.12	0.37		
		61.33	5.05		57.75	8.12	0.001438	
	0.45301	28876.51						
304.40	96.00	4408.53	7.03	5.55	1688.89	0.37		
		60.95	4.99		57.41	8.17	0.001444	
	0.45013	28706.64						
299.32	97.00	4408.44	6.94	5.50	1645.06	0.37		
		60.56	4.94		57.07	8.22	0.001443	
	0.44514	28535.92						
295.85	98.00	4408.38	6.88	5.45	1613.45	0.37		
		60.29	4.91		56.83	8.26	0.001445	
	0.44240	28415.00						
291.42	99.00	4408.30	6.80	5.40	1573.59	0.37		
		59.94	4.86		56.52	8.31	0.001444	
	0.43805	28260.09						
281.95	100.00	4408.13	6.63	5.28	1488.64	0.36		
		59.18	4.76		55.85	8.43	0.001442	
	0.42861	27923.04						
265.34	101.00	4407.82	6.32	5.08	1347.37	0.36		
		57.84	4.59		54.66	8.64	0.001444	

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		HYCHAN.OUT						
	0.41326	27332.23						
102.00	4407.55	6.05	4.90	1226.42	0.35			
250.44	56.63	4.42	53.59	8.86	0.001449			
	0.39990	26793.44						
103.00	4407.31	5.81	4.74	1126.39	0.35			
237.71	55.56	4.28	52.64	9.07	0.001447			
	0.38637	26321.16						
104.00	4407.07	5.57	4.59	1034.80	0.34			
225.61	54.53	4.14	51.73	9.28	0.001452			
	0.37471	25866.58						
105.00	4406.86	5.36	4.45	955.53	0.34			
214.80	53.60	4.01	50.90	9.50	0.001451			
	0.36278	25450.96						
106.00	4406.63	5.13	4.30	874.26	0.33			
203.35	52.58	3.87	50.00	9.75	0.001454			
	0.35096	25002.35						
107.00	4406.39	4.89	4.15	795.19	0.33			
191.77	51.55	3.72	49.08	10.03	0.001456			
	0.33811	24542.42						
108.00	4406.09	4.59	3.95	701.76	0.33			
177.59	50.22	3.54	47.91	10.43	0.001452			
	0.32051	23955.11						
109.00	4405.73	4.23	3.72	596.93	0.32			
160.59	48.64	3.30	46.51	10.99	0.001461			
	0.30109	23255.28						
110.00	4405.51	4.01	3.57	536.28	0.31			
150.23	47.65	3.15	45.63	11.39	0.001466			
	0.28853	22815.28						
111.00	4405.28	3.78	3.42	478.40	0.31			
139.94	46.63	3.00	44.73	11.84	0.001469			
	0.27502	22364.09						
112.00	4405.05	3.55	3.27	424.68	0.31			
129.93	45.63	2.85	43.85	12.35	0.001474			
	0.26181	21924.03						
113.00	4404.89	3.39	3.16	388.44	0.30			
122.91	44.92	2.74	43.21	12.75	0.001474			
	0.25170	21607.20						
114.00	4404.72	3.22	3.05	352.56	0.30			
115.69	44.17	2.62	42.55	13.22	0.001480			
	0.24192	21276.03						
115.00	4404.71	3.21	3.04	350.13	0.30			
115.29	44.14	2.61	42.53	13.24	0.001485			
	0.24195	21263.07						
116.00	4404.68	3.18	3.02	345.83	0.30			
114.59	43.99	2.61	42.39	13.34	0.001461			
	0.23757	21195.01						
117.00	4404.16	2.66	2.67	247.66	0.29			
92.87	41.71	2.23	40.37	15.18	0.001489			
	0.20686	20184.56						
118.00	4403.93	2.43	2.51	209.92	0.28			
83.72	40.70	2.06	39.48	16.24	0.001494			
	0.19171	19739.46						
119.00	4403.69	2.19	2.34	174.48	0.28			
74.61	39.66	1.88	38.56	17.57	0.001498			
	0.17588	19278.88						
120.00	4403.43	1.93	2.15	139.21	0.27			
64.82	38.51	1.68	37.54	19.41	0.001503			
	0.15782	18771.20						
121.00	4403.18	1.68	1.95	108.18	0.27			
55.35	37.40	1.48	36.56	21.75	0.001519			
	0.14032	18277.61						
122.00	4403.02	1.52	1.83	90.64	0.26			
49.56	36.71	1.35	35.95	23.57	0.001531			

## HYCHAN.OUT

0.12894	17973.45						
123.00	4402.94	1.44	1.76	81.30	0.26		
46.32	36.32	1.28	35.60	24.81		0.001534	
0.12206	17798.36						
124.00	4402.84	1.34	1.68	72.42	0.26		
43.09	35.92	1.20	35.24	26.22		0.001538	
0.11514	17620.55						
125.00	4402.75	1.25	1.60	63.55	0.25		
39.72	35.49	1.12	34.87	27.94		0.001542	
0.10765	17433.37						
126.00	4402.65	1.15	1.51	54.72	0.25		
36.17	35.05	1.03	34.47	30.07		0.001550	
0.09984	17235.32						
127.00	4402.54	1.04	1.42	46.11	0.25		
32.50	34.58	0.94	34.06	32.73		0.001557	
0.09129	17029.40						
128.00	4402.46	0.96	1.34	39.61	0.24		
29.62	34.22	0.87	33.74	35.20		0.001564	
0.08449	16868.87						
129.00	4402.45	0.95	1.33	39.02	0.24		
29.41	34.19	0.86	33.71	35.40		0.001563	
0.08390	16857.38						
130.00	4402.45	0.95	1.33	38.94	0.24		
29.37	34.19	0.86	33.71	35.42		0.001572	
0.08427	16856.03						
131.00	4402.45	0.95	1.33	39.09	0.24		
29.45	34.19	0.86	33.71	35.45		0.001552	
0.08344	16854.24						
132.00	4402.45	0.95	1.32	38.94	0.24		
29.43	34.18	0.86	33.70	35.52		0.001565	
0.08411	16849.91						
133.00	4402.45	0.95	1.32	39.05	0.24		
29.51	34.17	0.86	33.70	35.55		0.001564	
0.08428	16848.38						
134.00	4402.45	0.95	1.32	39.00	0.24		
29.53	34.18	0.86	33.70	35.54		0.001542	
0.08316	16849.16						
135.00	4402.44	0.94	1.32	38.97	0.24		
29.54	34.16	0.86	33.68	35.65		0.001574	
0.08493	16842.25						
136.00	4402.45	0.95	1.32	39.06	0.24		
29.60	34.17	0.87	33.70	35.56		0.001538	
0.08313	16847.75						
137.00	4402.44	0.94	1.32	38.92	0.24		
29.55	34.16	0.87	33.68	35.67		0.001564	
0.08442	16841.54						
138.00	4402.45	0.95	1.32	39.06	0.24		
29.63	34.16	0.87	33.69	35.64		0.001556	
0.08421	16843.33						
139.00	4402.45	0.95	1.32	38.98	0.24		
29.62	34.16	0.87	33.69	35.63		0.001542	
0.08339	16843.65						
140.00	4402.44	0.94	1.32	38.98	0.24		
29.64	34.15	0.87	33.68	35.73		0.001569	
0.08497	16837.93						
141.00	4402.45	0.95	1.32	39.06	0.24		
29.69	34.16	0.87	33.69	35.63		0.001531	
0.08300	16843.56						
142.00	4402.44	0.94	1.31	38.93	0.24		
29.65	34.15	0.87	33.67	35.76		0.001563	
0.08467	16836.28						
143.00	4402.44	0.94	1.31	39.08	0.24		
29.73	34.15	0.87	33.68	35.70		0.001543	

## HYCHAN.OUT

	0.08382	16839.53					
29.70	144.00	4402.44	0.94	1.31	38.96	0.24	
		34.15	0.87	33.67	35.74		0.001541
	0.08361	16837.29					
29.73	145.00	4402.44	0.94	1.31	39.00	0.24	
		34.14	0.87	33.67	35.80		0.001562
	0.08490	16833.84					
29.76	146.00	4402.44	0.94	1.31	39.05	0.24	
		34.15	0.87	33.68	35.70		0.001528
	0.08308	16839.56					
29.71	147.00	4402.44	0.94	1.31	38.92	0.24	
		34.14	0.87	33.67	35.81		0.001561
	0.08476	16833.20					
29.77	148.00	4402.44	0.94	1.31	39.08	0.24	
		34.15	0.87	33.68	35.73		0.001539
	0.08371	16838.10					
29.72	149.00	4402.44	0.94	1.31	38.96	0.24	
		34.15	0.87	33.67	35.76		0.001541
	0.08367	16836.12					
29.73	150.00	4402.44	0.94	1.31	39.00	0.24	
		34.14	0.87	33.67	35.81		0.001561
	0.08485	16833.49					
29.75	151.00	4402.44	0.94	1.31	39.05	0.24	
		34.15	0.87	33.68	35.71		0.001528
	0.08305	16838.95					
29.70	152.00	4402.44	0.94	1.31	38.92	0.24	
		34.14	0.87	33.67	35.82		0.001562
	0.08481	16832.64					
29.76	153.00	4402.44	0.94	1.31	39.08	0.24	
		34.15	0.87	33.67	35.74		0.001543
	0.08391	16837.08					
29.71	154.00	4402.44	0.94	1.31	38.96	0.24	
		34.15	0.87	33.67	35.76		0.001540
	0.08362	16836.07					
29.72	155.00	4402.44	0.94	1.31	38.99	0.24	
		34.14	0.87	33.67	35.82		0.001564
	0.08498	16832.93					
29.75	156.00	4402.44	0.94	1.31	39.05	0.24	
		34.15	0.87	33.68	35.71		0.001529
	0.08311	16839.00					
29.70	157.00	4402.44	0.94	1.31	38.92	0.24	
		34.14	0.87	33.67	35.82		0.001559
	0.08463	16832.81					
29.76	158.00	4402.44	0.94	1.31	39.07	0.24	
		34.15	0.87	33.67	35.75		0.001547
	0.08412	16836.52					
29.72	159.00	4402.44	0.94	1.31	38.98	0.24	
		34.15	0.87	33.67	35.75		0.001537
	0.08345	16836.65					
29.71	160.00	4402.44	0.94	1.31	38.97	0.24	
		34.14	0.87	33.66	35.83		0.001566
	0.08505	16832.16					
29.76	161.00	4402.44	0.94	1.31	39.08	0.24	
		34.15	0.87	33.68	35.72		0.001531
	0.08327	16838.74					
29.69	162.00	4402.44	0.94	1.31	38.93	0.24	
		34.14	0.87	33.67	35.80		0.001548
	0.08404	16833.70					
29.75	163.00	4402.44	0.94	1.31	39.04	0.24	
		34.14	0.87	33.67	35.79		0.001555
	0.08453	16834.63					
29.72	164.00	4402.44	0.94	1.31	38.98	0.24	
		34.15	0.87	33.68	35.73		0.001537

		HYCHAN.OUT					
	0.08349	16837.70					
	165.00	4402.44	0.94	1.31	39.03	0.24	
29.75		34.14	0.87	33.67	35.81		0.001553
	0.08446	16833.34					
	166.00	4402.44	0.94	1.31	38.95	0.24	
29.73		34.15	0.87	33.67	35.76		0.001546
	0.08401	16836.10					
	167.00	4402.44	0.94	1.31	39.07	0.24	
29.79		34.14	0.87	33.67	35.78		0.001542
	0.08396	16834.93					
	168.00	4402.44	0.94	1.31	38.92	0.24	
29.72		34.14	0.87	33.67	35.79		0.001552
	0.08428	16834.47					
	169.00	4402.44	0.94	1.31	39.09	0.24	
29.78		34.15	0.87	33.67	35.74		0.001533
	0.08343	16837.44					
	170.00	4402.44	0.94	1.31	38.91	0.24	
29.71		34.14	0.87	33.67	35.81		0.001557
	0.08455	16833.03					
	171.00	4402.44	0.94	1.31	39.07	0.24	
29.76		34.15	0.87	33.67	35.75		0.001546
	0.08408	16836.58					
	172.00	4402.44	0.94	1.31	38.95	0.24	
29.71		34.15	0.87	33.67	35.76		0.001541
	0.08365	16836.16					
	173.00	4402.44	0.94	1.31	39.01	0.24	
29.73		34.14	0.87	33.67	35.82		0.001561
	0.08486	16832.99					
	174.00	4402.44	0.94	1.31	39.03	0.24	
29.74		34.15	0.87	33.68	35.71		0.001529
	0.08310	16839.11					
	175.00	4402.44	0.94	1.31	38.95	0.24	
29.71		34.14	0.87	33.66	35.83		0.001565
	0.08499	16832.03					
	176.00	4402.44	0.94	1.31	39.06	0.24	
29.75		34.15	0.87	33.68	35.73		0.001537
	0.08354	16838.00					
	177.00	4402.44	0.94	1.31	38.94	0.24	
29.71		34.14	0.87	33.67	35.79		0.001549
	0.08409	16834.30					
	178.00	4402.44	0.94	1.31	39.02	0.24	
29.74		34.14	0.87	33.67	35.79		0.001559
	0.08476	16834.30					
	179.00	4402.44	0.94	1.31	39.02	0.24	
29.74		34.15	0.87	33.68	35.72		0.001530
	0.08316	16838.53					
	180.00	4402.44	0.94	1.31	38.95	0.24	
29.72		34.14	0.87	33.67	35.81		0.001564
	0.08494	16833.26					
	181.00	4402.44	0.94	1.31	39.07	0.24	
29.76		34.15	0.87	33.68	35.73		0.001538
	0.08363	16837.96					
	182.00	4402.44	0.94	1.31	38.95	0.24	
29.71		34.14	0.87	33.67	35.78		0.001545
	0.08390	16834.99					
	183.00	4402.44	0.94	1.31	39.02	0.24	
29.74		34.14	0.87	33.67	35.80		0.001560
	0.08481	16833.90					
	184.00	4402.44	0.94	1.31	39.02	0.24	
29.74		34.15	0.87	33.68	35.71		0.001528
	0.08303	16839.02					
	185.00	4402.44	0.94	1.31	38.95	0.24	
29.71		34.14	0.87	33.66	35.83		0.001563

## HYCHAN.OUT

0.08490	16832.12						
186.00	4402.44	0.94	1.31	39.08	0.24		
29.77	34.15	0.87	33.68	35.71		0.001523	
0.08284	16838.91						
187.00	4402.44	0.94	1.31	38.91	0.24		
29.71	34.13	0.87	33.66	35.86		0.001568	
0.08517	16830.57						
188.00	4402.44	0.94	1.31	39.06	0.24		
29.77	34.15	0.87	33.68	35.71		0.001526	
0.08300	16839.15						
189.00	4402.44	0.94	1.31	38.96	0.24		
29.74	34.13	0.87	33.66	35.85		0.001565	
0.08506	16830.76						
190.00	4402.44	0.94	1.31	39.03	0.24		
29.76	34.15	0.87	33.68	35.72		0.001529	
0.08315	16838.74						
191.00	4402.44	0.94	1.31	38.98	0.24		
29.74	34.13	0.87	33.66	35.84		0.001561	
0.08490	16831.29						
192.00	4402.44	0.94	1.31	39.01	0.24		
29.75	34.15	0.87	33.68	35.73		0.001533	
0.08332	16837.85						
193.00	4402.44	0.94	1.31	39.01	0.24		
29.76	34.14	0.87	33.66	35.83		0.001555	
0.08458	16832.21						
194.00	4402.44	0.94	1.31	38.97	0.24		
29.74	34.15	0.87	33.67	35.74		0.001539	
0.08363	16837.29						
195.00	4402.44	0.94	1.31	39.04	0.24		
29.76	34.14	0.87	33.67	35.79		0.001550	
0.08429	16834.57						
196.00	4402.44	0.94	1.31	38.95	0.24		
29.71	34.15	0.87	33.67	35.75		0.001544	
0.08383	16836.87						
197.00	4402.44	0.94	1.31	39.06	0.24		
29.77	34.14	0.87	33.67	35.78		0.001543	
0.08394	16835.01						
198.00	4402.44	0.94	1.31	38.92	0.24		
29.72	34.14	0.87	33.67	35.79		0.001551	
0.08427	16834.45						
199.00	4402.44	0.94	1.31	39.09	0.24		
29.80	34.15	0.87	33.67	35.75		0.001535	
0.08356	16836.49						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2348

MAXIMUM DISCHARGE (CFS) = 1938.26 AT TIME = 88.02  
 MAXIMUM STAGE = 4407.88 AT TIME = 87.94

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)			
0.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00					
1.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00					

HYCHAN.OUT							
0.00	2.00	4400.50	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	
0.00	0.00000	0.00					
	3.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	4.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	5.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	6.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	7.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	8.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	9.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	10.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	11.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	12.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	13.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	14.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	15.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	16.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	17.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	18.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	19.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	20.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	21.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					
	22.00	4400.50	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	
	0.00000	0.00					

HYCHAN.OUT							
0.00	23.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	24.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	25.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	26.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	27.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	28.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	29.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	30.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	31.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	32.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	33.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	34.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	35.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	36.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	37.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	38.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	39.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	40.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	41.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	42.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	43.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	



HYCHAN.OUT							
0.00	44.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	45.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	46.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	47.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	48.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	49.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	50.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	51.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	52.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	53.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	54.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	55.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	56.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	57.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	58.00	4400.50	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	59.00	4400.51	0.01	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	60.00	4400.51	0.01	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	61.00	4400.52	0.02	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
22.02	62.00	4400.90	0.40	0.55	12.17	0.15	
	0.06183	31.78	0.69	31.58	78.01		0.001430
25.30	63.00	4401.31	0.81	1.23	31.03	0.24	
	0.06660	33.58	0.75	33.17	40.80		0.001417
33.62	64.00	4401.57	1.07	1.48	49.67	0.25	
	0.08455	34.71	0.97	34.17	31.95		0.001399
		17769.09					

HYCHAN.OUT							
38.33	65.00	4401.69	1.19	1.59	61.01	0.26	0.001389
	0.09420	35.26	1.09	34.66	29.01		
		18022.83					
45.42	66.00	4401.89	1.39	1.76	79.79	0.26	0.001406
	0.11027	36.13	1.26	35.43	25.45		
		18422.98					
62.21	67.00	4402.35	1.85	2.12	132.16	0.28	0.001400
	0.14242	38.16	1.63	37.23	20.09		
		19357.16					
79.82	68.00	4402.82	2.32	2.47	197.03	0.29	0.001401
	0.17359	40.20	1.99	39.03	16.85		
		20297.62					
97.05	69.00	4403.25	2.75	2.79	270.33	0.30	0.001405
	0.20193	42.13	2.30	40.74	14.79		
		21185.44					
109.79	70.00	4403.57	3.07	3.02	331.12	0.30	0.001400
	0.22049	43.50	2.52	41.96	13.68		
		21819.70					
114.91	71.00	4403.69	3.19	3.11	356.85	0.31	0.001404
	0.22859	44.04	2.61	42.44	13.31		
		22068.49					
123.14	72.00	4403.89	3.39	3.24	398.63	0.31	0.001413
	0.24179	44.91	2.74	43.21	12.76		
		22467.84					
138.07	73.00	4404.23	3.73	3.48	480.20	0.32	0.001419
	0.26326	46.44	2.97	44.56	11.94		
		23170.96					
150.54	74.00	4404.51	4.01	3.68	553.51	0.32	0.001422
	0.28022	47.68	3.16	45.66	11.37		
		23741.56					
161.62	75.00	4404.76	4.26	3.84	621.42	0.33	0.001430
	0.29584	48.75	3.31	46.61	10.94		
		24238.47					
175.71	76.00	4405.06	4.56	4.06	712.64	0.33	0.001435
	0.31404	50.09	3.51	47.80	10.47		
		24855.99					
190.53	77.00	4405.38	4.88	4.27	813.77	0.34	0.001441
	0.33277	51.47	3.70	49.02	10.05		
		25488.82					
206.63	78.00	4405.71	5.21	4.50	929.35	0.35	0.001443
	0.35156	52.92	3.90	50.30	9.66		
		26157.05					
221.28	79.00	4406.00	5.50	4.70	1039.32	0.35	0.001446
	0.36839	54.20	4.08	51.44	9.36		
		26748.60					
237.78	80.00	4406.32	5.82	4.92	1169.12	0.36	0.001454
	0.38790	55.62	4.27	52.70	9.05		
		27402.41					
258.05	81.00	4406.70	6.20	5.18	1336.54	0.37	0.001457
	0.40938	57.32	4.50	54.20	8.74		
		28182.22					
276.80	82.00	4407.05	6.55	5.42	1498.89	0.37	0.001457
	0.42785	58.84	4.70	55.54	8.48		
		28882.27					
290.69	83.00	4407.30	6.80	5.59	1624.26	0.38	0.001455
	0.44046	59.93	4.85	56.51	8.31		
		29387.56					
299.15	84.00	4407.45	6.95	5.69	1701.83	0.38	0.001452
	0.44743	60.60	4.94	57.10	8.22		
		29693.06					
305.70	85.00	4407.57	7.07	5.77	1763.78	0.38	0.001457
	0.45475	61.11	5.00	57.56	8.15		
		29928.74					

HYCHAN.OUT									
314.28	86.00	4407.72	7.22	5.87	1844.69	0.39			
	0.46105	61.77	5.09	58.14	8.06	0.001452			
	87.00	30232.79							
318.85	0.46700	4407.80	7.30	5.93	1890.12	0.39			
		62.12	5.13	58.45	8.01	0.001458			
	88.00	30395.85							
322.77	0.47028	4407.86	7.36	5.98	1929.79	0.39			
		62.42	5.17	58.72	7.97	0.001458			
	89.00	30535.29							
323.31	0.46807	4407.87	7.37	5.97	1931.15	0.39			
		62.45	5.18	58.74	7.97	0.001449			
	90.00	30547.26							
324.08	0.46589	4407.87	7.37	5.93	1921.24	0.38			
		62.45	5.19	58.74	7.97	0.001439			
	91.00	30547.28							
322.04	0.46411	4407.83	7.33	5.89	1896.59	0.38			
		62.28	5.17	58.59	7.99	0.001438			
	92.00	30467.64							
317.36	0.46107	4407.75	7.25	5.84	1854.27	0.38			
		61.93	5.12	58.29	8.04	0.001442			
	93.00	30308.25							
313.42	0.45807	4407.69	7.19	5.80	1818.97	0.38			
		61.64	5.08	58.02	8.07	0.001444			
	94.00	30172.77							
309.28	0.45404	4407.61	7.11	5.76	1780.62	0.38			
		61.32	5.04	57.74	8.12	0.001443			
	95.00	30027.24							
303.87	0.45022	4407.52	7.02	5.70	1732.75	0.38			
		60.92	4.99	57.38	8.17	0.001446			
	96.00	29840.11							
298.19	0.44600	4407.43	6.93	5.67	1689.81	0.38			
		60.51	4.93	57.03	8.23	0.001450			
	97.00	29653.76							
292.93	0.44099	4407.34	6.84	5.62	1645.54	0.38			
		60.11	4.87	56.67	8.29	0.001450			
	98.00	29470.97							
289.61	0.43787	4407.28	6.78	5.57	1614.02	0.38			
		59.85	4.84	56.44	8.33	0.001450			
	99.00	29348.60							
285.34	0.43290	4407.20	6.70	5.52	1574.28	0.38			
		59.51	4.80	56.14	8.38	0.001447			
	100.00	29191.02							
276.28	0.42263	4407.03	6.53	5.40	1490.86	0.37			
		58.77	4.70	55.48	8.49	0.001441			
	101.00	28849.70							
260.06	0.40597	4406.73	6.23	5.19	1349.71	0.37			
		57.44	4.53	54.31	8.71	0.001437			
	102.00	28240.36							
245.45	0.39094	4406.46	5.96	5.00	1228.30	0.36			
		56.23	4.37	53.24	8.94	0.001435			
	103.00	27683.06							
233.05	0.37715	4406.22	5.72	4.84	1128.22	0.36			
		55.18	4.22	52.30	9.15	0.001431			
	104.00	27198.32							
221.22	0.36445	4405.99	5.49	4.68	1036.38	0.35			
		54.16	4.08	51.40	9.37	0.001430			
	105.00	26729.65							
210.71	0.35210	4405.78	5.28	4.54	957.09	0.35			
		53.24	3.96	50.59	9.58	0.001426			
	106.00	26304.38							
199.61	0.33857	4405.55	5.05	4.39	875.97	0.34			
		52.25	3.82	49.70	9.84	0.001420			
		25846.49							

		HYCHAN.OUT							
107.00	4405.32	4.82	4.23	796.76	0.34				
188.34	51.22	3.68		48.80	10.12			0.001415	
0.32476	25374.81								
108.00	4405.03	4.53	4.03	704.44	0.33				
174.80	49.94	3.50		47.67	10.52			0.001400	
0.30581	24785.97								
109.00	4404.67	4.17	3.79	598.70	0.33				
158.09	48.36	3.27		46.27	11.09			0.001404	
0.28632	24058.81								
110.00	4404.45	3.95	3.63	537.68	0.32				
147.94	47.38	3.12		45.39	11.50			0.001400	
0.27287	23603.91								
111.00	4404.22	3.72	3.48	480.01	0.32				
137.98	46.38	2.98		44.51	11.96			0.001390	
0.25810	23144.48								
112.00	4403.99	3.49	3.32	425.79	0.31				
128.12	45.39	2.82		43.63	12.48			0.001392	
0.24522	22687.23								
113.00	4403.83	3.33	3.21	389.44	0.31				
121.26	44.68	2.71		43.00	12.90			0.001388	
0.23507	22360.90								
114.00	4403.67	3.17	3.10	353.64	0.31				
114.25	43.94	2.60		42.35	13.38			0.001384	
0.22452	22021.05								
115.00	4403.65	3.15	3.08	348.77	0.31				
113.42	43.89	2.58		42.30	13.41			0.001406	
0.22680	21996.10								
116.00	4403.64	3.14	3.07	348.67	0.31				
113.64	43.83	2.59		42.25	13.45			0.001354	
0.21913	21968.93								
117.00	4403.12	2.62	2.71	249.59	0.29				
92.26	41.53	2.22		40.22	15.35			0.001372	
0.19020	20911.88								
118.00	4402.89	2.39	2.54	211.18	0.29				
83.15	40.52	2.05		39.32	16.45			0.001364	
0.17467	20447.53								
119.00	4402.66	2.16	2.37	175.83	0.28				
74.29	39.50	1.88		38.41	17.80			0.001357	
0.15924	19975.72								
120.00	4402.40	1.90	2.17	140.67	0.28				
64.80	38.37	1.69		37.41	19.68			0.001347	
0.14196	19455.73								
121.00	4402.15	1.64	1.97	109.30	0.27				
55.49	37.24	1.49		36.41	22.14			0.001347	
0.12528	18935.80								
122.00	4401.98	1.48	1.84	91.24	0.27				
49.67	36.53	1.36		35.78	24.13			0.001352	
0.11470	18607.68								
123.00	4401.89	1.39	1.76	81.76	0.26				
46.45	36.13	1.29		35.43	25.45			0.001349	
0.10820	18422.71								
124.00	4401.80	1.30	1.68	72.89	0.26				
43.33	35.72	1.21		35.07	26.97			0.001344	
0.10171	18236.72								
125.00	4401.70	1.20	1.60	64.05	0.26				
40.06	35.30	1.14		34.69	28.84			0.001341	
0.09495	18039.54								
126.00	4401.60	1.10	1.51	55.26	0.25				
36.68	34.84	1.05		34.29	31.20			0.001334	
0.08763	17828.77								
127.00	4401.49	0.99	1.41	46.63	0.25				
33.13	34.36	0.96		33.86	34.21			0.001332	
0.08018	17606.95								

HYCHAN.OUT							
30.07	128.00	4401.40	0.90	1.32	39.81	0.25	
	0.07414	33.98	0.88	33.52	37.12		0.001343
	129.00	17431.32					
29.68	0.07289	4401.40	0.90	1.31	39.00	0.24	
	130.00	33.95	0.87	33.50	37.34		0.001336
	0.07289	17419.11					
29.66	131.00	4401.40	0.90	1.31	38.97	0.24	
	0.07413	33.94	0.87	33.49	37.41		0.001360
	132.00	17415.68					
29.59	0.07306	4401.40	0.90	1.32	39.00	0.24	
	133.00	33.97	0.87	33.51	37.21		0.001344
	0.07412	17426.72					
29.47	134.00	4401.40	0.90	1.32	38.99	0.25	
	0.07412	33.97	0.87	33.52	37.16		0.001369
	135.00	17429.10					
29.38	0.07288	4401.41	0.91	1.33	39.01	0.25	
	136.00	34.00	0.86	33.54	36.96		0.001352
	0.07288	17440.50					
29.25	137.00	4401.41	0.91	1.33	38.95	0.25	
	0.07394	34.00	0.86	33.54	36.93		0.001377
	138.00	17441.89					
29.22	0.07341	4401.41	0.91	1.34	39.04	0.25	
	139.00	34.02	0.86	33.56	36.77		0.001370
	0.07341	17450.65					
29.13	140.00	4401.41	0.91	1.34	38.97	0.25	
	0.07323	34.02	0.86	33.56	36.75		0.001370
	141.00	17452.05					
29.13	0.07394	4401.41	0.91	1.34	39.01	0.25	
	142.00	34.02	0.86	33.56	36.74		0.001384
	0.07394	17452.60					
29.09	143.00	4401.42	0.92	1.34	39.01	0.25	
	0.07275	34.04	0.85	33.58	36.61		0.001364
	144.00	17459.78					
29.02	0.07391	4401.42	0.92	1.34	38.96	0.25	
	145.00	34.03	0.85	33.57	36.64		0.001389
	0.07391	17458.13					
29.00	146.00	4401.42	0.92	1.35	39.03	0.25	
	0.07319	34.05	0.85	33.59	36.50		0.001377
	147.00	17466.50					
28.92	0.07341	4401.42	0.92	1.35	38.96	0.25	
	148.00	34.05	0.85	33.59	36.49		0.001385
	0.07341	17467.00					
28.91	149.00	4401.42	0.92	1.35	39.02	0.25	
	0.07391	34.06	0.85	33.60	36.44		0.001395
	150.00	17469.89					
28.87	0.07288	4401.43	0.93	1.35	39.00	0.25	
	151.00	34.07	0.85	33.61	36.33		0.001379
	0.07288	17476.23					
28.80	152.00	4401.42	0.92	1.35	38.97	0.25	
	0.07399	34.07	0.85	33.61	36.35		0.001402
	153.00	17474.92					
28.80	0.07305	4401.43	0.93	1.36	39.03	0.25	
	154.00	34.09	0.85	33.62	36.22		0.001385
	0.07305	17482.18					
28.77	155.00	4401.43	0.93	1.35	38.96	0.25	
	0.07341	34.08	0.84	33.61	36.27		0.001394
	156.00	17479.33					
28.79	0.07377	4401.43	0.93	1.36	39.02	0.25	
	157.00	34.08	0.84	33.62	36.26		0.001400
	0.07377	17480.13					
28.79	158.00	4401.43	0.93	1.35	39.00	0.25	
	0.07288	34.09	0.84	33.62	36.22		0.001383
	159.00	17482.25					

HYCHAN.OUT							
28.77	149.00	4401.43	0.93	1.36	38.98	0.25	0.001404
	0.07398	34.08	0.84	33.61	36.29		
		17478.38					
28.79	150.00	4401.43	0.93	1.36	39.03	0.25	0.001386
	0.07308	34.09	0.84	33.62	36.22		
		17482.52					
28.76	151.00	4401.43	0.93	1.36	38.97	0.25	0.001394
	0.07340	34.08	0.84	33.61	36.27		
		17479.37					
28.78	152.00	4401.43	0.93	1.36	39.02	0.25	0.001399
	0.07371	34.08	0.84	33.62	36.26		
		17480.08					
28.78	153.00	4401.43	0.93	1.36	39.01	0.25	0.001381
	0.07276	34.09	0.84	33.62	36.23		
		17481.98					
28.75	154.00	4401.43	0.93	1.36	38.98	0.25	0.001404
	0.07393	34.08	0.84	33.61	36.30		
		17477.78					
28.78	155.00	4401.43	0.93	1.36	39.03	0.25	0.001388
	0.07316	34.09	0.84	33.62	36.23		
		17481.86					
28.76	156.00	4401.43	0.93	1.36	38.97	0.25	0.001393
	0.07332	34.08	0.84	33.61	36.27		
		17479.60					
28.77	157.00	4401.43	0.93	1.36	39.01	0.25	0.001402
	0.07385	34.08	0.84	33.61	36.27		
		17479.50					
28.78	158.00	4401.43	0.93	1.36	39.01	0.25	0.001381
	0.07278	34.09	0.84	33.62	36.22		
		17482.41					
28.75	159.00	4401.43	0.93	1.36	38.98	0.25	0.001403
	0.07385	34.08	0.84	33.61	36.30		
		17478.05					
28.78	160.00	4401.43	0.93	1.36	39.03	0.25	0.001392
	0.07334	34.08	0.84	33.62	36.24		
		17481.43					
28.76	161.00	4401.43	0.93	1.36	38.98	0.25	0.001388
	0.07309	34.08	0.84	33.62	36.25		
		17480.49					
28.75	162.00	4401.43	0.93	1.36	38.99	0.25	0.001406
	0.07404	34.08	0.84	33.61	36.30		
		17477.99					
28.79	163.00	4401.43	0.93	1.36	39.04	0.25	0.001381
	0.07277	34.09	0.84	33.62	36.21		
		17483.29					
28.74	164.00	4401.43	0.93	1.36	38.95	0.25	0.001408
	0.07410	34.07	0.84	33.61	36.31		
		17476.97					
28.80	165.00	4401.43	0.93	1.36	39.05	0.25	0.001377
	0.07261	34.09	0.84	33.63	36.17		
		17485.26					
28.76	166.00	4401.43	0.93	1.35	38.95	0.25	0.001410
	0.07425	34.08	0.84	33.62	36.26		
		17479.93					
28.80	167.00	4401.43	0.93	1.36	39.04	0.25	0.001377
	0.07260	34.10	0.84	33.63	36.13		
		17487.50					
28.78	168.00	4401.43	0.93	1.35	38.97	0.25	0.001406
	0.07409	34.08	0.84	33.62	36.26		
		17479.88					
28.78	169.00	4401.43	0.93	1.36	39.02	0.25	0.001383
	0.07286	34.09	0.84	33.62	36.20		
		17483.61					

HYCHAN.OUT							
28.78	170.00	4401.43	0.93	1.36	39.00	0.25	0.001405
	0.07401	34.08	0.84	33.62	36.25		
		17480.65					
28.77	171.00	4401.43	0.93	1.36	39.01	0.25	0.001380
	0.07267	34.09	0.84	33.62	36.21		
		17482.93					
28.74	172.00	4401.43	0.93	1.36	38.96	0.25	0.001406
	0.07399	34.08	0.84	33.61	36.30		
		17477.83					
28.79	173.00	4401.43	0.93	1.36	39.04	0.25	0.001384
	0.07295	34.09	0.84	33.62	36.21		
		17482.80					
28.74	174.00	4401.43	0.93	1.35	38.95	0.25	0.001401
	0.07375	34.08	0.84	33.61	36.29		
		17478.25					
28.79	175.00	4401.43	0.93	1.36	39.05	0.25	0.001394
	0.07346	34.09	0.84	33.62	36.23		
		17481.70					
28.76	176.00	4401.43	0.93	1.36	38.98	0.25	0.001386
	0.07301	34.08	0.84	33.62	36.26		
		17480.25					
28.76	177.00	4401.43	0.93	1.36	39.00	0.25	0.001406
	0.07403	34.08	0.84	33.61	36.28		
		17478.77					
28.78	178.00	4401.43	0.93	1.36	39.03	0.25	0.001384
	0.07291	34.09	0.84	33.62	36.21		
		17482.81					
28.74	179.00	4401.43	0.93	1.36	38.95	0.25	0.001402
	0.07378	34.08	0.84	33.61	36.28		
		17478.79					
28.78	180.00	4401.43	0.93	1.36	39.03	0.25	0.001397
	0.07358	34.08	0.84	33.62	36.24		
		17481.12					
28.77	181.00	4401.43	0.93	1.36	39.00	0.25	0.001384
	0.07291	34.08	0.84	33.62	36.23		
		17481.60					
28.76	182.00	4401.43	0.93	1.36	38.99	0.25	0.001404
	0.07393	34.08	0.84	33.61	36.29		
		17478.56					
28.79	183.00	4401.43	0.93	1.36	39.04	0.25	0.001384
	0.07294	34.09	0.84	33.62	36.21		
		17482.77					
28.74	184.00	4401.43	0.93	1.36	38.95	0.25	0.001402
	0.07379	34.08	0.84	33.61	36.30		
		17477.98					
28.78	185.00	4401.43	0.93	1.36	39.03	0.25	0.001396
	0.07352	34.08	0.84	33.62	36.24		
		17481.15					
28.76	186.00	4401.43	0.93	1.35	38.96	0.25	0.001392
	0.07331	34.09	0.84	33.62	36.23		
		17481.90					
28.80	187.00	4401.43	0.93	1.36	39.05	0.25	0.001391
	0.07334	34.09	0.84	33.62	36.20		
		17483.33					
28.76	188.00	4401.43	0.93	1.35	38.93	0.25	0.001402
	0.07380	34.09	0.84	33.62	36.23		
		17481.95					
28.82	189.00	4401.43	0.93	1.36	39.08	0.25	0.001382
	0.07290	34.09	0.85	33.63	36.16		
		17485.96					
28.75	190.00	4401.43	0.93	1.35	38.92	0.25	0.001405
	0.07396	34.08	0.84	33.62	36.24		
		17480.98					



HYCHAN.OUT									
28.81	191.00	4401.43	0.93	1.36	39.07	0.25	0.001381		
	0.07283	34.09	0.84	33.63	36.16				
		17486.18							
28.76	192.00	4401.43	0.93	1.35	38.93	0.25	0.001407		
	0.07409	34.08	0.84	33.62	36.25				
		17480.67							
28.81	193.00	4401.43	0.93	1.36	39.06	0.25	0.001378		
	0.07264	34.10	0.84	33.63	36.14				
		17486.80							
28.75	194.00	4401.43	0.93	1.35	38.94	0.25	0.001410		
	0.07421	34.08	0.84	33.61	36.27				
		17479.37							
28.79	195.00	4401.43	0.93	1.36	39.05	0.25	0.001379		
	0.07267	34.09	0.84	33.62	36.18				
		17484.60							
28.75	196.00	4401.43	0.93	1.36	38.96	0.25	0.001408		
	0.07413	34.07	0.84	33.61	36.32				
		17476.71							
28.79	197.00	4401.43	0.93	1.36	39.03	0.25	0.001377		
	0.07257	34.09	0.84	33.63	36.16				
		17485.69							
28.77	198.00	4401.43	0.93	1.35	38.97	0.25	0.001407		
	0.07415	34.08	0.84	33.62	36.26				
		17480.26							
28.80	199.00	4401.43	0.93	1.36	39.02	0.25	0.001381		
	0.07276	34.10	0.84	33.63	36.14				
		17486.98							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2435

MAXIMUM DISCHARGE (CFS) = 1940.66 AT TIME = 88.02  
 MAXIMUM STAGE = 4406.58 AT TIME = 89.80

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4399.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	1.00	4399.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	2.00	4399.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	3.00	4399.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	4.00	4399.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	5.00	4399.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	6.00	4399.30	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
	7.00	4399.30	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT						
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4399.30	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4399.30	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4399.30	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4399.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4399.31	0.01	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	4399.31	0.01	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	61.00	4399.32	0.02	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
21.74	62.00	4399.62	0.33	0.40	8.76	0.12	0.001359
	0.05867	31.43	0.69	31.27	96.18		
24.76	63.00	4400.08	0.78	1.20	29.75	0.24	0.001447
	0.06684	33.44	0.74	33.05	42.28		
33.91	64.00	4400.33	1.03	1.43	48.49	0.25	0.001435
	0.08796	34.52	0.98	34.00	33.15		
38.23	65.00	4400.48	1.18	1.58	60.25	0.26	0.001461
	0.09911	35.18	1.09	34.59	29.39		
44.23	66.00	4400.67	1.37	1.76	77.69	0.26	0.001502
	0.11501	36.04	1.23	35.35	25.76		
59.82	67.00	4401.14	1.84	2.16	129.21	0.28	0.001527
	0.14971	38.08	1.57	37.16	20.24		
76.21	68.00	4401.60	2.30	2.55	194.13	0.30	0.001553
	0.18411	40.12	1.90	38.97	16.95		
92.26	69.00	4402.03	2.73	2.90	267.61	0.31	0.001575
	0.21586	42.02	2.20	40.64	14.89		
70.00		4402.34	3.04	3.16	329.94	0.32	

		HYCHAN.OUT					
104.46	43.38	2.41	41.86	13.77	0.001573		
0.23627	25113.61						
71.00	4402.46	3.16	3.26	356.13	0.32		
109.35	43.92	2.49	42.33	13.39	0.001578		
0.24515	25395.69						
72.00	4402.65	3.35	3.40	396.44	0.33		
116.70	44.73	2.61	43.05	12.87	0.001604		
0.26119	25827.69						
73.00	4402.98	3.68	3.66	477.86	0.34		
130.71	46.20	2.83	44.35	12.05	0.001615		
0.28500	26612.44						
74.00	4403.26	3.96	3.87	551.93	0.34		
142.63	47.42	3.01	45.43	11.48	0.001617		
0.30350	27256.16						
75.00	4403.49	4.19	4.05	619.23	0.35		
152.97	48.45	3.16	46.34	11.06	0.001630		
0.32118	27806.52						
76.00	4403.79	4.49	4.27	710.41	0.36		
166.27	49.75	3.34	47.49	10.59	0.001641		
0.34227	28496.37						
77.00	4404.09	4.79	4.50	811.10	0.36		
180.22	51.08	3.53	48.67	10.17	0.001655		
0.36431	29201.38						
78.00	4404.41	5.11	4.74	926.89	0.37		
195.58	52.49	3.73	49.93	9.77	0.001663		
0.38661	29955.42						
79.00	4404.70	5.40	4.95	1037.06	0.38		
209.61	53.76	3.90	51.04	9.46	0.001668		
0.40588	30626.35						
80.00	4405.01	5.71	5.17	1165.96	0.38		
225.32	55.13	4.09	52.26	9.16	0.001680		
0.42854	31356.97						
81.00	4405.39	6.09	5.44	1333.27	0.39		
244.89	56.79	4.31	53.73	8.83	0.001684		
0.45307	32240.80						
82.00	4405.73	6.43	5.69	1496.19	0.40		
263.13	58.30	4.51	55.07	8.57	0.001686		
0.47494	33041.18						
83.00	4405.98	6.68	5.86	1622.50	0.40		
276.72	59.40	4.66	56.04	8.39	0.001684		
0.48966	33625.75						
84.00	4406.13	6.83	5.97	1700.79	0.40		
284.95	60.06	4.74	56.62	8.29	0.001686		
0.49916	33974.14						
85.00	4406.24	6.94	6.05	1762.67	0.41		
291.17	60.55	4.81	57.07	8.22	0.001688		
0.50637	34239.12						
86.00	4406.39	7.09	6.16	1844.59	0.41		
299.39	61.20	4.89	57.64	8.13	0.001688		
0.51532	34584.35						
87.00	4406.46	7.16	6.23	1890.06	0.41		
303.48	61.54	4.93	57.94	8.09	0.001691		
0.52047	34764.62						
88.00	4406.53	7.23	6.29	1929.93	0.41		
306.90	61.83	4.96	58.20	8.05	0.001691		
0.52370	34918.42						
89.00	4406.54	7.24	6.26	1930.96	0.41		
308.45	61.89	4.98	58.25	8.04	0.001627		
0.50594	34947.98						
90.00	4406.57	7.27	6.13	1921.14	0.40		
313.16	62.00	5.05	58.35	8.03	0.001582		
0.49859	35009.72						
91.00	4406.54	7.24	6.08	1897.26	0.40		

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		HYCHAN.OUT					
312.09	61.87	5.04	58.23	8.04	0.001585		
0.49902	34937.23						
92.00	4406.46	7.16	6.04	1855.12	0.40		
306.99	61.51	4.99	57.91	8.09	0.001591		
0.49560	34745.45						
93.00	4406.39	7.09	6.01	1819.48	0.40		
302.73	61.20	4.95	57.64	8.13	0.001601		
0.49411	34583.71						
94.00	4406.31	7.01	5.97	1781.60	0.40		
298.40	60.88	4.90	57.36	8.18	0.001607		
0.49151	34414.84						
95.00	4406.22	6.92	5.93	1733.57	0.40		
292.41	60.46	4.84	56.98	8.24	0.001628		
0.49143	34189.95						
96.00	4406.11	6.81	5.95	1690.97	0.40		
284.16	59.99	4.74	56.56	8.30	0.001678		
0.49587	33937.67						
97.00	4406.02	6.72	5.92	1646.12	0.40		
278.01	59.57	4.67	56.19	8.37	0.001682		
0.48996	33714.86						
98.00	4405.96	6.66	5.87	1614.62	0.40		
275.07	59.31	4.64	55.97	8.41	0.001680		
0.48625	33579.66						
99.00	4405.88	6.58	5.81	1575.06	0.40		
271.20	58.99	4.60	55.68	8.46	0.001680		
0.48201	33405.23						
100.00	4405.72	6.42	5.68	1493.29	0.40		
262.77	58.28	4.51	55.05	8.57	0.001666		
0.46877	33028.84						
101.00	4405.43	6.13	5.47	1352.35	0.39		
247.31	56.99	4.34	53.91	8.79	0.001662		
0.45002	32343.48						
102.00	4405.16	5.86	5.27	1230.39	0.38		
233.29	55.80	4.18	52.86	9.02	0.001658		
0.43239	31713.63						
103.00	4404.93	5.63	5.10	1130.28	0.38		
221.41	54.78	4.04	51.95	9.23	0.001654		
0.41706	31168.54						
104.00	4404.70	5.40	4.94	1038.12	0.37		
210.07	53.78	3.91	51.07	9.45	0.001647		
0.40148	30639.79						
105.00	4404.50	5.20	4.79	958.86	0.37		
200.07	52.88	3.78	50.27	9.67	0.001639		
0.38697	30162.82						
106.00	4404.28	4.98	4.63	877.85	0.37		
189.56	51.92	3.65	49.42	9.93	0.001630		
0.37126	29650.89						
107.00	4404.05	4.75	4.46	798.50	0.36		
178.88	50.93	3.51	48.54	10.21	0.001623		
0.35581	29121.77						
108.00	4403.78	4.48	4.25	707.40	0.35		
166.27	49.71	3.35	47.46	10.60	0.001606		
0.33530	28473.41						
109.00	4403.43	4.13	3.99	600.71	0.35		
150.38	48.16	3.12	46.09	11.17	0.001604		
0.31248	27654.05						
110.00	4403.21	3.91	3.83	539.23	0.34		
140.72	47.20	2.98	45.24	11.58	0.001595		
0.29680	27142.14						
111.00	4402.99	3.69	3.67	481.78	0.34		
131.36	46.24	2.84	44.39	12.03	0.001586		
0.28114	26631.67						
112.00	4402.77	3.47	3.50	427.06	0.33		

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		HYCHAN.OUT					
121.95	45.27	2.69	43.53	12.55	0.001584		
0.26634	26115.33						
113.00	4402.61	3.31	3.38	390.56	0.33		
115.45	44.58	2.59	42.92	12.96	0.001579		
0.25517	25749.65						
114.00	4402.45	3.15	3.26	354.81	0.32		
108.85	43.87	2.48	42.29	13.42	0.001569		
0.24287	25371.92						
115.00	4402.42	3.12	3.23	347.40	0.32		
107.50	43.75	2.46	42.18	13.50	0.001598		
0.24498	25309.43						
116.00	4402.43	3.13	3.24	351.60	0.32		
108.64	43.80	2.48	42.22	13.47	0.001536		
0.23771	25332.52						
117.00	4401.93	2.63	2.85	251.84	0.31		
88.43	41.57	2.13	40.25	15.32	0.001543		
0.20483	24149.45						
118.00	4401.70	2.40	2.67	212.58	0.30		
79.59	40.57	1.96	39.37	16.39	0.001537		
0.18814	23619.49						
119.00	4401.48	2.18	2.49	177.32	0.30		
71.17	39.59	1.80	38.49	17.67	0.001529		
0.17150	23096.19						
120.00	4401.23	1.93	2.29	142.28	0.29		
62.09	38.51	1.61	37.54	19.42	0.001522		
0.15315	22523.56						
121.00	4400.99	1.69	2.09	110.54	0.28		
52.97	37.43	1.42	36.58	21.67	0.001525		
0.13467	21950.72						
122.00	4400.83	1.53	1.95	91.93	0.28		
47.08	36.74	1.28	35.97	23.50	0.001534		
0.12264	21582.12						
123.00	4400.74	1.44	1.88	82.25	0.28		
43.86	36.35	1.21	35.63	24.70	0.001530		
0.11521	21375.30						
124.00	4400.66	1.36	1.80	73.40	0.27		
40.85	35.97	1.14	35.29	26.01	0.001529		
0.10833	21175.61						
125.00	4400.57	1.27	1.71	64.58	0.27		
37.71	35.58	1.06	34.94	27.57	0.001527		
0.10102	20966.37						
126.00	4400.48	1.18	1.62	55.79	0.26		
34.44	35.18	0.98	34.59	29.41	0.001524		
0.09308	20751.69						
127.00	4400.38	1.08	1.52	47.21	0.26		
31.04	34.75	0.89	34.20	31.73	0.001516		
0.08452	20522.34						
128.00	4400.28	0.98	1.42	40.12	0.25		
28.19	34.34	0.82	33.84	34.37	0.001513		
0.07751	20304.20						
129.00	4400.27	0.97	1.40	38.98	0.25		
27.83	34.26	0.81	33.78	34.87	0.001519		
0.07698	20266.62						
130.00	4400.27	0.97	1.40	39.06	0.25		
27.89	34.26	0.81	33.78	34.87	0.001505		
0.07643	20266.51						
131.00	4400.26	0.96	1.39	39.03	0.25		
28.01	34.22	0.82	33.74	35.17	0.001505		
0.07689	20244.91						
132.00	4400.25	0.95	1.38	39.06	0.25		
28.21	34.19	0.83	33.71	35.45	0.001484		
0.07642	20224.88						
133.00	4400.24	0.94	1.38	39.02	0.25		



		HYCHAN.OUT				
28.38	34.14	0.83	33.67	35.82	0.001479	
0.07672	20199.42					
134.00	4400.23	0.93	1.37	39.04	0.25	
28.57	34.10	0.84	33.63	36.10	0.001472	
0.07694	20180.33					
135.00	4400.23	0.93	1.36	39.04	0.25	
28.72	34.07	0.84	33.61	36.32	0.001453	
0.07645	20165.27					
136.00	4400.22	0.92	1.35	39.00	0.25	
28.81	34.05	0.85	33.59	36.51	0.001462	
0.07720	20152.53					
137.00	4400.22	0.92	1.35	39.02	0.25	
28.86	34.05	0.85	33.58	36.54	0.001448	
0.07657	20150.85					
138.00	4400.21	0.91	1.35	38.99	0.25	
28.94	34.02	0.85	33.56	36.74	0.001453	
0.07712	20137.51					
139.00	4400.21	0.91	1.34	39.03	0.25	
29.07	34.01	0.85	33.55	36.87	0.001446	
0.07712	20129.00					
140.00	4400.20	0.90	1.34	39.01	0.25	
29.19	33.98	0.86	33.53	37.06	0.001435	
0.07692	20117.26					
141.00	4400.20	0.90	1.33	39.02	0.25	
29.30	33.96	0.86	33.51	37.23	0.001441	
0.07760	20105.96					
142.00	4400.20	0.90	1.33	39.03	0.25	
29.41	33.95	0.87	33.50	37.32	0.001420	
0.07675	20100.46					
143.00	4400.19	0.89	1.32	39.00	0.25	
29.51	33.93	0.87	33.48	37.53	0.001425	
0.07738	20087.35					
144.00	4400.19	0.89	1.32	39.03	0.25	
29.64	33.91	0.87	33.47	37.65	0.001416	
0.07722	20079.74					
145.00	4400.19	0.89	1.31	39.00	0.25	
29.73	33.90	0.88	33.45	37.79	0.001409	
0.07712	20071.54					
146.00	4400.18	0.88	1.31	39.00	0.25	
29.75	33.89	0.88	33.45	37.82	0.001419	
0.07775	20069.62					
147.00	4400.19	0.89	1.31	39.00	0.25	
29.76	33.90	0.88	33.45	37.79	0.001407	
0.07707	20071.23					
148.00	4400.18	0.88	1.31	38.99	0.25	
29.75	33.89	0.88	33.45	37.83	0.001419	
0.07775	20068.90					
149.00	4400.18	0.88	1.31	39.02	0.25	
29.77	33.90	0.88	33.45	37.80	0.001413	
0.07746	20070.56					
150.00	4400.18	0.88	1.31	38.99	0.25	
29.76	33.89	0.88	33.45	37.82	0.001410	
0.07723	20069.32					
151.00	4400.18	0.88	1.31	39.00	0.25	
29.76	33.89	0.88	33.45	37.84	0.001418	
0.07770	20068.58					
152.00	4400.18	0.88	1.31	39.00	0.25	
29.76	33.90	0.88	33.45	37.81	0.001406	
0.07700	20070.30					
153.00	4400.18	0.88	1.31	38.99	0.25	
29.75	33.89	0.88	33.45	37.85	0.001417	
0.07765	20068.05					
154.00	4400.18	0.88	1.31	39.02	0.25	

		HYCHAN.OUT				
29.77	0.07741	33.89	0.88	33.45	37.82	0.001412
	155.00	20069.52				
		4400.18	0.88	1.31	38.99	0.25
29.75	0.07704	33.89	0.88	33.45	37.83	0.001406
	156.00	20069.06				
		4400.18	0.88	1.31	39.00	0.25
29.76	0.07771	33.89	0.88	33.45	37.85	0.001418
	157.00	20067.70				
		4400.18	0.88	1.31	39.01	0.25
29.77	0.07703	33.89	0.88	33.45	37.82	0.001405
	158.00	20069.81				
		4400.18	0.88	1.31	38.99	0.25
29.76	0.07749	33.89	0.88	33.45	37.85	0.001414
	159.00	20067.58				
		4400.18	0.88	1.31	39.01	0.25
29.77	0.07748	33.89	0.88	33.45	37.83	0.001414
	160.00	20068.85				
		4400.18	0.88	1.31	39.00	0.25
29.76	0.07708	33.89	0.88	33.45	37.84	0.001407
	161.00	20068.57				
		4400.18	0.88	1.31	39.00	0.25
29.76	0.07776	33.89	0.88	33.45	37.86	0.001419
	162.00	20067.41				
		4400.18	0.88	1.31	39.01	0.25
29.76	0.07725	33.89	0.88	33.45	37.83	0.001410
	163.00	20069.19				
		4400.18	0.88	1.31	38.98	0.25
29.76	0.07730	33.89	0.88	33.45	37.85	0.001411
	164.00	20068.04				
		4400.18	0.88	1.31	39.02	0.25
29.76	0.07745	33.89	0.88	33.45	37.84	0.001413
	165.00	20068.52				
		4400.18	0.88	1.31	38.96	0.25
29.74	0.07736	33.89	0.88	33.45	37.86	0.001413
	166.00	20067.33				
		4400.18	0.88	1.31	39.05	0.25
29.79	0.07725	33.89	0.88	33.45	37.84	0.001408
	167.00	20068.15				
		4400.18	0.88	1.31	38.95	0.25
29.76	0.07768	33.89	0.88	33.44	37.89	0.001418
	168.00	20065.28				
		4400.18	0.88	1.31	39.04	0.25
29.78	0.07716	33.89	0.88	33.45	37.81	0.001407
	169.00	20070.08				
		4400.18	0.88	1.31	38.98	0.25
29.75	0.07777	33.89	0.88	33.44	37.87	0.001420
	170.00	20066.64				
		4400.18	0.88	1.31	39.03	0.25
29.78	0.07689	33.89	0.88	33.45	37.82	0.001402
	171.00	20069.80				
		4400.18	0.88	1.31	38.97	0.25
29.75	0.07744	33.89	0.88	33.44	37.87	0.001413
	172.00	20066.61				
		4400.18	0.88	1.31	39.02	0.25
29.79	0.07730	33.89	0.88	33.45	37.85	0.001410
	173.00	20067.65				
		4400.18	0.88	1.31	38.99	0.25
29.76	0.07718	33.89	0.88	33.45	37.84	0.001409
	174.00	20068.22				
		4400.18	0.88	1.31	39.00	0.25
29.76	0.07773	33.89	0.88	33.45	37.85	0.001418
	175.00	20067.58				
		4400.18	0.88	1.31	39.01	0.25

		HYCHAN.OUT				
29.77	0.07707	33.89	0.88	33.45	37.82	0.001406
	176.00	20069.82				
29.75	0.07762	4400.18	0.88	1.31	39.00	0.25
	177.00	33.89	0.88	33.45	37.85	0.001417
		20067.73				
29.77	0.07708	4400.18	0.88	1.31	39.02	0.25
	178.00	33.89	0.88	33.45	37.83	0.001406
		20068.97				
29.77	0.07711	4400.18	0.88	1.31	38.98	0.25
	179.00	33.89	0.88	33.45	37.85	0.001407
		20068.01				
29.78	0.07751	4400.18	0.88	1.31	39.01	0.25
	180.00	33.89	0.88	33.44	37.87	0.001414
		20066.75				
29.76	0.07690	4400.18	0.88	1.31	38.99	0.25
	181.00	33.89	0.88	33.45	37.83	0.001403
		20069.00				
29.76	0.07763	4400.18	0.88	1.31	38.99	0.25
	182.00	33.89	0.88	33.45	37.85	0.001417
		20067.73				
29.77	0.07732	4400.18	0.88	1.31	39.01	0.25
	183.00	33.89	0.88	33.45	37.83	0.001411
		20069.27				
29.76	0.07725	4400.18	0.88	1.31	39.00	0.25
	184.00	33.89	0.88	33.45	37.84	0.001410
		20068.54				
29.76	0.07772	4400.18	0.88	1.31	39.00	0.25
	185.00	33.89	0.88	33.45	37.85	0.001418
		20067.71				
29.76	0.07717	4400.18	0.88	1.31	39.00	0.25
	186.00	33.89	0.88	33.45	37.83	0.001409
		20068.79				
29.76	0.07816	4400.18	0.88	1.31	38.98	0.25
	187.00	33.89	0.88	33.44	37.89	0.001426
		20065.45				
29.79	0.07694	4400.18	0.88	1.31	39.02	0.25
	188.00	33.89	0.88	33.45	37.82	0.001403
		20069.32				
29.75	0.07794	4400.18	0.88	1.31	38.99	0.25
	189.00	33.89	0.88	33.44	37.88	0.001422
		20065.92				
29.78	0.07700	4400.18	0.88	1.31	39.00	0.25
	190.00	33.89	0.88	33.45	37.84	0.001404
		20068.52				
29.78	0.07777	4400.18	0.88	1.31	39.01	0.25
	191.00	33.89	0.88	33.44	37.89	0.001418
		20065.28				
29.77	0.07715	4400.18	0.88	1.31	38.98	0.25
	192.00	33.89	0.88	33.45	37.86	0.001407
		20067.44				
29.79	0.07767	4400.18	0.88	1.31	39.02	0.25
	193.00	33.89	0.88	33.44	37.87	0.001416
		20066.24				
29.76	0.07736	4400.18	0.88	1.31	38.96	0.25
	194.00	33.89	0.88	33.44	37.87	0.001411
		20066.65				
29.80	0.07743	4400.18	0.88	1.31	39.04	0.25
	195.00	33.89	0.88	33.45	37.86	0.001411
		20067.40				
29.77	0.07760	4400.18	0.88	1.31	38.97	0.25
	196.00	33.89	0.88	33.44	37.87	0.001416
		20066.55				
		4400.18	0.88	1.31	39.03	0.25

HYCHAN.OUT						
29.77	0.07734	33.89	0.88	33.45	37.82	0.001411
197.00		20069.42				
29.75	0.07767	33.89	0.88	1.31	38.95	0.25
198.00		20065.41			37.89	0.001418
29.80	0.07712	33.89	0.88	1.31	39.04	0.25
199.00		20069.16			37.83	0.001406
29.76	0.07786	33.89	0.88	1.31	38.96	0.25
		20064.90			37.90	0.001421

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2523

MAXIMUM DISCHARGE (CFS) = 1941.80 AT TIME = 88.04  
 MAXIMUM STAGE = 4405.03 AT TIME = 89.88

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	فرويد NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

## HYCHAN.OUT

0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00
0.00	13.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4398.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT

	0.00000	0.00					
	34.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	35.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	36.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	37.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	38.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	39.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	40.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	41.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	42.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	43.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	44.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	45.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	46.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	47.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	48.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	49.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	50.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	51.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	52.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	53.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00					
	54.00	4398.00	0.00	0.00	0.00	0.00	
0.00		0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
	0.00000	0.00							
0.00	55.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4398.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4398.01	0.01	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	4398.01	0.01	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	61.00	4398.02	0.02	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
18.80	62.00	4398.20	0.20	0.25	4.64	0.10			
	0.06224	18467.25	0.61	30.78	154.14				0.001638
20.93	63.00	4398.78	0.78	1.38	28.83	0.27			
	0.07694	19826.23	0.63	33.04	42.34				0.001970
27.46	64.00	4399.09	1.09	1.73	47.39	0.29			
	0.09790	20539.88	0.79	34.23	31.54				0.001987
31.91	65.00	4399.19	1.19	1.88	59.89	0.30			
	0.11104	20781.80	0.91	34.64	29.14				0.001965
37.25	66.00	4399.33	1.33	2.04	75.96	0.31			
	0.13056	21103.73	1.04	35.17	26.52				0.002013
51.20	67.00	4399.72	1.72	2.47	126.66	0.33			
	0.17338	22031.70	1.36	36.72	21.31				0.002040
66.27	68.00	4400.13	2.13	2.89	191.60	0.35			
	0.21622	22983.61	1.68	38.31	17.99				0.002059
81.14	69.00	4400.52	2.52	3.27	265.20	0.36			
	0.25513	23888.27	1.98	39.81	15.82				0.002070
92.80	70.00	4400.81	2.81	3.54	328.80	0.37			
	0.28175	24574.56	2.19	40.96	14.58				0.002061
97.54	71.00	4400.92	2.92	3.64	355.49	0.38			
	0.29187	24843.26	2.27	41.41	14.16				0.002056
104.32	72.00	4401.08	3.08	3.78	394.56	0.38			
	0.30944	25217.36	2.39	42.03	13.63				0.002072
117.24	73.00	4401.40	3.40	4.06	475.69	0.39			
	0.33857	25951.95	2.61	43.25	12.73				0.002081
128.43	74.00	4401.66	3.66	4.29	550.44	0.39			
	0.36169	26570.95	2.78	44.28	12.09				0.002082
137.93	75.00	4401.88	3.88	4.47	617.24	0.40			
		47.09	2.93	45.14	11.63				0.002092



		HYCHAN.OUT						
	0.38232	27085.60						
150.75	76.00	4402.16	4.16	4.70	708.34	0.41		
		48.33	3.12		46.23	11.11	0.002079	
	0.40468	27740.11						
164.59	77.00	4402.45	4.45	4.91	808.64	0.41		
		49.59	3.32		47.35	10.64	0.002069	
	0.42861	28409.37						
180.14	78.00	4402.76	4.76	5.13	924.60	0.41		
		50.95	3.54		48.56	10.20	0.002057	
	0.45372	29134.76						
194.44	79.00	4403.04	5.04	5.32	1034.90	0.42		
		52.17	3.73		49.64	9.86	0.002041	
	0.47459	29783.03						
210.46	80.00	4403.34	5.34	5.53	1162.98	0.42		
		53.50	3.93		50.82	9.52	0.002021	
	0.49607	30491.77						
230.71	81.00	4403.71	5.71	5.77	1330.11	0.43		
		55.14	4.18		52.27	9.15	0.001999	
	0.52189	31361.29						
249.26	82.00	4404.05	6.05	5.99	1493.62	0.43		
		56.63	4.40		53.59	8.86	0.001987	
	0.54562	32153.46						
262.88	83.00	4404.30	6.30	6.17	1620.81	0.43		
		57.72	4.55		54.55	8.67	0.001983	
	0.56370	32732.14						
270.98	84.00	4404.44	6.44	6.27	1699.81	0.44		
		58.37	4.64		55.13	8.56	0.001979	
	0.57333	33076.57						
276.57	85.00	4404.55	6.55	6.37	1761.62	0.44		
		58.84	4.70		55.55	8.48	0.001991	
	0.58395	33330.48						
283.99	86.00	4404.69	6.69	6.50	1844.60	0.44		
		59.47	4.78		56.11	8.38	0.002004	
	0.59711	33663.89						
286.20	87.00	4404.76	6.76	6.60	1890.12	0.45		
		59.76	4.79		56.37	8.34	0.002027	
	0.60566	33819.08						
287.51	88.00	4404.81	6.81	6.71	1930.23	0.45		
		60.00	4.79		56.57	8.30	0.002063	
	0.61690	33944.35						
286.98	89.00	4404.86	6.86	6.72	1929.80	0.45		
		60.19	4.77		56.74	8.28	0.002053	
	0.61095	34043.43						
292.01	90.00	4404.99	6.99	6.58	1920.33	0.44		
		60.79	4.80		57.28	8.19	0.002030	
	0.60850	34367.00						
291.18	91.00	4404.99	6.99	6.52	1897.97	0.43		
		60.77	4.79		57.25	8.19	0.002040	
	0.60994	34351.40						
285.91	92.00	4404.89	6.89	6.49	1856.06	0.44		
		60.35	4.74		56.88	8.25	0.002045	
	0.60448	34127.94						
281.58	93.00	4404.81	6.81	6.46	1820.10	0.44		
		60.00	4.69		56.57	8.30	0.002048	
	0.59968	33941.91						
277.25	94.00	4404.73	6.73	6.43	1782.65	0.44		
		59.64	4.65		56.26	8.36	0.002052	
	0.59535	33753.93						
271.11	95.00	4404.62	6.62	6.40	1734.72	0.44		
		59.13	4.58		55.81	8.43	0.002063	
	0.59012	33483.50						
262.44	96.00	4404.43	6.43	6.45	1692.87	0.45		
		58.31	4.50		55.07	8.57	0.002085	

HYCHAN.OUT									
0.58560	33044.66								
97.00	4404.30	6.30	6.41	1646.64	0.45				
257.05	57.75	4.45		54.58	8.66	0.002064			
0.57332	32750.11								
98.00	4404.25	6.25	6.31	1615.13	0.44				
255.96	57.54	4.45		54.39	8.70	0.002047			
0.56810	32636.29								
99.00	4404.19	6.19	6.21	1575.76	0.44				
253.70	57.25	4.43		54.14	8.75	0.002025			
0.55996	32481.87								
100.00	4404.04	6.04	6.07	1495.52	0.44				
246.29	56.58	4.35		53.55	8.87	0.002024			
0.54974	32129.30								
101.00	4403.76	5.76	5.85	1354.83	0.43				
231.62	55.34	4.19		52.45	9.11	0.002020			
0.52755	31467.52								
102.00	4403.49	5.49	5.66	1232.38	0.43				
217.90	54.19	4.02		51.42	9.36	0.002027			
0.50858	30854.09								
103.00	4403.27	5.27	5.50	1132.23	0.42				
205.97	53.19	3.87		50.54	9.60	0.002038			
0.49250	30324.20								
104.00	4403.05	5.05	5.35	1039.78	0.42				
194.32	52.22	3.72		49.68	9.84	0.002049			
0.47571	29810.04								
105.00	4402.85	4.85	5.22	960.49	0.42				
184.06	51.36	3.58		48.92	10.08	0.002056			
0.45988	29350.85								
106.00	4402.64	4.64	5.08	879.61	0.42				
173.29	50.44	3.44		48.10	10.36	0.002065			
0.44274	28861.43								
107.00	4402.43	4.43	4.91	800.12	0.41				
162.99	49.49	3.29		47.26	10.68	0.002056			
0.42247	28357.51								
108.00	4402.17	4.17	4.68	710.10	0.40				
151.72	48.35	3.14		46.25	11.10	0.002027			
0.39700	27750.17								
109.00	4401.83	3.83	4.39	602.59	0.40				
137.35	46.87	2.93		44.95	11.73	0.002015			
0.36836	26968.62								
110.00	4401.62	3.62	4.20	540.66	0.39				
128.58	45.96	2.80		44.14	12.18	0.002003			
0.34966	26481.44								
111.00	4401.42	3.42	4.02	483.43	0.38				
120.15	45.05	2.67		43.33	12.68	0.001987			
0.33064	25999.95								
112.00	4401.21	3.21	3.84	428.26	0.38				
111.64	44.12	2.53		42.51	13.25	0.001979			
0.31242	25507.05								
113.00	4401.06	3.06	3.71	391.58	0.37				
105.68	43.47	2.43		41.93	13.70	0.001973			
0.29923	25160.89								
114.00	4400.91	2.91	3.57	355.88	0.37				
99.66	42.80	2.33		41.34	14.22	0.001964			
0.28534	24805.61								
115.00	4400.87	2.87	3.54	346.26	0.37				
97.76	42.64	2.29		41.20	14.35	0.002018			
0.28873	24718.00								
116.00	4400.90	2.90	3.59	354.04	0.37				
98.68	42.78	2.31		41.32	14.23	0.001962			
0.28246	24794.60								
117.00	4400.43	2.43	3.14	254.03	0.36				
80.82	40.69	1.99		39.47	16.26	0.001939			

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## HYCHAN.OUT

0.24039	23679.13						
118.00	4400.21	2.21	2.93	213.90	0.35		
72.89	39.72	1.83	38.61	17.49		0.001917	
0.21949	23166.25						
119.00	4399.99	1.99	2.73	178.74	0.34		
65.54	38.78	1.69	37.78	18.94		0.001889	
0.19924	22666.30						
120.00	4399.76	1.76	2.49	143.84	0.33		
57.77	37.73	1.53	36.85	20.99		0.001851	
0.17681	22107.65						
121.00	4399.51	1.51	2.24	111.82	0.32		
50.02	36.63	1.37	35.87	23.83		0.001822	
0.15523	21522.23						
122.00	4399.34	1.34	2.06	92.68	0.31		
44.95	35.89	1.25	35.21	26.34		0.001806	
0.14118	21128.86						
123.00	4399.24	1.24	1.97	82.73	0.31		
42.07	35.48	1.19	34.85	28.00		0.001799	
0.13312	20912.48						
124.00	4399.16	1.16	1.88	73.92	0.31		
39.36	35.10	1.12	34.52	29.80		0.001792	
0.12538	20710.04						
125.00	4399.07	1.07	1.78	65.12	0.30		
36.53	34.70	1.05	34.16	32.03		0.001782	
0.11707	20495.72						
126.00	4398.97	0.97	1.68	56.37	0.30		
33.59	34.26	0.98	33.77	34.91		0.001774	
0.10851	20263.81						
127.00	4398.87	0.87	1.57	47.73	0.30		
30.40	33.81	0.90	33.38	38.57		0.001778	
0.09972	20025.03						
128.00	4398.79	0.79	1.48	40.30	0.29		
27.16	33.48	0.81	33.08	41.86		0.001803	
0.09129	19849.53						
129.00	4398.79	0.79	1.47	39.02	0.29		
26.56	33.46	0.79	33.06	42.08		0.001805	
0.08940	19838.83						
130.00	4398.79	0.79	1.47	38.98	0.29		
26.51	33.47	0.79	33.08	41.92		0.001804	
0.08913	19846.32						
131.00	4398.81	0.81	1.48	38.94	0.29		
26.24	33.55	0.78	33.14	41.12		0.001824	
0.08901	19886.24						
132.00	4398.83	0.83	1.50	38.92	0.29		
25.93	33.64	0.77	33.22	40.19		0.001839	
0.08847	19934.49						
133.00	4398.85	0.85	1.52	38.92	0.29		
25.66	33.73	0.76	33.31	39.28		0.001863	
0.08845	19983.96						
134.00	4398.87	0.87	1.53	38.93	0.29		
25.43	33.82	0.75	33.38	38.47		0.001870	
0.08773	20030.50						
135.00	4398.88	0.88	1.54	38.94	0.29		
25.25	33.89	0.75	33.44	37.87		0.001885	
0.08764	20066.48						
136.00	4398.89	0.89	1.55	38.97	0.29		
25.14	33.93	0.74	33.49	37.47		0.001888	
0.08726	20091.32						
137.00	4398.90	0.90	1.55	38.98	0.29		
25.09	33.95	0.74	33.50	37.32		0.001895	
0.08740	20100.61						
138.00	4398.91	0.91	1.56	38.98	0.29		
24.99	34.00	0.73	33.54	36.93		0.001907	

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## HYCHAN.OUT

	0.08746	20125.40					
24.86	139.00	4398.92	0.92	1.57	38.94	0.29	
		34.05	0.73	33.59	36.53		0.001912
	0.08712	20151.19					
24.74	140.00	4398.93	0.93	1.58	38.97	0.29	
		34.10	0.73	33.63	36.10		0.001923
	0.08703	20180.00					
24.63	141.00	4398.94	0.94	1.58	38.96	0.29	
		34.15	0.72	33.68	35.71		0.001921
	0.08646	20207.04					
24.52	142.00	4398.95	0.95	1.59	38.93	0.29	
		34.19	0.72	33.71	35.41		0.001935
	0.08656	20227.54					
24.42	143.00	4398.96	0.96	1.60	38.96	0.29	
		34.24	0.71	33.76	35.04		0.001946
	0.08661	20254.68					
24.32	144.00	4398.97	0.97	1.60	38.96	0.29	
		34.29	0.71	33.80	34.69		0.001950
	0.08631	20279.79					
24.24	145.00	4398.98	0.98	1.61	38.97	0.29	
		34.33	0.71	33.83	34.42		0.001959
	0.08634	20299.84					
24.24	146.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.84	34.35		0.001954
	0.08607	20305.27					
24.23	147.00	4398.98	0.98	1.61	38.99	0.29	
		34.34	0.71	33.84	34.36		0.001957
	0.08618	20304.78					
24.24	148.00	4398.99	0.99	1.61	39.02	0.29	
		34.34	0.71	33.84	34.34		0.001957
	0.08621	20306.19					
24.22	149.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.84	34.33		0.001953
	0.08594	20306.97					
24.22	150.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.84	34.34		0.001958
	0.08619	20306.19					
24.22	151.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.85	34.33		0.001954
	0.08600	20307.10					
24.21	152.00	4398.99	0.99	1.61	38.99	0.29	
		34.34	0.71	33.84	34.35		0.001960
	0.08624	20305.35					
24.23	153.00	4398.99	0.99	1.61	39.02	0.29	
		34.34	0.71	33.84	34.33		0.001959
	0.08625	20306.74					
24.22	154.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.85	34.32		0.001953
	0.08593	20307.58					
24.21	155.00	4398.99	0.99	1.61	38.98	0.29	
		34.34	0.70	33.84	34.34		0.001960
	0.08620	20305.93					
24.22	156.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.85	34.32		0.001956
	0.08609	20307.68					
24.21	157.00	4398.99	0.99	1.61	38.99	0.29	
		34.34	0.71	33.85	34.32		0.001956
	0.08605	20307.58					
24.21	158.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.85	34.32		0.001960
	0.08623	20307.67					
24.21	159.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.85	34.32		0.001956

		HYCHAN.OUT					
	0.08607	20307.81					
24.21	160.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.84	34.33		0.001960
	0.08621	20306.99					
24.21	161.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.85	34.31		0.001955
	0.08600	20308.47					
24.21	162.00	4398.99	0.99	1.61	38.99	0.29	
		34.34	0.70	33.84	34.33		0.001954
	0.08596	20307.00					
24.21	163.00	4398.99	0.99	1.61	38.99	0.29	
		34.34	0.70	33.85	34.33		0.001959
	0.08618	20307.30					
24.22	164.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.85	34.32		0.001953
	0.08592	20307.89					
24.20	165.00	4398.99	0.99	1.61	38.98	0.29	
		34.34	0.70	33.84	34.34		0.001963
	0.08634	20306.43					
24.24	166.00	4398.99	0.99	1.61	39.00	0.29	
		34.35	0.71	33.85	34.26		0.001950
	0.08585	20312.29					
24.23	167.00	4398.99	0.99	1.61	39.01	0.29	
		34.35	0.71	33.85	34.29		0.001962
	0.08635	20309.84					
24.21	168.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.70	33.85	34.31		0.001954
	0.08595	20308.40					
24.21	169.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.85	34.32		0.001958
	0.08613	20307.68					
24.21	170.00	4398.99	0.99	1.61	38.97	0.29	
		34.35	0.70	33.85	34.30		0.001955
	0.08600	20309.32					
24.22	171.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.85	34.31		0.001963
	0.08640	20308.09					
24.23	172.00	4398.99	0.99	1.61	39.00	0.29	
		34.35	0.71	33.85	34.27		0.001955
	0.08608	20311.64					
24.22	173.00	4398.99	0.99	1.61	39.02	0.29	
		34.34	0.71	33.85	34.32		0.001962
	0.08631	20307.45					
24.22	174.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.85	34.31		0.001954
	0.08598	20308.25					
24.21	175.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.70	33.85	34.32		0.001957
	0.08608	20307.88					
24.21	176.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.85	34.33		0.001956
	0.08605	20307.28					
24.21	177.00	4398.99	0.99	1.61	38.98	0.29	
		34.34	0.70	33.85	34.31		0.001954
	0.08597	20308.65					
24.22	178.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.85	34.31		0.001960
	0.08625	20308.64					
24.24	179.00	4398.99	0.99	1.61	39.00	0.29	
		34.35	0.71	33.85	34.27		0.001953
	0.08601	20311.32					
24.22	180.00	4398.99	0.99	1.61	38.98	0.29	
		34.34	0.71	33.85	34.33		0.001961

		HYCHAN.OUT					
	0.08628	20307.19					
24.23	181.00	4398.99	0.99	1.61	39.03	0.29	
		34.34	0.71	33.85	34.32		0.001959
	0.08626	20307.89					
24.21	182.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.71	33.85	34.32		0.001957
	0.08609	20307.49					
24.22	183.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.85	34.32		0.001960
	0.08626	20307.46					
24.21	184.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.70	33.85	34.32		0.001953
	0.08592	20307.81					
24.21	185.00	4398.99	0.99	1.61	39.01	0.29	
		34.34	0.71	33.84	34.33		0.001958
	0.08613	20306.92					
24.23	186.00	4398.99	0.99	1.61	39.00	0.29	
		34.35	0.71	33.85	34.29		0.001954
	0.08600	20309.75					
24.22	187.00	4398.99	0.99	1.61	38.96	0.29	
		34.35	0.71	33.85	34.29		0.001962
	0.08633	20310.30					
24.23	188.00	4398.99	0.99	1.61	39.03	0.29	
		34.34	0.71	33.85	34.30		0.001951
	0.08587	20309.04					
24.22	189.00	4398.99	0.99	1.61	38.96	0.29	
		34.35	0.71	33.85	34.28		0.001965
	0.08648	20310.47					
24.24	190.00	4398.99	0.99	1.61	39.02	0.29	
		34.35	0.71	33.86	34.25		0.001950
	0.08589	20313.10					
24.23	191.00	4398.99	0.99	1.61	38.98	0.29	
		34.35	0.71	33.85	34.29		0.001965
	0.08648	20309.92					
24.25	192.00	4398.99	0.99	1.61	39.02	0.29	
		34.35	0.71	33.85	34.25		0.001949
	0.08586	20312.98					
24.23	193.00	4398.99	0.99	1.61	38.98	0.29	
		34.35	0.71	33.85	34.29		0.001964
	0.08647	20309.90					
24.24	194.00	4398.99	0.99	1.61	39.01	0.29	
		34.35	0.71	33.86	34.25		0.001950
	0.08586	20313.20					
24.24	195.00	4398.99	0.99	1.61	39.02	0.29	
		34.35	0.71	33.85	34.29		0.001959
	0.08629	20310.10					
24.21	196.00	4398.99	0.99	1.61	39.00	0.29	
		34.34	0.70	33.85	34.31		0.001951
	0.08581	20308.19					
24.23	197.00	4398.99	0.99	1.61	38.98	0.29	
		34.35	0.71	33.85	34.29		0.001963
	0.08640	20309.60					
24.24	198.00	4398.99	0.99	1.61	38.99	0.29	
		34.35	0.71	33.85	34.26		0.001952
	0.08597	20312.13					
24.25	199.00	4398.99	0.99	1.61	39.02	0.29	
		34.35	0.71	33.85	34.28		0.001960
	0.08636	20310.82					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2524

MAXIMUM DISCHARGE (CFS) = 1949.51 AT TIME = 88.38  
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HYCHAN.OUT  
 MAXIMUM STAGE = 4402.89 AT TIME = 87.05

AREA	TIME WETTED BED SHEAR STRESS	ELEV. PERIMETER SURFACE	THALWEG HYDRAULIC	DEPTH RADIUS	VELOCITY TOP WIDTH	DISCHARGE WIDTH/DEPTH	FROUDE NO. ENERGY	FLOW SLOPE
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
	(LB/FT^2)	(FT)			(FT)			
0.00	0.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4396.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT							
0.00	18.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	19.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	20.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	21.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	22.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	23.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	24.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	25.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	26.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	27.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	28.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	29.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	30.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	31.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	32.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	33.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	34.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	35.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	36.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	37.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	
0.00	38.00	4396.30	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	

HYCHAN.OUT							
0.00	39.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4396.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4396.31	0.01	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00	60.00	4396.31	0.01	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	61.00	4396.32	0.02	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	62.00	4396.39	0.09	0.08	0.00	0.88	0.00	0.00	0.002881
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
22.02	63.00	4396.85	0.55	1.38	32.13	30.30	58.90	0.33	0.002503
	0.10616	16063.66	0.68						
27.82	64.00	4396.94	0.64	1.68	32.49	46.61	50.98	0.37	0.002466
	0.13051	16242.51	0.85						
31.58	65.00	4397.10	0.80	1.87	33.14	59.13	41.22	0.37	0.002513
	0.14763	16567.66	0.94						
36.07	66.00	4397.27	0.97	2.07	33.79	74.68	34.77	0.37	0.002530
	0.16612	16894.89	1.05						
49.29	67.00	4397.66	1.36	2.53	35.31	124.59	25.93	0.38	0.002536
	0.21665	17655.86	1.37						
63.43	68.00	4398.08	1.78	2.99	36.93	189.53	20.78	0.40	0.002546
	0.26646	18465.33	1.68						
77.26	69.00	4398.47	2.17	3.41	38.46	263.22	17.74	0.41	0.002572
	0.31357	19227.75	1.95						
87.66	70.00	4398.77	2.47	3.74	39.62	327.85	16.06	0.42	0.002596
	0.34746	19811.90	2.15						
91.25	71.00	4398.89	2.59	3.89	40.09	354.91	15.50	0.43	0.002634
	0.36230	20044.60	2.20						
96.30	72.00	4399.05	2.75	4.08	40.74	393.05	14.79	0.43	0.002679
	0.38210	20371.67	2.29						
107.67	73.00	4399.36	3.06	4.40	41.92	474.02	13.72	0.44	0.002701
	0.41763	20959.68	2.48						
117.64	74.00	4399.61	3.31	4.67	42.92	549.27	12.96	0.45	0.002720
	0.44775	21460.19	2.64						
126.07	75.00	4399.82	3.52	4.88	43.74	615.68	12.41	0.46	0.002733
	0.47239	21870.75	2.77						
137.53	76.00	4400.11	3.81	5.14	44.87	706.53	11.77	0.46	0.002772
	0.50840	22437.27	2.94						
150.43	77.00	4400.43	4.13	5.36	46.10	806.42	11.17	0.47	0.002760
	0.53790	23048.41	3.12						
166.10	78.00	4400.78	4.48	5.55	47.45	922.49	10.60	0.46	0.002748
	0.57295	23727.03	3.34						
180.54	79.00	4401.09	4.79	5.72	48.67	1032.92	10.17	0.46	0.002731
	0.60231	24336.22	3.53						
196.73	80.00	4401.43	5.13	5.90	50.00	1160.16	9.75	0.46	0.002705
	0.63165	24998.87	3.74						

HYCHAN.OUT							
217.28	81.00	4401.85	5.55	6.11	1327.22	0.46	0.002705
	0.67387	54.43	3.99		51.64	9.31	
	82.00	4402.21	5.92	6.34	1491.37	0.46	
235.15		56.04	4.20		53.07	8.97	0.002724
	0.71326	26534.47					
	83.00	4402.47	6.17	6.53	1619.37	0.46	
247.95		57.19	4.34		54.08	8.76	0.002743
	0.74203	27041.07					
	84.00	4402.62	6.32	6.65	1698.96	0.47	
255.40		57.85	4.42		54.67	8.64	0.002759
	0.76016	27332.87					
	85.00	4402.72	6.42	6.78	1761.01	0.47	
259.76		58.26	4.46		55.03	8.57	0.002804
	0.78022	27516.20					
	86.00	4402.84	6.54	6.94	1845.00	0.48	
266.04		58.81	4.52		55.52	8.49	0.002842
	0.80230	27758.70					
	87.00	4402.85	6.56	7.10	1890.73	0.49	
266.19		58.86	4.52		55.57	8.48	0.002898
	0.81769	27782.99					
	88.00	4402.85	6.55	7.28	1931.08	0.50	
265.40		58.83	4.51		55.54	8.48	0.002980
	0.83887	27769.06					
	89.00	4402.79	6.49	7.42	1929.82	0.51	
260.25		58.56	4.44		55.30	8.52	0.003154
	0.87473	27648.66					
	90.00	4402.83	6.53	7.44	1920.10	0.51	
258.07		58.73	4.39		55.45	8.50	0.003240
	0.88847	27725.40					
	91.00	4402.80	6.50	7.41	1898.57	0.51	
256.10		58.63	4.37		55.36	8.51	0.003240
	0.88322	27678.50					
	92.00	4402.71	6.41	7.37	1856.78	0.51	
251.90		58.22	4.33		55.00	8.58	0.003230
	0.87200	27498.50					
	93.00	4402.63	6.33	7.34	1820.56	0.51	
248.19		57.89	4.29		54.70	8.64	0.003220
	0.86143	27351.31					
	94.00	4402.56	6.26	7.30	1783.44	0.51	
244.34		57.55	4.25		54.41	8.69	0.003201
	0.84795	27202.95					
	95.00	4402.45	6.15	7.26	1735.46	0.52	
239.21		57.08	4.19		53.99	8.78	0.003156
	0.82523	26994.74					
	96.00	4402.32	6.02	7.20	1693.94	0.52	
235.33		56.51	4.16		53.48	8.88	0.003033
	0.78820	26741.84					
	97.00	4402.25	5.95	7.07	1646.63	0.51	
232.95		56.19	4.15		53.20	8.94	0.002976
	0.76989	26601.18					
	98.00	4402.26	5.96	6.91	1615.14	0.50	
233.84		56.23	4.16		53.24	8.94	0.002921
	0.75788	26618.56					
	99.00	4402.24	5.94	6.75	1576.01	0.49	
233.53		56.15	4.16		53.17	8.95	0.002863
	0.74303	26583.88					
	100.00	4402.11	5.81	6.58	1497.39	0.48	
227.48		55.58	4.09		52.66	9.06	0.002841
	0.72561	26331.12					
	101.00	4401.83	5.54	6.33	1356.77	0.47	
214.28		54.37	3.94		51.59	9.32	0.002794
	0.68722	25793.56					

		HYCHAN.OUT							
201.56	102.00	4401.56	5.27	6.12	1234.09	0.47			
	0.65969	53.18	3.79	50.53	9.60	0.002789			
189.79	103.00	25267.41	5.02	5.98	1134.04	0.47			
	0.63918	52.10	3.64	49.58	9.88	0.002812			
177.52	104.00	24787.89	4.77	5.87	1041.33	0.47			
	0.61626	51.00	3.48	48.60	10.19	0.002837			
166.59	105.00	24300.51	4.54	5.77	962.01	0.48			
	0.59725	50.01	3.33	47.72	10.50	0.002873			
154.94	106.00	23861.36	4.30	5.69	881.21	0.48			
	0.57570	48.94	3.17	46.78	10.87	0.002914			
144.43	107.00	23390.41	4.08	5.55	801.35	0.48			
	0.54889	47.96	3.01	45.91	11.25	0.002921			
133.89	108.00	22956.65	3.85	5.32	712.05	0.48			
	0.52003	46.94	2.85	45.00	11.70	0.002922			
120.30	109.00	22502.19	3.55	5.02	603.98	0.47			
	0.48078	45.61	2.64	43.83	12.36	0.002921			
112.25	110.00	21915.34	3.36	4.83	541.72	0.46			
	0.45582	44.78	2.51	43.09	12.84	0.002914			
104.63	111.00	21546.72	3.17	4.63	484.62	0.46			
	0.43073	43.97	2.38	42.37	13.36	0.002901			
96.86	112.00	21186.32	2.98	4.43	429.15	0.45			
	0.40480	43.14	2.25	41.64	13.95	0.002889			
91.71	113.00	20818.34	2.85	4.28	392.37	0.45			
	0.38633	42.54	2.16	41.10	14.44	0.002872			
86.54	114.00	20551.79	2.71	4.12	356.68	0.44			
	0.36731	41.92	2.06	40.56	14.98	0.002851			
85.32	115.00	20278.25	2.65	4.05	345.68	0.44			
	0.35712	41.67	2.05	40.34	15.21	0.002795			
88.28	116.00	20170.27	2.65	4.03	355.78	0.44			
	0.36320	41.68	2.12	40.35	15.20	0.002748			
71.27	117.00	20175.21	2.24	3.59	255.56	0.42			
	0.30845	39.87	1.79	38.75	17.28	0.002766			
63.70	118.00	19372.53	2.06	3.37	214.80	0.41			
	0.28093	39.05	1.63	38.02	18.50	0.002760			
56.78	119.00	19008.12	1.88	3.16	179.66	0.41			
	0.25559	38.28	1.48	37.34	19.85	0.002761			
49.34	120.00	18668.84	1.70	2.93	144.78	0.40			
	0.22723	37.49	1.32	36.63	21.54	0.002767			
41.83	121.00	18316.69	1.53	2.69	112.56	0.38			
	0.19703	36.72	1.14	35.95	23.56	0.002772			
36.95	122.00	17975.46	1.41	2.52	93.10	0.37			
	0.17626	36.22	1.02	35.51	25.15	0.002769			
		17753.25							

HYCHAN.OUT							
34.40	123.00	4397.64	1.34	2.41	83.06	0.37	0.002760
	0.16496	35.91	0.96	35.23	26.27		
	124.00	17615.58					
32.10		4397.57	1.27	2.31	74.26	0.36	0.002745
	0.15447	35.60	0.90	34.96	27.48		
	125.00	17481.20					
29.70		4397.50	1.20	2.20	65.47	0.35	0.002737
	0.14377	35.28	0.84	34.68	28.90		
	126.00	17339.94					
27.19		4397.43	1.13	2.09	56.74	0.35	0.002719
	0.13193	34.96	0.78	34.39	30.53		
	127.00	17196.80					
24.65		4397.34	1.04	1.96	48.23	0.34	0.002688
	0.11957	34.58	0.71	34.06	32.74		
	128.00	17028.11					
22.48		4397.22	0.92	1.81	40.74	0.33	0.002669
	0.10989	34.07	0.66	33.60	36.39		
	129.00	16800.40					
21.97		4397.19	0.89	1.78	39.02	0.33	0.002661
	0.10751	33.93	0.65	33.48	37.50		
	130.00	16741.20					
22.01		4397.19	0.89	1.77	39.04	0.33	0.002650
	0.10735	33.90	0.65	33.46	37.74		
	131.00	16728.65					
22.26		4397.15	0.85	1.76	39.12	0.34	0.002625
	0.10801	33.76	0.66	33.33	39.05		
	132.00	16664.32					
22.46		4397.11	0.81	1.74	39.09	0.34	0.002611
	0.10896	33.59	0.67	33.18	40.72		
	133.00	16588.65					
22.74		4397.08	0.78	1.72	39.12	0.34	0.002586
	0.10979	33.42	0.68	33.03	42.52		
	134.00	16514.90					
22.94		4397.04	0.74	1.70	39.05	0.35	0.002575
	0.11079	33.27	0.69	32.90	44.29		
	135.00	16448.21					
23.14		4397.02	0.72	1.69	39.05	0.35	0.002564
	0.11168	33.15	0.70	32.79	45.78		
	136.00	16396.79					
23.31		4397.00	0.70	1.67	39.02	0.35	0.002559
	0.11255	33.07	0.70	32.72	46.86		
	137.00	16361.74					
23.37		4396.99	0.69	1.67	39.04	0.35	0.002550
	0.11253	33.05	0.71	32.70	47.28		
	138.00	16348.65					
23.53		4396.97	0.67	1.66	39.06	0.36	0.002531
	0.11272	32.97	0.71	32.63	48.39		
	139.00	16315.03					
23.73		4396.96	0.66	1.65	39.04	0.36	0.002518
	0.11339	32.88	0.72	32.56	49.69		
	140.00	16277.54					
23.89		4396.94	0.64	1.63	39.03	0.36	0.002506
	0.11392	32.80	0.73	32.48	51.14		
	141.00	16238.28					
24.06		4396.92	0.62	1.62	39.01	0.36	0.002501
	0.11475	32.71	0.74	32.40	52.58		
	142.00	16201.75					
24.24		4396.90	0.60	1.61	39.04	0.37	0.002494
	0.11556	32.64	0.74	32.34	53.89		
	143.00	16170.32					
24.44		4396.88	0.58	1.60	39.05	0.37	0.002479
	0.11609	32.56	0.75	32.27	55.42		
		16135.55					

HYCHAN.OUT							
24.62	144.00	4396.86	0.56	1.59	39.03	0.37	0.002471
	0.11688	32.49	0.76	32.20	57.03		
24.78	145.00	16101.01	0.55	1.57	39.01	0.37	0.002465
	0.11755	32.42	0.76	32.15	58.38		
24.82	146.00	16073.84	0.55	1.57	39.00	0.37	0.002463
	0.11772	32.41	0.77	32.14	58.64		
24.83	147.00	16068.61	0.55	1.57	39.00	0.37	0.002465
	0.11782	32.41	0.77	32.14	58.69		
24.84	148.00	16067.68	0.55	1.57	39.01	0.37	0.002460
	0.11763	32.41	0.77	32.14	58.69		
24.83	149.00	16067.70	0.55	1.57	38.99	0.37	0.002464
	0.11780	32.41	0.77	32.13	58.81		
24.84	150.00	16065.47	0.55	1.57	39.01	0.37	0.002463
	0.11781	32.41	0.77	32.13	58.81		
24.84	151.00	16065.46	0.55	1.57	39.00	0.37	0.002464
	0.11782	32.40	0.77	32.13	58.85		
24.84	152.00	16064.68	0.55	1.57	39.01	0.37	0.002465
	0.11790	32.41	0.77	32.13	58.78		
24.84	153.00	16065.91	0.55	1.57	39.00	0.37	0.002460
	0.11766	32.41	0.77	32.13	58.78		
24.83	154.00	16066.05	0.55	1.57	38.98	0.37	0.002464
	0.11781	32.40	0.77	32.13	58.88		
24.84	155.00	16064.09	0.55	1.57	39.00	0.37	0.002464
	0.11788	32.40	0.77	32.13	58.86		
24.85	156.00	16064.41	0.55	1.57	39.01	0.37	0.002463
	0.11784	32.40	0.77	32.13	58.86		
24.84	157.00	16064.39	0.55	1.57	38.99	0.37	0.002464
	0.11789	32.40	0.77	32.13	58.89		
24.85	158.00	16063.74	0.55	1.57	39.01	0.37	0.002462
	0.11786	32.40	0.77	32.13	58.91		
24.85	159.00	16063.38	0.55	1.57	39.01	0.37	0.002464
	0.11788	32.40	0.77	32.13	58.90		
24.84	160.00	16063.73	0.55	1.57	39.00	0.37	0.002461
	0.11776	32.40	0.77	32.13	58.88		
24.84	161.00	16063.95	0.55	1.57	38.98	0.37	0.002462
	0.11778	32.40	0.77	32.13	58.93		
24.84	162.00	16063.05	0.55	1.57	39.00	0.37	0.002465
	0.11792	32.40	0.77	32.13	58.91		
24.84	163.00	16063.36	0.55	1.57	38.98	0.37	0.002464
	0.11787	32.40	0.77	32.13	58.91		
24.85	164.00	16063.37	0.55	1.57	39.02	0.37	0.002463
	0.11789	32.40	0.77	32.13	58.89		
		16063.87					



HYCHAN.OUT							
24.84	165.00	4396.84	0.55	1.57	38.99	0.37	
		32.40	0.77	32.13	58.94		0.002462
	0.11778	16062.87					
24.84	166.00	4396.84	0.54	1.57	38.98	0.37	
		32.40	0.77	32.12	58.96		0.002467
	0.11801	16062.45					
24.85	167.00	4396.85	0.55	1.57	39.02	0.37	
		32.40	0.77	32.13	58.88		0.002459
	0.11772	16063.93					
24.84	168.00	4396.84	0.54	1.57	38.99	0.37	
		32.40	0.77	32.13	58.95		0.002465
	0.11795	16062.66					
24.85	169.00	4396.85	0.55	1.57	39.01	0.37	
		32.40	0.77	32.13	58.90		0.002462
	0.11781	16063.70					
24.83	170.00	4396.84	0.54	1.57	38.97	0.37	
		32.40	0.77	32.12	58.98		0.002470
	0.11816	16062.06					
24.85	171.00	4396.85	0.55	1.57	39.03	0.37	
		32.40	0.77	32.13	58.86		0.002464
	0.11794	16064.36					
24.84	172.00	4396.84	0.55	1.57	38.98	0.37	
		32.40	0.77	32.13	58.94		0.002467
	0.11802	16062.81					
24.86	173.00	4396.85	0.55	1.57	39.02	0.37	
		32.40	0.77	32.13	58.88		0.002462
	0.11785	16064.08					
24.84	174.00	4396.85	0.55	1.57	38.99	0.37	
		32.40	0.77	32.13	58.91		0.002461
	0.11777	16063.49					
24.84	175.00	4396.85	0.55	1.57	38.99	0.37	
		32.40	0.77	32.13	58.92		0.002463
	0.11782	16063.24					
24.85	176.00	4396.85	0.55	1.57	39.01	0.37	
		32.40	0.77	32.13	58.89		0.002463
	0.11784	16063.83					
24.83	177.00	4396.84	0.54	1.57	38.98	0.37	
		32.40	0.77	32.13	58.95		0.002468
	0.11805	16062.69					
24.84	178.00	4396.85	0.55	1.57	39.00	0.37	
		32.40	0.77	32.13	58.88		0.002466
	0.11800	16063.98					
24.84	179.00	4396.85	0.55	1.57	38.99	0.37	
		32.40	0.77	32.13	58.89		0.002468
	0.11805	16063.76					
24.84	180.00	4396.85	0.55	1.57	39.01	0.37	
		32.40	0.77	32.13	58.86		0.002469
	0.11810	16064.40					
24.85	181.00	4396.85	0.55	1.57	39.01	0.37	
		32.41	0.77	32.13	58.81		0.002462
	0.11781	16065.32					
24.85	182.00	4396.85	0.55	1.57	39.00	0.37	
		32.40	0.77	32.13	58.88		0.002463
	0.11783	16064.04					
24.85	183.00	4396.85	0.55	1.57	39.00	0.37	
		32.40	0.77	32.13	58.87		0.002462
	0.11779	16064.30					
24.84	184.00	4396.85	0.55	1.57	38.99	0.37	
		32.40	0.77	32.13	58.92		0.002462
	0.11778	16063.27					
24.85	185.00	4396.85	0.55	1.57	39.01	0.37	
		32.40	0.77	32.13	58.87		0.002461
	0.11777	16064.28					

HYCHAN.OUT									
24.84	186.00	4396.85	0.55	1.57	32.13	38.99	0.37	0.002456	
	0.11750	32.40	0.77			58.89			
		16063.82							
24.83	187.00	4396.84	0.54	1.57	32.12	39.00	0.38	0.002465	
	0.11789	32.40	0.77			58.98			
		16062.13							
24.84	188.00	4396.85	0.55	1.57	32.13	39.00	0.37	0.002460	
	0.11771	32.40	0.77			58.89			
		16063.90							
24.84	189.00	4396.84	0.54	1.57	32.13	39.00	0.37	0.002464	
	0.11791	32.40	0.77			58.96			
		16062.53							
24.84	190.00	4396.84	0.54	1.57	32.13	38.99	0.37	0.002463	
	0.11783	32.40	0.77			58.95			
		16062.64							
24.85	191.00	4396.85	0.55	1.57	32.13	39.01	0.37	0.002464	
	0.11790	32.40	0.77			58.91			
		16063.52							
24.83	192.00	4396.85	0.55	1.57	32.13	38.99	0.37	0.002464	
	0.11784	32.40	0.77			58.93			
		16063.14							
24.85	193.00	4396.85	0.55	1.57	32.13	39.01	0.37	0.002462	
	0.11782	32.40	0.77			58.91			
		16063.54							
24.83	194.00	4396.84	0.54	1.57	32.13	38.98	0.37	0.002466	
	0.11796	32.40	0.77			58.95			
		16062.70							
24.86	195.00	4396.85	0.55	1.57	32.13	39.03	0.37	0.002459	
	0.11768	32.40	0.77			58.83			
		16064.92							
24.84	196.00	4396.84	0.55	1.57	32.13	38.99	0.37	0.002464	
	0.11785	32.40	0.77			58.94			
		16062.80							
24.85	197.00	4396.85	0.55	1.57	32.13	39.00	0.37	0.002460	
	0.11772	32.40	0.77			58.89			
		16063.78							
24.83	198.00	4396.84	0.55	1.57	32.13	38.97	0.37	0.002469	
	0.11804	32.40	0.77			58.93			
		16063.03							
24.86	199.00	4396.85	0.55	1.57	32.13	39.03	0.37	0.002459	
	0.11773	32.40	0.77			58.84			
		16064.89							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2525

MAXIMUM DISCHARGE (CFS) = 1947.87 AT TIME = 88.16  
 MAXIMUM STAGE = 4400.07 AT TIME = 85.37

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR STRESS	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE			
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4394.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4394.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4394.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4394.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4394.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4394.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4394.01	0.01	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	4394.01	0.01	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	61.00	4394.02	0.02	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	62.00	4394.03	0.03	0.01	0.01	0.00	0.004177
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.004177
16.44	63.00	4394.85	0.85	1.65	27.10	0.32	0.003863
		33.74	0.49	33.31	39.26		
	0.11749	16654.48					
21.27	64.00	4395.11	1.11	2.14	45.47	0.36	0.003916
		34.87	0.61	34.32	31.01		
	0.14902	17158.13					
	65.00	4395.17	1.17	2.35	59.19	0.38	

HYCHAN.OUT						
25.18	0.17433	35.15	0.72	34.56	29.55	0.003900
	66.00	17280.45				
28.87	0.20188	4395.26	1.26	2.54	73.44	0.40
	67.00	35.55	0.81	34.92	27.70	0.003984
	0.20188	17457.94				
39.39	0.27041	4395.62	1.62	3.11	122.66	0.43
	68.00	37.13	1.06	36.31	22.44	0.004085
	0.27041	18156.14				
51.06	0.34398	4395.98	1.98	3.68	187.67	0.46
	69.00	38.72	1.32	37.72	19.05	0.004180
	0.34398	18862.14				
62.59	0.41119	4396.32	2.32	4.18	261.60	0.48
	70.00	40.21	1.56	39.05	16.83	0.004233
	0.41119	19522.72				
72.24	0.46189	4396.56	2.56	4.53	327.19	0.50
	71.00	41.25	1.75	39.96	15.64	0.004227
	0.46189	19982.32				
76.57	0.48327	4396.62	2.62	4.63	354.74	0.50
	72.00	41.52	1.84	40.20	15.37	0.004200
	0.48327	20101.91				
82.39	0.51678	4396.70	2.70	4.76	392.00	0.51
	73.00	41.87	1.97	40.52	15.03	0.004209
	0.51678	20257.73				
92.93	0.57232	4396.95	2.95	5.09	472.59	0.52
	74.00	42.97	2.16	41.49	14.08	0.004241
	0.57232	20746.22				
102.27	0.61834	4397.16	3.16	5.36	548.31	0.53
	75.00	43.93	2.33	42.34	13.38	0.004257
	0.61834	21170.57				
110.06	0.65944	4397.35	3.35	5.58	614.32	0.54
	76.00	44.73	2.46	43.05	12.87	0.004295
	0.65944	21522.78				
121.60	0.70683	4397.58	3.58	5.80	705.28	0.54
	77.00	45.74	2.66	43.95	12.29	0.004261
	0.70683	21972.97				
134.69	0.77046	4397.84	3.84	5.97	804.36	0.54
	78.00	46.89	2.87	44.96	11.72	0.004298
	0.77046	22479.45				
148.91	0.83254	4398.17	4.17	6.18	920.55	0.53
	79.00	48.34	3.08	46.25	11.10	0.004332
	0.83254	23124.71				
162.10	0.88847	4398.46	4.46	6.36	1031.10	0.53
	80.00	49.65	3.26	47.40	10.62	0.004361
	0.88847	23702.21				
176.73	0.95363	4398.79	4.79	6.55	1157.50	0.53
	81.00	51.07	3.46	48.67	10.17	0.004417
	0.95363	24333.74				
195.72	1.02333	4399.19	5.19	6.77	1324.71	0.52
	82.00	52.83	3.70	50.23	9.68	0.004427
	1.02333	25112.62				
214.61	1.08203	4399.51	5.51	6.94	1489.49	0.52
	83.00	54.26	3.95	51.49	9.34	0.004384
	1.08203	25746.99				
229.30	1.12439	4399.74	5.74	7.06	1618.16	0.52
	84.00	55.26	4.15	52.38	9.13	0.004342
	1.12439	26187.75				
238.54	1.14987	4399.87	5.87	7.12	1698.31	0.52
	85.00	55.83	4.27	52.88	9.01	0.004313
	1.14987	26438.33				
246.21	1.15672	4399.93	5.93	7.15	1760.60	0.52
	86.00	56.12	4.39	53.14	8.96	0.004225
	1.15672	26569.51				
	0.00000	4400.04	6.04	7.20	1845.52	0.52

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		HYCHAN.OUT					
256.19	56.59	4.53	53.55	8.87	0.004135		
1.16800	26776.07						
87.00	4400.03	6.03	7.20	1891.44	0.52		
262.84	56.56	4.65	53.52	8.87	0.004026		
1.16749	26761.72						
88.00	4400.01	6.01	7.18	1932.08	0.52		
268.95	56.46	4.76	53.44	8.89	0.003871		
1.15052	26719.16						
89.00	4399.88	5.88	7.12	1931.01	0.52		
271.23	55.89	4.85	52.93	9.00	0.003775		
1.14327	26466.87						
90.00	4399.76	5.76	7.06	1920.60	0.52		
272.17	55.35	4.92	52.45	9.11	0.003737		
1.14669	26225.39						
91.00	4399.71	5.71	6.98	1899.00	0.51		
272.18	55.12	4.94	52.26	9.16	0.003679		
1.13357	26127.82						
92.00	4399.64	5.64	6.87	1857.25	0.51		
270.39	54.85	4.93	52.01	9.22	0.003639		
1.11957	26003.92						
93.00	4399.58	5.58	6.83	1820.97	0.51		
266.53	54.57	4.88	51.76	9.28	0.003664		
1.11669	25880.63						
94.00	4399.51	5.51	6.83	1784.10	0.51		
261.19	54.26	4.81	51.49	9.34	0.003692		
1.10879	25745.94						
95.00	4399.42	5.42	6.86	1735.84	0.52		
252.96	53.88	4.70	51.15	9.43	0.003769		
1.10417	25576.09						
96.00	4399.41	5.41	6.88	1694.06	0.52		
246.09	53.81	4.57	51.09	9.45	0.003817		
1.08935	25546.06						
97.00	4399.39	5.39	6.87	1646.49	0.52		
239.59	53.73	4.46	51.02	9.46	0.003923		
1.09157	25512.26						
98.00	4399.42	5.42	6.88	1615.03	0.52		
234.58	53.85	4.36	51.13	9.44	0.004028		
1.09484	25562.51						
99.00	4399.42	5.42	6.89	1576.07	0.52		
228.67	53.87	4.24	51.15	9.43	0.004138		
1.09598	25573.93						
100.00	4399.32	5.32	6.84	1498.99	0.52		
219.12	53.41	4.10	50.74	9.54	0.004164		
1.06595	25368.43						
101.00	4399.08	5.08	6.71	1358.30	0.52		
202.43	52.35	3.87	49.80	9.81	0.004240		
1.02302	24900.79						
102.00	4398.84	4.84	6.58	1235.65	0.53		
187.83	51.32	3.66	48.88	10.10	0.004258		
0.97253	24441.63						
103.00	4398.61	4.61	6.44	1135.80	0.53		
176.27	50.30	3.50	47.98	10.41	0.004214		
0.92155	23989.27						
104.00	4398.35	4.35	6.29	1042.87	0.53		
165.79	49.16	3.37	46.97	10.79	0.004171		
0.87772	23486.43						
105.00	4398.11	4.11	6.14	963.58	0.53		
156.81	48.12	3.26	46.05	11.19	0.004113		
0.83645	23024.22						
106.00	4397.85	3.85	5.98	882.92	0.54		
147.69	46.97	3.14	45.03	11.68	0.004038		
0.79235	22515.04						
107.00	4397.61	3.61	5.76	802.60	0.53		

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		HYCHAN.OUT					
139.24	45.91	3.03	44.09	12.20	0.003990		
0.75506	22047.04						
108.00	4397.37	3.37	5.48	714.01	0.53		
130.41	44.84	2.91	43.14	12.80	0.003900		
0.70777	21571.20						
109.00	4397.05	3.05	5.10	605.36	0.51		
118.81	43.42	2.74	41.89	13.74	0.003865		
0.65989	20942.91						
110.00	4396.86	2.86	4.89	542.72	0.51		
111.04	42.59	2.61	41.15	14.39	0.003849		
0.62630	20574.97						
111.00	4396.68	2.68	4.69	485.74	0.51		
103.56	41.79	2.48	40.45	15.10	0.003826		
0.59156	20222.85						
112.00	4396.49	2.49	4.48	429.95	0.50		
96.00	40.96	2.34	39.71	15.95	0.003823		
0.55917	19854.81						
113.00	4396.37	2.37	4.35	393.00	0.50		
90.29	40.44	2.23	39.25	16.55	0.003830		
0.53350	19625.40						
114.00	4396.25	2.25	4.22	357.32	0.50		
84.62	39.92	2.12	38.79	17.21	0.003828		
0.50626	19394.98						
115.00	4396.25	2.25	4.23	344.40	0.50		
81.51	39.90	2.04	38.77	17.24	0.003985		
0.50799	19386.72						
116.00	4396.39	2.39	4.41	357.26	0.50		
81.06	40.52	2.00	39.32	16.45	0.003919		
0.48915	19660.19						
117.00	4395.93	1.93	3.84	257.33	0.49		
67.07	38.50	1.74	37.53	19.43	0.003863		
0.41992	18765.92						
118.00	4395.72	1.72	3.57	215.75	0.48		
60.47	37.57	1.61	36.71	21.34	0.003810		
0.38265	18354.75						
119.00	4395.52	1.52	3.31	180.75	0.47		
54.58	36.69	1.49	35.93	23.64	0.003785		
0.35136	17963.13						
120.00	4395.29	1.29	3.02	146.01	0.47		
48.39	35.67	1.36	35.02	27.21	0.003714		
0.31446	17510.15						
121.00	4395.04	1.04	2.70	113.58	0.47		
42.02	34.57	1.22	34.04	32.83	0.003681		
0.27922	17022.30						
122.00	4394.87	0.87	2.49	93.64	0.47		
37.63	33.83	1.11	33.40	38.35	0.003666		
0.25447	16698.14						
123.00	4394.79	0.79	2.38	83.37	0.47		
35.05	33.49	1.05	33.09	41.73	0.003655		
0.23872	16546.29						
124.00	4394.73	0.73	2.28	74.55	0.47		
32.69	33.20	0.98	32.84	45.15	0.003645		
0.22395	16418.06						
125.00	4394.66	0.66	2.18	65.83	0.47		
30.27	32.89	0.92	32.56	49.54	0.003666		
0.21049	16281.81						
126.00	4394.58	0.58	2.06	57.06	0.48		
27.73	32.55	0.85	32.26	55.62	0.003658		
0.19443	16131.19						
127.00	4394.51	0.51	1.92	48.43	0.47		
25.27	32.26	0.78	32.01	62.24	0.003614		
0.17659	16002.74						
128.00	4394.50	0.50	1.71	40.75	0.43		

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		HYCHAN.OUT				
23.78	0.16557	32.21	0.74	31.96	63.62	0.003594
	129.00	4394.50	0.50	1.73	38.99	0.43
22.52	0.15916	32.22	0.70	31.96	63.52	0.003648
	130.00	4394.51	0.51	1.81	38.89	0.45
21.44	0.15290	32.26	0.66	32.00	62.43	0.003686
	131.00	4394.56	0.56	1.84	38.87	0.43
21.08	0.15094	32.48	0.65	32.19	57.25	0.003727
	132.00	4394.62	0.62	1.87	38.89	0.42
20.83	0.14732	32.71	0.64	32.40	52.67	0.003708
	133.00	4394.67	0.67	1.89	38.86	0.41
20.57	0.14556	32.95	0.62	32.62	48.64	0.003737
	134.00	4394.72	0.72	1.91	38.87	0.40
20.39	0.14415	33.16	0.61	32.80	45.71	0.003757
	135.00	4394.76	0.76	1.92	38.89	0.39
20.25	0.14294	33.33	0.61	32.95	43.57	0.003770
	136.00	4394.78	0.78	1.93	38.97	0.38
20.17	0.14190	33.45	0.60	33.06	42.15	0.003771
	137.00	4394.79	0.79	1.94	38.94	0.38
20.12	0.14197	33.50	0.60	33.10	41.66	0.003788
	138.00	4394.82	0.82	1.94	38.91	0.38
20.02	0.14083	33.62	0.60	33.20	40.43	0.003790
	139.00	4394.85	0.85	1.95	38.88	0.37
19.90	0.13995	33.75	0.59	33.32	39.13	0.003803
	140.00	4394.88	0.88	1.96	38.91	0.37
19.81	0.13902	33.88	0.58	33.44	37.96	0.003809
	141.00	4394.91	0.91	1.97	38.91	0.36
19.71	0.13848	34.00	0.58	33.55	36.90	0.003828
	142.00	4394.94	0.94	1.98	38.91	0.36
19.61	0.13771	34.12	0.57	33.65	35.97	0.003839
	143.00	4394.96	0.96	1.99	38.90	0.36
19.53	0.13691	34.25	0.57	33.76	35.00	0.003848
	144.00	4394.99	0.99	2.00	38.91	0.35
19.43	0.13613	34.37	0.57	33.87	34.14	0.003858
	145.00	4395.01	1.01	2.01	38.94	0.35
19.38	0.13544	34.47	0.56	33.96	33.47	0.003861
	146.00	4395.02	1.02	2.01	38.99	0.35
19.38	0.13551	34.49	0.56	33.98	33.32	0.003865
	147.00	4395.02	1.02	2.01	39.00	0.35
19.38	0.13537	34.49	0.56	33.98	33.29	0.003862
	148.00	4395.02	1.02	2.01	38.99	0.35
19.38	0.13542	34.50	0.56	33.98	33.27	0.003864
	149.00	4395.02	1.02	2.01	39.00	0.35

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HYCHAN.OUT					
19.38	0.13550	34.50	0.56	33.98	0.003866
	150.00	16992.36			
		4395.02	1.02	2.01	0.35
19.38	0.13551	34.50	0.56	33.99	0.003866
	151.00	16993.82			
		4395.02	1.02	2.01	0.35
19.38	0.13547	34.50	0.56	33.99	0.003866
	152.00	16993.77			
		4395.02	1.02	2.01	0.35
19.37	0.13532	34.50	0.56	33.99	0.003862
	153.00	16993.14			
		4395.02	1.02	2.01	0.35
19.36	0.13536	34.50	0.56	33.99	0.003865
	154.00	16992.69			
		4395.02	1.02	2.01	0.35
19.37	0.13536	34.50	0.56	33.99	0.003864
	155.00	16993.63			
		4395.02	1.02	2.01	0.35
19.36	0.13527	34.50	0.56	33.99	0.003863
	156.00	16994.25			
		4395.02	1.02	2.01	0.35
19.37	0.13539	34.51	0.56	33.99	0.003865
	157.00	16995.40			
		4395.02	1.02	2.01	0.35
19.36	0.13538	34.50	0.56	33.99	0.003866
	158.00	16995.16			
		4395.02	1.02	2.01	0.35
19.38	0.13526	34.51	0.56	33.99	0.003861
	159.00	16996.75			
		4395.02	1.02	2.01	0.35
19.37	0.13531	34.51	0.56	33.99	0.003863
	160.00	16995.91			
		4395.02	1.02	2.01	0.35
19.37	0.13528	34.51	0.56	33.99	0.003863
	161.00	16995.30			
		4395.02	1.02	2.01	0.35
19.36	0.13533	34.51	0.56	33.99	0.003865
	162.00	16995.54			
		4395.02	1.02	2.01	0.35
19.37	0.13527	34.51	0.56	33.99	0.003862
	163.00	16995.68			
		4395.02	1.02	2.01	0.35
19.36	0.13539	34.51	0.56	33.99	0.003866
	164.00	16995.53			
		4395.02	1.02	2.01	0.35
19.37	0.13539	34.51	0.56	33.99	0.003865
	165.00	16996.45			
		4395.02	1.02	2.01	0.35
19.37	0.13532	34.51	0.56	33.99	0.003864
	166.00	16995.97			
		4395.02	1.02	2.01	0.35
19.36	0.13540	34.51	0.56	33.99	0.003867
	167.00	16995.78			
		4395.02	1.02	2.01	0.35
19.37	0.13532	34.51	0.56	33.99	0.003863
	168.00	16996.47			
		4395.02	1.02	2.01	0.35
19.37	0.13530	34.51	0.56	33.99	0.003863
	169.00	16996.63			
		4395.02	1.02	2.01	0.35
19.37	0.13529	34.51	0.56	33.99	0.003863
	170.00	16996.39			
		4395.02	1.02	2.01	0.35

		HYCHAN.OUT				
19.37	0.13537	34.51	0.56	33.99	33.21	0.003865
	171.00	16995.98				
		4395.02	1.02	2.01	39.02	0.35
19.37	0.13523	34.51	0.56	33.99	33.21	0.003861
	172.00	16996.08				
		4395.02	1.02	2.01	38.99	0.35
19.37	0.13527	34.51	0.56	33.99	33.21	0.003862
	173.00	16995.84				
		4395.02	1.02	2.01	39.01	0.35
19.37	0.13532	34.51	0.56	33.99	33.20	0.003863
	174.00	16996.60				
		4395.02	1.02	2.01	38.99	0.35
19.37	0.13533	34.51	0.56	33.99	33.21	0.003864
	175.00	16995.74				
		4395.02	1.02	2.01	38.98	0.35
19.37	0.13537	34.51	0.56	33.99	33.21	0.003866
	176.00	16995.61				
		4395.02	1.02	2.01	39.02	0.35
19.37	0.13533	34.51	0.56	33.99	33.21	0.003863
	177.00	16995.80				
		4395.02	1.02	2.01	38.99	0.35
19.36	0.13527	34.50	0.56	33.99	33.22	0.003863
	178.00	16995.17				
		4395.02	1.02	2.01	39.00	0.35
19.37	0.13533	34.50	0.56	33.99	33.22	0.003864
	179.00	16995.20				
		4395.02	1.02	2.01	39.00	0.35
19.37	0.13533	34.50	0.56	33.99	33.22	0.003864
	180.00	16994.96				
		4395.02	1.02	2.01	39.01	0.35
19.37	0.13522	34.50	0.56	33.99	33.23	0.003860
	181.00	16994.82				
		4395.02	1.02	2.01	39.00	0.35
19.37	0.13526	34.50	0.56	33.99	33.22	0.003861
	182.00	16995.02				
		4395.02	1.02	2.01	39.00	0.35
19.37	0.13531	34.51	0.56	33.99	33.22	0.003862
	183.00	16995.37				
		4395.02	1.02	2.01	39.00	0.35
19.37	0.13529	34.50	0.56	33.99	33.22	0.003862
	184.00	16995.23				
		4395.02	1.02	2.01	38.99	0.35
19.37	0.13541	34.50	0.56	33.99	33.22	0.003866
	185.00	16995.18				
		4395.02	1.02	2.01	39.01	0.35
19.37	0.13532	34.51	0.56	33.99	33.21	0.003864
	186.00	16995.58				
		4395.02	1.02	2.01	38.97	0.35
19.36	0.13539	34.50	0.56	33.99	33.22	0.003867
	187.00	16995.12				
		4395.02	1.02	2.01	39.01	0.35
19.37	0.13523	34.51	0.56	33.99	33.21	0.003861
	188.00	16995.91				
		4395.02	1.02	2.01	39.00	0.35
19.36	0.13534	34.51	0.56	33.99	33.22	0.003865
	189.00	16995.46				
		4395.02	1.02	2.01	39.01	0.35
19.37	0.13530	34.51	0.56	33.99	33.20	0.003862
	190.00	16996.59				
		4395.02	1.02	2.01	38.99	0.35
19.37	0.13546	34.51	0.56	33.99	33.21	0.003868
	191.00	16995.88				
		4395.02	1.02	2.01	39.02	0.35

HYCHAN.OUT						
19.37	0.13531	34.51	0.56	33.99	33.21	0.003863
	192.00	4395.02	1.02	2.01	38.98	0.35
19.36	0.13537	34.50	0.56	33.99	33.22	0.003866
	193.00	4395.02	1.02	2.01	39.01	0.35
19.37	0.13532	34.51	0.56	33.99	33.20	0.003863
	194.00	4395.02	1.02	2.01	38.99	0.35
19.37	0.13545	34.51	0.56	33.99	33.22	0.003867
	195.00	4395.02	1.02	2.01	39.01	0.35
19.38	0.13541	34.51	0.56	33.99	33.21	0.003865
	196.00	4395.02	1.02	2.01	39.00	0.35
19.37	0.13548	34.51	0.56	33.99	33.21	0.003868
	197.00	4395.02	1.02	2.01	39.00	0.35
19.37	0.13527	34.51	0.56	33.99	33.21	0.003862
	198.00	4395.02	1.02	2.01	38.99	0.35
19.36	0.13536	34.50	0.56	33.99	33.23	0.003866
	199.00	4395.02	1.02	2.01	39.02	0.35
19.38	0.13530	34.51	0.56	33.99	33.20	0.003861
		16996.33				

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2611

MAXIMUM DISCHARGE (CFS) = 1945.38 AT TIME = 88.17  
 MAXIMUM STAGE = 4397.58 AT TIME = 91.37

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRONDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)		(FT)	(FT^2)		(FT)				
0.00	0.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	34.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4390.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT									
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	55.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	56.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	57.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	58.00	4390.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	59.00	4390.51	0.01	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	60.00	4390.51	0.01	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	61.00	4390.52	0.02	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	62.00	4390.52	0.02	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
95.22	63.00	4390.67	0.17	0.28	26.21	0.12			
	0.54605	30.73	3.10	30.65	184.32				0.002824
100.86	64.00	4390.72	0.22	0.45	44.96	0.17			
	0.58296	30.98	3.26	30.87	138.71				0.002870
112.27	65.00	4390.91	0.41	0.52	58.13	0.14			
	0.60149	31.80	3.53	31.59	77.30				0.002730
123.76	66.00	4391.04	0.54	0.59	72.62	0.14			
	0.65758	32.36	3.82	32.09	59.81				0.002756
137.95	67.00	4391.28	0.78	0.88	121.07	0.17			
	0.74114	33.46	4.12	33.06	42.12				0.002880
153.37	68.00	4391.58	1.08	1.21	186.09	0.21			
	0.82619	34.77	4.41	34.23	31.59				0.003002
168.58	69.00	4391.88	1.37	1.54	259.76	0.23			
	0.89220	36.05	4.68	35.36	25.72				0.003058
184.90	70.00	4392.16	1.66	1.76	325.97	0.24			
		37.30	4.96	36.46	22.00				0.003024

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HYCHAN.OUT									
0.93555	21878.11								
196.43	71.00	4392.33	1.83	5.16	1.80	37.12	353.74	20.33	0.23
	0.94295	22273.79							0.002927
211.95	72.00	4392.55	2.05	5.43	1.84	37.99	390.22	18.54	0.23
	0.98109	22793.84							0.002895
229.65	73.00	4392.83	2.33	5.71	2.05	39.08	470.87	16.78	0.24
	1.03938	23449.51							0.002920
245.38	74.00	4393.07	2.57	5.94	2.23	40.03	547.04	15.56	0.25
	1.08200	24018.98							0.002920
258.20	75.00	4393.27	2.77	6.12	2.37	40.79	612.83	14.75	0.25
	1.13103	24472.10							0.002961
280.78	76.00	4393.58	3.08	6.44	2.50	42.02	702.62	13.63	0.25
	1.14241	25211.22							0.002841
305.92	77.00	4393.92	3.42	6.79	2.62	43.35	802.16	12.66	0.25
	1.21743	26011.16							0.002875
327.78	78.00	4394.23	3.73	7.06	2.80	44.54	918.46	11.95	0.26
	1.27808	26723.03							0.002900
348.30	79.00	4394.51	4.01	7.31	2.95	45.62	1029.10	11.39	0.26
	1.33499	27373.12							0.002926
370.70	80.00	4394.80	4.30	7.58	3.12	46.77	1154.93	10.87	0.26
	1.40915	28064.52							0.002981
400.64	81.00	4395.19	4.69	7.91	3.30	48.27	1321.37	10.30	0.27
	1.45746	28963.15							0.002952
436.29	82.00	4395.62	5.12	8.30	3.41	49.96	1486.05	9.76	0.27
	1.47798	29977.38							0.002852
465.83	83.00	4395.97	5.47	8.62	3.47	51.32	1615.76	9.39	0.26
	1.49083	30793.83							0.002773
487.04	84.00	4396.19	5.69	8.84	3.48	52.21	1696.71	9.17	0.26
	1.47120	31323.22							0.002666
508.23	85.00	4396.42	5.92	9.07	3.46	53.08	1758.38	8.97	0.25
	1.43381	31846.78							0.002534
531.72	86.00	4396.68	6.18	9.29	3.47	54.12	1844.18	8.75	0.25
	1.39140	32470.36							0.002400
554.29	87.00	4396.93	6.43	9.50	3.41	55.10	1890.00	8.56	0.24
	1.32903	33057.36							0.002241
576.07	88.00	4397.18	6.68	9.70	3.35	56.04	1930.34	8.39	0.23
	1.22325	33621.27							0.002021
594.57	89.00	4397.38	6.88	9.86	3.24	56.83	1929.32	8.26	0.22
	1.10283	34095.08							0.001792
608.02	90.00	4397.53	7.03	9.98	3.16	57.40	1919.64	8.17	0.21
	1.04622	34439.93							0.001680
612.02	91.00	4397.57	7.07	10.01	3.10	57.58	1898.94	8.14	0.21
		61.13							0.001629

		HYCHAN.OUT						
	1.01793	34546.68						
611.40	92.00	4397.57	7.07	3.04	1857.57	0.20		
	0.99898	34535.82	10.00		57.56	8.15		0.001600
604.43	93.00	4397.49	6.99	3.01	1821.96	0.20		
	1.01385	34354.54	9.95		57.26	8.19		0.001634
593.33	94.00	4397.36	6.86	3.01	1785.64	0.20		
	1.03485	34061.77	9.85		56.77	8.27		0.001683
574.53	95.00	4397.15	6.65	3.03	1738.01	0.21		
	1.08972	33564.70	9.69		55.94	8.41		0.001802
553.84	96.00	4396.92	6.42	3.06	1696.24	0.21		
	1.16231	33017.91	9.51		55.03	8.57		0.001959
534.25	97.00	4396.70	6.20	3.09	1648.39	0.22		
	1.22764	32499.30	9.33		54.17	8.74		0.002109
515.65	98.00	4396.49	5.99	3.14	1616.96	0.23		
	1.29255	32005.59	9.15		53.34	8.91		0.002264
495.62	99.00	4396.26	5.76	3.18	1578.17	0.23		
	1.35297	31468.86	8.96		52.45	9.11		0.002421
472.92	100.00	4395.99	5.49	3.18	1501.85	0.24		
	1.35949	30845.14	8.73		51.41	9.37		0.002495
437.52	101.00	4395.57	5.07	3.11	1361.92	0.24		
	1.38422	29857.71	8.36		49.76	9.82		0.002652
405.31	102.00	4395.21	4.71	3.05	1238.09	0.25		
	1.35144	29021.64	7.99		48.37	10.27		0.002711
385.77	103.00	4394.96	4.46	2.95	1137.40	0.25		
	1.28818	28440.72	7.77		47.40	10.62		0.002657
372.02	104.00	4394.78	4.28	2.81	1044.15	0.24		
	1.23309	28008.48	7.62		46.68	10.91		0.002594
361.23	105.00	4394.63	4.13	2.67	964.68	0.23		
	1.17326	27658.74	7.50		46.10	11.17		0.002507
351.56	106.00	4394.49	3.99	2.51	883.93	0.22		
	1.10416	27333.77	7.39		45.56	11.42		0.002394
342.01	107.00	4394.35	3.85	2.35	803.61	0.21		
	1.05735	27013.63	7.28		45.02	11.69		0.002327
330.89	108.00	4394.19	3.69	2.16	715.51	0.20		
	0.98199	26639.05	7.15		44.40	12.03		0.002200
315.92	109.00	4393.98	3.48	1.92	606.79	0.18		
	0.93407	26139.54	6.97		43.57	12.52		0.002147
303.31	110.00	4393.80	3.30	1.79	543.97	0.17		
	0.90631	25724.62	6.81		42.87	12.99		0.002133
290.76	111.00	4393.62	3.12	1.68	487.06	0.17		
	0.87347	25305.13	6.65		42.18	13.51		0.002106
278.33	112.00	4393.44	2.94	1.55	431.11	0.16		
		42.95	6.48		41.47	14.10		0.002103

		HYCHAN.OUT						
	0.85039	24884.89						
113.00	4393.28	2.78	1.48	394.13	0.16			
266.89	42.23	6.32	40.83	14.70	0.002120			
	0.83606	24499.69						
114.00	4393.11	2.61	1.40	358.37	0.15			
255.55	41.50	6.16	40.19	15.39	0.002145			
	0.82425	24111.23						
115.00	4392.96	2.46	1.41	345.38	0.16			
244.56	40.83	5.99	39.59	16.09	0.002422			
	0.90534	23756.79						
116.00	4392.79	2.29	1.54	358.81	0.18			
232.42	40.09	5.80	38.94	16.99	0.002374			
	0.85891	23361.76						
117.00	4392.52	2.02	1.20	258.72	0.15			
216.26	38.91	5.56	37.89	18.73	0.002238			
	0.77616	22733.49						
118.00	4392.38	1.88	1.04	216.38	0.13			
207.65	38.30	5.42	37.35	19.82	0.002177			
	0.73670	22409.15						
119.00	4392.26	1.76	0.91	181.70	0.12			
200.30	37.76	5.30	36.88	20.92	0.002091			
	0.69207	22125.21						
120.00	4392.15	1.65	0.76	146.56	0.10			
193.48	37.26	5.19	36.43	22.09	0.001977			
	0.64070	21858.70						
121.00	4392.04	1.54	0.61	114.24	0.09			
186.68	36.76	5.08	35.99	23.43	0.001884			
	0.59682	21594.73						
122.00	4391.95	1.45	0.52	94.07	0.08			
181.21	36.38	4.98	35.66	24.59	0.001851			
	0.57516	21393.33						
123.00	4391.88	1.38	0.47	83.71	0.07			
176.75	36.07	4.90	35.38	25.66	0.001859			
	0.56843	21225.63						
124.00	4391.81	1.31	0.43	74.90	0.07			
172.37	35.75	4.82	35.09	26.87	0.001875			
	0.56401	21055.55						
125.00	4391.73	1.23	0.40	66.50	0.06			
167.77	35.42	4.74	34.81	28.25	0.001845			
	0.54526	20883.20						
126.00	4391.66	1.16	0.35	57.45	0.06			
163.28	35.10	4.65	34.52	29.81	0.001845			
	0.53544	20709.59						
127.00	4391.58	1.08	0.31	48.68	0.05			
158.24	34.74	4.56	34.20	31.78	0.001873			
	0.53226	20518.22						
128.00	4391.50	1.00	0.27	41.14	0.05			
153.65	34.41	4.47	33.90	33.87	0.001916			
	0.53389	20342.21						
129.00	4391.43	0.93	0.26	39.46	0.05			
149.18	34.08	4.38	33.61	36.28	0.001975			
	0.53961	20167.81						
130.00	4391.35	0.85	0.27	39.30	0.05			
144.73	33.75	4.29	33.33	39.09	0.002050			
	0.54838	19995.10						
131.00	4391.28	0.78	0.28	39.44	0.06			
140.51	33.44	4.20	33.05	42.25	0.002106			
	0.55216	19830.61						
132.00	4391.22	0.72	0.29	38.94	0.06			
136.36	33.15	4.11	32.79	45.84	0.002194			
	0.56308	19673.81						
133.00	4391.14	0.64	0.30	39.35	0.07			
132.19	32.84	4.03	32.51	50.49	0.002260			

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		HYCHAN.OUT						
	0.56774	19506.87						
128.71	134.00	4391.09	0.59	0.30	39.19	0.07		
		32.58	3.95		32.28	55.11	0.002316	
	0.57098	19370.96						
125.88	135.00	4391.04	0.54	0.31	39.14	0.07		
		32.37	3.89		32.10	59.68	0.002363	
	0.57344	19258.62						
123.27	136.00	4391.00	0.50	0.32	39.04	0.08		
		32.22	3.83		31.97	63.43	0.002400	
	0.57306	19179.18						
121.02	137.00	4390.99	0.49	0.32	39.16	0.08		
		32.16	3.76		31.91	65.11	0.002444	
	0.57381	19146.90						
118.71	138.00	4390.96	0.46	0.33	39.03	0.09		
		32.01	3.71		31.78	69.67	0.002506	
	0.57998	19067.42						
116.33	139.00	4390.92	0.42	0.34	39.10	0.09		
		31.84	3.65		31.63	75.87	0.002540	
	0.57917	18975.36						
114.06	140.00	4390.88	0.38	0.34	39.04	0.10		
		31.67	3.60		31.48	82.81	0.002580	
	0.57974	18889.65						
111.77	141.00	4390.84	0.34	0.35	39.13	0.11		
		31.51	3.55		31.34	91.24	0.002622	
	0.58033	18803.74						
109.59	142.00	4390.81	0.31	0.36	39.13	0.11		
		31.36	3.49		31.21	100.96	0.002666	
	0.58134	18723.24						
107.25	143.00	4390.77	0.27	0.36	39.09	0.12		
		31.20	3.44		31.06	114.23	0.002716	
	0.58257	18636.25						
104.97	144.00	4390.74	0.24	0.37	39.08	0.14		
		31.04	3.38		30.92	131.16	0.002758	
	0.58206	18551.64						
102.92	145.00	4390.71	0.21	0.38	39.02	0.15		
		30.91	3.33		30.81	148.57	0.002788	
	0.57926	18485.25						
101.23	146.00	4390.70	0.20	0.39	39.01	0.15		
		30.89	3.28		30.79	152.50	0.002813	
	0.57524	18472.42						
99.58	147.00	4390.70	0.20	0.39	38.99	0.15		
		30.88	3.22		30.78	153.20	0.002834	
	0.57006	18470.19						
97.79	148.00	4390.70	0.20	0.40	39.01	0.16		
		30.88	3.17		30.78	153.87	0.002864	
	0.56591	18468.09						
96.07	149.00	4390.70	0.20	0.41	39.01	0.16		
		30.88	3.11		30.78	154.22	0.002895	
	0.56210	18466.99						
94.50	150.00	4390.70	0.20	0.41	39.03	0.16		
		30.88	3.06		30.78	154.70	0.002910	
	0.55585	18465.51						
92.99	151.00	4390.70	0.20	0.42	38.98	0.17		
		30.88	3.01		30.78	154.80	0.002935	
	0.55154	18465.20						
91.53	152.00	4390.70	0.20	0.43	39.02	0.17		
		30.88	2.96		30.78	154.64	0.002956	
	0.54680	18465.71						
90.01	153.00	4390.70	0.20	0.43	39.00	0.17		
		30.87	2.92		30.77	154.95	0.002982	
	0.54255	18464.73						
88.49	154.00	4390.70	0.20	0.44	38.96	0.17		
		30.87	2.87		30.77	155.19	0.003004	

## HYCHAN.OUT

0.53725	18464.01					
155.00	4390.70	0.20	0.45	39.00	0.18	
86.90	30.87	2.82	30.77	155.61		0.003031
0.53250	18462.73					
156.00	4390.70	0.20	0.46	39.03	0.18	
85.55	30.87	2.77	30.77	155.82		0.003047
0.52692	18462.08					
157.00	4390.70	0.20	0.46	38.98	0.18	
83.95	30.87	2.72	30.77	156.01		0.003077
0.52217	18461.51					
158.00	4390.70	0.20	0.47	38.99	0.19	
83.02	30.87	2.69	30.77	156.14		0.003079
0.51681	18461.11					
159.00	4390.70	0.20	0.47	39.04	0.19	
82.87	30.87	2.68	30.77	156.14		0.003076
0.51529	18461.11					
160.00	4390.70	0.20	0.47	38.98	0.19	
82.57	30.87	2.67	30.77	156.01		0.003094
0.51639	18461.52					
161.00	4390.70	0.20	0.47	38.98	0.19	
82.21	30.87	2.66	30.77	156.25		0.003096
0.51461	18460.79					
162.00	4390.70	0.20	0.48	39.00	0.19	
81.80	30.87	2.65	30.77	156.12		0.003096
0.51194	18461.19					
163.00	4390.70	0.20	0.48	39.01	0.19	
81.55	30.87	2.64	30.77	156.22		0.003102
0.51146	18460.87					
164.00	4390.70	0.20	0.48	39.01	0.19	
81.13	30.87	2.63	30.77	156.21		0.003111
0.51028	18460.90					
165.00	4390.70	0.20	0.48	38.99	0.19	
80.83	30.87	2.62	30.77	156.31		0.003119
0.50972	18460.61					
166.00	4390.70	0.20	0.48	38.98	0.19	
80.54	30.87	2.61	30.77	156.48		0.003120
0.50796	18460.08					
167.00	4390.70	0.20	0.49	38.99	0.19	
79.90	30.87	2.59	30.77	156.29		0.003139
0.50694	18460.66					
168.00	4390.70	0.20	0.49	38.99	0.20	
78.89	30.87	2.56	30.77	156.36		0.003150
0.50245	18460.45					
169.00	4390.70	0.20	0.50	39.01	0.20	
78.23	30.87	2.53	30.77	156.32		0.003163
0.50025	18460.58					
170.00	4390.70	0.20	0.50	39.01	0.20	
77.64	30.87	2.52	30.77	156.30		0.003163
0.49649	18460.64					
171.00	4390.70	0.20	0.51	39.01	0.20	
77.07	30.87	2.50	30.77	156.22		0.003176
0.49490	18460.87					
172.00	4390.70	0.20	0.51	39.00	0.20	
76.62	30.87	2.48	30.77	156.21		0.003182
0.49295	18460.89					
173.00	4390.70	0.20	0.51	39.00	0.20	
76.19	30.87	2.47	30.77	156.23		0.003194
0.49193	18460.86					
174.00	4390.70	0.20	0.52	39.01	0.20	
75.64	30.87	2.45	30.77	156.17		0.003197
0.48884	18461.04					
175.00	4390.70	0.20	0.52	38.98	0.21	
74.98	30.87	2.43	30.77	156.16		0.003211

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		HYCHAN.OUT				
	0.48669	18461.05				
73.90	176.00	4390.70	0.20	0.53	39.01	0.21
		30.87	2.39	30.77	155.91	0.003229
	0.48232	18461.80				
73.04	177.00	4390.70	0.20	0.53	38.97	0.21
		30.87	2.37	30.77	155.98	0.003243
	0.47876	18461.59				
72.34	178.00	4390.70	0.20	0.54	39.01	0.21
		30.87	2.34	30.77	155.86	0.003252
	0.47545	18461.95				
71.76	179.00	4390.70	0.20	0.54	38.99	0.22
		30.87	2.32	30.77	155.75	0.003253
	0.47194	18462.30				
71.20	180.00	4390.70	0.20	0.55	39.02	0.22
		30.87	2.31	30.77	155.63	0.003269
	0.47048	18462.66				
70.72	181.00	4390.70	0.20	0.55	38.98	0.22
		30.87	2.29	30.77	155.50	0.003274
	0.46793	18463.06				
71.05	182.00	4390.70	0.20	0.55	39.03	0.22
		30.87	2.30	30.77	155.67	0.003256
	0.46766	18462.55				
72.01	183.00	4390.70	0.20	0.54	39.00	0.21
		30.87	2.33	30.77	155.78	0.003242
	0.47198	18462.19				
73.13	184.00	4390.70	0.20	0.53	39.00	0.21
		30.87	2.37	30.77	155.94	0.003225
	0.47681	18461.73				
74.27	185.00	4390.70	0.20	0.52	38.99	0.21
		30.87	2.41	30.77	155.98	0.003210
	0.48193	18461.60				
74.99	186.00	4390.70	0.20	0.52	38.99	0.21
		30.87	2.43	30.77	156.16	0.003202
	0.48544	18461.04				
75.46	187.00	4390.70	0.20	0.52	39.01	0.21
		30.87	2.44	30.77	156.06	0.003198
	0.48780	18461.37				
75.73	188.00	4390.70	0.20	0.51	38.97	0.20
		30.87	2.45	30.77	156.12	0.003190
	0.48836	18461.17				
75.94	189.00	4390.70	0.20	0.51	39.03	0.20
		30.87	2.46	30.77	156.15	0.003190
	0.48965	18461.09				
76.02	190.00	4390.70	0.20	0.51	38.99	0.20
		30.87	2.46	30.77	156.16	0.003187
	0.48977	18461.06				
75.94	191.00	4390.70	0.20	0.51	39.01	0.20
		30.87	2.46	30.77	156.01	0.003190
	0.48974	18461.51				
75.84	192.00	4390.70	0.20	0.51	38.99	0.20
		30.87	2.46	30.77	156.15	0.003194
	0.48967	18461.09				
75.37	193.00	4390.70	0.20	0.52	39.00	0.21
		30.87	2.44	30.77	156.04	0.003203
	0.48796	18461.42				
74.47	194.00	4390.70	0.20	0.52	38.99	0.21
		30.87	2.41	30.77	155.94	0.003218
	0.48447	18461.72				
73.80	195.00	4390.70	0.20	0.53	39.00	0.21
		30.87	2.39	30.77	155.81	0.003229
	0.48166	18462.13				
73.20	196.00	4390.70	0.20	0.53	39.02	0.21
		30.87	2.37	30.77	155.95	0.003232



HYCHAN.OUT

0.47831	18461.69						
197.00	4390.70	0.20	0.53	38.98	0.21		
72.95	30.87	2.36	30.77	155.98		0.003238	
0.47750	18461.61						
198.00	4390.70	0.20	0.54	39.00	0.21		
72.54	30.87	2.35	30.77	155.84		0.003241	
0.47520	18462.03						
199.00	4390.70	0.20	0.54	38.99	0.21		
72.32	30.87	2.34	30.77	155.77		0.003250	
0.47505	18462.23						

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2698

MAXIMUM DISCHARGE (CFS) = 2060.32 AT TIME = 89.15  
 MAXIMUM STAGE = 4397.75 AT TIME = 91.30

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	0.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
7.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
8.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
9.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
10.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
11.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
12.00	4388.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	13.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	32.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	33.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	34.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	35.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	36.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	37.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	38.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	39.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	40.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	41.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	42.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	43.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	44.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	45.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	46.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	47.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	48.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	49.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	50.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	51.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	52.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	53.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	54.00	4388.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT									
0.00	55.00	4388.06	0.06	-0.02	0.00	-1.35	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000	
81.60	56.00	4388.24	0.24	-0.03	71.18	-2.09	0.01	0.000000	
	0.00000	71.28	1.14		295.08			0.000000	
103.55	57.00	4388.51	0.51	-0.03	72.51	-3.50	0.01	0.000000	
	0.00000	72.71	1.42		141.61			0.000000	
134.75	58.00	4388.89	0.89	-0.03	74.35	-4.36	0.01	0.000000	
	0.00000	74.70	1.80		83.84			0.000000	
169.59	59.00	4389.31	1.31	-0.03	76.41	-4.43	0.00	0.000000	
	0.00000	76.94	2.20		58.38			0.000000	
202.58	60.00	4389.68	1.68	-0.02	78.24	-3.71	0.00	0.000000	
	0.00000	78.91	2.57		46.55			0.000000	
232.48	61.00	4390.02	2.02	-0.02	79.91	-3.78	0.00	0.000000	
	0.00000	80.72	2.88		39.49			0.000000	
0.00	62.00	4390.29	2.29	0.00	81.23	0.00	0.00	0.000103	
	0.00000	82.14	0.00		35.44			0.000103	
270.50	63.00	4390.43	2.43	0.09	81.91	25.29	0.01	0.000157	
	0.03199	82.88	3.26		33.71			0.000157	
281.45	64.00	4390.55	2.55	0.15	82.50	42.71	0.02	0.000100	
	0.02099	83.52	3.37		32.34			0.000100	
300.42	65.00	4390.76	2.76	0.18	83.52	55.55	0.02	0.000082	
	0.01821	84.62	3.55		30.26			0.000082	
321.35	66.00	4390.98	2.98	0.22	84.60	69.67	0.02	0.000037	
	0.00857	85.79	3.75		28.39			0.000037	
343.39	67.00	4391.21	3.21	0.34	85.75	118.16	0.03	0.000075	
	0.01857	87.03	3.95		26.68			0.000075	
366.54	68.00	4391.46	3.46	0.50	86.94	183.39	0.05	0.000117	
	0.03028	88.32	4.15		25.14			0.000117	
389.26	69.00	4391.69	3.69	0.66	88.08	256.44	0.06	0.000156	
	0.04221	89.56	4.35		23.87			0.000156	
414.31	70.00	4391.95	3.95	0.78	89.35	323.42	0.07	0.000159	
	0.04529	90.93	4.56		22.62			0.000159	
433.03	71.00	4392.14	4.14	0.81	90.28	351.17	0.07	0.000138	
	0.04065	91.93	4.71		21.82			0.000138	
458.18	72.00	4392.38	4.38	0.84	91.49	386.68	0.07	0.000144	
	0.04427	93.24	4.91		20.86			0.000144	
485.39	73.00	4392.65	4.65	0.96	92.79	467.51	0.08	0.000156	
	0.04997	94.65	5.13		19.95			0.000156	
509.60	74.00	4392.89	4.89	1.07	93.95	544.41	0.09	0.000160	
	0.05296	95.90	5.31		19.22			0.000160	
529.30	75.00	4393.08	5.08	1.15	94.87	610.08	0.09	0.000175	
	0.05971	96.89	5.46		18.69			0.000175	
		48382.65							

HYCHAN.OUT									
565.04	76.00	4393.41	5.41	1.23	696.78	0.09	0.000147		
	0.05245	98.68	5.73		96.52	17.84			
604.44	77.00	4393.78	5.78	1.32	797.88	0.10	0.000152		
	0.05708	100.61	6.01		98.30	17.02			
638.03	78.00	4394.08	6.08	1.43	914.34	0.10	0.000152		
	0.05929	102.24	6.24		99.81	16.41			
669.63	79.00	4394.37	6.37	1.53	1025.19	0.11	0.000151		
	0.06092	103.74	6.45		101.20	15.89			
704.13	80.00	4394.67	6.67	1.63	1150.00	0.11	0.000149		
	0.06213	105.35	6.68		102.69	15.39			
750.31	81.00	4395.07	7.07	1.75	1314.72	0.12	0.000133		
	0.05783	107.48	6.98		104.66	14.80			
805.76	82.00	4395.55	7.55	1.84	1479.13	0.12	0.000108		
	0.04924	110.00	7.33		106.98	14.17			
851.51	83.00	4395.93	7.93	1.89	1611.00	0.12	0.000091		
	0.04320	112.03	7.60		108.87	13.72			
885.36	84.00	4396.21	8.21	1.92	1702.21	0.12	0.000035		
	0.01684	113.51	7.80		110.24	13.42			
919.02	85.00	4396.49	8.49	1.94	1778.86	0.12	0.000017		
	0.00869	114.96	7.99		111.58	13.15			
954.94	86.00	4396.77	8.77	1.97	1877.23	0.12	0.000000		
	0.00000	116.50	8.20		112.99	12.88			
989.32	87.00	4397.05	9.05	1.95	1932.37	0.11	0.000000		
	0.00000	117.96	8.39		114.34	12.64			
1022.03	88.00	4397.31	9.31	1.96	2001.32	0.11	0.000000		
	0.00000	119.33	8.56		115.61	12.42			
1049.37	89.00	4397.52	9.52	1.95	2041.92	0.11	0.000000		
	0.00000	120.50	8.71		116.66	12.25			
1069.06	90.00	4397.68	9.68	1.92	2048.14	0.11	0.000000		
	0.00000	121.64	8.79		117.42	12.13			
1074.82	91.00	4397.72	9.72	1.88	2019.90	0.11	0.000000		
	0.00000	121.98	8.81		117.65	12.10			
1073.77	92.00	4397.72	9.72	1.82	1957.97	0.10	0.000000		
	0.00000	121.94	8.81		117.62	12.10			
1063.57	93.00	4397.64	9.64	1.79	1905.85	0.10	0.000000		
	0.00000	121.37	8.76		117.24	12.16			
1047.40	94.00	4397.51	9.51	1.77	1850.66	0.10	0.000000		
	0.00000	120.44	8.70		116.62	12.26			
1019.78	95.00	4397.30	9.30	1.74	1776.34	0.10	0.000000		
	0.00000	119.27	8.55		115.56	12.43			
988.94	96.00	4397.05	9.05	1.74	1721.22	0.10	0.000000		
	0.00000	117.97	8.38		114.35	12.63			
	0.00000	58320.19							

		HYCHAN.OUT				
959.35	97.00	4396.82	8.82	1.73	1664.16	0.10
	0.00000	116.71	8.22	113.19	12.84	0.000000
		57729.38				
930.99	98.00	4396.59	8.59	1.75	1628.55	0.11
	0.00000	115.50	8.06	112.07	13.05	0.000000
		57157.38				
900.33	99.00	4396.34	8.34	1.76	1585.56	0.11
	0.00751	114.18	7.89	110.85	13.30	0.000015
		56532.61				
865.50	100.00	4396.05	8.05	1.74	1509.20	0.11
	0.01939	112.65	7.68	109.44	13.60	0.000040
		55811.98				
810.93	101.00	4395.59	7.59	1.69	1370.57	0.11
	0.03404	110.23	7.36	107.20	14.12	0.000074
		54670.21				
759.12	102.00	4395.15	7.15	1.64	1243.92	0.11
	0.04669	107.89	7.04	105.04	14.69	0.000106
		53568.69				
729.04	103.00	4394.89	6.89	1.56	1140.66	0.11
	0.04376	106.51	6.84	103.76	15.06	0.000102
		52919.12				
708.21	104.00	4394.71	6.71	1.48	1046.48	0.10
	0.03974	105.55	6.71	102.87	15.33	0.000095
		52465.58				
691.99	105.00	4394.57	6.57	1.40	966.65	0.10
	0.03428	104.80	6.60	102.17	15.56	0.000083
		52108.88				
677.61	106.00	4394.44	6.44	1.31	885.73	0.09
	0.02995	104.12	6.51	101.55	15.77	0.000074
		51790.15				
663.33	107.00	4394.31	6.31	1.21	805.49	0.09
	0.02540	103.44	6.41	100.93	15.99	0.000063
		51471.75				
646.58	108.00	4394.16	6.16	1.11	718.17	0.08
	0.01912	102.64	6.30	100.18	16.27	0.000049
		51091.14				
623.88	109.00	4393.95	5.95	0.98	609.50	0.07
	0.01595	101.55	6.14	99.17	16.66	0.000042
		50578.75				
604.38	110.00	4393.78	5.78	0.90	546.47	0.07
	0.01482	100.61	6.01	98.31	17.02	0.000040
		50135.87				
585.02	111.00	4393.60	5.60	0.84	489.62	0.06
	0.01425	99.66	5.87	97.43	17.41	0.000039
		49688.71				
565.87	112.00	4393.42	5.42	0.77	433.33	0.06
	0.01269	98.72	5.73	96.56	17.82	0.000035
		49243.46				
548.07	113.00	4393.25	5.25	0.72	396.30	0.06
	0.01125	97.83	5.60	95.74	18.23	0.000032
		48825.62				
530.42	114.00	4393.08	5.08	0.68	360.76	0.05
	0.01242	96.94	5.47	94.91	18.67	0.000036
		48406.48				
512.89	115.00	4392.92	4.92	0.68	347.70	0.05
	0.02045	96.08	5.34	94.11	19.13	0.000061
		47996.75				
493.07	116.00	4392.72	4.72	0.73	361.95	0.06
	0.01873	95.03	5.19	93.14	19.72	0.000058
		47502.88				
468.78	117.00	4392.49	4.49	0.56	260.90	0.05
	0.00426	93.78	5.00	91.99	20.50	0.000014
		46912.61				

		HYCHAN.OUT						
118.00	4392.36	4.36	0.48	217.89	0.04			
455.52	93.10	4.89		91.36	20.96	0.000028		
0.00843	46592.68							
119.00	4392.25	4.25	0.41	183.06	0.04			
444.34	92.50	4.80		90.81	21.38	0.000000		
0.00000	46312.08							
120.00	4392.14	4.14	0.34	147.83	0.03			
433.88	91.95	4.72		90.29	21.80	0.000000		
0.00000	46050.16							
121.00	4392.04	4.04	0.27	115.32	0.02			
423.44	91.39	4.63		89.78	22.24	0.000000		
0.00000	45786.47							
122.00	4391.95	3.95	0.23	95.04	0.02			
414.81	90.93	4.56		89.35	22.62	0.000000		
0.00000	45571.00							
123.00	4391.88	3.88	0.21	84.80	0.02			
407.75	90.56	4.50		89.01	22.95	0.000000		
0.00000	45393.65							
124.00	4391.81	3.81	0.19	76.13	0.02			
400.80	90.18	4.44		88.66	23.28	0.000014		
0.00396	45218.30							
125.00	4391.73	3.73	0.17	66.99	0.02			
393.53	89.79	4.38		88.30	23.64	0.000000		
0.00000	45032.49							
126.00	4391.66	3.66	0.15	58.43	0.01			
386.41	89.40	4.32		87.94	24.02	0.000000		
0.00000	44850.46							
127.00	4391.58	3.58	0.13	49.86	0.01			
378.32	88.96	4.25		87.53	24.47	0.000010		
0.00278	44640.53							
128.00	4391.50	3.50	0.11	42.06	0.01			
370.94	88.56	4.19		87.16	24.89	0.000019		
0.00507	44452.84							
129.00	4391.43	3.43	0.11	40.58	0.01			
363.81	88.18	4.13		86.81	25.31	0.000000		
0.00000	44271.15							
130.00	4391.36	3.36	0.11	40.34	0.01			
356.64	87.78	4.06		86.44	25.76	0.000000		
0.00000	44085.77							
131.00	4391.29	3.29	0.11	39.87	0.01			
349.88	87.41	4.00		86.10	26.21	0.000000		
0.00000	43909.41							
132.00	4391.21	3.21	0.12	40.05	0.01			
343.13	87.03	3.94		85.75	26.68	0.000032		
0.00789	43732.19							
133.00	4391.14	3.14	0.12	39.94	0.01			
336.43	86.66	3.88		85.41	27.17	0.000000		
0.00000	43556.57							
134.00	4391.08	3.08	0.12	39.80	0.01			
330.80	86.34	3.83		85.11	27.60	0.000000		
0.00000	43407.86							
135.00	4391.04	3.04	0.12	39.63	0.01			
326.22	86.09	3.79		84.88	27.96	0.000000		
0.00000	43287.04							
136.00	4390.99	2.99	0.12	39.60	0.01			
321.62	85.83	3.75		84.64	28.33	0.000025		
0.00588	43164.86							
137.00	4390.94	2.94	0.13	39.73	0.01			
317.10	85.57	3.71		84.40	28.72	0.000026		
0.00597	43044.78							
138.00	4390.90	2.90	0.13	39.83	0.01			
313.12	85.35	3.67		84.20	29.06	0.000039		
0.00889	42940.08							



		HYCHAN.OUT						
309.24	139.00	4390.86	2.86	0.13	39.33	0.01		
	0.00928	85.13	3.63		83.99	29.41	0.000041	
	140.00	42836.50						
305.47	0.01144	4390.81	2.82	0.13	39.47	0.01		
	141.00	84.92	3.60		83.79	29.77	0.000051	
	0.01064	42735.11						
301.64	142.00	4390.77	2.77	0.13	39.69	0.01		
	0.01064	84.70	3.56		83.59	30.14	0.000048	
	143.00	42631.80						
297.97	0.01019	4390.73	2.73	0.13	39.63	0.01		
	144.00	84.49	3.53		83.40	30.50	0.000046	
	0.01123	42532.95						
294.05	145.00	4390.69	2.69	0.13	39.65	0.01		
	0.01123	84.27	3.49		83.19	30.90	0.000052	
	146.00	42427.66						
290.21	0.01222	4390.65	2.65	0.14	39.59	0.01		
	147.00	84.05	3.45		82.99	31.31	0.000057	
	0.01463	42324.06						
286.61	148.00	4390.61	2.61	0.14	39.42	0.02		
	0.01463	83.84	3.42		82.80	31.70	0.000069	
	149.00	42226.86						
283.06	0.01962	4390.57	2.57	0.14	39.45	0.02		
	150.00	83.63	3.38		82.61	32.11	0.000093	
	0.01962	42129.72						
279.39	151.00	4390.53	2.53	0.14	39.38	0.02		
	0.02507	83.42	3.35		82.41	32.53	0.000120	
	152.00	42030.37						
275.41	0.02981	4390.49	2.49	0.14	39.54	0.02		
	153.00	83.20	3.31		82.20	33.01	0.000144	
	0.02981	41922.68						
271.61	154.00	4390.45	2.45	0.15	39.62	0.02		
	0.03364	82.97	3.27		82.00	33.49	0.000165	
	155.00	41818.71						
268.14	0.03867	4390.41	2.41	0.15	39.31	0.02		
	156.00	82.77	3.24		81.81	33.94	0.000191	
	0.03867	41723.47						
264.76	157.00	4390.37	2.37	0.15	39.45	0.02		
	0.04360	82.58	3.21		81.63	34.39	0.000218	
	158.00	41631.04						
261.49	0.04690	4390.34	2.34	0.15	39.41	0.02		
	159.00	82.39	3.17		81.45	34.85	0.000237	
	0.04690	41541.45						
258.10	160.00	4390.30	2.30	0.15	39.46	0.02		
	0.05181	82.19	3.14		81.27	35.33	0.000264	
	161.00	41448.27						
254.73	0.05599	4390.26	2.26	0.15	39.38	0.02		
	162.00	81.99	3.11		81.09	35.83	0.000289	
	0.05599	41355.16						
251.21	163.00	4390.22	2.22	0.16	39.51	0.02		
	0.05958	81.79	3.07		80.90	36.38	0.000311	
	164.00	41257.69						
248.16	0.06156	4390.19	2.19	0.16	39.32	0.02		
	165.00	81.61	3.04		80.73	36.86	0.000324	
	0.06156	41174.11						
244.64	166.00	4390.15	2.15	0.16	39.53	0.02		
	0.06645	81.40	3.01		80.54	37.44	0.000354	
	167.00	41075.32						
242.57	0.06716	4390.13	2.13	0.16	39.03	0.02		
	168.00	81.28	2.98		80.43	37.79	0.000361	
	0.06716	41018.09						
242.20	169.00	4390.12	2.12	0.16	38.99	0.02		
	0.06757	81.26	2.98		80.41	37.85	0.000363	
		41008.54						

		HYCHAN.OUT						
241.54	160.00	4390.12	2.12	0.16	39.29	0.02		
	0.06706	81.22	2.97	80.37	37.97		0.000361	
240.73	161.00	40989.28	2.11	0.16	39.05	0.02		
	0.06887	81.17	2.97	80.33	38.11		0.000372	
239.82	162.00	40967.66	2.10	0.16	38.99	0.02		
	0.06900	81.12	2.96	80.28	38.27		0.000374	
239.27	163.00	40942.15	2.09	0.16	39.13	0.02		
	0.07024	81.08	2.95	80.25	38.37		0.000381	
238.32	164.00	40926.66	2.08	0.16	39.16	0.02		
	0.07077	81.03	2.94	80.20	38.54		0.000386	
237.66	165.00	40900.23	2.07	0.16	39.15	0.02		
	0.07117	80.99	2.93	80.16	38.66		0.000389	
237.02	166.00	40881.41	2.07	0.16	38.99	0.02		
	0.07290	80.95	2.93	80.13	38.77		0.000399	
235.60	167.00	40864.02	2.05	0.17	39.31	0.02		
	0.07490	80.86	2.91	80.05	39.04		0.000412	
233.32	168.00	40823.25	2.03	0.17	39.23	0.02		
	0.07718	80.73	2.89	79.92	39.47		0.000428	
231.87	169.00	40760.67	2.01	0.17	39.24	0.02		
	0.07779	80.64	2.88	79.84	39.75		0.000434	
230.54	170.00	40719.29	1.99	0.17	39.05	0.02		
	0.07916	80.56	2.86	79.77	40.01		0.000443	
229.23	171.00	40682.20	1.98	0.17	39.23	0.02		
	0.08083	80.49	2.85	79.70	40.26		0.000455	
228.24	172.00	40646.45	1.97	0.17	39.12	0.02		
	0.08132	80.43	2.84	79.64	40.47		0.000459	
227.27	173.00	40618.36	1.96	0.17	39.17	0.02		
	0.08171	80.37	2.83	79.59	40.66		0.000463	
226.04	174.00	40591.49	1.94	0.17	39.07	0.02		
	0.08384	80.30	2.82	79.52	40.92		0.000477	
224.53	175.00	40556.55	1.93	0.17	39.23	0.02		
	0.08573	80.21	2.80	79.44	41.23		0.000491	
222.13	176.00	40515.16	1.90	0.18	39.35	0.02		
	0.08801	80.07	2.77	79.31	41.75		0.000508	
220.21	177.00	40446.63	1.88	0.18	39.24	0.02		
	0.08943	79.95	2.75	79.20	42.18		0.000520	
218.59	178.00	40392.60	1.86	0.18	39.17	0.02		
	0.09085	79.86	2.74	79.11	42.53		0.000532	
217.26	179.00	40348.12	1.85	0.18	39.03	0.02		
	0.09127	79.78	2.72	79.04	42.83		0.000537	
216.01	180.00	40311.70	1.83	0.18	39.30	0.02		
	0.09242	79.70	2.71	78.97	43.13		0.000547	
		40276.09						

		HYCHAN.OUT					
214.97	181.00	4389.82	1.82	0.18	39.03	0.02	0.000550
	0.09262	79.64	2.70		78.91	43.39	
		40245.33					
215.70	182.00	4389.83	1.83	0.18	38.72	0.02	0.000539
	0.09106	79.68	2.71		78.95	43.21	
		40266.75					
217.90	183.00	4389.85	1.85	0.18	38.75	0.02	0.000521
	0.08875	79.81	2.73		79.07	42.70	
		40327.88					
220.35	184.00	4389.88	1.88	0.18	38.69	0.02	0.000501
	0.08622	79.96	2.76		79.21	42.13	
		40398.48					
222.94	185.00	4389.91	1.91	0.17	38.70	0.02	0.000489
	0.08483	80.12	2.78		79.35	41.57	
		40470.48					
224.55	186.00	4389.93	1.93	0.17	38.81	0.02	0.000482
	0.08418	80.21	2.80		79.44	41.22	
		40515.93					
225.64	187.00	4389.94	1.94	0.17	38.97	0.02	0.000474
	0.08315	80.27	2.81		79.50	41.00	
		40545.24					
226.24	188.00	4389.95	1.95	0.17	38.82	0.02	0.000466
	0.08187	80.31	2.82		79.53	40.88	
		40562.23					
226.69	189.00	4389.95	1.95	0.17	39.03	0.02	0.000464
	0.08167	80.34	2.82		79.56	40.78	
		40575.43					
226.86	190.00	4389.95	1.95	0.17	38.94	0.02	0.000462
	0.08141	80.35	2.82		79.57	40.74	
		40580.61					
226.69	191.00	4389.95	1.95	0.17	39.08	0.02	0.000468
	0.08240	80.34	2.82		79.56	40.78	
		40575.43					
226.49	192.00	4389.95	1.95	0.17	39.05	0.02	0.000469
	0.08253	80.32	2.82		79.55	40.83	
		40569.00					
225.40	193.00	4389.94	1.94	0.17	39.16	0.02	0.000480
	0.08419	80.26	2.81		79.49	41.05	
		40539.41					
223.41	194.00	4389.91	1.91	0.18	39.29	0.02	0.000495
	0.08612	80.14	2.79		79.38	41.47	
		40482.82					
221.91	195.00	4389.90	1.90	0.18	39.14	0.02	0.000508
	0.08794	80.05	2.77		79.30	41.80	
		40440.51					
220.59	196.00	4389.88	1.88	0.18	39.11	0.02	0.000510
	0.08775	79.97	2.76		79.22	42.10	
		40402.71					
219.96	197.00	4389.88	1.88	0.18	39.07	0.02	0.000518
	0.08891	79.94	2.75		79.19	42.22	
		40387.08					
219.06	198.00	4389.87	1.87	0.18	39.08	0.02	0.000523
	0.08943	79.88	2.74		79.14	42.43	
		40360.99					
218.60	199.00	4389.86	1.86	0.18	39.11	0.02	0.000527
	0.08995	79.85	2.74		79.11	42.55	
		40346.64					

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2786

MAXIMUM DISCHARGE (CFS) = 2268.78 AT TIME = 88.37  
 MAXIMUM STAGE = 4397.77 AT TIME = 91.27

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## HYCHAN.OUT

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
	(LB/FT^2)	(FT)			(FT)				
0.00	0.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4386.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

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HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	28.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	29.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	30.00	4386.50	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	31.00	4386.50	0.00	-0.01	-0.30	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
32.72	32.00	4386.60	0.10	-0.05	-1.60	0.03	0.000000
	0.000000	80.59	0.41	80.55	777.46		
41.15	33.00	40274.55	0.21	-0.02	-0.76	0.01	0.000000
	0.000000	81.18	0.51	81.10	389.83		
46.95	34.00	40551.32	0.27	-0.02	-0.83	0.01	0.000000
	0.000000	81.54	0.58	81.44	299.53		
52.66	35.00	40720.52	0.35	-0.01	-0.72	0.00	0.000000
	0.000000	81.96	0.64	81.83	236.56		
0.00	36.00	40916.70	0.39	0.00	0.00	0.00	0.000000
	0.000000	82.21	0.00	82.07	210.47		
59.21	37.00	41033.27	0.42	-0.02	-0.96	0.00	0.000012
	0.00053	82.40	0.72	82.24	194.41		
0.00	38.00	41121.05	0.41	0.00	0.00	0.00	0.000000
	0.000000	82.32	0.00	82.17	200.38		
	39.00	41086.76	0.38	0.01	0.80	0.00	
		4386.88					

HYCHAN.OUT						
55.15	0.00000	82.13	0.67	81.99	218.07	0.000000
	40.00	40996.38				
50.51	0.00045	4386.80	0.30	0.01	0.56	0.00
	41.00	81.72	0.62	81.61	268.34	0.000012
	42.00	40805.96				
0.00	0.00000	4386.78	0.28	0.00	0.00	0.00
	43.00	81.57	0.00	81.47	293.21	0.000019
	44.00	40736.34				
0.00	0.00000	4386.76	0.26	0.00	0.00	0.00
	45.00	81.47	0.00	81.38	313.08	0.000000
	46.00	40688.81				
0.00	0.00000	4386.75	0.25	0.00	0.00	0.00
	47.00	81.43	0.00	81.34	322.73	0.000000
	48.00	40667.87				
0.00	0.00000	4386.75	0.25	0.00	0.00	0.00
	49.00	81.41	0.00	81.32	326.65	0.000016
	50.00	40659.72				
48.47	0.00000	4386.79	0.29	-0.02	-0.77	0.01
	51.00	81.62	0.59	81.51	285.62	0.000000
	52.00	40756.29				
53.48	0.00000	4386.85	0.35	-0.01	-0.65	0.00
	53.00	82.00	0.65	81.87	232.15	0.000000
	54.00	40934.55				
58.97	0.00000	4386.92	0.42	-0.01	-0.88	0.00
	55.00	82.35	0.72	82.20	197.84	0.000000
	56.00	41101.05				
66.75	0.00000	4387.01	0.51	-0.02	-1.23	0.00
	57.00	82.90	0.81	82.71	161.76	0.000000
	58.00	41354.98				
77.11	0.00000	4387.14	0.64	-0.02	-1.61	0.00
	59.00	83.60	0.92	83.37	131.24	0.000000
	60.00	41683.37				
89.19	0.00000	4387.27	0.77	-0.02	-1.67	0.00
	61.00	84.39	1.06	84.11	108.54	0.000000
	62.00	42053.38				
101.68	0.00000	4387.42	0.92	-0.02	-1.73	0.00
	63.00	85.22	1.19	84.88	92.24	0.000000
	64.00	42438.42				
114.83	0.00000	4387.57	1.07	-0.02	-1.87	0.00
	65.00	86.07	1.33	85.67	80.04	0.000000
	66.00	42836.55				
129.63	0.00000	4387.74	1.24	-0.02	-2.17	0.00
	67.00	87.03	1.49	86.58	69.76	0.000000
	68.00	43288.62				
144.22	0.00000	4387.91	1.41	-0.01	-1.79	0.00
	69.00	87.99	1.64	87.48	62.01	0.000000
	70.00	43738.00				
158.17	0.00000	4388.05	1.55	-0.02	-3.24	0.00
	71.00	88.81	1.78	88.24	56.78	0.000000
	72.00	44118.38				
174.33	0.00000	4388.24	1.74	-0.03	-4.83	0.00
	73.00	89.86	1.94	89.22	51.28	0.000000
	74.00	44610.94				
199.36	0.00000	4388.51	2.01	-0.04	-7.64	0.00
	75.00	91.40	2.18	90.66	45.06	0.000000
	76.00	45331.42				
234.29	0.00000	4388.89	2.39	-0.04	-9.69	0.00
	77.00	93.53	2.51	92.65	38.82	0.000000
	78.00	46325.50				
273.41	0.00000	4389.31	2.81	-0.04	-9.80	0.00
	79.00	95.92	2.85	94.89	33.78	0.000000
	80.00	47443.45				
	81.00	4389.68	3.18	-0.03	-8.21	0.00

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		HYCHAN.OUT					
310.35	98.02	3.17	96.86	30.46	0.000009		
0.00178	48427.66						
61.00	4390.02	3.52	-0.02	-8.46	0.00		
344.12	99.97	3.44	98.67	28.01	0.000000		
0.000000	49336.46						
62.00	4390.29	3.79	-0.01	-4.38	0.00		
370.23	101.49	3.65	100.10	26.40	0.000000		
0.000000	50048.39						
63.00	4390.43	3.93	0.06	24.02	0.01		
386.80	102.27	3.78	100.82	25.66	0.000000		
0.000000	50412.18						
64.00	4390.55	4.05	0.10	40.00	0.01		
398.91	102.95	3.87	101.46	25.06	0.000000		
0.000000	50730.15						
65.00	4390.76	4.26	0.12	52.26	0.01		
420.06	104.13	4.03	102.56	24.09	0.000000		
0.000000	51280.87						
66.00	4390.98	4.48	0.15	66.37	0.01		
443.42	105.38	4.21	103.73	23.17	0.000000		
0.000000	51865.78						
67.00	4391.21	4.71	0.25	114.75	0.02		
467.66	106.67	4.38	104.94	22.30	0.000011		
0.00313	52469.07						
68.00	4391.45	4.95	0.37	180.10	0.03		
493.30	108.04	4.57	106.22	21.47	0.000012		
0.00341	53111.49						
69.00	4391.68	5.18	0.49	252.48	0.04		
518.55	109.38	4.74	107.47	20.73	0.000017		
0.00516	53736.37						
70.00	4391.94	5.44	0.59	320.34	0.04		
546.24	110.84	4.93	108.84	20.00	0.000017		
0.00512	54419.31						
71.00	4392.13	5.63	0.61	348.14	0.05		
567.09	111.91	5.07	109.84	19.51	0.000019		
0.00604	54921.68						
72.00	4392.38	5.88	0.64	382.41	0.05		
595.11	113.32	5.25	111.16	18.91	0.000019		
0.00632	55578.50						
73.00	4392.65	6.15	0.74	463.49	0.05		
625.16	114.83	5.44	112.57	18.32	0.000022		
0.00744	56285.39						
74.00	4392.88	6.38	0.83	541.30	0.06		
651.88	116.17	5.61	113.82	17.84	0.000024		
0.00857	56910.64						
75.00	4393.07	6.57	0.90	606.79	0.06		
673.60	117.24	5.75	114.82	17.48	0.000027		
0.00955	57410.59						
76.00	4393.41	6.91	0.97	693.67	0.07		
713.42	119.16	5.99	116.62	16.88	0.000025		
0.00933	58309.20						
77.00	4393.77	7.28	1.06	802.55	0.07		
756.96	121.23	6.24	118.56	16.30	0.000028		
0.01091	59279.05						
78.00	4394.08	7.58	1.16	922.86	0.07		
794.03	122.98	6.46	120.19	15.85	0.000029		
0.01161	60096.06						
79.00	4394.37	7.87	1.25	1039.36	0.08		
828.97	124.60	6.65	121.71	15.47	0.000029		
0.01184	60855.02						
80.00	4394.68	8.18	1.35	1171.66	0.08		
867.14	126.34	6.86	123.34	15.08	0.000026		
0.01095	61669.14						
81.00	4395.08	8.58	1.47	1348.09	0.09		

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		HYCHAN.OUT				
918.22	128.64	7.14	125.49	14.62	0.000025	
0.01096	62744.25					
82.00	4395.56	9.06	1.55	1523.60	0.09	
980.20	131.36	7.46	128.03	14.13	0.000010	
0.00478	64014.27					
83.00	4395.95	9.45	1.63	1679.90	0.09	
1031.33	133.55	7.72	130.08	13.77	0.000009	
0.00444	65037.85					
84.00	4396.23	9.73	1.69	1807.17	0.10	
1068.59	135.13	7.91	131.55	13.52	0.000007	
0.00335	65776.14					
85.00	4396.50	10.00	1.73	1910.61	0.10	
1105.51	136.68	8.09	133.00	13.30	0.000007	
0.00337	66502.19					
86.00	4396.79	10.29	1.78	2035.18	0.10	
1144.73	138.32	8.28	134.54	13.07	0.000000	
0.00000	67269.69					
87.00	4397.06	10.56	1.79	2118.50	0.10	
1181.93	140.40	8.42	135.99	12.87	0.000000	
0.00000	67994.27					
88.00	4397.32	10.82	1.82	2211.07	0.10	
1217.03	142.38	8.55	137.36	12.69	0.000008	
0.00446	68678.19					
89.00	4397.54	11.04	1.81	2259.96	0.10	
1246.16	144.03	8.65	138.50	12.55	0.000009	
0.00470	69247.66					
90.00	4397.69	11.19	1.78	2249.92	0.09	
1267.29	145.23	8.73	139.33	12.45	0.000007	
0.00402	69664.32					
91.00	4397.74	11.24	1.73	2199.18	0.09	
1273.65	145.60	8.75	139.58	12.42	0.000000	
0.00000	69792.20					
92.00	4397.74	11.24	1.65	2106.39	0.09	
1272.79	145.57	8.74	139.57	12.42	0.000000	
0.00000	69782.62					
93.00	4397.66	11.16	1.61	2027.01	0.08	
1262.05	144.98	8.70	139.16	12.47	0.000000	
0.00000	69578.31					
94.00	4397.54	11.04	1.57	1952.51	0.08	
1244.87	144.01	8.64	138.49	12.55	0.000000	
0.00000	69243.47					
95.00	4397.32	10.82	1.54	1873.16	0.08	
1215.30	142.33	8.54	137.32	12.70	0.000000	
0.00000	68662.48					
96.00	4397.07	10.57	1.53	1807.84	0.08	
1182.08	140.45	8.42	136.02	12.87	0.000000	
0.00000	68010.65					
97.00	4396.83	10.33	1.51	1734.03	0.08	
1150.05	138.64	8.30	134.77	13.04	0.000000	
0.00000	67384.91					
98.00	4396.61	10.11	1.50	1679.91	0.08	
1119.12	137.28	8.15	133.56	13.22	0.000008	
0.00410	66781.64					
99.00	4396.36	9.86	1.50	1628.95	0.08	
1085.46	135.86	7.99	132.24	13.42	0.000008	
0.00401	66118.27					
100.00	4396.07	9.57	1.48	1550.99	0.08	
1046.97	134.21	7.80	130.70	13.66	0.000013	
0.00646	65348.90					
101.00	4395.60	9.10	1.43	1410.73	0.08	
986.49	131.60	7.50	128.25	14.09	0.000012	
0.00557	64126.28					
102.00	4395.16	8.66	1.38	1277.68	0.08	

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		HYCHAN.OUT				
929.01	129.08	7.20	125.89	14.54	0.000017	
0.00750	62946.68					
103.00	4394.90	8.40	1.30	1168.03	0.08	
895.70	127.59	7.02	124.50	14.83	0.000018	
0.00808	62251.87					
104.00	4394.71	8.21	1.23	1069.32	0.08	
872.67	126.55	6.90	123.53	15.04	0.000017	
0.00732	61766.20					
105.00	4394.57	8.07	1.15	986.71	0.07	
854.76	125.74	6.80	122.77	15.21	0.000013	
0.00555	61384.59					
106.00	4394.44	7.94	1.08	903.69	0.07	
838.83	125.01	6.71	122.09	15.37	0.000017	
0.00712	61043.58					
107.00	4394.31	7.81	1.00	822.18	0.06	
823.10	124.28	6.62	121.41	15.54	0.000009	
0.00388	60703.45					
108.00	4394.16	7.66	0.91	734.56	0.06	
804.60	123.41	6.52	120.60	15.74	0.000014	
0.00590	60297.71					
109.00	4393.95	7.45	0.80	624.29	0.05	
779.48	122.24	6.38	119.50	16.03	0.000012	
0.00464	59750.95					
110.00	4393.77	7.27	0.74	559.47	0.05	
757.89	121.22	6.25	118.55	16.30	0.000000	
0.00000	59275.16					
111.00	4393.59	7.09	0.68	501.60	0.05	
736.40	120.20	6.13	117.60	16.58	0.000012	
0.00449	58798.18					
112.00	4393.42	6.92	0.62	444.55	0.04	
715.21	119.19	6.00	116.65	16.87	0.000010	
0.00366	58325.27					
113.00	4393.25	6.75	0.58	405.84	0.04	
695.53	118.24	5.88	115.76	17.16	0.000013	
0.00464	57881.43					
114.00	4393.08	6.58	0.55	368.68	0.04	
675.94	117.29	5.76	114.87	17.46	0.000000	
0.00000	57437.47					
115.00	4392.92	6.42	0.54	355.11	0.04	
656.41	116.36	5.64	114.00	17.77	0.000015	
0.00516	57001.88					
116.00	4392.72	6.22	0.58	369.91	0.04	
634.31	115.24	5.50	112.95	18.17	0.000008	
0.00285	56476.31					
117.00	4392.48	5.98	0.44	267.23	0.03	
607.51	113.90	5.33	111.70	18.67	0.000012	
0.00405	55851.22					
118.00	4392.35	5.85	0.38	223.64	0.03	
592.73	113.17	5.24	111.02	18.97	0.000008	
0.00269	55509.75					
119.00	4392.24	5.74	0.32	188.17	0.02	
580.51	112.55	5.16	110.44	19.23	0.000000	
0.00000	55219.34					
120.00	4392.14	5.64	0.27	153.16	0.02	
568.91	111.96	5.08	109.89	19.49	0.000021	
0.00673	54942.56					
121.00	4392.03	5.53	0.22	120.53	0.02	
557.42	111.37	5.01	109.33	19.75	0.000031	
0.00966	54666.83					
122.00	4391.95	5.45	0.18	99.68	0.01	
547.83	110.88	4.94	108.88	19.98	0.000038	
0.01164	54439.32					
123.00	4391.88	5.38	0.17	89.37	0.01	

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HYCHAN.OUT									
539.95		110.48		4.89	108.50	20.18		0.000011	
	0.00345	54251.75							
124.00		4391.81	5.31	0.15	80.84	0.01			
532.15		110.08	4.83		108.13	20.37		0.000000	
	0.00000	54064.45							
125.00		4391.73	5.23	0.14	70.98	0.01			
524.16		109.66	4.78		107.74	20.58		0.000022	
	0.00650	53870.51							
126.00		4391.66	5.16	0.12	63.06	0.01			
516.15		109.25	4.72		107.35	20.80		0.000016	
	0.00468	53675.57							
127.00		4391.58	5.08	0.11	54.24	0.01			
507.20		108.77	4.66		106.91	21.06		0.000000	
	0.00000	53454.28							
128.00		4391.50	5.00	0.09	46.32	0.01			
498.96		108.35	4.61		106.51	21.29		0.000000	
	0.00000	53254.67							
129.00		4391.43	4.93	0.09	44.35	0.01			
490.99		107.93	4.55		106.12	21.53		0.000000	
	0.00000	53061.60							
130.00		4391.35	4.85	0.09	44.38	0.01			
483.00		107.52	4.49		105.73	21.78		0.000000	
	0.00000	52865.53							
131.00		4391.28	4.78	0.09	43.57	0.01			
475.42		107.11	4.44		105.36	22.02		0.000013	
	0.00370	52678.16							
132.00		4391.21	4.71	0.09	43.99	0.01			
467.89		106.71	4.38		104.98	22.27		0.000000	
	0.00000	52490.84							
133.00		4391.14	4.64	0.09	43.18	0.01			
460.42		106.32	4.33		104.61	22.53		0.000000	
	0.00000	52305.20							
134.00		4391.08	4.58	0.09	42.97	0.01			
454.12		105.98	4.29		104.29	22.75		0.000013	
	0.00337	52147.00							
135.00		4391.04	4.54	0.10	42.79	0.01			
448.97		105.70	4.25		104.04	22.94		0.000014	
	0.00372	52017.95							
136.00		4390.99	4.49	0.10	42.56	0.01			
443.85		105.43	4.21		103.78	23.13		0.000021	
	0.00554	51889.18							
137.00		4390.94	4.44	0.10	42.54	0.01			
438.82		105.16	4.17		103.52	23.32		0.000015	
	0.00399	51762.28							
138.00		4390.90	4.40	0.10	42.56	0.01			
434.33		104.92	4.14		103.30	23.50		0.000000	
	0.00000	51649.82							
139.00		4390.85	4.36	0.10	42.06	0.01			
430.00		104.68	4.11		103.08	23.67		0.000010	
	0.00268	51540.95							
140.00		4390.81	4.31	0.10	42.04	0.01			
425.77		104.45	4.08		102.87	23.84		0.000011	
	0.00276	51433.34							
141.00		4390.77	4.27	0.10	42.12	0.01			
421.52		104.22	4.04		102.65	24.02		0.000000	
	0.00000	51323.57							
142.00		4390.73	4.23	0.10	41.95	0.01			
417.37		103.99	4.01		102.44	24.20		0.000000	
	0.00000	51218.70							
143.00		4390.69	4.19	0.10	41.86	0.01			
413.02		103.76	3.98		102.21	24.39		0.000000	
	0.00000	51107.24							
144.00		4390.65	4.15	0.10	41.69	0.01			

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		HYCHAN.OUT					
408.69	103.52	3.95	101.99	24.58	0.000000		
0.00000	50997.48						
145.00	4390.61	4.11	0.10	41.30	0.01		
404.65	103.30	3.92	101.79	24.76	0.000000		
0.00000	50893.86						
146.00	4390.57	4.07	0.10	41.42	0.01		
400.74	103.08	3.89	101.59	24.94	0.000000		
0.00000	50792.52						
147.00	4390.53	4.03	0.10	41.30	0.01		
396.56	102.85	3.86	101.37	25.14	0.000000		
0.00000	50686.18						
148.00	4390.49	3.99	0.11	41.40	0.01		
392.09	102.61	3.82	101.14	25.36	0.000000		
0.00000	50570.24						
149.00	4390.45	3.95	0.11	41.35	0.01		
387.87	102.37	3.79	100.92	25.57	0.000000		
0.00000	50460.86						
150.00	4390.41	3.91	0.11	41.16	0.01		
383.98	102.16	3.76	100.72	25.76	0.000009		
0.00214	50360.86						
151.00	4390.37	3.87	0.11	41.21	0.01		
380.17	101.95	3.73	100.52	25.96	0.000000		
0.00000	50262.31						
152.00	4390.34	3.84	0.11	40.96	0.01		
376.47	101.74	3.70	100.33	26.15	0.000000		
0.00000	50166.72						
153.00	4390.30	3.80	0.11	41.18	0.01		
372.69	101.53	3.67	100.14	26.36	0.000000		
0.00000	50067.76						
154.00	4390.26	3.76	0.11	40.95	0.01		
368.91	101.32	3.64	99.94	26.56	0.000000		
0.00000	49969.61						
155.00	4390.22	3.72	0.11	41.07	0.01		
364.97	101.10	3.61	99.73	26.79	0.000000		
0.00000	49866.55						
156.00	4390.19	3.69	0.11	40.67	0.01		
361.53	100.91	3.58	99.55	26.98	0.000000		
0.00000	49776.44						
157.00	4390.15	3.65	0.12	41.19	0.01		
357.59	100.69	3.55	99.35	27.22	0.000000		
0.00000	49673.24						
158.00	4390.13	3.63	0.11	40.05	0.01		
355.27	100.56	3.53	99.22	27.35	0.000000		
0.00000	49612.43						
159.00	4390.12	3.62	0.11	40.02	0.01		
354.84	100.53	3.53	99.20	27.38	0.000008		
0.00175	49601.35						
160.00	4390.12	3.62	0.11	40.14	0.01		
354.11	100.49	3.52	99.16	27.42	0.000000		
0.00000	49582.13						
161.00	4390.11	3.61	0.11	40.12	0.01		
353.19	100.44	3.52	99.12	27.48	0.000000		
0.00000	49557.84						
162.00	4390.10	3.60	0.11	39.88	0.01		
352.19	100.38	3.51	99.06	27.54	0.000000		
0.00000	49531.12						
163.00	4390.09	3.59	0.11	40.17	0.01		
351.55	100.35	3.50	99.03	27.58	0.000000		
0.00000	49514.32						
164.00	4390.08	3.58	0.11	39.88	0.01		
350.47	100.29	3.49	98.97	27.65	0.000000		
0.00000	49486.57						
165.00	4390.07	3.57	0.11	39.84	0.01		

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		HYCHAN.OUT					
349.77	100.25	3.49	98.94	27.69	0.000000		
0.00000	49467.58						
166.00	4390.07	3.57	0.11	39.80	0.01		
349.04	100.21	3.48	98.90	27.74	0.000000		
0.00000	49448.42						
167.00	4390.05	3.55	0.12	40.09	0.01		
347.44	100.12	3.47	98.81	27.84	0.000000		
0.00000	49406.95						
168.00	4390.02	3.52	0.12	40.11	0.01		
344.87	99.97	3.45	98.68	28.00	0.000000		
0.00000	49338.42						
169.00	4390.01	3.51	0.12	39.88	0.01		
343.28	99.88	3.44	98.59	28.10	0.000000		
0.00000	49296.26						
170.00	4389.99	3.49	0.12	39.84	0.01		
341.76	99.80	3.42	98.51	28.20	0.000000		
0.00000	49256.48						
171.00	4389.98	3.48	0.12	39.94	0.01		
340.26	99.71	3.41	98.43	28.30	0.000000		
0.00000	49216.58						
172.00	4389.97	3.47	0.12	39.68	0.01		
339.17	99.65	3.40	98.38	28.37	0.000000		
0.00000	49187.80						
173.00	4389.96	3.46	0.12	39.69	0.01		
338.04	99.59	3.39	98.32	28.45	0.000000		
0.00000	49158.60						
174.00	4389.94	3.44	0.12	39.76	0.01		
336.68	99.51	3.38	98.24	28.54	0.000000		
0.00000	49121.88						
175.00	4389.92	3.42	0.12	39.86	0.01		
334.94	99.41	3.37	98.15	28.66	0.000011		
0.00225	49075.84						
176.00	4389.90	3.40	0.12	40.03	0.01		
332.29	99.26	3.35	98.01	28.84	0.000000		
0.00000	49004.83						
177.00	4389.88	3.38	0.12	39.78	0.01		
330.11	99.14	3.33	97.90	28.99	0.000000		
0.00000	48947.61						
178.00	4389.86	3.36	0.12	39.70	0.01		
328.26	99.03	3.31	97.80	29.13	0.000000		
0.00000	48897.80						
179.00	4389.84	3.34	0.12	39.33	0.01		
326.72	98.94	3.30	97.71	29.24	0.000000		
0.00000	48857.05						
180.00	4389.83	3.33	0.12	39.75	0.01		
325.32	98.86	3.29	97.64	29.34	0.000000		
0.00000	48819.62						
181.00	4389.82	3.32	0.12	39.22	0.01		
324.23	98.80	3.28	97.58	29.42	0.000000		
0.00000	48790.20						
182.00	4389.83	3.33	0.12	38.66	0.01		
325.02	98.85	3.29	97.62	29.36	0.000000		
0.00000	48811.80						
183.00	4389.85	3.35	0.12	38.51	0.01		
327.51	98.99	3.31	97.76	29.18	0.000000		
0.00000	48878.40						
184.00	4389.88	3.38	0.12	38.47	0.01		
330.22	99.14	3.33	97.90	28.99	0.000000		
0.00000	48950.81						
185.00	4389.91	3.41	0.12	38.51	0.01		
333.18	99.31	3.35	98.06	28.78	0.000000		
0.00000	49028.81						
186.00	4389.93	3.43	0.12	38.75	0.01		

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HYCHAN.OUT									
334.98	99.41	3.37	98.15	28.66	0.000000				
0.00000	49077.00								
187.00	4389.94	3.44	0.12	38.76	0.01				
336.23	99.48	3.38	98.22	28.57	0.000000				
0.00000	49110.31								
188.00	4389.94	3.44	0.11	38.63	0.01				
336.92	99.52	3.39	98.26	28.52	0.000000				
0.00000	49128.59								
189.00	4389.95	3.45	0.12	39.05	0.01				
337.41	99.55	3.39	98.28	28.49	0.000000				
0.00000	49141.28								
190.00	4389.95	3.45	0.12	38.91	0.01				
337.57	99.56	3.39	98.29	28.48	0.000000				
0.00000	49145.83								
191.00	4389.95	3.45	0.12	39.20	0.01				
337.40	99.55	3.39	98.28	28.49	0.000000				
0.00000	49141.05								
192.00	4389.95	3.45	0.12	39.06	0.01				
337.19	99.54	3.39	98.27	28.51	0.000000				
0.00000	49135.77								
193.00	4389.94	3.43	0.12	39.44	0.01				
335.95	99.47	3.38	98.20	28.59	0.000000				
0.00000	49102.32								
194.00	4389.91	3.41	0.12	39.61	0.01				
333.71	99.34	3.36	98.09	28.74	0.000000				
0.00000	49043.20								
195.00	4389.90	3.40	0.12	39.41	0.01				
332.03	99.25	3.35	98.00	28.86	0.000000				
0.00000	48998.45								
196.00	4389.88	3.38	0.12	39.18	0.01				
330.57	99.16	3.33	97.92	28.96	0.000000				
0.00000	48959.54								
197.00	4389.87	3.37	0.12	39.22	0.01				
329.80	99.12	3.33	97.88	29.02	0.000000				
0.00000	48939.20								
198.00	4389.86	3.36	0.12	39.22	0.01				
328.81	99.06	3.32	97.83	29.09	0.000000				
0.00000	48912.71								
199.00	4389.86	3.36	0.12	39.13	0.01				
328.34	99.04	3.32	97.80	29.12	0.000000				
0.00000	48900.28								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 2870

MAXIMUM DISCHARGE (CFS) = 2505.77 AT TIME = 88.38  
 MAXIMUM STAGE = 4397.74 AT TIME = 91.27

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	SURFACE	AREA					
STRESS	AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(HRS)	(FT)	(FT)	(FT)	(FT)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	4385.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4385.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4385.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

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HYCHAN.OUT							
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4385.90	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000



HYCHAN.OUT									
	0.00000	0.00							
0.00	24.00	4385.90	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	25.00	4385.90	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	26.00	4385.90	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	27.00	4385.90	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	28.00	4385.90	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	29.00	4385.93	0.03	-0.06	-1.51	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
43.64	30.00	4386.20	0.30	-0.09	-3.71	0.03	0.00	0.000000	
	0.00000	81.70	0.53	81.59	272.49	0.01	0.00		
66.29	31.00	4386.45	0.55	-0.04	-2.70	0.01	0.00	0.000000	
	0.00000	83.14	0.80	82.93	149.77	0.01	0.00		
80.00	32.00	4386.61	0.71	-0.04	-3.12	0.01	0.00	0.000000	
	0.00000	84.05	0.95	83.79	117.30	0.01	0.00		
88.36	33.00	4386.71	0.81	-0.02	-1.54	0.00	0.00	0.000000	
	0.00000	84.58	1.04	84.29	104.25	0.00	0.00		
94.46	34.00	4386.77	0.87	-0.02	-1.73	0.00	0.00	0.000000	
	0.00000	84.94	1.11	84.62	97.06	0.00	0.00		
100.50	35.00	4386.85	0.95	-0.01	-1.50	0.00	0.00	0.000000	
	0.00000	85.36	1.18	85.01	89.89	0.00	0.00		
0.00	36.00	4386.89	0.99	0.00	0.00	0.00	0.00	0.000000	
	0.00000	85.60	0.00	85.24	86.21	0.00	0.00		
107.30	37.00	4386.92	1.02	-0.02	-1.77	0.00	0.00	0.000011	
	0.00084	85.79	1.25	85.42	83.60	0.00	0.00		
0.00	38.00	4386.91	1.01	0.00	0.00	0.00	0.00	0.000009	
	0.00000	85.71	0.00	85.34	84.76	0.00	0.00		
103.08	39.00	4386.87	0.97	0.02	1.66	0.00	0.00	0.000000	
	0.00000	85.51	1.21	85.16	87.54	0.00	0.00		
97.91	40.00	4386.80	0.90	0.01	1.26	0.00	0.00	0.000015	
	0.00105	85.11	1.15	84.78	94.01	0.00	0.00		
0.00	41.00	4386.77	0.87	0.00	0.00	0.00	0.00	0.000000	
	0.00000	84.95	0.00	84.63	96.87	0.00	0.00		
0.00	42.00	4386.76	0.86	0.00	0.00	0.00	0.00	0.000000	
	0.00000	84.85	0.00	84.54	98.72	0.00	0.00		
0.00	43.00	4386.75	0.85	0.00	0.00	0.00	0.00	0.000010	
	0.00000	84.81	0.00	84.50	99.60	0.00	0.00		
0.00	44.00	4386.75	0.85	0.00	0.00	0.00	0.00	0.000000	
	0.00000	84.80	0.00	84.49	99.80	0.00	0.00		

		HYCHAN.OUT					
	0.00000	43933.09					
95.34	45.00	4386.78	0.88	-0.02	-1.70	0.00	
	0.00000	85.01	1.12		84.68	95.85	0.000000
	46.00	44034.95					
101.21	4386.85	85.39	0.95	-0.01	-1.51	0.00	
	0.00000	44220.18	1.19		85.04	89.45	0.000000
	47.00	4386.91	1.01	-0.02	-1.80	0.00	
107.26	85.75	44393.92	1.25		85.37	84.21	0.000000
	0.00000	4387.01	1.11	-0.02	-2.55	0.00	
115.49	48.00	86.29	1.34		85.89	77.33	0.000000
	0.00000	44661.01	1.23	-0.03	-3.30	0.00	
126.38	49.00	4387.13	1.45		86.54	70.14	0.000000
	0.00000	86.99	1.37	-0.03	-3.53	0.00	
139.12	50.00	45000.42	1.58		87.28	63.53	0.000000
	0.00000	87.79	1.52	-0.02	-3.57	0.00	
152.40	51.00	45386.21	1.72		88.05	57.98	0.000000
	0.00000	88.61	1.67	-0.02	-3.85	0.00	
166.25	52.00	45785.09	1.86		88.84	53.24	0.000000
	0.00000	89.46	1.84	-0.02	-4.53	0.00	
181.91	53.00	46199.14	2.01		89.75	48.79	0.000000
	0.00000	90.43	2.16	-0.02	-3.80	0.00	
197.50	54.00	46670.03	2.30		90.65	45.11	0.000000
	0.00000	91.39	2.15	-0.03	-5.33	0.00	
212.21	55.00	47138.51	2.46		91.41	42.46	0.000000
	0.00000	92.20	2.61	-0.05	-12.12	0.01	
229.47	56.00	47533.38	2.70		93.84	35.93	0.000000
	0.00000	93.26	2.99	-0.05	-15.43	0.01	
255.79	57.00	48046.43	3.02		95.83	32.08	0.000000
	0.00000	94.80	3.41	-0.05	-15.60	0.00	
292.52	58.00	48797.42	3.36		98.07	28.77	0.000000
	0.00000	96.93	3.78	-0.03	-12.85	0.00	
333.65	59.00	49831.62	3.67		100.03	26.47	0.000000
	0.00000	99.32	4.12	-0.03	-13.57	0.00	
372.15	60.00	50993.98	3.94		101.85	24.71	0.000000
	0.00000	101.42	4.39	-0.02	-7.08	0.00	
407.44	61.00	52015.94	4.15		103.27	23.52	0.000000
	0.00000	103.36	4.53	0.05	22.83	0.00	
435.12	62.00	53702.74	4.28		104.00	22.97	0.000000
	0.00000	104.89	4.65	0.08	36.91	0.01	
452.63	63.00	54080.01	4.37		104.64	22.51	0.000000
	0.00000	105.66	4.86	0.10	49.01	0.01	
465.17	64.00	54410.91	4.53		105.74	21.78	0.000000
	0.00000	106.34					
487.22	65.00	107.52					

		HYCHAN.OUT					
	0.00000	54982.46					
511.57	66.00	4390.98	5.08	0.12	62.74	0.01	
		108.77	4.70		106.90	21.06	0.000000
	0.00000	55589.40					
536.69	67.00	4391.20	5.30	0.21	111.14	0.02	
		110.05	4.88		108.10	20.39	0.000000
	0.00000	56211.85					
563.19	68.00	4391.44	5.54	0.31	176.65	0.02	
		111.40	5.06		109.37	19.74	0.000009
	0.00292	56871.23					
589.12	69.00	4391.67	5.77	0.42	248.32	0.03	
		112.72	5.23		110.60	19.16	0.000015
	0.00494	57509.87					
617.65	70.00	4391.93	6.03	0.51	317.05	0.04	
		114.16	5.41		111.94	18.57	0.000015
	0.00519	58210.80					
639.28	71.00	4392.12	6.22	0.54	344.93	0.04	
		115.23	5.55		112.95	18.17	0.000016
	0.00545	58731.94					
668.41	72.00	4392.36	6.46	0.57	377.87	0.04	
		116.63	5.73		114.26	17.68	0.000019
	0.00694	59413.70					
699.28	73.00	4392.63	6.73	0.66	459.26	0.04	
		118.12	5.92		115.65	17.19	0.000024
	0.00899	60139.11					
726.70	74.00	4392.86	6.96	0.74	538.02	0.05	
		119.44	6.08		116.89	16.80	0.000027
	0.01018	60780.41					
748.97	75.00	4393.05	7.15	0.81	605.10	0.05	
		120.50	6.22		117.87	16.50	0.000029
	0.01137	61292.14					
790.19	76.00	4393.38	7.48	0.89	706.34	0.06	
		122.40	6.46		119.65	15.99	0.000031
	0.01267	62216.76					
834.82	77.00	4393.74	7.84	1.00	833.84	0.06	
		124.45	6.71		121.57	15.50	0.000035
	0.01463	63215.01					
872.79	78.00	4394.05	8.15	1.10	960.79	0.07	
		126.18	6.92		123.18	15.12	0.000038
	0.01619	64054.43					
908.57	79.00	4394.33	8.43	1.20	1091.56	0.07	
		127.78	7.11		124.68	14.79	0.000040
	0.01780	64833.00					
947.63	80.00	4394.63	8.73	1.32	1247.25	0.08	
		129.49	7.32		126.28	14.46	0.000045
	0.02048	65666.49					
999.96	81.00	4395.03	9.13	1.46	1455.46	0.08	
		131.76	7.59		128.40	14.06	0.000045
	0.02118	66769.45					
1063.95	82.00	4395.52	9.62	1.56	1663.25	0.09	
		134.50	7.91		130.96	13.62	0.000029
	0.01440	68101.04					
1116.50	83.00	4395.91	10.01	1.66	1851.11	0.09	
		136.72	8.17		133.04	13.29	0.000029
	0.01499	69182.32					
1153.92	84.00	4396.18	10.28	1.76	2027.30	0.10	
		138.28	8.34		134.50	13.08	0.000035
	0.01816	69941.21					
1190.94	85.00	4396.46	10.56	1.81	2157.83	0.10	
		140.34	8.49		135.95	12.88	0.000038
	0.01986	70694.27					
1230.07	86.00	4396.75	10.85	1.85	2278.16	0.10	
		142.58	8.63		137.50	12.67	0.000037

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## HYCHAN.OUT

0.02004	71498.77						
87.00	4397.03	11.13	8.76	1.86	2353.80	0.10	
1267.25	144.70				138.96	12.49	0.000039
0.02119	72261.23						
88.00	4397.29	11.38	8.88	1.88	2448.37	0.10	
1302.24	146.69				140.34	12.33	0.000041
0.02245	72976.17						
89.00	4397.50	11.60	8.97	1.87	2495.49	0.10	
1331.45	148.35				141.49	12.20	0.000037
0.02045	73573.10						
90.00	4397.66	11.76	9.05	1.83	2477.03	0.09	
1352.92	149.57				142.33	12.10	0.000035
0.01958	74010.48						
91.00	4397.71	11.81	9.07	1.77	2408.22	0.09	
1359.68	149.96				142.60	12.07	0.000032
0.01796	74149.55						
92.00	4397.71	11.81	9.06	1.68	2281.64	0.09	
1359.33	149.96				142.60	12.07	0.000031
0.01740	74150.29						
93.00	4397.64	11.74	9.03	1.61	2165.65	0.08	
1348.95	149.39				142.21	12.12	0.000030
0.01703	73947.40						
94.00	4397.51	11.61	8.97	1.55	2062.15	0.08	
1332.02	148.45				141.55	12.19	0.000030
0.01695	73606.74						
95.00	4397.30	11.40	8.87	1.51	1965.22	0.08	
1302.58	146.78				140.40	12.32	0.000031
0.01724	73008.04						
96.00	4397.05	11.15	8.76	1.48	1880.18	0.08	
1269.43	144.91				139.10	12.47	0.000029
0.01606	72334.16						
97.00	4396.82	10.92	8.65	1.44	1787.90	0.08	
1237.53	143.10				137.86	12.63	0.000028
0.01531	71686.45						
98.00	4396.59	10.69	8.54	1.43	1725.17	0.08	
1206.55	141.35				136.65	12.79	0.000033
0.01772	71055.60						
99.00	4396.34	10.44	8.41	1.42	1669.32	0.08	
1172.63	139.42				135.31	12.97	0.000033
0.01758	70362.48						
100.00	4396.05	10.15	8.24	1.39	1575.98	0.08	
1133.70	137.51				133.78	13.18	0.000031
0.01573	69565.52						
101.00	4395.59	9.69	7.95	1.33	1430.95	0.08	
1071.97	134.89				131.33	13.56	0.000032
0.01586	68291.87						
102.00	4395.14	9.24	7.65	1.28	1293.30	0.07	
1012.81	132.36				128.97	13.96	0.000034
0.01606	67061.86						
103.00	4394.88	8.98	7.48	1.21	1179.74	0.07	
978.60	130.88				127.58	14.21	0.000032
0.01488	66341.83						
104.00	4394.70	8.80	7.35	1.13	1077.38	0.07	
955.05	129.85				126.62	14.40	0.000029
0.01352	65841.08						
105.00	4394.55	8.65	7.26	1.06	993.29	0.06	
936.79	129.04				125.86	14.55	0.000027
0.01223	65448.43						
106.00	4394.43	8.53	7.17	0.99	909.73	0.06	
920.49	128.32				125.18	14.68	0.000022
0.01006	65095.16						
107.00	4394.30	8.40	7.09	0.91	827.66	0.06	
904.57	127.60				124.51	14.83	0.000020

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		HYCHAN.OUT					
0.00900	64746.43						
108.00	4394.15	8.25	0.84	741.05	0.05		
885.63	126.74	6.99	123.71	15.00	0.000020		
0.00890	64328.14						
109.00	4393.94	8.04	0.73	630.29	0.05		
859.90	125.58	6.85	122.62	15.25	0.000013		
0.00553	63763.11						
110.00	4393.76	7.86	0.67	564.78	0.04		
837.76	124.57	6.73	121.68	15.47	0.000010		
0.00416	63274.37						
111.00	4393.58	7.68	0.62	506.77	0.04		
815.57	123.55	6.60	120.73	15.71	0.000007		
0.00286	62779.16						
112.00	4393.41	7.51	0.56	447.83	0.04		
793.72	122.55	6.48	119.79	15.96	0.000013		
0.00523	62291.06						
113.00	4393.24	7.34	0.53	408.94	0.03		
773.41	121.61	6.36	118.91	16.20	0.000012		
0.00492	61832.39						
114.00	4393.07	7.17	0.49	371.66	0.03		
753.12	120.66	6.24	118.02	16.45	0.000009		
0.00365	61370.49						
115.00	4392.91	7.01	0.49	358.30	0.03		
732.73	119.72	6.12	117.14	16.71	0.000016		
0.00619	60915.21						
116.00	4392.71	6.81	0.53	373.74	0.04		
709.69	118.60	5.98	116.09	17.05	0.000000		
0.00000	60368.44						
117.00	4392.48	6.58	0.40	270.13	0.03		
682.17	117.27	5.82	114.86	17.46	0.000015		
0.00559	59725.00						
118.00	4392.35	6.45	0.34	225.47	0.02		
666.86	116.55	5.72	114.18	17.71	0.000000		
0.00000	59371.61						
119.00	4392.24	6.34	0.29	189.79	0.02		
654.26	115.93	5.64	113.60	17.92	0.000010		
0.00340	59073.43						
120.00	4392.14	6.24	0.24	155.23	0.02		
642.24	115.34	5.57	113.05	18.13	0.000012		
0.00420	58786.68						
121.00	4392.03	6.13	0.19	122.16	0.01		
630.43	114.76	5.49	112.51	18.34	0.000000		
0.00000	58504.61						
122.00	4391.95	6.05	0.16	101.09	0.01		
620.52	114.28	5.43	112.06	18.53	0.000012		
0.00405	58269.50						
123.00	4391.88	5.98	0.15	90.11	0.01		
612.33	113.88	5.38	111.68	18.68	0.000010		
0.00346	58074.34						
124.00	4391.81	5.91	0.14	81.67	0.01		
604.22	113.48	5.32	111.31	18.84	0.000000		
0.00000	57878.77						
125.00	4391.73	5.83	0.12	72.63	0.01		
595.93	113.07	5.27	110.92	19.01	0.000020		
0.00642	57679.07						
126.00	4391.66	5.76	0.11	64.17	0.01		
587.53	112.65	5.22	110.53	19.19	0.000000		
0.00000	57475.29						
127.00	4391.58	5.68	0.10	55.27	0.01		
578.24	112.18	5.15	110.09	19.39	0.000000		
0.00000	57246.70						
128.00	4391.50	5.60	0.08	47.51	0.01		
569.67	111.75	5.10	109.69	19.58	0.000000		

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		HYCHAN.OUT					
	0.00000	57039.39					
129.00	4391.43	5.53	0.08	45.41	0.01		
561.36	111.34	5.04	109.30	19.77	0.000000		
	0.00000						
130.00	4391.36	5.45	0.08	45.54	0.01		
553.02	110.92	4.99	108.91	19.97	0.000000		
	0.00000						
131.00	4391.28	5.38	0.08	45.06	0.01		
545.07	110.51	4.93	108.53	20.16	0.000000		
	0.00000						
132.00	4391.21	5.31	0.08	44.74	0.01		
537.23	110.12	4.88	108.16	20.36	0.000000		
	0.00000						
133.00	4391.14	5.24	0.08	44.29	0.01		
529.42	109.72	4.83	107.79	20.56	0.000000		
	0.00000						
134.00	4391.08	5.18	0.08	44.08	0.01		
522.85	109.38	4.78	107.47	20.73	0.000007		
	0.00216						
135.00	4391.04	5.13	0.08	43.46	0.01		
517.44	109.10	4.74	107.21	20.88	0.000000		
	0.00000						
136.00	4390.99	5.09	0.08	43.45	0.01		
512.10	108.83	4.71	106.96	21.03	0.000000		
	0.00000						
137.00	4390.94	5.04	0.09	43.14	0.01		
506.84	108.56	4.67	106.70	21.18	0.000007		
	0.00217						
138.00	4390.90	5.00	0.09	42.86	0.01		
502.18	108.32	4.64	106.48	21.31	0.000000		
	0.00000						
139.00	4390.85	4.95	0.09	42.98	0.01		
497.63	108.08	4.60	106.26	21.45	0.000000		
	0.00000						
140.00	4390.81	4.91	0.09	42.61	0.01		
493.22	107.85	4.57	106.04	21.58	0.000000		
	0.00000						
141.00	4390.77	4.87	0.09	42.62	0.01		
488.78	107.62	4.54	105.83	21.72	0.000000		
	0.00000						
142.00	4390.73	4.83	0.09	42.61	0.01		
484.41	107.39	4.51	105.61	21.85	0.000000		
	0.00000						
143.00	4390.69	4.79	0.09	42.50	0.01		
479.90	107.15	4.48	105.39	22.00	0.000000		
	0.00000						
144.00	4390.65	4.75	0.09	42.36	0.01		
475.32	106.92	4.45	105.17	22.14	0.000000		
	0.00000						
145.00	4390.61	4.71	0.09	41.84	0.01		
471.10	106.70	4.42	104.96	22.28	0.000000		
	0.00000						
146.00	4390.57	4.67	0.09	42.00	0.01		
467.04	106.48	4.39	104.76	22.42	0.000000		
	0.00000						
147.00	4390.53	4.63	0.09	41.88	0.01		
462.63	106.25	4.35	104.55	22.57	0.000007		
	0.00191						
148.00	4390.49	4.59	0.09	42.08	0.01		
457.96	106.00	4.32	104.32	22.74	0.000000		
	0.00000						
149.00	4390.45	4.55	0.09	42.07	0.01		
453.56	105.77	4.29	104.10	22.89	0.000000		

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		HYCHAN.OUT						
	0.00000	54132.70						
449.45	150.00	4390.41	4.51	0.09	41.71	23.04	0.01	0.000000
	0.00000	54027.26	4.26		103.90			
445.50	151.00	4390.37	4.47	0.09	41.58	23.19	0.01	0.000000
	0.00000	53925.18	4.23		103.70			
441.63	152.00	4390.34	4.44	0.09	41.48	23.34	0.01	0.000000
	0.00000	53824.75	4.20		103.51			
437.67	153.00	4390.30	4.40	0.10	41.80	23.49	0.01	0.000000
	0.00000	53722.74	4.17		103.31			
433.70	154.00	4390.26	4.36	0.10	41.41	23.64	0.01	0.000000
	0.00000	53619.98	4.14		103.12			
429.57	155.00	4390.22	4.32	0.10	41.63	23.81	0.01	0.000000
	0.00000	53512.48	4.11		102.91			
425.97	156.00	4390.19	4.29	0.10	41.26	23.95	0.01	0.000000
	0.00000	53419.04	4.08		102.73			
421.84	157.00	4390.15	4.25	0.10	41.83	24.13	0.01	0.000000
	0.00000	53311.29	4.05		102.52			
419.39	158.00	4390.13	4.23	0.10	40.13	24.23	0.01	0.000000
	0.00000	53248.59	4.03		102.40			
418.95	159.00	4390.12	4.22	0.10	40.11	24.25	0.01	0.000000
	0.00000	53236.50	4.03		102.38			
418.17	160.00	4390.12	4.22	0.10	40.24	24.28	0.01	0.000000
	0.00000	53216.62	4.03		102.34			
417.21	161.00	4390.11	4.21	0.10	40.37	24.32	0.01	0.000000
	0.00000	53191.50	4.02		102.29			
416.16	162.00	4390.10	4.20	0.10	39.84	24.36	0.01	0.000000
	0.00000	53164.76	4.01		102.24			
415.51	163.00	4390.09	4.19	0.10	40.24	24.39	0.01	0.000000
	0.00000	53146.67	4.01		102.21			
414.37	164.00	4390.08	4.18	0.10	40.22	24.44	0.01	0.000000
	0.00000	53116.44	4.00		102.15			
413.64	165.00	4390.07	4.17	0.10	39.91	24.48	0.01	0.000007
	0.00166	53098.18	3.99		102.11			
412.88	166.00	4390.06	4.16	0.10	39.81	24.51	0.01	0.000000
	0.00000	53078.00	3.99		102.07			
411.15	167.00	4390.05	4.15	0.10	40.50	24.58	0.01	0.000000
	0.00000	53033.34	3.97		101.99			
408.50	168.00	4390.02	4.12	0.10	40.49	24.70	0.01	0.000000
	0.00000	52963.20	3.95		101.85			
406.84	169.00	4390.01	4.11	0.10	40.03	24.78	0.01	0.000000
	0.00000	52920.00	3.94		101.77			
405.22	170.00	4389.99	4.09	0.10	40.12	24.85	0.01	0.000000
		103.19	3.93		101.69			

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		HYCHAN.OUT						
	0.00000	52877.57						
171.00	4389.98	4.08	0.10	40.16	0.01			
403.65	103.11	3.91	101.61	24.92	0.000000			
	0.00000	52836.47						
172.00	4389.97	4.07	0.10	39.72	0.01			
402.53	103.05	3.91	101.55	24.97	0.000000			
	0.00000	52806.52						
173.00	4389.96	4.05	0.10	39.86	0.01			
401.30	102.98	3.90	101.49	25.03	0.000009			
	0.00222	52774.86						
174.00	4389.94	4.04	0.10	39.99	0.01			
399.90	102.90	3.89	101.42	25.10	0.000000			
	0.00000	52737.16						
175.00	4389.92	4.02	0.10	40.39	0.01			
398.07	102.80	3.87	101.33	25.18	0.000000			
	0.00000	52689.29						
176.00	4389.90	4.00	0.10	40.20	0.01			
395.31	102.65	3.85	101.19	25.31	0.000000			
	0.00000	52616.45						
177.00	4389.88	3.98	0.10	40.13	0.01			
392.99	102.53	3.83	101.07	25.43	0.000000			
	0.00000	52555.36						
178.00	4389.86	3.96	0.10	39.98	0.01			
391.05	102.43	3.82	100.97	25.52	0.000000			
	0.00000	52504.73						
179.00	4389.84	3.94	0.10	39.44	0.01			
389.45	102.34	3.81	100.89	25.60	0.000000			
	0.00000	52461.87						
180.00	4389.83	3.93	0.10	40.06	0.01			
387.98	102.26	3.79	100.81	25.67	0.000000			
	0.00000	52422.75						
181.00	4389.82	3.92	0.10	39.26	0.01			
386.87	102.20	3.79	100.76	25.73	0.000000			
	0.00000	52393.13						
182.00	4389.82	3.92	0.10	38.29	0.01			
387.68	102.24	3.79	100.80	25.69	0.000000			
	0.00000	52415.37						
183.00	4389.85	3.95	0.10	38.18	0.01			
390.29	102.38	3.81	100.93	25.56	0.000000			
	0.00000	52484.12						
184.00	4389.88	3.98	0.10	38.00	0.01			
393.13	102.54	3.83	101.07	25.42	0.000000			
	0.00000	52558.97						
185.00	4389.91	4.01	0.10	38.18	0.01			
396.24	102.71	3.86	101.23	25.27	0.000000			
	0.00000	52641.58						
186.00	4389.92	4.02	0.10	38.54	0.01			
398.15	102.81	3.87	101.33	25.18	0.000000			
	0.00000	52690.90						
187.00	4389.94	4.04	0.10	38.74	0.01			
399.42	102.88	3.88	101.39	25.12	0.000000			
	0.00000	52725.04						
188.00	4389.94	4.04	0.10	38.34	0.01			
400.17	102.92	3.89	101.43	25.08	0.000000			
	0.00000	52744.78						
189.00	4389.95	4.05	0.10	39.06	0.01			
400.67	102.95	3.89	101.46	25.06	0.000000			
	0.00000	52758.19						
190.00	4389.95	4.05	0.10	38.88	0.01			
400.85	102.95	3.89	101.47	25.05	0.000007			
	0.00178	52762.29						
191.00	4389.95	4.05	0.10	39.24	0.01			
400.66	102.95	3.89	101.46	25.06	0.000000			

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## HYCHAN.OUT

0.00000	52757.72							
192.00	4389.95	4.05	0.10	39.15	0.01			
400.44	102.93	3.89	101.45	25.07	0.000000			
0.00000	52751.56							
193.00	4389.93	4.03	0.10	39.73	0.01			
399.14	102.86	3.88	101.38	25.13	0.000000			
0.00000	52717.41							
194.00	4389.91	4.01	0.10	39.94	0.01			
396.77	102.73	3.86	101.26	25.24	0.000000			
0.00000	52655.32							
195.00	4389.90	3.99	0.10	39.59	0.01			
395.03	102.64	3.85	101.17	25.33	0.000000			
0.00000	52609.21							
196.00	4389.88	3.98	0.10	39.37	0.01			
393.50	102.56	3.84	101.09	25.40	0.000000			
0.00000	52568.85							
197.00	4389.87	3.97	0.10	39.39	0.01			
392.67	102.51	3.83	101.05	25.44	0.000000			
0.00000	52547.27							
198.00	4389.86	3.96	0.10	39.25	0.01			
391.64	102.46	3.82	101.00	25.49	0.000000			
0.00000	52519.75							
199.00	4389.86	3.96	0.10	39.21	0.01			
391.16	102.43	3.82	100.97	25.51	0.000000			
0.00000	52506.80							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 2956

MAXIMUM DISCHARGE (CFS) = 2813.12 AT TIME = 88.39  
 MAXIMUM STAGE = 4397.71 AT TIME = 91.40

AREA	TIME	ELEV.	THALWEG	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED	WETTED	PERIMETER	DEPTH	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
SHEAR	STRESS	SURFACE	HYDRAULIC	RADIUS				
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)				
0.00	0.00	4385.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4385.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4385.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4385.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4385.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4385.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4385.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4385.45	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	8.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4385.45	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	27.00	4385.45	0.00	-0.02	-0.21	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
23.68	28.00	4385.57	0.12	-0.15	-3.44	0.07	0.000000
0.00000	85.68	0.28	85.63	689.16			
	44529.54						

HYCHAN.OUT									
46.02	29.00	4385.94	0.49	-0.13	87.50	-5.89	0.03	0.000000	
	0.00000	87.69	0.52		178.41				
	30.00	45500.69							
68.31	0.00000	4386.22	0.77	-0.10	88.93	-7.00	0.02	0.000000	
	0.00000	89.22	0.77		115.44				
	31.00	46242.88							
88.46	0.00000	4386.46	1.01	-0.06	90.13	-5.30	0.01	0.000000	
	0.00000	90.51	0.98		89.63				
	32.00	46866.74							
102.18	0.00000	4386.62	1.17	-0.05	90.95	-4.77	0.01	0.000000	
	0.00000	91.39	1.12		78.01				
	33.00	47291.64							
110.36	0.00000	4386.71	1.26	-0.02	91.42	-2.40	0.00	0.000000	
	0.00000	91.90	1.20		72.60				
	34.00	47539.75							
116.36	0.00000	4386.77	1.32	-0.02	91.75	-2.71	0.00	0.000000	
	0.00000	92.25	1.26		69.36				
	35.00	47707.69							
122.30	0.00000	4386.85	1.40	-0.02	92.12	-2.34	0.00	0.000000	
	0.00000	92.65	1.32		65.97				
	36.00	47903.45							
0.00	0.00000	4386.89	1.44	0.00	92.34	0.00	0.00	0.000000	
	0.00000	92.89	0.00		64.14				
	37.00	48017.98							
128.80	0.00000	4386.92	1.47	-0.02	92.51	-2.58	0.00	0.000000	
	0.00000	93.07	1.38		62.83				
	38.00	48104.93							
129.87	0.00000	4386.91	1.46	0.01	92.43	1.69	0.00	0.000000	
	0.00079	92.98	1.40		63.42				
	39.00	48065.27							
124.79	0.00000	4386.87	1.42	0.02	92.26	2.51	0.00	0.000000	
	0.00000	92.80	1.34		64.81				
	40.00	47974.94							
119.50	0.00000	4386.80	1.35	0.02	91.90	2.13	0.00	0.000000	
	0.00000	92.41	1.29		67.92				
	41.00	47788.53							
0.00	0.00000	4386.77	1.32	0.00	91.75	0.00	0.00	0.000000	
	0.00000	92.26	0.00		69.28				
	42.00	47712.20							
0.00	0.00000	4386.76	1.31	0.00	91.66	0.00	0.00	0.000000	
	0.00000	92.16	0.00		70.15				
	43.00	47665.59							
0.00	0.00000	4386.75	1.30	0.00	91.63	0.00	0.00	0.000000	
	0.00000	92.12	0.00		70.51				
	44.00	47646.07							
0.00	0.00000	4386.75	1.30	0.00	91.62	0.00	0.00	0.000000	
	0.00000	92.11	0.00		70.62				
	45.00	47640.43							
117.49	0.00000	4386.78	1.33	-0.02	91.80	-2.64	0.00	0.000000	
	0.00000	92.31	1.27		68.82				
	46.00	47737.68							
122.93	0.00000	4386.85	1.40	-0.02	92.15	-2.06	0.00	0.000000	
	0.00000	92.68	1.33		65.77				
	47.00	47915.66							
128.72	0.00000	4386.91	1.46	-0.02	92.47	-2.91	0.00	0.000000	
	0.00000	93.02	1.38		63.16				
	48.00	48082.59							
137.19	0.00000	4387.01	1.56	-0.03	92.96	-4.18	0.00	0.000000	
	0.00000	93.55	1.47		59.54				
	49.00	48340.37							
147.96	0.00000	4387.13	1.68	-0.03	93.59	-5.02	0.00	0.000000	
	0.00000	94.23	1.57		55.56				
		48667.44							

		HYCHAN.OUT							
160.25	50.00	4387.27	1.82	-0.03	-5.42	0.00			
	0.00000	94.99	1.69		94.30	51.72	0.000000		
173.27	51.00	49035.63	1.97	-0.03	-5.61	0.00			
	0.00000	95.78	1.81		95.04	48.29	0.000000		
186.94	52.00	49419.22	2.12	-0.03	-6.01	0.00			
	0.00000	96.61	1.94		95.80	45.22	0.000000		
202.34	53.00	49818.54	2.29	-0.03	-7.08	0.00			
	0.00000	97.54	2.07		96.68	42.22	0.000000		
217.52	54.00	50272.41	2.46	-0.03	-5.81	0.00			
	0.00000	98.48	2.21		97.55	39.65	0.000000		
231.90	55.00	50723.55	2.60	-0.03	-7.66	0.00			
	0.00000	99.26	2.34		98.28	37.75	0.000000		
249.04	56.00	51103.83	2.79	-0.04	-10.66	0.00			
	0.00000	100.28	2.48		99.23	35.57	0.000000		
274.88	57.00	51597.20	3.06	-0.06	-17.01	0.01			
	0.00000	101.78	2.70		100.62	32.86	0.000000		
310.93	58.00	52321.33	3.44	-0.07	-21.57	0.01			
	0.00000	103.83	2.99		102.53	29.83	0.000000		
351.21	59.00	53316.90	3.86	-0.06	-21.79	0.01			
	0.00000	106.14	3.31		104.68	27.12	0.000000		
388.94	60.00	54435.01	4.23	-0.05	-18.01	0.00			
	0.00000	108.17	3.60		106.57	25.20	0.000000		
423.47	61.00	55417.23	4.57	-0.04	-18.86	0.00			
	0.00000	110.05	3.85		108.32	23.69	0.000000		
450.27	62.00	56326.82	4.84	-0.02	-9.64	0.00			
	0.00000	111.53	4.04		109.69	22.65	0.000000		
467.84	63.00	57041.02	4.98	0.05	21.15	0.00			
	0.00000	112.27	4.17		110.39	22.17	0.000000		
479.88	64.00	57403.61	5.10	0.07	34.07	0.01			
	0.00000	112.93	4.25		111.00	21.77	0.000000		
501.41	65.00	57722.18	5.31	0.09	45.30	0.01			
	0.00000	114.07	4.40		112.06	21.12	0.000000		
525.06	66.00	58271.96	5.53	0.11	58.97	0.01			
	0.00188	115.27	4.55		113.18	20.48	0.000007		
549.43	67.00	58854.49	5.75	0.20	107.29	0.01			
	0.00000	116.50	4.72		114.33	19.88	0.000000		
575.11	68.00	59450.41	5.99	0.30	173.05	0.02			
	0.00000	117.80	4.88		115.54	19.30	0.000000		
600.12	69.00	60079.54	6.22	0.41	243.99	0.03			
	0.00294	119.06	5.04		116.71	18.77	0.000009		
627.70	70.00	60686.87	6.47	0.50	313.57	0.03			
	0.00311	120.44	5.21		117.99	18.24	0.000010		
		61354.80							

HYCHAN.OUT									
648.71	71.00	4392.11	6.66	0.53	341.53	17.87	0.04	0.000009	
	0.00299	121.47	5.34		118.95				
		61855.11							
677.06	72.00	4392.35	6.90	0.55	373.16	17.41	0.04	0.000013	
	0.00435	122.82	5.51		120.21				
		62510.15							
706.83	73.00	4392.61	7.16	0.64	454.87	16.96	0.04	0.000016	
	0.00557	124.25	5.69		121.54				
		63201.12							
733.24	74.00	4392.84	7.40	0.73	534.58	16.59	0.05	0.000017	
	0.00615	125.51	5.84		122.71				
		63811.66							
754.71	75.00	4393.03	7.58	0.80	605.08	16.32	0.05	0.000018	
	0.00685	126.52	5.97		123.65				
		64297.81							
794.50	76.00	4393.36	7.91	0.95	752.01	15.85	0.06	0.000021	
	0.00814	128.32	6.19		125.33				
		65170.75							
837.34	77.00	4393.72	8.27	1.08	901.29	15.38	0.07	0.000024	
	0.00958	130.29	6.43		127.16				
		66122.92							
873.84	78.00	4394.02	8.57	1.21	1056.04	15.02	0.07	0.000026	
	0.01079	131.92	6.62		128.68				
		66915.80							
908.10	79.00	4394.29	8.84	1.34	1219.64	14.71	0.08	0.000028	
	0.01191	133.44	6.81		130.10				
		67651.05							
945.41	80.00	4394.59	9.14	1.50	1414.41	14.40	0.09	0.000032	
	0.01403	135.07	7.00		131.61				
		68439.19							
995.66	81.00	4394.98	9.53	1.69	1678.88	14.02	0.10	0.000033	
	0.01498	137.23	7.26		133.62				
		69482.61							
1056.47	82.00	4395.46	10.01	1.88	1984.83	13.59	0.10	0.000044	
	0.02057	140.44	7.52		136.04				
		70738.62							
1105.81	83.00	4395.85	10.40	2.00	2208.83	13.28	0.11	0.000045	
	0.02168	143.35	7.71		138.02				
		71772.05							
1141.26	84.00	4396.13	10.68	2.08	2368.66	13.06	0.11	0.000047	
	0.02325	145.44	7.85		139.45				
		72514.38							
1176.71	85.00	4396.41	10.96	2.10	2466.23	12.86	0.11	0.000049	
	0.02415	147.53	7.98		140.87				
		73253.68							
1214.10	86.00	4396.70	11.25	2.12	2572.78	12.66	0.11	0.000048	
	0.02419	149.71	8.11		142.36				
		74028.55							
1249.76	87.00	4396.97	11.52	2.12	2647.56	12.48	0.11	0.000049	
	0.02512	151.78	8.23		143.77				
		74761.59							
1283.13	88.00	4397.23	11.78	2.14	2747.41	12.31	0.11	0.000050	
	0.02626	153.71	8.35		145.09				
		75447.45							
1311.18	89.00	4397.45	12.00	2.13	2798.76	12.18	0.11	0.000047	
	0.02471	155.33	8.44		146.20				
		76022.12							
1332.16	90.00	4397.61	12.16	2.08	2767.02	12.09	0.11	0.000045	
	0.02364	156.54	8.51		147.02				
		76451.06							
1339.21	91.00	4397.67	12.22	2.00	2672.19	12.06	0.10	0.000040	
	0.02148	156.95	8.53		147.30				
		76595.12							

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HYCHAN.OUT							
1339.70	92.00	4397.67	12.22	8.53	1.87	2500.11	0.09
	0.01792	156.99				147.33	12.06
		76610.77					0.000034
1330.43	93.00	4397.60	12.15	8.50	1.76	2338.06	0.09
	0.01595	156.47				146.97	12.09
		76426.18					0.000030
1314.69	94.00	4397.48	12.03	8.45	1.67	2199.04	0.09
	0.01566	155.57				146.36	12.17
		76105.51					0.000030
1286.99	95.00	4397.26	11.81	8.36	1.62	2080.65	0.08
	0.01293	153.96				145.26	12.29
		75533.30					0.000025
1255.63	96.00	4397.02	11.57	8.25	1.57	1972.21	0.08
	0.01248	152.13				144.01	12.45
		74887.38					0.000024
1225.34	97.00	4396.79	11.34	8.15	1.52	1856.71	0.08
	0.01170	150.39				142.82	12.60
		74268.09					0.000023
1195.77	98.00	4396.56	11.11	8.04	1.49	1778.97	0.08
	0.01293	148.68				141.66	12.75
		73663.27					0.000026
1163.36	99.00	4396.31	10.86	7.92	1.47	1713.86	0.08
	0.01212	146.80				140.38	12.93
		72997.02					0.000025
1126.16	100.00	4396.02	10.57	7.79	1.44	1620.18	0.08
	0.01092	144.63				138.90	13.14
		72225.92					0.000022
1066.85	101.00	4395.55	10.10	7.56	1.39	1483.05	0.08
	0.01131	141.16				136.53	13.51
		70995.80					0.000024
1009.79	102.00	4395.11	9.66	7.32	1.31	1324.65	0.07
	0.01163	137.92				134.27	13.90
		69818.38					0.000025
976.75	103.00	4394.85	9.40	7.16	1.22	1191.37	0.07
	0.01039	136.51				132.95	14.14
		69136.38					0.000023
954.18	104.00	4394.67	9.22	7.04	1.14	1084.40	0.07
	0.01037	135.53				132.04	14.32
		68660.60					0.000024
936.71	105.00	4394.53	9.08	6.95	1.07	998.57	0.06
	0.00894	134.76				131.33	14.46
		68289.01					0.000021
921.14	106.00	4394.41	8.96	6.87	0.99	914.34	0.06
	0.00590	134.07				130.68	14.59
		67954.81					0.000014
906.04	107.00	4394.28	8.83	6.79	0.92	831.84	0.05
	0.00630	133.40				130.06	14.72
		67629.12					0.000015
887.87	108.00	4394.13	8.68	6.70	0.84	746.19	0.05
	0.00546	132.58				129.29	14.89
		67231.54					0.000013
863.21	109.00	4393.93	8.48	6.57	0.74	634.89	0.04
	0.00280	131.47				128.26	15.12
		66695.38					0.000007
841.86	110.00	4393.76	8.31	6.45	0.68	568.88	0.04
	0.00320	130.51				127.36	15.33
		66228.82					0.000008
820.40	111.00	4393.58	8.13	6.33	0.62	510.91	0.04
	0.00000	129.53				126.45	15.56
		65755.21					0.000000
799.25	112.00	4393.40	7.95	6.22	0.56	451.54	0.04
	0.00320	128.56				125.55	15.79
		65287.09					0.000008



		HYCHAN.OUT					
113.00	4393.24	7.79	0.53	412.19	0.03		
779.54	127.65	6.11	124.71	16.02	0.000000		
0.00000	64847.11						
114.00	4393.07	7.62	0.49	374.74	0.03		
759.88	126.74	6.00	123.85	16.26	0.000000		
0.00000	64404.58						
115.00	4392.90	7.45	0.49	361.70	0.03		
739.97	125.83	5.88	123.01	16.51	0.000009		
0.00345	63964.29						
116.00	4392.70	7.25	0.53	377.69	0.03		
717.43	124.74	5.75	121.99	16.82	0.000000		
0.00000	63435.79						
117.00	4392.47	7.02	0.40	273.17	0.03		
690.93	123.47	5.60	120.82	17.20	0.000009		
0.00298	62823.91						
118.00	4392.34	6.90	0.34	227.24	0.02		
676.10	122.77	5.51	120.16	17.43	0.000000		
0.00000	62485.67						
119.00	4392.24	6.79	0.29	191.63	0.02		
663.89	122.18	5.43	119.62	17.62	0.000013		
0.00443	62200.22						
120.00	4392.13	6.68	0.24	157.16	0.02		
652.29	121.62	5.36	119.09	17.82	0.000000		
0.00000	61926.75						
121.00	4392.03	6.58	0.19	123.75	0.01		
640.91	121.06	5.29	118.57	18.01	0.000000		
0.00000	61658.30						
122.00	4391.95	6.50	0.16	102.50	0.01		
631.29	120.60	5.23	118.14	18.18	0.000000		
0.00000	61433.80						
123.00	4391.88	6.43	0.15	91.31	0.01		
623.31	120.21	5.19	117.78	18.32	0.000000		
0.00000	61246.30						
124.00	4391.81	6.36	0.13	82.43	0.01		
615.48	119.83	5.14	117.42	18.47	0.000013		
0.00402	61059.09						
125.00	4391.73	6.28	0.12	74.32	0.01		
607.36	119.43	5.09	117.05	18.63	0.000000		
0.00000	60866.40						
126.00	4391.66	6.21	0.11	65.28	0.01		
599.22	119.02	5.03	116.67	18.79	0.000000		
0.00000	60670.93						
127.00	4391.58	6.13	0.10	56.35	0.01		
590.21	118.57	4.98	116.25	18.97	0.000013		
0.00413	60451.69						
128.00	4391.50	6.05	0.08	49.00	0.01		
581.86	118.16	4.92	115.87	19.14	0.000000		
0.00000	60251.87						
129.00	4391.43	5.98	0.08	46.58	0.01		
573.72	117.76	4.87	115.50	19.32	0.000012		
0.00353	60057.77						
130.00	4391.35	5.91	0.08	46.83	0.01		
565.56	117.35	4.82	115.12	19.49	0.000010		
0.00304	59860.95						
131.00	4391.28	5.83	0.08	46.20	0.01		
557.82	116.96	4.77	114.76	19.67	0.000000		
0.00000	59673.17						
132.00	4391.21	5.76	0.08	45.49	0.01		
550.22	116.58	4.72	114.40	19.84	0.000000		
0.00000	59488.12						
133.00	4391.14	5.69	0.08	45.89	0.01		
542.61	116.19	4.67	114.04	20.03	0.000000		
0.00000	59300.30						

		HYCHAN.OUT					
134.00	4391.08	5.63	0.08	44.98	0.01		
536.12	115.87	4.63	113.74	20.19	0.000000		
0.00000	59142.58						
135.00	4391.04	5.59	0.08	44.32	0.01		
530.84	115.60	4.59	113.49	20.32	0.000000		
0.00000	59012.89						
136.00	4390.99	5.54	0.08	44.11	0.01		
525.62	115.33	4.56	113.24	20.45	0.000000		
0.00000	58884.54						
137.00	4390.94	5.49	0.08	43.97	0.01		
520.45	115.07	4.52	112.99	20.59	0.000000		
0.00000	58756.98						
138.00	4390.90	5.45	0.08	43.30	0.01		
515.96	114.84	4.49	112.78	20.71	0.000000		
0.00000	58645.04						
139.00	4390.85	5.41	0.09	43.90	0.01		
511.48	114.61	4.46	112.57	20.83	0.000000		
0.00000	58534.82						
140.00	4390.81	5.37	0.08	43.08	0.01		
507.20	114.39	4.43	112.36	20.94	0.000000		
0.00000	58428.31						
141.00	4390.77	5.32	0.09	43.24	0.01		
502.83	114.16	4.40	112.15	21.07	0.000000		
0.00000	58318.49						
142.00	4390.73	5.28	0.09	43.45	0.01		
498.56	113.94	4.38	111.95	21.19	0.000000		
0.00000	58211.42						
143.00	4390.69	5.24	0.09	43.04	0.01		
494.20	113.72	4.35	111.74	21.31	0.000000		
0.00000	58102.22						
144.00	4390.65	5.20	0.09	42.97	0.01		
489.70	113.49	4.32	111.52	21.45	0.000000		
0.00000	57989.95						
145.00	4390.61	5.16	0.09	42.50	0.01		
485.59	113.27	4.29	111.32	21.57	0.000000		
0.00000	57886.72						
146.00	4390.57	5.12	0.09	42.62	0.01		
481.63	113.07	4.26	111.13	21.69	0.000000		
0.00000	57786.52						
147.00	4390.53	5.08	0.09	42.76	0.01		
477.28	112.84	4.23	110.92	21.83	0.000000		
0.00000	57677.67						
148.00	4390.49	5.04	0.09	42.57	0.01		
472.72	112.60	4.20	110.70	21.97	0.000000		
0.00000	57562.38						
149.00	4390.45	5.00	0.09	42.69	0.01		
468.42	112.38	4.17	110.49	22.11	0.000000		
0.00000	57454.09						
150.00	4390.41	4.96	0.09	42.18	0.01		
464.43	112.17	4.14	110.29	22.24	0.000000		
0.00000	57352.97						
151.00	4390.37	4.92	0.09	42.28	0.01		
460.59	111.97	4.11	110.11	22.37	0.000000		
0.00000	57255.09						
152.00	4390.34	4.89	0.09	42.12	0.01		
456.80	111.77	4.09	109.92	22.49	0.000000		
0.00000	57158.95						
153.00	4390.30	4.85	0.09	42.45	0.01		
452.90	111.56	4.06	109.73	22.63	0.000000		
0.00000	57059.95						
154.00	4390.26	4.81	0.09	41.81	0.01		
449.03	111.36	4.03	109.54	22.76	0.000008		
0.00205	56961.20						

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HYCHAN.OUT							
155.00	4390.22	4.77	0.09	42.27	0.01		
445.02	111.15	4.00	109.34	22.91	0.000000		
0.00000	56857.86						
156.00	4390.19	4.74	0.09	41.90	0.01		
441.47	110.96	3.98	109.17	23.04	0.000007		
0.00169	56767.96						
157.00	4390.15	4.70	0.10	42.31	0.01		
437.44	110.75	3.95	108.97	23.19	0.000000		
0.00000	56664.29						
158.00	4390.13	4.68	0.09	40.33	0.01		
435.04	110.62	3.93	108.85	23.27	0.000000		
0.00000	56603.14						
159.00	4390.12	4.67	0.09	40.21	0.01		
434.62	110.60	3.93	108.83	23.29	0.000000		
0.00000	56592.50						
160.00	4390.12	4.67	0.09	40.38	0.01		
433.84	110.56	3.92	108.79	23.32	0.000000		
0.00000	56572.57						
161.00	4390.11	4.66	0.09	40.56	0.01		
432.90	110.51	3.92	108.75	23.36	0.000000		
0.00000	56548.16						
162.00	4390.10	4.65	0.09	39.94	0.01		
431.86	110.45	3.91	108.70	23.39	0.000000		
0.00000	56521.65						
163.00	4390.09	4.64	0.09	40.36	0.01		
431.25	110.42	3.91	108.67	23.42	0.000007		
0.00169	56505.87						
164.00	4390.08	4.63	0.09	40.28	0.01		
430.15	110.36	3.90	108.61	23.46	0.000000		
0.00000	56477.20						
165.00	4390.07	4.62	0.09	40.24	0.01		
429.40	110.32	3.89	108.57	23.49	0.000000		
0.00000	56458.70						
166.00	4390.06	4.62	0.09	39.73	0.01		
428.69	110.28	3.89	108.54	23.52	0.000000		
0.00000	56439.75						
167.00	4390.05	4.60	0.10	41.01	0.01		
426.94	110.19	3.87	108.45	23.58	0.000000		
0.00000	56395.38						
168.00	4390.02	4.57	0.10	40.85	0.01		
424.41	110.06	3.86	108.33	23.68	0.000000		
0.00000	56329.27						
169.00	4390.01	4.56	0.10	40.20	0.01		
422.76	109.97	3.84	108.24	23.75	0.000000		
0.00000	56287.11						
170.00	4389.99	4.54	0.10	40.37	0.01		
421.15	109.88	3.83	108.17	23.81	0.000000		
0.00000	56245.86						
171.00	4389.98	4.53	0.10	40.43	0.01		
419.64	109.80	3.82	108.09	23.87	0.000000		
0.00000	56206.45						
172.00	4389.97	4.52	0.10	39.86	0.01		
418.56	109.74	3.81	108.04	23.92	0.000007		
0.00172	56178.60						
173.00	4389.95	4.50	0.10	40.12	0.01		
417.33	109.68	3.81	107.97	23.97	0.000000		
0.00000	56146.99						
174.00	4389.94	4.49	0.10	39.96	0.01		
415.98	109.61	3.80	107.91	24.02	0.000000		
0.00000	56111.84						
175.00	4389.92	4.47	0.10	40.92	0.01		
414.17	109.51	3.78	107.82	24.10	0.000000		
0.00000	56065.50						

		HYCHAN.OUT					
411.47	176.00	4389.90	4.45	0.10	107.68	40.54	0.01
	0.00000	109.37	3.76			24.21	0.000000
		55995.11					
409.22	177.00	4389.88	4.43	0.10	107.57	40.49	0.01
	0.00000	109.24	3.75			24.31	0.000000
		55936.47					
407.29	178.00	4389.86	4.41	0.10	107.47	40.25	0.01
	0.00000	109.14	3.73			24.39	0.000000
		55886.61					
405.74	179.00	4389.84	4.39	0.10	107.40	39.66	0.01
	0.00000	109.06	3.72			24.46	0.000000
		55846.23					
404.29	180.00	4389.83	4.38	0.10	107.32	40.18	0.01
	0.00000	108.98	3.71			24.52	0.000000
		55808.40					
403.23	181.00	4389.82	4.37	0.10	107.27	39.41	0.01
	0.00000	108.92	3.70			24.57	0.000000
		55780.72					
404.03	182.00	4389.82	4.37	0.09	107.31	37.89	0.01
	0.00000	108.97	3.71			24.53	0.000000
		55801.73					
406.58	183.00	4389.85	4.40	0.09	107.44	37.88	0.01
	0.00000	109.10	3.73			24.42	0.000000
		55867.96					
409.36	184.00	4389.88	4.43	0.09	107.58	37.44	0.01
	0.00000	109.25	3.75			24.30	0.000000
		55940.35					
412.37	185.00	4389.91	4.46	0.09	107.73	37.86	0.01
	0.00000	109.41	3.77			24.17	0.000000
		56018.52					
414.28	186.00	4389.92	4.48	0.09	107.82	38.32	0.01
	0.00000	109.52	3.78			24.09	0.000000
		56067.72					
415.49	187.00	4389.94	4.49	0.09	107.88	38.50	0.01
	0.00000	109.58	3.79			24.04	0.000000
		56099.36					
416.24	188.00	4389.94	4.49	0.09	107.92	38.35	0.01
	0.00000	109.62	3.80			24.01	0.000000
		56118.71					
416.71	189.00	4389.95	4.50	0.09	107.94	38.96	0.01
	0.00000	109.65	3.80			23.99	0.000000
		56130.95					
416.91	190.00	4389.95	4.50	0.09	107.95	39.01	0.01
	0.00000	109.66	3.80			23.99	0.000000
		56136.04					
416.71	191.00	4389.95	4.50	0.09	107.94	39.11	0.01
	0.00000	109.65	3.80			23.99	0.000000
		56130.91					
416.52	192.00	4389.95	4.50	0.09	107.93	39.27	0.01
	0.00000	109.64	3.80			24.00	0.000000
		56125.75					
415.24	193.00	4389.93	4.48	0.10	107.87	40.15	0.01
	0.00000	109.57	3.79			24.06	0.000000
		56092.06					
412.89	194.00	4389.91	4.46	0.10	107.75	40.26	0.01
	0.00000	109.44	3.77			24.15	0.000000
		56031.99					
411.20	195.00	4389.89	4.44	0.10	107.67	39.71	0.01
	0.00171	109.35	3.76			24.22	0.000007
		55988.02					
409.69	196.00	4389.88	4.43	0.10	107.59	39.58	0.01
	0.00000	109.27	3.75			24.29	0.000000
		55948.81					

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				HYCHAN.OUT					
197.00	4389.87	4.42	0.10	39.44	0.01				
408.88	109.23	3.74	107.55	24.32	0.000000				
0.00000	55927.86								
198.00	4389.86	4.41	0.10	39.35	0.01				
407.89	109.17	3.74	107.50	24.36	0.000000				
0.00000	55901.62								
199.00	4389.86	4.41	0.10	39.27	0.01				
407.43	109.15	3.73	107.48	24.38	0.000000				
0.00000	55889.95								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3043

MAXIMUM DISCHARGE (CFS) = 2698.38 AT TIME = 88.26  
 MAXIMUM STAGE = 4397.65 AT TIME = 91.41

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	0.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
7.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
8.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
9.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
10.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
11.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
12.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
13.00	4385.30	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	15.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	16.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	17.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	18.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	19.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4385.30	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4385.30	0.00	-0.00	-0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	25.00	4385.30	0.00	-0.02	-0.11	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	26.00	4385.34	0.04	-0.10	-0.93	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
18.11	27.00	4385.51	0.21	-0.16	-2.92	0.06	0.000000
		76.06	0.24	75.98	365.75		
30.50	28.00	4385.76	0.46	-0.19	-5.74	0.05	0.000000
		77.34	0.39	77.15	168.97		
42.59	29.00	4385.97	0.67	-0.21	-8.75	0.04	0.000000
		78.43	0.54	78.15	116.53		
57.81	30.00	4386.23	0.93	-0.17	-9.84	0.03	0.000000
		79.74	0.72	79.36	85.62		
72.31	31.00	4386.46	1.16	-0.11	-7.61	0.02	0.000000
		80.92	0.89	80.44	69.52		
82.65	32.00	4386.62	1.32	-0.08	-6.23	0.01	0.000000
		81.73	1.01	81.19	61.67		
88.80	33.00	4386.71	1.41	-0.04	-3.15	0.01	0.000000
		82.21	1.08	81.62	57.91		
	34.00	4386.77	1.47	-0.04	-3.58	0.01	

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HYCHAN.OUT							
93.36	0.00000	82.53	1.13	81.92	55.63	0.000000	
	35.00	42599.36					
97.88	0.00000	4386.85	1.55	-0.03	-3.08	0.00	0.000000
	36.00	82.91	1.18	82.27	53.20		
0.00	0.00000	42779.60					
	37.00	4386.89	1.59	0.00	0.00	0.00	0.000000
	38.00	83.13	0.00	82.47	51.88		
102.77	0.00000	42884.82					
	39.00	4386.92	1.62	-0.03	-3.27	0.00	0.000010
	40.00	83.30	1.23	82.62	50.93		
103.49	0.00078	42964.58					
	41.00	4386.91	1.61	0.02	2.25	0.00	0.000000
	42.00	83.22	1.24	82.55	51.37		
99.71	0.00000	42927.41					
	43.00	4386.87	1.57	0.03	3.21	0.00	0.000000
	44.00	83.05	1.20	82.39	52.37		
95.70	0.00000	42845.14					
	45.00	4386.80	1.50	0.03	2.83	0.00	0.000000
	46.00	82.69	1.16	82.07	54.59		
0.00	0.00000	42674.16					
	47.00	4386.77	1.47	0.00	0.00	0.00	0.000009
	48.00	82.54	0.00	81.93	55.58		
0.00	0.00000	42602.89					
	49.00	4386.76	1.46	0.00	0.00	0.00	0.000007
	50.00	82.45	0.00	81.85	56.19		
0.00	0.00000	42560.14					
	51.00	4386.75	1.45	0.00	0.00	0.00	0.000000
	52.00	82.41	0.00	81.81	56.45		
0.00	0.00000	42542.18					
	53.00	4386.75	1.45	0.00	0.00	0.00	0.000010
	54.00	82.40	0.00	81.80	56.54		
94.18	0.00000	42536.22					
	55.00	4386.78	1.48	-0.03	-3.29	0.01	0.000000
	56.00	82.59	1.14	81.97	55.24		
98.29	0.00000	42626.79					
	57.00	4386.85	1.55	-0.03	-2.85	0.00	0.000000
	58.00	82.93	1.19	82.29	53.06		
102.81	0.00000	42790.11					
	59.00	4386.91	1.61	-0.04	-3.85	0.01	0.000007
	60.00	83.25	1.23	82.58	51.18		
109.25	0.00056	42943.89					
	61.00	4387.01	1.71	-0.05	-5.46	0.01	0.000000
	62.00	83.75	1.30	83.04	48.53		
117.49	0.00000	43181.67					
	63.00	4387.13	1.83	-0.06	-6.64	0.01	0.000000
	64.00	84.38	1.39	83.62	45.60		
126.95	0.00000	43481.61					
	65.00	4387.27	1.97	-0.06	-7.17	0.01	0.000000
	66.00	85.09	1.49	84.27	42.72		
137.03	0.00000	43821.41					
	67.00	4387.42	2.12	-0.05	-7.42	0.01	0.000000
	68.00	85.83	1.60	84.95	40.11		
147.65	0.00000	44175.83					
	69.00	4387.57	2.27	-0.05	-7.94	0.01	0.000000
	70.00	86.60	1.70	85.66	37.76		
159.66	0.00000	44544.18					
	71.00	4387.74	2.44	-0.06	-9.35	0.01	0.000000
	72.00	87.48	1.83	86.47	35.44		
171.51	0.00000	44962.83					
	73.00	4387.91	2.61	-0.04	-7.66	0.00	0.000000
	74.00	88.35	1.94	87.27	33.44		
55.00	0.00000	45378.14					
	75.00	4388.05	2.75	-0.05	-9.72	0.01	

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		HYCHAN.OUT					
182.77	89.08	2.05	87.94	31.95	0.000000		
0.00000	45726.97						
56.00	4388.24	2.94	-0.07	-13.41	0.01		
196.38	90.03	2.18	88.81	30.22	0.000000		
0.00000	46182.48						
57.00	4388.51	3.21	-0.10	-21.32	0.01		
216.87	91.43	2.37	90.10	28.05	0.000000		
0.00000	46851.32						
58.00	4388.89	3.59	-0.11	-27.06	0.01		
245.63	93.35	2.63	91.86	25.60	0.000000		
0.00000	47769.19						
59.00	4389.31	4.01	-0.10	-27.30	0.01		
278.03	95.51	2.91	93.84	23.41	0.000000		
0.00000	48799.26						
60.00	4389.68	4.38	-0.07	-22.57	0.01		
308.61	97.40	3.17	95.58	21.83	0.000000		
0.00000	49702.74						
61.00	4390.02	4.72	-0.07	-23.86	0.01		
336.94	99.16	3.40	97.19	20.58	0.000000		
0.00000	50541.08						
62.00	4390.29	4.99	-0.03	-12.09	0.00		
359.10	100.53	3.57	98.46	19.72	0.000000		
0.00000	51199.86						
63.00	4390.43	5.13	0.05	20.11	0.00		
373.53	101.23	3.69	99.10	19.32	0.000000		
0.00000	51534.03						
64.00	4390.55	5.25	0.08	31.27	0.01		
383.41	101.85	3.76	99.67	18.99	0.000000		
0.00000	51827.48						
65.00	4390.76	5.46	0.10	42.04	0.01		
401.23	102.91	3.90	100.64	18.45	0.000000		
0.00000	52334.61						
66.00	4390.98	5.68	0.13	55.72	0.01		
420.82	104.03	4.05	101.67	17.92	0.000000		
0.00000	52870.14						
67.00	4391.20	5.90	0.24	103.78	0.02		
441.08	105.17	4.19	102.72	17.41	0.000000		
0.00000	53416.47						
68.00	4391.43	6.13	0.37	169.85	0.03		
462.42	106.38	4.35	103.83	16.93	0.000000		
0.00000	53992.42						
69.00	4391.66	6.36	0.50	240.13	0.03		
483.23	107.54	4.49	104.90	16.49	0.000009		
0.00249	54546.74						
70.00	4391.91	6.61	0.61	310.45	0.04		
506.29	108.82	4.65	106.07	16.05	0.000008		
0.00222	55156.77						
71.00	4392.10	6.80	0.65	338.47	0.04		
524.02	109.78	4.77	106.96	15.73	0.000007		
0.00220	55616.78						
72.00	4392.35	7.05	0.67	368.97	0.04		
548.11	111.04	4.94	108.11	15.34	0.000011		
0.00349	56219.73						
73.00	4392.60	7.30	0.79	450.96	0.05		
573.22	112.36	5.10	109.33	14.97	0.000014		
0.00442	56850.72						
74.00	4392.83	7.53	0.89	531.51	0.06		
595.55	113.53	5.25	110.40	14.66	0.000015		
0.00486	57407.79						
75.00	4393.01	7.71	0.98	601.88	0.06		
613.69	114.46	5.36	111.25	14.42	0.000017		
0.00567	57851.70						
76.00	4393.34	8.04	1.15	745.13	0.07		

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		HYCHAN.OUT				
647.42	116.15	5.57	112.81	14.02	0.000019	
0.00661	58660.84					
77.00	4393.70	8.40	1.31	896.40	0.08	
683.98	117.98	5.80	114.49	13.63	0.000022	
0.00781	59534.79					
78.00	4394.00	8.70	1.47	1051.28	0.09	
715.10	119.50	5.98	115.89	13.32	0.000026	
0.00961	60262.87					
79.00	4394.28	8.98	1.63	1215.12	0.10	
744.22	120.92	6.15	117.19	13.06	0.000028	
0.01076	60938.33					
80.00	4394.57	9.27	1.82	1408.71	0.11	
775.71	122.43	6.34	118.58	12.79	0.000045	
0.01788	61662.75					
81.00	4394.97	9.67	2.05	1671.26	0.12	
816.81	124.45	6.56	120.43	12.46	0.000052	
0.02140	62624.15					
82.00	4395.43	10.13	2.28	1977.56	0.13	
867.02	126.91	6.83	122.63	12.10	0.000071	
0.03027	63767.42					
83.00	4395.81	10.51	2.42	2194.46	0.13	
907.79	129.60	7.00	124.41	11.83	0.000075	
0.03296	64692.15					
84.00	4396.09	10.79	2.51	2356.69	0.13	
937.60	131.56	7.13	125.70	11.65	0.000074	
0.03292	65365.50					
85.00	4396.37	11.07	2.53	2449.91	0.13	
968.06	133.54	7.25	127.01	11.48	0.000072	
0.03270	66044.46					
86.00	4396.66	11.36	2.55	2548.01	0.13	
1000.13	135.62	7.37	128.38	11.30	0.000072	
0.03295	66760.11					
87.00	4396.94	11.64	2.53	2609.16	0.13	
1030.90	137.61	7.49	129.70	11.14	0.000071	
0.03330	67444.81					
88.00	4397.20	11.90	2.52	2674.86	0.13	
1059.60	139.49	7.60	130.94	11.00	0.000071	
0.03382	68090.39					
89.00	4397.43	12.13	2.48	2688.64	0.13	
1084.09	141.09	7.68	132.00	10.88	0.000068	
0.03248	68640.85					
90.00	4397.59	12.29	2.41	2662.81	0.12	
1102.62	142.27	7.75	132.78	10.80	0.000064	
0.03076	69044.74					
91.00	4397.65	12.35	2.32	2578.47	0.12	
1109.40	142.67	7.78	133.04	10.77	0.000057	
0.02779	69183.39					
92.00	4397.65	12.35	2.22	2463.04	0.11	
1110.65	142.68	7.78	133.05	10.77	0.000048	
0.02338	69184.51					
93.00	4397.58	12.28	2.11	2330.31	0.11	
1103.47	142.16	7.76	132.70	10.81	0.000042	
0.02049	69006.26					
94.00	4397.46	12.16	2.02	2201.16	0.10	
1090.62	141.30	7.72	132.13	10.87	0.000041	
0.01969	68709.87					
95.00	4397.24	11.94	1.95	2084.60	0.10	
1067.46	139.78	7.64	131.13	10.98	0.000033	
0.01580	68189.01					
96.00	4397.00	11.70	1.90	1976.69	0.10	
1041.05	138.06	7.54	129.99	11.11	0.000033	
0.01534	67597.34					
97.00	4396.77	11.47	1.83	1862.26	0.10	

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		HYCHAN.OUT					
1015.44		136.39	7.45	128.89	11.24	0.000030	
	0.01402	67023.46					
98.00		4396.54	11.24	1.80	1787.11	0.09	
990.25		134.75	7.35	127.81	11.37	0.000030	
	0.01393	66461.77					
99.00		4396.28	10.98	1.79	1722.62	0.10	
962.55		132.95	7.24	126.62	11.53	0.000030	
	0.01356	65844.77					
100.00		4395.99	10.69	1.76	1635.31	0.09	
930.81		130.88	7.11	125.26	11.71	0.000030	
	0.01330	65133.70					
101.00		4395.53	10.23	1.72	1513.33	0.09	
880.22		127.58	6.90	123.08	12.03	0.000028	
	0.01189	63999.37					
102.00		4395.09	9.79	1.60	1331.64	0.09	
831.89		125.07	6.65	121.00	12.36	0.000028	
	0.01170	62920.36					
103.00		4394.83	9.53	1.49	1194.92	0.08	
804.01		123.75	6.50	119.79	12.57	0.000023	
	0.00920	62292.12					
104.00		4394.65	9.35	1.38	1087.09	0.08	
785.01		122.84	6.39	118.96	12.72	0.000018	
	0.00701	61858.28					
105.00		4394.51	9.21	1.30	1000.72	0.08	
770.65		122.14	6.31	118.31	12.84	0.000013	
	0.00506	61520.63					
106.00		4394.39	9.09	1.21	916.33	0.07	
757.54		121.50	6.23	117.73	12.95	0.000013	
	0.00512	61217.04					
107.00		4394.27	8.97	1.12	833.91	0.07	
744.62		120.88	6.16	117.16	13.06	0.000018	
	0.00676	60922.28					
108.00		4394.12	8.82	1.03	749.45	0.06	
729.20		120.13	6.07	116.46	13.20	0.000008	
	0.00306	60560.86					
109.00		4393.92	8.62	0.90	637.88	0.05	
708.11		119.11	5.95	115.53	13.40	0.000013	
	0.00475	60073.21					
110.00		4393.75	8.45	0.83	571.73	0.05	
689.74		118.21	5.83	114.71	13.58	0.000012	
	0.00428	59646.64					
111.00		4393.57	8.27	0.77	513.94	0.05	
671.21		117.30	5.72	113.87	13.77	0.000009	
	0.00326	59211.93					
112.00		4393.39	8.09	0.70	454.32	0.04	
653.05		116.41	5.61	113.04	13.97	0.000000	
	0.00000	58783.02					
113.00		4393.23	7.93	0.65	414.77	0.04	
636.12		115.56	5.50	112.27	14.16	0.000010	
	0.00331	58378.27					
114.00		4393.06	7.76	0.61	377.45	0.04	
619.25		114.71	5.40	111.48	14.36	0.000000	
	0.00000	57971.55					
115.00		4392.90	7.60	0.61	364.80	0.04	
602.08		113.86	5.29	110.70	14.57	0.000000	
	0.00000	57565.38					
116.00		4392.70	7.40	0.65	381.20	0.04	
582.63		112.83	5.16	109.76	14.84	0.000000	
	0.00000	57076.24					
117.00		4392.47	7.17	0.49	275.98	0.03	
560.31		111.66	5.02	108.69	15.16	0.000013	
	0.00414	56516.68					
118.00		4392.34	7.04	0.42	228.71	0.03	

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		HYCHAN.OUT					
547.80	111.02	4.93	108.09	15.35	0.000000		
0.00000	56207.74						
119.00	4392.23	6.93	0.36	193.53	0.02		
537.49	110.47	4.87	107.59	15.52	0.000015		
0.00450	55946.27						
120.00	4392.13	6.83	0.30	158.44	0.02		
527.74	109.95	4.80	107.11	15.68	0.000000		
0.00000	55697.14						
121.00	4392.03	6.73	0.24	125.12	0.02		
518.21	109.44	4.74	106.64	15.84	0.000000		
0.00000	55453.16						
122.00	4391.95	6.65	0.20	103.65	0.01		
510.11	109.01	4.68	106.24	15.98	0.000000		
0.00000	55247.32						
123.00	4391.88	6.58	0.18	92.51	0.01		
503.38	108.64	4.63	105.91	16.10	0.000000		
0.00000	55074.59						
124.00	4391.81	6.51	0.17	83.74	0.01		
496.79	108.29	4.59	105.58	16.23	0.000029		
0.00817	54903.38						
125.00	4391.73	6.43	0.15	75.31	0.01		
489.87	107.91	4.54	105.24	16.36	0.000000		
0.00000	54724.58						
126.00	4391.66	6.36	0.14	66.31	0.01		
483.06	107.54	4.49	104.90	16.49	0.000000		
0.00000	54546.12						
127.00	4391.58	6.28	0.12	57.93	0.01		
475.42	107.11	4.44	104.50	16.65	0.000020		
0.00546	54342.31						
128.00	4391.50	6.20	0.11	49.85	0.01		
468.45	106.73	4.39	104.15	16.79	0.000000		
0.00000	54159.73						
129.00	4391.43	6.13	0.10	47.83	0.01		
461.59	106.35	4.34	103.81	16.94	0.000009		
0.00238	53980.46						
130.00	4391.35	6.05	0.11	47.89	0.01		
454.73	105.97	4.29	103.46	17.09	0.000008		
0.00204	53798.30						
131.00	4391.28	5.98	0.11	47.16	0.01		
448.27	105.61	4.24	103.13	17.23	0.000000		
0.00000	53626.37						
132.00	4391.21	5.91	0.11	46.50	0.01		
441.86	105.25	4.20	102.80	17.38	0.000034		
0.00886	53454.67						
133.00	4391.14	5.84	0.11	46.97	0.01		
435.50	104.89	4.15	102.47	17.53	0.000000		
0.00000	53282.55						
134.00	4391.08	5.78	0.11	45.64	0.01		
430.09	104.59	4.11	102.19	17.67	0.000000		
0.00000	53137.19						
135.00	4391.04	5.74	0.11	45.02	0.01		
425.69	104.34	4.08	101.96	17.78	0.000000		
0.00000	53017.58						
136.00	4390.99	5.69	0.11	44.87	0.01		
421.34	104.09	4.05	101.73	17.89	0.000000		
0.00000	52899.09						
137.00	4390.94	5.64	0.11	44.69	0.01		
417.02	103.84	4.02	101.50	18.00	0.000000		
0.00000	52781.30						
138.00	4390.90	5.60	0.11	43.85	0.01		
413.29	103.63	3.99	101.31	18.10	0.000010		
0.00252	52678.97						
139.00	4390.85	5.56	0.11	44.54	0.01		

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		HYCHAN.OUT					
409.55	103.42	3.96	101.11	18.20	0.000000		
0.00000	52576.61						
140.00	4390.81	5.52	0.11	43.54	0.01		
405.99	103.21	3.93	100.92	18.30	0.000000		
0.00000	52478.73						
141.00	4390.77	5.47	0.11	43.83	0.01		
402.35	103.00	3.91	100.72	18.40	0.000000		
0.00000	52376.38						
142.00	4390.73	5.43	0.11	44.18	0.01		
398.82	102.79	3.88	100.53	18.50	0.000000		
0.00000	52278.12						
143.00	4390.69	5.39	0.11	43.66	0.01		
395.19	102.58	3.85	100.34	18.61	0.000000		
0.00000	52178.33						
144.00	4390.65	5.35	0.11	43.61	0.01		
391.44	102.36	3.82	100.14	18.72	0.000000		
0.00000	52074.25						
145.00	4390.61	5.31	0.11	43.05	0.01		
388.05	102.17	3.80	99.96	18.82	0.000000		
0.00000	51979.34						
146.00	4390.57	5.27	0.11	43.02	0.01		
384.78	101.97	3.77	99.78	18.92	0.000000		
0.00000	51887.79						
147.00	4390.53	5.23	0.11	43.45	0.01		
381.17	101.76	3.75	99.59	19.03	0.000000		
0.00000	51786.96						
148.00	4390.49	5.19	0.11	43.20	0.01		
377.38	101.54	3.72	99.38	19.16	0.000000		
0.00000	51679.88						
149.00	4390.45	5.15	0.12	43.08	0.01		
373.84	101.33	3.69	99.19	19.27	0.000000		
0.00000	51580.26						
150.00	4390.41	5.11	0.12	42.74	0.01		
370.54	101.14	3.66	99.01	19.38	0.000009		
0.00205	51487.52						
151.00	4390.37	5.07	0.12	42.83	0.01		
367.38	100.95	3.64	98.84	19.48	0.000000		
0.00000	51397.72						
152.00	4390.34	5.04	0.12	42.72	0.01		
364.23	100.76	3.61	98.67	19.59	0.000000		
0.00000	51308.65						
153.00	4390.30	5.00	0.12	43.03	0.01		
361.02	100.57	3.59	98.49	19.70	0.000000		
0.00000	51216.86						
154.00	4390.26	4.96	0.12	42.32	0.01		
357.81	100.38	3.56	98.32	19.82	0.000000		
0.00000	51126.09						
155.00	4390.22	4.92	0.12	42.73	0.01		
354.52	100.18	3.54	98.14	19.93	0.000000		
0.00000	51031.68						
156.00	4390.19	4.89	0.12	42.50	0.01		
351.60	100.01	3.52	97.98	20.04	0.000000		
0.00000	50947.91						
157.00	4390.15	4.85	0.12	42.76	0.01		
348.29	99.81	3.49	97.79	20.16	0.000000		
0.00000	50852.99						
158.00	4390.13	4.83	0.12	40.51	0.01		
346.33	99.69	3.47	97.69	20.24	0.000000		
0.00000	50796.77						
159.00	4390.12	4.82	0.12	40.23	0.01		
345.99	99.67	3.47	97.67	20.25	0.000007		
0.00160	50787.09						
160.00	4390.11	4.82	0.12	40.48	0.01		

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		HYCHAN.OUT							
345.31	99.63	3.47	97.63	20.28	0.000000				
0.00000	50768.20								
161.00	4390.11	4.81	0.12	40.67	0.01				
344.57	99.58	3.46	97.59	20.31	0.000000				
0.00000	50746.01								
162.00	4390.10	4.80	0.12	39.91	0.01				
343.69	99.53	3.45	97.54	20.34	0.000000				
0.00000	50721.24								
163.00	4390.09	4.79	0.12	40.67	0.01				
343.20	99.50	3.45	97.51	20.36	0.000000				
0.00000	50706.71								
164.00	4390.08	4.78	0.12	40.50	0.01				
342.30	99.45	3.44	97.46	20.39	0.000008				
0.00181	50680.73								
165.00	4390.07	4.77	0.12	40.20	0.01				
341.69	99.41	3.44	97.43	20.42	0.000000				
0.00000	50662.96								
166.00	4390.06	4.77	0.12	39.93	0.01				
341.11	99.38	3.43	97.40	20.44	0.000000				
0.00000	50646.33								
167.00	4390.05	4.75	0.12	41.20	0.01				
339.64	99.29	3.42	97.31	20.50	0.000000				
0.00000	50603.55								
168.00	4390.02	4.72	0.12	41.27	0.01				
337.60	99.16	3.40	97.20	20.58	0.000000				
0.00000	50544.34								
169.00	4390.01	4.71	0.12	40.35	0.01				
336.22	99.08	3.39	97.13	20.63	0.000000				
0.00000	50505.10								
170.00	4389.99	4.69	0.12	40.65	0.01				
334.91	99.00	3.38	97.05	20.69	0.000000				
0.00000	50466.66								
171.00	4389.98	4.68	0.12	40.62	0.01				
333.67	98.93	3.37	96.98	20.74	0.000000				
0.00000	50430.95								
172.00	4389.97	4.67	0.12	40.09	0.01				
332.79	98.87	3.37	96.93	20.77	0.000000				
0.00000	50405.04								
173.00	4389.95	4.65	0.12	40.25	0.01				
331.78	98.81	3.36	96.88	20.81	0.000000				
0.00000	50375.90								
174.00	4389.94	4.64	0.12	40.08	0.01				
330.66	98.74	3.35	96.81	20.86	0.000000				
0.00000	50343.30								
175.00	4389.92	4.62	0.13	41.26	0.01				
329.17	98.65	3.34	96.73	20.92	0.000000				
0.00000	50299.68								
176.00	4389.90	4.60	0.12	40.76	0.01				
326.97	98.52	3.32	96.61	21.01	0.000000				
0.00000	50235.39								
177.00	4389.88	4.58	0.13	41.04	0.01				
325.14	98.40	3.30	96.50	21.09	0.000000				
0.00000	50181.74								
178.00	4389.86	4.56	0.13	40.52	0.01				
323.55	98.31	3.29	96.41	21.16	0.000000				
0.00000	50135.62								
179.00	4389.84	4.54	0.12	39.64	0.01				
322.29	98.23	3.28	96.34	21.22	0.000000				
0.00000	50098.21								
180.00	4389.83	4.53	0.13	40.46	0.01				
321.09	98.15	3.27	96.27	21.27	0.000000				
0.00000	50062.85								
181.00	4389.82	4.52	0.12	39.40	0.01				

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		HYCHAN.OUT					
320.23	98.10	3.26	96.23	21.31	0.000000		
0.00000	50037.95						
182.00	4389.82	4.52	0.12	37.67	0.01		
320.91	98.14	3.27	96.27	21.28	0.000000		
0.00000	50058.12						
183.00	4389.85	4.55	0.12	37.50	0.01		
323.00	98.27	3.29	96.38	21.19	0.000000		
0.00000	50118.90						
184.00	4389.88	4.58	0.11	37.02	0.01		
325.27	98.41	3.31	96.51	21.09	0.000000		
0.00000	50185.36						
185.00	4389.91	4.61	0.11	37.43	0.01		
327.71	98.56	3.32	96.65	20.98	0.000000		
0.00000	50257.08						
186.00	4389.92	4.62	0.12	38.29	0.01		
329.29	98.66	3.34	96.74	20.92	0.000000		
0.00000	50302.82						
187.00	4389.94	4.64	0.12	38.31	0.01		
330.28	98.72	3.35	96.79	20.88	0.000000		
0.00000	50331.75						
188.00	4389.94	4.64	0.12	38.19	0.01		
330.89	98.75	3.35	96.83	20.85	0.000000		
0.00000	50349.67						
189.00	4389.95	4.65	0.12	38.98	0.01		
331.26	98.78	3.35	96.85	20.83	0.000000		
0.00000	50360.80						
190.00	4389.95	4.65	0.12	39.04	0.01		
331.43	98.79	3.35	96.86	20.83	0.000000		
0.00000	50365.52						
191.00	4389.95	4.65	0.12	39.06	0.01		
331.29	98.78	3.35	96.85	20.83	0.000000		
0.00000	50361.32						
192.00	4389.95	4.65	0.12	39.46	0.01		
331.13	98.77	3.35	96.84	20.84	0.000000		
0.00000	50356.54						
193.00	4389.93	4.63	0.12	40.21	0.01		
330.08	98.71	3.34	96.78	20.88	0.000000		
0.00000	50326.29						
194.00	4389.91	4.61	0.12	40.70	0.01		
328.14	98.59	3.33	96.67	20.97	0.000000		
0.00000	50269.31						
195.00	4389.89	4.59	0.12	40.02	0.01		
326.77	98.50	3.32	96.59	21.02	0.000000		
0.00000	50229.26						
196.00	4389.88	4.58	0.12	39.58	0.01		
325.53	98.43	3.31	96.52	21.08	0.000000		
0.00000	50192.90						
197.00	4389.87	4.57	0.12	39.64	0.01		
324.85	98.39	3.30	96.49	21.11	0.000000		
0.00000	50173.38						
198.00	4389.86	4.56	0.12	39.34	0.01		
324.07	98.34	3.30	96.44	21.14	0.000000		
0.00000	50149.91						
199.00	4389.86	4.56	0.12	39.39	0.01		
323.67	98.31	3.29	96.42	21.16	0.000000		
0.00000	50138.69						

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3118

MAXIMUM DISCHARGE (CFS) =	2664.52	AT TIME =	87.83
MAXIMUM STAGE =	4397.56	AT TIME =	91.46



HYCHAN.OUT									
AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	فرويد NO.	FLOW	
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)			(FT)				
0.00	0.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	1.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	2.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	3.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	4.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	5.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	6.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	7.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	8.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	9.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	10.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	11.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	12.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	13.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	14.00	4385.20	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	15.00	4385.20	0.00	0.00	-0.01	-0.02	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	16.00	4385.21	0.01	0.00	-0.02	-0.06	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	17.00	4385.22	0.02	0.00	-0.02	-0.04	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
	18.00	4385.22	0.02	0.00	-0.01	-0.02	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		

		HYCHAN.OUT						
	0.00000	0.00						
0.00	19.00	4385.23	0.03	-0.00	-0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	20.00	4385.23	0.03	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	21.00	4385.23	0.03	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	22.00	4385.23	0.03	-0.00	-0.01	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	23.00	4385.23	0.03	-0.02	-0.09	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	24.00	4385.27	0.07	-0.07	-0.44	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
10.46	25.00	4385.41	0.21	-0.12	-1.21	0.04	0.00	0.000000
	0.00000	41.40	0.25	41.34	200.54	0.03	0.00	0.000000
15.86	26.00	4385.57	0.37	-0.10	-1.64	0.03	0.00	0.000000
	0.00000	42.52	0.37	42.41	114.45	0.05	0.00	0.000000
20.33	27.00	4385.69	0.49	-0.18	-3.76	0.05	0.00	0.000000
	0.00000	43.32	0.47	43.18	88.36	0.06	0.00	0.000000
25.63	28.00	4385.82	0.62	-0.26	-6.64	0.06	0.00	0.000000
	0.00000	44.19	0.58	44.00	71.48	0.06	0.00	0.000000
32.96	29.00	4386.00	0.80	-0.31	-10.27	0.06	0.00	0.000000
	0.00000	45.46	0.73	45.22	56.35	0.05	0.00	0.000000
42.13	30.00	4386.24	1.04	-0.27	-11.41	0.05	0.00	0.000000
	0.00000	47.08	0.89	46.77	44.93	0.03	0.00	0.000000
51.13	31.00	4386.46	1.26	-0.18	-8.96	0.03	0.00	0.000000
	0.00000	48.57	1.05	48.19	38.23	0.02	0.00	0.000000
57.98	32.00	4386.62	1.42	-0.12	-7.10	0.02	0.00	0.000000
	0.00000	49.64	1.17	49.22	34.71	0.01	0.00	0.000000
62.08	33.00	4386.71	1.51	-0.06	-3.61	0.01	0.00	0.000000
	0.00000	50.26	1.23	49.81	33.00	0.01	0.00	0.000000
65.21	34.00	4386.77	1.57	-0.06	-4.11	0.01	0.00	0.000000
	0.00000	50.70	1.29	50.22	31.93	0.01	0.00	0.000000
68.32	35.00	4386.85	1.65	-0.05	-3.54	0.01	0.00	0.000000
	0.00000	51.20	1.33	50.70	30.80	0.00	0.00	0.000000
0.00	36.00	4386.89	1.69	0.00	0.00	0.00	0.00	0.000000
	0.00000	51.49	0.00	50.98	30.18	0.01	0.00	0.000000
71.75	37.00	4386.92	1.72	-0.05	-3.58	0.01	0.00	0.000012
	0.00103	51.71	1.39	51.19	29.73	0.00	0.00	0.000000
72.12	38.00	4386.91	1.71	0.03	2.45	0.00	0.00	0.000000
	0.00000	51.61	1.40	51.10	29.93	0.01	0.00	0.000000
69.54	39.00	4386.87	1.67	0.05	3.76	0.01	0.00	0.000000
		51.37	1.35	50.87	30.42			0.000000

		HYCHAN.OUT					
	0.00000	26452.78					
66.83	40.00	4386.80	1.60	0.05	3.06	0.01	
		50.90	1.31	50.42	31.45		0.000000
	0.00000	26219.69					
64.74	41.00	4386.77	1.57	0.02	1.03	0.00	
		50.70	1.28	50.23	31.92		0.000013
	0.00106	26118.71					
0.00	42.00	4386.76	1.56	0.00	0.00	0.00	
		50.58	0.00	50.12	32.20		0.000000
	0.00000	26060.35					
0.00	43.00	4386.75	1.55	0.00	0.00	0.00	
		50.53	0.00	50.07	32.32		0.000030
	0.00000	26035.86					
0.00	44.00	4386.75	1.55	0.00	0.00	0.00	
		50.52	0.00	50.05	32.36		0.000026
	0.00000	26028.10					
65.75	45.00	4386.78	1.58	-0.06	-3.87	0.01	
		50.77	1.30	50.29	31.76		0.000000
	0.00000	26152.65					
68.57	46.00	4386.85	1.65	-0.05	-3.24	0.01	
		51.22	1.34	50.73	30.74		0.000000
	0.00000	26377.45					
71.70	47.00	4386.91	1.71	-0.06	-4.34	0.01	
		51.65	1.39	51.14	29.85		0.000010
	0.00085	26590.29					
76.20	48.00	4387.01	1.81	-0.08	-6.37	0.01	
		52.31	1.46	51.77	28.59		0.000000
	0.00000	26920.01					
82.04	49.00	4387.13	1.93	-0.09	-7.65	0.01	
		53.15	1.54	52.57	27.19		0.000000
	0.00000	27336.09					
88.72	50.00	4387.27	2.07	-0.09	-8.29	0.01	
		54.10	1.64	53.47	25.80		0.000000
	0.00000	27806.57					
95.88	51.00	4387.42	2.22	-0.09	-8.58	0.01	
		55.08	1.74	54.42	24.54		0.000000
	0.00000	28296.42					
103.48	52.00	4387.57	2.37	-0.09	-9.20	0.01	
		56.11	1.84	55.40	23.39		0.000000
	0.00000	28805.67					
112.16	53.00	4387.74	2.54	-0.10	-10.84	0.01	
		57.27	1.96	56.51	22.25		0.000000
	0.00000	29384.75					
120.78	54.00	4387.91	2.71	-0.07	-8.93	0.01	
		58.43	2.07	57.61	21.26		0.000000
	0.00000	29957.45					
129.04	55.00	4388.05	2.85	-0.09	-11.04	0.01	
		59.40	2.17	58.54	20.52		0.000000
	0.00000	30440.46					
139.13	56.00	4388.24	3.04	-0.11	-15.28	0.01	
		60.67	2.29	59.75	19.66		0.000000
	0.00000	31071.76					
154.44	57.00	4388.51	3.31	-0.16	-24.26	0.02	
		62.53	2.47	61.53	18.57		0.000000
	0.00000	31997.95					
176.17	58.00	4388.89	3.69	-0.18	-30.89	0.02	
		65.09	2.71	63.98	17.34		0.000000
	0.00000	33267.48					
200.98	59.00	4389.31	4.11	-0.16	-31.22	0.01	
		67.95	2.96	66.71	16.23		0.000000
	0.00000	34690.88					
224.75	60.00	4389.68	4.48	-0.12	-25.92	0.01	
		70.46	3.19	69.11	15.43		0.000000

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		HYCHAN.OUT						
	0.00000	35939.68						
247.05	61.00	4390.02	4.82	-0.11	-27.44	0.01		
	0.00202	37096.65	3.39		71.34	14.80	0.000010	
264.63	62.00	4390.29	5.09	-0.05	-13.90	0.00		
	0.00000	38008.89	3.55		73.09	14.36	0.000000	
276.18	63.00	4390.43	5.23	0.07	19.09	0.01		
	0.00000	38470.10	3.66		73.98	14.15	0.000000	
284.00	64.00	4390.55	5.35	0.10	29.38	0.01		
	0.00186	38875.87	3.72		74.76	13.98	0.000008	
298.36	65.00	4390.76	5.56	0.13	39.47	0.01		
	0.00000	39577.25	3.84		76.11	13.70	0.000000	
314.12	66.00	4390.97	5.77	0.17	53.29	0.01		
	0.00185	40313.50	3.96		77.53	13.43	0.000007	
330.55	67.00	4391.20	6.00	0.31	101.17	0.02		
	0.00170	41066.50	4.09		78.97	13.17	0.000007	
347.70	68.00	4391.43	6.23	0.48	167.40	0.03		
	0.00421	41851.26	4.22		80.48	12.92	0.000016	
364.52	69.00	4391.65	6.45	0.65	237.18	0.05		
	0.00455	42607.74	4.35		81.94	12.70	0.000017	
383.30	70.00	4391.90	6.70	0.80	307.97	0.05		
	0.00464	43439.99	4.48		83.54	12.47	0.000017	
397.99	71.00	4392.09	6.89	0.84	336.04	0.06		
	0.00472	44073.84	4.58		84.76	12.31	0.000017	
418.13	72.00	4392.33	7.13	0.87	365.69	0.06		
	0.00704	44906.38	4.72		86.36	12.11	0.000024	
438.83	73.00	4392.59	7.39	1.02	447.87	0.07		
	0.00937	45766.21	4.86		88.01	11.92	0.000031	
457.31	74.00	4392.81	7.61	1.16	529.05	0.07		
	0.01054	46524.01	4.98		89.47	11.76	0.000034	
472.32	75.00	4392.99	7.79	1.27	599.32	0.08		
	0.01294	47126.48	5.08		90.63	11.64	0.000041	
499.72	76.00	4393.31	8.11	1.51	755.25	0.09		
	0.02028	48212.80	5.25		92.72	11.43	0.000062	
529.72	77.00	4393.66	8.46	1.74	922.30	0.11		
	0.02387	49392.70	5.43		94.99	11.23	0.000070	
555.43	78.00	4393.95	8.75	1.95	1081.27	0.12		
	0.02940	50374.25	5.58		96.87	11.07	0.000084	
579.47	79.00	4394.22	9.02	2.14	1240.16	0.13		
	0.03446	51286.17	5.69		98.63	10.93	0.000097	
605.17	80.00	4394.51	9.31	2.36	1425.86	0.14		
	0.04614	52259.93	5.80		100.50	10.80	0.000127	
637.22	81.00	4394.87	9.67	2.63	1676.56	0.15		
		107.49	5.93		102.84	10.64	0.000153	

## HYCHAN.OUT

0.05676	53479.18						
82.00	4395.32	10.12	2.92	1977.66	0.16		
677.54	111.47	6.08		105.79	10.45	0.000172	
0.06525	55008.32						
83.00	4395.69	10.49	3.09	2194.73	0.17		
710.61	114.71	6.20		108.17	10.31	0.000186	
0.07199	56250.53						
84.00	4395.96	10.76	3.20	2354.84	0.17		
734.82	117.07	6.28		109.92	10.22	0.000190	
0.07428	57158.23						
85.00	4396.24	11.04	3.22	2446.31	0.17		
760.70	119.52	6.36		111.73	10.12	0.000189	
0.07514	58098.45						
86.00	4396.53	11.33	3.23	2543.89	0.17		
787.94	122.09	6.45		113.63	10.03	0.000187	
0.07542	59087.70						
87.00	4396.81	11.61	3.20	2602.56	0.17		
814.55	124.58	6.54		115.47	9.95	0.000184	
0.07517	60044.55						
88.00	4397.08	11.88	3.16	2652.33	0.16		
839.45	126.93	6.61		117.20	9.87	0.000175	
0.07230	60945.32						
89.00	4397.31	12.11	3.07	2640.79	0.16		
861.35	128.97	6.68		118.71	9.80	0.000165	
0.06857	61729.46						
90.00	4397.48	12.28	2.98	2619.10	0.15		
877.90	130.48	6.73		119.83	9.76	0.000155	
0.06490	62309.73						
91.00	4397.55	12.35	2.87	2538.85	0.14		
884.71	131.06	6.75		120.25	9.74	0.000142	
0.05987	62530.24						
92.00	4397.56	12.36	2.77	2454.16	0.14		
886.53	131.14	6.76		120.31	9.74	0.000133	
0.05602	62560.90						
93.00	4397.49	12.29	2.64	2331.22	0.13		
881.43	130.58	6.75		119.90	9.75	0.000120	
0.05051	62345.85						
94.00	4397.38	12.18	2.53	2206.31	0.13		
871.43	129.57	6.73		119.15	9.78	0.000112	
0.04693	61959.50						
95.00	4397.17	11.97	2.45	2091.78	0.13		
852.40	127.73	6.67		117.79	9.84	0.000104	
0.04349	61253.08						
96.00	4396.93	11.73	2.39	1983.80	0.12		
830.49	125.63	6.61		116.24	9.91	0.000102	
0.04213	60445.70						
97.00	4396.70	11.50	2.32	1876.81	0.12		
809.29	123.59	6.55		114.73	9.98	0.000096	
0.03943	59661.36						
98.00	4396.47	11.27	2.29	1806.12	0.12		
788.10	121.57	6.48		113.24	10.05	0.000095	
0.03846	58886.57						
99.00	4396.22	11.02	2.28	1740.17	0.12		
764.72	119.35	6.41		111.61	10.13	0.000099	
0.03944	58035.22						
100.00	4395.93	10.73	2.24	1655.04	0.12		
737.99	116.81	6.32		109.73	10.23	0.000097	
0.03834	57057.50						
101.00	4395.46	10.26	2.21	1538.23	0.12		
695.26	112.74	6.17		106.72	10.40	0.000090	
0.03463	55494.17						
102.00	4395.03	9.83	2.06	1351.58	0.12		
655.28	108.89	6.02		103.88	10.57	0.000081	

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		HYCHAN.OUT					
	0.03025	54017.28					
632.44	103.00	4394.78	9.58	1.91	1207.35	0.11	
		106.69	5.93		102.25	10.68	0.000069
	0.02568	53172.22					
616.91	104.00	4394.61	9.41	1.78	1099.60	0.10	
		105.18	5.87		101.14	10.75	0.000060
	0.02214	52590.44					
605.58	105.00	4394.48	9.28	1.67	1012.34	0.10	
		104.07	5.82		100.32	10.81	0.000046
	0.01683	52163.97					
594.91	106.00	4394.36	9.16	1.56	929.39	0.09	
		103.01	5.78		99.54	10.87	0.000050
	0.01808	51760.08					
584.11	107.00	4394.24	9.04	1.45	848.39	0.09	
		101.95	5.73		98.76	10.93	0.000046
	0.01653	51353.37					
571.31	108.00	4394.10	8.90	1.34	768.33	0.08	
		100.69	5.67		97.82	11.00	0.000032
	0.01142	50868.04					
553.87	109.00	4393.90	8.70	1.17	648.57	0.07	
		99.18	5.58		96.56	11.10	0.000028
	0.00960	50213.68					
538.33	110.00	4393.73	8.53	1.08	580.19	0.07	
		98.01	5.49		95.45	11.19	0.000027
	0.00915	49632.55					
522.50	111.00	4393.55	8.35	1.00	522.08	0.06	
		96.81	5.40		94.30	11.29	0.000020
	0.00688	49034.48					
507.14	112.00	4393.38	8.18	0.91	461.69	0.06	
		95.63	5.30		93.17	11.39	0.000017
	0.00558	48447.54					
492.83	113.00	4393.22	8.02	0.85	420.96	0.05	
		94.51	5.21		92.10	11.49	0.000027
	0.00875	47893.62					
478.57	114.00	4393.05	7.85	0.80	382.20	0.05	
		93.39	5.12		91.03	11.60	0.000024
	0.00779	47335.42					
463.84	115.00	4392.88	7.68	0.80	369.77	0.05	
		92.25	5.03		89.94	11.71	0.000015
	0.00463	46770.57					
447.15	116.00	4392.68	7.48	0.86	386.65	0.06	
		90.88	4.92		88.63	11.85	0.000010
	0.00316	46089.09					
428.92	117.00	4392.46	7.26	0.65	280.69	0.04	
		89.36	4.80		87.18	12.01	0.000000
	0.00000	45331.85					
418.64	118.00	4392.33	7.13	0.55	231.97	0.04	
		88.51	4.73		86.37	12.11	0.000011
	0.00310	44911.60					
410.12	119.00	4392.23	7.03	0.48	197.30	0.03	
		87.79	4.67		85.68	12.19	0.000000
	0.00000	44553.66					
402.11	120.00	4392.13	6.93	0.40	161.36	0.03	
		87.11	4.62		85.03	12.27	0.000000
	0.00000	44213.93					
394.28	121.00	4392.03	6.83	0.33	128.19	0.02	
		86.44	4.56		84.38	12.36	0.000020
	0.00566	43879.57					
387.62	122.00	4391.95	6.74	0.27	106.41	0.02	
		85.87	4.51		83.84	12.43	0.000015
	0.00417	43598.00					
382.06	123.00	4391.88	6.67	0.25	95.19	0.02	
		85.39	4.47		83.39	12.49	0.000000

		HYCHAN.OUT						
	0.00000	43361.23						
124.00	4391.81	6.61	0.23	86.79	0.02			
376.59	84.92	4.43		82.93	12.56	0.000000		
	0.00000	43126.05						
125.00	4391.73	6.53	0.21	77.12	0.01			
370.92	84.43	4.39		82.46	12.62	0.000000		
	0.00000	42879.63						
126.00	4391.66	6.46	0.19	68.89	0.01			
365.34	83.93	4.35		81.99	12.69	0.000008		
	0.00221	42635.06						
127.00	4391.58	6.38	0.17	60.69	0.01			
358.99	83.36	4.31		81.45	12.77	0.000000		
	0.00000	42352.42						
128.00	4391.50	6.30	0.15	52.05	0.01			
353.24	82.86	4.26		80.96	12.85	0.000000		
	0.00000	42100.97						
129.00	4391.43	6.23	0.14	50.07	0.01			
347.56	82.36	4.22		80.48	12.92	0.000000		
	0.00000	41852.14						
130.00	4391.35	6.15	0.15	50.05	0.01			
341.97	81.85	4.18		80.00	13.00	0.000009		
	0.00225	41601.73						
131.00	4391.28	6.08	0.15	49.06	0.01			
336.63	81.37	4.14		79.54	13.07	0.000000		
	0.00000	41363.00						
132.00	4391.21	6.01	0.15	48.79	0.01			
331.37	80.90	4.10		79.09	13.15	0.000019		
	0.00485	41125.45						
133.00	4391.14	5.94	0.15	48.43	0.01			
326.19	80.42	4.06		78.63	13.23	0.000000		
	0.00000	40887.61						
134.00	4391.08	5.88	0.15	47.28	0.01			
321.80	80.01	4.02		78.24	13.30	0.000000		
	0.00000	40686.32						
135.00	4391.03	5.83	0.15	46.51	0.01			
318.20	79.68	3.99		77.92	13.36	0.000000		
	0.00000	40520.88						
136.00	4390.99	5.79	0.15	46.57	0.01			
314.67	79.35	3.97		77.61	13.41	0.000000		
	0.00000	40357.11						
137.00	4390.94	5.74	0.15	46.06	0.01			
311.15	79.02	3.94		77.29	13.47	0.000000		
	0.00000	40193.34						
138.00	4390.90	5.70	0.15	45.45	0.01			
308.10	78.74	3.91		77.02	13.52	0.000000		
	0.00000	40051.81						
139.00	4390.85	5.65	0.15	45.66	0.01			
305.07	78.45	3.89		76.75	13.57	0.000000		
	0.00000	39911.11						
140.00	4390.81	5.61	0.15	44.92	0.01			
302.18	78.18	3.87		76.49	13.63	0.000000		
	0.00000	39775.20						
141.00	4390.77	5.57	0.15	45.05	0.01			
299.24	77.89	3.84		76.22	13.68	0.000009		
	0.00216	39633.48						
142.00	4390.73	5.53	0.15	45.33	0.01			
296.40	77.62	3.82		75.96	13.73	0.000000		
	0.00000	39499.16						
143.00	4390.69	5.49	0.15	44.83	0.01			
293.44	77.34	3.79		75.69	13.78	0.000000		
	0.00000	39359.57						
144.00	4390.65	5.45	0.15	44.79	0.01			
290.42	77.05	3.77		75.41	13.84	0.000000		



		HYCHAN.OUT						
	0.00000	39215.50						
287.71	145.00	4390.61	5.41	0.15	44.09	0.01		
	0.00000	39085.26	3.75		75.16	13.89	0.000000	
285.06	146.00	4390.57	5.37	0.15	44.16	0.01		
	0.00000	38957.94	3.72		74.92	13.95	0.000000	
282.17	147.00	4390.53	5.33	0.16	44.52	0.01		
	0.00000	38818.54	3.70		74.65	14.00	0.000000	
279.11	148.00	4390.49	5.29	0.16	44.21	0.01		
	0.00000	38670.34	3.67		74.37	14.07	0.000000	
276.28	149.00	4390.45	5.25	0.16	43.96	0.01		
	0.00000	38533.38	3.65		74.10	14.12	0.000000	
273.63	150.00	4390.41	5.21	0.16	43.81	0.01		
	0.00369	38403.91	3.63		73.85	14.18	0.000016	
271.09	151.00	4390.37	5.17	0.16	43.68	0.01		
	0.00000	38279.91	3.61		73.62	14.23	0.000000	
268.57	152.00	4390.33	5.13	0.16	43.68	0.01		
	0.00000	38155.85	3.58		73.38	14.29	0.000000	
266.02	153.00	4390.30	5.10	0.16	43.85	0.01		
	0.00000	38031.18	3.56		73.14	14.35	0.000000	
263.47	154.00	4390.26	5.06	0.16	43.12	0.01		
	0.00000	37903.90	3.54		72.89	14.40	0.000000	
260.82	155.00	4390.22	5.02	0.17	43.55	0.01		
	0.00000	37772.58	3.52		72.64	14.47	0.000000	
258.50	156.00	4390.19	4.99	0.17	43.36	0.01		
	0.00000	37657.57	3.50		72.42	14.52	0.000000	
255.88	157.00	4390.15	4.95	0.17	43.40	0.01		
	0.00000	37526.40	3.47		72.17	14.58	0.000000	
254.33	158.00	4390.13	4.93	0.16	40.95	0.01		
	0.00000	37449.00	3.46		72.02	14.62	0.000000	
254.05	159.00	4390.12	4.92	0.16	40.84	0.01		
	0.00000	37435.51	3.46		71.99	14.63	0.000000	
253.49	160.00	4390.11	4.91	0.16	40.89	0.01		
	0.00000	37407.02	3.45		71.94	14.64	0.000000	
252.94	161.00	4390.10	4.91	0.16	41.06	0.01		
	0.00000	37378.96	3.45		71.88	14.65	0.000000	
252.23	162.00	4390.09	4.89	0.16	40.31	0.01		
	0.00161	37343.44	3.44		71.81	14.67	0.000007	
251.84	163.00	4390.09	4.89	0.16	41.03	0.01		
	0.00000	37323.74	3.44		71.78	14.68	0.000000	
251.12	164.00	4390.08	4.88	0.16	40.90	0.01		
	0.00000	37288.05	3.43		71.71	14.70	0.000000	
250.65	165.00	4390.07	4.87	0.16	40.48	0.01		
		73.13	3.43		71.66	14.71	0.000000	

		HYCHAN.OUT						
	0.00000	37264.60						
250.18	166.00	4390.06	4.86	0.16	40.20	14.72	0.01	0.000000
	0.00000	37240.58						
249.02	167.00	4390.05	4.85	0.17	41.81	14.75	0.01	0.000000
	0.00000	37181.59						
247.39	168.00	4390.02	4.82	0.17	41.68	14.79	0.01	0.000000
	0.00000	37099.42						
246.30	169.00	4390.01	4.81	0.17	40.78	14.82	0.01	0.000007
	0.00142	37044.08						
245.28	170.00	4389.99	4.79	0.17	40.96	14.85	0.01	0.000000
	0.00000	36992.08						
244.30	171.00	4389.98	4.78	0.17	41.03	14.88	0.01	0.000000
	0.00000	36942.02						
243.58	172.00	4389.97	4.77	0.17	40.31	14.89	0.01	0.000000
	0.00000	36906.69						
242.81	173.00	4389.95	4.75	0.17	40.61	14.92	0.01	0.000000
	0.00000	36866.22						
241.91	174.00	4389.94	4.74	0.17	40.42	14.94	0.01	0.000000
	0.00000	36820.27						
240.72	175.00	4389.92	4.72	0.17	41.76	14.97	0.01	0.000000
	0.00000	36760.46						
239.01	176.00	4389.90	4.70	0.17	41.08	15.02	0.01	0.000009
	0.00187	36671.70						
237.56	177.00	4389.87	4.67	0.17	41.40	15.06	0.01	0.000000
	0.00000	36597.14						
236.31	178.00	4389.85	4.65	0.17	40.94	15.09	0.01	0.000000
	0.00000	36533.45						
235.31	179.00	4389.84	4.64	0.17	39.97	15.12	0.01	0.000007
	0.00151	36481.84						
234.38	180.00	4389.83	4.63	0.17	40.75	15.15	0.01	0.000000
	0.00000	36433.17						
233.68	181.00	4389.81	4.61	0.17	39.53	15.17	0.01	0.000000
	0.00000	36397.80						
234.24	182.00	4389.82	4.62	0.16	37.63	15.15	0.01	0.000000
	0.00000	36426.93						
235.90	183.00	4389.85	4.65	0.16	37.43	15.10	0.01	0.000000
	0.00000	36511.95						
237.69	184.00	4389.88	4.68	0.15	36.83	15.05	0.01	0.000000
	0.00000	36603.89						
239.60	185.00	4389.90	4.70	0.16	37.36	15.00	0.01	0.000009
	0.00196	36701.90						
240.86	186.00	4389.92	4.72	0.16	38.27	14.97	0.01	0.000000
		72.12	3.34		70.70			

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HYCHAN.OUT									
0.00000	36766.11								
187.00	4389.94	4.74	0.16	38.26	0.01				
241.63	72.21	3.35	70.78	14.95	0.000000				
0.00000	36806.00								
188.00	4389.94	4.74	0.16	38.23	0.01				
242.11	72.26	3.35	70.83	14.93	0.000000				
0.00000	36830.81								
189.00	4389.95	4.75	0.16	39.04	0.01				
242.39	72.28	3.35	70.86	14.93	0.000000				
0.00000	36845.12								
190.00	4389.95	4.75	0.16	39.09	0.01				
242.54	72.30	3.35	70.87	14.92	0.000000				
0.00000	36852.35								
191.00	4389.95	4.75	0.16	39.16	0.01				
242.43	72.29	3.35	70.86	14.93	0.000000				
0.00000	36847.05								
192.00	4389.95	4.75	0.16	39.77	0.01				
242.30	72.27	3.35	70.85	14.93	0.000000				
0.00000	36840.17								
193.00	4389.93	4.73	0.17	40.55	0.01				
241.44	72.19	3.34	70.76	14.95	0.000011				
0.00224	36797.08								
194.00	4389.91	4.71	0.17	40.86	0.01				
239.91	72.03	3.33	70.61	14.99	0.000008				
0.00175	36718.64								
195.00	4389.89	4.69	0.17	40.29	0.01				
238.85	71.92	3.32	70.51	15.02	0.000000				
0.00000	36663.84								
196.00	4389.88	4.68	0.17	39.87	0.01				
237.89	71.82	3.31	70.41	15.05	0.000009				
0.00182	36613.45								
197.00	4389.87	4.67	0.17	39.83	0.01				
237.34	71.76	3.31	70.36	15.06	0.000000				
0.00000	36585.80								
198.00	4389.86	4.66	0.17	39.42	0.01				
236.72	71.70	3.30	70.30	15.08	0.000007				
0.00135	36554.53								
199.00	4389.86	4.66	0.17	39.60	0.01				
236.41	71.67	3.30	70.27	15.09	0.000000				
0.00000	36537.87								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3195

MAXIMUM DISCHARGE (CFS) = 2661.65 AT TIME = 87.47  
 MAXIMUM STAGE = 4397.39 AT TIME = 91.46

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(FT^2)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)						
0.00	4385.10	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4385.10	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4385.10	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

HYCHAN.OUT							
0.00	3.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4385.10	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4385.10	0.00	-0.00	-0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	14.00	4385.12	0.02	-0.04	-0.26	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
8.67	15.00	4385.22	0.12	-0.06	-0.55	0.03	0.000000
0.00	0.00000	30.85	0.28	30.81	248.08	0.00	0.000000
0.00	16.00	16019.73	0.17	0.00	0.00	0.00	0.000000
0.00	0.00000	31.19	0.00	31.13	178.90	0.00	0.000000
0.00	17.00	16188.15	0.16	0.00	0.00	0.00	0.000000
0.00	0.00000	31.06	0.00	31.01	199.95	0.00	0.000000
0.00	18.00	16124.16	0.14	0.00	0.00	0.00	0.000000
0.00	0.00000	30.93	0.00	30.89	226.14	0.00	0.000000
0.00	19.00	16061.66	0.12	0.00	0.00	0.00	0.000000
0.00	0.00000	30.83	0.00	30.79	251.94	0.00	0.000008
0.00	20.00	16013.14	0.11	0.00	0.00	0.00	0.000013
0.00	0.00000	30.75	0.00	30.72	278.67	0.00	0.000013
0.00	21.00	15972.56	0.11	0.00	0.00	0.00	0.000000
0.00	0.00000	30.74	0.00	30.71	281.06	0.00	0.000000
7.82	22.00	15969.32	0.13	-0.02	-0.18	0.01	0.000000
0.00	0.00000	30.88	0.25	30.84	237.84	0.00	0.000000
10.32	23.00	16038.32	0.20	-0.05	-0.50	0.02	0.000000
0.00	0.00000	31.33	0.33	31.27	160.12	0.00	0.000000
		16260.06					

HYCHAN.OUT							
14.81	24.00	4385.41	0.31	-0.07	-0.96	0.02	
	0.00000	32.09	0.46	32.00	104.19	0.000000	
		16638.03					
18.78	25.00	4385.50	0.41	-0.09	-1.69	0.02	
	0.00000	32.76	0.57	32.63	80.57	0.000000	
		16968.97					
22.88	26.00	4385.62	0.52	-0.10	-2.18	0.02	
	0.00000	33.52	0.68	33.36	64.52	0.000000	
		17347.71					
27.81	27.00	4385.73	0.63	-0.16	-4.35	0.03	
	0.00000	34.29	0.81	34.09	54.22	0.000000	
		17725.07					
34.14	28.00	4385.87	0.77	-0.22	-7.47	0.04	
	0.00000	35.26	0.97	35.02	45.37	0.000000	
		18208.66					
42.16	29.00	4386.06	0.96	-0.27	-11.39	0.05	
	0.00000	36.54	1.15	36.24	37.76	0.000000	
		18844.16					
51.01	30.00	4386.27	1.17	-0.25	-12.53	0.04	
	0.00000	37.99	1.34	37.62	32.09	0.000000	
		19562.28					
59.64	31.00	4386.47	1.37	-0.17	-9.99	0.03	
	0.00000	39.34	1.52	38.91	28.38	0.000000	
		20234.25					
66.57	32.00	4386.62	1.52	-0.12	-7.78	0.02	
	0.00000	40.38	1.65	39.89	26.21	0.000000	
		20745.18					
70.72	33.00	4386.71	1.61	-0.06	-3.98	0.01	
	0.00000	40.98	1.73	40.47	25.13	0.000000	
		21043.09					
74.01	34.00	4386.77	1.67	-0.06	-4.55	0.01	
	0.00000	41.41	1.79	40.88	24.42	0.000000	
		21257.81					
77.25	35.00	4386.85	1.75	-0.05	-3.91	0.01	
	0.00000	41.91	1.84	41.36	23.67	0.000000	
		21505.16					
0.00	36.00	4386.89	1.79	0.00	0.00	0.00	
	0.00000	42.19	0.00	41.63	23.27	0.000000	
		21646.33					
80.92	37.00	4386.92	1.82	-0.05	-3.80	0.01	
	0.00000	42.43	1.91	41.85	22.95	0.000000	
		21762.99					
81.12	38.00	4386.91	1.81	0.03	2.62	0.00	
	0.00097	42.32	1.92	41.75	23.10	0.000008	
		21708.52					
78.46	39.00	4386.87	1.77	0.05	4.15	0.01	
	0.00000	42.08	1.86	41.52	23.43	0.000000	
		21589.03					
75.66	40.00	4386.80	1.70	0.04	3.37	0.01	
	0.00159	41.61	1.82	41.08	24.10	0.000014	
		21359.96					
73.56	41.00	4386.77	1.67	0.02	1.18	0.00	
	0.00000	41.40	1.78	40.88	24.43	0.000000	
		21255.78					
0.00	42.00	4386.76	1.66	0.00	0.00	0.00	
	0.00000	41.30	0.00	40.77	24.60	0.000000	
		21202.04					
0.00	43.00	4386.75	1.65	0.00	0.00	0.00	
	0.00000	41.24	0.00	40.72	24.69	0.000000	
		21173.25					
0.00	44.00	4386.75	1.65	0.00	0.00	0.00	
	0.00000	41.22	0.00	40.70	24.72	0.000000	
		21166.55					

HYCHAN.OUT									
74.43	45.00	4386.78	1.68	-0.06	40.95	-4.46	24.31	0.01	0.000000
	0.00000	41.48	1.79						
		21292.55							
77.46	46.00	4386.85	1.75	-0.05	41.38	-3.57	23.64	0.01	0.000000
	0.00000	41.93	1.85						
		21515.22							
80.75	47.00	4386.91	1.81	-0.06	41.79	-4.75	23.04	0.01	0.000000
	0.00000	42.36	1.91						
		21730.91							
85.52	48.00	4387.01	1.91	-0.08	42.43	-7.13	22.19	0.01	0.000000
	0.00000	43.03	1.99						
		22062.76							
91.67	49.00	4387.14	2.04	-0.09	43.23	-8.48	21.24	0.01	0.000000
	0.00000	43.87	2.09						
		22480.81							
98.62	50.00	4387.27	2.17	-0.09	44.14	-9.20	20.29	0.01	0.000000
	0.00000	44.82	2.20						
		22950.57							
106.05	51.00	4387.42	2.32	-0.09	45.08	-9.54	19.43	0.01	0.000000
	0.00000	45.81	2.32						
		23439.23							
113.93	52.00	4387.57	2.47	-0.09	46.05	-10.23	18.65	0.01	0.000000
	0.00000	46.83	2.43						
		23948.04							
122.93	53.00	4387.74	2.64	-0.10	47.17	-12.08	17.86	0.01	0.000000
	0.00000	48.00	2.56						
		24527.42							
131.78	54.00	4387.91	2.81	-0.08	48.26	-9.89	17.18	0.01	0.000000
	0.00000	49.15	2.68						
		25097.40							
140.31	55.00	4388.05	2.95	-0.09	49.20	-12.24	16.66	0.01	0.000000
	0.00000	50.13	2.80						
		25581.46							
150.77	56.00	4388.24	3.14	-0.11	50.41	-16.87	16.05	0.01	0.000000
	0.00000	51.40	2.93						
		26214.78							
166.54	57.00	4388.52	3.42	-0.16	52.20	-26.75	15.28	0.02	0.000000
	0.00000	53.28	3.13						
		27144.36							
188.76	58.00	4388.89	3.79	-0.18	54.64	-34.15	14.41	0.02	0.000000
	0.00000	55.84	3.38						
		28414.32							
213.97	59.00	4389.31	4.21	-0.16	57.37	-34.58	13.62	0.01	0.000000
	0.00000	58.70	3.64						
		29834.79							
238.04	60.00	4389.68	4.58	-0.12	59.77	-28.79	13.05	0.01	0.000000
	0.00000	61.22	3.89						
		31081.37							
260.56	61.00	4390.02	4.92	-0.12	61.99	-30.45	12.59	0.01	0.000000
	0.00000	63.55	4.10						
		32237.37							
278.22	62.00	4390.29	5.19	-0.06	63.74	-15.62	12.28	0.00	0.000000
	0.00000	65.38	4.26						
		33146.02							
289.91	63.00	4390.43	5.33	0.06	64.63	18.14	12.13	0.00	0.000000
	0.00000	66.31	4.37						
		33606.66							
297.71	64.00	4390.55	5.45	0.09	65.41	27.93	12.01	0.01	0.000000
	0.00000	67.13	4.44						
		34011.09							
312.15	65.00	4390.75	5.65	0.12	66.76	37.20	11.81	0.01	0.000008
	0.00214	68.54	4.55						
		34713.07							

HYCHAN.OUT									
327.83	66.00	4390.97	5.87	0.16	51.21	0.01	0.000011		
	0.00316	70.02	4.68		68.16	11.61			
		35444.46							
344.07	67.00	4391.19	6.09	0.29	98.78	0.02	0.000016		
	0.00466	71.52	4.81		69.60	11.42			
		36190.37							
360.82	68.00	4391.42	6.32	0.46	165.36	0.03	0.000021		
	0.00653	73.06	4.94		71.07	11.25			
		36955.87							
377.17	69.00	4391.64	6.54	0.62	234.54	0.04	0.000025		
	0.00788	74.55	5.06		72.49	11.09			
		37692.96							
395.43	70.00	4391.88	6.78	0.77	305.80	0.05	0.000026		
	0.00849	76.19	5.19		74.05	10.93			
		38507.18							
409.94	71.00	4392.06	6.96	0.81	333.89	0.05	0.000025		
	0.00835	77.46	5.29		75.26	10.81			
		39137.23							
429.91	72.00	4392.31	7.21	0.84	362.86	0.06	0.000036		
	0.01221	79.14	5.43		76.86	10.66			
		39968.61							
449.90	73.00	4392.56	7.46	0.99	445.20	0.06	0.000047		
	0.01631	80.83	5.57		78.47	10.52			
		40806.25							
467.65	74.00	4392.78	7.68	1.13	526.91	0.07	0.000053		
	0.01870	82.32	5.68		79.89	10.41			
		41543.98							
481.99	75.00	4392.95	7.85	1.24	597.14	0.08	0.000067		
	0.02396	83.49	5.77		81.01	10.32			
		42127.74							
507.18	76.00	4393.24	8.14	1.53	773.87	0.09	0.000100		
	0.03714	85.48	5.93		82.91	10.19			
		43113.67							
534.83	77.00	4393.57	8.47	1.80	962.00	0.11	0.000115		
	0.04387	87.70	6.10		85.03	10.04			
		44215.53							
558.61	78.00	4393.84	8.74	2.02	1127.17	0.12	0.000138		
	0.05360	89.56	6.24		86.80	9.93			
		45137.71							
580.62	79.00	4394.09	8.99	2.23	1294.09	0.13	0.000163		
	0.06452	91.26	6.36		88.43	9.84			
		45981.93							
603.78	80.00	4394.35	9.25	2.47	1490.84	0.14	0.000191		
	0.07694	93.56	6.45		90.14	9.74			
		46870.41							
632.42	81.00	4394.68	9.58	2.76	1743.92	0.16	0.000236		
	0.09647	96.44	6.56		92.26	9.63			
		47976.13							
668.87	82.00	4395.09	9.99	3.08	2060.70	0.17	0.000264		
	0.11013	100.10	6.68		94.96	9.50			
		49377.35							
699.36	83.00	4395.44	10.34	3.28	2295.54	0.18	0.000285		
	0.12065	103.13	6.78		97.19	9.40			
		50540.23							
721.96	84.00	4395.69	10.59	3.40	2451.70	0.18	0.000286		
	0.12220	105.38	6.85		98.85	9.33			
		51403.01							
747.65	85.00	4395.98	10.88	3.38	2525.59	0.18	0.000284		
	0.12289	107.88	6.93		100.69	9.26			
		52360.51							
774.59	86.00	4396.27	11.17	3.36	2602.27	0.18	0.000281		
	0.12280	110.51	7.01		102.63	9.18			
		53368.12							



HYCHAN.OUT							
801.50	87.00	4396.57	11.47	3.29	2634.93	0.17	0.000277
	0.12255	113.12	7.09	104.55	9.12		
826.75	88.00	4396.85	11.75	3.21	2657.57	0.17	0.000264
	0.11789	115.57	7.15	106.36	9.05		
849.55	89.00	4397.10	11.99	3.11	2638.05	0.16	0.000248
	0.11176	117.74	7.22	107.97	9.00		
866.74	90.00	4397.28	12.18	3.02	2617.39	0.15	0.000231
	0.10488	119.37	7.26	109.17	8.96		
874.65	91.00	4397.36	12.26	2.90	2538.26	0.15	0.000212
	0.09628	120.08	7.28	109.69	8.95		
877.29	92.00	4397.38	12.28	2.81	2461.20	0.14	0.000198
	0.08990	120.29	7.29	109.84	8.94		
873.41	93.00	4397.33	12.23	2.69	2352.71	0.14	0.000178
	0.08106	119.84	7.29	109.51	8.95		
864.49	94.00	4397.23	12.13	2.61	2252.29	0.13	0.000166
	0.07517	118.90	7.27	108.82	8.97		
846.52	95.00	4397.02	11.92	2.53	2141.59	0.13	0.000157
	0.07067	117.12	7.23	107.51	9.02		
825.61	96.00	4396.79	11.69	2.46	2027.47	0.13	0.000153
	0.06843	115.08	7.17	106.00	9.07		
805.24	97.00	4396.56	11.46	2.41	1941.35	0.13	0.000145
	0.06457	113.06	7.12	104.51	9.12		
784.63	98.00	4396.33	11.23	2.40	1879.48	0.13	0.000144
	0.06360	111.04	7.07	103.02	9.17		
761.85	99.00	4396.08	10.98	2.37	1807.50	0.13	0.000149
	0.06519	108.83	7.00	101.39	9.23		
735.83	100.00	4395.80	10.70	2.34	1720.56	0.13	0.000146
	0.06312	106.30	6.92	99.53	9.30		
694.18	101.00	4395.33	10.23	2.31	1604.15	0.13	0.000141
	0.05955	102.23	6.79	96.53	9.43		
656.32	102.00	4394.92	9.81	2.13	1396.70	0.12	0.000119
	0.04928	98.52	6.66	93.80	9.56		
635.19	103.00	4394.68	9.58	1.94	1235.13	0.11	0.000108
	0.04453	96.46	6.58	92.28	9.63		
620.92	104.00	4394.52	9.42	1.81	1122.29	0.10	0.000100
	0.04070	95.05	6.53	91.24	9.68		
610.62	105.00	4394.40	9.30	1.69	1030.87	0.10	0.000080
	0.03259	94.03	6.49	90.48	9.72		
600.91	106.00	4394.29	9.19	1.58	947.05	0.09	0.000075
	0.03040	93.05	6.46	89.76	9.76		
591.03	107.00	4394.18	9.08	1.46	864.46	0.09	0.000060
	0.02417	92.07	6.42	89.04	9.80		
		46299.43					

		HYCHAN.OUT					
108.00	4394.05	8.95	1.34	778.93	0.08		
579.18	90.99	6.37		88.17	9.85	0.000051	
0.02039	45846.74						
109.00	4393.87	8.77	1.16	655.23	0.07		
563.11	89.76	6.27		86.99	9.92	0.000037	
0.01462	45235.28						
110.00	4393.70	8.60	1.07	586.74	0.06		
548.27	88.62	6.19		85.91	9.99	0.000036	
0.01372	44671.43						
111.00	4393.53	8.43	0.99	528.33	0.06		
532.92	87.43	6.10		84.77	10.06	0.000027	
0.01009	44081.68						
112.00	4393.36	8.26	0.90	467.45	0.06		
518.07	86.27	6.01		83.67	10.13	0.000019	
0.00711	43506.17						
113.00	4393.19	8.09	0.85	426.10	0.05		
504.12	85.17	5.92		82.62	10.21	0.000026	
0.00945	42960.76						
114.00	4393.03	7.93	0.79	386.43	0.05		
490.18	84.06	5.83		81.56	10.28	0.000027	
0.00995	42409.72						
115.00	4392.86	7.76	0.79	374.07	0.05		
475.50	82.91	5.73		80.46	10.36	0.000032	
0.01146	41840.13						
116.00	4392.66	7.56	0.85	391.18	0.05		
458.71	81.52	5.63		79.13	10.47	0.000022	
0.00757	41147.42						
117.00	4392.44	7.34	0.64	284.47	0.04		
441.38	80.05	5.51		77.73	10.59	0.000000	
0.00000	40421.73						
118.00	4392.32	7.22	0.54	235.05	0.04		
431.42	79.23	5.45		76.95	10.65	0.000016	
0.00558	40013.45						
119.00	4392.22	7.12	0.47	200.14	0.03		
423.12	78.52	5.39		76.28	10.71	0.000000	
0.00000	39663.43						
120.00	4392.12	7.02	0.40	164.15	0.03		
415.31	77.85	5.33		75.64	10.77	0.000018	
0.00597	39331.31						
121.00	4392.02	6.92	0.32	130.95	0.02		
407.66	77.19	5.28		75.01	10.83	0.000030	
0.00992	39004.11						
122.00	4391.94	6.84	0.27	108.65	0.02		
401.13	76.64	5.23		74.48	10.88	0.000033	
0.01083	38727.10						
123.00	4391.87	6.77	0.25	97.26	0.02		
395.63	76.16	5.19		74.02	10.93	0.000014	
0.00466	38491.82						
124.00	4391.80	6.70	0.23	88.98	0.02		
390.18	75.69	5.16		73.57	10.98	0.000000	
0.00000	38256.30						
125.00	4391.73	6.63	0.21	79.07	0.01		
384.59	75.20	5.11		73.10	11.02	0.000030	
0.00959	38012.97						
126.00	4391.66	6.56	0.19	71.08	0.01		
379.00	74.70	5.07		72.63	11.07	0.000021	
0.00651	37767.80						
127.00	4391.58	6.48	0.17	62.82	0.01		
372.75	74.13	5.03		72.09	11.13	0.000000	
0.00000	37486.80						
128.00	4391.50	6.40	0.15	53.84	0.01		
367.02	73.63	4.98		71.61	11.19	0.000000	
0.00000	37236.13						

		HYCHAN.OUT							
361.35	129.00	4391.43	6.33	0.14	51.95	11.24	0.01	0.000000	
	0.00000	73.13	4.94		71.13				
	130.00	36986.88							
355.75	0.00000	4391.35	6.25	0.15	51.91	11.30	0.01	0.000000	
	131.00	72.62	4.90		70.65				
	0.00000	36737.67							
350.41	132.00	4391.28	6.18	0.14	50.59	11.35	0.01	0.000000	
	0.00000	72.14	4.86		70.19				
	133.00	36497.42							
345.16	0.00000	4391.21	6.11	0.15	50.66	11.41	0.01	0.000000	
	134.00	71.66	4.82		69.73				
	0.00000	36260.27							
340.00	135.00	4391.14	6.04	0.15	49.68	11.47	0.01	0.000000	
	0.00000	71.18	4.78		69.27				
	136.00	36022.35							
335.59	0.00000	4391.08	5.98	0.14	48.57	11.51	0.01	0.000000	
	137.00	70.78	4.74		68.89				
	0.00000	35821.91							
331.98	138.00	4391.03	5.93	0.14	47.84	11.56	0.01	0.000022	
	0.00648	70.44	4.71		68.57				
	139.00	35655.00							
328.43	0.00365	4390.98	5.88	0.15	47.88	11.60	0.01	0.000012	
	140.00	70.11	4.68		68.25				
	0.00000	35491.28							
324.93	141.00	4390.94	5.84	0.15	47.17	11.64	0.01	0.000000	
	0.00000	69.78	4.66		67.94				
	142.00	35329.14							
321.83	0.00000	4390.89	5.79	0.15	46.72	11.68	0.01	0.000000	
	0.00000	69.49	4.63		67.66				
	143.00	35185.71							
318.80	0.00279	4390.85	5.75	0.15	46.60	11.71	0.01	0.000010	
	144.00	69.21	4.61		67.40				
	0.00000	35045.44							
315.90	0.00000	4390.81	5.71	0.15	46.00	11.75	0.01	0.000000	
	145.00	68.94	4.58		67.13				
	0.00000	34908.93							
312.96	146.00	4390.77	5.67	0.15	46.10	11.79	0.01	0.000000	
	0.00000	68.65	4.56		66.86				
	147.00	34768.21							
310.09	0.00186	4390.73	5.63	0.15	46.27	11.83	0.01	0.000007	
	148.00	68.38	4.53		66.60				
	0.00000	34633.55							
307.11	0.00234	4390.69	5.59	0.15	45.71	11.87	0.01	0.000008	
	149.00	68.10	4.51		66.33				
	0.00000	34492.09							
304.10	0.00193	4390.65	5.55	0.15	45.75	11.91	0.01	0.000007	
	150.00	67.81	4.48		66.06				
	0.00000	34348.78							
301.37	0.00000	4390.61	5.51	0.15	44.89	11.95	0.01	0.000000	
	151.00	67.55	4.46		65.81				
	0.00000	34219.66							
298.69	0.00000	4390.57	5.47	0.15	45.08	11.98	0.01	0.000000	
	152.00	67.29	4.44		65.56				
	0.00000	34091.32							
295.80	0.00000	4390.53	5.43	0.15	45.32	12.02	0.01	0.000000	
	153.00	67.01	4.41		65.29				
	0.00000	33953.13							
292.70	0.00000	4390.49	5.39	0.15	45.09	12.07	0.01	0.000000	
	154.00	66.71	4.39		65.01				
	0.00000	33803.13							
289.85	0.00278	4390.45	5.35	0.15	44.69	12.11	0.01	0.000010	
	155.00	66.43	4.36		64.74				
	0.00000	33666.32							

		HYCHAN.OUT						
150.00	4390.41	5.31	0.16	44.74	0.01			
287.20	66.17	4.34	64.49	12.15	0.000000			
0.00000	33537.11							
151.00	4390.37	5.27	0.16	44.19	0.01			
284.64	65.92	4.32	64.26	12.19	0.000000			
0.00000	33412.98							
152.00	4390.33	5.23	0.16	44.41	0.01			
282.09	65.67	4.30	64.02	12.23	0.000000			
0.00000	33289.08							
153.00	4390.30	5.20	0.16	44.54	0.01			
279.52	65.42	4.27	63.78	12.27	0.000000			
0.00000	33163.18							
154.00	4390.26	5.16	0.16	43.74	0.01			
276.96	65.16	4.25	63.53	12.32	0.000000			
0.00000	33037.49							
155.00	4390.22	5.12	0.16	44.22	0.01			
274.27	64.89	4.23	63.28	12.36	0.000000			
0.00000	32904.33							
156.00	4390.19	5.09	0.16	43.98	0.01			
271.93	64.66	4.21	63.06	12.40	0.000000			
0.00000	32789.59							
157.00	4390.15	5.05	0.16	44.05	0.01			
269.26	64.40	4.18	62.80	12.44	0.000018			
0.00459	32657.86							
158.00	4390.12	5.02	0.15	41.11	0.01			
267.76	64.24	4.17	62.66	12.47	0.000000			
0.00000	32582.40							
159.00	4390.12	5.02	0.15	41.26	0.01			
267.45	64.21	4.16	62.63	12.48	0.000000			
0.00000	32567.01							
160.00	4390.11	5.01	0.15	41.18	0.01			
266.89	64.16	4.16	62.57	12.49	0.000000			
0.00000	32538.98							
161.00	4390.10	5.00	0.16	41.39	0.01			
266.34	64.10	4.15	62.52	12.50	0.000000			
0.00000	32512.41							
162.00	4390.09	4.99	0.15	40.59	0.01			
265.64	64.03	4.15	62.46	12.51	0.000000			
0.00000	32477.30							
163.00	4390.09	4.99	0.16	41.39	0.01			
265.21	63.99	4.14	62.42	12.52	0.000007			
0.00184	32455.85							
164.00	4390.08	4.98	0.16	41.08	0.01			
264.49	63.92	4.14	62.35	12.53	0.000000			
0.00000	32419.81							
165.00	4390.07	4.97	0.15	40.62	0.01			
264.02	63.87	4.13	62.30	12.54	0.000000			
0.00000	32397.04							
166.00	4390.06	4.96	0.15	40.48	0.01			
263.55	63.82	4.13	62.25	12.55	0.000011			
0.00283	32372.49							
167.00	4390.04	4.94	0.16	42.27	0.01			
262.37	63.70	4.12	62.14	12.57	0.000000			
0.00000	32313.38							
168.00	4390.02	4.92	0.16	42.07	0.01			
260.73	63.54	4.10	61.98	12.60	0.000000			
0.00000	32231.06							
169.00	4390.00	4.90	0.16	41.06	0.01			
259.63	63.43	4.09	61.88	12.62	0.000000			
0.00000	32176.10							
170.00	4389.99	4.89	0.16	41.26	0.01			
258.60	63.32	4.08	61.78	12.64	0.000000			
0.00000	32124.18							

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		HYCHAN.OUT						
171.00	4389.97	4.87	0.16	41.27	0.01			
257.61	63.22	4.07	61.68	12.65	0.000000			
0.00000	32074.79							
172.00	4389.96	4.86	0.16	40.50	0.01			
256.88	63.15	4.07	61.61	12.67	0.000009			
0.00224	32037.60							
173.00	4389.95	4.85	0.16	40.96	0.01			
256.11	63.07	4.06	61.54	12.68	0.000007			
0.00175	31999.02							
174.00	4389.94	4.84	0.16	40.54	0.01			
255.19	62.97	4.05	61.45	12.70	0.000000			
0.00000	31952.67							
175.00	4389.92	4.82	0.17	42.11	0.01			
253.97	62.85	4.04	61.33	12.72	0.000000			
0.00000	31891.32							
176.00	4389.89	4.79	0.16	41.45	0.01			
252.26	62.67	4.02	61.16	12.76	0.000008			
0.00201	31803.61							
177.00	4389.87	4.77	0.17	41.68	0.01			
250.79	62.53	4.01	61.02	12.79	0.000007			
0.00180	31729.69							
178.00	4389.85	4.75	0.16	41.16	0.01			
249.52	62.40	4.00	60.90	12.81	0.000000			
0.00000	31665.67							
179.00	4389.84	4.74	0.16	40.28	0.01			
248.52	62.29	3.99	60.79	12.83	0.000000			
0.00000	31612.90							
180.00	4389.82	4.72	0.17	40.95	0.01			
247.57	62.19	3.98	60.70	12.85	0.000007			
0.00172	31565.04							
181.00	4389.81	4.71	0.16	39.67	0.01			
246.87	62.12	3.97	60.63	12.87	0.000000			
0.00000	31528.92							
182.00	4389.82	4.72	0.15	37.50	0.01			
247.46	62.18	3.98	60.69	12.85	0.000000			
0.00000	31559.29							
183.00	4389.85	4.75	0.15	37.34	0.01			
249.13	62.35	4.00	60.85	12.82	0.000000			
0.00000	31643.99							
184.00	4389.87	4.77	0.15	36.56	0.01			
250.96	62.54	4.01	61.03	12.78	0.000000			
0.00000	31737.39							
185.00	4389.90	4.80	0.15	37.34	0.01			
252.86	62.74	4.03	61.22	12.75	0.000000			
0.00000	31834.24							
186.00	4389.92	4.82	0.15	38.15	0.01			
254.14	62.87	4.04	61.34	12.72	0.000000			
0.00000	31899.22							
187.00	4389.93	4.83	0.15	38.21	0.01			
254.92	62.95	4.05	61.42	12.71	0.000000			
0.00000	31938.88							
188.00	4389.94	4.84	0.15	38.34	0.01			
255.40	63.00	4.05	61.47	12.70	0.000000			
0.00000	31963.20							
189.00	4389.95	4.85	0.15	39.07	0.01			
255.68	63.03	4.06	61.50	12.69	0.000009			
0.00224	31977.63							
190.00	4389.95	4.85	0.15	39.18	0.01			
255.83	63.04	4.06	61.51	12.69	0.000010			
0.00259	31985.35							
191.00	4389.95	4.85	0.15	39.24	0.01			
255.73	63.03	4.06	61.50	12.69	0.000009			
0.00226	31980.13							

HYCHAN.OUT									
192.00	4389.94	4.84	0.16	39.71	0.01				
255.60	63.02	4.06	61.49	12.69	0.000000				
0.00000	31972.73								
193.00	4389.93	4.83	0.16	40.99	0.01				
254.71	62.93	4.05	61.40	12.71	0.000000				
0.00000	31928.13								
194.00	4389.91	4.81	0.16	41.16	0.01				
253.16	62.77	4.03	61.25	12.74	0.000007				
0.00183	31849.62								
195.00	4389.89	4.79	0.16	40.40	0.01				
252.09	62.66	4.02	61.15	12.76	0.000000				
0.00000	31796.26								
196.00	4389.88	4.78	0.16	40.12	0.01				
251.15	62.56	4.01	61.05	12.78	0.000008				
0.00193	31746.64								
197.00	4389.87	4.77	0.16	39.91	0.01				
250.59	62.50	4.01	61.00	12.79	0.000000				
0.00000	31718.75								
198.00	4389.86	4.76	0.16	39.55	0.01				
249.97	62.44	4.00	60.94	12.80	0.000010				
0.00251	31686.36								
199.00	4389.85	4.75	0.16	39.69	0.01				
249.64	62.41	4.00	60.90	12.81	0.000000				
0.00000	31670.50								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3275

MAXIMUM DISCHARGE (CFS) = 2849.49 AT TIME = 85.69  
 MAXIMUM STAGE = 4397.27 AT TIME = 91.64

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE			
STRESS	SURFACE AREA							
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
7.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
8.00	4385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

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HYCHAN.OUT							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4385.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4385.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	11.00	4385.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	12.00	4385.00	0.00	-0.01	-0.04	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	13.00	4385.05	0.05	-0.08	-0.89	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
16.82	14.00	4385.24	0.24	-0.08	-1.32	0.03	0.000000
0.000000	46.42	24095.31	0.36	46.34	190.60	0.01	0.000000
19.24	15.00	4385.30	0.30	-0.02	-0.44	0.01	0.000000
0.000000	46.74	24249.35	0.41	46.63	157.03	0.00	0.000000
0.00	16.00	4385.27	0.27	0.00	0.00	0.00	0.000000
0.000000	46.60	24183.40	0.00	46.51	169.78	0.00	0.000000
16.59	17.00	4385.25	0.25	0.01	0.18	0.00	0.000000
0.000000	46.49	24125.93	0.36	46.40	182.79	0.00	0.000000
15.55	18.00	4385.23	0.23	0.01	0.17	0.00	0.000000
0.000000	46.37	24069.80	0.34	46.29	197.65	0.00	0.000000
0.00	19.00	4385.22	0.22	0.00	0.00	0.00	0.000000
0.000000	46.28	24026.30	0.00	46.20	210.99	0.00	0.000000
0.00	20.00	4385.21	0.21	0.00	0.00	0.00	0.000000
0.000000	46.21	23992.48	0.00	46.14	222.72	0.00	0.000000
14.54	21.00	4385.21	0.21	-0.01	-0.16	0.00	0.000000
0.000000	46.25	24008.17	0.31	46.17	217.12	0.01	0.000000
16.60	22.00	4385.25	0.25	-0.03	-0.51	0.01	0.000000
0.000000	46.45	24106.03	0.36	46.36	187.79	0.02	0.000000
20.65	23.00	4385.31	0.31	-0.06	-1.15	0.02	0.000000
0.000000	46.84	24300.30	0.44	46.73	148.45	0.02	0.000000
26.67	24.00	4385.43	0.43	-0.07	-1.79	0.02	0.000000
0.000000	47.51	24627.92	0.56	47.36	110.31	0.02	0.000000
32.18	25.00	4385.53	0.53	-0.07	-2.27	0.02	0.000000
0.000000	48.12	24921.87	0.67	47.93	90.07	0.02	0.000000
37.54	26.00	4385.63	0.63	-0.08	-2.98	0.02	0.000000
0.000000	48.67	25190.99	0.77	48.44	77.36	0.02	0.000000
44.71	27.00	4385.75	0.75	-0.12	-5.27	0.02	0.000000
0.000000	49.38	25540.37	0.91	49.12	65.63	0.03	0.000000
53.78	28.00	4385.90	0.90	-0.16	-8.72	0.03	0.000000
0.000000	50.28	25978.41	1.07	49.96	55.41	0.03	0.000000
	29.00	4386.09	1.09	-0.20	-12.90	0.03	

HYCHAN.OUT						
64.92	0.00000	51.40	1.26	51.01	46.65	0.000000
	30.00	26527.24				
76.48	0.00000	4386.29	1.29	-0.18	-13.96	0.03
	31.00	52.57	1.45	52.11	40.29	0.000000
		27099.62				
87.53	0.00000	4386.48	1.48	-0.13	-11.34	0.02
	32.00	53.66	1.63	53.14	35.92	0.000000
		27630.72				
96.58	0.00000	4386.63	1.63	-0.09	-8.66	0.01
	33.00	54.52	1.77	53.94	33.18	0.000000
		28049.76				
101.98	0.00000	4386.71	1.71	-0.04	-4.46	0.01
	34.00	55.02	1.85	54.41	31.80	0.000000
		28294.15				
106.35	0.00000	4386.77	1.77	-0.05	-5.14	0.01
	35.00	55.39	1.92	54.76	30.85	0.000000
		28476.21				
110.64	0.00000	4386.85	1.85	-0.04	-4.40	0.01
	36.00	55.82	1.98	55.16	29.85	0.000000
		28684.52				
0.00	0.00000	4386.89	1.89	0.00	0.00	0.00
	37.00	56.06	0.00	55.39	29.33	0.000000
		28801.79				
115.48	0.00000	4386.92	1.92	-0.04	-4.09	0.00
	38.00	56.27	2.05	55.59	28.88	0.000000
		28904.52				
115.66	0.00000	4386.91	1.91	0.02	2.88	0.00
	39.00	56.17	2.06	55.49	29.09	0.000000
		28856.76				
112.18	0.00000	4386.87	1.87	0.04	4.55	0.01
	40.00	55.96	2.00	55.29	29.55	0.000007
		28752.17				
108.50	0.00083	4386.81	1.81	0.04	3.88	0.00
	41.00	55.57	1.95	54.93	30.43	0.000000
		28562.75				
105.60	0.00000	4386.77	1.77	0.01	1.34	0.00
	42.00	55.38	1.91	54.75	30.87	0.000000
		28472.05				
0.00	0.00000	4386.76	1.76	0.00	0.00	0.00
	43.00	55.29	0.00	54.66	31.11	0.000000
		28425.53				
0.00	0.00000	4386.75	1.75	0.00	0.00	0.00
	44.00	55.24	0.00	54.62	31.23	0.000000
		28401.29				
0.00	0.00000	4386.75	1.75	0.00	0.00	0.00
	45.00	55.23	0.00	54.61	31.26	0.000000
		28396.69				
106.87	0.00000	4386.78	1.78	-0.05	-5.07	0.01
	46.00	55.45	1.93	54.82	30.71	0.000006
		28504.38				
110.85	0.00077	4386.85	1.85	-0.04	-3.95	0.00
	47.00	55.83	1.99	55.17	29.83	0.000000
		28689.76				
115.25	0.00000	4386.91	1.91	-0.05	-5.44	0.01
	48.00	56.21	2.05	55.53	29.01	0.000000
		28873.77				
121.61	0.00000	4387.01	2.01	-0.07	-8.05	0.01
	49.00	56.79	2.14	56.07	27.85	0.000000
		29158.34				
129.70	0.00000	4387.14	2.14	-0.07	-9.56	0.01
	50.00	57.51	2.26	56.76	26.55	0.000000
		29513.20				
		4387.28	2.28	-0.07	-10.39	0.01

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		HYCHAN.OUT							
138.80	58.33	2.38	57.52	25.27	0.000000				
0.00000	29910.21								
51.00	4387.42	2.42	-0.07	-10.79	0.01				
148.49	59.17	2.51	58.31	24.09	0.000000				
0.00000	30322.92								
52.00	4387.57	2.57	-0.07	-11.56	0.01				
158.74	60.05	2.64	59.14	23.00	0.000000				
0.00000	30753.14								
53.00	4387.74	2.74	-0.08	-13.67	0.01				
170.39	61.06	2.79	60.08	21.91	0.000000				
0.00000	31243.67								
54.00	4387.91	2.91	-0.06	-11.23	0.01				
181.80	62.04	2.93	61.01	20.96	0.000000				
0.00000	31723.95								
55.00	4388.05	3.05	-0.07	-13.63	0.01				
192.75	62.88	3.07	61.80	20.24	0.000000				
0.00000	32133.96								
56.00	4388.24	3.24	-0.09	-18.87	0.01				
206.18	63.98	3.22	62.83	19.38	0.000000				
0.00000	32671.73								
57.00	4388.52	3.52	-0.13	-29.81	0.01				
226.30	65.60	3.45	64.35	18.29	0.000000				
0.00000	33461.12								
58.00	4388.89	3.89	-0.15	-38.12	0.01				
254.37	67.80	3.75	66.42	17.06	0.000000				
0.00000	34536.23								
59.00	4389.31	4.31	-0.14	-38.60	0.01				
285.92	70.25	4.07	68.72	15.93	0.000000				
0.00000	35735.76								
60.00	4389.68	4.68	-0.10	-32.24	0.01				
315.85	72.41	4.36	70.75	15.11	0.000000				
0.00000	36788.71								
61.00	4390.02	5.02	-0.10	-34.00	0.01				
343.67	74.41	4.62	72.63	14.46	0.000000				
0.00000	37766.05								
62.00	4390.29	5.29	-0.05	-17.43	0.00				
365.30	75.98	4.81	74.10	14.01	0.000007				
0.00212	38531.56								
63.00	4390.43	5.43	0.04	17.07	0.00				
379.82	76.77	4.95	74.85	13.79	0.000000				
0.00000	38921.10								
64.00	4390.55	5.55	0.07	26.06	0.01				
389.22	77.48	5.02	75.51	13.61	0.000000				
0.00000	39264.74								
65.00	4390.75	5.75	0.09	34.68	0.01				
406.82	78.69	5.17	76.65	13.32	0.000000				
0.00000	39856.93								
66.00	4390.97	5.97	0.11	48.84	0.01				
425.80	79.95	5.33	77.83	13.04	0.000000				
0.00000	40473.25								
67.00	4391.19	6.19	0.22	96.25	0.02				
445.27	81.23	5.48	79.03	12.77	0.000014				
0.00493	41095.91								
68.00	4391.41	6.41	0.35	162.99	0.02				
465.16	82.53	5.64	80.25	12.52	0.000018				
0.00616	41732.38								
69.00	4391.62	6.62	0.48	231.65	0.03				
484.59	83.78	5.78	81.43	12.29	0.000017				
0.00623	42343.11								
70.00	4391.86	6.86	0.60	303.37	0.04				
506.11	85.16	5.94	82.72	12.06	0.000021				
0.00761	43015.58								
71.00	4392.04	7.04	0.63	331.47	0.04				

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		HYCHAN.OUT					
523.39	86.24	6.07	83.74	11.89	0.000016		
0.00615	43545.73						
72.00	4392.29	7.29	0.66	359.82	0.04		
547.21	87.68	6.24	85.09	11.67	0.000021		
0.00821	44247.98						
73.00	4392.53	7.53	0.78	442.35	0.05		
570.57	89.10	6.40	86.42	11.47	0.000034		
0.01353	44940.13						
74.00	4392.74	7.74	0.89	524.60	0.06		
591.15	90.34	6.54	87.59	11.31	0.000039		
0.01575	45546.65						
75.00	4392.91	7.91	0.98	594.89	0.06		
607.90	91.32	6.66	88.51	11.19	0.000046		
0.01913	46025.25						
76.00	4393.19	8.18	1.26	801.55	0.08		
636.27	92.92	6.85	90.02	11.00	0.000071		
0.03045	46808.64						
77.00	4393.49	8.49	1.55	1030.49	0.09		
666.91	94.72	7.04	91.71	10.80	0.000083		
0.03647	47688.70						
78.00	4393.75	8.75	1.74	1203.73	0.10		
693.51	96.35	7.20	93.14	10.64	0.000099		
0.04460	48430.81						
79.00	4393.99	8.99	1.91	1373.60	0.11		
718.29	98.21	7.31	94.44	10.51	0.000104		
0.04760	49108.09						
80.00	4394.23	9.23	2.12	1575.63	0.12		
744.20	100.13	7.43	95.79	10.37	0.000122		
0.05645	49808.91						
81.00	4394.53	9.53	2.39	1855.42	0.14		
775.12	102.47	7.56	97.42	10.22	0.000162		
0.07624	50660.75						
82.00	4394.91	9.91	2.75	2238.32	0.15		
814.30	105.43	7.72	99.50	10.04	0.000196		
0.09427	51739.29						
83.00	4395.23	10.23	3.00	2545.35	0.17		
847.25	107.93	7.85	101.24	9.90	0.000219		
0.10742	52647.17						
84.00	4395.47	10.47	3.13	2727.55	0.17		
872.41	109.82	7.94	102.57	9.80	0.000218		
0.10784	53338.44						
85.00	4395.76	10.76	3.09	2790.53	0.17		
902.88	112.09	8.05	104.16	9.68	0.000211		
0.10608	54163.82						
86.00	4396.06	11.06	3.03	2835.74	0.16		
934.92	114.49	8.17	105.84	9.57	0.000196		
0.09981	55036.74						
87.00	4396.38	11.38	2.90	2802.13	0.15		
967.65	116.95	8.27	107.56	9.46	0.000173		
0.08919	55933.25						
88.00	4396.67	11.67	2.74	2732.46	0.14		
998.54	119.30	8.37	109.21	9.35	0.000152		
0.07956	56788.82						
89.00	4396.94	11.94	2.59	2660.28	0.13		
1026.32	121.39	8.45	110.68	9.27	0.000140		
0.07385	57551.21						
90.00	4397.14	12.14	2.52	2635.33	0.13		
1046.91	122.92	8.52	111.75	9.21	0.000129		
0.06832	58108.34						
91.00	4397.23	12.23	2.41	2551.45	0.12		
1056.92	123.66	8.55	112.26	9.18	0.000116		
0.06193	58375.88						
92.00	4397.26	12.26	2.37	2507.85	0.12		

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		HYCHAN.OUT					
1060.31	123.87	8.56	112.41	9.17	0.000111		
0.05927	58452.88						
93.00	4397.21	12.21	2.30	2430.33	0.12		
1056.29	123.53	8.55	112.17	9.18	0.000103		
0.05505	58327.43						
94.00	4397.11	12.11	2.27	2372.69	0.11		
1046.11	122.72	8.52	111.60	9.22	0.000099		
0.05250	58032.02						
95.00	4396.91	11.91	2.21	2264.18	0.11		
1025.73	121.17	8.47	110.52	9.28	0.000095		
0.05043	57469.54						
96.00	4396.69	11.69	2.13	2131.44	0.11		
1002.04	119.40	8.39	109.28	9.35	0.000092		
0.04821	56824.93						
97.00	4396.46	11.46	2.12	2077.81	0.11		
978.38	117.60	8.32	108.02	9.43	0.000092		
0.04771	56168.98						
98.00	4396.23	11.23	2.12	2026.46	0.11		
954.52	115.80	8.24	106.75	9.51	0.000094		
0.04859	55512.38						
99.00	4395.98	10.98	2.09	1941.14	0.11		
928.34	113.84	8.15	105.39	9.60	0.000095		
0.04830	54800.84						
100.00	4395.69	10.69	2.05	1844.51	0.11		
898.36	111.61	8.05	103.82	9.71	0.000101		
0.05053	53986.96						
101.00	4395.24	10.24	2.02	1715.20	0.11		
850.45	108.00	7.87	101.30	9.90	0.000095		
0.04645	52673.77						
102.00	4394.83	9.83	1.81	1463.76	0.10		
807.92	104.83	7.71	99.07	10.08	0.000072		
0.03483	51518.21						
103.00	4394.61	9.61	1.62	1273.48	0.09		
784.50	103.10	7.61	97.86	10.18	0.000067		
0.03170	50888.82						
104.00	4394.46	9.46	1.50	1149.83	0.09		
768.69	101.91	7.54	97.03	10.26	0.000063		
0.02956	50457.25						
105.00	4394.35	9.35	1.39	1051.96	0.08		
757.28	101.06	7.49	96.44	10.31	0.000054		
0.02547	50146.21						
106.00	4394.25	9.25	1.29	964.62	0.07		
746.51	100.25	7.45	95.87	10.37	0.000042		
0.01954	49850.64						
107.00	4394.14	9.14	1.19	877.71	0.07		
735.59	99.42	7.40	95.29	10.42	0.000034		
0.01563	49550.20						
108.00	4394.01	9.01	1.10	791.74	0.06		
722.28	98.41	7.34	94.58	10.49	0.000026		
0.01171	49181.55						
109.00	4393.84	8.84	0.95	667.44	0.06		
704.19	97.04	7.26	93.62	10.59	0.000027		
0.01210	48683.94						
110.00	4393.68	8.68	0.86	593.68	0.05		
687.11	95.81	7.17	92.73	10.69	0.000020		
0.00888	48219.41						
111.00	4393.51	8.51	0.80	532.24	0.05		
669.29	94.81	7.06	91.79	10.79	0.000022		
0.00981	47730.43						
112.00	4393.34	8.34	0.72	471.10	0.04		
652.04	93.83	6.95	90.87	10.90	0.000015		
0.00640	47252.41						
113.00	4393.18	8.18	0.68	429.89	0.04		

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		HYCHAN.OUT					
635.62	92.89	6.84	89.99	11.00	0.000012		
0.00499	46794.18						
114.00	4393.02	8.02	0.63	389.86	0.04		
619.26	91.94	6.74	89.10	11.11	0.000009		
0.00374	46331.59						
115.00	4392.85	7.85	0.63	377.78	0.04		
601.79	90.95	6.62	88.17	11.23	0.000022		
0.00890	45846.60						
116.00	4392.64	7.64	0.68	395.08	0.04		
581.69	89.74	6.48	87.02	11.39	0.000023		
0.00936	45252.69						
117.00	4392.43	7.43	0.51	287.45	0.03		
561.60	88.52	6.34	85.88	11.55	0.000000		
0.00000	44660.11						
118.00	4392.31	7.31	0.43	237.50	0.03		
549.85	87.83	6.26	85.23	11.65	0.000009		
0.00342	44320.70						
119.00	4392.21	7.21	0.37	202.33	0.02		
540.08	87.23	6.19	84.67	11.74	0.000000		
0.00000	44029.26						
120.00	4392.12	7.12	0.31	166.40	0.02		
530.82	86.66	6.13	84.14	11.82	0.000019		
0.00735	43751.59						
121.00	4392.02	7.02	0.26	133.17	0.02		
521.82	86.11	6.06	83.61	11.91	0.000000		
0.00000	43479.34						
122.00	4391.94	6.94	0.21	110.44	0.01		
514.15	85.63	6.00	83.17	11.98	0.000009		
0.00345	43248.80						
123.00	4391.87	6.87	0.19	98.61	0.01		
507.56	85.23	5.96	82.79	12.05	0.000013		
0.00498	43050.98						
124.00	4391.80	6.80	0.18	90.17	0.01		
501.06	84.82	5.91	82.41	12.12	0.000000		
0.00000	42852.02						
125.00	4391.73	6.73	0.16	81.17	0.01		
494.39	84.40	5.86	82.02	12.19	0.000017		
0.00610	42648.05						
126.00	4391.66	6.66	0.15	72.61	0.01		
487.63	83.98	5.81	81.62	12.26	0.000000		
0.00000	42440.64						
127.00	4391.58	6.58	0.13	64.17	0.01		
480.13	83.50	5.75	81.16	12.34	0.000000		
0.00000	42205.00						
128.00	4391.50	6.50	0.12	55.31	0.01		
473.23	83.06	5.70	80.76	12.42	0.000000		
0.00000	41992.81						
129.00	4391.43	6.43	0.11	53.39	0.01		
466.40	82.63	5.64	80.35	12.50	0.000000		
0.00000	41781.51						
130.00	4391.35	6.35	0.12	53.31	0.01		
459.64	82.20	5.59	79.94	12.58	0.000000		
0.00000	41570.35						
131.00	4391.28	6.28	0.11	51.95	0.01		
453.19	81.78	5.54	79.55	12.66	0.000000		
0.00000	41367.05						
132.00	4391.21	6.21	0.12	51.88	0.01		
446.80	81.37	5.49	79.17	12.74	0.000000		
0.00000	41166.71						
133.00	4391.14	6.14	0.12	50.88	0.01		
440.57	80.96	5.44	78.78	12.83	0.000011		
0.00361	40965.49						
134.00	4391.08	6.08	0.11	49.56	0.01		

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		HYCHAN.OUT							
435.20	80.61	5.40	78.45	12.90	0.000021				
0.00713	40795.02								
135.00	4391.03	6.03	0.11	49.00	0.01				
430.86	80.32	5.36	78.18	12.96	0.000019				
0.00623	40654.71								
136.00	4390.98	5.98	0.11	48.80	0.01				
426.53	80.04	5.33	77.91	13.02	0.000007				
0.00242	40515.34								
137.00	4390.94	5.94	0.11	47.81	0.01				
422.31	79.76	5.29	77.65	13.08	0.000010				
0.00341	40379.34								
138.00	4390.89	5.89	0.11	47.58	0.01				
418.51	79.51	5.26	77.42	13.14	0.000000				
0.00000	40256.32								
139.00	4390.85	5.85	0.11	47.47	0.01				
414.84	79.26	5.23	77.19	13.19	0.000021				
0.00671	40137.67								
140.00	4390.81	5.81	0.11	46.65	0.01				
411.31	79.03	5.20	76.97	13.24	0.000000				
0.00000	40022.53								
141.00	4390.77	5.77	0.11	46.86	0.01				
407.74	78.78	5.18	76.74	13.30	0.000000				
0.00000	39903.21								
142.00	4390.73	5.73	0.12	47.02	0.01				
404.22	78.55	5.15	76.52	13.35	0.000000				
0.00000	39788.51								
143.00	4390.69	5.69	0.12	46.48	0.01				
400.59	78.31	5.12	76.29	13.41	0.000000				
0.00000	39669.44								
144.00	4390.65	5.65	0.12	46.44	0.01				
396.92	78.06	5.08	76.06	13.47	0.000000				
0.00000	39548.94								
145.00	4390.61	5.61	0.12	45.46	0.01				
393.57	77.83	5.06	75.84	13.52	0.000000				
0.00000	39437.75								
146.00	4390.57	5.57	0.12	45.72	0.01				
390.30	77.61	5.03	75.63	13.58	0.000000				
0.00000	39329.78								
147.00	4390.53	5.53	0.12	45.97	0.01				
386.77	77.37	5.00	75.41	13.64	0.000000				
0.00000	39212.74								
148.00	4390.48	5.48	0.12	45.66	0.01				
382.98	77.11	4.97	75.17	13.70	0.000000				
0.00000	39085.87								
149.00	4390.44	5.44	0.12	45.37	0.01				
379.51	76.87	4.94	74.94	13.77	0.000000				
0.00000	38969.12								
150.00	4390.41	5.41	0.12	45.29	0.01				
376.25	76.65	4.91	74.73	13.82	0.000000				
0.00000	38861.12								
151.00	4390.37	5.37	0.12	44.72	0.01				
373.11	76.44	4.88	74.53	13.88	0.000011				
0.00345	38755.59								
152.00	4390.33	5.33	0.12	44.92	0.01				
369.97	76.22	4.85	74.33	13.94	0.000000				
0.00000	38649.91								
153.00	4390.30	5.30	0.12	45.08	0.01				
366.84	76.00	4.83	74.12	14.00	0.000000				
0.00000	38544.34								
154.00	4390.26	5.26	0.12	44.15	0.01				
363.68	75.78	4.80	73.92	14.06	0.000000				
0.00000	38437.14								
155.00	4390.22	5.22	0.12	44.88	0.01				

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HYCHAN.OUT									
360.37	75.55	4.77	73.70	14.12	0.000000				
0.00000	38323.85								
156.00	4390.18	5.18	0.12	44.40	0.01				
357.50	75.35	4.74	73.51	14.18	0.000000				
0.00000	38227.69								
157.00	4390.15	5.14	0.13	44.74	0.01				
354.20	75.12	4.71	73.30	14.25	0.000000				
0.00000	38114.25								
158.00	4390.12	5.12	0.12	41.02	0.01				
352.41	75.00	4.70	73.18	14.28	0.000009				
0.00274	38053.51								
159.00	4390.12	5.12	0.12	41.49	0.01				
352.00	74.97	4.70	73.15	14.29	0.000007				
0.00192	38039.82								
160.00	4390.11	5.11	0.12	41.24	0.01				
351.35	74.92	4.69	73.11	14.30	0.000009				
0.00259	38016.88								
161.00	4390.10	5.10	0.12	41.64	0.01				
350.65	74.87	4.68	73.06	14.32	0.000000				
0.00000	37993.08								
162.00	4390.09	5.09	0.12	40.71	0.01				
349.79	74.81	4.68	73.01	14.34	0.000000				
0.00000	37963.82								
163.00	4390.09	5.09	0.12	41.70	0.01				
349.23	74.78	4.67	72.97	14.35	0.000000				
0.00000	37944.75								
164.00	4390.08	5.08	0.12	41.11	0.01				
348.37	74.71	4.66	72.91	14.37	0.000000				
0.00000	37914.87								
165.00	4390.07	5.07	0.12	40.65	0.01				
347.77	74.67	4.66	72.88	14.38	0.000013				
0.00390	37895.25								
166.00	4390.06	5.06	0.12	40.77	0.01				
347.21	74.63	4.65	72.84	14.39	0.000011				
0.00325	37875.18								
167.00	4390.04	5.04	0.12	42.47	0.01				
345.73	74.53	4.64	72.74	14.42	0.000000				
0.00000	37824.05								
168.00	4390.02	5.02	0.12	42.31	0.01				
343.73	74.39	4.62	72.61	14.47	0.000000				
0.00000	37755.18								
169.00	4390.00	5.00	0.12	41.38	0.01				
342.36	74.29	4.61	72.52	14.49	0.000000				
0.00000	37708.54								
170.00	4389.99	4.99	0.12	41.37	0.01				
341.11	74.20	4.60	72.43	14.52	0.000000				
0.00000	37664.89								
171.00	4389.97	4.97	0.12	41.54	0.01				
339.86	74.11	4.59	72.35	14.55	0.000000				
0.00000	37621.99								
172.00	4389.96	4.96	0.12	40.62	0.01				
338.97	74.05	4.58	72.29	14.57	0.000000				
0.00000	37591.59								
173.00	4389.95	4.95	0.12	41.11	0.01				
338.02	73.98	4.57	72.23	14.59	0.000000				
0.00000	37558.54								
174.00	4389.94	4.94	0.12	40.68	0.01				
336.89	73.90	4.56	72.15	14.62	0.000006				
0.00184	37518.72								
175.00	4389.92	4.92	0.13	42.35	0.01				
335.35	73.80	4.54	72.05	14.65	0.000000				
0.00000	37465.93								
176.00	4389.89	4.89	0.13	41.78	0.01				

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		HYCHAN.OUT					
333.25	73.64	4.53	71.91	14.70	0.000000		
0.00000	37392.44						
177.00	4389.87	4.87	0.13	41.90	0.01		
331.43	73.52	4.51	71.79	14.74	0.000000		
0.00000	37329.28						
178.00	4389.85	4.85	0.13	41.37	0.01		
329.87	73.40	4.49	71.68	14.78	0.000000		
0.00000	37275.11						
179.00	4389.84	4.84	0.12	40.42	0.01		
328.64	73.32	4.48	71.60	14.80	0.000000		
0.00000	37232.07						
180.00	4389.82	4.82	0.13	41.23	0.01		
327.46	73.23	4.47	71.52	14.83	0.000000		
0.00000	37190.32						
181.00	4389.81	4.81	0.12	39.58	0.01		
326.59	73.17	4.46	71.46	14.85	0.000000		
0.00000	37160.37						
182.00	4389.82	4.82	0.11	37.38	0.01		
327.36	73.22	4.47	71.51	14.83	0.000000		
0.00000	37187.06						
183.00	4389.85	4.85	0.11	37.14	0.01		
329.41	73.37	4.49	71.65	14.79	0.000000		
0.00000	37259.01						
184.00	4389.87	4.87	0.11	36.28	0.01		
331.70	73.53	4.51	71.80	14.73	0.000000		
0.00000	37338.25						
185.00	4389.90	4.90	0.11	37.01	0.01		
334.03	73.70	4.53	71.96	14.68	0.000000		
0.00000	37419.28						
186.00	4389.92	4.92	0.11	38.10	0.01		
335.62	73.81	4.55	72.07	14.64	0.000000		
0.00000	37474.29						
187.00	4389.93	4.93	0.11	38.08	0.01		
336.54	73.88	4.56	72.13	14.62	0.000000		
0.00000	37507.50						
188.00	4389.94	4.94	0.11	38.31	0.01		
337.16	73.92	4.56	72.17	14.61	0.000000		
0.00000	37528.55						
189.00	4389.94	4.94	0.12	39.18	0.01		
337.48	73.95	4.56	72.19	14.60	0.000000		
0.00000	37539.91						
190.00	4389.95	4.95	0.12	39.16	0.01		
337.69	73.96	4.57	72.20	14.60	0.000000		
0.00000	37546.59						
191.00	4389.94	4.94	0.12	39.22	0.01		
337.57	73.95	4.56	72.20	14.60	0.000000		
0.00000	37542.38						
192.00	4389.94	4.94	0.12	39.75	0.01		
337.41	73.94	4.56	72.19	14.60	0.000015		
0.00428	37537.16						
193.00	4389.93	4.93	0.12	41.18	0.01		
336.28	73.86	4.55	72.11	14.63	0.000000		
0.00000	37497.87						
194.00	4389.91	4.91	0.12	41.45	0.01		
334.40	73.73	4.54	71.99	14.67	0.000000		
0.00000	37432.28						
195.00	4389.89	4.89	0.12	40.58	0.01		
333.05	73.63	4.52	71.90	14.70	0.000000		
0.00000	37385.80						
196.00	4389.88	4.88	0.12	40.34	0.01		
331.90	73.55	4.51	71.82	14.73	0.000000		
0.00000	37345.54						
197.00	4389.87	4.87	0.12	39.96	0.01		

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		HYCHAN.OUT					
331.20		73.50	4.51	71.77	14.74	0.000000	
	0.00000	37321.37					
198.00		4389.86	4.86	0.12	39.64	0.01	
330.46		73.45	4.50	71.72	14.76	0.000000	
	0.00000	37295.34					
199.00		4389.85	4.85	0.12	39.68	0.01	
330.04		73.42	4.50	71.69	14.77	0.000000	
	0.00000	37280.81					

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3355

MAXIMUM DISCHARGE (CFS) = 2654.00 AT TIME = 87.87  
 MAXIMUM STAGE = 4397.23 AT TIME = 91.62

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE
SHEAR	STRESS	SURFACE	AREA					
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)		(FT)	(FT^2)		(FT)			
0.00	0.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	1.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	2.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	3.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	4.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	5.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	6.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	7.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	8.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	9.00	4384.90	0.00	0.00	0.00	0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	10.00	4384.90	0.00	0.00	-0.00	-0.00	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	11.00	4384.92	0.02	0.00	-0.11	-0.42	0.00	0.000000
0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	12.00	4385.01	0.11	0.12	-0.18	-1.33	0.10	0.000000
7.20		60.77	0.12	0.12	60.73	541.04	0.10	0.000000
	0.00000	31579.39						
	13.00	4385.20	0.30	0.21	-0.18	-2.44	0.06	0.000000
13.19		62.05	0.21	0.21	61.96	205.62	0.06	0.000000



HYCHAN.OUT							
	0.00000	32218.50					
15.92	14.00	4385.29	0.39	-0.10	-1.65	0.03	
		62.63	0.25		62.51	161.91	0.000000
	0.00000	32504.91					
16.94	15.00	4385.30	0.40	-0.01	-0.23	0.00	
		62.73	0.27		62.60	156.46	0.000000
	0.00000	32552.32					
14.50	16.00	4385.27	0.37	0.02	0.31	0.01	
		62.55	0.23		62.43	167.10	0.000000
	0.00000	32462.80					
13.66	17.00	4385.25	0.35	0.03	0.37	0.01	
		62.41	0.22		62.30	176.42	0.000000
	0.00000	32393.47					
12.86	18.00	4385.23	0.33	0.03	0.33	0.01	
		62.27	0.21		62.17	186.43	0.000000
	0.00000	32327.11					
12.21	19.00	4385.22	0.32	0.02	0.27	0.01	
		62.17	0.20		62.07	194.97	0.000000
	0.00000	32276.03					
11.72	20.00	4385.21	0.31	0.01	0.15	0.00	
		62.09	0.19		61.99	202.06	0.000000
	0.00000	32237.04					
12.72	21.00	4385.21	0.31	-0.03	-0.36	0.01	
		62.14	0.20		62.04	197.60	0.000000
	0.00000	32261.25					
14.54	22.00	4385.25	0.35	-0.07	-1.02	0.02	
		62.41	0.23		62.30	176.18	0.000000
	0.00000	32395.20					
17.98	23.00	4385.33	0.43	-0.11	-2.06	0.03	
		62.94	0.29		62.80	145.82	0.000000
	0.00000	32655.69					
22.64	24.00	4385.44	0.54	-0.12	-2.78	0.03	
		63.69	0.36		63.52	117.31	0.000000
	0.00000	33030.21					
27.03	25.00	4385.54	0.64	-0.11	-3.05	0.02	
		64.34	0.42		64.14	100.68	0.000000
	0.00000	33353.22					
31.56	26.00	4385.63	0.73	-0.13	-4.07	0.03	
		64.98	0.49		64.75	88.54	0.000000
	0.00000	33671.98					
37.74	27.00	4385.76	0.86	-0.17	-6.56	0.03	
		65.84	0.57		65.57	76.47	0.000000
	0.00000	34098.41					
45.66	28.00	4385.92	1.02	-0.23	-10.44	0.04	
		66.92	0.68		66.60	65.61	0.000000
	0.00000	34630.98					
55.41	29.00	4386.11	1.21	-0.27	-14.90	0.04	
		68.24	0.81		67.86	56.13	0.000000
	0.00000	35285.97					
65.41	30.00	4386.30	1.40	-0.24	-15.79	0.04	
		69.57	0.94		69.12	49.24	0.000000
	0.00000	35944.77					
74.99	31.00	4386.48	1.58	-0.17	-13.10	0.02	
		70.79	1.06		70.29	44.39	0.000000
	0.00000	36552.70					
82.97	32.00	4386.63	1.73	-0.12	-9.81	0.02	
		71.78	1.16		71.23	41.23	0.000000
	0.00000	37039.61					
87.78	33.00	4386.71	1.81	-0.06	-5.09	0.01	
		72.35	1.21		71.78	39.62	0.000000
	0.00000	37323.71					
91.71	34.00	4386.78	1.88	-0.06	-5.92	0.01	
		72.78	1.26		72.19	38.49	0.000000

		HYCHAN.OUT					
	0.00000	37539.16					
95.58	35.00	4386.85	1.95	-0.05	-5.03	0.01	
		73.28	1.30		72.66	37.30	0.000000
	0.00000	37784.70					
0.00	36.00	4386.89	1.99	0.00	0.00	0.00	
		73.55	0.00		72.93	36.67	0.000000
	0.00000	37921.01					
99.79	37.00	4386.93	2.03	-0.04	-4.43	0.01	
		73.80	1.35		73.16	36.13	0.000000
	0.00000	38045.46					
99.67	38.00	4386.91	2.01	0.03	3.09	0.00	
		73.69	1.35		73.05	36.38	0.000000
	0.00000	37987.99					
96.13	39.00	4386.87	1.97	0.06	5.39	0.01	
		73.44	1.31		72.81	36.93	0.000000
	0.00000	37863.59					
93.09	40.00	4386.81	1.91	0.05	4.26	0.01	
		72.99	1.28		72.39	37.99	0.000000
	0.00000	37640.61					
90.50	41.00	4386.77	1.87	0.02	1.47	0.00	
		72.77	1.24		72.18	38.52	0.000000
	0.00000	37532.88					
0.00	42.00	4386.76	1.86	0.00	0.00	0.00	
		72.66	0.00		72.07	38.81	0.000000
	0.00000	37477.18					
0.00	43.00	4386.75	1.85	0.00	0.00	0.00	
		72.60	0.00		72.02	38.94	0.000000
	0.00000	37450.73					
0.00	44.00	4386.75	1.85	0.00	0.00	0.00	
		72.59	0.00		72.01	38.98	0.000000
	0.00000	37443.39					
91.68	45.00	4386.78	1.88	-0.06	-5.66	0.01	
		72.84	1.26		72.25	38.34	0.000000
	0.00000	37569.01					
95.18	46.00	4386.85	1.95	-0.05	-4.60	0.01	
		73.28	1.30		72.67	37.28	0.000000
	0.00000	37787.80					
99.48	47.00	4386.91	2.01	-0.06	-6.35	0.01	
		73.73	1.35		73.09	36.29	0.000000
	0.00000	38007.06					
105.55	48.00	4387.01	2.11	-0.09	-9.26	0.01	
		74.41	1.42		73.74	34.88	0.000000
	0.00000	38346.44					
112.91	49.00	4387.14	2.24	-0.10	-10.98	0.01	
		75.26	1.50		74.55	33.30	0.000000
	0.00000	38766.08					
121.21	50.00	4387.28	2.38	-0.10	-11.94	0.01	
		76.20	1.59		75.45	31.74	0.000000
	0.00000	39235.04					
130.09	51.00	4387.42	2.52	-0.10	-12.43	0.01	
		77.19	1.69		76.39	30.30	0.000000
	0.00000	39722.34					
139.51	52.00	4387.57	2.67	-0.10	-13.30	0.01	
		78.21	1.78		77.37	28.96	0.000000
	0.00000	40230.60					
150.24	53.00	4387.74	2.84	-0.10	-15.73	0.01	
		79.38	1.89		78.48	27.60	0.000000
	0.00000	40810.57					
160.78	54.00	4387.91	3.01	-0.08	-12.92	0.01	
		80.52	2.00		79.57	26.43	0.000000
	0.00000	41376.29					
170.61	55.00	4388.05	3.15	-0.09	-15.51	0.01	
		81.50	2.09		80.50	25.52	0.000000

		HYCHAN.OUT						
	0.00000	41861.37						
183.40	56.00	4388.24	3.34	-0.12	-21.49	0.01		
	0.00000	82.78	2.22		81.73	24.45	0.000000	
	57.00	42498.45						
202.10	4388.52	3.62	-0.17	-33.79	0.02			
	84.67	2.39		83.53	23.08	0.000000		
	0.00000	43433.45						
228.21	58.00	4388.90	4.00	-0.19	-43.25	0.02		
	87.23	2.62		85.97	21.52	0.000000		
	0.00000	44704.52						
257.59	59.00	4389.31	4.41	-0.17	-43.77	0.01		
	90.09	2.86		88.69	20.09	0.000000		
	0.00000	46120.48						
285.36	60.00	4389.68	4.78	-0.13	-36.60	0.01		
	92.59	3.08		91.08	19.05	0.000000		
	0.00000	47363.74						
310.93	61.00	4390.02	5.12	-0.12	-38.69	0.01		
	94.92	3.28		93.30	18.21	0.000000		
	0.00000	48516.74						
330.82	62.00	4390.29	5.39	-0.06	-19.69	0.00		
	96.74	3.42		95.04	17.63	0.000000		
	0.00000	49419.79						
344.60	63.00	4390.43	5.53	0.05	15.56	0.00		
	97.67	3.53		95.93	17.36	0.000000		
	0.00000	49881.61						
353.14	64.00	4390.55	5.65	0.07	23.78	0.00		
	98.49	3.59		96.71	17.12	0.000000		
	0.00000	50288.21						
369.51	65.00	4390.75	5.85	0.09	31.45	0.01		
	99.90	3.70		98.05	16.75	0.000000		
	0.00000	50986.80						
387.02	66.00	4390.97	6.07	0.12	45.70	0.01		
	101.37	3.82		99.45	16.39	0.000000		
	0.00000	51714.12						
404.94	67.00	4391.19	6.29	0.23	93.19	0.02		
	102.84	3.94		100.85	16.05	0.000000		
	0.00000	52443.95						
423.03	68.00	4391.40	6.50	0.38	160.12	0.03		
	104.33	4.05		102.28	15.72	0.000000		
	0.00000	53184.87						
440.76	69.00	4391.62	6.72	0.52	227.86	0.04		
	105.78	4.17		103.66	15.43	0.000018		
	0.00474	53903.10						
460.36	70.00	4391.85	6.95	0.65	300.36	0.04		
	107.36	4.29		105.17	15.13	0.000024		
	0.00650	54687.55						
476.32	71.00	4392.03	7.13	0.69	328.30	0.05		
	108.62	4.39		106.37	14.91	0.000019		
	0.00507	55313.24						
498.30	72.00	4392.28	7.38	0.71	355.95	0.05		
	110.29	4.52		107.96	14.63	0.000009		
	0.00267	56141.58						
519.70	73.00	4392.52	7.62	0.84	438.93	0.05		
	111.92	4.64		109.52	14.38	0.000017		
	0.00491	56950.16						
538.50	74.00	4392.73	7.83	0.97	521.73	0.06		
	113.35	4.75		110.87	14.17	0.000021		
	0.00611	57654.66						
553.92	75.00	4392.89	7.99	1.07	592.04	0.07		
	114.49	4.84		111.97	14.00	0.000023		
	0.00699	58222.29						
579.40	76.00	4393.16	8.26	1.38	799.04	0.08		
	116.30	4.98		113.69	13.76	0.000044		

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HYCHAN.OUT									
0.01357	59118.35								
77.00	4393.46	8.56	1.71	1037.71	0.10				
606.83	118.33	5.13		115.63	13.51	0.000054			
0.01731	60126.59								
78.00	4393.71	8.81	1.91	1205.54	0.11				
630.77	120.27	5.24		117.27	13.31	0.000062			
0.02042	60979.12								
79.00	4393.95	9.05	2.10	1372.03	0.12				
653.45	122.36	5.34		118.81	13.13	0.000056			
0.01865	61779.36								
80.00	4394.20	9.30	2.31	1566.78	0.13				
677.07	124.55	5.44		120.42	12.95	0.000065			
0.02208	62620.16								
81.00	4394.49	9.59	2.57	1809.20	0.15				
704.05	127.12	5.54		122.32	12.76	0.000090			
0.03124	63607.20								
82.00	4394.86	9.96	2.87	2118.64	0.16				
737.80	130.41	5.66		124.75	12.52	0.000121			
0.04262	64867.54								
83.00	4395.18	10.28	3.07	2352.65	0.17				
766.29	133.21	5.75		126.81	12.34	0.000140			
0.05031	65941.08								
84.00	4395.42	10.52	3.15	2480.32	0.17				
788.51	135.38	5.82		128.41	12.20	0.000140			
0.05076	66770.66								
85.00	4395.72	10.82	3.07	2509.75	0.16				
816.41	138.02	5.92		130.35	12.04	0.000134			
0.04949	67782.82								
86.00	4396.03	11.13	3.03	2563.58	0.16				
845.85	140.75	6.01		132.37	11.89	0.000117			
0.04375	68833.02								
87.00	4396.35	11.45	2.98	2610.53	0.16				
876.23	143.50	6.11		134.39	11.74	0.000090			
0.03446	69885.23								
88.00	4396.64	11.74	2.92	2643.71	0.15				
904.89	146.06	6.20		136.28	11.61	0.000076			
0.02955	70865.82								
89.00	4396.90	12.00	2.82	2625.45	0.14				
930.15	148.37	6.27		137.99	11.50	0.000071			
0.02785	71754.05								
90.00	4397.09	12.19	2.76	2622.60	0.14				
948.89	150.09	6.32		139.26	11.42	0.000063			
0.02497	72414.06								
91.00	4397.19	12.29	2.66	2549.06	0.13				
958.24	150.94	6.35		139.88	11.38	0.000057			
0.02256	72739.01								
92.00	4397.22	12.32	2.61	2507.03	0.13				
961.28	151.22	6.36		140.09	11.37	0.000060			
0.02363	72844.24								
93.00	4397.18	12.28	2.54	2431.23	0.13				
957.72	150.87	6.35		139.83	11.39	0.000058			
0.02292	72712.83								
94.00	4397.08	12.18	2.50	2374.63	0.13				
948.45	150.00	6.32		139.19	11.42	0.000061			
0.02396	72379.81								
95.00	4396.89	11.99	2.44	2267.05	0.12				
930.23	148.29	6.27		137.93	11.50	0.000060			
0.02360	71722.40								
96.00	4396.66	11.76	2.35	2134.21	0.12				
909.11	146.31	6.21		136.47	11.60	0.000054			
0.02112	70962.74								
97.00	4396.44	11.54	2.33	2068.96	0.12				
887.71	144.32	6.15		135.00	11.70	0.000060			

		HYCHAN.OUT					
	0.02296	70201.41					
866.23	98.00	4396.21	11.31	2.30	1996.06	0.12	
		142.33	6.09		133.54	11.80	0.000056
	0.02129	69438.43					
842.78	99.00	4395.97	11.07	2.23	1883.29	0.12	
		140.17	6.01		131.94	11.92	0.000051
	0.01913	68608.95					
816.02	100.00	4395.69	10.79	2.14	1744.00	0.11	
		137.71	5.93		130.13	12.06	0.000059
	0.02194	67667.56					
772.80	101.00	4395.23	10.33	2.06	1595.07	0.11	
		133.68	5.78		127.16	12.31	0.000048
	0.01748	66122.58					
735.10	102.00	4394.82	9.92	1.90	1396.58	0.11	
		130.07	5.65		124.49	12.55	0.000037
	0.01303	64736.44					
714.42	103.00	4394.60	9.70	1.73	1237.46	0.10	
		128.10	5.58		123.04	12.69	0.000030
	0.01058	63982.86					
700.41	104.00	4394.45	9.55	1.61	1128.51	0.09	
		126.77	5.52		122.06	12.78	0.000028
	0.00981	63472.38					
690.26	105.00	4394.34	9.44	1.50	1037.57	0.09	
		125.81	5.49		121.36	12.86	0.000034
	0.01179	63104.68					
680.67	106.00	4394.24	9.34	1.41	958.20	0.08	
		124.90	5.45		120.68	12.93	0.000022
	0.00750	62755.14					
670.99	107.00	4394.13	9.23	1.31	876.71	0.08	
		123.99	5.41		120.01	13.00	0.000020
	0.00670	62404.16					
658.92	108.00	4394.00	9.10	1.21	795.46	0.07	
		122.85	5.36		119.17	13.09	0.000015
	0.00517	61970.16					
642.41	109.00	4393.83	8.93	1.06	680.92	0.06	
		121.33	5.29		118.05	13.22	0.000010
	0.00342	61384.88					
626.85	110.00	4393.67	8.77	0.97	609.47	0.06	
		119.89	5.23		116.99	13.34	0.000012
	0.00397	60835.25					
610.59	111.00	4393.50	8.60	0.88	537.35	0.05	
		118.61	5.15		115.90	13.48	0.000015
	0.00493	60265.48					
594.92	112.00	4393.33	8.43	0.80	475.56	0.05	
		117.48	5.06		114.82	13.61	0.000014
	0.00430	59704.45					
579.82	113.00	4393.17	8.27	0.75	434.40	0.05	
		116.38	4.98		113.77	13.75	0.000000
	0.00000	59162.08					
564.86	114.00	4393.01	8.11	0.70	394.11	0.04	
		115.29	4.90		112.73	13.90	0.000000
	0.00000	58618.02					
548.84	115.00	4392.84	7.94	0.70	382.50	0.04	
		114.13	4.81		111.62	14.06	0.000020
	0.00615	58042.39					
530.33	116.00	4392.63	7.73	0.75	399.97	0.05	
		112.71	4.71		110.26	14.26	0.000016
	0.00457	57337.50					
512.28	117.00	4392.43	7.53	0.57	290.95	0.04	
		111.31	4.60		108.94	14.47	0.000014
	0.00410	56646.24					
501.39	118.00	4392.31	7.41	0.48	240.51	0.03	
		110.50	4.54		108.17	14.60	0.000011

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		HYCHAN.OUT					
	0.00313	56245.99					
119.00	4392.21	7.31	0.42	204.81	0.03		
492.65	109.82	4.49	107.51	14.71	0.000010		
	0.00276	55905.69					
120.00	4392.11	7.21	0.35	169.53	0.02		
484.16	109.16	4.44	106.88	14.82	0.000000		
	0.00000	55578.66					
121.00	4392.02	7.12	0.28	135.30	0.02		
476.10	108.52	4.39	106.27	14.93	0.000000		
	0.00000	55262.72					
122.00	4391.94	7.04	0.24	112.80	0.02		
469.09	107.98	4.34	105.76	15.02	0.000000		
	0.00000	54994.56					
123.00	4391.87	6.97	0.22	100.57	0.01		
462.98	107.51	4.31	105.31	15.11	0.000000		
	0.00000	54760.11					
124.00	4391.80	6.90	0.20	91.75	0.01		
457.01	107.04	4.27	104.86	15.19	0.000027		
	0.00707	54526.42					
125.00	4391.73	6.83	0.19	83.49	0.01		
450.83	106.55	4.23	104.39	15.29	0.000000		
	0.00000	54284.25					
126.00	4391.66	6.76	0.17	74.50	0.01		
444.63	106.06	4.19	103.92	15.38	0.000000		
	0.00000	54039.48					
127.00	4391.58	6.68	0.15	65.83	0.01		
437.61	105.50	4.15	103.39	15.49	0.000000		
	0.00000	53762.73					
128.00	4391.50	6.60	0.13	57.38	0.01		
431.17	104.99	4.11	102.90	15.59	0.000000		
	0.00000	53510.51					
129.00	4391.43	6.53	0.13	55.08	0.01		
424.87	104.49	4.07	102.43	15.69	0.000010		
	0.00241	53261.75					
130.00	4391.35	6.45	0.13	54.94	0.01		
418.54	103.98	4.03	101.94	15.80	0.000000		
	0.00000	53011.29					
131.00	4391.28	6.38	0.13	53.95	0.01		
412.55	103.50	3.99	101.48	15.90	0.000000		
	0.00000	52771.69					
132.00	4391.21	6.31	0.13	53.04	0.01		
406.67	103.02	3.95	101.03	16.01	0.000000		
	0.00000	52535.13					
133.00	4391.14	6.24	0.13	52.84	0.01		
400.83	102.54	3.91	100.57	16.11	0.000012		
	0.00285	52297.35					
134.00	4391.08	6.18	0.13	50.95	0.01		
395.83	102.13	3.88	100.18	16.21	0.000000		
	0.00000	52094.00					
135.00	4391.03	6.13	0.13	50.18	0.01		
391.77	101.80	3.85	99.87	16.28	0.000000		
	0.00000	51929.85					
136.00	4390.98	6.08	0.13	49.79	0.01		
387.79	101.47	3.82	99.55	16.36	0.000000		
	0.00000	51765.26					
137.00	4390.94	6.04	0.13	48.87	0.01		
383.86	101.14	3.80	99.24	16.44	0.000010		
	0.00231	51603.97					
138.00	4390.89	5.99	0.13	48.46	0.01		
380.34	100.85	3.77	98.96	16.51	0.000000		
	0.00000	51458.50					
139.00	4390.85	5.95	0.13	48.80	0.01		
376.92	100.57	3.75	98.69	16.58	0.000000		

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		HYCHAN.OUT						
	0.00000	51318.32						
140.00	4390.81	5.91	0.13	47.14	0.01			
373.68	100.29	3.73	98.43	16.65	0.000000			
	0.00000	51182.09						
141.00	4390.77	5.87	0.13	47.83	0.01			
370.33	100.01	3.70	98.16	16.72	0.000010			
	0.00233	51041.87						
142.00	4390.73	5.83	0.13	48.01	0.01			
366.97	99.73	3.68	97.89	16.79	0.000000			
	0.00000	50905.11						
143.00	4390.69	5.79	0.13	47.22	0.01			
363.60	99.45	3.66	97.62	16.87	0.000000			
	0.00000	50764.32						
144.00	4390.65	5.75	0.13	47.23	0.01			
360.19	99.16	3.63	97.35	16.94	0.000000			
	0.00000	50621.45						
145.00	4390.61	5.71	0.13	46.40	0.01			
357.08	98.90	3.61	97.10	17.01	0.000000			
	0.00000	50490.86						
146.00	4390.57	5.67	0.13	46.55	0.01			
354.05	98.64	3.59	96.85	17.08	0.000000			
	0.00000	50362.58						
147.00	4390.53	5.63	0.13	46.74	0.01			
350.70	98.36	3.57	96.58	17.16	0.000000			
	0.00000	50224.07						
148.00	4390.48	5.58	0.13	46.44	0.01			
347.18	98.06	3.54	96.30	17.24	0.000000			
	0.00000	50073.91						
149.00	4390.44	5.54	0.13	46.19	0.01			
344.03	97.79	3.52	96.04	17.32	0.000000			
	0.00000	49938.33						
150.00	4390.41	5.51	0.13	45.94	0.01			
340.95	97.53	3.50	95.79	17.40	0.000000			
	0.00000	49809.38						
151.00	4390.37	5.47	0.13	45.51	0.01			
338.02	97.27	3.47	95.55	17.47	0.000000			
	0.00000	49684.22						
152.00	4390.33	5.43	0.14	45.51	0.01			
335.07	97.02	3.45	95.30	17.55	0.000000			
	0.00000	49558.46						
153.00	4390.29	5.39	0.14	45.74	0.01			
332.02	96.77	3.43	95.07	17.62	0.000000			
	0.00000	49434.34						
154.00	4390.26	5.36	0.14	44.74	0.01			
329.16	96.51	3.41	94.82	17.70	0.000000			
	0.00000	49307.70						
155.00	4390.22	5.32	0.14	45.61	0.01			
326.18	96.24	3.39	94.57	17.78	0.000000			
	0.00000	49174.14						
156.00	4390.18	5.28	0.14	45.03	0.01			
323.44	96.01	3.37	94.34	17.86	0.000000			
	0.00000	49059.30						
157.00	4390.14	5.24	0.14	45.39	0.01			
320.41	95.75	3.35	94.09	17.94	0.000000			
	0.00000	48926.63						
158.00	4390.12	5.22	0.13	41.06	0.01			
318.72	95.60	3.33	93.95	17.99	0.000000			
	0.00000	48854.82						
159.00	4390.12	5.22	0.13	41.76	0.01			
318.25	95.57	3.33	93.92	18.00	0.000000			
	0.00000	48837.96						
160.00	4390.11	5.21	0.13	41.38	0.01			
317.75	95.51	3.33	93.87	18.01	0.000000			

		HYCHAN.OUT						
	0.00000	48812.21						
161.00	4390.10	5.20	0.13	41.71	0.01			
317.11	95.46	3.32	93.82	18.03	0.000007			
	0.00144	48783.88						
162.00	4390.09	5.19	0.13	41.00	0.01			
316.28	95.39	3.32	93.75	18.06	0.000000			
	0.00000	48748.73						
163.00	4390.08	5.19	0.13	41.90	0.01			
315.81	95.34	3.31	93.70	18.07	0.000000			
	0.00000	48725.60						
164.00	4390.07	5.17	0.13	41.29	0.01			
314.95	95.27	3.31	93.64	18.09	0.000000			
	0.00000	48691.04						
165.00	4390.07	5.17	0.13	40.75	0.01			
314.43	95.22	3.30	93.59	18.11	0.000007			
	0.00135	48666.97						
166.00	4390.06	5.16	0.13	40.98	0.01			
313.90	95.18	3.30	93.55	18.13	0.000000			
	0.00000	48643.98						
167.00	4390.04	5.14	0.14	42.79	0.01			
312.44	95.05	3.29	93.43	18.17	0.000000			
	0.00000	48583.42						
168.00	4390.02	5.12	0.14	42.70	0.01			
310.61	94.89	3.27	93.27	18.22	0.000011			
	0.00232	48501.97						
169.00	4390.00	5.10	0.13	41.57	0.01			
309.27	94.78	3.26	93.17	18.26	0.000000			
	0.00000	48446.95						
170.00	4389.99	5.09	0.14	41.64	0.01			
308.15	94.67	3.25	93.07	18.29	0.000000			
	0.00000	48395.78						
171.00	4389.97	5.07	0.14	41.66	0.01			
307.02	94.57	3.25	92.97	18.33	0.000000			
	0.00000	48344.49						
172.00	4389.96	5.06	0.13	40.82	0.01			
306.21	94.50	3.24	92.90	18.35	0.000000			
	0.00000	48307.80						
173.00	4389.95	5.05	0.14	41.34	0.01			
305.31	94.42	3.23	92.83	18.38	0.000000			
	0.00000	48269.20						
174.00	4389.94	5.04	0.13	40.96	0.01			
304.32	94.33	3.23	92.74	18.41	0.000000			
	0.00000	48222.68						
175.00	4389.92	5.02	0.14	42.72	0.01			
302.66	94.20	3.21	92.61	18.46	0.000012			
	0.00234	48159.09						
176.00	4389.89	4.99	0.14	42.11	0.01			
300.79	94.02	3.20	92.45	18.52	0.000000			
	0.00000	48072.87						
177.00	4389.87	4.97	0.14	42.27	0.01			
299.07	93.87	3.19	92.30	18.57	0.000000			
	0.00000	47997.89						
178.00	4389.85	4.95	0.14	41.60	0.01			
297.68	93.74	3.18	92.18	18.62	0.000000			
	0.00000	47934.16						
179.00	4389.84	4.94	0.14	40.58	0.01			
296.38	93.64	3.17	92.08	18.66	0.000009			
	0.00177	47883.18						
180.00	4389.82	4.92	0.14	41.51	0.01			
295.47	93.54	3.16	91.99	18.69	0.000000			
	0.00000	47834.32						
181.00	4389.81	4.91	0.13	39.70	0.01			
294.66	93.47	3.15	91.92	18.72	0.000010			

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HYCHAN.OUT									
0.00202	47798.52								
182.00	4389.82	4.92	0.13	36.93	0.01				
295.38	93.54	3.16		91.98	18.69	0.000000			
0.00000	47831.45								
183.00	4389.85	4.95	0.12	36.85	0.01				
297.05	93.71	3.17		92.15	18.63	0.000000			
0.00000	47915.54								
184.00	4389.87	4.97	0.12	35.96	0.01				
299.43	93.90	3.19		92.33	18.56	0.000000			
0.00000	48010.55								
185.00	4389.90	5.00	0.12	36.71	0.01				
301.61	94.09	3.21		92.51	18.50	0.000000			
0.00000	48105.74								
186.00	4389.92	5.02	0.12	37.80	0.01				
303.12	94.22	3.22		92.64	18.45	0.000000			
0.00000	48171.13								
187.00	4389.93	5.03	0.13	38.12	0.01				
303.94	94.30	3.22		92.71	18.42	0.000000			
0.00000	48208.09								
188.00	4389.94	5.04	0.13	38.34	0.01				
304.54	94.35	3.23		92.76	18.41	0.000000			
0.00000	48233.82								
189.00	4389.94	5.04	0.13	38.97	0.01				
304.81	94.38	3.23		92.78	18.40	0.000000			
0.00000	48247.07								
190.00	4389.95	5.05	0.13	39.34	0.01				
305.07	94.39	3.23		92.80	18.39	0.000000			
0.00000	48255.90								
191.00	4389.94	5.04	0.13	39.07	0.01				
304.93	94.38	3.23		92.79	18.39	0.000000			
0.00000	48251.70								
192.00	4389.94	5.04	0.13	40.03	0.01				
304.75	94.37	3.23		92.78	18.40	0.000000			
0.00000	48243.94								
193.00	4389.93	5.03	0.14	41.45	0.01				
303.66	94.27	3.22		92.69	18.43	0.000009			
0.00179	48197.37								
194.00	4389.91	5.01	0.14	41.61	0.01				
301.98	94.12	3.21		92.54	18.49	0.000000			
0.00000	48120.61								
195.00	4389.89	4.99	0.14	40.86	0.01				
300.70	94.01	3.20		92.43	18.52	0.000000			
0.00000	48065.45								
196.00	4389.88	4.98	0.14	40.45	0.01				
299.54	93.91	3.19		92.34	18.56	0.000000			
0.00000	48017.28								
197.00	4389.87	4.97	0.13	40.17	0.01				
298.95	93.85	3.19		92.29	18.58	0.000000			
0.00000	47988.74								
198.00	4389.86	4.96	0.13	39.82	0.01				
298.03	93.79	3.18		92.23	18.60	0.000000			
0.00000	47958.21								
199.00	4389.85	4.95	0.13	39.62	0.01				
297.67	93.76	3.17		92.19	18.61	0.000000			
0.00000	47940.93								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3354

MAXIMUM DISCHARGE (CFS) = 2636.53 AT TIME = 89.05  
 MAXIMUM STAGE = 4397.13 AT TIME = 91.62

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
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HYCHAN.OUT								
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA	AREA						
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(FT)	(CFS)		
(LB/FT^2)	(FT^2)							
0.00	0.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4384.80	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	10.00	4384.86	0.06	-0.12	-0.64	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
12.02	11.00	4385.47	0.67	-0.18	-2.17	0.04	0.00	0.000000
	0.00000	30.45	0.39	30.54	45.56	0.01	0.00	0.000000
14.62	12.00	4385.54	0.74	-0.07	-1.01	0.01	0.00	0.000000
	0.00000	31.55	0.46	31.55	42.57	0.03	0.00	0.000000
12.28	13.00	4385.43	0.63	-0.16	-1.92	0.03	0.00	0.000000
	0.00000	29.82	0.41	29.96	47.40	0.03	0.00	0.000000
10.14	14.00	4385.34	0.54	-0.15	-1.48	0.03	0.00	0.000000
	0.00000	28.22	0.36	28.48	52.66	0.00	0.00	0.000000
0.00	15.00	4385.30	0.50	0.00	0.00	0.00	0.00	0.000007
	0.00000	27.50	0.00	27.81	55.32	0.01	0.00	0.000022
6.93	16.00	4385.27	0.47	0.06	0.39	0.01	0.00	0.000022
	0.00036	26.87	0.26	27.23	57.82	0.02	0.00	0.000026
6.47	17.00	4385.25	0.45	0.07	0.45	0.02	0.00	0.000026
	0.00040	26.41	0.24	26.80	59.74	0.02	0.00	0.000017
6.08	18.00	4385.23	0.43	0.06	0.38	0.02	0.00	0.000017
	0.00025	26.01	0.23	26.42	61.52			
		13211.89						

HYCHAN.OUT							
5.78	19.00	4385.21	0.42	0.05	0.31	0.01	
	0.00022	25.70	0.22	26.13	62.95		0.000015
	20.00	13067.05					
5.45	0.00000	4385.21	0.41	0.03	0.15	0.01	
	21.00	25.48	0.21	25.93	63.98		0.000000
	0.00000	12965.29					
7.35	21.00	4385.22	0.42	-0.07	-0.50	0.02	
	0.00000	25.82	0.28	26.25	62.37		0.000000
	22.00	13124.84					
8.88	22.00	4385.28	0.48	-0.15	-1.29	0.04	
	0.00000	27.13	0.33	27.47	56.77		0.000000
	23.00	13733.27					
11.20	23.00	4385.37	0.57	-0.21	-2.36	0.05	
	0.00000	28.70	0.39	28.92	51.00		0.000000
	24.00	14460.62					
13.49	24.00	4385.46	0.66	-0.24	-3.17	0.05	
	0.00000	30.25	0.45	30.36	46.11		0.000000
	25.00	15179.53					
15.74	25.00	4385.55	0.75	-0.22	-3.39	0.04	
	0.00000	31.66	0.50	31.66	42.28		0.000000
	26.00	15827.52					
18.67	26.00	4385.64	0.84	-0.25	-4.58	0.05	
	0.00000	33.04	0.57	32.92	38.98		0.000000
	27.00	16457.88					
23.06	27.00	4385.78	0.98	-0.31	-7.22	0.06	
	0.00000	34.79	0.66	34.51	35.33		0.000000
	28.00	17256.28					
28.85	28.00	4385.94	1.14	-0.39	-11.34	0.06	
	0.00000	36.76	0.78	36.31	31.80		0.000000
	29.00	18152.85					
35.69	29.00	4386.14	1.34	-0.45	-15.91	0.07	
	0.00000	38.88	0.92	38.22	28.58		0.000000
	30.00	19109.31					
41.97	30.00	4386.32	1.52	-0.40	-16.71	0.06	
	0.00000	40.70	1.03	39.86	26.19		0.000000
	31.00	19930.38					
48.03	31.00	4386.49	1.69	-0.29	-14.03	0.04	
	0.00000	42.25	1.14	41.26	24.39		0.000000
	32.00	20627.75					
53.45	32.00	4386.63	1.83	-0.20	-10.44	0.03	
	0.00000	43.45	1.23	42.33	23.12		0.000000
	33.00	21165.33					
56.80	33.00	4386.71	1.91	-0.10	-5.44	0.01	
	0.00000	44.13	1.29	42.93	22.45		0.000000
	34.00	21467.26					
59.79	34.00	4386.78	1.98	-0.11	-6.37	0.01	
	0.00000	44.64	1.34	43.40	21.96		0.000000
	35.00	21697.80					
62.72	35.00	4386.85	2.05	-0.09	-5.39	0.01	
	0.00000	45.22	1.39	43.91	21.43		0.000000
	36.00	21952.60					
66.63	36.00	4386.89	2.09	-0.01	-0.91	0.00	
	0.00000	45.52	1.46	44.18	21.16		0.000000
	37.00	22089.10					
66.10	37.00	4386.93	2.13	-0.07	-4.79	0.01	
	0.00000	45.81	1.44	44.44	20.90		0.000000
	38.00	22218.88					
64.45	38.00	4386.91	2.11	0.05	3.40	0.01	
	0.00000	45.68	1.41	44.32	21.02		0.000000
	39.00	22158.28					
62.06	39.00	4386.87	2.07	0.09	5.75	0.01	
	0.00000	45.39	1.37	44.06	21.27		0.000000
		22030.02					

HYCHAN.OUT									
59.72	40.00	4386.81	2.01	0.08	4.52	0.01	0.000000		
	0.00000	44.88	1.33		43.60	21.74			
		21800.81							
58.16	41.00	4386.77	1.97	0.03	1.61	0.00	0.000000		
	0.00000	44.62	1.30		43.37	21.98			
		21687.03							
58.03	42.00	4386.76	1.96	0.01	0.65	0.00	0.000000		
	0.00000	44.49	1.30		43.26	22.10			
		21630.31							
57.19	43.00	4386.75	1.95	0.01	0.70	0.00	0.000000		
	0.00000	44.43	1.29		43.21	22.16			
		21602.75							
0.00	44.00	4386.75	1.95	0.00	0.00	0.00	0.000000		
	0.00000	44.41	0.00		43.19	22.17			
		21594.99							
59.11	45.00	4386.78	1.98	-0.10	-5.99	0.01	0.000000		
	0.00000	44.71	1.32		43.45	21.90			
		21724.96							
61.78	46.00	4386.85	2.05	-0.08	-4.94	0.01	0.000000		
	0.00000	45.22	1.37		43.91	21.43			
		21953.21							
65.63	47.00	4386.91	2.11	-0.11	-6.90	0.01	0.000000		
	0.00000	45.72	1.44		44.36	20.98			
		22179.27							
70.54	48.00	4387.02	2.22	-0.14	-9.96	0.02	0.000000		
	0.00000	46.49	1.52		45.04	20.33			
		22519.02							
76.34	49.00	4387.14	2.34	-0.15	-11.82	0.02	0.000000		
	0.00000	47.40	1.61		45.84	19.59			
		22922.07							
82.94	50.00	4387.28	2.48	-0.15	-12.85	0.02	0.000000		
	0.00000	48.37	1.71		46.71	18.84			
		23354.87							
90.06	51.00	4387.42	2.62	-0.15	-13.41	0.02	0.000000		
	0.00000	49.35	1.83		47.57	18.14			
		23787.32							
97.73	52.00	4387.57	2.77	-0.15	-14.34	0.02	0.000000		
	0.00000	50.33	1.94		48.44	17.47			
		24221.99							
106.57	53.00	4387.74	2.94	-0.16	-16.99	0.02	0.000000		
	0.00000	51.41	2.07		49.40	16.78			
		24699.56							
115.29	54.00	4387.91	3.11	-0.12	-13.94	0.01	0.000000		
	0.00000	52.42	2.20		50.29	16.16			
		25145.84							
123.80	55.00	4388.05	3.25	-0.13	-16.67	0.01	0.000000		
	0.00000	53.27	2.32		51.03	15.68			
		25516.94							
134.48	56.00	4388.24	3.44	-0.17	-23.12	0.02	0.000000		
	0.00000	54.34	2.47		51.98	15.09			
		25989.60							
150.65	57.00	4388.52	3.72	-0.24	-36.28	0.02	0.000000		
	0.00000	55.86	2.70		53.31	14.32			
		26652.73							
173.40	58.00	4388.90	4.10	-0.27	-46.48	0.02	0.000000		
	0.00000	57.79	3.00		55.00	13.42			
		27500.18							
199.29	59.00	4389.32	4.52	-0.24	-47.03	0.02	0.000000		
	0.00000	59.81	3.33		56.76	12.57			
		28382.32							
224.09	60.00	4389.68	4.88	-0.18	-39.37	0.01	0.000000		
	0.00000	61.49	3.64		58.23	11.92			
		29112.63							

		HYCHAN.OUT							
247.34	61.00	4390.02	5.22	-0.17	59.52	-41.64	11.39	0.01	0.000000
	0.00000	62.98	3.93						
		29758.08							
264.24	62.00	4390.29	5.49	-0.08	60.48	-21.27	11.02	0.01	0.000000
	0.00000	64.10	4.12						
		30242.35							
276.90	63.00	4390.43	5.63	0.05	60.97	14.72	10.84	0.00	0.000000
	0.00000	64.66	4.28						
		30484.79							
284.71	64.00	4390.55	5.75	0.08	61.39	22.30	10.68	0.01	0.000000
	0.00000	65.15	4.37						
		30696.14							
299.75	65.00	4390.75	5.95	0.10	62.10	29.34	10.43	0.01	0.000000
	0.00000	65.96	4.54						
		31049.86							
315.65	66.00	4390.97	6.17	0.14	62.82	43.83	10.18	0.01	0.000000
	0.00000	66.80	4.73						
		31409.83							
331.56	67.00	4391.18	6.38	0.27	63.52	91.01	9.95	0.02	0.000000
	0.00000	67.61	4.90						
		31758.80							
347.75	68.00	4391.40	6.60	0.46	64.21	158.42	9.73	0.03	0.000000
	0.00000	68.41	5.08						
		32104.24							
364.01	69.00	4391.61	6.81	0.62	64.86	225.80	9.53	0.04	0.000023
	0.00770	69.17	5.26						
		32432.09							
382.09	70.00	4391.84	7.04	0.78	65.57	298.51	9.32	0.05	0.000033
	0.01135	69.98	5.46						
		32783.47							
396.89	71.00	4392.02	7.22	0.82	66.12	326.28	9.16	0.05	0.000030
	0.01052	70.63	5.62						
		33060.50							
417.53	72.00	4392.27	7.47	0.85	66.84	353.38	8.95	0.05	0.000023
	0.00850	71.47	5.84						
		33420.16							
437.42	73.00	4392.50	7.70	1.00	67.52	436.81	8.77	0.06	0.000026
	0.00997	72.26	6.05						
		33759.63							
454.89	74.00	4392.71	7.91	1.14	68.10	519.98	8.61	0.07	0.000031
	0.01222	72.93	6.24						
		34048.98							
469.18	75.00	4392.87	8.07	1.26	68.56	590.34	8.49	0.08	0.000043
	0.01706	73.47	6.39						
		34277.60							
492.05	76.00	4393.12	8.32	1.62	69.24	795.80	8.32	0.10	0.000080
	0.03324	74.27	6.63						
		34621.44							
516.52	77.00	4393.41	8.61	2.00	70.00	1035.17	8.13	0.12	0.000106
	0.04551	75.16	6.87						
		35001.55							
537.54	78.00	4393.65	8.85	2.24	70.64	1203.19	7.98	0.13	0.000119
	0.05275	75.90	7.08						
		35317.58							
556.73	79.00	4393.87	9.07	2.46	71.22	1369.63	7.85	0.14	0.000133
	0.06025	76.58	7.27						
		35607.66							
576.10	80.00	4394.11	9.31	2.71	71.81	1561.04	7.71	0.16	0.000159
	0.07427	77.15	7.47						
		35905.00							
598.07	81.00	4394.38	9.58	2.99	72.49	1789.45	7.56	0.17	0.000190
	0.09105	77.70	7.70						
		36243.79							

HYCHAN.OUT							
625.94	82.00	4394.73	9.93	3.32	2079.04	0.19	0.000221
	0.11027	78.39	7.99	73.33	7.39		
		36664.83					
650.38	83.00	4395.03	10.23	3.52	2289.65	0.19	0.000234
	0.12007	78.99	8.23	74.04	7.24		
		37021.61					
670.68	84.00	4395.27	10.47	3.57	2392.16	0.19	0.000216
	0.11370	79.47	8.44	74.61	7.12		
		37303.83					
698.24	85.00	4395.58	10.78	3.42	2386.32	0.18	0.000197
	0.10738	80.10	8.72	75.33	6.98		
		37662.55					
726.33	86.00	4395.91	11.11	3.34	2428.97	0.18	0.000186
	0.10458	80.74	9.00	76.05	6.85		
		38023.52					
754.82	87.00	4396.23	11.43	3.32	2503.19	0.17	0.000180
	0.10413	81.39	9.27	76.76	6.72		
		38379.68					
781.17	88.00	4396.52	11.72	3.32	2596.29	0.17	0.000178
	0.10571	81.98	9.53	77.40	6.60		
		38698.93					
803.81	89.00	4396.78	11.98	3.25	2614.37	0.17	0.000175
	0.10622	82.48	9.75	77.93	6.51		
		38967.26					
821.60	90.00	4396.98	12.18	3.19	2620.08	0.16	0.000159
	0.09830	82.88	9.91	78.36	6.43		
		39178.49					
831.32	91.00	4397.08	12.28	3.07	2549.06	0.15	0.000144
	0.09000	83.09	10.00	78.58	6.40		
		39288.54					
834.60	92.00	4397.12	12.32	3.01	2508.00	0.15	0.000144
	0.09008	83.16	10.04	78.65	6.39		
		39324.73					
832.09	93.00	4397.08	12.28	2.92	2433.74	0.15	0.000134
	0.08350	83.10	10.01	78.58	6.40		
		39289.79					
823.89	94.00	4396.99	12.19	2.89	2377.39	0.15	0.000136
	0.08458	82.90	9.94	78.38	6.43		
		39189.05					
807.88	95.00	4396.80	12.00	2.81	2270.04	0.14	0.000134
	0.08205	82.52	9.79	77.98	6.50		
		38989.24					
789.43	96.00	4396.58	11.78	2.71	2136.88	0.14	0.000122
	0.07339	82.09	9.62	77.51	6.58		
		38756.45					
769.93	97.00	4396.35	11.55	2.69	2069.00	0.14	0.000127
	0.07493	81.63	9.43	77.03	6.67		
		38513.42					
750.72	98.00	4396.13	11.33	2.65	1986.43	0.14	0.000118
	0.06828	81.19	9.25	76.54	6.76		
		38269.53					
731.13	99.00	4395.90	11.10	2.54	1855.84	0.13	0.000102
	0.05774	80.73	9.06	76.03	6.85		
		38016.18					
707.47	100.00	4395.62	10.82	2.40	1699.70	0.13	0.000104
	0.05740	80.18	8.82	75.41	6.97		
		37705.99					
668.06	101.00	4395.16	10.36	2.35	1569.56	0.13	0.000092
	0.04843	79.25	8.43	74.35	7.18		
		37173.51					
634.59	102.00	4394.76	9.96	2.19	1392.60	0.12	0.000083
	0.04182	78.45	8.09	73.40	7.37		
		36700.67					

		HYCHAN.OUT					
103.00	4394.55	9.75	2.00	1235.36	0.11		
616.51	78.03	7.90		72.89	7.48	0.000057	
0.02794	36446.43						
104.00	4394.40	9.60	1.87	1127.55	0.11		
604.07	77.74	7.77		72.54	7.55	0.000047	
0.02302	36269.05						
105.00	4394.30	9.50	1.74	1036.92	0.10		
595.03	77.53	7.68		72.28	7.61	0.000059	
0.02809	36139.29						
106.00	4394.20	9.40	1.63	958.76	0.09		
586.66	77.33	7.59		72.03	7.66	0.000054	
0.02545	36017.43						
107.00	4394.10	9.30	1.52	878.63	0.09		
578.20	77.13	7.50		71.79	7.72	0.000053	
0.02493	35893.56						
108.00	4393.98	9.18	1.41	797.84	0.08		
567.71	76.88	7.38		71.48	7.79	0.000048	
0.02191	35738.57						
109.00	4393.81	9.01	1.23	682.55	0.07		
553.20	76.39	7.24		71.06	7.88	0.000029	
0.01317	35528.06						
110.00	4393.65	8.85	1.13	611.22	0.07		
538.96	75.91	7.10		70.64	7.98	0.000032	
0.01406	35321.77						
111.00	4393.48	8.68	1.03	539.13	0.06		
523.73	75.39	6.95		70.21	8.08	0.000020	
0.00847	35103.07						
112.00	4393.32	8.52	0.94	477.15	0.06		
508.88	74.89	6.80		69.77	8.19	0.000024	
0.01028	34885.80						
113.00	4393.16	8.36	0.88	436.01	0.05		
494.78	74.39	6.65		69.35	8.29	0.000019	
0.00778	34672.79						
114.00	4393.00	8.20	0.82	395.74	0.05		
480.56	73.88	6.50		68.91	8.40	0.000000	
0.00000	34455.92						
115.00	4392.83	8.03	0.83	384.66	0.05		
465.23	73.33	6.34		68.44	8.52	0.000031	
0.01219	34220.26						
116.00	4392.62	7.82	0.90	402.03	0.06		
447.51	72.64	6.16		67.85	8.68	0.000022	
0.00844	33925.72						
117.00	4392.42	7.62	0.68	292.37	0.04		
431.15	71.98	5.99		67.29	8.83	0.000025	
0.00935	33642.52						
118.00	4392.30	7.50	0.57	241.56	0.04		
421.15	71.59	5.88		66.95	8.92	0.000028	
0.01034	33474.05						
119.00	4392.20	7.40	0.50	205.74	0.03		
413.42	71.26	5.80		66.66	9.00	0.000028	
0.01027	33329.64						
120.00	4392.11	7.31	0.42	170.38	0.03		
405.49	70.93	5.72		66.38	9.08	0.000000	
0.00000	33189.07						
121.00	4392.02	7.22	0.34	135.91	0.02		
398.33	70.61	5.64		66.11	9.16	0.000000	
0.00000	33053.68						
122.00	4391.94	7.14	0.29	113.55	0.02		
391.56	70.34	5.57		65.87	9.23	0.000000	
0.00000	32936.24						
123.00	4391.87	7.07	0.26	101.33	0.02		
386.21	70.10	5.51		65.66	9.29	0.000000	
0.00000	32831.79						

		HYCHAN.OUT						
124.00	4391.80	7.00	0.24	92.66	0.02			
380.76	69.86	5.45	65.46	9.35	0.000030			
0.01026	32728.07							
125.00	4391.73	6.93	0.22	83.87	0.01			
375.07	69.60	5.39	65.24	9.42	0.000000			
0.00000	32618.92							
126.00	4391.66	6.86	0.20	75.23	0.01			
369.34	69.35	5.33	65.02	9.48	0.000000			
0.00000	32508.95							
127.00	4391.57	6.77	0.18	66.75	0.01			
362.99	69.05	5.26	64.76	9.56	0.000028			
0.00903	32381.28							
128.00	4391.50	6.70	0.16	58.02	0.01			
356.85	68.78	5.19	64.53	9.63	0.000000			
0.00000	32264.89							
129.00	4391.43	6.63	0.16	55.94	0.01			
350.99	68.51	5.12	64.30	9.70	0.000017			
0.00529	32149.72							
130.00	4391.35	6.55	0.16	55.48	0.01			
345.18	68.24	5.06	64.07	9.78	0.000017			
0.00542	32032.73							
131.00	4391.28	6.48	0.16	54.65	0.01			
339.42	67.98	4.99	63.84	9.85	0.000000			
0.00000	31919.34							
132.00	4391.21	6.41	0.16	53.58	0.01			
334.05	67.72	4.93	63.61	9.92	0.000032			
0.00985	31806.61							
133.00	4391.14	6.34	0.16	53.70	0.01			
328.71	67.45	4.87	63.38	10.00	0.000000			
0.00000	31692.35							
134.00	4391.08	6.28	0.16	51.30	0.01			
324.08	67.23	4.82	63.19	10.06	0.000000			
0.00000	31595.11							
135.00	4391.03	6.23	0.16	50.59	0.01			
320.35	67.04	4.78	63.03	10.11	0.000000			
0.00000	31515.36							
136.00	4390.98	6.18	0.16	50.17	0.01			
316.15	66.86	4.73	62.87	10.17	0.000000			
0.00000	31435.50							
137.00	4390.94	6.14	0.16	49.45	0.01			
312.77	66.67	4.69	62.71	10.22	0.000000			
0.00000	31355.90							
138.00	4390.89	6.09	0.16	48.76	0.01			
309.56	66.51	4.65	62.57	10.27	0.000000			
0.00000	31284.38							
139.00	4390.85	6.05	0.16	49.26	0.01			
306.33	66.35	4.62	62.43	10.32	0.000000			
0.00000	31215.00							
140.00	4390.81	6.01	0.16	47.38	0.01			
303.24	66.19	4.58	62.30	10.36	0.000000			
0.00000	31147.90							
141.00	4390.77	5.97	0.16	48.35	0.01			
300.20	66.03	4.55	62.15	10.41	0.000011			
0.00305	31076.89							
142.00	4390.73	5.93	0.16	48.18	0.01			
297.11	65.87	4.51	62.02	10.46	0.000000			
0.00000	31008.40							
143.00	4390.69	5.89	0.16	47.63	0.01			
293.88	65.70	4.47	61.87	10.51	0.000010			
0.00272	30937.18							
144.00	4390.65	5.85	0.16	47.63	0.01			
290.97	65.54	4.44	61.73	10.56	0.000009			
0.00263	30864.87							

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		HYCHAN.OUT						
288.03	145.00	4390.61	5.81	0.16	46.65	0.01	0.000000	
	0.00000	65.38	4.41	61.60	10.61			
		30798.67						
285.13	146.00	4390.57	5.77	0.16	47.03	0.01	0.000000	
	0.00000	65.23	4.37	61.47	10.65			
		30733.10						
282.15	147.00	4390.53	5.73	0.17	47.04	0.01	0.000007	
	0.00194	65.06	4.34	61.32	10.71			
		30661.25						
278.88	148.00	4390.48	5.68	0.17	46.82	0.01	0.000000	
	0.00000	64.89	4.30	61.17	10.76			
		30584.28						
276.02	149.00	4390.44	5.64	0.17	46.49	0.01	0.000000	
	0.00000	64.72	4.26	61.03	10.81			
		30513.85						
273.17	150.00	4390.41	5.61	0.17	46.34	0.01	0.000000	
	0.00000	64.57	4.23	60.89	10.86			
		30447.10						
269.62	151.00	4390.37	5.57	0.17	45.84	0.01	0.000000	
	0.00000	64.42	4.19	60.76	10.91			
		30380.80						
266.84	152.00	4390.33	5.53	0.17	45.80	0.01	0.000000	
	0.00000	64.26	4.15	60.63	10.96			
		30314.87						
264.63	153.00	4390.29	5.49	0.17	46.11	0.01	0.000000	
	0.00000	64.11	4.13	60.50	11.01			
		30248.93						
262.18	154.00	4390.26	5.46	0.17	45.06	0.01	0.000000	
	0.00000	63.96	4.10	60.36	11.06			
		30181.77						
259.74	155.00	4390.22	5.42	0.18	45.88	0.01	0.000000	
	0.00000	63.79	4.07	60.22	11.12			
		30110.79						
256.24	156.00	4390.18	5.38	0.18	45.34	0.01	0.000000	
	0.00000	63.65	4.03	60.10	11.16			
		30048.99						
254.32	157.00	4390.14	5.34	0.18	45.81	0.01	0.000000	
	0.00000	63.49	4.01	59.96	11.22			
		29977.88						
252.61	158.00	4390.12	5.32	0.16	41.03	0.01	0.000000	
	0.00000	63.40	3.98	59.88	11.25			
		29939.28						
252.50	159.00	4390.12	5.32	0.17	41.84	0.01	0.000000	
	0.00000	63.38	3.98	59.86	11.26			
		29929.60						
251.86	160.00	4390.11	5.31	0.16	41.38	0.01	0.000000	
	0.00000	63.34	3.98	59.83	11.27			
		29916.41						
251.44	161.00	4390.10	5.30	0.17	41.92	0.01	0.000000	
	0.00000	63.31	3.97	59.80	11.28			
		29901.08						
250.55	162.00	4390.09	5.29	0.16	40.99	0.01	0.000000	
	0.00000	63.27	3.96	59.77	11.29			
		29882.57						
250.21	163.00	4390.08	5.28	0.17	41.96	0.01	0.000000	
	0.00000	63.24	3.96	59.74	11.30			
		29869.17						
249.49	164.00	4390.07	5.27	0.17	41.36	0.01	0.000000	
	0.00000	63.19	3.95	59.70	11.32			
		29850.31						
248.86	165.00	4390.07	5.27	0.16	40.87	0.01	0.000000	
	0.00000	63.16	3.94	59.68	11.33			
		29837.61						

		HYCHAN.OUT					
248.53	166.00	4390.06	5.26	0.17	41.08	0.01	
	0.00000	63.13	3.94		59.65	11.34	0.000000
		29824.54					
246.62	167.00	4390.04	5.24	0.17	42.99	0.01	
	0.00000	63.06	3.91		59.58	11.37	0.000000
		29791.40					
245.56	168.00	4390.02	5.22	0.17	42.96	0.01	
	0.00000	62.95	3.90		59.49	11.40	0.000000
		29747.38					
244.36	169.00	4390.00	5.20	0.17	41.59	0.01	
	0.00000	62.89	3.89		59.43	11.43	0.000000
		29717.18					
243.02	170.00	4389.99	5.19	0.17	41.78	0.01	
	0.00000	62.82	3.87		59.38	11.45	0.000000
		29688.35					
241.33	171.00	4389.97	5.17	0.17	41.73	0.01	
	0.00151	62.76	3.85		59.32	11.47	0.000006
		29660.75					
241.28	172.00	4389.96	5.16	0.17	40.96	0.01	
	0.00000	62.71	3.85		59.28	11.49	0.000000
		29640.12					
240.51	173.00	4389.95	5.15	0.17	41.46	0.01	
	0.00000	62.66	3.84		59.24	11.50	0.000000
		29618.24					
239.84	174.00	4389.94	5.14	0.17	41.02	0.01	
	0.00000	62.60	3.83		59.19	11.52	0.000000
		29593.71					
238.39	175.00	4389.92	5.12	0.18	43.06	0.01	
	0.00000	62.52	3.81		59.11	11.55	0.000000
		29557.01					
236.22	176.00	4389.89	5.09	0.18	42.25	0.01	
	0.00000	62.41	3.79		59.02	11.59	0.000000
		29510.00					
235.01	177.00	4389.87	5.07	0.18	42.45	0.01	
	0.00000	62.31	3.77		58.93	11.63	0.000000
		29467.24					
233.78	178.00	4389.85	5.05	0.18	41.70	0.01	
	0.00000	62.23	3.76		58.86	11.66	0.000000
		29432.15					
232.68	179.00	4389.83	5.03	0.18	40.78	0.01	
	0.00173	62.16	3.74		58.81	11.68	0.000007
		29402.91					
230.88	180.00	4389.82	5.02	0.18	41.53	0.01	
	0.00000	62.10	3.72		58.75	11.70	0.000000
		29376.55					
231.04	181.00	4389.81	5.01	0.17	39.82	0.01	
	0.00000	62.05	3.72		58.71	11.72	0.000000
		29355.83					
230.97	182.00	4389.82	5.02	0.16	36.70	0.01	
	0.00207	62.10	3.72		58.75	11.70	0.000009
		29374.91					
233.55	183.00	4389.84	5.04	0.16	36.61	0.01	
	0.00285	62.21	3.75		58.84	11.66	0.000012
		29422.28					
235.20	184.00	4389.87	5.07	0.15	35.72	0.01	
	0.00000	62.33	3.77		58.95	11.62	0.000000
		29475.58					
237.42	185.00	4389.90	5.10	0.15	36.52	0.01	
	0.00000	62.45	3.80		59.06	11.58	0.000000
		29528.31					
238.73	186.00	4389.92	5.12	0.16	37.70	0.01	
	0.00287	62.54	3.82		59.13	11.55	0.000012
		29565.37					

HYCHAN.OUT									
187.00	4389.93	5.13	0.16	38.01	0.01				
239.56	62.58	3.83	59.17	11.53	0.000000				
0.00000	29585.18								
188.00	4389.94	5.14	0.16	38.34	0.01				
239.98	62.61	3.83	59.20	11.52	0.000000				
0.00000	29599.84								
189.00	4389.94	5.14	0.16	38.94	0.01				
239.66	62.63	3.83	59.21	11.51	0.000008				
0.00189	29606.63								
190.00	4389.95	5.15	0.16	39.32	0.01				
240.46	62.64	3.84	59.22	11.51	0.000000				
0.00000	29611.50								
191.00	4389.94	5.14	0.16	39.01	0.01				
240.23	62.64	3.84	59.22	11.51	0.000008				
0.00192	29609.37								
192.00	4389.94	5.14	0.17	40.10	0.01				
240.29	62.63	3.84	59.21	11.52	0.000000				
0.00000	29604.77								
193.00	4389.93	5.13	0.17	41.69	0.01				
239.14	62.57	3.82	59.16	11.54	0.000000				
0.00000	29578.88								
194.00	4389.91	5.11	0.18	41.69	0.01				
237.78	62.47	3.81	59.07	11.57	0.000012				
0.00295	29536.31								
195.00	4389.89	5.09	0.17	41.05	0.01				
236.53	62.40	3.79	59.01	11.60	0.000000				
0.00000	29505.09								
196.00	4389.87	5.07	0.17	40.59	0.01				
235.05	62.34	3.77	58.96	11.62	0.000000				
0.00000	29478.94								
197.00	4389.87	5.07	0.17	40.24	0.01				
234.73	62.30	3.77	58.93	11.63	0.000000				
0.00000	29462.59								
198.00	4389.86	5.06	0.17	39.86	0.01				
234.10	62.26	3.76	58.89	11.65	0.000000				
0.00000	29445.44								
199.00	4389.85	5.05	0.17	39.52	0.01				
233.77	62.24	3.76	58.87	11.65	0.000012				
0.00271	29435.81								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3353

MAXIMUM DISCHARGE (CFS) = 2643.09 AT TIME = 89.17  
 MAXIMUM STAGE = 4396.98 AT TIME = 91.61

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR	STRESS	SURFACE	AREA				
(FT^2)	(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)			
0.00	0.00	4384.70	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
1.00	4384.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
2.00	4384.70	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
3.00	4384.70	0.00	0.00	0.00	0.00	0.00	

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HYCHAN.OUT							
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4384.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4384.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4384.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4384.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4384.70	0.00	0.00	0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	9.00	4384.70	0.00	-0.00	-0.00	0.00	0.000000
0.00	0.000000	0.00	0.00	0.00	0.00	0.00	0.000000
8.87	10.00	4385.09	0.39	-0.30	-2.62	0.08	0.000000
		17.41	0.51	17.44	44.94		
	0.000000	10466.12					
14.96	11.00	4385.54	0.84	-0.17	-2.58	0.03	0.000000
		26.96	0.55	26.80	31.94		
	0.000000	16080.27					
14.72	12.00	4385.55	0.85	-0.05	-0.80	0.01	0.000000
		27.11	0.54	26.94	31.80		
	0.000000	16165.76					
12.99	13.00	4385.47	0.77	-0.12	-1.50	0.02	0.000000
		25.59	0.51	25.46	33.27		
	0.000000	15273.69					
10.94	14.00	4385.37	0.67	-0.11	-1.17	0.02	0.000000
		23.78	0.46	23.69	35.23		
	0.000000	14213.21					
6.74	15.00	4385.30	0.60	0.02	0.13	0.00	0.000012
		22.32	0.30	22.26	37.02		
	0.00023	13356.86					
6.80	16.00	4385.25	0.55	0.08	0.53	0.02	0.000030
		21.16	0.32	21.12	38.60		
	0.00061	12672.52					
6.13	17.00	4385.21	0.51	0.09	0.54	0.02	0.000037
		20.37	0.30	20.35	39.76		
	0.00069	12207.86					
5.89	18.00	4385.20	0.50	0.07	0.39	0.02	0.000035
		20.09	0.29	20.08	40.19		
	0.00063	12045.28					
5.73	19.00	4385.19	0.49	0.06	0.34	0.02	0.000025
		19.90	0.29	19.89	40.49		
	0.00045	11932.22					
4.81	20.00	4385.19	0.49	0.01	0.07	0.00	0.000000
		19.98	0.24	19.97	40.36		
	0.000000	11980.81					
8.09	21.00	4385.25	0.55	-0.09	-0.71	0.02	0.000000
		21.13	0.38	21.09	38.65		
	0.000000	12653.20					
10.06	22.00	4385.32	0.62	-0.17	-1.66	0.04	0.000000
		22.79	0.44	22.72	36.43		
	0.000000	13629.48					
12.84	23.00	4385.43	0.73	-0.22	-2.76	0.04	0.000000
		24.97	0.51	24.85	33.92		
	0.000000	14909.41					
	24.00	4385.52	0.82	-0.23	-3.50	0.05	

HYCHAN.OUT						
15.12	0.00000	26.67	0.57	26.52	32.21	0.000000
	25.00	15910.47				
17.02	0.00000	4385.60	0.90	-0.22	-3.75	0.04
	27.00	27.98	0.61	27.80	31.02	0.000000
	0.00000	16678.50				
20.20	26.00	4385.70	1.00	-0.26	-5.21	0.05
	29.00	29.75	0.68	29.52	29.58	0.000000
	0.00000	17711.21				
25.14	27.00	4385.85	1.15	-0.32	-8.07	0.05
	32.00	32.21	0.78	31.92	27.80	0.000000
	0.00000	19149.63				
31.66	28.00	4386.03	1.33	-0.39	-12.49	0.06
	35.00	35.03	0.90	34.66	26.03	0.000000
	0.00000	20796.46				
38.79	29.00	4386.23	1.53	-0.44	-17.01	0.06
	37.00	37.87	1.02	37.42	24.49	0.000000
	0.00000	22449.47				
44.30	30.00	4386.38	1.68	-0.40	-17.60	0.05
	39.00	39.98	1.11	39.46	23.48	0.000000
	0.00000	23678.29				
49.41	31.00	4386.52	1.82	-0.30	-15.01	0.04
	41.00	41.81	1.18	41.24	22.67	0.000000
	0.00000	24743.40				
54.31	32.00	4386.64	1.94	-0.20	-11.12	0.03
	43.00	43.39	1.25	42.77	22.02	0.000000
	0.00000	25659.67				
57.39	33.00	4386.71	2.01	-0.10	-5.86	0.01
	44.00	44.30	1.30	43.65	21.67	0.000000
	0.00000	26192.58				
60.51	34.00	4386.78	2.08	-0.11	-6.94	0.01
	45.00	45.10	1.34	44.43	21.37	0.000000
	0.00000	26656.03				
63.52	35.00	4386.85	2.15	-0.09	-5.83	0.01
	45.00	45.97	1.38	45.27	21.05	0.000000
	0.00000	27159.48				
66.06	36.00	4386.89	2.19	-0.02	-1.17	0.00
	46.00	46.42	1.42	45.70	20.89	0.000000
	0.00000	27419.81				
67.17	37.00	4386.93	2.23	-0.08	-5.06	0.01
	46.00	46.90	1.43	46.17	20.72	0.000012
	0.00105	27701.89				
65.12	38.00	4386.91	2.21	0.06	3.81	0.01
	46.00	46.66	1.40	45.93	20.81	0.000000
	0.00000	27560.92				
62.77	39.00	4386.87	2.17	0.10	6.18	0.01
	46.00	46.19	1.36	45.47	20.97	0.000000
	0.00000	27284.52				
60.01	40.00	4386.81	2.10	0.08	4.95	0.01
	45.00	45.42	1.32	44.73	21.25	0.000009
	0.00076	26839.21				
58.64	41.00	4386.77	2.07	0.03	1.73	0.00
	45.00	45.02	1.30	44.35	21.40	0.000000
	0.00000	26608.16				
58.46	42.00	4386.76	2.06	0.01	0.67	0.00
	44.00	44.84	1.30	44.17	21.46	0.000000
	0.00000	26503.25				
57.59	43.00	4386.75	2.05	0.01	0.75	0.00
	44.00	44.73	1.29	44.07	21.51	0.000022
	0.00177	26440.15				
0.00	44.00	4386.75	2.05	0.00	0.00	0.00
	44.00	44.72	0.00	44.05	21.51	0.000008
	0.00000	26431.90				
	45.00	4386.78	2.08	-0.11	-6.50	0.01

HYCHAN.OUT						
60.25	0.00000	45.16	1.33	44.48	21.35	0.000000
	46.00	26689.50				
62.90	0.00000	4386.85	2.15	-0.08	-5.33	0.01
	47.00	45.95	1.37	45.25	21.06	0.000000
		27147.46				
66.93	0.00000	4386.92	2.22	-0.11	-7.60	0.01
	48.00	46.77	1.43	46.04	20.77	0.000000
		27622.12				
71.86	0.00000	4387.02	2.32	-0.15	-10.88	0.02
	49.00	47.99	1.50	47.22	20.35	0.000000
		28333.38				
78.00	0.00000	4387.15	2.44	-0.17	-12.92	0.02
	50.00	49.44	1.58	48.62	19.89	0.000000
		29172.00				
84.96	0.00000	4387.28	2.58	-0.17	-14.04	0.02
	51.00	51.01	1.67	50.13	19.41	0.000000
		30079.35				
92.50	0.00000	4387.43	2.73	-0.16	-14.71	0.02
	52.00	52.59	1.76	51.66	18.95	0.000000
		30997.37				
100.69	0.00000	4387.58	2.88	-0.16	-15.76	0.02
	53.00	54.21	1.86	53.23	18.51	0.000000
		31935.33				
110.21	0.00000	4387.75	3.05	-0.17	-18.70	0.02
	54.00	56.03	1.97	54.97	18.04	0.000000
		32984.82				
119.53	0.00000	4387.91	3.21	-0.13	-15.33	0.01
	55.00	57.73	2.07	56.61	17.62	0.000000
		33968.57				
128.79	0.00000	4388.06	3.36	-0.14	-18.32	0.01
	56.00	59.18	2.18	58.01	17.28	0.000000
		34807.61				
140.52	0.00000	4388.25	3.55	-0.18	-25.44	0.02
	57.00	61.06	2.30	59.82	16.86	0.000000
		35892.21				
158.38	0.00000	4388.53	3.83	-0.25	-39.87	0.02
	58.00	63.74	2.48	62.41	16.31	0.000000
		37443.70				
183.54	0.00000	4388.90	4.20	-0.28	-51.19	0.02
	59.00	67.23	2.73	65.75	15.64	0.000000
		39452.80				
212.25	0.00000	4389.32	4.62	-0.24	-51.87	0.02
	60.00	70.92	2.99	69.30	15.00	0.000000
		41581.88				
239.97	0.00000	4389.69	4.98	-0.18	-43.57	0.01
	61.00	74.05	3.24	72.30	14.50	0.000000
		43382.12				
266.02	0.00000	4390.03	5.33	-0.17	-46.11	0.01
	62.00	76.88	3.46	75.02	14.09	0.000000
		45009.86				
285.30	0.00000	4390.29	5.59	-0.08	-23.69	0.01
	63.00	79.01	3.61	77.06	13.79	0.000000
		46238.26				
299.92	0.00000	4390.43	5.73	0.04	13.33	0.00
	64.00	80.10	3.74	78.11	13.64	0.000000
		46863.25				
308.41	0.00000	4390.55	5.85	0.06	19.87	0.00
	65.00	81.06	3.80	79.03	13.51	0.000000
		47415.27				
325.81	0.00000	4390.75	6.05	0.08	26.21	0.01
	66.00	82.67	3.94	80.56	13.31	0.000000
		48337.27				
		4390.97	6.27	0.12	40.69	0.01

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		HYCHAN.OUT					
344.09	84.31	4.08	82.14	13.11	0.000000		
0.00000	49281.75						
67.00	4391.18	6.48	0.24	87.71	0.02		
362.31	85.90	4.22	83.66	12.92	0.000030		
0.00785	50194.91						
68.00	4391.39	6.69	0.41	155.48	0.03		
380.93	87.47	4.35	85.16	12.73	0.000027		
0.00726	51097.39						
69.00	4391.59	6.89	0.56	222.62	0.04		
399.03	88.98	4.48	86.60	12.57	0.000013		
0.00360	51960.23						
70.00	4391.82	7.12	0.71	295.64	0.05		
419.25	90.61	4.63	88.16	12.39	0.000024		
0.00705	52893.70						
71.00	4392.00	7.30	0.74	322.89	0.05		
436.54	91.93	4.75	89.42	12.25	0.000016		
0.00460	53651.62						
72.00	4392.24	7.54	0.76	349.17	0.05		
460.67	93.66	4.92	91.07	12.07	0.000031		
0.00961	54643.46						
73.00	4392.47	7.77	0.90	433.28	0.06		
482.84	95.26	5.07	92.61	11.91	0.000025		
0.00798	55564.39						
74.00	4392.67	7.97	1.03	517.09	0.06		
502.26	96.64	5.20	93.93	11.78	0.000040		
0.01304	56355.02						
75.00	4392.83	8.13	1.13	587.67	0.07		
517.86	97.74	5.30	94.97	11.68	0.000050		
0.01658	56980.86						
76.00	4393.05	8.35	1.46	791.04	0.09		
540.03	99.22	5.44	96.38	11.54	0.000103		
0.03500	57828.80						
77.00	4393.30	8.60	1.83	1031.40	0.11		
564.36	100.90	5.59	97.99	11.39	0.000124		
0.04329	58792.84						
78.00	4393.53	8.83	2.04	1199.43	0.12		
586.53	102.37	5.73	99.39	11.26	0.000139		
0.04961	59633.36						
79.00	4393.73	9.03	2.24	1361.97	0.13		
606.74	103.13	5.88	100.68	11.15	0.000169		
0.06203	60408.71						
80.00	4393.94	9.24	2.46	1544.22	0.14		
627.05	103.55	6.06	101.99	11.03	0.000191		
0.07228	61195.00						
81.00	4394.19	9.49	2.72	1765.67	0.16		
650.19	104.04	6.25	103.47	10.91	0.000223		
0.08716	62083.86						
82.00	4394.50	9.80	3.02	2052.73	0.17		
679.17	104.65	6.49	105.34	10.75	0.000251		
0.10145	63203.31						
83.00	4394.77	10.07	3.21	2266.64	0.18		
705.57	105.21	6.71	107.00	10.62	0.000258		
0.10798	64199.13						
84.00	4395.02	10.32	3.24	2362.62	0.18		
729.00	105.70	6.90	108.42	10.51	0.000230		
0.09890	65054.62						
85.00	4395.36	10.66	3.06	2332.05	0.17		
762.93	106.38	7.17	110.41	10.36	0.000204		
0.09132	66246.61						
86.00	4395.70	11.00	2.98	2369.58	0.16		
795.69	107.05	7.43	112.34	10.22	0.000191		
0.08870	67404.34						
87.00	4396.03	11.33	2.98	2467.87	0.16		

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HYCHAN.OUT						
828.16	107.72	7.69	114.22	10.08	0.000182	
0.08752	68531.04					
88.00	4396.33	11.63	3.02	2587.34	0.16	
857.76	108.32	7.92	115.91	9.97	0.000179	
0.08860	69546.04					
89.00	4396.60	11.90	2.96	2612.58	0.15	
883.66	108.86	8.12	117.39	9.87	0.000172	
0.08699	70431.38					
90.00	4396.81	12.11	2.91	2627.94	0.15	
904.19	109.28	8.27	118.54	9.79	0.000160	
0.08263	71124.46					
91.00	4396.93	12.23	2.81	2570.96	0.14	
915.84	109.52	8.36	119.18	9.75	0.000144	
0.07536	71510.80					
92.00	4396.97	12.27	2.75	2533.93	0.14	
919.83	109.60	8.39	119.40	9.73	0.000141	
0.07405	71642.61					
93.00	4396.94	12.24	2.69	2463.47	0.14	
917.37	109.55	8.37	119.26	9.74	0.000136	
0.07084	71557.70					
94.00	4396.85	12.15	2.65	2404.85	0.13	
908.22	109.36	8.31	118.75	9.78	0.000135	
0.06980	71250.60					
95.00	4396.66	11.96	2.58	2294.24	0.13	
890.41	108.99	8.17	117.74	9.84	0.000132	
0.06715	70646.12					
96.00	4396.45	11.75	2.48	2155.26	0.13	
869.96	108.57	8.01	116.58	9.92	0.000126	
0.06276	69949.32					
97.00	4396.23	11.53	2.45	2076.25	0.13	
847.89	108.12	7.84	115.33	10.01	0.000126	
0.06182	69196.90					
98.00	4396.00	11.30	2.41	1990.00	0.13	
826.33	107.67	7.67	114.08	10.09	0.000115	
0.05513	68447.60					
99.00	4395.78	11.08	2.30	1854.64	0.12	
804.70	107.22	7.50	112.82	10.18	0.000119	
0.05568	67690.82					
100.00	4395.51	10.81	2.17	1692.56	0.12	
778.61	106.68	7.30	111.28	10.29	0.000105	
0.04767	66768.91					
101.00	4395.05	10.35	2.14	1572.27	0.12	
733.93	105.76	6.94	108.60	10.50	0.000114	
0.04928	65161.03					
102.00	4394.66	9.96	2.01	1397.59	0.11	
696.78	104.98	6.64	106.32	10.67	0.000085	
0.03508	63792.54					
103.00	4394.47	9.77	1.83	1237.82	0.10	
677.84	104.60	6.48	105.16	10.77	0.000081	
0.03271	63098.15					
104.00	4394.33	9.63	1.70	1129.92	0.10	
664.74	104.33	6.37	104.35	10.83	0.000061	
0.02410	62609.73					
105.00	4394.23	9.53	1.59	1039.11	0.09	
655.30	104.13	6.29	103.76	10.88	0.000049	
0.01934	62254.90					
106.00	4394.14	9.44	1.49	961.11	0.09	
646.59	103.95	6.22	103.21	10.93	0.000063	
0.02464	61924.41					
107.00	4394.05	9.35	1.38	881.55	0.08	
637.75	103.76	6.15	102.64	10.98	0.000042	
0.01619	61586.30					
108.00	4393.94	9.23	1.28	803.31	0.07	

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		HYCHAN.OUT					
626.67	103.53	6.05	101.93	11.04	0.000031		
0.01161	61160.15						
109.00	4393.78	9.08	1.13	690.38	0.07		
611.54	103.22	5.92	100.96	11.12	0.000046		
0.01688	60577.64						
110.00	4393.62	8.92	1.04	617.69	0.06		
596.41	102.91	5.80	100.00	11.21	0.000034		
0.01222	59999.23						
111.00	4393.46	8.76	0.93	541.94	0.06		
580.36	101.95	5.69	98.98	11.30	0.000021		
0.00744	59390.49						
112.00	4393.30	8.60	0.85	479.98	0.05		
564.30	100.87	5.59	97.96	11.39	0.000020		
0.00697	58775.84						
113.00	4393.14	8.44	0.80	438.79	0.05		
548.90	99.82	5.50	96.96	11.49	0.000026		
0.00889	58175.20						
114.00	4392.98	8.28	0.75	398.05	0.05		
533.40	98.76	5.40	95.95	11.58	0.000022		
0.00746	57567.48						
115.00	4392.81	8.11	0.75	388.83	0.05		
516.05	97.58	5.29	94.82	11.69	0.000028		
0.00927	56889.05						
116.00	4392.60	7.90	0.82	405.40	0.05		
495.89	96.11	5.16	93.42	11.83	0.000009		
0.00286	56049.79						
117.00	4392.41	7.71	0.62	294.74	0.04		
478.21	94.80	5.04	92.16	11.96	0.000019		
0.00605	55296.79						
118.00	4392.29	7.59	0.52	243.51	0.03		
466.40	94.00	4.96	91.40	12.04	0.000011		
0.00348	54838.97						
119.00	4392.20	7.50	0.45	207.06	0.03		
457.37	93.32	4.90	90.75	12.11	0.000011		
0.00341	54448.59						
120.00	4392.10	7.40	0.38	171.35	0.02		
448.44	92.65	4.84	90.11	12.17	0.000019		
0.00589	54067.39						
121.00	4392.01	7.31	0.31	137.19	0.02		
440.35	92.01	4.79	89.50	12.24	0.000036		
0.01085	53701.05						
122.00	4391.93	7.23	0.26	114.58	0.02		
432.97	91.46	4.73	88.97	12.30	0.000037		
0.01087	53383.50						
123.00	4391.87	7.17	0.24	102.63	0.02		
426.42	90.97	4.69	88.50	12.35	0.000018		
0.00523	53100.51						
124.00	4391.80	7.10	0.23	94.54	0.01		
419.82	90.47	4.64	88.03	12.40	0.000000		
0.00000	52818.26						
125.00	4391.73	7.03	0.20	83.96	0.01		
413.34	89.96	4.59	87.54	12.46	0.000028		
0.00809	52524.62						
126.00	4391.66	6.96	0.19	76.61	0.01		
406.66	89.45	4.55	87.05	12.51	0.000019		
0.00534	52228.32						
127.00	4391.57	6.87	0.17	68.72	0.01		
398.72	88.84	4.49	86.47	12.58	0.000007		
0.00201	51882.50						
128.00	4391.50	6.80	0.15	58.78	0.01		
391.64	88.30	4.44	85.95	12.64	0.000000		
0.00000	51568.36						
129.00	4391.43	6.73	0.15	57.26	0.01		

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HYCHAN.OUT									
384.69		87.76	4.38	85.43	12.70	0.000000			
0.00000		51259.62							
130.00	4391.35	6.65	0.15	56.50	0.01				
378.14	87.21	4.34	84.91	12.76	0.000000				
0.00000	50944.84								
131.00	4391.28	6.58	0.15	55.52	0.01				
371.40	86.68	4.28	84.40	12.83	0.000000				
0.00000	50640.13								
132.00	4391.21	6.51	0.15	55.05	0.01				
365.09	86.15	4.24	83.90	12.89	0.000014				
0.00369	50337.31								
133.00	4391.14	6.44	0.15	54.23	0.01				
358.84	85.62	4.19	83.39	12.95	0.000000				
0.00000	50032.70								
134.00	4391.08	6.38	0.15	51.75	0.01				
353.53	85.17	4.15	82.96	13.00	0.000000				
0.00000	49776.27								
135.00	4391.03	6.33	0.15	51.31	0.01				
349.41	84.80	4.12	82.60	13.05	0.000000				
0.00000	49562.61								
136.00	4390.98	6.28	0.15	51.00	0.01				
344.96	84.43	4.09	82.25	13.09	0.000010				
0.00256	49350.63								
137.00	4390.93	6.23	0.15	50.32	0.01				
340.96	84.06	4.06	81.90	13.14	0.000000				
0.00000	49139.02								
138.00	4390.89	6.19	0.15	49.28	0.01				
337.02	83.73	4.02	81.58	13.18	0.000000				
0.00000	48950.49								
139.00	4390.85	6.15	0.15	49.88	0.01				
333.52	83.42	4.00	81.28	13.22	0.000000				
0.00000	48767.95								
140.00	4390.81	6.11	0.14	47.86	0.01				
330.09	83.11	3.97	80.99	13.25	0.000016				
0.00396	48592.54								
141.00	4390.77	6.07	0.15	49.26	0.01				
326.44	82.78	3.94	80.67	13.30	0.000000				
0.00000	48401.79								
142.00	4390.73	6.03	0.15	48.62	0.01				
322.88	82.47	3.92	80.37	13.33	0.000000				
0.00000	48224.16								
143.00	4390.69	5.99	0.15	48.29	0.01				
319.22	82.15	3.89	80.07	13.38	0.000000				
0.00000	48039.29								
144.00	4390.64	5.94	0.15	48.17	0.01				
315.76	81.82	3.86	79.75	13.42	0.000000				
0.00000	47848.47								
145.00	4390.61	5.91	0.15	47.21	0.01				
312.45	81.52	3.83	79.46	13.46	0.000014				
0.00329	47675.69								
146.00	4390.57	5.87	0.15	47.50	0.01				
309.15	81.22	3.81	79.17	13.49	0.000000				
0.00000	47503.24								
147.00	4390.53	5.83	0.16	47.78	0.01				
305.53	80.89	3.78	78.86	13.54	0.000000				
0.00000	47315.82								
148.00	4390.48	5.78	0.16	47.29	0.01				
302.11	80.54	3.75	78.53	13.58	0.000009				
0.00208	47116.70								
149.00	4390.44	5.74	0.16	47.13	0.01				
298.56	80.22	3.72	78.22	13.63	0.000015				
0.00348	46931.65								
150.00	4390.40	5.70	0.16	46.69	0.01				

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		HYCHAN.OUT					
295.59	79.92	3.70	77.93	13.67	0.000008		
0.00193	46759.55						
151.00	4390.37	5.67	0.16	46.40	0.01		
292.47	79.63	3.67	77.65	13.70	0.000006		
0.00144	46590.20						
152.00	4390.33	5.63	0.16	46.36	0.01		
289.24	79.33	3.65	77.37	13.74	0.000000		
0.00000	46420.29						
153.00	4390.29	5.59	0.16	46.63	0.01		
285.95	79.03	3.62	77.08	13.79	0.000009		
0.00206	46248.78						
154.00	4390.25	5.55	0.16	45.42	0.01		
283.09	78.73	3.60	76.79	13.83	0.000000		
0.00000	46075.61						
155.00	4390.21	5.51	0.17	46.49	0.01		
279.87	78.42	3.57	76.49	13.87	0.000011		
0.00244	45894.34						
156.00	4390.18	5.48	0.16	45.71	0.01		
277.30	78.14	3.55	76.23	13.91	0.000018		
0.00393	45735.53						
157.00	4390.14	5.44	0.17	46.40	0.01		
273.77	77.82	3.52	75.92	13.95	0.000000		
0.00000	45552.86						
158.00	4390.12	5.42	0.15	41.03	0.01		
272.54	77.66	3.51	75.76	13.98	0.000000		
0.00000	45457.27						
159.00	4390.12	5.41	0.15	41.99	0.01		
271.65	77.61	3.50	75.71	13.98	0.000013		
0.00277	45428.82						
160.00	4390.11	5.41	0.15	41.56	0.01		
270.75	77.55	3.49	75.66	13.99	0.000012		
0.00261	45395.54						
161.00	4390.10	5.40	0.16	42.02	0.01		
270.62	77.48	3.49	75.59	14.00	0.000000		
0.00000	45356.23						
162.00	4390.09	5.39	0.15	41.06	0.01		
269.91	77.40	3.49	75.52	14.01	0.000000		
0.00000	45311.93						
163.00	4390.08	5.38	0.16	42.09	0.01		
269.30	77.34	3.48	75.46	14.02	0.000000		
0.00000	45275.78						
164.00	4390.07	5.37	0.15	41.39	0.01		
268.52	77.26	3.48	75.38	14.03	0.000011		
0.00233	45227.88						
165.00	4390.07	5.37	0.15	40.86	0.01		
267.91	77.20	3.47	75.33	14.04	0.000000		
0.00000	45196.49						
166.00	4390.06	5.36	0.15	41.38	0.01		
267.28	77.14	3.46	75.27	14.05	0.000000		
0.00000	45161.07						
167.00	4390.04	5.34	0.16	43.31	0.01		
265.94	76.99	3.45	75.13	14.07	0.000000		
0.00000	45076.30						
168.00	4390.02	5.32	0.16	43.17	0.01		
264.23	76.81	3.44	74.95	14.10	0.000000		
0.00000	44967.93						
169.00	4390.00	5.30	0.16	41.85	0.01		
262.58	76.67	3.43	74.81	14.12	0.000006		
0.00136	44887.77						
170.00	4389.98	5.28	0.16	42.05	0.01		
261.34	76.54	3.41	74.69	14.14	0.000000		
0.00000	44814.10						
171.00	4389.97	5.27	0.16	41.88	0.01		

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HYCHAN.OUT									
260.40	0.00000	76.42	3.41	74.58	14.15	0.000000			
172.00	4389.96	44746.09	5.26	0.16	41.06	0.01			
258.82	0.00000	76.33	3.39	74.49	14.17	0.000000			
173.00	4389.95	44693.39	5.25	0.16	41.67	0.01			
258.62	0.00000	76.23	3.39	74.39	14.18	0.000000			
174.00	4389.93	44635.23	5.23	0.16	41.29	0.01			
257.55	0.00191	76.12	3.38	74.29	14.20	0.000009			
175.00	4389.91	44574.17	5.21	0.17	43.24	0.01			
256.00	0.00000	75.96	3.37	74.14	14.22	0.000000			
176.00	4389.89	44481.83	5.19	0.17	42.68	0.01			
253.93	0.00000	75.75	3.35	73.94	14.25	0.000000			
177.00	4389.87	44361.18	5.17	0.17	42.76	0.01			
251.86	0.00000	75.56	3.33	73.76	14.28	0.000000			
178.00	4389.85	44253.43	5.15	0.17	41.82	0.01			
250.77	0.00000	75.41	3.33	73.61	14.30	0.000000			
179.00	4389.83	44165.99	5.13	0.16	41.05	0.01			
249.03	0.00000	75.28	3.31	73.49	14.32	0.000000			
180.00	4389.82	44092.40	5.12	0.17	41.54	0.01			
248.63	0.00000	75.17	3.31	73.38	14.34	0.000000			
181.00	4389.81	44025.86	5.11	0.16	40.03	0.01			
247.69	0.00000	75.08	3.30	73.29	14.35	0.000000			
182.00	4389.82	43974.36	5.12	0.15	36.37	0.01			
248.51	0.00000	75.16	3.31	73.37	14.34	0.000000			
183.00	4389.84	44021.72	5.14	0.15	36.39	0.01			
250.40	0.00000	75.37	3.32	73.57	14.31	0.000000			
184.00	4389.87	44142.02	5.17	0.14	35.14	0.01			
252.77	0.00180	75.61	3.34	73.80	14.27	0.000009			
185.00	4389.90	44279.31	5.20	0.14	36.20	0.01			
254.78	0.00000	75.84	3.36	74.02	14.24	0.000000			
186.00	4389.92	44411.32	5.22	0.15	37.62	0.01			
256.28	0.00000	76.00	3.37	74.17	14.21	0.000000			
187.00	4389.93	44504.51	5.23	0.15	37.75	0.01			
257.24	0.00135	76.09	3.38	74.26	14.20	0.000006			
188.00	4389.94	44555.63	5.24	0.15	38.35	0.01			
257.83	0.00000	76.15	3.39	74.32	14.19	0.000000			
189.00	4389.94	44593.11	5.24	0.15	38.89	0.01			
258.06	0.00000	76.18	3.39	74.35	14.19	0.000000			
190.00	4389.94	44608.11	5.24	0.15	39.38	0.01			
258.31	0.00000	76.20	3.39	74.37	14.18	0.000000			
191.00	4389.94	44620.26	5.24	0.15	38.97	0.01			
258.21	0.00000	76.19	3.39	74.36	14.19	0.000000			
192.00	4389.94	44614.71	5.24	0.16	40.15	0.01			

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HYCHAN.OUT									
258.06	0.00000	76.17	3.39	74.34	14.19	0.000000			
193.00	4389.93	44603.59	5.23	0.16	41.98	0.01			
256.80	0.00000	76.06	3.38	74.23	14.20	0.000000			
194.00	4389.90	44537.04	5.20	0.16	42.07	0.01			
254.99	0.00000	75.87	3.36	74.05	14.23	0.000000			
195.00	4389.89	44430.09	5.19	0.16	40.95	0.01			
253.55	0.00000	75.73	3.35	73.92	14.25	0.000000			
196.00	4389.87	44349.78	5.17	0.16	40.85	0.01			
252.79	0.00000	75.62	3.34	73.81	14.27	0.000000			
197.00	4389.86	44284.72	5.16	0.16	40.48	0.01			
252.04	0.00000	75.54	3.34	73.74	14.28	0.000000			
198.00	4389.85	44242.30	5.15	0.16	39.85	0.01			
251.36	0.00000	75.47	3.33	73.67	14.29	0.000000			
199.00	4389.85	44200.78	5.15	0.16	39.72	0.01			
250.94	0.00173	75.42	3.33	73.62	14.30	0.000008			
		44173.86							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3433

MAXIMUM DISCHARGE (CFS) = 2662.39 AT TIME = 89.69  
 MAXIMUM STAGE = 4396.92 AT TIME = 91.74

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
STRESS	SURFACE AREA	AREA						
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
7.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
8.00	4384.60	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000

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		HYCHAN.OUT					
	0.00000	0.00					
0.00	9.00	4384.64	0.04	-0.07	-0.35	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00		
	10.00	4385.37	0.77	-0.33	-4.56	0.07	
13.99		25.65	0.55	25.52	33.21		0.000000
	0.00000	12758.83					
	11.00	4385.58	0.98	-0.14	-2.73	0.03	
19.16		29.45	0.65	29.22	29.81		0.000000
	0.00000	14611.71					
	12.00	4385.55	0.95	-0.03	-0.50	0.01	
17.50		28.95	0.60	28.73	30.22		0.000000
	0.00000	14367.48					
	13.00	4385.48	0.88	-0.08	-1.23	0.01	
15.72		27.71	0.57	27.53	31.26		0.000000
	0.00000	13765.76					
	14.00	4385.39	0.79	-0.06	-0.84	0.01	
13.28		26.01	0.51	25.87	32.85		0.000000
	0.00000	12936.33					
	15.00	4385.30	0.70	0.04	0.40	0.01	
9.74		24.29	0.40	24.19	34.65		0.000010
	0.00025	12096.33					
	16.00	4385.23	0.63	0.08	0.69	0.02	
8.64		23.01	0.38	22.93	36.15		0.000016
	0.00038	11467.16					
	17.00	4385.19	0.59	0.08	0.63	0.02	
7.79		22.17	0.35	22.11	37.21		0.000012
	0.00026	11056.86					
	18.00	4385.17	0.57	0.06	0.42	0.01	
7.67		21.73	0.35	21.69	37.80		0.000017
	0.00037	10843.10					
	19.00	4385.17	0.56	0.05	0.34	0.01	
7.53		21.54	0.35	21.50	38.06		0.000017
	0.00038	10749.25					
	20.00	4385.19	0.59	0.00	0.00	0.00	
0.00		22.04	0.00	21.98	37.39		0.000000
	0.00000	10992.48					
	21.00	4385.26	0.66	-0.09	-0.98	0.02	
10.64		23.55	0.45	23.46	35.50		0.000000
	0.00000	11730.55					
	22.00	4385.36	0.76	-0.15	-2.07	0.03	
13.34		25.57	0.52	25.44	33.29		0.000000
	0.00000	12721.95					
	23.00	4385.49	0.89	-0.19	-3.19	0.04	
16.66		27.83	0.60	27.65	31.16		0.000000
	0.00000	13823.07					
	24.00	4385.58	0.98	-0.20	-3.75	0.04	
19.08		29.36	0.65	29.14	29.88		0.000000
	0.00000	14570.26					
	25.00	4385.64	1.04	-0.19	-4.09	0.03	
21.00		30.44	0.69	30.19	29.05		0.000000
	0.00000	15094.15					
	26.00	4385.75	1.15	-0.24	-5.84	0.04	
24.70		32.23	0.77	31.94	27.78		0.000000
	0.00000	15969.98					
	27.00	4385.91	1.31	-0.29	-8.90	0.05	
30.38		34.76	0.87	34.40	26.19		0.000000
	0.00000	17198.43					
	28.00	4386.11	1.51	-0.36	-13.58	0.05	
37.79		37.63	1.00	37.18	24.62		0.000000
	0.00000	18591.47					
	29.00	4386.31	1.71	-0.39	-17.90	0.05	
45.33		40.31	1.12	39.78	23.33		0.000000

HYCHAN.OUT							
	0.00000	19891.48					
50.40	30.00	4386.44	1.84	-0.36	-18.22	0.05	
		42.02	1.20	41.44	22.58		0.000000
	0.00000	20722.33					
54.84	31.00	4386.55	1.95	-0.29	-15.74	0.04	
		43.46	1.26	42.84	21.99		0.000000
	0.00000	21418.96					
59.26	32.00	4386.65	2.05	-0.20	-11.64	0.02	
		44.79	1.32	44.12	21.48		0.000000
	0.00000	22061.00					
62.06	33.00	4386.72	2.12	-0.10	-6.19	0.01	
		45.57	1.36	44.88	21.19		0.000000
	0.00000	22441.44					
65.28	34.00	4386.78	2.18	-0.11	-7.43	0.01	
		46.36	1.41	45.65	20.91		0.000000
	0.00000	22823.35					
68.32	35.00	4386.85	2.25	-0.09	-6.19	0.01	
		47.20	1.45	46.45	20.62		0.000000
	0.00000	23225.80					
70.56	36.00	4386.89	2.29	-0.02	-1.44	0.00	
		47.62	1.48	46.86	20.48		0.000000
	0.00000	23429.00					
72.10	37.00	4386.93	2.33	-0.07	-5.12	0.01	
		48.10	1.50	47.33	20.32		0.000020
	0.00189	23664.44					
70.13	38.00	4386.91	2.31	0.06	3.99	0.01	
		47.84	1.47	47.07	20.41		0.000008
	0.00069	23535.78					
67.24	39.00	4386.87	2.27	0.10	6.63	0.01	
		47.36	1.42	46.61	20.57		0.000000
	0.00000	23305.14					
64.34	40.00	4386.80	2.20	0.08	5.32	0.01	
		46.62	1.38	45.89	20.82		0.000000
	0.00000	22946.78					
63.25	41.00	4386.77	2.17	0.03	1.80	0.00	
		46.24	1.37	45.53	20.96		0.000000
	0.00000	22763.39					
63.38	42.00	4386.76	2.16	0.01	0.64	0.00	
		46.05	1.38	45.35	21.02		0.000015
	0.00132	22673.20					
62.13	43.00	4386.75	2.15	0.02	1.01	0.00	
		45.96	1.35	45.26	21.05		0.000008
	0.00066	22628.61					
0.00	44.00	4386.75	2.15	0.00	0.00	0.00	
		45.95	0.00	45.24	21.06		0.000000
	0.00000	22621.47					
65.04	45.00	4386.79	2.19	-0.11	-6.98	0.01	
		46.41	1.40	45.69	20.90		0.000000
	0.00000	22844.25					
68.03	46.00	4386.85	2.25	-0.08	-5.68	0.01	
		47.16	1.44	46.42	20.63		0.000000
	0.00000	23209.62					
71.83	47.00	4386.92	2.32	-0.11	-8.21	0.01	
		47.99	1.50	47.22	20.36		0.000000
	0.00000	23610.20					
77.02	48.00	4387.03	2.43	-0.15	-11.68	0.02	
		49.22	1.57	48.40	19.96		0.000000
	0.00000	24201.39					
83.35	49.00	4387.15	2.55	-0.17	-13.85	0.02	
		50.64	1.65	49.78	19.52		0.000000
	0.00000	24889.58					
90.46	50.00	4387.29	2.69	-0.17	-15.06	0.02	
		52.17	1.73	51.26	19.07		0.000000

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		HYCHAN.OUT						
	0.00000	25629.38						
98.14	51.00	4387.43	2.83	-0.16	-15.81	0.02		
		53.72	1.83		52.75	18.64	0.000000	
	0.00000	26377.25						
106.48	52.00	4387.58	2.98	-0.16	-16.98	0.02		
		55.31	1.93		54.29	18.22	0.000000	
	0.00000	27144.08						
116.21	53.00	4387.75	3.15	-0.17	-20.14	0.02		
		57.10	2.04		56.01	17.77	0.000000	
	0.00000	28006.45						
125.61	54.00	4387.92	3.32	-0.13	-16.49	0.01		
		58.76	2.14		57.61	17.38	0.000000	
	0.00000	28805.37						
135.06	55.00	4388.06	3.46	-0.15	-19.73	0.01		
		60.20	2.24		58.99	17.05	0.000000	
	0.00000	29496.89						
147.09	56.00	4388.25	3.65	-0.19	-27.41	0.02		
		62.06	2.37		60.79	16.65	0.000000	
	0.00000	30394.31						
165.40	57.00	4388.53	3.93	-0.26	-42.93	0.02		
		64.74	2.55		63.36	16.11	0.000000	
	0.00000	31682.43						
190.96	58.00	4388.91	4.31	-0.29	-55.16	0.02		
		68.19	2.80		66.68	15.47	0.000000	
	0.00000	33338.14						
219.92	59.00	4389.32	4.72	-0.25	-55.92	0.02		
		71.82	3.06		70.17	14.85	0.000000	
	0.00000	35084.26						
247.77	60.00	4389.69	5.09	-0.19	-47.12	0.01		
		74.90	3.31		73.12	14.38	0.000000	
	0.00000	36561.98						
274.29	61.00	4390.03	5.43	-0.18	-49.85	0.01		
		77.71	3.53		75.81	13.97	0.000000	
	0.00000	37906.21						
293.49	62.00	4390.29	5.69	-0.09	-25.78	0.01		
		79.81	3.68		77.83	13.68	0.000000	
	0.00000	38914.61						
308.56	63.00	4390.43	5.83	0.04	12.20	0.00		
		80.89	3.81		78.86	13.54	0.000000	
	0.00000	39429.93						
316.93	64.00	4390.55	5.95	0.06	17.64	0.00		
		81.84	3.87		79.77	13.41	0.000000	
	0.00000	39887.33						
334.51	65.00	4390.75	6.15	0.07	23.64	0.01		
		83.44	4.01		81.30	13.21	0.000000	
	0.00000	40650.72						
352.82	66.00	4390.97	6.37	0.11	38.21	0.01		
		85.07	4.15		82.86	13.01	0.000011	
	0.00277	41430.59						
370.97	67.00	4391.17	6.57	0.23	85.32	0.02		
		86.62	4.28		84.35	12.83	0.000019	
	0.00501	42174.25						
389.71	68.00	4391.38	6.78	0.39	153.11	0.03		
		88.16	4.42		85.81	12.66	0.000022	
	0.00612	42907.23						
407.79	69.00	4391.58	6.98	0.54	219.48	0.04		
		89.63	4.55		87.22	12.49	0.000015	
	0.00431	43610.66						
428.09	70.00	4391.80	7.20	0.69	293.35	0.05		
		91.22	4.69		88.74	12.32	0.000010	
	0.00307	44370.03						
444.80	71.00	4391.98	7.38	0.72	319.88	0.05		
		92.53	4.81		89.99	12.19	0.000010	



		HYCHAN.OUT						
	0.00311	44997.42						
468.79	72.00	4392.23	7.63	0.74	345.94	12.01	0.05	0.000035
	0.01077	45818.88	4.97		91.64			
490.99	73.00	4392.45	7.85	0.88	430.17	11.86	0.06	0.000031
	0.00993	46567.89	5.12		93.14			
508.86	74.00	4392.65	8.05	1.00	510.14	11.73	0.06	0.000035
	0.01141	47207.04	5.28		94.41			
523.47	75.00	4392.81	8.21	1.10	573.27	11.63	0.07	0.000037
	0.01255	47718.93	5.41		95.44			
542.60	76.00	4393.01	8.41	1.40	759.75	11.51	0.09	0.000092
	0.03223	48368.67	5.58		96.74			
563.64	77.00	4393.24	8.64	1.78	1002.93	11.37	0.11	0.000103
	0.03696	49101.00	5.77		98.20			
583.25	78.00	4393.45	8.85	2.01	1173.28	11.25	0.12	0.000123
	0.04551	49762.83	5.95		99.53			
601.90	79.00	4393.65	9.05	2.22	1335.47	11.14	0.13	0.000156
	0.05936	50385.94	6.11		100.77			
620.31	80.00	4393.85	9.25	2.44	1515.73	11.03	0.14	0.000170
	0.06655	51004.04	6.28		102.01			
641.36	81.00	4394.08	9.48	2.70	1734.40	10.91	0.15	0.000207
	0.08325	51719.42	6.46		103.44			
667.38	82.00	4394.37	9.77	3.03	2021.97	10.77	0.17	0.000229
	0.09528	52596.43	6.68		105.19			
691.76	83.00	4394.64	10.04	3.26	2252.06	10.64	0.18	0.000247
	0.10636	53393.47	6.89		106.79			
714.88	84.00	4394.89	10.29	3.28	2344.14	10.52	0.18	0.000209
	0.09218	54126.62	7.08		108.25			
750.48	85.00	4395.26	10.66	3.04	2279.78	10.36	0.16	0.000188
	0.08649	55206.66	7.38		110.41			
783.72	86.00	4395.61	11.01	2.97	2325.51	10.21	0.16	0.000178
	0.08522	56199.88	7.66		112.40			
815.40	87.00	4395.94	11.34	3.01	2453.50	10.08	0.16	0.000175
	0.08638	57139.19	7.92		114.28			
843.97	88.00	4396.24	11.64	3.06	2584.32	9.96	0.16	0.000171
	0.08709	57987.82	8.14		115.98			
869.98	89.00	4396.52	11.92	3.01	2620.50	9.86	0.15	0.000158
	0.08216	58740.46	8.35		117.48			
890.51	90.00	4396.73	12.13	2.98	2650.83	9.78	0.15	0.000154
	0.08191	59327.05	8.51		118.65			
902.43	91.00	4396.85	12.25	2.89	2609.77	9.74	0.15	0.000142
	0.07607	59660.69	8.61		119.32			
906.52	92.00	4396.90	12.30	2.84	2577.25	9.72	0.14	0.000134
		104.93	8.64		119.55			

		HYCHAN.OUT					
	0.07240	59776.14					
904.42	93.00	4396.87	12.27	2.78	2509.93	0.14	
		104.89	8.62	119.43	9.73	0.000135	
	0.07271	59714.10					
	94.00	4396.78	12.18	2.73	2447.40	0.14	
895.64		104.70	8.55	118.92	9.76	0.000129	
	0.06905	59460.94					
	95.00	4396.60	12.00	2.65	2331.24	0.14	
878.63		104.34	8.42	117.93	9.83	0.000121	
	0.06352	58965.29					
	96.00	4396.39	11.79	2.54	2183.79	0.13	
859.17		103.92	8.27	116.79	9.91	0.000120	
	0.06186	58396.59					
	97.00	4396.17	11.57	2.49	2089.28	0.13	
837.80		103.47	8.10	115.55	9.99	0.000114	
	0.05753	57772.83					
	98.00	4395.94	11.34	2.44	1994.75	0.13	
816.92		103.03	7.93	114.30	10.08	0.000108	
	0.05354	57151.50					
	99.00	4395.72	11.12	2.33	1857.44	0.12	
795.99		102.58	7.76	113.04	10.17	0.000105	
	0.05072	56520.38					
	100.00	4395.46	10.85	2.19	1692.60	0.12	
771.28		102.05	7.56	111.54	10.28	0.000092	
	0.04346	55768.30					
	101.00	4394.99	10.39	2.17	1577.96	0.12	
727.68		101.12	7.20	108.84	10.48	0.000111	
	0.05002	54419.68					
	102.00	4394.60	10.00	2.03	1405.32	0.11	
692.11		100.35	6.90	106.58	10.65	0.000080	
	0.03457	53291.78					
	103.00	4394.42	9.82	1.84	1243.22	0.10	
674.65		99.98	6.75	105.48	10.74	0.000099	
	0.04158	52742.04					
	104.00	4394.29	9.69	1.71	1134.01	0.10	
662.53		99.72	6.64	104.71	10.80	0.000084	
	0.03462	52354.20					
	105.00	4394.20	9.60	1.59	1042.48	0.09	
653.77		99.54	6.57	104.15	10.85	0.000054	
	0.02209	52072.75					
	106.00	4394.11	9.51	1.49	965.19	0.09	
645.63		99.36	6.50	103.62	10.90	0.000043	
	0.01760	51808.54					
	107.00	4394.02	9.42	1.39	885.10	0.08	
637.39		99.19	6.43	103.08	10.94	0.000031	
	0.01259	51540.72					
	108.00	4393.91	9.31	1.29	809.38	0.07	
627.09		98.96	6.34	102.40	11.00	0.000015	
	0.00574	51198.44					
	109.00	4393.76	9.16	1.14	698.50	0.07	
612.96		98.66	6.21	101.45	11.08	0.000043	
	0.01668	50727.08					
	110.00	4393.60	9.00	1.04	625.38	0.06	
598.58		98.35	6.09	100.51	11.16	0.000024	
	0.00913	50253.04					
	111.00	4393.44	8.84	0.94	550.54	0.06	
583.82		98.03	5.96	99.51	11.25	0.000024	
	0.00887	49755.43					
	112.00	4393.28	8.68	0.86	489.48	0.05	
568.84		97.71	5.82	98.50	11.34	0.000013	
	0.00455	49248.27					
	113.00	4393.13	8.53	0.81	449.22	0.05	
554.52		97.40	5.69	97.51	11.43	0.000007	

		HYCHAN.OUT						
	0.00251	48753.52						
540.07	114.00	4392.97	8.37	0.76	408.79	0.05		
		97.08	5.56		96.51	11.53	0.000032	
	0.01110	48252.96						
523.31	115.00	4392.79	8.19	0.77	402.86	0.05		
		96.73	5.41		95.36	11.64	0.000000	
	0.00000	47680.25						
503.90	116.00	4392.58	7.98	0.83	418.11	0.05		
		96.30	5.23		93.96	11.78	0.000000	
	0.00000	46981.70						
486.59	117.00	4392.40	7.80	0.61	297.41	0.04		
		95.43	5.10		92.76	11.90	0.000000	
	0.00000	46381.34						
475.66	118.00	4392.28	7.68	0.51	244.87	0.03		
		94.64	5.03		92.01	11.97	0.000000	
	0.00000	46006.83						
466.40	119.00	4392.19	7.59	0.45	208.38	0.03		
		93.99	4.96		91.39	12.04	0.000000	
	0.00000	45692.98						
457.26	120.00	4392.10	7.50	0.38	172.72	0.02		
		93.33	4.90		90.76	12.11	0.000025	
	0.00760	45380.85						
448.91	121.00	4392.01	7.41	0.31	138.41	0.02		
		92.71	4.84		90.17	12.17	0.000039	
	0.01190	45082.86						
441.46	122.00	4391.93	7.33	0.26	115.63	0.02		
		92.16	4.79		89.65	12.23	0.000046	
	0.01366	44822.55						
434.86	123.00	4391.86	7.26	0.24	103.27	0.02		
		91.68	4.74		89.18	12.28	0.000024	
	0.00720	44590.63						
428.44	124.00	4391.80	7.20	0.22	95.02	0.01		
		91.18	4.70		88.71	12.33	0.000000	
	0.00000	44353.48						
421.93	125.00	4391.73	7.13	0.20	85.47	0.01		
		90.68	4.65		88.23	12.38	0.000045	
	0.01301	44114.07						
415.12	126.00	4391.65	7.05	0.19	77.43	0.01		
		90.16	4.60		87.73	12.44	0.000027	
	0.00789	43863.77						
407.90	127.00	4391.57	6.97	0.17	69.72	0.01		
		89.57	4.55		87.17	12.50	0.000000	
	0.00000	43582.75						
400.77	128.00	4391.50	6.90	0.15	59.59	0.01		
		89.03	4.50		86.65	12.56	0.000000	
	0.00000	43324.14						
393.64	129.00	4391.43	6.83	0.15	58.24	0.01		
		88.49	4.45		86.13	12.62	0.000000	
	0.00000	43066.29						
387.11	130.00	4391.35	6.75	0.15	57.40	0.01		
		87.95	4.40		85.62	12.68	0.000000	
	0.00000	42808.33						
380.18	131.00	4391.28	6.68	0.15	56.30	0.01		
		87.42	4.35		85.11	12.74	0.000000	
	0.00000	42553.19						
374.14	132.00	4391.21	6.61	0.15	56.16	0.01		
		86.89	4.31		84.61	12.80	0.000000	
	0.00000	42303.71						
367.79	133.00	4391.14	6.54	0.15	54.76	0.01		
		86.37	4.26		84.11	12.86	0.000000	
	0.00000	42052.59						
362.48	134.00	4391.08	6.48	0.14	52.53	0.01		
		85.92	4.22		83.68	12.91	0.000021	

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		HYCHAN.OUT						
	0.00545	41839.66						
358.06	135.00	4391.03	6.43	0.15	51.93	0.01		
		85.55	4.19		83.32	12.96	0.000022	
	0.00587	41661.30						
353.79	136.00	4390.98	6.38	0.15	51.68	0.01		
		85.19	4.15		82.97	13.00	0.000016	
	0.00418	41486.06						
349.70	137.00	4390.93	6.33	0.14	50.69	0.01		
		84.82	4.12		82.62	13.04	0.000000	
	0.00000	41312.47						
345.67	138.00	4390.89	6.29	0.14	49.98	0.01		
		84.49	4.09		82.31	13.08	0.000000	
	0.00000	41154.85						
342.03	139.00	4390.85	6.25	0.15	50.29	0.01		
		84.18	4.06		82.01	13.12	0.000000	
	0.00000	41004.00						
338.50	140.00	4390.81	6.21	0.14	48.62	0.01		
		83.87	4.04		81.72	13.16	0.000009	
	0.00223	40857.96						
334.79	141.00	4390.77	6.17	0.15	49.34	0.01		
		83.55	4.01		81.40	13.20	0.000000	
	0.00000	40701.48						
331.34	142.00	4390.73	6.13	0.15	49.25	0.01		
		83.24	3.98		81.11	13.24	0.000000	
	0.00000	40553.64						
327.69	143.00	4390.69	6.08	0.15	48.78	0.01		
		82.91	3.95		80.80	13.28	0.000000	
	0.00000	40398.64						
324.12	144.00	4390.64	6.04	0.15	48.64	0.01		
		82.59	3.92		80.49	13.32	0.000000	
	0.00000	40244.12						
320.98	145.00	4390.60	6.00	0.15	47.82	0.01		
		82.29	3.90		80.20	13.36	0.000000	
	0.00000	40099.56						
317.72	146.00	4390.57	5.97	0.15	47.82	0.01		
		81.99	3.88		79.91	13.40	0.000007	
	0.00159	39957.12						
314.06	147.00	4390.52	5.92	0.15	48.33	0.01		
		81.66	3.85		79.60	13.44	0.000000	
	0.00000	39800.78						
310.36	148.00	4390.48	5.88	0.15	47.86	0.01		
		81.32	3.82		79.28	13.48	0.000000	
	0.00000	39637.84						
306.99	149.00	4390.44	5.84	0.16	47.64	0.01		
		81.00	3.79		78.97	13.52	0.000000	
	0.00000	39483.25						
303.86	150.00	4390.40	5.80	0.15	47.08	0.01		
		80.71	3.76		78.69	13.56	0.000000	
	0.00000	39342.57						
300.71	151.00	4390.37	5.76	0.16	46.81	0.01		
		80.41	3.74		78.40	13.60	0.000000	
	0.00000	39201.61						
297.39	152.00	4390.33	5.73	0.16	46.68	0.01		
		80.12	3.71		78.12	13.64	0.000000	
	0.00000	39059.83						
294.47	153.00	4390.29	5.69	0.16	47.24	0.01		
		79.82	3.69		77.84	13.68	0.000000	
	0.00000	38918.43						
291.26	154.00	4390.25	5.65	0.16	45.72	0.01		
		79.52	3.66		77.55	13.72	0.000000	
	0.00000	38773.92						
288.14	155.00	4390.21	5.61	0.16	47.00	0.01		
		79.21	3.64		77.25	13.76	0.000000	

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		HYCHAN.OUT						
	0.00000	38624.88						
156.00	4390.18	5.58	0.16	46.25	0.01			
285.52	78.93	3.62	76.99	13.80	0.000000			
	0.00000	38493.58						
157.00	4390.14	5.54	0.16	46.50	0.01			
282.21	78.62	3.59	76.69	13.84	0.000000			
	0.00000	38343.46						
158.00	4390.12	5.52	0.15	41.22	0.01			
280.49	78.46	3.57	76.53	13.86	0.000006			
	0.00133	38265.85						
159.00	4390.11	5.51	0.15	42.22	0.01			
280.08	78.41	3.57	76.48	13.87	0.000000			
	0.00000	38240.52						
160.00	4390.11	5.51	0.15	41.54	0.01			
279.43	78.35	3.57	76.43	13.88	0.000000			
	0.00000	38213.64						
161.00	4390.10	5.50	0.15	42.09	0.01			
278.73	78.28	3.56	76.36	13.89	0.000000			
	0.00000	38181.12						
162.00	4390.09	5.49	0.15	41.16	0.01			
278.06	78.20	3.56	76.29	13.90	0.000000			
	0.00000	38143.59						
163.00	4390.08	5.48	0.15	42.10	0.01			
277.35	78.14	3.55	76.23	13.91	0.000000			
	0.00000	38113.62						
164.00	4390.07	5.47	0.15	41.64	0.01			
276.34	78.06	3.54	76.15	13.92	0.000000			
	0.00000	38075.07						
165.00	4390.06	5.46	0.15	40.87	0.01			
275.99	78.00	3.54	76.09	13.93	0.000016			
	0.00347	38047.06						
166.00	4390.06	5.46	0.15	41.44	0.01			
275.32	77.95	3.53	76.04	13.94	0.000009			
	0.00188	38019.92						
167.00	4390.04	5.44	0.16	43.65	0.01			
273.92	77.80	3.52	75.90	13.96	0.000008			
	0.00179	37949.35						
168.00	4390.02	5.42	0.16	43.33	0.01			
272.20	77.61	3.51	75.72	13.98	0.000006			
	0.00135	37859.14						
169.00	4390.00	5.40	0.16	42.10	0.01			
270.63	77.47	3.49	75.58	14.00	0.000000			
	0.00000	37791.23						
170.00	4389.98	5.38	0.16	42.13	0.01			
268.68	77.35	3.47	75.47	14.02	0.000000			
	0.00000	37732.88						
171.00	4389.97	5.37	0.16	41.99	0.01			
268.27	77.23	3.47	75.35	14.04	0.000000			
	0.00000	37675.77						
172.00	4389.96	5.36	0.16	41.24	0.01			
265.94	77.13	3.45	75.26	14.05	0.000000			
	0.00000	37630.88						
173.00	4389.95	5.35	0.16	41.80	0.01			
266.49	77.04	3.46	75.17	14.06	0.000008			
	0.00175	37585.12						
174.00	4389.93	5.33	0.16	41.54	0.01			
265.27	76.93	3.45	75.07	14.08	0.000000			
	0.00000	37533.66						
175.00	4389.91	5.31	0.16	43.42	0.01			
263.92	76.77	3.44	74.91	14.10	0.000008			
	0.00178	37456.10						
176.00	4389.89	5.29	0.16	42.86	0.01			
261.88	76.56	3.42	74.71	14.13	0.000000			

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HYCHAN.OUT									
0.00000	37355.38								
177.00	4389.86	5.26	0.17	43.05	0.01				
259.89	76.38	3.40		74.54	14.16	0.000000			
0.00000	37267.94								
178.00	4389.85	5.25	0.16	42.06	0.01				
258.61	76.23	3.39		74.39	14.18	0.000007			
0.00138	37195.33								
179.00	4389.83	5.23	0.16	41.21	0.01				
257.35	76.10	3.38		74.27	14.20	0.000000			
0.00000	37135.41								
180.00	4389.82	5.22	0.16	41.64	0.01				
256.45	75.99	3.37		74.16	14.22	0.000008			
0.00161	37080.94								
181.00	4389.81	5.21	0.16	40.15	0.01				
255.38	75.89	3.36		74.07	14.23	0.000000			
0.00000	37036.83								
182.00	4389.82	5.22	0.14	36.01	0.01				
256.32	75.98	3.37		74.16	14.22	0.000000			
0.00000	37078.69								
183.00	4389.84	5.24	0.14	36.11	0.01				
258.21	76.18	3.39		74.35	14.19	0.000000			
0.00000	37176.01								
184.00	4389.87	5.27	0.13	34.97	0.01				
260.43	76.43	3.41		74.59	14.15	0.000000			
0.00000	37293.06								
185.00	4389.90	5.30	0.14	35.88	0.01				
262.54	76.65	3.43		74.80	14.12	0.000000			
0.00000	37399.29								
186.00	4389.92	5.32	0.14	37.34	0.01				
264.29	76.81	3.44		74.95	14.10	0.000000			
0.00000	37476.32								
187.00	4389.93	5.33	0.14	37.79	0.01				
265.06	76.90	3.45		75.04	14.08	0.000000			
0.00000	37519.80								
188.00	4389.94	5.34	0.14	38.27	0.01				
265.80	76.97	3.45		75.10	14.07	0.000000			
0.00000	37550.27								
189.00	4389.94	5.34	0.15	38.72	0.01				
265.90	76.99	3.45		75.13	14.07	0.000006			
0.00129	37562.93								
190.00	4389.94	5.34	0.15	39.20	0.01				
266.20	77.01	3.46		75.14	14.07	0.000000			
0.00000	37571.52								
191.00	4389.94	5.34	0.15	39.24	0.01				
266.22	77.00	3.46		75.13	14.07	0.000006			
0.00134	37566.72								
192.00	4389.94	5.34	0.15	40.24	0.01				
265.77	76.98	3.45		75.12	14.07	0.000000			
0.00000	37558.58								
193.00	4389.92	5.32	0.16	42.13	0.01				
264.78	76.87	3.44		75.00	14.09	0.000000			
0.00000	37502.22								
194.00	4389.90	5.30	0.16	42.30	0.01				
262.80	76.68	3.43		74.83	14.11	0.000000			
0.00000	37413.76								
195.00	4389.88	5.28	0.16	41.12	0.01				
261.71	76.54	3.42		74.70	14.13	0.000014			
0.00298	37347.82								
196.00	4389.87	5.27	0.16	41.03	0.01				
260.69	76.43	3.41		74.59	14.15	0.000000			
0.00000	37294.23								
197.00	4389.86	5.26	0.16	40.53	0.01				
259.90	76.36	3.40		74.52	14.16	0.000000			

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HYCHAN.OUT

0.00000	37259.55							
198.00	4389.85	5.25	0.15	39.79	0.01			
259.21	76.29	3.40		74.45	14.17	0.000010		
0.00219	37224.58							
199.00	4389.85	5.25	0.15	39.92	0.01			
258.82	76.24	3.39		74.40	14.18	0.000000		
0.00000	37201.71							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3514

MAXIMUM DISCHARGE (CFS) = 2782.47 AT TIME = 90.05  
 MAXIMUM STAGE = 4396.82 AT TIME = 91.74

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)			(FT)				
0.00	0.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4384.50	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
21.37	9.00	4384.75	0.25	-0.12	-2.58	0.04			0.000000
	0.00000	13.50	1.58	13.59	54.83				0.000000
47.50	10.00	4385.49	0.99	-0.12	-5.78	0.02			0.000000
	0.00000	29.61	1.60	29.38	29.68				0.000000
56.05	11.00	4385.60	1.10	-0.05	-2.59	0.01			0.000006
	0.00062	31.46	1.78	31.18	28.32				0.000006
0.00	12.00	4385.55	1.05	0.00	0.00	0.00			0.000000
	0.00000	30.65	0.00	30.40	28.89				0.000000
45.43	13.00	4385.49	0.99	-0.02	-0.77	0.00			0.000000
	0.00000	29.55	1.54	29.32	29.74				0.000000
		17592.31							

HYCHAN.OUT							
0.00	14.00	4385.39	0.89	0.00	0.00	0.00	0.000000
	0.00000	27.87	0.00	27.69	31.12		
	15.00	16614.03					
32.54	0.00000	4385.29	0.79	0.02	0.72	0.00	0.000000
	16.00	26.12	1.25	25.98	32.74		
	0.00000	15589.01					
28.38	16.00	4385.22	0.72	0.03	0.90	0.01	0.000007
	0.00050	24.81	1.14	24.69	34.09		
	17.00	14816.16					
26.20	0.00000	4385.18	0.68	0.03	0.71	0.01	0.000000
	18.00	24.00	1.09	23.90	34.98		
	0.00000	14341.82					
25.89	18.00	4385.17	0.67	0.02	0.47	0.00	0.000000
	0.00000	23.72	1.09	23.63	35.30		
	19.00	14180.52					
25.79	0.00044	4385.16	0.66	0.01	0.38	0.00	0.000006
	20.00	23.57	1.09	23.49	35.47		
	0.00000	14092.38					
29.17	0.00000	4385.19	0.69	-0.01	-0.33	0.00	0.000000
	21.00	24.10	1.21	24.00	34.87		
	0.00000	14400.49					
34.42	0.00000	4385.27	0.77	-0.04	-1.41	0.01	0.000000
	22.00	25.74	1.34	25.60	33.12		
	0.00000	15362.09					
41.67	0.00000	4385.39	0.89	-0.06	-2.65	0.01	0.000000
	23.00	27.90	1.49	27.71	31.10		
	0.00000	16627.48					
49.92	0.00000	4385.52	1.02	-0.07	-3.74	0.01	0.000000
	24.00	30.11	1.66	29.87	29.30		
	0.00000	17922.79					
55.59	0.00000	4385.60	1.10	-0.07	-4.04	0.01	0.000000
	25.00	31.50	1.76	31.23	28.28		
	0.00000	18735.94					
60.05	0.00000	4385.67	1.17	-0.08	-4.52	0.01	0.000000
	26.00	32.49	1.85	32.19	27.61		
	0.00000	19312.39					
68.92	0.00000	4385.78	1.28	-0.10	-6.71	0.02	0.000000
	27.00	34.32	2.01	33.97	26.45		
	0.00000	20383.73					
82.12	0.00000	4385.96	1.46	-0.12	-10.02	0.02	0.000000
	28.00	36.86	2.23	36.44	25.01		
	0.00000	21864.88					
98.88	0.00000	4386.16	1.66	-0.15	-15.02	0.02	0.000000
	29.00	39.75	2.49	39.24	23.59		
	0.00000	23542.08					
115.06	0.00000	4386.36	1.86	-0.16	-18.96	0.02	0.000000
	30.00	42.31	2.72	41.72	22.46		
	0.00000	25032.21					
125.13	0.00000	4386.47	1.97	-0.15	-18.88	0.02	0.000000
	31.00	43.79	2.86	43.16	21.87		
	0.00000	25893.11					
133.60	0.00000	4386.57	2.07	-0.12	-16.53	0.02	0.000000
	32.00	44.99	2.97	44.31	21.41		
	0.00000	26588.10					
142.07	0.00000	4386.66	2.16	-0.09	-12.19	0.01	0.000000
	33.00	46.13	3.08	45.42	20.99		
	0.00000	27251.44					
147.42	0.00000	4386.72	2.22	-0.04	-6.59	0.01	0.000000
	34.00	46.81	3.15	46.08	20.75		
	0.00000	27648.25					
153.99	0.00000	4386.79	2.29	-0.05	-8.05	0.01	0.000000
	0.00000	47.59	3.24	46.84	20.49		
		28101.70					



		HYCHAN.OUT							
160.11	35.00	4386.85	2.35	-0.04	47.61	-6.61	20.22	0.00	0.000000
	0.00000	48.40	3.31						
		28566.58							
163.14	36.00	4386.89	2.39	-0.01	47.99	-1.83	20.10	0.00	0.000000
	0.00000	48.79	3.34						
		28793.96							
167.03	37.00	4386.93	2.43	-0.03	48.46	-5.01	19.94	0.00	0.000000
	0.00000	49.28	3.39						
		29078.89							
163.69	38.00	4386.91	2.41	0.03	48.21	4.25	20.02	0.00	0.000000
	0.00000	49.01	3.34						
		28924.47							
158.11	39.00	4386.86	2.36	0.04	47.72	7.04	20.19	0.01	0.000000
	0.00000	48.50	3.26						
		28629.65							
151.86	40.00	4386.80	2.30	0.04	47.03	5.71	20.42	0.00	0.000000
	0.00000	47.79	3.18						
		28217.27							
149.91	41.00	4386.77	2.27	0.01	46.68	1.84	20.54	0.00	0.000000
	0.00000	47.44	3.16						
		28010.94							
0.00	42.00	4386.76	2.26	0.00	46.51	0.00	20.60	0.00	0.000000
	0.00000	47.25	0.00						
		27903.24							
0.00	43.00	4386.75	2.25	0.00	46.42	0.00	20.64	0.00	0.000000
	0.00000	47.16	0.00						
		27850.08							
0.00	44.00	4386.75	2.25	0.00	46.42	0.00	20.64	0.00	0.000000
	0.00000	47.16	0.00						
		27849.62							
153.22	45.00	4386.79	2.29	-0.05	46.87	-7.53	20.48	0.01	0.000000
	0.00000	47.63	3.22						
		28119.76							
159.16	46.00	4386.85	2.35	-0.04	47.58	-6.12	20.23	0.00	0.000000
	0.00000	48.36	3.29						
		28547.16							
167.39	47.00	4386.92	2.42	-0.05	48.38	-8.96	19.97	0.01	0.000000
	0.00000	49.19	3.40						
		29025.88							
177.79	48.00	4387.03	2.53	-0.07	49.56	-12.68	19.59	0.01	0.000000
	0.00000	50.41	3.53						
		29733.44							
190.42	49.00	4387.16	2.66	-0.08	50.91	-15.01	19.17	0.01	0.000000
	0.00000	51.81	3.68						
		30547.31							
204.45	50.00	4387.29	2.79	-0.08	52.36	-16.30	18.75	0.01	0.000000
	0.00000	53.32	3.83						
		31417.21							
219.45	51.00	4387.43	2.93	-0.08	53.83	-17.15	18.34	0.01	0.000000
	0.00000	54.83	4.00						
		32295.89							
235.64	52.00	4387.58	3.08	-0.08	55.33	-18.47	17.94	0.01	0.000000
	0.00000	56.40	4.18						
		33199.60							
254.38	53.00	4387.76	3.26	-0.09	57.03	-21.89	17.52	0.01	0.000000
	0.00000	58.16	4.37						
		34220.64							
272.13	54.00	4387.92	3.42	-0.07	58.59	-17.90	17.15	0.01	0.000000
	0.00000	59.78	4.55						
		35155.79							
290.14	55.00	4388.06	3.56	-0.07	59.96	-21.47	16.83	0.01	0.000000
	0.00000	61.20	4.74						
		35977.01							

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		HYCHAN.OUT							
312.89	56.00	4388.25	3.75	-0.10	61.74	-29.82	16.45	0.01	0.000000
	0.00000	63.06	4.96						
		37046.55							
347.14	57.00	4388.54	4.04	-0.13	64.31	-46.69	15.92	0.01	0.000000
	0.00000	65.73	5.28						
		38586.81							
394.14	58.00	4388.92	4.42	-0.15	67.59	-59.99	15.30	0.01	0.000000
	0.00000	69.14	5.70						
		40552.70							
446.43	59.00	4389.33	4.83	-0.14	71.03	-60.82	14.71	0.01	0.000000
	0.00000	72.72	6.14						
		42615.49							
496.02	60.00	4389.69	5.19	-0.10	73.94	-51.42	14.25	0.01	0.000000
	0.00000	75.75	6.55						
		44362.44							
542.55	61.00	4390.03	5.53	-0.10	76.60	-54.42	13.85	0.01	0.000000
	0.00000	78.53	6.91						
		45960.11							
576.08	62.00	4390.29	5.79	-0.05	78.59	-28.11	13.57	0.00	0.000006
	0.00278	80.61	7.15						
		47153.54							
604.09	63.00	4390.42	5.92	0.02	79.61	10.79	13.44	0.00	0.000000
	0.00000	81.67	7.40						
		47763.93							
617.39	64.00	4390.55	6.05	0.02	80.52	15.16	13.32	0.00	0.000000
	0.00000	82.62	7.47						
		48311.57							
647.86	65.00	4390.75	6.25	0.03	82.03	20.38	13.12	0.00	0.000000
	0.00000	84.20	7.69						
		49219.14							
679.63	66.00	4390.97	6.47	0.05	83.58	35.28	12.93	0.00	0.000000
	0.00000	85.82	7.92						
		50147.60							
711.37	67.00	4391.17	6.67	0.12	85.04	82.17	12.75	0.01	0.000000
	0.00000	87.35	8.14						
		51023.95							
742.16	68.00	4391.37	6.87	0.20	86.47	150.19	12.58	0.01	0.000000
	0.00000	88.84	8.35						
		51880.52							
772.56	69.00	4391.57	7.07	0.28	87.84	216.02	12.42	0.02	0.000010
	0.00546	90.28	8.56						
		52706.09							
806.55	70.00	4391.79	7.29	0.36	89.33	290.28	12.26	0.02	0.000000
	0.00000	91.83	8.78						
		53596.69							
835.37	71.00	4391.97	7.47	0.38	90.58	316.44	12.12	0.02	0.000012
	0.00675	93.14	8.97						
		54347.22							
875.88	72.00	4392.21	7.71	0.39	92.21	342.32	11.95	0.02	0.000022
	0.01248	94.85	9.23						
		55325.98							
912.26	73.00	4392.44	7.94	0.47	93.68	425.17	11.81	0.03	0.000027
	0.01572	96.21	9.48						
		56205.09							
942.71	74.00	4392.63	8.13	0.53	94.93	499.25	11.68	0.03	0.000020
	0.01219	96.59	9.76						
		56957.20							
968.27	75.00	4392.78	8.28	0.57	95.93	555.92	11.58	0.04	0.000022
	0.01371	96.90	9.99						
		57555.25							
1001.82	76.00	4392.97	8.47	0.73	97.12	729.47	11.47	0.04	0.000056
	0.03581	97.27	10.30						
		58269.50							

HYCHAN.OUT							
1037.80	77.00	4393.17	8.67	0.95	986.23	0.06	0.000060
	0.03965	97.69	10.62		98.43	11.35	
		59055.88					
1069.08	78.00	4393.37	8.87	1.09	1164.27	0.06	0.000079
	0.05344	98.07	10.90		99.65	11.24	
		59789.81					
1098.72	79.00	4393.55	9.05	1.21	1328.60	0.07	0.000091
	0.06335	98.45	11.16		100.81	11.14	
		60486.23					
1128.74	80.00	4393.74	9.24	1.34	1509.76	0.08	0.000098
	0.06968	98.82	11.42		101.95	11.04	
		61169.29					
1162.78	81.00	4393.95	9.45	1.49	1729.17	0.09	0.000124
	0.09037	99.25	11.72		103.26	10.92	
		61957.11					
1204.98	82.00	4394.22	9.72	1.67	2017.21	0.09	0.000143
	0.10756	99.78	12.08		104.87	10.79	
		62922.82					
1245.04	83.00	4394.47	9.97	1.81	2252.81	0.10	0.000161
	0.12456	100.28	12.41		106.39	10.67	
		63833.00					
1284.39	84.00	4394.73	10.23	1.82	2341.76	0.10	0.000131
	0.10421	100.79	12.74		107.89	10.55	
		64731.97					
1346.19	85.00	4395.12	10.62	1.68	2267.12	0.09	0.000114
	0.09442	101.59	13.25		110.20	10.37	
		66119.53					
1402.80	86.00	4395.48	10.98	1.65	2314.15	0.09	0.000108
	0.09245	102.30	13.71		112.26	10.22	
		67356.48					
1456.15	87.00	4395.82	11.32	1.68	2449.50	0.09	0.000118
	0.10375	102.98	14.14		114.18	10.09	
		68505.11					
1504.22	88.00	4396.12	11.62	1.73	2601.03	0.09	0.000109
	0.09884	103.59	14.52		115.87	9.97	
		69521.95					
1548.25	89.00	4396.40	11.90	1.73	2679.62	0.09	0.000103
	0.09513	104.14	14.87		117.39	9.87	
		70434.77					
1582.97	90.00	4396.62	12.12	1.73	2745.21	0.09	0.000096
	0.09109	104.57	15.14		118.58	9.79	
		71146.60					
1603.64	91.00	4396.74	12.24	1.70	2733.40	0.09	0.000091
	0.08689	104.83	15.30		119.28	9.74	
		71565.32					
1610.88	92.00	4396.79	12.29	1.68	2705.71	0.08	0.000087
	0.08302	104.92	15.35		119.53	9.72	
		71716.36					
1607.95	93.00	4396.77	12.27	1.64	2639.17	0.08	0.000087
	0.08276	104.89	15.33		119.43	9.73	
		71658.71					
1593.43	94.00	4396.68	12.18	1.61	2565.29	0.08	0.000083
	0.07870	104.71	15.22		118.94	9.76	
		71362.69					
1565.38	95.00	4396.50	12.01	1.56	2434.17	0.08	0.000074
	0.06905	104.35	15.00		117.97	9.83	
		70783.23					
1533.40	96.00	4396.30	11.80	1.48	2265.41	0.08	0.000074
	0.06819	103.95	14.75		116.87	9.90	
		70123.03					
1497.66	97.00	4396.08	11.58	1.43	2134.97	0.07	0.000071
	0.06430	103.51	14.47		115.64	9.98	
		69386.06					

HYCHAN.OUT							
1462.72	98.00	4395.86	11.36	1.38	2016.14	0.07	0.000085
	0.07484	103.07	14.19	114.42	10.07		
1427.86	99.00	4395.65	11.15	1.31	1864.15	0.07	0.000053
	0.04612	102.63	13.91	113.19	10.16		
1386.26	100.00	4395.39	10.89	1.22	1698.08	0.07	0.000067
	0.05644	102.12	13.58	111.72	10.26		
1312.32	101.00	4394.92	10.42	1.21	1591.84	0.07	0.000062
	0.05055	101.18	12.97	109.01	10.46		
1253.08	102.00	4394.54	10.04	1.14	1430.89	0.06	0.000065
	0.05086	100.42	12.48	106.79	10.64		
1224.30	103.00	4394.36	9.86	1.03	1261.71	0.06	0.000042
	0.03226	100.07	12.23	105.74	10.72		
1204.70	104.00	4394.24	9.74	0.95	1148.34	0.05	0.000051
	0.03815	99.83	12.07	105.02	10.78		
1190.79	105.00	4394.16	9.66	0.88	1053.47	0.05	0.000053
	0.03945	99.65	11.95	104.49	10.82		
1177.75	106.00	4394.07	9.57	0.83	975.87	0.05	0.000015
	0.01111	99.49	11.84	103.99	10.86		
1164.47	107.00	4393.99	9.49	0.77	895.23	0.04	0.000038
	0.02811	99.32	11.72	103.49	10.91		
1147.37	108.00	4393.88	9.38	0.72	822.15	0.04	0.000030
	0.02177	99.10	11.58	102.83	10.96		
1123.47	109.00	4393.73	9.23	0.64	713.64	0.04	0.000016
	0.01162	98.81	11.37	101.92	11.04		
1099.22	110.00	4393.58	9.08	0.58	638.63	0.03	0.000013
	0.00874	98.51	11.16	101.00	11.12		
1074.25	111.00	4393.43	8.93	0.53	564.85	0.03	0.000020
	0.01370	98.20	10.94	100.03	11.20		
1049.48	112.00	4393.27	8.77	0.48	504.11	0.03	0.000018
	0.01201	97.88	10.72	99.04	11.29		
1024.65	113.00	4393.11	8.61	0.45	464.89	0.03	0.000012
	0.00792	97.57	10.50	98.05	11.38		
998.80	114.00	4392.96	8.46	0.43	425.36	0.03	0.000014
	0.00926	97.26	10.27	97.06	11.48		
968.05	115.00	4392.78	8.28	0.44	423.34	0.03	0.000000
	0.00000	96.90	9.99	95.91	11.59		
933.44	116.00	4392.56	8.06	0.47	437.49	0.03	0.000016
	0.00988	96.47	9.68	94.51	11.72		
906.22	117.00	4392.39	7.89	0.34	305.53	0.02	0.000000
	0.00000	96.05	9.43	93.36	11.84		
887.46	118.00	4392.28	7.78	0.28	247.81	0.02	0.000000
	0.00000	95.29	9.31	92.63	11.91		
		55577.55					

		HYCHAN.OUT							
872.47	119.00	4392.18	7.68	0.24	210.93	0.02			
	0.00000	94.65	9.22		92.02	11.97		0.000000	
	120.00	55209.37							
857.35	0.00000	4392.09	7.59	0.20	175.42	0.01			
		94.00	9.12		91.40	12.04		0.000000	
	121.00	54840.69							
843.52	0.00000	4392.01	7.51	0.17	140.68	0.01			
		93.39	9.03		90.82	12.10		0.000000	
	122.00	54491.28							
831.08	0.00000	4391.93	7.43	0.14	117.34	0.01			
		92.86	8.95		90.31	12.15		0.000000	
	123.00	54184.06							
820.00	0.00000	4391.86	7.36	0.13	104.40	0.01			
		92.38	8.88		89.85	12.20		0.000000	
	124.00	53909.62							
809.18	0.00000	4391.79	7.29	0.12	95.45	0.01			
	0.00693	91.89	8.81		89.38	12.25		0.000013	
	125.00	53629.64							
797.96	0.00000	4391.72	7.22	0.11	88.14	0.01			
		91.39	8.73		88.91	12.31		0.000000	
	126.00	53344.53							
786.51	0.00000	4391.65	7.15	0.10	78.53	0.01			
		90.87	8.66		88.41	12.36		0.000000	
	127.00	53046.78							
773.48	0.00000	4391.57	7.07	0.09	70.53	0.01			
		90.30	8.57		87.86	12.42		0.000000	
	128.00	52715.63							
761.63	0.00000	4391.50	7.00	0.08	60.88	0.01			
		89.76	8.49		87.34	12.48		0.000000	
	129.00	52406.54							
749.87	0.00000	4391.42	6.92	0.08	59.11	0.01			
		89.22	8.41		86.83	12.54		0.000000	
	130.00	52097.29							
738.26	0.00000	4391.35	6.85	0.08	58.77	0.01			
		88.68	8.32		86.32	12.60		0.000000	
	131.00	51789.91							
726.91	0.00000	4391.28	6.78	0.08	57.64	0.01			
	0.00626	88.15	8.25		85.81	12.66		0.000012	
	132.00	51486.47							
715.80	0.00000	4391.21	6.71	0.08	57.14	0.01			
		87.63	8.17		85.32	12.72		0.000000	
	133.00	51189.23							
704.91	0.00000	4391.14	6.64	0.08	55.69	0.01			
		87.12	8.09		84.82	12.78		0.000017	
	134.00	50891.38							
695.47	0.00847	4391.08	6.58	0.08	53.60	0.01			
		86.67	8.02		84.39	12.83		0.000011	
	135.00	50634.11							
688.48	0.00541	4391.03	6.53	0.08	52.70	0.01			
		86.30	7.98		84.04	12.87		0.000008	
	136.00	50423.36							
681.07	0.00392	4390.98	6.48	0.08	52.37	0.01			
		85.93	7.93		83.69	12.91		0.000000	
	137.00	50213.35							
673.91	0.00000	4390.93	6.43	0.08	51.28	0.01			
		85.58	7.87		83.35	12.95		0.000008	
	138.00	50008.18							
667.22	0.00401	4390.89	6.39	0.08	50.36	0.01			
		85.24	7.83		83.03	12.99		0.000000	
	139.00	49817.30							
660.94	0.00000	4390.85	6.35	0.08	51.04	0.01			
		84.94	7.78		82.73	13.03		0.000000	
	49640.03								

		HYCHAN.OUT						
140.00	4390.81	6.31	0.08	49.28	0.01			
654.55	84.63	7.73	82.44	13.07	0.000000			
0.00000	49463.90							
141.00	4390.77	6.27	0.08	49.81	0.01			
648.50	84.31	7.69	82.13	13.11	0.000011			
0.00545	49278.29							
142.00	4390.73	6.23	0.08	49.95	0.01			
642.53	84.00	7.65	81.84	13.14	0.000000			
0.00000	49101.73							
143.00	4390.68	6.18	0.08	49.29	0.01			
636.10	83.68	7.60	81.53	13.18	0.000000			
0.00000	48916.36							
144.00	4390.64	6.14	0.08	49.46	0.01			
630.25	83.35	7.56	81.22	13.22	0.000000			
0.00000	48731.72							
145.00	4390.60	6.10	0.08	48.12	0.01			
624.32	83.06	7.52	80.94	13.26	0.000000			
0.00000	48562.45							
146.00	4390.56	6.07	0.08	48.61	0.01			
618.52	82.76	7.47	80.65	13.30	0.000000			
0.00000	48390.91							
147.00	4390.52	6.02	0.08	48.87	0.01			
612.57	82.44	7.43	80.34	13.34	0.000000			
0.00000	48204.03							
148.00	4390.48	5.98	0.08	48.46	0.01			
606.09	82.10	7.38	80.02	13.38	0.000000			
0.00000	48009.75							
149.00	4390.44	5.94	0.08	48.23	0.01			
600.01	81.78	7.34	79.71	13.42	0.000000			
0.00000	47827.47							
150.00	4390.40	5.90	0.08	47.43	0.01			
594.60	81.49	7.30	79.43	13.46	0.000000			
0.00000	47659.04							
151.00	4390.36	5.86	0.08	47.39	0.01			
589.04	81.19	7.25	79.15	13.50	0.000000			
0.00000	47489.62							
152.00	4390.33	5.83	0.08	47.20	0.01			
584.13	80.90	7.22	78.87	13.54	0.000000			
0.00000	47320.80							
153.00	4390.29	5.79	0.08	47.74	0.01			
578.23	80.60	7.17	78.59	13.57	0.000000			
0.00000	47151.83							
154.00	4390.25	5.75	0.08	46.19	0.01			
572.72	80.30	7.13	78.30	13.61	0.000000			
0.00000	46979.34							
155.00	4390.21	5.71	0.08	47.50	0.01			
567.26	80.00	7.09	78.01	13.66	0.000000			
0.00000	46803.39							
156.00	4390.18	5.68	0.08	46.70	0.01			
562.31	79.73	7.05	77.74	13.69	0.000000			
0.00000	46646.95							
157.00	4390.14	5.64	0.08	47.20	0.01			
556.81	79.41	7.01	77.45	13.73	0.000000			
0.00000	46467.95							
158.00	4390.12	5.62	0.07	41.29	0.01			
554.01	79.25	6.99	77.29	13.76	0.000000			
0.00000	46375.28							
159.00	4390.11	5.61	0.08	42.28	0.01			
552.94	79.20	6.98	77.24	13.76	0.000000			
0.00000	46346.55							
160.00	4390.11	5.61	0.08	41.54	0.01			
551.99	79.15	6.97	77.19	13.77	0.000000			
0.00000	46314.18							

		HYCHAN.OUT					
550.55	161.00	4390.10	5.60	0.08	42.36	0.01	0.000006
	0.00255	79.08	6.96		77.13	13.78	
		46275.14					
549.32	162.00	4390.09	5.59	0.08	41.26	0.01	0.000000
	0.00000	79.00	6.95		77.05	13.79	
		46231.58					
548.22	163.00	4390.08	5.58	0.08	42.21	0.01	0.000007
	0.00293	78.94	6.94		76.99	13.80	
		46194.64					
546.94	164.00	4390.07	5.57	0.08	41.73	0.01	0.000000
	0.00000	78.86	6.94		76.92	13.81	
		46149.15					
545.81	165.00	4390.06	5.56	0.08	41.14	0.01	0.000000
	0.00000	78.80	6.93		76.86	13.82	
		46114.96					
544.71	166.00	4390.06	5.56	0.08	41.58	0.01	0.000000
	0.00000	78.74	6.92		76.80	13.83	
		46081.58					
542.34	167.00	4390.04	5.54	0.08	43.97	0.01	0.000000
	0.00000	78.60	6.90		76.67	13.84	
		45999.06					
538.89	168.00	4390.01	5.51	0.08	43.50	0.01	0.000000
	0.00000	78.41	6.87		76.49	13.87	
		45893.17					
536.44	169.00	4390.00	5.50	0.08	42.33	0.01	0.000000
	0.00000	78.27	6.85		76.35	13.89	
		45810.59					
533.97	170.00	4389.98	5.48	0.08	42.39	0.01	0.000000
	0.00000	78.15	6.83		76.23	13.91	
		45739.98					
532.52	171.00	4389.97	5.47	0.08	42.13	0.01	0.000006
	0.00249	78.03	6.82		76.12	13.92	
		45672.91					
531.03	172.00	4389.96	5.46	0.08	41.37	0.01	0.000000
	0.00000	77.94	6.81		76.03	13.94	
		45618.65					
528.88	173.00	4389.94	5.44	0.08	42.08	0.01	0.000000
	0.00000	77.84	6.79		75.94	13.95	
		45565.23					
527.08	174.00	4389.93	5.43	0.08	41.47	0.01	0.000000
	0.00000	77.74	6.78		75.84	13.96	
		45502.78					
524.41	175.00	4389.91	5.41	0.08	43.95	0.01	0.000000
	0.00000	77.57	6.76		75.68	13.99	
		45410.60					
520.61	176.00	4389.89	5.39	0.08	43.13	0.01	0.000009
	0.00387	77.37	6.73		75.49	14.02	
		45292.46					
517.66	177.00	4389.86	5.36	0.08	43.36	0.01	0.000000
	0.00000	77.18	6.71		75.31	14.04	
		45184.61					
515.28	178.00	4389.84	5.34	0.08	42.31	0.01	0.000000
	0.00000	77.04	6.69		75.17	14.06	
		45100.85					
513.20	179.00	4389.83	5.33	0.08	41.08	0.01	0.000000
	0.00000	76.91	6.67		75.05	14.08	
		45029.20					
511.05	180.00	4389.82	5.32	0.08	42.08	0.01	0.000000
	0.00000	76.80	6.65		74.94	14.10	
		44963.06					
509.62	181.00	4389.80	5.30	0.08	40.10	0.01	0.000000
	0.00000	76.71	6.64		74.85	14.11	
		44912.78					

HYCHAN.OUT									
510.93	182.00	4389.82	5.32	0.07	74.94	35.81	14.10	0.01	0.000000
	0.00000	76.80	6.65						
		44963.01							
514.40	183.00	4389.84	5.34	0.07	75.13	35.72	14.07	0.01	0.000000
	0.00000	77.00	6.68						
		45079.09							
518.73	184.00	4389.87	5.37	0.07	75.36	34.61	14.03	0.01	0.000000
	0.00000	77.24	6.72						
		45217.69							
522.81	185.00	4389.90	5.40	0.07	75.57	35.53	14.00	0.01	0.000000
	0.00000	77.46	6.75						
		45344.14							
525.04	186.00	4389.92	5.42	0.07	75.73	37.08	13.98	0.01	0.000000
	0.00000	77.62	6.76						
		45438.05							
526.90	187.00	4389.93	5.43	0.07	75.81	37.68	13.97	0.01	0.000000
	0.00000	77.71	6.78						
		45487.92							
527.80	188.00	4389.94	5.44	0.07	75.87	38.17	13.96	0.01	0.000000
	0.00000	77.77	6.79						
		45524.35							
528.03	189.00	4389.94	5.44	0.07	75.90	38.89	13.96	0.01	0.000000
	0.00000	77.80	6.79						
		45537.63							
528.28	190.00	4389.94	5.44	0.07	75.92	39.22	13.95	0.01	0.000012
	0.00490	77.82	6.79						
		45549.35							
528.36	191.00	4389.94	5.44	0.07	75.91	39.24	13.95	0.01	0.000000
	0.00000	77.81	6.79						
		45544.25							
527.85	192.00	4389.94	5.44	0.08	75.89	40.10	13.96	0.01	0.000000
	0.00000	77.79	6.79						
		45532.07							
526.00	193.00	4389.92	5.42	0.08	75.78	42.53	13.97	0.01	0.000000
	0.00000	77.67	6.77						
		45466.13							
522.73	194.00	4389.90	5.40	0.08	75.60	42.44	14.00	0.01	0.000000
	0.00000	77.49	6.75						
		45359.75							
520.43	195.00	4389.88	5.38	0.08	75.47	41.54	14.02	0.01	0.000000
	0.00000	77.35	6.73						
		45282.50							
518.73	196.00	4389.87	5.37	0.08	75.37	41.00	14.03	0.01	0.000000
	0.00000	77.24	6.72						
		45220.36							
517.34	197.00	4389.86	5.36	0.08	75.29	40.84	14.04	0.01	0.000000
	0.00000	77.17	6.70						
		45176.61							
516.09	198.00	4389.85	5.35	0.08	75.23	39.92	14.05	0.01	0.000009
	0.00371	77.10	6.69						
		45135.76							
515.20	199.00	4389.85	5.35	0.08	75.18	39.88	14.06	0.01	0.000000
	0.00000	77.05	6.69						
		45109.75							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3594

MAXIMUM DISCHARGE (CFS) = 2888.31 AT TIME = 90.21  
 MAXIMUM STAGE = 4396.86 AT TIME = 91.72

AREA	TIME WETTED PERIMETER	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
			HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE	



		HYCHAN.OUT						
BED SHEAR STRESS	SURFACE AREA							
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)	
(LB/FT^2)	(FT^2)							
0.00	0.00	4384.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4384.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4384.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4384.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4384.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4384.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4384.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4384.40	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	8.00	4384.40	0.00	-0.01	-0.05	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
45.45	9.00	4384.88	0.48	-0.35	-15.82	0.09	0.00	0.000000
	0.00000	85.98	0.53	86.13	179.82	0.02	0.00	0.000000
86.92	10.00	60891.69	1.10	-0.12	-10.78	0.02	0.00	0.000000
	0.00000	112.91	0.77	112.73	102.28	0.00	0.00	0.000000
101.72	11.00	79701.59	1.20	-0.02	-2.13	0.00	0.00	0.000000
	0.00000	116.20	0.88	115.98	96.38	0.00	0.00	0.000000
0.00	12.00	81995.97	1.15	0.00	0.00	0.00	0.00	0.000014
	0.00000	114.57	0.00	114.37	99.23	0.00	0.00	0.000000
84.90	13.00	80860.59	1.09	0.01	1.12	0.00	0.00	0.000000
	0.00000	112.35	0.76	112.18	103.34	0.00	0.00	0.000000
72.79	14.00	79312.28	0.99	0.02	1.59	0.00	0.00	0.000000
	0.00000	109.02	0.67	108.89	109.99	0.00	0.00	0.000000
62.49	15.00	76986.98	0.89	0.04	2.41	0.01	0.00	0.000000
	0.00000	105.41	0.59	105.33	117.92	0.00	0.00	0.000000
55.20	16.00	74469.80	0.82	0.03	1.90	0.01	0.00	0.000000
	0.00000	102.63	0.54	102.59	124.63	0.00	0.00	0.000000
51.20	17.00	72530.38	0.78	0.02	1.08	0.00	0.00	0.000009
	0.00030	100.94	0.51	100.92	128.99	0.00	0.00	0.000000
51.17	18.00	71349.94	0.77	0.02	0.80	0.00	0.00	0.000000
	0.00000	100.32	0.51	100.31	130.65	0.00	0.00	0.000000
	19.00	70917.05	0.76	0.00	0.00	0.00	0.00	0.000000
		4385.16						

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HYCHAN.OUT						
0.00	0.00000	100.05	0.00	100.04	131.38	0.000000
	20.00	70729.08				
55.98	0.00000	4385.19	0.79	-0.03	-1.56	0.01
	21.00	101.21	0.55	101.19	128.27	0.000000
	0.00000	71540.00				
65.28	0.00000	4385.27	0.88	-0.05	-3.40	0.01
	22.00	104.71	0.62	104.64	119.57	0.000000
	0.00000	73980.30				
77.30	0.00000	4385.40	1.00	-0.07	-5.27	0.01
	23.00	109.20	0.71	109.07	109.61	0.000000
	0.00000	77113.02				
90.56	0.00000	4385.52	1.12	-0.07	-6.14	0.01
	24.00	113.63	0.80	113.45	100.94	0.000000
	0.00000	80207.18				
99.72	0.00000	4385.61	1.21	-0.05	-5.22	0.01
	25.00	116.34	0.86	116.11	96.14	0.000000
	0.00000	82091.27				
107.05	0.00000	4385.67	1.27	-0.06	-6.38	0.01
	26.00	118.25	0.91	118.00	92.95	0.000000
	0.00000	83425.59				
121.27	0.00000	4385.79	1.39	-0.09	-10.31	0.01
	27.00	121.81	1.00	121.50	87.42	0.000000
	0.00000	85903.00				
142.13	0.00000	4385.96	1.56	-0.10	-14.47	0.01
	28.00	126.59	1.12	126.22	80.71	0.000000
	0.00000	89237.21				
168.32	0.00000	4386.17	1.77	-0.12	-20.56	0.02
	29.00	131.88	1.28	131.43	74.15	0.000000
	0.00000	92919.48				
193.29	0.00000	4386.37	1.97	-0.12	-22.91	0.01
	30.00	136.43	1.42	135.90	69.13	0.000000
	0.00000	96081.41				
208.76	0.00000	4386.48	2.08	-0.10	-21.24	0.01
	31.00	138.97	1.50	138.40	66.54	0.000000
	0.00000	97849.01				
221.61	0.00000	4386.57	2.17	-0.09	-19.36	0.01
	32.00	140.99	1.57	140.38	64.58	0.000000
	0.00000	99252.20				
234.28	0.00000	4386.67	2.27	-0.06	-14.16	0.01
	33.00	142.90	1.64	142.27	62.80	0.000000
	0.00000	100582.48				
242.40	0.00000	4386.72	2.32	-0.03	-7.99	0.00
	34.00	144.04	1.68	143.38	61.78	0.000000
	0.00000	101373.00				
252.28	0.00000	4386.79	2.39	-0.04	-10.25	0.00
	35.00	145.36	1.74	144.69	60.62	0.000000
	0.00000	102294.70				
261.60	0.00000	4386.85	2.45	-0.03	-8.10	0.00
	36.00	146.71	1.78	146.01	59.48	0.000000
	0.00000	103228.34				
263.74	0.00000	4386.89	2.49	-0.01	-3.09	0.00
	37.00	147.36	1.79	146.65	58.94	0.000000
	0.00000	103679.66				
272.26	0.00000	4386.93	2.53	-0.02	-5.06	0.00
	38.00	148.18	1.84	147.45	58.26	0.000000
	0.00000	104250.03				
266.86	0.00000	4386.91	2.51	0.02	5.12	0.00
	39.00	147.73	1.81	147.02	58.62	0.000000
	0.00000	103942.45				
259.56	0.00000	4386.86	2.46	0.03	8.92	0.00
	40.00	146.88	1.77	146.18	59.33	0.000000
	0.00000	103349.16				
		4386.80	2.40	0.03	6.72	0.00

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		HYCHAN.OUT				
250.50	145.68	1.72	145.00	60.35	0.000000	
0.000000	102516.22					
41.00	4386.77	2.37	0.00	0.00	0.00	
0.00	145.09	0.00	144.42	60.86	0.000000	
0.000000	102101.95					
42.00	4386.76	2.36	0.00	0.00	0.00	
0.00	144.78	0.00	144.11	61.13	0.000000	
0.000000	101886.65					
43.00	4386.75	2.35	0.00	0.00	0.00	
0.00	144.62	0.00	143.96	61.27	0.000000	
0.000000	101777.70					
44.00	4386.75	2.35	0.00	0.00	0.00	
0.00	144.60	0.00	143.94	61.28	0.000000	
0.000000	101766.15					
45.00	4386.79	2.39	-0.04	-9.51	0.00	
251.23	145.41	1.73	144.73	60.58	0.000000	
0.000000	102326.93					
46.00	4386.85	2.45	-0.03	-7.70	0.00	
260.25	146.64	1.77	145.95	59.53	0.000000	
0.000000	103183.95					
47.00	4386.92	2.52	-0.04	-11.58	0.00	
272.67	148.04	1.84	147.32	58.38	0.000000	
0.000000	104152.10					
48.00	4387.03	2.63	-0.06	-16.17	0.01	
288.41	150.07	1.92	149.31	56.75	0.000000	
0.000000	105563.87					
49.00	4387.16	2.76	-0.06	-18.99	0.01	
307.51	152.38	2.02	151.58	54.99	0.000000	
0.000000	107168.42					
50.00	4387.29	2.89	-0.06	-20.55	0.01	
328.59	154.82	2.12	153.98	53.21	0.000000	
0.000000	108863.39					
51.00	4387.44	3.04	-0.06	-21.68	0.01	
351.07	157.26	2.23	156.37	51.51	0.000000	
0.000000	110557.03					
52.00	4387.58	3.18	-0.06	-23.47	0.01	
375.28	159.74	2.35	158.81	49.87	0.000000	
0.000000	112281.41					
53.00	4387.76	3.36	-0.07	-27.69	0.01	
403.13	162.52	2.48	161.54	48.12	0.000000	
0.000000	114210.05					
54.00	4387.92	3.52	-0.05	-22.50	0.00	
429.47	165.03	2.60	164.01	46.62	0.000000	
0.000000	115951.77					
55.00	4388.06	3.66	-0.06	-27.13	0.01	
456.09	167.22	2.73	166.16	45.36	0.000000	
0.000000	117471.95					
56.00	4388.26	3.86	-0.08	-37.57	0.01	
489.80	170.04	2.88	168.93	43.82	0.000000	
0.000000	119433.30					
57.00	4388.54	4.14	-0.11	-58.58	0.01	
540.11	174.06	3.10	172.87	41.75	0.000000	
0.000000	122221.41					
58.00	4388.92	4.52	-0.12	-74.95	0.01	
608.79	179.10	3.40	177.81	39.35	0.000000	
0.000000	125710.49					
59.00	4389.33	4.93	-0.11	-75.70	0.01	
684.70	184.27	3.72	182.88	37.10	0.000000	
0.000000	129294.77					
60.00	4389.69	5.29	-0.09	-64.31	0.01	
754.09	188.57	4.00	187.10	35.37	0.000000	
0.000000	132276.81					
61.00	4390.03	5.63	-0.08	-67.77	0.01	

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		HYCHAN.OUT					
821.27	0.00000	192.45	4.27	190.90	33.91	0.000000	
	62.00	134966.19	5.89	-0.04	-35.01	0.00	
870.15	0.00000	4390.29	4.46	193.70	32.89	0.000000	
	63.00	136945.45	6.02	0.00	0.00	0.00	
0.00	0.00000	4390.42	0.00	195.13	32.39	0.000000	
	64.00	137954.12	6.15	0.00	0.00	0.00	
0.00	0.00000	4390.55	0.00	196.40	31.95	0.000000	
	65.00	138856.08	6.35	0.01	11.29	0.00	
973.93	0.00000	4390.75	4.86	198.50	31.25	0.000000	
	66.00	140337.55	6.57	0.03	26.83	0.00	
1020.39	0.00000	4390.97	5.04	200.63	30.55	0.000000	
	67.00	141845.83	6.77	0.07	73.34	0.00	
1064.28	0.00000	4391.17	5.21	202.62	29.93	0.000000	
	68.00	143254.05	6.97	0.13	142.51	0.01	
1107.99	0.00000	4391.37	5.37	204.55	29.34	0.000000	
	69.00	144613.69	7.17	0.18	205.76	0.01	
1151.12	0.00240	4391.57	5.53	206.39	28.80	0.000007	
	70.00	145916.30	7.38	0.24	282.04	0.02	
1197.36	0.00248	4391.78	5.69	208.36	28.23	0.000007	
	71.00	147310.59	7.57	0.25	306.92	0.02	
1236.98	0.00548	4391.97	5.84	210.03	27.76	0.000015	
	72.00	148492.05	7.81	0.26	332.26	0.02	
1291.73	0.00000	4392.21	6.03	212.19	27.17	0.000000	
	73.00	150014.95	8.03	0.31	415.05	0.02	
1338.96	0.00000	4392.43	6.19	214.10	26.66	0.000000	
	74.00	151368.80	8.22	0.36	491.47	0.02	
1379.50	0.00453	4392.62	6.33	215.74	26.24	0.000011	
	75.00	152527.56	8.37	0.39	548.60	0.02	
1413.75	0.00621	4392.77	6.45	217.02	25.92	0.000015	
	76.00	153435.88	8.56	0.49	720.26	0.03	
1456.73	0.00000	4392.96	6.60	218.60	25.53	0.000000	
	77.00	154549.36	8.78	0.65	973.84	0.04	
1501.82	0.00350	4393.18	6.77	220.35	25.10	0.000008	
	78.00	155786.19	8.98	0.74	1147.66	0.04	
1544.65	0.00422	4393.38	6.95	221.94	24.73	0.000010	
	79.00	156912.16	9.16	0.83	1314.07	0.05	
1586.01	0.00000	4393.56	7.12	223.44	24.38	0.000000	
	80.00	157971.66	9.35	0.92	1495.01	0.05	
1626.88	0.00000	4393.75	7.29	224.91	24.05	0.000000	
	81.00	159009.52	9.57	1.02	1714.81	0.06	
1673.49	0.00000	4393.97	7.49	226.59	23.68	0.000000	
	82.00	160202.03	9.84	1.16	2003.07	0.06	

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		HYCHAN.OUT					
1732.24	224.11	7.73	228.66	23.23	0.000005		
0.00256	161662.75						
83.00	4394.50	10.10	1.26	2245.66	0.07		
1787.77	224.63	7.96	230.59	22.82	0.000000		
0.00000	163028.66						
84.00	4394.76	10.36	1.26	2326.21	0.07		
1842.72	225.15	8.18	232.47	22.44	0.000000		
0.00000	164358.16						
85.00	4395.15	10.75	1.16	2234.54	0.06		
1927.32	225.94	8.53	235.29	21.88	0.000000		
0.00000	166350.98						
86.00	4395.51	11.11	1.14	2284.57	0.06		
2004.29	226.65	8.84	237.80	21.40	0.000000		
0.00000	168124.75						
87.00	4395.85	11.45	1.17	2435.30	0.06		
2077.51	227.33	9.14	240.13	20.96	0.000000		
0.00000	169772.00						
88.00	4396.16	11.76	1.21	2600.96	0.06		
2144.47	227.95	9.41	242.19	20.59	0.000000		
0.00000	171231.59						
89.00	4396.44	12.04	1.23	2716.99	0.06		
2204.29	228.51	9.65	244.03	20.27	0.000000		
0.00000	172531.08						
90.00	4396.66	12.26	1.25	2816.05	0.06		
2250.68	228.95	9.83	245.46	20.02	0.000000		
0.00000	173540.69						
91.00	4396.79	12.39	1.24	2834.53	0.06		
2278.44	229.20	9.94	246.29	19.88	0.000000		
0.00000	174129.61						
92.00	4396.83	12.43	1.23	2814.92	0.06		
2287.84	229.29	9.98	246.58	19.83	0.000000		
0.00000	174334.39						
93.00	4396.81	12.41	1.21	2752.73	0.06		
2283.59	229.26	9.96	246.46	19.85	0.000000		
0.00000	174245.25						
94.00	4396.72	12.32	1.18	2671.15	0.06		
2263.71	229.07	9.88	245.86	19.95	0.000000		
0.00000	173823.31						
95.00	4396.54	12.14	1.14	2528.31	0.06		
2225.66	228.71	9.73	244.69	20.15	0.000000		
0.00000	172999.09						
96.00	4396.34	11.94	1.07	2343.20	0.05		
2181.76	228.30	9.56	243.35	20.39	0.000000		
0.00000	172051.45						
97.00	4396.11	11.71	1.02	2179.77	0.05		
2132.59	227.85	9.36	241.86	20.65	0.000000		
0.00000	170991.77						
98.00	4395.89	11.49	0.98	2039.97	0.05		
2084.65	227.40	9.17	240.36	20.92	0.000000		
0.00000	169936.31						
99.00	4395.67	11.27	0.92	1874.46	0.05		
2037.72	226.96	8.98	238.86	21.20	0.000000		
0.00000	168873.02						
100.00	4395.41	11.01	0.87	1713.99	0.05		
1981.42	226.44	8.75	237.05	21.54	0.000006		
0.00331	167593.55						
101.00	4394.93	10.53	0.86	1617.25	0.05		
1880.32	225.49	8.34	233.72	22.19	0.000000		
0.00000	165238.78						
102.00	4394.55	10.15	0.81	1462.30	0.04		
1799.69	224.74	8.01	230.97	22.75	0.000000		
0.00000	163294.88						
103.00	4394.38	9.98	0.73	1281.57	0.04		

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		HYCHAN.OUT					
1760.67	224.38	7.85	229.65	23.02	0.000000		
0.00000	162362.75						
104.00	4394.25	9.85	0.67	1165.55	0.04		
1734.34	224.13	7.74	228.72	23.22	0.000000		
0.00000	161704.20						
105.00	4394.16	9.76	0.62	1066.95	0.04		
1715.79	223.95	7.66	228.05	23.36	0.000000		
0.00000	161230.14						
106.00	4394.08	9.68	0.58	987.28	0.03		
1698.63	223.78	7.59	227.42	23.50	0.000013		
0.00629	160783.23						
107.00	4393.99	9.59	0.54	909.01	0.03		
1680.12	223.61	7.51	226.77	23.64	0.000012		
0.00548	160328.23						
108.00	4393.88	9.48	0.51	839.08	0.03		
1656.73	223.40	7.42	225.94	23.82	0.000020		
0.00940	159736.34						
109.00	4393.73	9.33	0.45	734.27	0.03		
1623.49	223.09	7.28	224.77	24.08	0.000000		
0.00000	158911.72						
110.00	4393.58	9.18	0.41	657.93	0.02		
1591.09	222.79	7.14	223.58	24.35	0.000000		
0.00000	158073.78						
111.00	4393.42	9.02	0.38	584.31	0.02		
1557.18	222.48	7.00	222.34	24.64	0.000000		
0.00000	157191.09						
112.00	4393.27	8.87	0.34	521.45	0.02		
1524.53	222.16	6.86	221.07	24.93	0.000012		
0.00523	156295.50						
113.00	4393.11	8.71	0.32	476.65	0.02		
1491.50	221.85	6.72	219.81	25.23	0.000013		
0.00526	155408.23						
114.00	4392.96	8.56	0.30	432.90	0.02		
1456.57	220.68	6.60	218.54	25.54	0.000000		
0.00000	154506.17						
115.00	4392.78	8.38	0.31	432.72	0.02		
1416.13	219.16	6.46	217.05	25.91	0.000022		
0.00900	153454.55						
116.00	4392.56	8.16	0.33	446.99	0.02		
1369.38	217.30	6.30	215.23	26.37	0.000011		
0.00419	152169.23						
117.00	4392.39	7.99	0.23	311.56	0.01		
1331.60	215.77	6.17	213.74	26.76	0.000020		
0.00775	151111.44						
118.00	4392.28	7.88	0.19	251.71	0.01		
1306.22	214.79	6.08	212.78	27.01	0.000016		
0.00614	150432.19						
119.00	4392.18	7.78	0.17	216.14	0.01		
1286.04	213.96	6.01	211.96	27.23	0.000000		
0.00000	149858.16						
120.00	4392.09	7.69	0.14	179.46	0.01		
1265.78	213.14	5.94	211.16	27.45	0.000000		
0.00000	149289.81						
121.00	4392.01	7.61	0.12	143.89	0.01		
1246.79	212.36	5.87	210.39	27.66	0.000000		
0.00000	148747.03						
122.00	4391.93	7.53	0.10	120.32	0.01		
1229.86	211.66	5.81	209.71	27.85	0.000000		
0.00000	148262.92						
123.00	4391.86	7.46	0.09	107.93	0.01		
1214.79	211.03	5.76	209.09	28.02	0.000000		
0.00000	147828.72						
124.00	4391.79	7.39	0.08	98.55	0.01		

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		HYCHAN.OUT							
1200.37	210.40	5.71	208.48	28.19	0.000035				
0.01248	147395.45								
125.00	4391.72	7.32	0.08	91.23	0.01				
1185.01	209.75	5.65	207.84	28.38	0.000000				
0.00000	146941.64								
126.00	4391.65	7.25	0.07	81.82	0.00				
1169.52	209.07	5.59	207.18	28.57	0.000000				
0.00000	146475.77								
127.00	4391.57	7.17	0.06	73.79	0.00				
1151.91	208.31	5.53	206.43	28.78	0.000010				
0.00362	145948.72								
128.00	4391.50	7.10	0.06	64.33	0.00				
1134.82	207.61	5.47	205.75	28.98	0.000008				
0.00275	145462.39								
129.00	4391.42	7.02	0.06	62.08	0.00				
1118.49	206.90	5.41	205.05	29.19	0.000026				
0.00870	144970.64								
130.00	4391.35	6.95	0.06	61.81	0.00				
1102.38	206.19	5.35	204.36	29.40	0.000012				
0.00403	144479.69								
131.00	4391.28	6.88	0.06	61.63	0.00				
1086.07	205.49	5.29	203.67	29.61	0.000000				
0.00000	143997.38								
132.00	4391.21	6.81	0.05	58.88	0.00				
1070.54	204.80	5.23	203.00	29.81	0.000009				
0.00306	143520.39								
133.00	4391.14	6.74	0.06	59.95	0.00				
1055.20	204.11	5.17	202.32	30.02	0.000000				
0.00000	143041.17								
134.00	4391.08	6.68	0.05	55.80	0.00				
1042.26	203.52	5.12	201.74	30.20	0.000000				
0.00000	142628.80								
135.00	4391.03	6.63	0.05	54.62	0.00				
1031.59	203.03	5.08	201.26	30.35	0.000000				
0.00000	142290.34								
136.00	4390.98	6.58	0.05	54.37	0.00				
1021.05	202.54	5.04	200.78	30.51	0.000000				
0.00000	141954.11								
137.00	4390.93	6.53	0.05	52.95	0.00				
1010.85	202.06	5.00	200.31	30.66	0.000000				
0.00000	141619.53								
138.00	4390.89	6.49	0.05	51.55	0.00				
1001.45	201.62	4.97	199.88	30.80	0.000007				
0.00202	141313.66								
139.00	4390.85	6.45	0.05	53.46	0.00				
992.47	201.20	4.93	199.47	30.93	0.000000				
0.00000	141022.20								
140.00	4390.81	6.41	0.05	50.28	0.00				
983.94	200.79	4.90	199.06	31.06	0.000000				
0.00000	140738.47								
141.00	4390.77	6.37	0.05	52.22	0.00				
974.45	200.35	4.86	198.64	31.20	0.000000				
0.00000	140437.66								
142.00	4390.73	6.33	0.05	51.59	0.00				
966.14	199.94	4.83	198.23	31.33	0.000000				
0.00000	140151.20								
143.00	4390.68	6.28	0.05	51.05	0.00				
957.08	199.50	4.80	197.80	31.48	0.000007				
0.00218	139846.56								
144.00	4390.64	6.24	0.05	50.97	0.00				
948.53	199.06	4.76	197.38	31.62	0.000000				
0.00000	139546.62								
145.00	4390.60	6.20	0.05	49.94	0.00				

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		HYCHAN.OUT				
940.21	198.66	4.73	196.99	31.75	0.000000	
0.00000	139269.47					
146.00	4390.57	6.17	0.05	49.89	0.00	
932.01	198.26	4.70	196.59	31.89	0.000000	
0.00000	138989.81					
147.00	4390.52	6.12	0.06	51.04	0.00	
923.19	197.82	4.67	196.16	32.03	0.000000	
0.00000	138681.86					
148.00	4390.48	6.08	0.05	49.87	0.00	
914.18	197.35	4.63	195.70	32.19	0.000000	
0.00000	138361.31					
149.00	4390.44	6.04	0.06	50.16	0.00	
905.57	196.92	4.60	195.28	32.33	0.000000	
0.00000	138063.91					
150.00	4390.40	6.00	0.05	48.71	0.00	
897.80	196.52	4.57	194.89	32.47	0.000000	
0.00000	137785.05					
151.00	4390.36	5.96	0.05	48.74	0.00	
889.89	196.12	4.54	194.49	32.61	0.000009	
0.00268	137506.42					
152.00	4390.33	5.93	0.06	48.81	0.00	
882.13	195.71	4.51	194.10	32.75	0.000000	
0.00000	137226.09					
153.00	4390.29	5.89	0.06	49.42	0.00	
874.11	195.31	4.48	193.70	32.89	0.000000	
0.00000	136947.73					
154.00	4390.25	5.85	0.06	47.72	0.00	
866.45	194.90	4.45	193.30	33.04	0.000000	
0.00000	136659.97					
155.00	4390.21	5.81	0.06	49.11	0.00	
858.69	194.48	4.42	192.89	33.18	0.000000	
0.00000	136370.02					
156.00	4390.18	5.78	0.06	48.21	0.00	
851.36	194.10	4.39	192.52	33.32	0.000007	
0.00191	136109.09					
157.00	4390.14	5.74	0.06	48.35	0.00	
843.86	193.68	4.36	192.10	33.47	0.000000	
0.00000	135816.88					
158.00	4390.12	5.72	0.05	41.50	0.00	
839.49	193.45	4.34	191.88	33.55	0.000005	
0.00147	135658.70					
159.00	4390.11	5.71	0.05	42.65	0.00	
837.97	193.38	4.33	191.81	33.57	0.000000	
0.00000	135608.62					
160.00	4390.11	5.71	0.05	42.02	0.00	
836.86	193.30	4.33	191.73	33.60	0.000005	
0.00144	135556.08					
161.00	4390.10	5.70	0.05	43.11	0.00	
834.71	193.21	4.32	191.64	33.64	0.000000	
0.00000	135489.25					
162.00	4390.09	5.69	0.05	41.23	0.00	
832.84	193.10	4.31	191.54	33.67	0.000000	
0.00000	135416.17					
163.00	4390.08	5.68	0.05	42.71	0.00	
831.14	193.01	4.31	191.45	33.71	0.000000	
0.00000	135355.05					
164.00	4390.07	5.67	0.05	41.71	0.00	
829.30	192.91	4.30	191.35	33.74	0.000000	
0.00000	135281.52					
165.00	4390.06	5.66	0.05	41.33	0.00	
827.83	192.82	4.29	191.26	33.77	0.000000	
0.00000	135224.34					
166.00	4390.06	5.66	0.05	42.19	0.00	

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		HYCHAN.OUT					
826.25	192.74	4.29	191.18	33.81	0.000000		
0.00000	135165.95						
167.00	4390.04	5.64	0.05	44.80	0.00		
822.61	192.55	4.27	190.99	33.88	0.000000		
0.00000	135031.41						
168.00	4390.01	5.61	0.05	44.58	0.00		
817.93	192.28	4.25	190.74	33.97	0.000000		
0.00000	134850.97						
169.00	4390.00	5.60	0.05	42.86	0.00		
814.31	192.09	4.24	190.54	34.04	0.000000		
0.00000	134714.33						
170.00	4389.98	5.58	0.05	43.04	0.00		
811.46	191.92	4.23	190.38	34.11	0.000000		
0.00000	134596.58						
171.00	4389.97	5.57	0.05	42.65	0.00		
808.48	191.76	4.22	190.22	34.16	0.000000		
0.00000	134485.05						
172.00	4389.96	5.56	0.05	41.50	0.00		
806.11	191.63	4.21	190.09	34.21	0.000000		
0.00000	134395.67						
173.00	4389.94	5.54	0.05	42.55	0.00		
804.17	191.49	4.20	189.96	34.26	0.000000		
0.00000	134301.27						
174.00	4389.93	5.53	0.05	42.61	0.00		
800.89	191.34	4.19	189.82	34.32	0.000000		
0.00000	134199.41						
175.00	4389.91	5.51	0.06	44.61	0.00		
797.05	191.12	4.17	189.60	34.40	0.000000		
0.00000	134045.48						
176.00	4389.89	5.49	0.06	44.31	0.00		
791.86	190.83	4.15	189.31	34.51	0.000000		
0.00000	133842.08						
177.00	4389.86	5.46	0.06	43.85	0.00		
787.54	190.57	4.13	189.06	34.61	0.000000		
0.00000	133665.38						
178.00	4389.85	5.45	0.05	42.91	0.00		
783.94	190.37	4.12	188.86	34.68	0.000000		
0.00000	133524.28						
179.00	4389.83	5.43	0.05	42.03	0.00		
780.72	190.19	4.10	188.68	34.75	0.000000		
0.00000	133399.09						
180.00	4389.82	5.42	0.05	42.29	0.00		
777.98	190.03	4.09	188.53	34.81	0.000000		
0.00000	133291.97						
181.00	4389.80	5.40	0.05	40.56	0.00		
775.57	189.90	4.08	188.40	34.86	0.000000		
0.00000	133202.06						
182.00	4389.82	5.42	0.04	34.56	0.00		
777.73	190.03	4.09	188.53	34.81	0.000000		
0.00000	133290.77						
183.00	4389.84	5.44	0.04	34.96	0.00		
782.73	190.31	4.11	188.81	34.70	0.000000		
0.00000	133486.28						
184.00	4389.87	5.47	0.04	33.34	0.00		
788.62	190.65	4.14	189.14	34.58	0.000000		
0.00000	133720.61						
185.00	4389.90	5.50	0.04	34.53	0.00		
794.60	190.96	4.16	189.44	34.46	0.000000		
0.00000	133932.64						
186.00	4389.92	5.52	0.05	36.50	0.00		
798.34	191.19	4.18	189.66	34.38	0.000000		
0.00000	134091.59						
187.00	4389.93	5.53	0.05	37.20	0.00		

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HYCHAN.OUT									
801.04	0.00000	191.31	134175.31	4.19	189.78	34.33	0.000000		
188.00	4389.94	5.54	0.05	37.99	0.00				
802.34	0.00154	191.39	134232.53	4.19	189.86	34.30	0.000006		
189.00	4389.94	5.54	0.05	38.62	0.00				
802.56	0.00000	191.43	134256.33	4.19	189.90	34.29	0.000000		
190.00	4389.94	5.54	0.05	39.29	0.00				
802.94	0.00000	191.45	134274.78	4.19	189.92	34.28	0.000000		
191.00	4389.94	5.54	0.05	39.58	0.00				
802.93	0.00000	191.44	134267.14	4.19	189.91	34.28	0.000000		
192.00	4389.94	5.54	0.05	40.00	0.00				
802.27	0.00147	191.42	134249.02	4.19	189.89	34.29	0.000006		
193.00	4389.92	5.52	0.05	43.68	0.00				
799.47	0.00000	191.26	134139.11	4.18	189.73	34.35	0.000000		
194.00	4389.90	5.50	0.05	43.20	0.00				
794.86	0.00000	191.00	133957.89	4.16	189.47	34.45	0.000000		
195.00	4389.88	5.48	0.05	42.01	0.00				
791.71	0.00000	190.80	133824.84	4.15	189.29	34.52	0.000000		
196.00	4389.87	5.47	0.05	41.50	0.00				
788.98	0.00000	190.66	133724.80	4.14	189.14	34.57	0.000000		
197.00	4389.86	5.46	0.05	40.88	0.00				
787.06	0.00000	190.55	133647.66	4.13	189.03	34.62	0.000000		
198.00	4389.85	5.45	0.05	40.46	0.00				
785.40	0.00000	190.45	133581.38	4.12	188.94	34.65	0.000000		
199.00	4389.85	5.45	0.05	40.23	0.00				
784.07	0.00000	190.38	133534.50	4.12	188.87	34.68	0.000000		

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3675

MAXIMUM DISCHARGE (CFS) = 2950.09 AT TIME = 90.26  
 MAXIMUM STAGE = 4396.86 AT TIME = 91.71

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC SURFACE AREA	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	1.00	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	3.00	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000

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HYCHAN.OUT									
	0.00000	0.00							
0.00	4.00	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	5.00	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	6.00	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	7.00	4384.30	0.00	0.00	0.00	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	8.00	4384.37	0.07	-0.15	-4.42	0.00	0.00	0.000000	
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00		
70.12	9.00	4385.19	0.89	-0.37	-26.07	0.07	0.00	0.000000	
	0.00000	105.29	0.67	105.21	118.20				
99.21	10.00	68389.12	1.21	-0.15	-15.04	0.02	0.00	0.000000	
	0.00000	116.50	0.85	116.27	95.86				
114.71	11.00	75578.59	1.30	-0.02	-1.81	0.00	0.00	0.000000	
	0.00000	119.30	0.96	119.03	91.27				
102.79	12.00	77369.45	1.25	0.02	1.93	0.00	0.00	0.000000	
	0.00000	117.73	0.87	117.48	93.80				
94.85	13.00	76364.25	1.19	0.03	2.52	0.00	0.00	0.000000	
	0.00000	115.67	0.82	115.46	97.29				
82.72	14.00	75047.64	1.09	0.04	3.64	0.01	0.00	0.000000	
	0.00000	112.48	0.74	112.31	103.08				
71.60	15.00	73003.41	0.99	0.06	4.00	0.01	0.00	0.000000	
	0.00000	109.09	0.66	108.97	109.83				
64.71	16.00	70829.10	0.92	0.04	2.86	0.01	0.00	0.000000	
	0.00000	106.50	0.61	106.41	115.43				
60.95	17.00	69167.92	0.88	0.03	1.69	0.01	0.00	0.000000	
	0.00000	104.96	0.58	104.89	118.96				
61.69	18.00	68180.81	0.87	0.01	0.86	0.00	0.00	0.000000	
	0.00000	104.38	0.59	104.31	120.35				
0.00	19.00	67804.39	0.86	0.00	0.00	0.00	0.00	0.000000	
	0.00000	104.17	0.00	104.11	120.86				
66.22	20.00	67668.45	0.89	-0.04	-2.66	0.01	0.00	0.000000	
	0.00000	105.28	0.63	105.20	118.23				
75.62	21.00	68382.39	0.98	-0.07	-5.34	0.01	0.00	0.000000	
	0.00000	108.58	0.70	108.46	110.91				
88.22	22.00	70499.20	1.10	-0.09	-7.77	0.01	0.00	0.000000	
	0.00000	112.80	0.78	112.62	102.49				
101.81	23.00	73205.19	1.23	-0.08	-8.39	0.01	0.00	0.000000	
	0.00000	116.94	0.87	116.71	95.11				
111.14	24.00	75860.22	1.31	-0.06	-6.33	0.01	0.00	0.000000	
	0.00000	119.45	0.93	119.18	91.02				

		HYCHAN.OUT						
	0.00000	77469.60						
118.87	25.00	4385.67	1.37	-0.07	-8.16	0.01		
	0.00000	121.28	0.98		120.98	88.20	0.000000	
	26.00	78640.20						
133.67	4385.79	1.49	-0.10	-13.75	0.01			
	124.71	1.07		124.36	83.26	0.000000		
	0.00000	80833.71						
155.13	27.00	4385.97	1.67	-0.12	-18.68	0.02		
	129.30	1.20		128.88	77.26	0.000000		
	0.00000	83771.30						
181.93	28.00	4386.18	1.88	-0.14	-25.77	0.02		
	134.39	1.35		133.89	71.32	0.000000		
	0.00000	87031.27						
207.24	29.00	4386.37	2.07	-0.13	-26.59	0.02		
	138.75	1.49		138.18	66.76	0.000000		
	0.00000	89817.20						
222.95	30.00	4386.48	2.18	-0.11	-23.43	0.01		
	141.18	1.58		140.57	64.40	0.000000		
	0.00000	91371.11						
235.98	31.00	4386.58	2.28	-0.09	-21.98	0.01		
	143.12	1.65		142.48	62.61	0.000000		
	0.00000	92610.03						
248.69	32.00	4386.67	2.37	-0.06	-15.97	0.01		
	144.95	1.72		144.28	60.98	0.000000		
	0.00000	93784.08						
256.94	33.00	4386.72	2.42	-0.04	-9.30	0.00		
	146.05	1.76		145.36	60.04	0.000000		
	0.00000	94482.88						
266.90	34.00	4386.79	2.49	-0.05	-12.32	0.01		
	147.34	1.81		146.63	58.95	0.000000		
	0.00000	95308.02						
276.24	35.00	4386.85	2.56	-0.03	-9.48	0.00		
	148.64	1.86		147.91	57.89	0.000000		
	0.00000	96141.28						
278.71	36.00	4386.89	2.59	-0.02	-4.26	0.00		
	149.27	1.87		148.52	57.39	0.000000		
	0.00000	96540.74						
286.31	37.00	4386.93	2.63	-0.02	-5.00	0.00		
	150.07	1.91		149.31	56.75	0.000000		
	0.00000	97053.66						
281.67	38.00	4386.91	2.61	0.02	5.65	0.00		
	149.64	1.88		148.90	57.09	0.000000		
	0.00000	96781.98						
274.43	39.00	4386.86	2.56	0.04	10.78	0.00		
	148.81	1.84		148.08	57.75	0.000000		
	0.00000	96250.94						
266.46	40.00	4386.80	2.50	0.03	7.65	0.00		
	147.64	1.80		146.93	58.70	0.000000		
	0.00000	95504.32						
261.56	41.00	4386.77	2.47	0.01	3.18	0.00		
	147.06	1.78		146.35	59.18	0.000009		
	0.00101	95130.59						
0.00	42.00	4386.76	2.46	0.00	0.00	0.00		
	146.76	0.00		146.06	59.44	0.000009		
	0.00000	94937.16						
0.00	43.00	4386.75	2.45	0.00	0.00	0.00		
	146.61	0.00		145.91	59.56	0.000007		
	0.00000	94842.74						
0.00	44.00	4386.75	2.45	0.00	0.00	0.00		
	146.60	0.00		145.91	59.57	0.000000		
	0.00000	94838.66						
265.43	45.00	4386.79	2.49	-0.04	-11.20	0.00		
	147.37	1.80		146.66	58.92	0.000000		

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		HYCHAN.OUT					
	0.00000	95331.15					
275.59	46.00	4386.85	2.55	-0.03	-9.18	0.00	
	0.00000	148.58	1.85		147.85	57.94	0.000000
	47.00	96100.55					
287.65	4386.92	2.62	-0.05	-14.03	0.01		
	149.94	1.92		149.18	56.86	0.000000	
	0.00000	96969.96					
303.65	48.00	4387.03	2.73	-0.06	-19.44	0.01	
	151.92	2.00		151.13	55.33	0.000000	
	0.00000	98237.02					
323.04	49.00	4387.16	2.86	-0.07	-22.71	0.01	
	154.18	2.10		153.35	53.67	0.000000	
	0.00000	99676.69					
344.42	50.00	4387.29	2.99	-0.07	-24.51	0.01	
	156.56	2.20		155.69	51.99	0.000000	
	0.00000	101198.06					
367.19	51.00	4387.44	3.14	-0.07	-25.91	0.01	
	158.94	2.31		158.03	50.39	0.000000	
	0.00000	102719.77					
391.73	52.00	4387.58	3.29	-0.07	-28.12	0.01	
	161.37	2.43		160.42	48.83	0.000000	
	0.00000	104271.02					
419.88	53.00	4387.76	3.46	-0.08	-33.08	0.01	
	164.10	2.56		163.09	47.17	0.000000	
	0.00000	106008.60					
446.68	54.00	4387.92	3.62	-0.06	-26.78	0.01	
	166.55	2.68		165.50	45.74	0.000000	
	0.00000	107576.59					
473.40	55.00	4388.06	3.76	-0.07	-32.38	0.01	
	168.70	2.81		167.61	44.54	0.000000	
	0.00000	108948.98					
507.59	56.00	4388.26	3.96	-0.09	-44.78	0.01	
	171.48	2.96		170.34	43.06	0.000000	
	0.00000	110721.91					
558.40	57.00	4388.54	4.24	-0.12	-69.62	0.01	
	175.44	3.18		174.22	41.07	0.000000	
	0.00000	113245.65					
627.71	58.00	4388.92	4.62	-0.14	-88.83	0.01	
	180.40	3.48		179.08	38.77	0.000000	
	0.00000	116404.29					
704.21	59.00	4389.33	5.03	-0.13	-89.48	0.01	
	185.49	3.80		184.08	36.60	0.000000	
	0.00000	119650.16					
774.60	60.00	4389.69	5.39	-0.10	-76.26	0.01	
	189.73	4.08		188.24	34.92	0.000000	
	0.00000	122354.20					
840.90	61.00	4390.03	5.73	-0.10	-80.08	0.01	
	193.56	4.34		191.99	33.51	0.000000	
	0.00000	124793.52					
891.01	62.00	4390.29	5.99	-0.05	-41.53	0.00	
	196.38	4.54		194.75	32.52	0.000000	
	0.00000	126586.62					
0.00	63.00	4390.42	6.12	0.00	0.00	0.00	
	197.82	0.00		196.16	32.03	0.000000	
	0.00000	127505.12					
0.00	64.00	4390.55	6.25	0.00	0.00	0.00	
	199.12	0.00		197.43	31.60	0.000006	
	0.00000	128328.84					
0.00	65.00	4390.75	6.45	0.00	0.00	0.00	
	201.23	0.00		199.50	30.92	0.000000	
	0.00000	129677.21					
1041.56	66.00	4390.97	6.67	0.02	18.68	0.00	
	203.39	5.12		201.62	30.24	0.000000	

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HYCHAN.OUT									
0.00000	131051.13								
67.00	4391.17	6.87		0.06	65.01	0.00			
1086.19	205.40		5.29		203.58	29.63	0.000000		
0.00000	132328.80								
68.00	4391.37	7.07		0.12	135.36	0.01			
1129.89	207.34		5.45		205.49	29.06	0.000000		
0.00000	133565.78								
69.00	4391.57	7.27		0.17	196.92	0.01			
1171.62	209.20		5.60		207.31	28.53	0.000011		
0.00394	134748.73								
70.00	4391.78	7.48		0.22	264.54	0.01			
1214.93	209.80		5.79		209.26	27.97	0.000011		
0.00385	136016.03								
71.00	4391.97	7.67		0.22	277.87	0.01			
1252.57	210.18		5.96		210.93	27.51	0.000006		
0.00227	137102.44								
72.00	4392.21	7.91		0.22	282.09	0.01			
1305.24	210.67		6.20		213.07	26.93	0.000000		
0.00000	138496.52								
73.00	4392.43	8.13		0.26	355.63	0.02			
1348.80	211.10		6.39		214.96	26.44	0.000008		
0.00318	139725.09								
74.00	4392.62	8.32		0.31	426.76	0.02			
1387.31	211.48		6.56		216.58	26.03	0.000017		
0.00701	140773.91								
75.00	4392.77	8.47		0.34	478.79	0.02			
1418.13	211.79		6.70		217.84	25.71	0.000021		
0.00892	141598.98								
76.00	4392.96	8.66		0.44	634.60	0.03			
1458.45	212.17		6.87		219.40	25.33	0.000000		
0.00000	142612.44								
77.00	4393.18	8.88		0.58	871.35	0.03			
1500.85	212.60		7.06		221.15	24.91	0.000013		
0.00583	143747.81								
78.00	4393.38	9.08		0.67	1036.01	0.04			
1541.00	212.99		7.23		222.74	24.54	0.000005		
0.00233	144779.70								
79.00	4393.57	9.27		0.75	1191.02	0.04			
1580.07	213.38		7.41		224.24	24.20	0.000000		
0.00000	145756.56								
80.00	4393.76	9.46		0.84	1357.73	0.05			
1618.41	213.76		7.57		225.71	23.87	0.000011		
0.00515	146714.33								
81.00	4393.98	9.68		0.93	1555.34	0.05			
1663.62	214.20		7.77		227.40	23.50	0.000007		
0.00349	147809.06								
82.00	4394.25	9.95		1.05	1813.01	0.06			
1720.34	214.75		8.01		229.48	23.06	0.000013		
0.00657	149158.92								
83.00	4394.52	10.22		1.14	2023.41	0.06			
1774.01	215.27		8.24		231.42	22.65	0.000010		
0.00539	150420.09								
84.00	4394.77	10.47		1.17	2130.44	0.06			
1827.14	215.79		8.47		233.28	22.28	0.000010		
0.00521	151633.58								
85.00	4395.16	10.86		1.12	2137.07	0.06			
1908.86	216.57		8.81		236.04	21.73	0.000000		
0.00000	153426.69								
86.00	4395.52	11.22		1.13	2242.83	0.06			
1983.57	217.28		9.13		238.51	21.26	0.000000		
0.00000	155030.06								
87.00	4395.86	11.56		1.18	2419.01	0.06			
2054.30	217.96		9.43		240.82	20.84	0.000000		

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HYCHAN.OUT							
	0.00000	156534.34					
2118.23	88.00	4396.17	11.87	9.69	1.22	2594.47	0.06
	0.00000	218.57				242.88	20.47
	0.00000	157871.69					0.000000
2176.22	89.00	4396.44	12.14	9.93	1.26	2734.30	0.06
	0.00000	219.13				244.71	20.15
	0.00000	159059.92					0.000000
2221.98	90.00	4396.66	12.36	10.12	1.29	2859.44	0.06
	0.00000	219.57				246.13	19.91
	0.00000	159983.36					0.000000
2248.89	91.00	4396.79	12.49	10.23	1.29	2902.52	0.06
	0.00000	219.83				246.95	19.77
	0.00000	160518.95					0.000000
2258.24	92.00	4396.84	12.54	10.27	1.28	2890.81	0.06
	0.00000	219.92				247.24	19.72
	0.00000	160704.22					0.000000
2254.24	93.00	4396.82	12.52	10.25	1.26	2831.80	0.06
	0.00000	219.88				247.11	19.74
	0.00000	160619.80					0.000000
2235.04	94.00	4396.72	12.42	10.17	1.23	2740.27	0.06
	0.00000	219.69				246.52	19.84
	0.00000	160237.83					0.000000
2197.76	95.00	4396.54	12.24	10.02	1.18	2584.14	0.06
	0.00000	219.33				245.36	20.04
	0.00000	159486.56					0.000000
2155.20	96.00	4396.34	12.04	9.84	1.11	2387.88	0.06
	0.00000	218.92				244.03	20.27
	0.00000	158618.53					0.000000
2107.95	97.00	4396.11	11.81	9.65	1.05	2205.56	0.05
	0.00000	218.47				242.53	20.53
	0.00000	157645.53					0.000000
2061.70	98.00	4395.89	11.59	9.46	1.00	2053.05	0.05
	0.00000	218.02				241.04	20.80
	0.00000	156676.45					0.000000
2016.44	99.00	4395.67	11.37	9.27	0.93	1883.44	0.05
	0.00675	217.58				239.54	21.07
	0.00675	155704.02					0.000012
1963.39	100.00	4395.41	11.11	9.05	0.87	1706.25	0.05
	0.00000	217.06				237.75	21.41
	0.00000	154539.11					0.000000
1865.43	101.00	4394.94	10.64	8.63	0.83	1540.51	0.04
	0.00000	216.12				234.48	22.04
	0.00000	152409.38					0.000000
1787.18	102.00	4394.56	10.26	8.30	0.77	1368.87	0.04
	0.00000	215.37				231.75	22.59
	0.00000	150635.34					0.000000
1749.65	103.00	4394.38	10.08	8.14	0.70	1232.48	0.04
	0.00293	214.99				230.39	22.87
	0.00293	149750.89					0.000006
1723.95	104.00	4394.25	9.95	8.03	0.66	1145.57	0.04
	0.00000	214.74				229.44	23.06
	0.00000	149133.28					0.000000
1705.96	105.00	4394.16	9.86	7.95	0.62	1061.32	0.03
	0.00000	214.56				228.77	23.21
	0.00000	148699.06					0.000000
1688.89	106.00	4394.08	9.78	7.88	0.59	988.91	0.03
	0.01101	214.40				228.15	23.34
	0.01101	148299.67					0.000022
1670.94	107.00	4393.99	9.69	7.80	0.55	911.96	0.03
	0.00000	214.23				227.51	23.48
	0.00000	147881.33					0.000000
1648.90	108.00	4393.88	9.58	7.70	0.51	845.53	0.03
	0.00000	214.01				226.68	23.66
							0.000011

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				HYCHAN.OUT			
	0.00507	147339.94					
109.00	4393.73	9.43	0.46	743.01	0.03		
1617.87	213.71	7.57	225.52	23.91	0.000000		
	0.00000	146586.50					
110.00	4393.58	9.28	0.42	670.67	0.02		
1586.26	213.40	7.43	224.34	24.18	0.000000		
	0.00000	145820.91					
111.00	4393.42	9.12	0.39	598.31	0.02		
1553.49	213.09	7.29	223.10	24.46	0.000000		
	0.00000	145013.70					
112.00	4393.26	8.96	0.35	538.08	0.02		
1520.95	212.77	7.15	221.86	24.75	0.000008		
	0.00344	144206.20					
113.00	4393.11	8.81	0.33	494.33	0.02		
1488.72	212.46	7.01	220.61	25.04	0.000005		
	0.00230	143394.03					
114.00	4392.95	8.65	0.31	451.61	0.02		
1456.80	212.15	6.87	219.34	25.35	0.000000		
	0.00000	142568.31					
115.00	4392.77	8.48	0.32	447.70	0.02		
1419.34	211.79	6.70	217.87	25.71	0.000024		
	0.00994	141615.12					
116.00	4392.56	8.26	0.33	454.24	0.02		
1377.04	211.36	6.52	216.06	26.16	0.000007		
	0.00277	140441.91					
117.00	4392.39	8.09	0.25	328.87	0.02		
1341.83	211.02	6.36	214.59	26.54	0.000015		
	0.00614	139484.20					
118.00	4392.27	7.98	0.21	275.31	0.01		
1318.53	210.79	6.26	213.63	26.79	0.000020		
	0.00780	138859.22					
119.00	4392.18	7.88	0.19	242.32	0.01		
1299.87	210.61	6.17	212.83	27.00	0.000000		
	0.00000	138337.27					
120.00	4392.09	7.79	0.16	207.44	0.01		
1280.84	210.43	6.09	212.03	27.21	0.000000		
	0.00000	137817.41					
121.00	4392.01	7.71	0.14	171.36	0.01		
1263.26	210.25	6.01	211.27	27.42	0.000010		
	0.00361	137324.70					
122.00	4391.93	7.63	0.12	144.61	0.01		
1247.50	210.10	5.94	210.59	27.60	0.000013		
	0.00475	136883.42					
123.00	4391.86	7.56	0.10	129.26	0.01		
1233.20	209.97	5.87	209.98	27.77	0.000000		
	0.00000	136486.94					
124.00	4391.79	7.49	0.10	119.10	0.01		
1218.98	209.83	5.81	209.38	27.94	0.000000		
	0.00000	136095.00					
125.00	4391.72	7.42	0.09	104.23	0.01		
1204.65	209.69	5.74	208.74	28.12	0.000000		
	0.00000	135681.98					
126.00	4391.65	7.35	0.08	93.57	0.01		
1189.74	209.55	5.68	208.09	28.30	0.000000		
	0.00000	135261.19					
127.00	4391.57	7.27	0.07	78.38	0.00		
1173.09	209.25	5.61	207.35	28.51	0.000008		
	0.00297	134779.61					
128.00	4391.50	7.20	0.06	67.17	0.00		
1157.08	208.56	5.55	206.67	28.71	0.000000		
	0.00000	134338.33					
129.00	4391.42	7.12	0.06	65.74	0.00		
1140.37	207.86	5.49	205.99	28.91	0.000008		

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HYCHAN.OUT									
0.00272	133892.64								
130.00	4391.35	7.05		0.06	64.30	0.00			
1124.26	207.16		5.43		205.30	29.12		0.000011	
0.00356	133446.83								
131.00	4391.28	6.98		0.06	63.82	0.00			
1108.60	206.47		5.37		204.63	29.32		0.000000	
0.00000	133007.72								
132.00	4391.21	6.91		0.06	62.55	0.00			
1092.03	205.78		5.31		203.95	29.52		0.000017	
0.00561	132570.27								
133.00	4391.14	6.84		0.06	62.07	0.00			
1076.91	205.09		5.25		203.28	29.72		0.000000	
0.00000	132133.97								
134.00	4391.08	6.78		0.05	57.63	0.00			
1064.16	204.51		5.20		202.71	29.90		0.000000	
0.00000	131762.16								
135.00	4391.03	6.73		0.05	56.25	0.00			
1053.17	204.02		5.16		202.23	30.05		0.000000	
0.00000	131452.23								
136.00	4390.98	6.68		0.05	55.59	0.00			
1042.96	203.54		5.12		201.76	30.20		0.000000	
0.00000	131146.77								
137.00	4390.93	6.63		0.05	55.63	0.00			
1032.50	203.06		5.08		201.29	30.34		0.000000	
0.00000	130841.02								
138.00	4390.89	6.59		0.05	53.52	0.00			
1022.89	202.63		5.05		200.87	30.48		0.000009	
0.00298	130565.55								
139.00	4390.85	6.55		0.05	54.97	0.00			
1013.85	202.21		5.01		200.46	30.61		0.000000	
0.00000	130297.23								
140.00	4390.81	6.51		0.05	51.58	0.00			
1005.26	201.81		4.98		200.07	30.73		0.000000	
0.00000	130044.02								
141.00	4390.77	6.47		0.05	54.05	0.00			
996.38	201.37		4.95		199.64	30.87		0.000000	
0.00000	129766.76								
142.00	4390.73	6.43		0.05	53.00	0.00			
987.86	200.97		4.92		199.24	31.00		0.000000	
0.00000	129506.43								
143.00	4390.68	6.38		0.05	53.21	0.00			
978.65	200.53		4.88		198.82	31.14		0.000000	
0.00000	129229.84								
144.00	4390.64	6.34		0.05	52.47	0.00			
969.79	200.11		4.85		198.40	31.28		0.000000	
0.00000	128961.05								
145.00	4390.60	6.30		0.05	50.69	0.00			
961.68	199.71		4.82		198.01	31.41		0.000005	
0.00159	128704.97								
146.00	4390.57	6.27		0.05	52.32	0.00			
953.41	199.31		4.78		197.62	31.54		0.000000	
0.00000	128451.41								
147.00	4390.52	6.22		0.05	51.78	0.00			
944.55	198.87		4.75		197.19	31.68		0.000000	
0.00000	128173.51								
148.00	4390.48	6.18		0.06	52.01	0.00			
935.34	198.41		4.71		196.74	31.83		0.000000	
0.00000	127882.46								
149.00	4390.44	6.14		0.06	51.76	0.00			
926.76	197.98		4.68		196.32	31.98		0.000000	
0.00000	127607.51								
150.00	4390.40	6.10		0.05	49.82	0.00			
918.71	197.59		4.65		195.94	32.11		0.000000	

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		HYCHAN.OUT					
	0.00000	127358.70					
151.00	4390.36	6.06	0.06	50.86	0.00		
910.96	197.19	4.62	195.54	32.25	0.000000		
	0.00000	127100.21					
152.00	4390.33	6.03	0.06	49.77	0.00		
903.15	196.79	4.59	195.15	32.38	0.000000		
	0.00000	126850.50					
153.00	4390.29	5.99	0.06	50.78	0.00		
895.27	196.39	4.56	194.76	32.52	0.000000		
	0.00000	126593.58					
154.00	4390.25	5.95	0.06	49.11	0.00		
887.36	195.98	4.53	194.36	32.66	0.000000		
	0.00000	126333.80					
155.00	4390.21	5.91	0.06	50.48	0.00		
879.57	195.57	4.50	193.96	32.80	0.000000		
	0.00000	126073.20					
156.00	4390.18	5.88	0.06	49.61	0.00		
872.20	195.19	4.47	193.59	32.93	0.000000		
	0.00000	125832.30					
157.00	4390.14	5.84	0.06	49.81	0.00		
864.50	194.79	4.44	193.19	33.07	0.000000		
	0.00000	125572.22					
158.00	4390.12	5.82	0.05	42.02	0.00		
859.95	194.55	4.42	192.96	33.16	0.000000		
	0.00000	125424.23					
159.00	4390.11	5.81	0.05	42.56	0.00		
858.61	194.48	4.41	192.89	33.18	0.000000		
	0.00000	125379.12					
160.00	4390.11	5.81	0.05	42.27	0.00		
857.28	194.41	4.41	192.82	33.21	0.000000		
	0.00000	125330.75					
161.00	4390.10	5.80	0.05	43.04	0.00		
855.49	194.31	4.40	192.72	33.24	0.000000		
	0.00000	125270.95					
162.00	4390.09	5.79	0.05	41.58	0.00		
853.45	194.21	4.39	192.62	33.28	0.000006		
	0.00156	125203.87					
163.00	4390.08	5.78	0.05	43.31	0.00		
851.88	194.12	4.39	192.53	33.31	0.000000		
	0.00000	125146.62					
164.00	4390.07	5.77	0.05	42.15	0.00		
849.96	194.01	4.38	192.43	33.35	0.000000		
	0.00000	125080.87					
165.00	4390.06	5.76	0.05	41.90	0.00		
848.37	193.93	4.37	192.35	33.38	0.000000		
	0.00000	125029.39					
166.00	4390.06	5.76	0.05	42.36	0.00		
846.85	193.85	4.37	192.27	33.40	0.000000		
	0.00000	124976.63					
167.00	4390.04	5.74	0.05	45.28	0.00		
843.27	193.66	4.35	192.08	33.47	0.000000		
	0.00000	124853.70					
168.00	4390.01	5.71	0.05	45.31	0.00		
838.58	193.40	4.34	191.83	33.57	0.000000		
	0.00000	124689.53					
169.00	4390.00	5.70	0.05	43.88	0.00		
834.85	193.21	4.32	191.64	33.64	0.000000		
	0.00000	124565.72					
170.00	4389.98	5.68	0.05	43.44	0.00		
831.64	193.04	4.31	191.48	33.70	0.000000		
	0.00000	124460.78					
171.00	4389.97	5.67	0.05	43.03	0.00		
829.02	192.88	4.30	191.32	33.75	0.000000		

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		HYCHAN.OUT						
	0.00000	124360.09						
826.56	172.00	4389.96	5.66	0.05	42.25	0.00		
	0.00000	124276.20	4.29	191.19	33.80	0.000000		
823.97	173.00	4389.94	5.64	0.05	43.04	0.00		
	0.00000	124193.25	4.28	191.07	33.85	0.000000		
821.39	174.00	4389.93	5.63	0.05	42.54	0.00		
	0.00000	124099.12	4.27	190.92	33.90	0.000000		
817.25	175.00	4389.91	5.61	0.06	45.95	0.00		
	0.00000	123957.38	4.25	190.70	33.98	0.000000		
812.21	176.00	4389.89	5.59	0.06	44.90	0.00		
	0.00000	123773.20	4.23	190.42	34.09	0.000000		
807.58	177.00	4389.86	5.56	0.06	44.57	0.00		
	0.00000	123615.99	4.21	190.18	34.18	0.000000		
804.06	178.00	4389.85	5.55	0.05	43.97	0.00		
	0.00000	123486.89	4.20	189.98	34.26	0.000000		
800.73	179.00	4389.83	5.53	0.05	42.10	0.00		
	0.00000	123372.34	4.19	189.80	34.32	0.000000		
798.19	180.00	4389.82	5.52	0.05	43.18	0.00		
	0.00000	123274.50	4.18	189.65	34.38	0.000000		
795.86	181.00	4389.81	5.51	0.05	40.45	0.00		
	0.00000	123192.83	4.17	189.53	34.43	0.000000		
797.91	182.00	4389.82	5.52	0.04	34.14	0.00		
	0.00000	123273.64	4.17	189.65	34.38	0.000000		
803.03	183.00	4389.84	5.54	0.04	33.25	0.00		
	0.00145	123452.03	4.19	189.93	34.28	0.000006		
808.87	184.00	4389.87	5.57	0.04	32.91	0.00		
	0.00000	123661.45	4.22	190.25	34.15	0.000000		
814.65	185.00	4389.90	5.60	0.04	33.62	0.00		
	0.00000	123858.41	4.24	190.55	34.04	0.000000		
818.78	186.00	4389.92	5.62	0.04	35.75	0.00		
	0.00000	124001.17	4.26	190.77	33.96	0.000000		
821.03	187.00	4389.93	5.63	0.04	36.90	0.00		
	0.00000	124080.83	4.27	190.89	33.91	0.000000		
822.31	188.00	4389.94	5.64	0.05	37.97	0.00		
	0.00000	124129.63	4.27	190.97	33.88	0.000000		
822.77	189.00	4389.94	5.64	0.05	38.33	0.00		
	0.00000	124150.27	4.27	191.00	33.87	0.000000		
823.47	190.00	4389.94	5.64	0.05	39.05	0.00		
	0.00000	124167.82	4.28	191.03	33.86	0.000000		
823.21	191.00	4389.94	5.64	0.05	39.70	0.00		
	0.00000	124160.15	4.27	191.02	33.87	0.000000		
822.78	192.00	4389.94	5.64	0.05	40.53	0.00		
	0.00000	124160.15	4.27	190.99	33.88	0.000000		

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## HYCHAN.OUT

0.00000	124144.72							
193.00	4389.92	5.62	0.05	44.27	0.00			
819.80	192.39	4.26	190.84	33.93	0.000000			
0.00000	124043.74							
194.00	4389.90	5.60	0.05	43.79	0.00			
815.65	192.13	4.25	190.59	34.03	0.000000			
0.00000	123881.04							
195.00	4389.88	5.58	0.05	43.10	0.00			
811.54	191.94	4.23	190.40	34.10	0.000000			
0.00000	123758.39							
196.00	4389.87	5.57	0.05	41.29	0.00			
809.16	191.80	4.22	190.26	34.15	0.000007			
0.00186	123668.36							
197.00	4389.86	5.56	0.05	41.79	0.00			
807.28	191.69	4.21	190.15	34.19	0.000000			
0.00000	123597.31							
198.00	4389.85	5.55	0.05	40.36	0.00			
805.45	191.59	4.20	190.06	34.22	0.000007			
0.00173	123539.17							
199.00	4389.85	5.55	0.05	40.29	0.00			
804.45	191.52	4.20	189.99	34.25	0.000000			
0.00000	123494.60							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3758

MAXIMUM DISCHARGE (CFS) = 2995.14 AT TIME = 90.23  
 MAXIMUM STAGE = 4396.84 AT TIME = 91.76

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED	PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE	
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)			(FT)				
0.00	0.00	4384.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4384.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4384.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4384.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4384.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	5.00	4384.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	6.00	4384.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	7.00	4384.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
45.80	8.00	4384.57	0.37	-0.34	-15.69	0.10			
		79.21	0.58	79.43	213.08				0.000000
	0.00000	47656.49							

		HYCHAN.OUT							
85.41	9.00	4385.31	1.11	-0.36	-30.76	0.06			
	0.00000	113.03	0.76	112.85	102.05		0.000000		
	10.00	67712.84							
105.45	0.00000	4385.53	1.33	-0.18	-18.49	0.03			
	11.00	119.92	0.88	119.65	90.28		0.000000		
	0.00000	71787.82							
122.74	12.00	4385.60	1.40	-0.01	-1.31	0.00			
	0.00000	122.22	1.00	121.91	86.81		0.000000		
	13.00	73146.62							
107.12	0.00000	4385.55	1.35	0.03	2.90	0.00			
	14.00	120.73	0.89	120.44	89.03		0.000000		
	0.00000	72266.91							
99.84	15.00	4385.49	1.29	0.04	4.13	0.01			
	0.00052	118.77	0.84	118.51	92.11		0.000010		
	16.00	71104.17							
87.44	0.00000	4385.39	1.19	0.06	5.56	0.01			
	17.00	115.73	0.76	115.51	97.19		0.000000		
	0.00000	69306.44							
76.94	18.00	4385.29	1.09	0.07	5.52	0.01			
	0.00000	112.48	0.68	112.31	103.10		0.000000		
	19.00	67383.81							
70.25	0.00000	4385.22	1.02	0.05	3.76	0.01			
	20.00	110.08	0.64	109.94	107.81		0.000000		
	0.00000	65962.85							
66.87	21.00	4385.18	0.98	0.03	1.98	0.01			
	0.00000	108.67	0.62	108.55	110.72		0.000000		
	22.00	65129.53							
67.79	0.00000	4385.17	0.97	0.02	1.13	0.00			
	23.00	108.16	0.63	108.05	111.79		0.000000		
	0.00000	64830.39							
0.00	24.00	4385.16	0.96	0.00	0.00	0.00			
	0.00000	107.96	0.00	107.85	112.23		0.000000		
	25.00	64710.12							
71.91	0.00000	4385.19	0.99	-0.05	-3.66	0.01			
	26.00	109.04	0.66	108.92	109.94		0.000000		
	0.00000	65349.35							
81.42	27.00	4385.28	1.08	-0.09	-7.23	0.02			
	0.00000	112.21	0.73	112.04	103.61		0.000000		
	28.00	67223.90							
93.76	0.00000	4385.40	1.20	-0.11	-10.17	0.02			
	29.00	116.20	0.81	115.98	96.38		0.000000		
	0.00000	69586.15							
106.75	30.00	4385.53	1.33	-0.10	-10.50	0.02			
	0.00000	120.07	0.89	119.79	90.06		0.000000		
	31.00	71874.16							
115.57	0.00000	4385.61	1.41	-0.06	-7.35	0.01			
	32.00	122.40	0.94	122.08	86.55		0.000000		
	0.00000	73249.72							
123.14	33.00	4385.67	1.47	-0.08	-9.90	0.01			
	0.00000	124.15	0.99	123.82	84.03		0.000000		
	34.00	74289.41							
137.58	0.00000	4385.80	1.60	-0.12	-17.04	0.02			
	35.00	127.48	1.08	127.09	79.56		0.000000		
	0.00000	76254.30							
158.21	36.00	4385.97	1.77	-0.14	-22.67	0.02			
	0.00000	131.89	1.20	131.43	74.15		0.000000		
	37.00	78859.38							
183.81	0.00000	4386.18	1.98	-0.17	-30.65	0.02			
	38.00	136.81	1.34	136.27	68.74		0.000000		
	0.00000	81762.70							
207.70	39.00	4386.37	2.17	-0.14	-30.01	0.02			
	0.00000	140.98	1.47	140.37	64.59		0.000000		
	40.00	84223.73							

		HYCHAN.OUT					
222.54	30.00	4386.48	2.28	-0.11	-25.47	0.01	
	0.00000	143.30	1.55		142.66	62.44	0.000000
		85595.30					
234.89	31.00	4386.58	2.38	-0.10	-24.44	0.01	
	0.00000	145.17	1.62		144.50	60.79	0.000000
		86697.55					
246.80	32.00	4386.67	2.47	-0.07	-17.66	0.01	
	0.00000	146.93	1.68		146.23	59.29	0.000000
		87739.49					
254.60	33.00	4386.72	2.52	-0.04	-10.52	0.00	
	0.00000	147.99	1.72		147.27	58.42	0.000000
		88360.87					
263.99	34.00	4386.79	2.59	-0.05	-14.26	0.01	
	0.00000	149.25	1.77		148.51	57.40	0.000000
		89103.75					
272.52	35.00	4386.85	2.65	-0.04	-10.77	0.00	
	0.00000	150.52	1.81		149.75	56.40	0.000000
		89851.02					
275.47	36.00	4386.89	2.69	-0.02	-5.35	0.00	
	0.00000	151.12	1.82		150.35	55.94	0.000000
		90209.33					
281.56	37.00	4386.93	2.73	-0.02	-4.88	0.00	
	0.00000	151.90	1.85		151.11	55.35	0.000000
		90667.23					
278.52	38.00	4386.91	2.71	0.02	6.21	0.00	
	0.00067	151.49	1.84		150.71	55.65	0.000006
		90427.88					
271.04	39.00	4386.86	2.66	0.05	12.52	0.00	
	0.00000	150.68	1.80		149.92	56.28	0.000000
		89949.58					
263.60	40.00	4386.80	2.60	0.03	8.56	0.00	
	0.00090	149.55	1.76		148.80	57.16	0.000008
		89282.33					
258.29	41.00	4386.77	2.57	0.02	4.03	0.00	
	0.00000	148.98	1.73		148.24	57.61	0.000000
		88945.82					
0.00	42.00	4386.76	2.56	0.00	0.00	0.00	
	0.00000	148.67	0.00		147.94	57.86	0.000013
		88763.22					
0.00	43.00	4386.75	2.55	0.00	0.00	0.00	
	0.00000	148.53	0.00		147.80	57.97	0.000000
		88682.62					
0.00	44.00	4386.75	2.55	0.00	0.00	0.00	
	0.00000	148.53	0.00		147.80	57.98	0.000000
		88679.24					
262.93	45.00	4386.79	2.59	-0.05	-12.85	0.01	
	0.00000	149.27	1.76		148.53	57.38	0.000000
		89119.45					
272.14	46.00	4386.85	2.65	-0.04	-10.57	0.00	
	0.00000	150.45	1.81		149.69	56.45	0.000000
		89813.70					
283.67	47.00	4386.92	2.72	-0.06	-16.33	0.01	
	0.00000	151.78	1.87		151.00	55.43	0.000000
		90598.66					
298.83	48.00	4387.03	2.83	-0.08	-22.51	0.01	
	0.00000	153.72	1.94		152.90	54.00	0.000000
		91741.90					
317.18	49.00	4387.16	2.96	-0.08	-26.18	0.01	
	0.00000	155.92	2.03		155.07	52.43	0.000000
		93040.09					
337.36	50.00	4387.29	3.09	-0.08	-28.22	0.01	
	0.00000	158.25	2.13		157.35	50.84	0.000000
		94412.36					

		HYCHAN.OUT					
358.84	51.00	4387.44	3.24	-0.08	-29.86	0.01	0.000000
	0.00000	160.58	2.23		159.64	49.33	
		95786.22					
382.00	52.00	4387.59	3.39	-0.08	-32.46	0.01	0.000000
	0.00000	162.96	2.34		161.98	47.85	
		97188.38					
408.50	53.00	4387.76	3.56	-0.09	-38.10	0.01	0.000000
	0.00000	165.64	2.47		164.60	46.26	
		98761.23					
433.01	54.00	4387.92	3.72	-0.07	-30.78	0.01	0.000000
	0.00000	168.04	2.58		166.97	44.90	
		100179.16					
458.85	55.00	4388.06	3.86	-0.08	-37.29	0.01	0.000000
	0.00000	170.16	2.70		169.04	43.76	
		101423.87					
491.07	56.00	4388.26	4.06	-0.10	-51.51	0.01	0.000000
	0.00000	172.89	2.84		171.72	42.33	
		103034.05					
538.82	57.00	4388.54	4.34	-0.15	-79.93	0.01	0.000000
	0.00000	176.79	3.05		175.55	40.42	
		105329.27					
603.85	58.00	4388.92	4.72	-0.17	-101.74	0.01	0.000000
	0.00000	181.67	3.32		180.34	38.21	
		108201.50					
675.47	59.00	4389.33	5.13	-0.15	-102.29	0.01	0.000000
	0.00000	186.69	3.62		185.26	36.11	
		111153.40					
740.60	60.00	4389.69	5.49	-0.12	-87.38	0.01	0.000000
	0.00000	190.88	3.88		189.36	34.49	
		113617.61					
803.59	61.00	4390.03	5.83	-0.11	-91.35	0.01	0.000000
	0.00000	194.66	4.13		193.07	33.12	
		115840.02					
849.64	62.00	4390.29	6.09	-0.06	-47.58	0.00	0.000000
	0.00000	197.43	4.30		195.78	32.16	
		117468.26					
0.00	63.00	4390.42	6.22	0.00	0.00	0.00	0.000000
	0.00000	198.87	0.00		197.18	31.68	
		118310.30					
0.00	64.00	4390.55	6.35	0.00	0.00	0.00	0.000000
	0.00000	200.15	0.00		198.44	31.27	
		119062.86					
0.00	65.00	4390.75	6.55	0.00	0.00	0.00	0.000000
	0.00000	202.24	0.00		200.49	30.60	
		120294.90					
992.25	66.00	4390.97	6.77	0.01	11.00	0.00	0.000000
	0.00000	204.38	4.85		202.58	29.94	
		121549.38					
1032.23	67.00	4391.17	6.97	0.05	56.64	0.00	0.000009
	0.00291	206.37	5.00		204.53	29.35	
		122717.86					
1070.61	68.00	4391.37	7.17	0.12	129.37	0.01	0.000000
	0.00000	208.29	5.14		206.41	28.79	
		123844.51					
1099.93	69.00	4391.57	7.37	0.16	181.03	0.01	0.000000
	0.00000	208.83	5.27		208.22	28.27	
		124931.09					
1131.36	70.00	4391.78	7.58	0.21	234.91	0.01	0.000000
	0.00000	209.26	5.41		210.14	27.73	
		126081.89					
1158.99	71.00	4391.97	7.77	0.19	216.98	0.01	0.000000
	0.00000	209.63	5.53		211.82	27.27	
		127089.66					

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HYCHAN.OUT									
1198.08	72.00	4392.21	8.01	0.18	210.16	0.01	0.000018		
	0.00648	210.12	5.70		213.94	26.71			
		128364.69							
1230.66	73.00	4392.43	8.23	0.23	289.06	0.01	0.000025		
	0.00919	210.56	5.84		215.79	26.23			
		129474.86							
1257.72	74.00	4392.62	8.42	0.29	360.05	0.02	0.000000		
	0.00000	210.93	5.96		217.38	25.83			
		130426.79							
1280.68	75.00	4392.77	8.57	0.32	411.77	0.02	0.000006		
	0.00230	211.23	6.06		218.62	25.52			
		131174.48							
1309.23	76.00	4392.95	8.75	0.42	555.05	0.03	0.000000		
	0.00000	211.61	6.19		220.15	25.15			
		132092.08							
1340.39	77.00	4393.17	8.97	0.58	781.06	0.03	0.000016		
	0.00631	212.04	6.32		221.88	24.74			
		133127.08							
1370.16	78.00	4393.37	9.17	0.69	938.87	0.04	0.000000		
	0.00000	212.43	6.45		223.45	24.38			
		134071.56							
1398.65	79.00	4393.56	9.36	0.78	1085.05	0.04	0.000010		
	0.00399	212.81	6.57		224.94	24.04			
		134963.31							
1427.54	80.00	4393.75	9.55	0.87	1239.01	0.05	0.000009		
	0.00391	213.19	6.70		226.40	23.72			
		135841.02							
1460.10	81.00	4393.96	9.76	0.97	1418.49	0.05	0.000015		
	0.00655	213.63	6.83		228.06	23.36			
		136835.80							
1501.31	82.00	4394.24	10.04	1.10	1651.87	0.06	0.000006		
	0.00257	214.17	7.01		230.10	22.93			
		138058.91							
1540.04	83.00	4394.50	10.30	1.19	1836.46	0.07	0.000014		
	0.00634	214.69	7.17		232.01	22.53			
		139204.19							
1579.39	84.00	4394.75	10.55	1.24	1965.97	0.07	0.000000		
	0.00000	215.21	7.34		233.86	22.16			
		140318.75							
1639.91	85.00	4395.15	10.94	1.25	2055.51	0.07	0.000014		
	0.00647	215.99	7.59		236.63	21.62			
		141977.31							
1694.84	86.00	4395.50	11.30	1.30	2207.99	0.07	0.000000		
	0.00000	216.70	7.82		239.09	21.16			
		143454.22							
1746.65	87.00	4395.84	11.64	1.38	2404.90	0.07	0.000014		
	0.00715	217.38	8.03		241.39	20.74			
		144831.88							
1793.58	88.00	4396.15	11.95	1.44	2588.83	0.07	0.000008		
	0.00421	218.00	8.23		243.43	20.37			
		146057.84							
1836.22	89.00	4396.43	12.23	1.50	2750.55	0.08	0.000008		
	0.00402	218.55	8.40		245.25	20.06			
		147148.28							
1869.68	90.00	4396.65	12.45	1.55	2899.32	0.08	0.000007		
	0.00350	218.99	8.54		246.65	19.82			
		147992.06							
1889.42	91.00	4396.77	12.57	1.57	2965.04	0.08	0.000000		
	0.00000	219.25	8.62		247.47	19.68			
		148482.84							
1896.25	92.00	4396.82	12.62	1.56	2961.49	0.08	0.000000		
	0.00000	219.34	8.65		247.75	19.64			
		148651.92							

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HYCHAN.OUT							
1893.28	93.00	4396.80	12.60	8.63	1.53	2905.46	0.08
	0.00325	219.30				247.63	19.66
		148577.03					0.000006
1879.39	94.00	4396.71	12.51	8.58	1.49	2802.52	0.07
	0.00328	219.11				247.05	19.75
		148230.55					0.000006
1852.33	95.00	4396.53	12.33	8.47	1.42	2630.99	0.07
	0.00000	218.76				245.92	19.94
		147549.16					0.000000
1821.27	96.00	4396.33	12.13	8.34	1.33	2425.84	0.07
	0.00000	218.35				244.60	20.17
		146757.66					0.000000
1786.60	97.00	4396.10	11.90	8.20	1.25	2227.39	0.06
	0.00000	217.90				243.11	20.43
		145866.62					0.000000
1753.07	98.00	4395.88	11.68	8.06	1.18	2064.38	0.06
	0.00842	217.45				241.63	20.69
		144977.69					0.000017
1719.98	99.00	4395.66	11.46	7.93	1.10	1891.80	0.06
	0.00000	217.01				240.14	20.96
		144083.59					0.000000
1680.97	100.00	4395.39	11.19	7.76	1.01	1701.23	0.05
	0.00000	216.49				238.36	21.29
		143014.70					0.000000
1609.07	101.00	4394.93	10.73	7.46	0.92	1477.37	0.05
	0.00935	215.56				235.10	21.92
		141061.73					0.000020
1551.40	102.00	4394.55	10.35	7.22	0.83	1287.91	0.05
	0.00500	214.80				232.40	22.45
		139438.92					0.000011
1523.69	103.00	4394.36	10.16	7.11	0.78	1193.45	0.04
	0.01266	214.43				231.04	22.73
		138622.61					0.000029
1505.59	104.00	4394.24	10.04	7.03	0.75	1130.42	0.04
	0.01848	214.17				230.09	22.93
		138056.73					0.000042
1493.19	105.00	4394.15	9.95	6.98	0.71	1057.59	0.04
	0.00000	213.99				229.43	23.07
		137660.58					0.000000
1481.23	106.00	4394.07	9.87	6.93	0.67	991.66	0.04
	0.00000	213.83				228.83	23.19
		137297.25					0.000000
1468.47	107.00	4393.98	9.78	6.87	0.62	914.51	0.04
	0.00000	213.67				228.20	23.33
		136921.02					0.000000
1451.14	108.00	4393.87	9.67	6.80	0.59	851.90	0.03
	0.00000	213.45				227.38	23.50
		136428.14					0.000000
1427.81	109.00	4393.72	9.52	6.70	0.53	752.78	0.03
	0.00944	213.15				226.23	23.75
		135740.66					0.000023
1404.79	110.00	4393.57	9.37	6.60	0.49	682.66	0.03
	0.00000	212.85				225.07	24.01
		135040.66					0.000000
1380.91	111.00	4393.42	9.22	6.50	0.44	612.49	0.03
	0.00307	212.53				223.84	24.29
		134305.27					0.000008
1357.19	112.00	4393.26	9.06	6.40	0.41	554.46	0.02
	0.00000	212.22				222.61	24.57
		133566.86					0.000000
1334.03	113.00	4393.10	8.90	6.30	0.38	511.34	0.02
	0.00000	211.91				221.38	24.86
		132825.28					0.000000

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HYCHAN.OUT							
1309.74	114.00	4392.95	8.75	0.36	220.12	469.60	0.000009
	0.00339	211.60	6.19		25.16		
		132070.81					
1281.91	115.00	4392.77	8.57	0.36	218.66	461.88	0.000000
	0.00000	211.24	6.07		25.51		
		131195.45					
1250.64	116.00	4392.56	8.36	0.37	216.88	460.82	0.000000
	0.00000	210.81	5.93		25.95		
		130126.66					
1224.48	117.00	4392.39	8.19	0.28	215.43	345.21	0.000000
	0.00000	210.47	5.82		26.32		
		129258.34					
1207.52	118.00	4392.27	8.07	0.25	214.48	297.58	0.000000
	0.00000	210.25	5.74		26.57		
		128685.90					
1193.52	119.00	4392.18	7.98	0.22	213.69	266.74	0.000010
	0.00340	210.06	5.68		26.77		
		128211.10					
1179.90	120.00	4392.09	7.89	0.20	212.89	236.38	0.000024
	0.00846	209.88	5.62		26.98		
		127736.83					
1166.83	121.00	4392.00	7.80	0.17	212.14	200.41	0.000014
	0.00472	209.71	5.56		27.18		
		127286.66					
1155.01	122.00	4391.93	7.73	0.15	211.47	171.86	0.000026
	0.00897	209.56	5.51		27.36		
		126882.84					
1144.43	123.00	4391.86	7.66	0.13	210.87	153.79	0.000025
	0.00857	209.42	5.46		27.53		
		126520.09					
1134.14	124.00	4391.79	7.59	0.13	210.26	143.32	0.000000
	0.00000	209.28	5.42		27.69		
		126157.73					
1123.36	125.00	4391.72	7.52	0.11	209.63	126.91	0.000040
	0.01326	209.14	5.37		27.87		
		125780.78					
1112.32	126.00	4391.65	7.45	0.10	208.99	114.82	0.000019
	0.00627	209.00	5.32		28.05		
		125391.61					
1100.52	127.00	4391.57	7.37	0.09	208.26	99.78	0.000000
	0.00000	208.84	5.27		28.26		
		124955.11					
1089.11	128.00	4391.50	7.30	0.08	207.58	85.00	0.000000
	0.00000	208.69	5.22		28.45		
		124550.34					
1076.95	129.00	4391.42	7.22	0.07	206.91	77.40	0.000000
	0.00000	208.55	5.16		28.64		
		124143.77					
1066.28	130.00	4391.35	7.15	0.07	206.23	69.40	0.000000
	0.00000	208.11	5.12		28.84		
		123740.05					
1052.77	131.00	4391.28	7.08	0.06	205.57	66.70	0.000011
	0.00363	207.43	5.08		29.04		
		123340.38					
1038.23	132.00	4391.21	7.01	0.06	204.90	66.01	0.000000
	0.00000	206.75	5.02		29.24		
		122939.57					
1023.79	133.00	4391.14	6.94	0.06	204.24	63.32	0.000000
	0.00000	206.07	4.97		29.43		
		122543.98					
1012.15	134.00	4391.08	6.88	0.06	203.67	59.51	0.000010
	0.00320	205.49	4.93		29.61		
		122202.23					

		HYCHAN.OUT					
1001.90	135.00	4391.03	6.83	0.06	58.25	0.00	
	0.00515	205.01	4.89		203.20	29.75	0.000017
		121918.01					
992.26	136.00	4390.98	6.78	0.06	57.58	0.00	
	0.00590	204.53	4.85		202.73	29.90	0.000019
		121637.73					
982.21	137.00	4390.93	6.73	0.06	57.38	0.00	
	0.00000	204.05	4.81		202.27	30.04	0.000000
		121359.05					
973.18	138.00	4390.89	6.69	0.06	55.45	0.00	
	0.00000	203.63	4.78		201.85	30.17	0.000000
		121108.97					
964.72	139.00	4390.85	6.65	0.06	56.05	0.00	
	0.00000	203.21	4.75		201.44	30.30	0.000000
		120863.28					
956.57	140.00	4390.81	6.61	0.06	53.04	0.00	
	0.00251	202.81	4.72		201.05	30.42	0.000009
		120630.18					
948.76	141.00	4390.77	6.57	0.06	56.05	0.00	
	0.00000	202.39	4.69		200.63	30.55	0.000000
		120378.23					
940.34	142.00	4390.73	6.53	0.06	54.51	0.00	
	0.00000	201.98	4.66		200.23	30.68	0.000000
		120140.23					
932.12	143.00	4390.68	6.48	0.06	54.14	0.00	
	0.00000	201.55	4.62		199.81	30.82	0.000000
		119887.43					
923.85	144.00	4390.64	6.44	0.06	53.96	0.00	
	0.00000	201.13	4.59		199.40	30.95	0.000000
		119639.20					
916.05	145.00	4390.60	6.40	0.06	52.76	0.00	
	0.00000	200.73	4.56		199.01	31.08	0.000000
		119408.59					
908.50	146.00	4390.57	6.37	0.06	52.86	0.00	
	0.00000	200.34	4.53		198.63	31.20	0.000000
		119175.16					
900.21	147.00	4390.52	6.32	0.06	54.04	0.00	
	0.00000	199.91	4.50		198.20	31.34	0.000000
		118921.55					
891.51	148.00	4390.48	6.28	0.06	52.75	0.00	
	0.00000	199.45	4.47		197.76	31.49	0.000000
		118656.33					
883.36	149.00	4390.44	6.24	0.06	53.90	0.00	
	0.00000	199.03	4.44		197.34	31.63	0.000000
		118406.45					
876.27	150.00	4390.40	6.20	0.06	50.71	0.00	
	0.00000	198.63	4.41		196.96	31.76	0.000000
		118174.15					
868.83	151.00	4390.36	6.16	0.06	51.77	0.00	
	0.00000	198.24	4.38		196.57	31.89	0.000000
		117943.41					
861.29	152.00	4390.33	6.13	0.06	50.92	0.00	
	0.00000	197.85	4.35		196.19	32.02	0.000000
		117715.02					
854.08	153.00	4390.29	6.09	0.06	52.87	0.00	
	0.00000	197.45	4.33		195.80	32.16	0.000000
		117479.90					
846.71	154.00	4390.25	6.05	0.06	50.37	0.00	
	0.00000	197.05	4.30		195.40	32.29	0.000000
		117242.44					
839.33	155.00	4390.21	6.01	0.06	51.71	0.00	
	0.00000	196.64	4.27		195.01	32.43	0.000000
		117005.04					

		HYCHAN.OUT					
832.37	156.00	4390.18	5.98	0.06	50.90	0.00	0.000000
	0.00000	196.27	4.24	194.64	32.56		
		116784.10					
825.39	157.00	4390.14	5.94	0.06	50.47	0.00	0.000000
	0.00000	195.87	4.21	194.25	32.70		
		116547.72					
821.13	158.00	4390.12	5.92	0.05	42.35	0.00	0.000000
	0.00000	195.64	4.20	194.02	32.78		
		116412.51					
819.88	159.00	4390.11	5.91	0.05	42.99	0.00	0.000000
	0.00000	195.56	4.19	193.95	32.80		
		116369.41					
818.53	160.00	4390.11	5.91	0.05	42.46	0.00	0.000000
	0.00000	195.49	4.19	193.88	32.83		
		116327.77					
816.72	161.00	4390.10	5.90	0.05	43.81	0.00	0.000000
	0.00000	195.40	4.18	193.79	32.86		
		116271.44					
814.86	162.00	4390.09	5.89	0.05	42.14	0.00	0.000000
	0.00000	195.29	4.17	193.68	32.90		
		116210.92					
813.40	163.00	4390.08	5.88	0.05	43.25	0.00	0.000000
	0.00000	195.21	4.17	193.60	32.93		
		116159.68					
811.82	164.00	4390.07	5.87	0.05	42.08	0.00	0.000000
	0.00000	195.10	4.16	193.50	32.96		
		116098.98					
810.27	165.00	4390.06	5.86	0.05	42.11	0.00	0.000000
	0.00000	195.02	4.15	193.42	32.99		
		116050.70					
808.89	166.00	4390.06	5.86	0.05	43.04	0.00	0.000000
	0.00000	194.94	4.15	193.34	33.02		
		116002.08					
805.55	167.00	4390.04	5.84	0.06	46.21	0.00	0.000000
	0.00000	194.75	4.14	193.15	33.09		
		115892.77					
801.15	168.00	4390.02	5.81	0.06	45.84	0.00	0.000008
	0.00211	194.50	4.12	192.91	33.17		
		115743.99					
797.77	169.00	4390.00	5.80	0.06	44.25	0.00	0.000000
	0.00000	194.30	4.11	192.72	33.24		
		115629.47					
794.82	170.00	4389.98	5.78	0.06	43.98	0.00	0.000000
	0.00000	194.14	4.09	192.55	33.30		
		115532.05					
792.29	171.00	4389.97	5.77	0.05	43.51	0.00	0.000000
	0.00000	193.99	4.08	192.41	33.36		
		115443.85					
789.87	172.00	4389.96	5.76	0.05	42.56	0.00	0.000000
	0.00000	193.86	4.07	192.28	33.40		
		115365.80					
787.42	173.00	4389.94	5.74	0.06	43.55	0.00	0.000000
	0.00000	193.72	4.06	192.15	33.45		
		115288.19					
785.03	174.00	4389.93	5.73	0.06	43.35	0.00	0.000000
	0.00000	193.58	4.06	192.01	33.50		
		115204.27					
781.18	175.00	4389.91	5.71	0.06	46.10	0.00	0.000009
	0.00225	193.36	4.04	191.79	33.58		
		115074.03					
776.32	176.00	4389.89	5.69	0.06	46.36	0.00	0.000000
	0.00000	193.08	4.02	191.51	33.68		
		114907.45					

		HYCHAN.OUT							
177.00	4389.86	5.66	0.06	45.04	0.00				
772.34	192.83	4.01	191.27	33.77	0.000000				
0.00000	114763.02								
178.00	4389.85	5.65	0.06	44.52	0.00				
768.69	192.63	3.99	191.08	33.84	0.000000				
0.00000	114647.54								
179.00	4389.83	5.63	0.06	42.95	0.00				
765.89	192.45	3.98	190.90	33.91	0.000000				
0.00000	114539.47								
180.00	4389.82	5.62	0.06	43.00	0.00				
763.46	192.30	3.97	190.75	33.96	0.000000				
0.00000	114451.96								
181.00	4389.81	5.60	0.05	41.21	0.00				
761.18	192.17	3.96	190.63	34.01	0.000000				
0.00000	114376.54								
182.00	4389.82	5.62	0.04	32.48	0.00				
763.02	192.30	3.97	190.75	33.97	0.000000				
0.00000	114448.77								
183.00	4389.84	5.64	0.04	33.48	0.00				
767.71	192.58	3.99	191.02	33.86	0.000000				
0.00000	114613.59								
184.00	4389.87	5.67	0.04	30.90	0.00				
773.24	192.90	4.01	191.34	33.75	0.000000				
0.00000	114805.76								
185.00	4389.90	5.70	0.04	33.29	0.00				
778.58	193.20	4.03	191.64	33.64	0.000000				
0.00000	114982.16								
186.00	4389.92	5.72	0.05	35.43	0.00				
782.34	193.43	4.04	191.86	33.56	0.000000				
0.00000	115115.28								
187.00	4389.93	5.73	0.05	36.22	0.00				
784.65	193.55	4.05	191.98	33.51	0.000010				
0.00249	115188.41								
188.00	4389.94	5.74	0.05	37.92	0.00				
785.81	193.63	4.06	192.05	33.49	0.000000				
0.00000	115230.20								
189.00	4389.94	5.74	0.05	38.31	0.00				
786.37	193.66	4.06	192.08	33.47	0.000000				
0.00000	115249.48								
190.00	4389.94	5.74	0.05	39.03	0.00				
786.82	193.69	4.06	192.11	33.46	0.000006				
0.00159	115265.85								
191.00	4389.94	5.74	0.05	39.99	0.00				
786.54	193.68	4.06	192.10	33.47	0.000000				
0.00000	115259.91								
192.00	4389.94	5.74	0.05	40.40	0.00				
786.36	193.65	4.06	192.08	33.48	0.000000				
0.00000	115246.37								
193.00	4389.92	5.72	0.06	44.85	0.00				
783.80	193.50	4.05	191.92	33.53	0.000006				
0.00154	115153.98								
194.00	4389.90	5.70	0.06	44.97	0.00				
779.43	193.25	4.03	191.68	33.62	0.000000				
0.00000	115007.23								
195.00	4389.88	5.68	0.06	42.80	0.00				
776.16	193.05	4.02	191.49	33.69	0.000009				
0.00218	114892.97								
196.00	4389.87	5.67	0.06	42.69	0.00				
773.52	192.91	4.01	191.35	33.74	0.000000				
0.00000	114809.45								
197.00	4389.86	5.66	0.05	41.16	0.00				
771.61	192.80	4.00	191.25	33.78	0.000000				
0.00000	114747.05								

				HYCHAN.OUT				
198.00	4389.85	5.65	0.05	41.45	0.00			
770.00	192.71	4.00	191.15	33.82	0.000000			
0.00000	114690.73							
199.00	4389.85	5.65	0.05	40.26	0.00			
769.06	192.64	3.99	191.09	33.84	0.000000			
0.00000	114653.13							

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3843

MAXIMUM DISCHARGE (CFS) = 3007.85 AT TIME = 90.74  
 MAXIMUM STAGE = 4396.80 AT TIME = 91.69

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC RADIUS	HYDRAULIC RADIUS	VELOCITY	DISCHARGE	FRUDE NO.	FLOW	FLOW
STRESS	SURFACE AREA	HYDRAULIC RADIUS	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE		
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT)	(FT)	(FT)	(FT)	(CFS)		
0.00	0.00	4384.10	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4384.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4384.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4384.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4384.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4384.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4384.10	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
7.00	4384.10	0.00	0.00	-0.00	-0.02	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
8.00	4384.82	0.72	-0.56	-27.38	0.12			
49.11	52.79	0.93	53.45	74.09	0.000000			
0.00000	29395.15							
9.00	4385.36	1.26	-0.42	-33.83	0.07			
80.83	63.18	1.28	61.96	49.17	0.000000			
0.00000	34078.58							
10.00	4385.54	1.44	-0.22	-20.97	0.03			
93.99	65.89	1.43	64.14	44.68	0.000000			
0.00000	35275.66							
11.00	4385.60	1.51	0.00	0.00	0.00			
0.00	66.90	0.00	64.95	43.15	0.000000			
0.00000	35720.44							
12.00	4385.55	1.45	0.04	3.78	0.01			
94.50	66.14	1.43	64.34	44.29	0.000000			
0.00000	35388.03							
13.00	4385.49	1.39	0.07	5.73	0.01			
87.29	65.16	1.34	63.56	45.82	0.000000			
0.00000	34955.75							
14.00	4385.39	1.29	0.09	6.98	0.01			

HYCHAN.OUT						
77.85	0.00000	63.62	1.22	62.31	48.40	0.000000
	15.00	34271.98				
69.30	0.00000	4385.29	1.19	0.10	6.78	0.02
	16.00	61.97	1.12	60.99	51.38	0.000000
	0.00000	33542.56				
63.84	0.00000	4385.22	1.12	0.07	4.49	0.01
	17.00	60.80	1.05	60.03	53.68	0.000000
	0.00000	33017.25				
62.09	0.00000	4385.18	1.08	0.04	2.29	0.01
	18.00	60.12	1.03	59.48	55.06	0.000000
	0.00000	32716.58				
62.21	0.00000	4385.17	1.07	0.02	1.17	0.00
	19.00	59.87	1.04	59.28	55.59	0.000000
	0.00000	32603.21				
0.00	0.00000	4385.16	1.06	0.00	0.00	0.00
	20.00	59.78	0.00	59.20	55.79	0.000012
	0.00000	32560.86				
65.62	0.00000	4385.19	1.09	-0.07	-4.72	0.01
	21.00	60.33	1.09	59.65	54.63	0.000000
	0.00000	32808.29				
73.49	0.00000	4385.29	1.19	-0.12	-8.82	0.02
	22.00	61.94	1.19	60.96	51.44	0.000000
	0.00000	33528.35				
83.68	0.00000	4385.41	1.31	-0.15	-12.14	0.02
	23.00	63.94	1.31	62.58	47.84	0.000000
	0.00000	34416.68				
94.16	0.00000	4385.53	1.43	-0.13	-12.21	0.02
	24.00	65.85	1.43	64.11	44.73	0.000000
	0.00000	35261.68				
101.17	0.00000	4385.61	1.51	-0.08	-8.18	0.01
	25.00	66.99	1.51	65.02	43.01	0.000000
	0.00000	35763.36				
107.45	0.00000	4385.68	1.58	-0.11	-11.36	0.01
	26.00	67.89	1.58	65.74	41.73	0.000000
	0.00000	36156.20				
119.39	0.00000	4385.80	1.70	-0.17	-19.77	0.02
	27.00	69.59	1.72	67.09	39.43	0.000000
	0.00000	36901.33				
136.17	0.00000	4385.98	1.88	-0.19	-25.93	0.02
	28.00	71.83	1.90	68.86	36.69	0.000000
	0.00000	37874.01				
156.88	0.00000	4386.19	2.09	-0.22	-34.60	0.03
	29.00	74.33	2.11	70.83	33.93	0.000000
	0.00000	38955.75				
175.92	0.00000	4386.38	2.28	-0.19	-32.76	0.02
	30.00	76.43	2.30	72.47	31.84	0.000000
	0.00000	39860.03				
187.74	0.00000	4386.49	2.39	-0.14	-27.11	0.02
	31.00	77.60	2.42	73.39	30.75	0.000000
	0.00000	40362.30				
197.63	0.00000	4386.58	2.48	-0.13	-26.41	0.01
	32.00	78.55	2.52	74.12	29.91	0.000000
	0.00000	40768.52				
207.10	0.00000	4386.67	2.57	-0.09	-19.00	0.01
	33.00	79.45	2.61	74.82	29.14	0.000000
	0.00000	41150.54				
213.33	0.00000	4386.72	2.62	-0.05	-11.50	0.01
	34.00	79.98	2.67	75.23	28.70	0.000000
	0.00000	41378.41				
220.84	0.00000	4386.79	2.69	-0.07	-15.82	0.01
	35.00	80.63	2.74	75.73	28.18	0.000000
	0.00000	41653.34				
	0.00000	4386.86	2.76	-0.05	-11.80	0.01

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		HYCHAN.OUT						
227.71	81.28	2.80	76.23	27.67	0.000000			
0.00000	41928.42							
36.00	4386.89	2.79	-0.03	-6.06	0.00			
230.27	81.59	2.82	76.47	27.43	0.000006			
0.00114	42060.69							
37.00	4386.93	2.83	-0.02	-5.07	0.00			
234.94	81.98	2.87	76.77	27.13	0.000000			
0.00000	42225.97							
38.00	4386.91	2.81	0.03	6.89	0.00			
232.12	81.78	2.84	76.62	27.28	0.000010			
0.00174	42142.47							
39.00	4386.86	2.76	0.06	13.84	0.01			
225.26	81.36	2.77	76.30	27.60	0.000000			
0.00000	41964.48							
40.00	4386.80	2.70	0.04	9.43	0.00			
220.48	80.79	2.73	75.85	28.05	0.000007			
0.00114	41719.73							
41.00	4386.77	2.67	0.02	4.34	0.00			
216.48	80.49	2.69	75.62	28.29	0.000000			
0.00000	41592.98							
42.00	4386.76	2.66	0.00	0.00	0.00			
0.00	80.33	0.00	75.50	28.42	0.000000			
0.00000	41526.95							
43.00	4386.75	2.65	0.00	0.00	0.00			
0.00	80.26	0.00	75.45	28.47	0.000000			
0.00000	41496.59							
44.00	4386.75	2.65	0.00	0.00	0.00			
0.00	80.26	0.00	75.45	28.48	0.000006			
0.00000	41495.65							
45.00	4386.79	2.69	-0.06	-14.25	0.01			
220.61	80.64	2.74	75.74	28.17	0.000000			
0.00000	41658.30							
46.00	4386.85	2.75	-0.05	-11.68	0.01			
227.63	81.24	2.80	76.21	27.69	0.000000			
0.00000	41914.16							
47.00	4386.92	2.82	-0.08	-18.19	0.01			
236.62	81.93	2.89	76.74	27.17	0.000000			
0.00000	42204.88							
48.00	4387.03	2.93	-0.10	-24.98	0.01			
248.78	82.93	3.00	77.50	26.43	0.000000			
0.00000	42626.79							
49.00	4387.16	3.06	-0.11	-28.96	0.01			
263.48	84.06	3.13	78.37	25.63	0.000000			
0.00000	43104.54							
50.00	4387.30	3.20	-0.11	-31.19	0.01			
279.61	85.25	3.28	79.29	24.81	0.000000			
0.00000	43608.45							
51.00	4387.44	3.34	-0.11	-33.02	0.01			
296.76	86.45	3.43	80.20	24.03	0.000000			
0.00000	44112.11							
52.00	4387.59	3.49	-0.11	-35.94	0.01			
315.25	87.67	3.60	81.14	23.28	0.000000			
0.00000	44625.45							
53.00	4387.76	3.66	-0.13	-42.11	0.01			
336.38	89.05	3.78	82.18	22.46	0.000000			
0.00000	45200.48							
54.00	4387.92	3.82	-0.10	-33.96	0.01			
356.16	90.29	3.94	83.12	21.77	0.000000			
0.00000	45716.84							
55.00	4388.06	3.96	-0.11	-41.21	0.01			
376.45	91.38	4.12	83.95	21.18	0.000000			
0.00000	46170.66							
56.00	4388.26	4.16	-0.14	-56.87	0.01			

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		HYCHAN.OUT					
402.15	92.79	4.33	85.01	20.45	0.000000		
0.00000	46756.83						
57.00	4388.54	4.44	-0.20	-88.13	0.02		
440.15	94.80	4.64	86.53	19.47	0.000000		
0.00000	47590.68						
58.00	4388.92	4.82	-0.23	-112.02	0.02		
491.80	97.32	5.05	88.42	18.34	0.000000		
0.00000	48629.60						
59.00	4389.33	5.23	-0.20	-112.44	0.02		
548.54	99.91	5.49	90.35	17.27	0.000000		
0.00000	49692.41						
60.00	4389.69	5.59	-0.16	-96.16	0.01		
600.44	102.08	5.88	91.96	16.45	0.000000		
0.00000	50577.95						
61.00	4390.03	5.93	-0.15	-100.29	0.01		
650.57	104.03	6.25	93.41	15.75	0.000000		
0.00000	51373.56						
62.00	4390.29	6.19	-0.08	-52.59	0.01		
686.45	105.46	6.51	94.46	15.27	0.000000		
0.00000	51952.15						
63.00	4390.42	6.32	0.00	0.00	0.00		
0.00	106.20	0.00	95.01	15.03	0.000000		
0.00000	52252.81						
64.00	4390.55	6.45	-0.01	-10.28	0.00		
731.02	106.87	6.84	95.50	14.81	0.000000		
0.00000	52522.47						
65.00	4390.75	6.65	-0.02	-11.53	0.00		
760.26	107.95	7.04	96.29	14.47	0.000000		
0.00000	52961.18						
66.00	4390.97	6.87	0.00	0.00	0.00		
0.00	109.06	0.00	97.10	14.14	0.000000		
0.00000	53406.43						
67.00	4391.17	7.07	0.06	51.19	0.00		
830.05	110.08	7.54	97.85	13.84	0.000027		
0.01277	53819.68						
68.00	4391.37	7.27	0.14	121.54	0.01		
855.82	110.73	7.73	98.59	13.56	0.000019		
0.00920	54222.21						
69.00	4391.57	7.47	0.19	163.78	0.01		
877.74	111.12	7.90	99.29	13.30	0.000000		
0.00000	54607.23						
70.00	4391.78	7.68	0.22	201.82	0.01		
902.43	111.55	8.09	100.03	13.02	0.000000		
0.00000	55016.59						
71.00	4391.97	7.87	0.17	161.00	0.01		
923.52	111.93	8.25	100.69	12.79	0.000000		
0.00000	55377.44						
72.00	4392.22	8.12	0.15	141.03	0.01		
954.63	112.42	8.49	101.51	12.51	0.000014		
0.00747	55828.69						
73.00	4392.43	8.33	0.23	225.53	0.01		
979.87	112.86	8.68	102.21	12.27	0.000017		
0.00915	56217.47						
74.00	4392.62	8.52	0.30	299.68	0.02		
1001.74	113.23	8.85	102.81	12.07	0.000000		
0.00000	56546.61						
75.00	4392.77	8.67	0.34	351.81	0.02		
1020.00	113.53	8.98	103.29	11.92	0.000000		
0.00000	56809.34						
76.00	4392.95	8.85	0.47	487.22	0.03		
1039.92	113.90	9.13	103.87	11.73	0.000019		
0.01099	57126.77						
77.00	4393.17	9.06	0.66	702.92	0.04		

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				HYCHAN.OUT			
1059.80		114.32		9.27	104.52	11.53	0.000008
	0.00469	57486.60					
78.00	4393.36		9.26	0.79	855.24	0.05	
1079.42		114.72		9.41	105.12	11.35	0.000007
	0.00399	57816.93					
79.00	4393.55		9.45	0.90	993.69	0.05	
1098.15		115.10		9.54	105.69	11.18	0.000023
	0.01356	58128.12					
80.00	4393.74		9.64	1.02	1137.70	0.06	
1116.93		115.47		9.67	106.24	11.02	0.000007
	0.00449	58432.13					
81.00	4393.96		9.86	1.14	1301.15	0.06	
1138.52		115.91		9.82	106.87	10.84	0.000024
	0.01471	58781.18					
82.00	4394.23		10.13	1.30	1513.63	0.07	
1165.59		116.45		10.01	107.65	10.63	0.000008
	0.00519	59206.14					
83.00	4394.49		10.39	1.41	1674.51	0.08	
1191.31		116.97		10.18	108.38	10.43	0.000025
	0.01600	59606.34					
84.00	4394.75		10.65	1.49	1818.09	0.08	
1217.41		117.49		10.36	109.08	10.24	0.000011
	0.00729	59991.38					
85.00	4395.13		11.03	1.57	1973.81	0.08	
1257.10		118.25		10.63	110.10	9.98	0.000026
	0.01701	60556.99					
86.00	4395.48		11.38	1.67	2165.46	0.09	
1293.16		118.95		10.87	111.02	9.75	0.000018
	0.01201	61061.31					
87.00	4395.82		11.72	1.80	2387.02	0.09	
1327.27		119.63		11.10	111.88	9.55	0.000037
	0.02572	61532.93					
88.00	4396.12		12.02	1.90	2582.82	0.10	
1358.02		120.23		11.29	112.64	9.37	0.000031
	0.02182	61951.36					
89.00	4396.40		12.30	1.98	2748.02	0.10	
1385.88		120.78		11.47	113.32	9.22	0.000031
	0.02224	62324.95					
90.00	4396.61		12.51	2.06	2901.35	0.10	
1407.76		121.22		11.61	113.84	9.10	0.000036
	0.02590	62614.22					
91.00	4396.74		12.64	2.09	2973.02	0.10	
1420.72		121.47		11.70	114.15	9.03	0.000028
	0.02018	62783.16					
92.00	4396.79		12.69	2.09	2973.03	0.10	
1425.27		121.56		11.72	114.26	9.01	0.000027
	0.01961	62841.75					
93.00	4396.77		12.67	2.05	2919.39	0.10	
1423.46		121.53		11.71	114.21	9.02	0.000038
	0.02767	62817.62					
94.00	4396.68		12.58	1.99	2815.54	0.10	
1414.44		121.35		11.66	114.00	9.06	0.000023
	0.01644	62699.46					
95.00	4396.50		12.40	1.89	2641.25	0.09	
1396.93		121.00		11.54	113.58	9.16	0.000019
	0.01399	62468.70					
96.00	4396.30		12.20	1.77	2435.31	0.09	
1376.68		120.60		11.42	113.09	9.27	0.000023
	0.01645	62198.88					
97.00	4396.08		11.98	1.65	2233.17	0.08	
1354.02		120.15		11.27	112.54	9.39	0.000024
	0.01694	61894.52					
98.00	4395.86		11.76	1.55	2068.45	0.08	

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		HYCHAN.OUT					
1331.61	119.70	11.12	111.98	9.52	0.000041		
0.02829	61588.21						
99.00	4395.64	11.54	1.45	1893.68	0.08		
1309.23	119.26	10.98	111.42	9.66	0.000000		
0.00000	61278.70						
100.00	4395.38	11.28	1.32	1692.75	0.07		
1283.48	118.75	10.81	110.75	9.82	0.000016		
0.01085	60912.46						
101.00	4394.92	10.82	1.15	1420.05	0.06		
1236.76	117.83	10.50	109.53	10.13	0.000026		
0.01716	60244.07						
102.00	4394.54	10.44	1.02	1220.86	0.06		
1198.88	117.08	10.24	108.52	10.39	0.000027		
0.01744	59684.05						
103.00	4394.35	10.25	0.98	1160.26	0.05		
1180.44	116.70	10.12	107.99	10.53	0.000041		
0.02573	59394.80						
104.00	4394.23	10.13	0.96	1117.97	0.05		
1168.28	116.44	10.03	107.63	10.63	0.000055		
0.03449	59197.13						
105.00	4394.14	10.04	0.91	1052.61	0.05		
1159.73	116.27	9.97	107.39	10.70	0.000036		
0.02271	59062.73						
106.00	4394.06	9.96	0.86	991.82	0.05		
1151.54	116.11	9.92	107.16	10.76	0.000000		
0.00000	58936.27						
107.00	4393.98	9.88	0.80	916.36	0.04		
1143.40	115.94	9.86	106.92	10.83	0.000000		
0.00000	58805.76						
108.00	4393.87	9.76	0.76	855.75	0.04		
1132.42	115.72	9.79	106.60	10.92	0.000000		
0.00000	58631.38						
109.00	4393.72	9.62	0.68	761.37	0.04		
1117.43	115.42	9.68	106.17	11.04	0.000008		
0.00467	58392.84						
110.00	4393.57	9.47	0.63	692.35	0.04		
1102.77	115.12	9.58	105.73	11.17	0.000013		
0.00778	58149.68						
111.00	4393.41	9.31	0.57	624.05	0.03		
1086.99	114.81	9.47	105.26	11.31	0.000016		
0.00960	57894.32						
112.00	4393.25	9.15	0.53	567.75	0.03		
1071.32	114.50	9.36	104.79	11.45	0.000000		
0.00000	57636.59						
113.00	4393.10	9.00	0.50	525.43	0.03		
1055.49	114.19	9.24	104.32	11.59	0.000000		
0.00000	57376.32						
114.00	4392.94	8.84	0.47	485.25	0.03		
1040.02	113.88	9.13	103.84	11.74	0.000007		
0.00391	57112.02						
115.00	4392.77	8.67	0.46	470.34	0.03		
1020.45	113.52	8.99	103.28	11.92	0.000000		
0.00000	56806.61						
116.00	4392.55	8.45	0.47	463.90	0.03		
995.27	113.10	8.80	102.61	12.14	0.000000		
0.00000	56432.86						
117.00	4392.38	8.28	0.37	358.19	0.02		
975.43	112.76	8.65	102.05	12.32	0.000000		
0.00000	56128.01						
118.00	4392.27	8.17	0.33	317.65	0.02		
961.40	112.53	8.54	101.68	12.45	0.000000		
0.00000	55925.81						
119.00	4392.18	8.08	0.31	290.00	0.02		

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		HYCHAN.OUT					
950.38	112.35	8.46	101.38	12.55	0.000031		
0.01622	55758.13						
120.00	4392.09	7.99	0.28	262.34	0.02		
939.65	112.17	8.38	101.07	12.65	0.000011		
0.00594	55591.01						
121.00	4392.00	7.90	0.24	226.38	0.02		
930.04	111.99	8.30	100.79	12.75	0.000000		
0.00000	55433.34						
122.00	4391.93	7.83	0.21	196.95	0.01		
920.77	111.84	8.23	100.53	12.85	0.000000		
0.00000	55291.28						
123.00	4391.86	7.76	0.19	176.88	0.01		
912.56	111.71	8.17	100.30	12.93	0.000021		
0.01045	55163.55						
124.00	4391.79	7.69	0.18	164.88	0.01		
904.63	111.57	8.11	100.06	13.01	0.000000		
0.00000	55035.54						
125.00	4391.72	7.62	0.17	150.06	0.01		
895.74	111.43	8.04	99.82	13.10	0.000024		
0.01188	54901.23						
126.00	4391.65	7.55	0.15	136.96	0.01		
887.27	111.29	7.97	99.57	13.19	0.000011		
0.00568	54762.32						
127.00	4391.57	7.47	0.14	121.48	0.01		
878.94	111.13	7.91	99.29	13.29	0.000000		
0.00000	54609.96						
128.00	4391.49	7.39	0.12	105.39	0.01		
869.84	110.98	7.84	99.03	13.39	0.000000		
0.00000	54466.67						
129.00	4391.42	7.32	0.11	97.10	0.01		
861.67	110.83	7.77	98.77	13.49	0.000000		
0.00000	54320.93						
130.00	4391.35	7.25	0.10	87.36	0.01		
852.47	110.69	7.70	98.50	13.59	0.000000		
0.00000	54177.25						
131.00	4391.28	7.18	0.09	79.98	0.01		
844.40	110.55	7.64	98.25	13.69	0.000012		
0.00550	54038.02						
132.00	4391.21	7.11	0.09	71.35	0.01		
834.61	110.28	7.57	98.00	13.79	0.000000		
0.00000	53898.92						
133.00	4391.14	7.04	0.08	68.88	0.01		
824.12	109.93	7.50	97.74	13.89	0.000011		
0.00525	53759.54						
134.00	4391.08	6.98	0.08	63.72	0.01		
814.10	109.63	7.43	97.52	13.97	0.000021		
0.00960	53637.04						
135.00	4391.03	6.93	0.08	62.09	0.01		
806.22	109.38	7.37	97.34	14.05	0.000009		
0.00424	53536.37						
136.00	4390.98	6.88	0.08	60.78	0.01		
798.63	109.14	7.32	97.16	14.12	0.000000		
0.00000	53437.91						
137.00	4390.93	6.83	0.08	60.48	0.01		
791.17	108.89	7.27	96.98	14.19	0.000012		
0.00564	53338.77						
138.00	4390.89	6.79	0.07	57.97	0.01		
783.94	108.67	7.21	96.82	14.26	0.000000		
0.00000	53249.29						
139.00	4390.85	6.75	0.08	59.39	0.01		
777.43	108.45	7.17	96.66	14.32	0.000000		
0.00000	53162.27						
140.00	4390.81	6.71	0.07	55.84	0.00		

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		HYCHAN.OUT					
771.10	108.25	7.12	96.51	14.39	0.000000		
0.00000	53078.67						
141.00	4390.77	6.67	0.08	57.99	0.01		
764.45	108.03	7.08	96.35	14.45	0.000000		
0.00000	52990.56						
142.00	4390.73	6.63	0.08	57.16	0.01		
758.17	107.81	7.03	96.19	14.52	0.000000		
0.00000	52904.59						
143.00	4390.68	6.58	0.08	56.81	0.01		
751.35	107.59	6.98	96.03	14.59	0.000008		
0.00341	52815.45						
144.00	4390.64	6.54	0.08	56.22	0.01		
744.81	107.37	6.94	95.87	14.65	0.000000		
0.00000	52727.26						
145.00	4390.60	6.50	0.07	54.06	0.01		
738.89	107.17	6.89	95.72	14.72	0.000000		
0.00000	52644.13						
146.00	4390.57	6.47	0.08	55.37	0.01		
732.78	106.97	6.85	95.57	14.78	0.000013		
0.00537	52562.22						
147.00	4390.52	6.42	0.08	55.88	0.01		
726.30	106.74	6.80	95.40	14.85	0.000000		
0.00000	52471.06						
148.00	4390.48	6.38	0.08	55.11	0.01		
719.52	106.51	6.76	95.23	14.93	0.000000		
0.00000	52377.22						
149.00	4390.44	6.34	0.08	55.48	0.01		
713.35	106.29	6.71	95.07	15.00	0.000000		
0.00000	52287.02						
150.00	4390.40	6.30	0.07	52.14	0.01		
707.08	106.09	6.67	94.92	15.06	0.000000		
0.00000	52205.69						
151.00	4390.36	6.26	0.08	53.89	0.01		
701.09	105.88	6.62	94.77	15.13	0.000007		
0.00275	52121.62						
152.00	4390.33	6.23	0.07	52.06	0.01		
695.50	105.68	6.58	94.62	15.20	0.000011		
0.00450	52041.20						
153.00	4390.29	6.19	0.08	54.32	0.01		
689.57	105.47	6.54	94.47	15.26	0.000000		
0.00000	51956.95						
154.00	4390.25	6.15	0.08	51.72	0.01		
684.02	105.26	6.50	94.31	15.33	0.000000		
0.00000	51872.83						
155.00	4390.21	6.11	0.08	53.23	0.01		
677.89	105.05	6.45	94.16	15.40	0.000000		
0.00000	51787.69						
156.00	4390.18	6.08	0.08	52.13	0.01		
672.58	104.86	6.41	94.02	15.47	0.000000		
0.00000	51709.08						
157.00	4390.14	6.04	0.08	51.93	0.01		
667.03	104.65	6.37	93.86	15.54	0.000000		
0.00000	51625.01						
158.00	4390.12	6.02	0.06	42.86	0.00		
663.78	104.53	6.35	93.77	15.58	0.000021		
0.00815	51575.93						
159.00	4390.11	6.01	0.07	43.23	0.00		
662.66	104.50	6.34	93.75	15.59	0.000011		
0.00431	51561.09						
160.00	4390.11	6.01	0.07	43.13	0.00		
661.58	104.46	6.33	93.72	15.60	0.000000		
0.00000	51545.45						
161.00	4390.10	6.00	0.07	43.80	0.00		

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		HYCHAN.OUT							
660.33	104.41	6.32	93.68	15.62	0.000000				
0.00000	51525.62								
162.00	4390.09	5.99	0.06	42.08	0.00				
658.98	104.36	6.31	93.64	15.64	0.000000				
0.00000	51504.11								
163.00	4390.08	5.98	0.07	44.02	0.00				
657.65	104.31	6.30	93.61	15.66	0.000000				
0.00000	51485.26								
164.00	4390.07	5.97	0.06	42.43	0.00				
656.34	104.26	6.30	93.57	15.67	0.000000				
0.00000	51463.81								
165.00	4390.06	5.96	0.06	42.38	0.00				
654.92	104.21	6.28	93.54	15.69	0.000016				
0.00609	51446.79								
166.00	4390.06	5.96	0.07	43.04	0.00				
653.88	104.17	6.28	93.51	15.70	0.000011				
0.00421	51429.71								
167.00	4390.04	5.94	0.07	46.82	0.01				
651.47	104.08	6.26	93.44	15.74	0.000000				
0.00000	51390.56								
168.00	4390.01	5.91	0.07	46.70	0.01				
647.76	103.94	6.23	93.34	15.78	0.000000				
0.00000	51337.00								
169.00	4390.00	5.90	0.07	44.62	0.01				
645.17	103.84	6.21	93.27	15.82	0.000011				
0.00412	51296.35								
170.00	4389.98	5.88	0.07	44.12	0.00				
642.94	103.76	6.20	93.20	15.85	0.000000				
0.00000	51261.64								
171.00	4389.97	5.87	0.07	43.66	0.00				
640.71	103.68	6.18	93.15	15.87	0.000006				
0.00233	51230.10								
172.00	4389.96	5.86	0.07	43.06	0.00				
639.05	103.61	6.17	93.09	15.90	0.000013				
0.00507	51201.80								
173.00	4389.94	5.84	0.07	44.28	0.01				
637.22	103.54	6.15	93.04	15.92	0.000000				
0.00000	51174.07								
174.00	4389.93	5.83	0.07	43.47	0.00				
635.26	103.47	6.14	92.99	15.95	0.000000				
0.00000	51143.93								
175.00	4389.91	5.81	0.07	47.34	0.01				
632.28	103.36	6.12	92.90	15.99	0.000000				
0.00000	51097.64								
176.00	4389.89	5.79	0.07	46.46	0.01				
628.50	103.21	6.09	92.80	16.04	0.000000				
0.00000	51037.51								
177.00	4389.86	5.76	0.07	45.55	0.01				
625.11	103.08	6.06	92.70	16.08	0.000009				
0.00348	50986.95								
178.00	4389.85	5.75	0.07	45.27	0.01				
622.19	102.98	6.04	92.63	16.12	0.000006				
0.00227	50944.69								
179.00	4389.83	5.73	0.07	43.08	0.01				
619.93	102.89	6.03	92.56	16.15	0.000000				
0.00000	50906.36								
180.00	4389.82	5.72	0.07	43.40	0.01				
617.80	102.81	6.01	92.50	16.18	0.000023				
0.00878	50874.52								
181.00	4389.80	5.70	0.07	41.22	0.00				
615.90	102.74	5.99	92.45	16.21	0.000000				
0.00000	50847.41								
182.00	4389.82	5.72	0.05	32.37	0.00				

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HYCHAN.OUT									
617.76		102.81		6.01	92.50	16.18		0.000006	
	0.00235	50873.60							
183.00		4389.84	5.74	0.05	32.09	0.00			
621.56		102.95		6.04	92.60	16.13		0.000000	
	0.000000	50932.70							
184.00		4389.87	5.77	0.05	30.61	0.00			
626.05		103.12		6.07	92.73	16.07		0.000006	
	0.00227	51000.21							
185.00		4389.90	5.80	0.05	32.42	0.00			
630.25		103.28		6.10	92.85	16.01		0.000010	
	0.00367	51065.34							
186.00		4389.92	5.82	0.06	34.98	0.00			
633.28		103.39		6.13	92.93	15.98		0.000000	
	0.000000	51111.11							
187.00		4389.93	5.83	0.06	36.61	0.00			
634.92		103.46		6.14	92.98	15.95		0.000000	
	0.000000	51138.17							
188.00		4389.94	5.84	0.06	36.99	0.00			
635.91		103.49		6.14	93.01	15.94		0.000021	
	0.00809	51153.18							
189.00		4389.94	5.84	0.06	38.57	0.00			
636.50		103.51		6.15	93.02	15.93		0.000000	
	0.000000	51159.78							
190.00		4389.94	5.84	0.06	39.14	0.00			
636.82		103.52		6.15	93.03	15.93		0.000000	
	0.000000	51165.74							
191.00		4389.94	5.84	0.06	39.60	0.00			
636.63		103.52		6.15	93.03	15.93		0.000000	
	0.000000	51163.86							
192.00		4389.94	5.84	0.06	41.00	0.00			
636.37		103.50		6.15	93.01	15.93		0.000000	
	0.000000	51158.16							
193.00		4389.92	5.82	0.07	45.55	0.01			
634.30		103.43		6.13	92.96	15.96		0.000000	
	0.000000	51126.47							
194.00		4389.90	5.80	0.07	44.56	0.01			
630.90		103.30		6.11	92.86	16.01		0.000008	
	0.00291	51072.88							
195.00		4389.88	5.78	0.07	44.59	0.01			
628.17		103.20		6.09	92.79	16.04		0.000000	
	0.000000	51032.55							
196.00		4389.87	5.77	0.07	41.89	0.00			
626.20		103.12		6.07	92.73	16.07		0.000000	
	0.000000	51002.96							
197.00		4389.86	5.76	0.07	42.31	0.00			
624.70		103.07		6.06	92.69	16.09		0.000000	
	0.000000	50979.70							
198.00		4389.85	5.75	0.07	40.78	0.00			
623.72		103.02		6.05	92.66	16.11		0.000000	
	0.000000	50961.01							
199.00		4389.85	5.75	0.07	40.85	0.00			
622.51		102.98		6.04	92.63	16.12		0.000000	
	0.000000	50946.07							

CHANNEL HYDROGRAPH FOR ELEMENT NO: 3930

MAXIMUM DISCHARGE (CFS) =	3005.50	AT TIME =	90.73
MAXIMUM STAGE =	4396.74	AT TIME =	91.74

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					

		HYCHAN.OUT							
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(FT)	(CFS)		
	(LB/FT^2)	(FT)	(FT^2)						
0.00	0.00	4384.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4384.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4384.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4384.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4384.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4384.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4384.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	7.00	4384.04	0.04	-0.11	-2.02	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
54.74	8.00	4385.07	1.07	-0.64	-34.83	0.11	0.00	0.00	0.000000
	0.00000	59.93	0.91	59.33	55.46	0.07	0.00	0.00	0.000000
73.21	9.00	4385.41	1.41	-0.49	-35.51	0.07	0.00	0.00	0.000000
	0.00000	65.47	1.12	63.80	45.33	0.04	0.00	0.00	0.000000
80.73	10.00	4385.55	1.55	-0.28	-22.42	0.04	0.00	0.00	0.000000
	0.00000	67.50	1.20	65.42	42.29	0.00	0.00	0.00	0.000000
0.00	11.00	4385.60	1.61	0.00	0.00	0.00	0.00	0.00	0.000011
	0.00000	68.30	0.00	66.06	41.16	0.01	0.00	0.00	0.000000
79.58	12.00	4385.55	1.55	0.05	4.31	0.01	0.00	0.00	0.000000
	0.00000	67.59	1.18	65.50	42.15	0.01	0.00	0.00	0.000000
73.51	13.00	4385.49	1.49	0.09	6.64	0.01	0.00	0.00	0.000000
	0.00000	66.64	1.10	64.74	43.54	0.02	0.00	0.00	0.000000
66.32	14.00	4385.39	1.39	0.12	8.15	0.02	0.00	0.00	0.000007
	0.00046	65.14	1.02	63.54	45.85	0.02	0.00	0.00	0.000000
59.57	15.00	4385.28	1.28	0.13	7.65	0.02	0.00	0.00	0.000000
	0.00000	63.56	0.94	62.27	48.50	0.01	0.00	0.00	0.000000
55.33	16.00	4385.22	1.22	0.09	4.97	0.01	0.00	0.00	0.000000
	0.00000	62.47	0.89	61.39	50.45	0.01	0.00	0.00	0.000000
53.51	17.00	4385.18	1.18	0.05	2.52	0.01	0.00	0.00	0.000000
	0.00000	61.87	0.86	60.90	51.58	0.00	0.00	0.00	0.000000
53.57	18.00	4385.17	1.17	0.02	1.30	0.00	0.00	0.00	0.000000
	0.00000	61.63	0.87	60.71	52.04	0.00	0.00	0.00	0.000000
0.00	19.00	4385.16	1.16	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	61.55	0.00	60.64	52.20	0.00	0.00	0.00	0.000000



		HYCHAN.OUT						
	0.00000	31532.93						
57.16	20.00	4385.19	1.19	-0.10	-5.55	0.02		
	0.00000	62.09	0.92	61.08	51.17	0.000000		
	21.00	31759.80						
63.56	4385.29	1.29	-0.16	-9.94	0.02			
	63.65	1.00	62.34	48.34	0.000000			
	0.00000	32418.86						
71.77	4385.41	1.41	-0.19	-13.49	0.03			
	65.56	1.09	63.88	45.18	0.000000			
	0.00000	33216.88						
79.89	4385.54	1.54	-0.17	-13.34	0.02			
	67.36	1.19	65.31	42.48	0.000000			
	0.00000	33962.65						
85.16	4385.61	1.61	-0.10	-8.73	0.01			
	68.41	1.24	66.15	41.00	0.000000			
	0.00000	34399.88						
90.25	4385.68	1.68	-0.14	-12.38	0.02			
	69.28	1.30	66.85	39.84	0.000000			
	0.00000	34759.83						
99.99	4385.81	1.81	-0.22	-21.65	0.03			
	70.95	1.41	68.17	37.73	0.000000			
	0.00000	35447.79						
113.30	4385.98	1.98	-0.25	-28.15	0.03			
	73.11	1.55	69.87	35.24	0.000000			
	0.00000	36332.29						
129.64	4386.19	2.19	-0.29	-37.27	0.03			
	75.53	1.72	71.77	32.71	0.000000			
	0.00000	37319.69						
144.26	4386.38	2.38	-0.24	-34.58	0.03			
	77.54	1.86	73.34	30.81	0.000000			
	0.00000	38134.55						
153.30	4386.49	2.49	-0.18	-28.20	0.02			
	78.66	1.95	74.21	29.82	0.000000			
	0.00000	38587.48						
161.00	4386.58	2.58	-0.17	-27.73	0.02			
	79.58	2.02	74.92	29.04	0.000000			
	0.00000	38958.39						
168.27	4386.67	2.67	-0.12	-19.90	0.01			
	80.44	2.09	75.59	28.33	0.000000			
	0.00000	39305.42						
173.07	4386.72	2.72	-0.07	-12.17	0.01			
	80.96	2.14	75.99	27.92	0.000000			
	0.00000	39512.90						
178.96	4386.79	2.79	-0.09	-16.88	0.01			
	81.59	2.19	76.47	27.43	0.000000			
	0.00000	39766.54						
184.50	4386.86	2.86	-0.07	-12.48	0.01			
	82.22	2.24	76.96	26.95	0.000000			
	0.00000	40018.89						
187.52	4386.89	2.89	-0.03	-6.51	0.00			
	82.52	2.27	77.19	26.72	0.000000			
	0.00000	40140.61						
191.33	4386.93	2.93	-0.03	-5.34	0.00			
	82.89	2.31	77.48	26.45	0.000000			
	0.00000	40289.63						
187.55	4386.91	2.91	0.04	7.60	0.00			
	82.71	2.27	77.34	26.59	0.000007			
	0.00095	40216.12						
182.55	4386.86	2.86	0.08	14.54	0.01			
	82.30	2.22	77.02	26.89	0.000000			
	0.00000	40049.99						
178.65	4386.80	2.80	0.06	10.11	0.01			
	81.74	2.19	76.59	27.31	0.000000			

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		HYCHAN.OUT						
	0.00000	39828.50						
175.55	41.00	4386.77	2.77	0.03	4.61	0.00		
		81.45	2.16		76.37	27.54	0.000000	
	0.00000	39710.29						
174.32	42.00	4386.76	2.76	0.01	1.93	0.00		
		81.29	2.14		76.25	27.66	0.000000	
	0.00000	39648.41						
0.00	43.00	4386.75	2.75	0.00	0.00	0.00		
		81.22	0.00		76.19	27.71	0.000000	
	0.00000	39619.38						
0.00	44.00	4386.75	2.75	0.00	0.00	0.00		
		81.22	0.00		76.19	27.71	0.000000	
	0.00000	39619.74						
178.82	45.00	4386.79	2.79	-0.09	-15.29	0.01		
		81.60	2.19		76.49	27.42	0.000000	
	0.00000	39772.88						
184.55	46.00	4386.85	2.85	-0.07	-12.44	0.01		
		82.19	2.25		76.93	26.98	0.000000	
	0.00000	40005.66						
191.30	47.00	4386.92	2.92	-0.10	-19.44	0.01		
		82.86	2.31		77.45	26.48	0.000000	
	0.00000	40274.57						
200.84	48.00	4387.03	3.03	-0.13	-26.65	0.01		
		83.83	2.40		78.20	25.78	0.000000	
	0.00000	40664.51						
212.32	49.00	4387.16	3.16	-0.15	-30.83	0.01		
		84.94	2.50		79.05	25.02	0.000000	
	0.00000	41105.58						
224.90	50.00	4387.30	3.30	-0.15	-33.18	0.01		
		86.11	2.61		79.94	24.25	0.000000	
	0.00000	41570.90						
238.27	51.00	4387.44	3.44	-0.15	-35.15	0.01		
		87.28	2.73		80.84	23.51	0.000000	
	0.00000	42036.37						
252.68	52.00	4387.59	3.59	-0.15	-38.28	0.01		
		88.48	2.86		81.75	22.79	0.000000	
	0.00000	42511.35						
269.14	53.00	4387.76	3.76	-0.17	-44.80	0.02		
		89.83	3.00		82.78	22.02	0.000000	
	0.00000	43044.25						
284.72	54.00	4387.92	3.92	-0.13	-36.09	0.01		
		91.04	3.13		83.70	21.35	0.000000	
	0.00000	43522.32						
300.30	55.00	4388.06	4.06	-0.15	-43.85	0.01		
		92.12	3.26		84.51	20.79	0.000000	
	0.00000	43943.31						
320.36	56.00	4388.26	4.26	-0.19	-60.48	0.02		
		93.51	3.43		85.55	20.09	0.000000	
	0.00000	44488.48						
350.02	57.00	4388.55	4.55	-0.27	-93.64	0.02		
		95.49	3.67		87.05	19.15	0.000000	
	0.00000	45265.14						
390.18	58.00	4388.92	4.92	-0.30	-118.89	0.02		
		97.98	3.98		88.91	18.06	0.000000	
	0.00000	46232.22						
434.15	59.00	4389.33	5.33	-0.27	-119.23	0.02		
		100.53	4.32		90.81	17.03	0.000000	
	0.00000	47221.11						
475.55	60.00	4389.69	5.69	-0.21	-102.10	0.02		
		102.67	4.63		92.40	16.23	0.000000	
	0.00000	48048.01						
513.88	61.00	4390.03	6.03	-0.21	-106.17	0.01		
		104.60	4.91		93.83	15.55	0.000000	

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		HYCHAN.OUT						
	0.00000	48790.37						
541.72	62.00	4390.29	6.29	-0.10	-55.97	0.01		
		106.00	5.11		94.86	15.09	0.000000	
	0.00000	49325.89						
546.95	63.00	4390.42	6.42	-0.01	-5.87	0.00		
		106.74	5.12		95.40	14.85	0.000000	
	0.00000	49608.01						
575.56	64.00	4390.55	6.55	-0.02	-13.32	0.00		
		107.40	5.36		95.89	14.65	0.000009	
	0.00285	49860.90						
598.48	65.00	4390.75	6.75	-0.03	-15.92	0.00		
		108.47	5.52		96.67	14.32	0.000000	
	0.00000	50270.86						
0.00	66.00	4390.97	6.97	0.00	0.00	0.00		
		109.57	0.00		97.47	13.99	0.000000	
	0.00000	50686.73						
652.93	67.00	4391.17	7.17	0.07	47.47	0.00		
		110.58	5.90		98.22	13.70	0.000000	
	0.00000	51072.59						
677.78	68.00	4391.37	7.37	0.17	118.15	0.01		
		111.57	6.08		98.94	13.43	0.000000	
	0.00000	51447.36						
701.73	69.00	4391.56	7.56	0.23	158.87	0.01		
		112.51	6.24		99.63	13.17	0.000000	
	0.00000	51805.98						
728.26	70.00	4391.77	7.77	0.27	197.87	0.02		
		113.51	6.42		100.36	12.91	0.000000	
	0.00000	52184.65						
751.75	71.00	4391.96	7.96	0.21	156.40	0.01		
		114.40	6.57		101.00	12.68	0.000017	
	0.00687	52518.64						
786.97	72.00	4392.21	8.21	0.17	137.19	0.01		
		115.50	6.81		101.80	12.41	0.000000	
	0.00000	52936.20						
815.02	73.00	4392.42	8.42	0.27	221.51	0.02		
		116.47	7.00		102.50	12.17	0.000000	
	0.00000	53301.62						
838.75	74.00	4392.61	8.61	0.35	295.28	0.02		
		117.29	7.15		103.10	11.98	0.000000	
	0.00000	53610.34						
857.65	75.00	4392.76	8.76	0.41	349.48	0.02		
		117.93	7.27		103.57	11.83	0.000000	
	0.00000	53855.21						
876.39	76.00	4392.94	8.94	0.54	475.60	0.03		
		118.29	7.41		104.13	11.65	0.000000	
	0.00000	54147.63						
896.52	77.00	4393.15	9.15	0.75	670.11	0.04		
		118.71	7.55		104.77	11.45	0.000000	
	0.00000	54482.66						
916.41	78.00	4393.35	9.35	0.87	801.24	0.05		
		119.11	7.69		105.37	11.27	0.000011	
	0.00525	54793.21						
935.45	79.00	4393.54	9.54	0.99	926.18	0.06		
		119.48	7.83		105.93	11.11	0.000032	
	0.01585	55084.62						
954.38	80.00	4393.72	9.72	1.11	1057.75	0.06		
		119.86	7.96		106.48	10.95	0.000010	
	0.00513	55367.21						
976.38	81.00	4393.94	9.94	1.24	1207.23	0.07		
		120.29	8.12		107.10	10.78	0.000023	
	0.01157	55690.39						
1003.67	82.00	4394.20	10.20	1.40	1405.09	0.08		
		120.82	8.31		107.85	10.57	0.000039	

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HYCHAN.OUT									
	0.02021	56081.45							
1029.63	83.00	4394.46	10.46	8.49	1.51	1550.71	10.38	0.000044	
	0.02304	56451.53							
1056.07	84.00	4394.71	10.71	8.67	1.61	1699.92	10.20	0.000050	
	0.02707	56809.41							
1096.19	85.00	4395.09	11.09	8.94	1.74	1902.32	9.94	0.000024	
	0.01348	57337.89							
1132.45	86.00	4395.44	11.44	9.19	1.88	2124.23	9.72	0.000045	
	0.02574	57805.21							
1166.73	87.00	4395.77	11.77	9.41	2.03	2367.63	9.52	0.000051	
	0.02969	58240.65							
1197.66	88.00	4396.06	12.06	9.62	2.15	2574.83	9.35	0.000057	
	0.03404	58627.36							
1225.77	89.00	4396.33	12.33	9.80	2.24	2744.28	9.19	0.000060	
	0.03678	58973.55							
1247.75	90.00	4396.55	12.55	9.94	2.32	2899.47	9.08	0.000073	
	0.04512	59241.10							
1260.86	91.00	4396.67	12.67	10.03	2.36	2973.88	9.01	0.000065	
	0.04078	59398.86							
1265.59	92.00	4396.72	12.72	10.06	2.35	2976.54	8.99	0.000067	
	0.04220	59454.95							
1263.97	93.00	4396.70	12.70	10.05	2.31	2924.61	9.00	0.000070	
	0.04361	59435.07							
1255.10	94.00	4396.62	12.62	9.99	2.25	2820.85	9.04	0.000046	
	0.02887	59328.12							
1237.76	95.00	4396.45	12.45	9.88	2.14	2646.09	9.13	0.000047	
	0.02913	59117.89							
1217.67	96.00	4396.25	12.25	9.75	2.00	2440.53	9.24	0.000051	
	0.03088	58871.85							
1195.04	97.00	4396.04	12.04	9.60	1.87	2237.14	9.36	0.000051	
	0.03085	58592.44							
1172.58	98.00	4395.82	11.82	9.45	1.77	2071.91	9.49	0.000033	
	0.01942	58310.46							
1150.14	99.00	4395.60	11.60	9.30	1.65	1894.38	9.62	0.000041	
	0.02402	58025.91							
1124.69	100.00	4395.35	11.35	9.14	1.50	1687.68	9.77	0.000037	
	0.02105	57688.23							
1077.25	101.00	4394.89	10.89	8.82	1.28	1380.72	10.07	0.000014	
	0.00793	57063.25							
1038.55	102.00	4394.52	10.52	8.55	1.13	1173.50	10.33	0.000038	
	0.02024	56541.16							
1019.45	103.00	4394.33	10.33	8.42	1.11	1136.34	10.47	0.000015	
		121.08							

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HYCHAN.OUT							
0.00765	56269.94						
104.00	4394.21	10.21	1.10	1109.20	0.06		
1006.86	120.83	8.33		107.86	10.57	0.000018	
0.00912	56086.75						
105.00	4394.12	10.12	1.05	1048.90	0.06		
998.73	120.66	8.28		107.62	10.63	0.000044	
0.02267	55964.71						
106.00	4394.04	10.04	1.00	991.06	0.06		
990.56	120.50	8.22		107.40	10.69	0.000000	
0.00000	55847.47						
107.00	4393.96	9.96	0.94	919.43	0.05		
981.86	120.34	8.16		107.17	10.76	0.000016	
0.00825	55728.69						
108.00	4393.85	9.85	0.89	861.03	0.05		
970.40	120.12	8.08		106.86	10.84	0.000020	
0.00996	55566.18						
109.00	4393.71	9.71	0.81	771.72	0.05		
955.13	119.83	7.97		106.43	10.97	0.000008	
0.00410	55344.78						
110.00	4393.56	9.56	0.75	703.65	0.04		
939.94	119.53	7.86		106.00	11.09	0.000010	
0.00469	55118.13						
111.00	4393.40	9.40	0.69	636.96	0.04		
923.89	119.22	7.75		105.54	11.22	0.000016	
0.00773	54879.88						
112.00	4393.25	9.25	0.64	581.66	0.04		
908.01	118.91	7.64		105.08	11.36	0.000000	
0.00000	54639.69						
113.00	4393.09	9.09	0.61	540.20	0.04		
891.92	118.60	7.52		104.61	11.50	0.000000	
0.00000	54397.39						
114.00	4392.94	8.94	0.57	500.54	0.03		
876.13	118.29	7.41		104.14	11.65	0.000027	
0.01266	54151.23						
115.00	4392.76	8.76	0.56	480.50	0.03		
856.81	117.94	7.26		103.58	11.82	0.000000	
0.00000	53863.33						
116.00	4392.55	8.55	0.56	468.50	0.03		
830.29	117.04	7.09		102.91	12.04	0.000000	
0.00000	53514.08						
117.00	4392.38	8.38	0.45	360.71	0.03		
808.50	116.29	6.95		102.37	12.21	0.000009	
0.00394	53233.76						
118.00	4392.27	8.27	0.40	319.99	0.02		
793.69	115.80	6.85		102.01	12.33	0.000000	
0.00000	53047.09						
119.00	4392.18	8.18	0.37	292.53	0.02		
781.43	115.38	6.77		101.71	12.44	0.000000	
0.00000	52890.87						
120.00	4392.09	8.09	0.34	263.83	0.02		
770.00	114.97	6.70		101.42	12.54	0.000000	
0.00000	52736.37						
121.00	4392.01	8.01	0.30	227.67	0.02		
759.34	114.59	6.63		101.14	12.63	0.000000	
0.00000	52591.11						
122.00	4391.93	7.93	0.26	198.38	0.02		
749.21	114.24	6.56		100.88	12.72	0.000000	
0.00000	52458.41						
123.00	4391.86	7.86	0.24	178.78	0.02		
740.18	113.92	6.50		100.65	12.80	0.000000	
0.00000	52338.59						
124.00	4391.79	7.79	0.23	164.97	0.01		
731.67	113.60	6.44		100.42	12.88	0.000035	

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		HYCHAN.OUT						
	0.01393	52219.04						
722.47	125.00	4391.72	7.72	0.21	153.01	12.97	0.01	0.000000
		113.27	6.38		100.18			
	0.00000	52092.17						
713.17	126.00	4391.65	7.65	0.19	137.96	13.06	0.01	0.000000
		112.93	6.32		99.93			
	0.00000	51962.57						
702.88	127.00	4391.57	7.57	0.17	122.17	13.16	0.01	0.000000
		112.55	6.24		99.66			
	0.00000	51822.08						
693.30	128.00	4391.50	7.50	0.15	107.13	13.26	0.01	0.000000
		112.20	6.18		99.40			
	0.00000	51686.08						
683.26	129.00	4391.42	7.42	0.14	98.33	13.35	0.01	0.000000
		111.84	6.11		99.14			
	0.00000	51550.41						
674.56	130.00	4391.35	7.35	0.13	89.01	13.45	0.01	0.000000
		111.48	6.05		98.87			
	0.00000	51413.74						
665.66	131.00	4391.28	7.28	0.12	81.90	13.55	0.01	0.000000
		111.13	5.99		98.62			
	0.00000	51281.93						
656.66	132.00	4391.21	7.21	0.11	71.93	13.65	0.01	0.000017
		110.78	5.93		98.36			
	0.00626	51148.67						
648.07	133.00	4391.14	7.14	0.11	70.70	13.74	0.01	0.000009
		110.44	5.87		98.11			
	0.00316	51018.14						
640.34	134.00	4391.08	7.08	0.10	65.04	13.83	0.01	0.000017
		110.13	5.81		97.89			
	0.00633	50902.46						
634.52	135.00	4391.03	7.03	0.10	62.79	13.90	0.01	0.000013
		109.89	5.77		97.71			
	0.00480	50808.62						
628.63	136.00	4390.98	6.98	0.10	61.63	13.97	0.01	0.000027
		109.64	5.73		97.53			
	0.00959	50716.43						
622.48	137.00	4390.93	6.93	0.10	61.66	14.04	0.01	0.000000
		109.40	5.69		97.35			
	0.00000	50624.50						
617.21	138.00	4390.89	6.89	0.09	58.20	14.11	0.01	0.000000
		109.18	5.65		97.19			
	0.00000	50539.94						
611.89	139.00	4390.85	6.85	0.10	60.38	14.17	0.01	0.000022
		108.97	5.62		97.04			
	0.00761	50459.05						
607.02	140.00	4390.81	6.81	0.09	56.62	14.23	0.01	0.000007
		108.76	5.58		96.88			
	0.00246	50380.07						
601.87	141.00	4390.77	6.77	0.10	58.95	14.30	0.01	0.000000
		108.55	5.54		96.73			
	0.00000	50298.12						
596.93	142.00	4390.73	6.73	0.10	57.75	14.36	0.01	0.000000
		108.34	5.51		96.57			
	0.00000	50218.23						
591.89	143.00	4390.68	6.68	0.10	57.76	14.43	0.01	0.000000
		108.11	5.47		96.41			
	0.00000	50133.38						
586.64	144.00	4390.64	6.64	0.10	56.61	14.49	0.01	0.000019
		107.90	5.44		96.25			
	0.00660	50052.09						
581.85	145.00	4390.60	6.60	0.09	55.24	14.55	0.01	0.000000
		107.70	5.40		96.10			

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		HYCHAN.OUT						
	0.00000	49974.18						
577.28	146.00	4390.56	6.56	0.10	56.11	0.01		
		107.49	5.37		95.96	14.62	0.000000	
	0.00000	49896.87						
572.20	147.00	4390.52	6.52	0.10	56.53	0.01		
		107.27	5.33		95.79	14.69	0.000000	
	0.00000	49812.20						
566.85	148.00	4390.48	6.48	0.10	55.83	0.01		
		107.04	5.30		95.62	14.76	0.000000	
	0.00000	49723.86						
562.10	149.00	4390.44	6.44	0.10	55.80	0.01		
		106.82	5.26		95.46	14.83	0.000012	
	0.00407	49640.69						
557.16	150.00	4390.40	6.40	0.10	53.09	0.01		
		106.62	5.23		95.32	14.89	0.000000	
	0.00000	49564.23						
552.66	151.00	4390.36	6.36	0.10	54.73	0.01		
		106.42	5.19		95.17	14.96	0.000000	
	0.00000	49485.97						
548.33	152.00	4390.33	6.33	0.10	52.80	0.01		
		106.22	5.16		95.02	15.02	0.000000	
	0.00000	49411.04						
543.56	153.00	4390.29	6.29	0.10	55.05	0.01		
		106.02	5.13		94.87	15.08	0.000000	
	0.00000	49332.67						
539.17	154.00	4390.25	6.25	0.10	52.38	0.01		
		105.81	5.10		94.72	15.15	0.000000	
	0.00000	49253.69						
534.56	155.00	4390.21	6.21	0.10	53.76	0.01		
		105.61	5.06		94.57	15.22	0.000000	
	0.00000	49174.15						
530.46	156.00	4390.18	6.18	0.10	53.05	0.01		
		105.41	5.03		94.42	15.28	0.000008	
	0.00246	49100.26						
526.23	157.00	4390.14	6.14	0.10	52.24	0.01		
		105.21	5.00		94.27	15.35	0.000007	
	0.00215	49022.55						
523.57	158.00	4390.12	6.12	0.08	43.63	0.01		
		105.09	4.98		94.18	15.39	0.000000	
	0.00000	48976.09						
522.70	159.00	4390.11	6.11	0.08	43.16	0.01		
		105.05	4.98		94.16	15.40	0.000000	
	0.00000	48962.26						
521.92	160.00	4390.11	6.11	0.08	42.80	0.01		
		105.01	4.97		94.13	15.42	0.000009	
	0.00271	48947.48						
521.05	161.00	4390.10	6.10	0.08	44.04	0.01		
		104.97	4.96		94.09	15.43	0.000017	
	0.00530	48928.81						
519.65	162.00	4390.09	6.09	0.08	42.55	0.01		
		104.91	4.95		94.05	15.45	0.000000	
	0.00000	48908.58						
518.92	163.00	4390.08	6.08	0.08	43.89	0.01		
		104.87	4.95		94.02	15.47	0.000007	
	0.00213	48891.53						
517.70	164.00	4390.07	6.07	0.08	42.44	0.01		
		104.82	4.94		93.98	15.48	0.000009	
	0.00272	48871.45						
516.85	165.00	4390.06	6.06	0.08	43.13	0.01		
		104.77	4.93		93.95	15.50	0.000000	
	0.00000	48855.59						
516.00	166.00	4390.06	6.06	0.08	43.26	0.01		
		104.73	4.93		93.92	15.51	0.000000	

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		HYCHAN.OUT						
	0.00000	48839.52						
514.10	167.00	4390.04	6.04	0.09	47.03	0.01		
		104.64	4.91		93.85	15.54	0.000014	
	0.00427	48802.70						
511.34	168.00	4390.02	6.01	0.09	46.68	0.01		
		104.51	4.89		93.76	15.59	0.000000	
	0.00000	48753.37						
509.11	169.00	4390.00	6.00	0.09	45.40	0.01		
		104.41	4.88		93.68	15.62	0.000000	
	0.00000	48714.42						
507.08	170.00	4389.98	5.98	0.09	44.17	0.01		
		104.32	4.86		93.62	15.65	0.000000	
	0.00000	48682.68						
505.87	171.00	4389.97	5.97	0.09	44.02	0.01		
		104.25	4.85		93.56	15.68	0.000000	
	0.00000	48652.24						
504.60	172.00	4389.96	5.96	0.09	43.45	0.01		
		104.18	4.84		93.51	15.70	0.000009	
	0.00272	48626.40						
502.91	173.00	4389.94	5.94	0.09	43.89	0.01		
		104.11	4.83		93.46	15.72	0.000000	
	0.00000	48600.67						
501.63	174.00	4389.93	5.93	0.09	43.97	0.01		
		104.04	4.82		93.41	15.75	0.000011	
	0.00318	48572.00						
498.92	175.00	4389.91	5.91	0.10	47.45	0.01		
		103.93	4.80		93.33	15.79	0.000000	
	0.00000	48529.51						
496.03	176.00	4389.89	5.89	0.10	47.30	0.01		
		103.78	4.78		93.22	15.84	0.000000	
	0.00000	48473.65						
493.54	177.00	4389.86	5.86	0.09	46.14	0.01		
		103.66	4.76		93.13	15.88	0.000000	
	0.00000	48426.02						
491.42	178.00	4389.85	5.85	0.09	45.47	0.01		
		103.55	4.75		93.05	15.92	0.000000	
	0.00000	48386.52						
489.62	179.00	4389.83	5.83	0.09	43.15	0.01		
		103.46	4.73		92.98	15.95	0.000000	
	0.00000	48351.21						
488.01	180.00	4389.82	5.82	0.09	44.21	0.01		
		103.38	4.72		92.93	15.98	0.000000	
	0.00000	48321.25						
486.55	181.00	4389.80	5.80	0.08	40.67	0.01		
		103.32	4.71		92.88	16.00	0.000011	
	0.00326	48295.54						
487.59	182.00	4389.82	5.82	0.07	31.93	0.00		
		103.38	4.72		92.92	15.98	0.000000	
	0.00000	48320.71						
490.58	183.00	4389.84	5.84	0.06	31.72	0.00		
		103.52	4.74		93.03	15.93	0.000026	
	0.00774	48374.02						
494.11	184.00	4389.87	5.87	0.06	30.03	0.00		
		103.69	4.77		93.15	15.87	0.000000	
	0.00000	48438.28						
497.30	185.00	4389.90	5.90	0.07	32.35	0.00		
		103.84	4.79		93.26	15.82	0.000000	
	0.00000	48497.69						
499.56	186.00	4389.92	5.92	0.07	34.43	0.00		
		103.96	4.81		93.35	15.78	0.000013	
	0.00388	48541.82						
500.93	187.00	4389.93	5.93	0.07	35.91	0.01		
		104.02	4.82		93.40	15.75	0.000000	

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## HYCHAN.OUT

0.00000	48566.12								
188.00	4389.93	5.93	0.08	38.03	0.01				
501.76	104.06	4.82		93.42	15.74	0.000000			
0.00000	48580.16								
189.00	4389.94	5.94	0.08	37.83	0.01				
502.07	104.08	4.82		93.44	15.74	0.000011			
0.00323	48587.36								
190.00	4389.94	5.94	0.08	38.76	0.01				
502.44	104.09	4.83		93.45	15.73	0.000000			
0.00000	48591.83								
191.00	4389.94	5.94	0.08	40.11	0.01				
502.44	104.08	4.83		93.44	15.73	0.000000			
0.00000	48589.46								
192.00	4389.94	5.94	0.08	41.02	0.01				
502.16	104.07	4.83		93.44	15.74	0.000007			
0.00205	48586.42								
193.00	4389.92	5.92	0.09	45.76	0.01				
500.37	103.99	4.81		93.37	15.76	0.000000			
0.00000	48554.58								
194.00	4389.90	5.90	0.09	45.53	0.01				
497.90	103.86	4.79		93.28	15.81	0.000007			
0.00219	48505.56								
195.00	4389.88	5.88	0.09	44.38	0.01				
495.82	103.77	4.78		93.21	15.84	0.000000			
0.00000	48468.18								
196.00	4389.87	5.87	0.09	42.13	0.01				
494.23	103.69	4.77		93.15	15.87	0.000029			
0.00854	48440.45								
197.00	4389.86	5.86	0.09	42.35	0.01				
493.15	103.64	4.76		93.11	15.89	0.000000			
0.00000	48418.92								
198.00	4389.85	5.85	0.08	41.37	0.01				
492.26	103.59	4.75		93.08	15.90	0.000000			
0.00000	48401.93								
199.00	4389.85	5.85	0.08	40.59	0.01				
491.29	103.55	4.74		93.05	15.92	0.000000			
0.00000	48386.29								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3992

MAXIMUM DISCHARGE (CFS) = 3015.53 AT TIME = 90.73  
 MAXIMUM STAGE = 4396.67 AT TIME = 91.68

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(HRS)	(FT)	(FT)	(FPS)	(CFS)		
(FT^2)	(FT)	(FT)	(FT)			
(LB/FT^2)	(FT^2)					
0.00	4383.90	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00					
1.00	4383.90	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00					
2.00	4383.90	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00					
3.00	4383.90	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00					

HYCHAN.OUT									
0.00	4.00	4383.90	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	5.00	4383.90	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	6.00	4383.90	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32.19	7.00	4384.13	0.23	-0.28	39.61	-9.16	170.05	0.10	0.000000
	0.00000	36.69	0.88						
66.69	8.00	4385.27	1.37	-0.58	63.33	-38.97	46.28	0.09	0.000000
	0.00000	64.88	1.03						
78.89	9.00	4385.48	1.58	-0.46	65.83	-36.59	41.56	0.06	0.000000
	0.00000	68.01	1.16						
83.19	10.00	4385.57	1.67	-0.28	66.76	-23.40	39.97	0.04	0.000000
	0.00000	69.18	1.20						
0.00	11.00	4385.61	1.71	0.00	67.15	0.00	39.35	0.00	0.000000
	0.00000	69.66	0.00						
80.63	12.00	4385.55	1.65	0.06	66.59	4.75	40.26	0.01	0.000000
	0.00000	68.96	1.17						
75.02	13.00	4385.48	1.58	0.10	65.84	7.53	41.54	0.01	0.000014
	0.00097	68.02	1.10						
68.07	14.00	4385.38	1.48	0.14	64.67	9.39	43.67	0.02	0.000012
	0.00079	66.55	1.02						
60.96	15.00	4385.28	1.38	0.14	63.44	8.46	46.06	0.02	0.000000
	0.00000	65.01	0.94						
57.53	16.00	4385.21	1.31	0.09	62.64	5.43	47.71	0.01	0.000000
	0.00000	64.02	0.90						
56.34	17.00	4385.18	1.28	0.05	62.21	2.72	48.62	0.01	0.000011
	0.00059	63.49	0.89						
55.94	18.00	4385.17	1.27	0.02	62.04	1.36	48.99	0.00	0.000000
	0.00000	63.28	0.88						
0.00	19.00	4385.16	1.26	0.00	61.99	0.00	49.10	0.00	0.000000
	0.00000	63.22	0.00						
59.55	20.00	4385.20	1.30	-0.10	62.45	-6.20	48.10	0.02	0.000000
	0.00000	63.79	0.93						
65.82	21.00	4385.30	1.40	-0.17	63.71	-11.10	45.51	0.03	0.000000
	0.00000	65.36	1.01						
73.81	22.00	4385.43	1.53	-0.20	65.19	-14.83	42.71	0.03	0.000000
	0.00000	67.20	1.10						
81.32	23.00	4385.55	1.65	-0.18	66.50	-14.41	40.41	0.02	0.000000
	0.00000	68.85	1.18						
85.97	24.00	4385.62	1.72	-0.11	67.25	-9.26	39.18	0.01	0.000000
	0.00000	69.79	1.23						
		39003.93							

HYCHAN.OUT									
90.99	25.00	4385.68	1.78	-0.15	67.93	-13.46	38.09	0.02	0.000000
	0.00000	70.66	1.29						
		39401.80							
100.68	26.00	4385.82	1.92	-0.23	69.26	-23.57	36.10	0.03	0.000000
	0.00000	72.34	1.39						
		40171.60							
113.43	27.00	4386.00	2.10	-0.27	70.90	-30.36	33.83	0.03	0.000000
	0.00000	74.43	1.52						
		41124.30							
128.99	28.00	4386.21	2.31	-0.31	72.74	-39.85	31.51	0.04	0.000000
	0.00000	76.78	1.68						
		42191.36							
142.36	29.00	4386.39	2.49	-0.26	74.21	-36.31	29.81	0.03	0.000000
	0.00000	78.66	1.81						
		43041.33							
150.59	30.00	4386.49	2.59	-0.19	75.02	-29.26	28.92	0.02	0.000000
	0.00000	79.71	1.89						
		43513.44							
157.80	31.00	4386.58	2.68	-0.18	75.71	-29.01	28.20	0.02	0.000000
	0.00000	80.60	1.96						
		43911.41							
164.46	32.00	4386.67	2.77	-0.13	76.34	-20.75	27.56	0.01	0.000000
	0.00000	81.42	2.02						
		44278.23							
168.90	33.00	4386.72	2.82	-0.08	76.72	-12.82	27.18	0.01	0.000000
	0.00000	81.91	2.06						
		44498.56							
174.46	34.00	4386.79	2.89	-0.10	77.20	-17.91	26.72	0.01	0.000000
	0.00000	82.53	2.11						
		44775.96							
179.61	35.00	4386.86	2.96	-0.07	77.67	-13.14	26.27	0.01	0.000000
	0.00000	83.14	2.16						
		45048.06							
182.09	36.00	4386.89	2.99	-0.04	77.90	-6.97	26.06	0.00	0.000000
	0.00000	83.44	2.18						
		45181.89							
183.95	37.00	4386.93	3.03	-0.03	78.17	-5.44	25.81	0.00	0.000000
	0.00000	83.80	2.20						
		45339.71							
182.39	38.00	4386.91	3.01	0.04	78.04	8.16	25.93	0.00	0.000000
	0.00000	83.62	2.18						
		45261.28							
178.14	39.00	4386.86	2.96	0.08	77.72	14.99	26.23	0.01	0.000000
	0.00000	83.21	2.14						
		45077.10							
174.04	40.00	4386.80	2.90	0.06	77.31	10.72	26.61	0.01	0.000000
	0.00000	82.67	2.11						
		44839.69							
171.18	41.00	4386.77	2.87	0.03	77.09	5.09	26.83	0.00	0.000000
	0.00000	82.39	2.08						
		44711.73							
169.94	42.00	4386.76	2.86	0.01	76.97	1.79	26.94	0.00	0.000000
	0.00000	82.24	2.07						
		44644.64							
169.31	43.00	4386.75	2.85	0.01	76.92	1.87	26.99	0.00	0.000000
	0.00000	82.16	2.06						
		44610.89							
170.08	44.00	4386.75	2.85	-0.01	76.92	-1.73	26.99	0.00	0.000000
	0.00000	82.17	2.07						
		44613.32							
174.52	45.00	4386.79	2.89	-0.09	77.21	-16.23	26.71	0.01	0.000000
	0.00000	82.55	2.11						
		44782.29							

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		HYCHAN.OUT							
179.52	46.00	4386.85	2.95	-0.07	-13.18	0.01			
	0.00000	83.11	2.16		77.64	26.30		0.000000	
		45033.77							
186.09	47.00	4386.93	3.03	-0.11	-20.68	0.01			
	0.00000	83.77	2.22		78.15	25.82		0.000000	
		45328.67							
195.12	48.00	4387.04	3.14	-0.14	-28.29	0.01			
	0.00000	84.73	2.30		78.89	25.16		0.000000	
		45755.65							
205.93	49.00	4387.16	3.26	-0.16	-32.65	0.02			
	0.00000	85.81	2.40		79.72	24.44		0.000000	
		46236.70							
217.74	50.00	4387.30	3.40	-0.16	-35.13	0.02			
	0.00000	86.96	2.50		80.59	23.71		0.000000	
		46743.71							
230.29	51.00	4387.44	3.54	-0.16	-37.23	0.02			
	0.00000	88.11	2.61		81.47	23.01		0.000000	
		47251.14							
243.82	52.00	4387.59	3.69	-0.17	-40.56	0.02			
	0.00000	89.28	2.73		82.36	22.33		0.000000	
		47769.81							
259.28	53.00	4387.76	3.86	-0.18	-47.43	0.02			
	0.00000	90.61	2.86		83.37	21.59		0.000000	
		48352.96							
273.81	54.00	4387.92	4.02	-0.14	-38.16	0.01			
	0.00000	91.80	2.98		84.26	20.96		0.000000	
		48873.10							
288.44	55.00	4388.07	4.17	-0.16	-46.44	0.01			
	0.00000	92.85	3.11		85.06	20.42		0.000000	
		49335.03							
307.35	56.00	4388.26	4.36	-0.21	-64.03	0.02			
	0.00000	94.22	3.26		86.09	19.75		0.000000	
		49934.80							
335.28	57.00	4388.55	4.65	-0.30	-99.03	0.02			
	0.00000	96.19	3.49		87.57	18.84		0.000000	
		50791.09							
372.93	58.00	4388.93	5.03	-0.34	-125.58	0.03			
	0.00000	98.64	3.78		89.40	17.78		0.000000	
		51853.76							
413.94	59.00	4389.33	5.44	-0.30	-125.80	0.02			
	0.00000	101.15	4.09		91.27	16.79		0.000000	
		52937.15							
452.54	60.00	4389.70	5.80	-0.24	-107.88	0.02			
	0.00000	103.26	4.38		92.84	16.02		0.000000	
		53844.97							
488.39	61.00	4390.03	6.13	-0.23	-112.01	0.02			
	0.00000	105.17	4.64		94.25	15.36		0.000000	
		54663.01							
514.53	62.00	4390.29	6.39	-0.11	-58.95	0.01			
	0.00267	106.54	4.83		95.26	14.92		0.000009	
		55248.39							
521.58	63.00	4390.42	6.52	-0.02	-7.89	0.00			
	0.00232	107.27	4.86		95.79	14.69		0.000008	
		55558.61							
545.59	64.00	4390.55	6.65	-0.03	-16.24	0.00			
	0.00000	107.93	5.06		96.27	14.48		0.000000	
		55838.30							
567.17	65.00	4390.75	6.85	-0.04	-20.29	0.00			
	0.00000	108.99	5.20		97.05	14.16		0.000000	
		56290.58							
0.00	66.00	4390.97	7.07	0.00	0.00	0.00			
	0.00000	110.07	0.00		97.84	13.85		0.000000	
		56748.39							

HYCHAN.OUT									
618.02	67.00	4391.17	7.27	0.07	43.75	0.00	0.000000		
	0.00000	111.07	5.56		98.58	13.56			
		57174.74							
641.12	68.00	4391.37	7.47	0.18	114.35	0.01	0.000000		
	0.00000	112.05	5.72		99.29	13.30			
		57586.61							
663.95	69.00	4391.56	7.66	0.23	154.60	0.01	0.000000		
	0.00000	112.98	5.88		99.97	13.05			
		57982.67							
688.39	70.00	4391.77	7.87	0.28	194.51	0.02	0.000010		
	0.00370	113.97	6.04		100.69	12.79			
		58397.59							
710.52	71.00	4391.96	8.06	0.21	152.21	0.01	0.000031		
	0.01196	114.85	6.19		101.33	12.57			
		58771.93							
742.85	72.00	4392.21	8.31	0.18	132.17	0.01	0.000000		
	0.00000	115.95	6.41		102.13	12.30			
		59233.25							
768.55	73.00	4392.42	8.52	0.28	217.87	0.02	0.000000		
	0.00000	116.91	6.57		102.82	12.07			
		59634.30							
791.71	74.00	4392.60	8.70	0.37	291.54	0.02	0.000052		
	0.02201	117.71	6.73		103.40	11.88			
		59973.58							
807.62	75.00	4392.75	8.85	0.43	343.43	0.03	0.000000		
	0.00000	118.12	6.84		103.87	11.73			
		60242.50							
825.74	76.00	4392.93	9.03	0.55	456.83	0.03	0.000024		
	0.01039	118.47	6.97		104.41	11.56			
		60559.16							
845.83	77.00	4393.13	9.23	0.75	633.96	0.04	0.000017		
	0.00750	118.88	7.11		105.04	11.37			
		60921.84							
865.38	78.00	4393.33	9.43	0.87	750.07	0.05	0.000034		
	0.01543	119.27	7.26		105.62	11.20			
		61259.63							
883.64	79.00	4393.52	9.62	0.98	863.22	0.06	0.000013		
	0.00615	119.65	7.39		106.17	11.04			
		61578.12							
902.69	80.00	4393.70	9.80	1.09	982.97	0.06	0.000026		
	0.01237	120.01	7.52		106.70	10.89			
		61888.17							
924.22	81.00	4393.91	10.01	1.21	1121.78	0.07	0.000017		
	0.00829	120.44	7.67		107.31	10.72			
		62239.33							
950.97	82.00	4394.17	10.27	1.38	1309.84	0.08	0.000063		
	0.03097	120.96	7.86		108.04	10.52			
		62663.30							
976.72	83.00	4394.42	10.52	1.48	1442.33	0.08	0.000032		
	0.01602	121.46	8.04		108.74	10.33			
		63069.34							
1002.66	84.00	4394.67	10.77	1.59	1592.86	0.09	0.000073		
	0.03730	121.96	8.22		109.42	10.16			
		63461.11							
1042.26	85.00	4395.05	11.15	1.76	1829.62	0.09	0.000048		
	0.02569	122.72	8.49		110.42	9.90			
		64042.40							
1077.14	86.00	4395.39	11.49	1.93	2075.05	0.10	0.000080		
	0.04334	123.39	8.73		111.30	9.69			
		64553.14							
1110.34	87.00	4395.71	11.81	2.10	2336.87	0.11	0.000050		
	0.02821	124.04	8.95		112.12	9.49			
		65028.04							

HYCHAN.OUT							
1140.77	88.00	4396.00	12.10	9.15	2.24	2557.14	0.11
	0.04173	124.62				112.85	9.32
		65451.25					0.000073
1168.23	89.00	4396.27	12.37	9.33	2.34	2735.06	0.12
	0.04335	125.15				113.49	9.18
		65826.84					0.000074
1189.84	90.00	4396.48	12.58	9.48	2.43	2893.74	0.12
	0.05037	125.57				114.00	9.06
		66119.33					0.000085
1202.83	91.00	4396.60	12.70	9.56	2.47	2969.93	0.12
	0.04781	125.82				114.30	9.00
		66293.73					0.000080
1207.62	92.00	4396.65	12.75	9.59	2.46	2975.06	0.12
	0.05472	125.91				114.41	8.97
		66357.07					0.000091
1206.23	93.00	4396.64	12.74	9.58	2.42	2924.62	0.12
	0.04318	125.89				114.38	8.98
		66338.08					0.000072
1197.73	94.00	4396.55	12.65	9.53	2.36	2821.25	0.12
	0.04093	125.72				114.18	9.02
		66223.99					0.000069
1180.99	95.00	4396.39	12.49	9.42	2.24	2647.80	0.11
	0.03645	125.40				113.79	9.11
		65997.81					0.000062
1161.54	96.00	4396.20	12.30	9.29	2.10	2443.43	0.11
	0.03408	125.02				113.33	9.21
		65732.62					0.000059
1139.58	97.00	4395.99	12.09	9.15	1.97	2239.40	0.10
	0.02796	124.60				112.81	9.33
		65430.95					0.000049
1117.69	98.00	4395.78	11.88	9.00	1.85	2072.83	0.09
	0.00968	124.17				112.28	9.45
		65123.93					0.000017
1096.93	99.00	4395.57	11.67	8.86	1.73	1892.75	0.09
	0.04239	123.75				111.75	9.58
		64815.41					0.000077
1071.97	100.00	4395.32	11.42	8.70	1.57	1681.20	0.08
	0.02635	123.25				111.12	9.73
		64447.23					0.000049
1025.04	101.00	4394.87	10.97	8.38	1.31	1345.34	0.07
	0.00000	122.35				109.93	10.02
		63762.18					0.000000
986.41	102.00	4394.50	10.60	8.11	1.15	1133.06	0.06
	0.01760	121.61				108.94	10.28
		63186.80					0.000035
967.49	103.00	4394.31	10.41	7.98	1.15	1116.87	0.06
	0.00000	121.23				108.42	10.42
		62885.72					0.000000
955.10	104.00	4394.18	10.28	7.89	1.16	1104.48	0.06
	0.00000	120.98				108.07	10.51
		62683.12					0.000000
946.83	105.00	4394.10	10.20	7.84	1.11	1048.38	0.06
	0.00000	120.82				107.85	10.57
		62550.49					0.000000
938.91	106.00	4394.02	10.12	7.78	1.06	991.63	0.06
	0.03500	120.66				107.63	10.63
		62423.80					0.000072
930.58	107.00	4393.94	10.04	7.72	0.99	923.63	0.06
	0.02226	120.50				107.40	10.69
		62293.92					0.000046
919.33	108.00	4393.84	9.94	7.64	0.94	868.64	0.05
	0.03105	120.29				107.10	10.78
		62117.99					0.000065

		HYCHAN.OUT					
109.00	4393.69	9.79	0.87	785.02	0.05		
903.79	120.00	7.53	106.68	10.89	0.000000		
0.00000	61875.64						
110.00	4393.54	9.64	0.81	718.55	0.05		
888.62	119.70	7.42	106.25	11.02	0.000000		
0.00000	61626.63						
111.00	4393.39	9.49	0.75	654.13	0.04		
872.60	119.39	7.31	105.80	11.15	0.000000		
0.00000	61364.05						
112.00	4393.24	9.34	0.70	599.53	0.04		
856.93	119.09	7.20	105.34	11.28	0.000013		
0.00570	61099.85						
113.00	4393.08	9.18	0.66	558.95	0.04		
841.06	118.78	7.08	104.88	11.42	0.000000		
0.00000	60832.61						
114.00	4392.93	9.03	0.63	520.85	0.04		
824.98	118.47	6.96	104.42	11.56	0.000019		
0.00818	60561.16						
115.00	4392.75	8.85	0.62	497.64	0.04		
806.34	118.12	6.83	103.87	11.73	0.000031		
0.01339	60242.80						
116.00	4392.54	8.64	0.60	472.36	0.04		
783.24	117.44	6.67	103.20	11.94	0.000022		
0.00903	59858.06						
117.00	4392.38	8.48	0.48	363.83	0.03		
763.17	116.71	6.54	102.68	12.11	0.000011		
0.00435	59552.73						
118.00	4392.27	8.37	0.43	321.24	0.03		
748.89	116.22	6.44	102.32	12.23	0.000000		
0.00000	59348.26						
119.00	4392.18	8.28	0.40	295.06	0.02		
737.37	115.82	6.37	102.03	12.33	0.000000		
0.00000	59176.34						
120.00	4392.09	8.19	0.36	264.80	0.02		
726.62	115.42	6.30	101.74	12.43	0.000000		
0.00000	59008.65						
121.00	4392.00	8.10	0.32	229.40	0.02		
716.97	115.04	6.23	101.47	12.52	0.000000		
0.00000	58849.98						
122.00	4391.93	8.03	0.28	199.94	0.02		
707.50	114.69	6.17	101.21	12.61	0.000000		
0.00000	58703.54						
123.00	4391.86	7.96	0.26	180.36	0.02		
699.17	114.38	6.11	100.98	12.69	0.000000		
0.00000	58571.14						
124.00	4391.79	7.89	0.24	166.70	0.02		
691.04	114.07	6.06	100.76	12.76	0.000047		
0.01773	58440.09						
125.00	4391.72	7.82	0.23	153.60	0.01		
682.48	113.74	6.00	100.52	12.85	0.000000		
0.00000	58300.48						
126.00	4391.65	7.75	0.21	139.52	0.01		
674.04	113.40	5.94	100.27	12.94	0.000000		
0.00000	58157.39						
127.00	4391.57	7.67	0.19	123.74	0.01		
665.11	113.03	5.88	100.00	13.03	0.000024		
0.00879	58000.88						
128.00	4391.50	7.60	0.17	108.75	0.01		
655.60	112.67	5.82	99.74	13.13	0.000000		
0.00000	57852.10						
129.00	4391.42	7.52	0.15	99.37	0.01		
647.56	112.32	5.77	99.49	13.22	0.000041		
0.01485	57702.10						

		HYCHAN.OUT						
638.75	130.00	4391.35	7.45	0.14	99.23	90.21	13.32	0.000038
	0.01338	111.97	5.70					
		57552.41						
630.51	131.00	4391.28	7.38	0.13	98.98	83.90	13.41	0.000000
	0.00000	111.62	5.65					
		57406.03						
622.07	132.00	4391.21	7.31	0.12	98.72	73.36	13.51	0.000000
	0.00000	111.27	5.59					
		57257.92						
614.09	133.00	4391.14	7.24	0.12	98.47	72.21	13.60	0.000010
	0.00362	110.93	5.54					
		57114.04						
606.87	134.00	4391.08	7.18	0.11	98.25	66.28	13.69	0.000000
	0.00000	110.63	5.49					
		56987.45						
601.02	135.00	4391.03	7.13	0.11	98.07	63.58	13.76	0.000000
	0.00000	110.39	5.44					
		56883.16						
595.38	136.00	4390.98	7.08	0.11	97.90	62.93	13.83	0.000000
	0.00000	110.15	5.41					
		56781.58						
590.13	137.00	4390.93	7.03	0.10	97.72	61.07	13.90	0.000019
	0.00639	109.90	5.37					
		56679.02						
585.18	138.00	4390.89	6.99	0.10	97.57	59.12	13.96	0.000022
	0.00748	109.69	5.33					
		56587.88						
580.26	139.00	4390.85	6.95	0.11	97.41	62.21	14.02	0.000000
	0.00000	109.47	5.30					
		56495.96						
575.60	140.00	4390.81	6.91	0.10	97.26	57.16	14.08	0.000000
	0.00000	109.27	5.27					
		56410.08						
571.04	141.00	4390.77	6.87	0.10	97.10	59.15	14.14	0.000036
	0.01182	109.06	5.24					
		56320.43						
566.19	142.00	4390.73	6.83	0.10	96.95	58.39	14.20	0.000043
	0.01398	108.85	5.20					
		56231.32						
561.50	143.00	4390.68	6.78	0.10	96.79	58.65	14.27	0.000000
	0.00000	108.63	5.17					
		56138.86						
556.66	144.00	4390.64	6.74	0.10	96.63	58.27	14.33	0.000000
	0.00000	108.42	5.13					
		56047.80						
552.32	145.00	4390.60	6.70	0.10	96.49	54.48	14.39	0.000053
	0.01677	108.22	5.10					
		55962.64						
548.02	146.00	4390.56	6.66	0.10	96.34	57.34	14.46	0.000000
	0.00000	108.02	5.07					
		55876.46						
543.20	147.00	4390.52	6.62	0.11	96.18	57.28	14.52	0.000044
	0.01385	107.80	5.04					
		55784.12						
538.09	148.00	4390.48	6.58	0.11	96.01	56.73	14.59	0.000000
	0.00000	107.57	5.00					
		55686.40						
533.55	149.00	4390.44	6.54	0.11	95.85	56.99	14.66	0.000000
	0.00000	107.35	4.97					
		55593.07						
529.11	150.00	4390.40	6.50	0.10	95.71	53.16	14.72	0.000042
	0.01288	107.16	4.94					
		55510.41						



		HYCHAN.OUT					
524.92	151.00	4390.36	6.46	0.11	55.82	14.78	0.000000
	0.00000	106.96	4.91		95.56		
		55425.08					
520.87	152.00	4390.33	6.43	0.10	53.35	14.85	0.000000
	0.00000	106.76	4.88		95.42		
		55341.18					
516.63	153.00	4390.29	6.39	0.11	55.65	14.91	0.000000
	0.00000	106.56	4.85		95.27		
		55255.21					
512.42	154.00	4390.25	6.35	0.10	53.04	14.98	0.000000
	0.00000	106.36	4.82		95.12		
		55168.54					
508.22	155.00	4390.21	6.31	0.11	54.53	15.04	0.000000
	0.00000	106.15	4.79		94.97		
		55079.97					
504.12	156.00	4390.18	6.28	0.11	53.78	15.10	0.000000
	0.00000	105.96	4.76		94.83		
		54999.44					
500.02	157.00	4390.14	6.24	0.11	52.99	15.17	0.000000
	0.00000	105.76	4.73		94.68		
		54913.40					
497.64	158.00	4390.12	6.22	0.09	42.95	15.21	0.000000
	0.00000	105.64	4.71		94.59		
		54861.80					
496.84	159.00	4390.11	6.21	0.09	43.14	15.22	0.000027
	0.00791	105.60	4.70		94.56		
		54846.62					
496.06	160.00	4390.11	6.21	0.09	43.89	15.23	0.000000
	0.00000	105.56	4.70		94.53		
		54829.74					
495.13	161.00	4390.10	6.20	0.09	44.24	15.25	0.000000
	0.00000	105.52	4.69		94.50		
		54810.59					
494.10	162.00	4390.09	6.19	0.09	42.09	15.27	0.000025
	0.00721	105.47	4.68		94.46		
		54788.65					
493.21	163.00	4390.08	6.18	0.09	44.51	15.28	0.000008
	0.00225	105.42	4.68		94.43		
		54768.75					
492.11	164.00	4390.07	6.17	0.09	42.70	15.30	0.000000
	0.00000	105.37	4.67		94.39		
		54746.52					
491.31	165.00	4390.06	6.16	0.09	42.39	15.31	0.000016
	0.00466	105.33	4.66		94.36		
		54729.18					
490.40	166.00	4390.05	6.15	0.09	43.74	15.33	0.000000
	0.00000	105.28	4.66		94.33		
		54711.05					
488.67	167.00	4390.04	6.14	0.10	47.99	15.36	0.000000
	0.00000	105.19	4.65		94.26		
		54671.52					
486.25	168.00	4390.01	6.11	0.10	46.73	15.40	0.000029
	0.00846	105.06	4.63		94.17		
		54616.80					
484.10	169.00	4390.00	6.10	0.09	45.59	15.43	0.000000
	0.00000	104.97	4.61		94.09		
		54575.05					
482.46	170.00	4389.98	6.08	0.09	44.53	15.46	0.000000
	0.00000	104.88	4.60		94.03		
		54537.43					
480.97	171.00	4389.97	6.07	0.09	43.90	15.49	0.000018
	0.00508	104.81	4.59		93.98		
		54507.03					

		HYCHAN.OUT					
172.00	4389.96	6.06	0.09	44.11	0.01		
479.63	104.74	4.58		93.92	15.51	0.000000	
0.00000	54475.99						
173.00	4389.94	6.04	0.09	43.70	0.01		
478.34	104.67	4.57		93.88	15.53	0.000048	
0.01382	54448.27						
174.00	4389.93	6.03	0.09	44.78	0.01		
476.89	104.60	4.56		93.82	15.56	0.000000	
0.00000	54418.14						
175.00	4389.91	6.01	0.10	48.08	0.01		
474.72	104.49	4.54		93.74	15.59	0.000000	
0.00000	54369.25						
176.00	4389.89	5.99	0.10	47.40	0.01		
472.09	104.35	4.52		93.64	15.64	0.000000	
0.00000	54309.07						
177.00	4389.86	5.96	0.10	46.10	0.01		
469.59	104.22	4.51		93.55	15.68	0.000016	
0.00459	54256.39						
178.00	4389.85	5.95	0.10	45.54	0.01		
467.47	104.12	4.49		93.47	15.72	0.000028	
0.00782	54213.28						
179.00	4389.83	5.93	0.09	43.68	0.01		
465.84	104.03	4.48		93.40	15.75	0.000022	
0.00615	54173.44						
180.00	4389.82	5.92	0.10	44.23	0.01		
464.37	103.95	4.47		93.35	15.78	0.000000	
0.00000	54140.53						
181.00	4389.80	5.90	0.09	41.37	0.01		
463.08	103.89	4.46		93.30	15.80	0.000000	
0.00000	54112.98						
182.00	4389.82	5.92	0.07	31.39	0.00		
464.16	103.95	4.47		93.34	15.78	0.000000	
0.00000	54139.23						
183.00	4389.84	5.94	0.07	31.71	0.00		
466.89	104.09	4.49		93.45	15.73	0.000000	
0.00000	54198.93						
184.00	4389.87	5.97	0.06	28.94	0.00		
469.93	104.25	4.51		93.57	15.67	0.000014	
0.00383	54269.00						
185.00	4389.90	6.00	0.07	31.59	0.00		
472.89	104.41	4.53		93.68	15.62	0.000015	
0.00418	54335.84						
186.00	4389.92	6.02	0.07	34.86	0.01		
475.06	104.52	4.55		93.76	15.58	0.000000	
0.00000	54382.85						
187.00	4389.93	6.03	0.07	35.55	0.01		
476.48	104.58	4.56		93.81	15.56	0.000022	
0.00616	54410.27						
188.00	4389.93	6.03	0.08	37.30	0.01		
477.10	104.62	4.56		93.84	15.55	0.000000	
0.00000	54426.15						
189.00	4389.94	6.04	0.08	38.68	0.01		
477.50	104.64	4.56		93.85	15.54	0.000000	
0.00000	54433.03						
190.00	4389.94	6.04	0.08	38.47	0.01		
477.87	104.65	4.57		93.86	15.54	0.000043	
0.01212	54438.18						
191.00	4389.94	6.04	0.08	40.05	0.01		
477.69	104.65	4.56		93.86	15.54	0.000010	
0.00287	54437.63						
192.00	4389.94	6.04	0.09	41.45	0.01		
477.50	104.63	4.56		93.85	15.55	0.000000	
0.00000	54431.65						

		HYCHAN.OUT							
193.00	4389.92	6.02	0.10	45.95	0.01				
475.96	104.55	4.55		93.79	15.57	0.000020			
0.00579	54396.98								
194.00	4389.90	6.00	0.10	45.54	0.01				
473.56	104.43	4.53		93.70	15.61	0.000000			
0.00000	54344.77								
195.00	4389.88	5.98	0.10	44.83	0.01				
471.63	104.33	4.52		93.62	15.65	0.000009			
0.00255	54301.74								
196.00	4389.87	5.97	0.09	42.92	0.01				
470.21	104.26	4.51		93.57	15.67	0.000000			
0.00000	54271.29								
197.00	4389.86	5.96	0.09	42.10	0.01				
469.28	104.20	4.50		93.53	15.69	0.000000			
0.00000	54248.36								
198.00	4389.85	5.95	0.09	40.93	0.01				
468.33	104.16	4.50		93.50	15.71	0.000008			
0.00220	54228.77								
199.00	4389.85	5.95	0.09	40.91	0.01				
467.62	104.12	4.49		93.47	15.72	0.000041			
0.01160	54213.44								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 3993

MAXIMUM DISCHARGE (CFS) = 3008.72 AT TIME = 91.02  
 MAXIMUM STAGE = 4396.62 AT TIME = 91.67

TIME	ELEV.	THALWEG DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA					
(FT^2)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT^2)	(FT)	(FT)	(CFS)		
0.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
1.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
2.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
3.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
4.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
5.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
6.00	4383.80	0.00	0.00	0.00	0.00	0.000000
0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
7.00	4384.32	0.52	-0.36	-15.79	0.09	0.000000
43.81	47.38	0.92	48.90	94.83	0.07	0.000000
0.00000	19558.41					
8.00	4385.38	1.58	-0.51	-41.41	0.07	0.000000
80.54	67.99	1.18	65.82	41.59	0.05	0.000000
0.00000	26326.44					
9.00	4385.54	1.74	-0.41	-37.06	0.05	

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HYCHAN.OUT							
90.50		70.12	1.29	67.51	38.76	0.000000	
	0.00000	27003.93					
	10.00	4385.59	1.79	-0.26	-23.85	0.03	
92.98		70.75	1.31	68.01	37.98	0.000000	
	0.00000	27202.95					
	11.00	4385.61	1.81	0.00	0.00	0.00	
0.00		70.95	0.00	68.17	37.73	0.000008	
	0.00000	27266.36					
	12.00	4385.55	1.75	0.06	5.20	0.01	
87.83		70.29	1.25	67.64	38.55	0.000000	
	0.00000	27056.81					
	13.00	4385.48	1.68	0.10	8.26	0.01	
82.68		69.36	1.19	66.91	39.73	0.000000	
	0.00000	26763.13					
	14.00	4385.38	1.58	0.14	10.19	0.02	
74.90		67.90	1.10	65.75	41.71	0.000010	
	0.00071	26298.82					
	15.00	4385.27	1.47	0.13	9.00	0.02	
66.74		66.39	1.01	64.54	43.90	0.000008	
	0.00050	25817.40					
	16.00	4385.21	1.41	0.09	5.67	0.01	
64.69		65.51	0.99	63.84	45.26	0.000000	
	0.00000	25535.90					
	17.00	4385.18	1.38	0.05	3.05	0.01	
63.38		65.05	0.97	63.47	45.99	0.000000	
	0.00000	25387.98					
	18.00	4385.17	1.37	0.02	1.32	0.00	
62.55		64.85	0.96	63.30	46.33	0.000000	
	0.00000	25321.73					
	19.00	4385.16	1.36	0.00	0.00	0.00	
0.00		64.80	0.00	63.26	46.41	0.000014	
	0.00000	25305.11					
	20.00	4385.20	1.40	-0.10	-6.72	0.01	
67.51		65.41	1.03	63.75	45.43	0.000000	
	0.00000	25501.39					
	21.00	4385.31	1.51	-0.16	-11.95	0.02	
74.36		66.97	1.11	65.00	43.05	0.000000	
	0.00000	26001.73					
	22.00	4385.44	1.64	-0.19	-15.77	0.03	
82.72		68.75	1.20	66.43	40.54	0.000000	
	0.00000	26570.12					
	23.00	4385.55	1.75	-0.17	-15.11	0.02	
90.25		70.28	1.28	67.64	38.56	0.000000	
	0.00000	27055.13					
	24.00	4385.62	1.82	-0.10	-9.62	0.01	
94.72		71.11	1.33	68.30	37.54	0.000000	
	0.00000	27318.11					
	25.00	4385.69	1.89	-0.14	-14.26	0.02	
100.05		71.98	1.39	68.98	36.51	0.000000	
	0.00000	27591.31					
	26.00	4385.83	2.03	-0.23	-24.96	0.03	
110.40		73.67	1.50	70.31	34.62	0.000000	
	0.00000	28124.98					
	27.00	4386.01	2.21	-0.26	-31.94	0.03	
123.58		75.70	1.63	71.90	32.54	0.000000	
	0.00000	28761.29					
	28.00	4386.22	2.42	-0.30	-41.63	0.03	
139.59		77.99	1.79	73.69	30.40	0.000000	
	0.00000	29475.64					
	29.00	4386.40	2.60	-0.25	-37.47	0.03	
152.83		79.76	1.92	75.06	28.89	0.000000	
	0.00000	30022.99					
	30.00	4386.50	2.70	-0.19	-29.98	0.02	

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		HYCHAN.OUT							
160.93	80.74	1.99	75.82	28.09	0.000000				
0.00000	30326.65								
31.00	4386.59	2.79	-0.18	-29.90	0.02				
168.21	81.59	2.06	76.48	27.42	0.000000				
0.00000	30591.22								
32.00	4386.67	2.87	-0.12	-21.32	0.01				
174.83	82.37	2.12	77.08	26.84	0.000000				
0.00000	30830.69								
33.00	4386.72	2.92	-0.07	-13.28	0.01				
179.24	82.84	2.16	77.44	26.49	0.000000				
0.00000	30975.31								
34.00	4386.79	2.99	-0.10	-18.64	0.01				
184.93	83.45	2.22	77.91	26.05	0.000000				
0.00000	31163.22								
35.00	4386.86	3.06	-0.07	-13.58	0.01				
189.92	84.04	2.26	78.36	25.63	0.000000				
0.00000	31344.59								
36.00	4386.89	3.09	-0.04	-7.29	0.00				
191.65	84.34	2.27	78.59	25.43	0.000000				
0.00000	31434.64								
37.00	4386.93	3.13	-0.03	-5.68	0.00				
196.96	84.67	2.33	78.85	25.20	0.000012				
0.00172	31538.22								
38.00	4386.91	3.11	0.04	8.44	0.00				
191.70	84.50	2.27	78.72	25.32	0.000000				
0.00000	31486.41								
39.00	4386.86	3.06	0.08	15.83	0.01				
187.49	84.09	2.23	78.40	25.60	0.000000				
0.00000	31359.31								
40.00	4386.80	3.01	0.06	11.08	0.01				
183.22	83.58	2.19	78.01	25.96	0.000000				
0.00000	31203.11								
41.00	4386.77	2.97	0.03	5.23	0.00				
180.28	83.30	2.16	77.79	26.16	0.000000				
0.00000	31116.32								
42.00	4386.76	2.96	0.01	1.81	0.00				
178.18	83.15	2.14	77.68	26.26	0.000010				
0.00139	31071.64								
43.00	4386.75	2.95	0.01	2.00	0.00				
178.06	83.08	2.14	77.62	26.32	0.000008				
0.00110	31048.53								
44.00	4386.75	2.95	-0.01	-1.84	0.00				
180.04	83.09	2.17	77.63	26.31	0.000000				
0.00000	31050.91								
45.00	4386.79	2.99	-0.09	-16.85	0.01				
184.66	83.47	2.21	77.92	26.04	0.000000				
0.00000	31167.43								
46.00	4386.85	3.05	-0.07	-13.71	0.01				
190.08	84.01	2.26	78.34	25.66	0.000000				
0.00000	31334.94								
47.00	4386.93	3.13	-0.11	-21.56	0.01				
196.77	84.66	2.32	78.84	25.21	0.000000				
0.00000	31535.39								
48.00	4387.04	3.24	-0.14	-29.43	0.01				
205.99	85.61	2.41	79.56	24.58	0.000000				
0.00000	31824.85								
49.00	4387.16	3.36	-0.16	-33.92	0.02				
216.98	86.67	2.50	80.37	23.89	0.000000				
0.00000	32149.57								
50.00	4387.30	3.50	-0.16	-36.49	0.02				
228.96	87.79	2.61	81.23	23.20	0.000000				
0.00000	32491.38								
51.00	4387.44	3.64	-0.16	-38.69	0.01				

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		HYCHAN.OUT					
241.67	88.92	2.72	82.08	22.54	0.000000		
0.00000	32833.60						
52.00	4387.59	3.79	-0.17	-42.16	0.01		
255.39	90.07	2.84	82.96	21.88	0.000000		
0.00000	33184.03						
53.00	4387.76	3.96	-0.18	-49.26	0.02		
271.06	91.38	2.97	83.95	21.18	0.000000		
0.00000	33578.85						
54.00	4387.92	4.12	-0.14	-39.60	0.01		
285.69	92.53	3.09	84.82	20.58	0.000000		
0.00000	33928.64						
55.00	4388.07	4.27	-0.16	-48.25	0.01		
300.52	93.57	3.21	85.61	20.06	0.000000		
0.00000	34242.26						
56.00	4388.26	4.46	-0.21	-66.51	0.02		
319.73	94.93	3.37	86.63	19.41	0.000000		
0.00000	34650.64						
57.00	4388.55	4.75	-0.30	-102.79	0.02		
348.12	96.88	3.59	88.09	18.53	0.000000		
0.00000	35235.04						
58.00	4388.93	5.13	-0.34	-130.23	0.03		
386.20	99.30	3.89	89.89	17.52	0.000000		
0.00000	35957.37						
59.00	4389.34	5.54	-0.30	-130.34	0.02		
427.46	101.77	4.20	91.73	16.56	0.000000		
0.00000	36691.08						
60.00	4389.70	5.90	-0.24	-111.90	0.02		
466.06	103.85	4.49	93.27	15.82	0.000000		
0.00000	37306.61						
61.00	4390.04	6.24	-0.23	-116.04	0.02		
501.82	105.73	4.75	94.66	15.18	0.000000		
0.00000	37864.32						
62.00	4390.29	6.49	-0.12	-60.95	0.01		
527.17	107.08	4.92	95.65	14.75	0.000007		
0.00209	38259.85						
63.00	4390.42	6.62	-0.02	-9.22	0.00		
533.20	107.79	4.95	96.18	14.52	0.000000		
0.00000	38470.10						
64.00	4390.55	6.75	-0.03	-18.50	0.00		
558.49	108.45	5.15	96.66	14.32	0.000000		
0.00000	38662.57						
65.00	4390.75	6.95	-0.04	-23.13	0.00		
580.21	109.50	5.30	97.43	14.01	0.000009		
0.00311	38970.33						
66.00	4390.97	7.17	0.00	0.00	0.00		
0.00	110.57	0.00	98.21	13.71	0.000000		
0.00000	39282.84						
67.00	4391.17	7.37	0.06	40.91	0.00		
631.12	111.56	5.66	98.93	13.43	0.000000		
0.00000	39573.22						
68.00	4391.37	7.57	0.17	112.36	0.01		
654.56	112.52	5.82	99.63	13.17	0.000000		
0.00000	39853.86						
69.00	4391.56	7.76	0.22	151.31	0.01		
677.38	113.45	5.97	100.31	12.92	0.000021		
0.00778	40124.85						
70.00	4391.77	7.97	0.27	192.19	0.02		
702.15	114.42	6.14	101.02	12.67	0.000008		
0.00314	40407.00						
71.00	4391.96	8.16	0.21	149.56	0.01		
723.89	115.31	6.28	101.66	12.45	0.000010		
0.00378	40664.89						
72.00	4392.20	8.40	0.17	128.27	0.01		

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		HYCHAN.OUT					
757.18	116.40	6.51	102.45	12.19	0.000000		
0.00000	40979.48						
73.00	4392.42	8.62	0.28	215.36	0.02		
783.01	117.34	6.67	103.13	11.97	0.000000		
0.00000	41252.73						
74.00	4392.60	8.80	0.36	288.72	0.02		
804.25	118.02	6.81	103.71	11.78	0.000014		
0.00580	41484.50						
75.00	4392.75	8.95	0.41	334.14	0.02		
819.32	118.32	6.92	104.17	11.64	0.000023		
0.00978	41668.68						
76.00	4392.92	9.12	0.52	439.39	0.03		
837.00	118.66	7.05	104.70	11.48	0.000036		
0.01592	41880.16						
77.00	4393.12	9.32	0.71	604.34	0.04		
856.82	119.06	7.20	105.31	11.29	0.000000		
0.00000	42122.62						
78.00	4393.32	9.52	0.82	715.64	0.05		
875.55	119.45	7.33	105.87	11.13	0.000036		
0.01638	42349.77						
79.00	4393.50	9.70	0.92	822.94	0.05		
893.14	119.81	7.45	106.41	10.97	0.000000		
0.00000	42565.73						
80.00	4393.68	9.88	1.03	937.90	0.06		
912.08	120.18	7.59	106.94	10.82	0.000046		
0.02180	42774.97						
81.00	4393.89	10.09	1.15	1072.14	0.06		
933.46	120.59	7.74	107.53	10.66	0.000023		
0.01120	43012.33						
82.00	4394.14	10.34	1.31	1256.79	0.07		
959.67	121.10	7.92	108.24	10.46	0.000043		
0.02104	43297.51						
83.00	4394.40	10.60	1.40	1379.93	0.08		
985.55	121.61	8.10	108.94	10.28	0.000000		
0.00000	43574.61						
84.00	4394.64	10.84	1.51	1530.07	0.08		
1011.22	122.10	8.28	109.60	10.11	0.000046		
0.02361	43840.69						
85.00	4395.02	11.22	1.70	1780.73	0.09		
1049.90	122.85	8.55	110.59	9.86	0.000071		
0.03804	44235.59						
86.00	4395.35	11.55	1.88	2035.05	0.10		
1084.00	123.52	8.78	111.45	9.65	0.000080		
0.04401	44581.61						
87.00	4395.67	11.87	2.07	2305.75	0.11		
1115.87	124.15	8.99	112.26	9.46	0.000049		
0.02734	44902.12						
88.00	4395.95	12.16	2.21	2534.57	0.11		
1145.73	124.72	9.19	112.97	9.29	0.000076		
0.04330	45188.18						
89.00	4396.22	12.42	2.32	2716.57	0.12		
1173.11	125.25	9.37	113.62	9.15	0.000072		
0.04229	45446.07						
90.00	4396.42	12.62	2.41	2876.85	0.12		
1194.42	125.66	9.50	114.11	9.04	0.000071		
0.04216	45644.70						
91.00	4396.55	12.75	2.45	2954.57	0.12		
1207.10	125.91	9.59	114.40	8.97	0.000076		
0.04528	45761.70						
92.00	4396.59	12.79	2.44	2962.51	0.12		
1212.06	126.00	9.62	114.52	8.95	0.000082		
0.04941	45806.61						
93.00	4396.58	12.78	2.41	2913.54	0.12		

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HYCHAN.OUT							
1210.71	125.98	9.61	114.48	8.96	0.000062		
0.03733	45793.80						
94.00	4396.50	12.70	2.34	2811.19	0.12		
1202.56	125.82	9.56	114.30	9.00	0.000076		
0.04507	45718.41						
95.00	4396.34	12.54	2.23	2639.68	0.11		
1186.26	125.50	9.45	113.92	9.08	0.000069		
0.04046	45566.70						
96.00	4396.16	12.36	2.09	2438.64	0.10		
1167.37	125.13	9.33	113.47	9.18	0.000049		
0.02858	45389.15						
97.00	4395.95	12.15	1.95	2234.80	0.10		
1145.82	124.72	9.19	112.96	9.30	0.000030		
0.01730	45185.63						
98.00	4395.74	11.94	1.84	2067.64	0.09		
1124.44	124.30	9.05	112.44	9.42	0.000012		
0.00667	44977.61						
99.00	4395.53	11.73	1.71	1886.70	0.09		
1103.95	123.88	8.91	111.92	9.54	0.000072		
0.04020	44768.64						
100.00	4395.29	11.49	1.55	1670.74	0.08		
1079.69	123.40	8.75	111.30	9.69	0.000017		
0.00914	44521.77						
101.00	4394.85	11.05	1.27	1309.54	0.07		
1034.06	122.51	8.44	110.15	9.97	0.000000		
0.00000	44061.17						
102.00	4394.48	10.68	1.11	1104.94	0.06		
995.46	121.78	8.17	109.17	10.22	0.000000		
0.00000	43666.23						
103.00	4394.29	10.49	1.13	1105.74	0.06		
976.49	121.40	8.04	108.65	10.36	0.000000		
0.00000	43459.30						
104.00	4394.17	10.37	1.14	1102.31	0.06		
963.82	121.15	7.96	108.30	10.45	0.000000		
0.00000	43321.24						
105.00	4394.09	10.29	1.10	1048.92	0.06		
955.39	120.99	7.90	108.08	10.51	0.000000		
0.00000	43232.13						
106.00	4394.01	10.21	1.05	994.02	0.06		
947.65	120.83	7.84	107.87	10.56	0.000067		
0.03270	43147.91						
107.00	4393.93	10.13	0.99	927.39	0.05		
939.32	120.68	7.78	107.65	10.63	0.000046		
0.02237	43058.43						
108.00	4393.83	10.03	0.94	875.53	0.05		
928.70	120.46	7.71	107.35	10.71	0.000056		
0.02712	42939.48						
109.00	4393.68	9.88	0.87	795.46	0.05		
913.79	120.18	7.60	106.94	10.82	0.000000		
0.00000	42774.34						
110.00	4393.53	9.73	0.81	731.11	0.05		
898.34	119.88	7.49	106.51	10.94	0.000020		
0.00940	42602.43						
111.00	4393.38	9.58	0.76	668.34	0.04		
882.53	119.57	7.38	106.06	11.07	0.000000		
0.00000	42424.12						
112.00	4393.23	9.43	0.71	614.25	0.04		
866.88	119.27	7.27	105.61	11.20	0.000035		
0.01571	42244.99						
113.00	4393.07	9.28	0.67	573.52	0.04		
851.30	118.96	7.16	105.16	11.34	0.000024		
0.01077	42063.39						
114.00	4392.92	9.12	0.64	536.28	0.04		

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		HYCHAN.OUT					
835.40	118.66	7.04	104.69	11.48	0.000000		
0.00000	41877.73						
115.00	4392.74	8.94	0.63	511.85	0.04		
817.09	118.30	6.91	104.15	11.65	0.000056		
0.02413	41659.27						
116.00	4392.53	8.73	0.60	480.17	0.04		
796.18	117.84	6.76	103.49	11.85	0.000008		
0.00355	41397.58						
117.00	4392.37	8.57	0.47	365.60	0.03		
776.93	117.14	6.63	102.99	12.01	0.000000		
0.00000	41194.16						
118.00	4392.26	8.46	0.42	322.64	0.03		
762.57	116.65	6.54	102.64	12.13	0.000015		
0.00600	41054.32						
119.00	4392.17	8.37	0.39	296.45	0.02		
751.00	116.25	6.46	102.34	12.22	0.000000		
0.00000	40936.42						
120.00	4392.08	8.29	0.36	265.70	0.02		
740.41	115.86	6.39	102.06	12.32	0.000013		
0.00516	40823.84						
121.00	4392.00	8.20	0.32	230.78	0.02		
730.53	115.49	6.33	101.79	12.41	0.000014		
0.00554	40715.66						
122.00	4391.93	8.13	0.28	200.42	0.02		
721.16	115.15	6.26	101.54	12.49	0.000027		
0.01040	40616.87						
123.00	4391.86	8.06	0.25	181.22	0.02		
713.00	114.84	6.21	101.32	12.57	0.000000		
0.00000	40526.63						
124.00	4391.79	7.99	0.24	168.57	0.01		
704.29	114.53	6.15	101.09	12.65	0.000000		
0.00000	40436.63						
125.00	4391.72	7.92	0.22	153.23	0.01		
696.29	114.20	6.10	100.86	12.73	0.000000		
0.00000	40342.76						
126.00	4391.65	7.85	0.21	140.99	0.01		
687.64	113.87	6.04	100.61	12.82	0.000000		
0.00000	40245.20						
127.00	4391.57	7.77	0.18	125.31	0.01		
677.84	113.50	5.97	100.34	12.91	0.000022		
0.00812	40137.14						
128.00	4391.50	7.70	0.16	109.52	0.01		
669.03	113.15	5.91	100.09	13.00	0.000016		
0.00589	40035.69						
129.00	4391.42	7.62	0.15	101.06	0.01		
660.51	112.80	5.86	99.83	13.09	0.000012		
0.00422	39933.93						
130.00	4391.35	7.55	0.14	91.27	0.01		
652.14	112.45	5.80	99.58	13.19	0.000011		
0.00399	39831.77						
131.00	4391.28	7.48	0.13	83.68	0.01		
644.20	112.10	5.75	99.33	13.28	0.000000		
0.00000	39731.11						
132.00	4391.21	7.41	0.12	73.94	0.01		
637.09	111.76	5.70	99.08	13.37	0.000045		
0.01598	39631.53						
133.00	4391.14	7.34	0.12	74.01	0.01		
628.57	111.42	5.64	98.83	13.47	0.000000		
0.00000	39531.14						
134.00	4391.08	7.28	0.11	65.45	0.01		
621.10	111.13	5.59	98.61	13.55	0.000008		
0.00265	39445.97						
135.00	4391.03	7.23	0.11	64.72	0.01		

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		HYCHAN.OUT							
616.33	110.88	5.56	98.44	13.62	0.000010				
0.00337	39374.52								
136.00	4390.98	7.18	0.10	62.95	0.01				
610.70	110.64	5.52	98.26	13.69	0.000000				
0.000000	39302.96								
137.00	4390.93	7.13	0.11	63.63	0.01				
604.89	110.41	5.48	98.09	13.75	0.000000				
0.000000	39235.64								
138.00	4390.89	7.09	0.10	59.34	0.01				
599.63	110.18	5.44	97.93	13.81	0.000026				
0.00899	39170.62								
139.00	4390.85	7.05	0.10	61.20	0.01				
594.90	109.98	5.41	97.78	13.87	0.000000				
0.000000	39111.30								
140.00	4390.81	7.01	0.10	58.52	0.01				
590.12	109.78	5.38	97.63	13.93	0.000000				
0.000000	39051.44								
141.00	4390.77	6.97	0.10	60.66	0.01				
585.37	109.57	5.34	97.47	13.99	0.000000				
0.000000	38989.70								
142.00	4390.72	6.92	0.10	58.92	0.01				
580.33	109.36	5.31	97.32	14.05	0.000000				
0.000000	38929.09								
143.00	4390.68	6.88	0.10	58.33	0.01				
575.47	109.14	5.27	97.16	14.12	0.000021				
0.00701	38865.89								
144.00	4390.64	6.84	0.10	57.69	0.01				
570.48	108.93	5.24	97.01	14.18	0.000000				
0.000000	38803.29								
145.00	4390.60	6.80	0.10	57.38	0.01				
565.93	108.73	5.20	96.86	14.24	0.000000				
0.000000	38745.76								
146.00	4390.56	6.76	0.10	56.30	0.01				
561.62	108.54	5.17	96.72	14.30	0.000033				
0.01076	38688.63								
147.00	4390.52	6.72	0.11	59.06	0.01				
556.41	108.31	5.14	96.56	14.37	0.000000				
0.000000	38622.33								
148.00	4390.48	6.68	0.10	56.27	0.01				
551.08	108.09	5.10	96.39	14.43	0.000000				
0.000000	38557.11								
149.00	4390.44	6.64	0.11	57.48	0.01				
546.74	107.88	5.07	96.24	14.50	0.000000				
0.000000	38495.35								
150.00	4390.40	6.60	0.10	54.47	0.01				
542.20	107.68	5.04	96.09	14.56	0.000000				
0.000000	38436.54								
151.00	4390.36	6.56	0.10	55.14	0.01				
538.14	107.48	5.01	95.95	14.62	0.000010				
0.00314	38379.12								
152.00	4390.33	6.53	0.10	53.68	0.01				
533.79	107.29	4.98	95.81	14.68	0.000030				
0.00937	38323.07								
153.00	4390.29	6.49	0.11	56.63	0.01				
529.66	107.09	4.95	95.66	14.74	0.000000				
0.000000	38264.13								
154.00	4390.25	6.45	0.10	53.62	0.01				
525.35	106.89	4.91	95.51	14.81	0.000000				
0.000000	38203.75								
155.00	4390.21	6.41	0.11	54.81	0.01				
521.12	106.69	4.88	95.36	14.87	0.000000				
0.000000	38144.37								
156.00	4390.18	6.38	0.10	53.81	0.01				

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		HYCHAN.OUT							
516.98	106.50	4.85	95.22	14.93	0.000019				
0.00584	38088.47								
157.00	4390.14	6.34	0.10	53.37	0.01				
512.87	106.30	4.82	95.07	15.00	0.000009				
0.00260	38029.77								
158.00	4390.12	6.32	0.09	44.04	0.01				
510.34	106.18	4.81	94.99	15.03	0.000021				
0.00615	37995.22								
159.00	4390.11	6.31	0.09	43.55	0.01				
509.59	106.15	4.80	94.96	15.04	0.000011				
0.00342	37985.82								
160.00	4390.11	6.31	0.08	42.95	0.01				
508.64	106.11	4.79	94.94	15.06	0.000000				
0.00000	37974.25								
161.00	4390.10	6.30	0.09	44.37	0.01				
507.74	106.06	4.79	94.90	15.07	0.000000				
0.00000	37959.70								
162.00	4390.09	6.29	0.09	43.07	0.01				
506.58	106.01	4.78	94.86	15.09	0.000000				
0.00000	37945.05								
163.00	4390.08	6.28	0.09	44.10	0.01				
505.94	105.97	4.77	94.83	15.10	0.000000				
0.00000	37932.94								
164.00	4390.07	6.27	0.08	42.17	0.01				
504.97	105.91	4.77	94.79	15.12	0.000008				
0.00225	37916.13								
165.00	4390.06	6.26	0.09	43.60	0.01				
504.18	105.87	4.76	94.76	15.13	0.000007				
0.00204	37904.66								
166.00	4390.06	6.26	0.09	43.30	0.01				
502.94	105.83	4.75	94.73	15.15	0.000025				
0.00747	37893.75								
167.00	4390.04	6.24	0.10	48.00	0.01				
501.25	105.73	4.74	94.66	15.18	0.000000				
0.00000	37863.67								
168.00	4390.02	6.22	0.10	47.67	0.01				
498.79	105.62	4.72	94.57	15.22	0.000000				
0.00000	37829.32								
169.00	4390.00	6.20	0.09	45.12	0.01				
496.82	105.51	4.71	94.50	15.25	0.000016				
0.00465	37798.81								
170.00	4389.98	6.18	0.09	44.97	0.01				
494.74	105.43	4.69	94.44	15.28	0.000008				
0.00232	37775.57								
171.00	4389.97	6.17	0.09	44.49	0.01				
493.67	105.35	4.69	94.38	15.30	0.000000				
0.00000	37752.02								
172.00	4389.96	6.16	0.09	43.14	0.01				
492.03	105.29	4.67	94.33	15.32	0.000025				
0.00734	37733.27								
173.00	4389.94	6.14	0.09	45.23	0.01				
491.03	105.22	4.67	94.28	15.35	0.000000				
0.00000	37713.47								
174.00	4389.93	6.13	0.09	44.00	0.01				
489.55	105.15	4.66	94.23	15.37	0.000000				
0.00000	37692.20								
175.00	4389.91	6.11	0.10	47.98	0.01				
487.16	105.04	4.64	94.15	15.41	0.000000				
0.00000	37660.28								
176.00	4389.89	6.09	0.10	48.32	0.01				
484.56	104.90	4.62	94.05	15.45	0.000000				
0.00000	37618.74								
177.00	4389.86	6.06	0.10	46.87	0.01				

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		HYCHAN.OUT					
482.35	104.78	4.60	93.96	15.50	0.000000		
0.00000	37582.46						
178.00	4389.84	6.05	0.10	45.90	0.01		
480.13	104.68	4.59	93.88	15.53	0.000000		
0.00000	37552.29						
179.00	4389.83	6.03	0.09	43.61	0.01		
478.45	104.59	4.57	93.82	15.56	0.000000		
0.00000	37526.23						
180.00	4389.82	6.02	0.09	44.05	0.01		
476.86	104.51	4.56	93.76	15.59	0.000020		
0.00566	37503.98						
181.00	4389.80	6.00	0.09	41.42	0.01		
475.43	104.45	4.55	93.71	15.61	0.000000		
0.00000	37485.62						
182.00	4389.81	6.02	0.06	30.82	0.00		
476.52	104.51	4.56	93.76	15.59	0.000016		
0.00443	37503.25						
183.00	4389.84	6.04	0.06	31.11	0.00		
479.13	104.65	4.58	93.86	15.54	0.000000		
0.00000	37544.81						
184.00	4389.87	6.07	0.06	29.33	0.00		
482.33	104.81	4.60	93.98	15.49	0.000000		
0.00000	37591.45						
185.00	4389.90	6.10	0.07	31.56	0.00		
485.44	104.96	4.62	94.09	15.43	0.000000		
0.00000	37636.32						
186.00	4389.92	6.12	0.07	33.96	0.00		
487.76	105.07	4.64	94.17	15.40	0.000012		
0.00336	37668.63						
187.00	4389.93	6.13	0.07	35.73	0.01		
489.06	105.14	4.65	94.22	15.37	0.000000		
0.00000	37689.07						
188.00	4389.93	6.13	0.08	37.53	0.01		
489.90	105.17	4.66	94.24	15.36	0.000000		
0.00000	37697.71						
189.00	4389.94	6.14	0.08	37.82	0.01		
490.15	105.19	4.66	94.26	15.36	0.000011		
0.00331	37703.00						
190.00	4389.94	6.14	0.08	39.39	0.01		
490.36	105.20	4.66	94.27	15.35	0.000000		
0.00000	37707.51						
191.00	4389.94	6.14	0.08	39.79	0.01		
490.46	105.20	4.66	94.26	15.36	0.000000		
0.00000	37705.28						
192.00	4389.94	6.14	0.08	40.70	0.01		
490.07	105.19	4.66	94.26	15.36	0.000017		
0.00490	37702.54						
193.00	4389.92	6.12	0.10	47.09	0.01		
488.55	105.11	4.65	94.20	15.39	0.000000		
0.00000	37679.42						
194.00	4389.90	6.10	0.09	45.91	0.01		
486.18	104.98	4.63	94.10	15.43	0.000000		
0.00000	37641.54						
195.00	4389.88	6.08	0.09	44.74	0.01		
484.32	104.88	4.62	94.03	15.46	0.000000		
0.00000	37613.75						
196.00	4389.87	6.07	0.09	42.37	0.01		
482.76	104.82	4.61	93.98	15.48	0.000008		
0.00237	37593.72						
197.00	4389.86	6.06	0.09	42.67	0.01		
481.79	104.76	4.60	93.94	15.50	0.000000		
0.00000	37577.80						
198.00	4389.85	6.05	0.09	41.47	0.01		

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480.98		104.71		HYCHAN.OUT		93.91		15.52		0.000000
	0.00000	37563.09		4.59						
199.00		4389.85	6.05		0.09	41.33		0.01		
480.27		104.68		4.59		93.88		15.53		0.000000
	0.00000	37552.81								

## CHANNEL HYDROGRAPH FOR ELEMENT NO: 4057

MAXIMUM DISCHARGE (CFS) = 2998.84 AT TIME = 91.12  
 MAXIMUM STAGE = 4396.57 AT TIME = 91.66

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FRUDE NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP	WIDTH/DEPTH	ENERGY	SLOPE	
STRESS	SURFACE	AREA		WIDTH				
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)		
(LB/FT^2)	(FT)	(FT^2)		(FT)				
0.00	0.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	1.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	2.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	3.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	4.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	5.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	6.00	4383.65	0.00	0.00	0.00	0.00	0.00	0.000000
	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	
53.48	7.00	4384.46	0.81	-0.49	-26.23	0.10		
	0.00000	54.87	0.97	55.18	67.83		0.000000	
95.88	8.00	4385.45	1.80	-0.46	-44.17	0.06		
	0.00000	70.83	1.35	68.07	37.88		0.000000	
104.60	9.00	4385.58	1.93	-0.36	-37.45	0.05		
	0.00000	72.44	1.44	69.34	35.98		0.000000	
105.89	10.00	4385.60	1.95	-0.23	-24.22	0.03		
	0.00000	72.77	1.46	69.60	35.61		0.000000	
0.00	11.00	4385.61	1.96	0.00	0.00	0.00		
	0.00000	72.79	0.00	69.62	35.59		0.000008	
98.79	12.00	4385.55	1.90	0.06	5.53	0.01		
	0.00000	72.15	1.37	69.11	36.32		0.000000	
93.39	13.00	4385.48	1.83	0.10	9.10	0.01		
	0.00000	71.28	1.31	68.43	37.34		0.000000	
85.56	14.00	4385.37	1.72	0.13	11.39	0.02		
		69.86	1.22	67.31	39.08		0.000000	

HYCHAN.OUT									
	0.00000	33653.84							
78.85	15.00	4385.26	1.61	0.12	9.71	0.02			
		68.42	1.15	66.16	40.99		0.000008		
	0.00056	33081.79							
75.59	16.00	4385.21	1.56	0.08	6.02	0.01			
		67.67	1.12	65.57	42.03		0.000000		
	0.00000	32782.94							
73.48	17.00	4385.18	1.53	0.04	3.11	0.01			
		67.26	1.09	65.23	42.63		0.000000		
	0.00000	32616.55							
72.51	18.00	4385.17	1.52	0.02	1.51	0.00			
		67.06	1.08	65.08	42.91		0.000000		
	0.00000	32539.68							
0.00	19.00	4385.16	1.51	0.00	0.00	0.00			
		67.01	0.00	65.03	42.99		0.000010		
	0.00000	32516.57							
77.92	20.00	4385.21	1.56	-0.10	-7.63	0.01			
		67.63	1.15	65.53	42.09		0.000000		
	0.00000	32765.37							
86.07	21.00	4385.32	1.67	-0.15	-13.08	0.02			
		69.14	1.24	66.73	40.02		0.000000		
	0.00000	33366.26							
94.86	22.00	4385.45	1.80	-0.18	-16.97	0.02			
		70.83	1.34	68.07	37.88		0.000000		
	0.00000	34036.44							
102.50	23.00	4385.56	1.91	-0.16	-15.99	0.02			
		72.24	1.42	69.18	36.22		0.000000		
	0.00000	34591.00							
106.88	24.00	4385.62	1.97	-0.09	-10.08	0.01			
		72.97	1.46	69.76	35.39		0.000000		
	0.00000	34881.73							
112.56	25.00	4385.69	2.04	-0.14	-15.35	0.02			
		73.82	1.52	70.43	34.47		0.000000		
	0.00000	35213.44							
123.57	26.00	4385.84	2.19	-0.22	-26.77	0.03			
		75.48	1.64	71.73	32.76		0.000000		
	0.00000	35866.07							
137.29	27.00	4386.02	2.37	-0.25	-34.00	0.03			
		77.43	1.77	73.25	30.91		0.000000		
	0.00000	36625.32							
153.81	28.00	4386.24	2.59	-0.29	-43.88	0.03			
		79.63	1.93	74.96	28.99		0.000000		
	0.00000	37480.29							
167.04	29.00	4386.40	2.76	-0.23	-38.91	0.02			
		81.28	2.06	76.23	27.67		0.000000		
	0.00000	38116.38							
175.09	30.00	4386.50	2.85	-0.18	-30.87	0.02			
		82.19	2.13	76.94	26.97		0.000000		
	0.00000	38468.91							
182.51	31.00	4386.59	2.94	-0.17	-31.03	0.02			
		83.01	2.20	77.57	26.37		0.000000		
	0.00000	38784.96							
189.13	32.00	4386.67	3.02	-0.12	-22.02	0.01			
		83.74	2.26	78.13	25.84		0.000000		
	0.00000	39066.59							
193.53	33.00	4386.72	3.07	-0.07	-13.86	0.01			
		84.19	2.30	78.48	25.53		0.000000		
	0.00000	39237.56							
199.40	34.00	4386.79	3.14	-0.10	-19.56	0.01			
		84.78	2.35	78.93	25.13		0.000000		
	0.00000	39465.41							
204.52	35.00	4386.86	3.21	-0.07	-14.15	0.01			
		85.35	2.40	79.36	24.75		0.000000		

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		HYCHAN.OUT						
	0.00000	39682.48						
206.69	36.00	4386.89	3.24	-0.04	-7.71	0.00		
		85.64	2.41		79.58	24.56	0.000000	
	0.00000	39791.07						
210.67	37.00	4386.93	3.28	-0.03	-5.55	0.00		
		85.95	2.45		79.83	24.35	0.000000	
	0.00000	39912.61						
205.19	38.00	4386.91	3.26	0.04	8.45	0.00		
		85.79	2.39		79.70	24.46	0.000008	
	0.00116	39850.12						
201.02	39.00	4386.86	3.21	0.08	16.49	0.01		
		85.39	2.35		79.39	24.72	0.000000	
	0.00000	39697.14						
196.63	40.00	4386.80	3.15	0.06	11.50	0.01		
		84.90	2.32		79.02	25.05	0.000009	
	0.00130	39508.74						
193.51	41.00	4386.77	3.12	0.03	5.45	0.00		
		84.63	2.29		78.81	25.23	0.000010	
	0.00145	39405.33						
192.05	42.00	4386.76	3.11	0.01	2.24	0.00		
		84.49	2.27		78.70	25.33	0.000016	
	0.00222	39350.95						
190.26	43.00	4386.75	3.10	0.01	2.11	0.00		
		84.42	2.25		78.65	25.37	0.000000	
	0.00000	39325.11						
194.32	44.00	4386.75	3.10	-0.01	-2.07	0.00		
		84.43	2.30		78.66	25.37	0.000007	
	0.00102	39328.23						
198.78	45.00	4386.79	3.14	-0.09	-17.61	0.01		
		84.80	2.34		78.94	25.12	0.000000	
	0.00000	39470.40						
204.16	46.00	4386.85	3.20	-0.07	-14.38	0.01		
		85.32	2.39		79.34	24.77	0.000000	
	0.00000	39671.00						
211.51	47.00	4386.93	3.28	-0.11	-22.68	0.01		
		85.96	2.46		79.83	24.35	0.000000	
	0.00000	39914.83						
220.96	48.00	4387.04	3.39	-0.14	-30.89	0.01		
		86.88	2.54		80.53	23.76	0.000000	
	0.00000	40266.48						
232.18	49.00	4387.17	3.52	-0.15	-35.54	0.01		
		87.91	2.64		81.32	23.13	0.000000	
	0.00000	40659.78						
244.38	50.00	4387.30	3.65	-0.16	-38.20	0.01		
		89.00	2.75		82.15	22.49	0.000000	
	0.00000	41073.50						
257.31	51.00	4387.44	3.79	-0.16	-40.54	0.01		
		90.09	2.86		82.98	21.87	0.000000	
	0.00000	41488.11						
271.28	52.00	4387.59	3.94	-0.16	-44.19	0.01		
		91.22	2.97		83.83	21.26	0.000000	
	0.00000	41913.46						
287.22	53.00	4387.77	4.12	-0.18	-51.57	0.02		
		92.49	3.11		84.79	20.60	0.000000	
	0.00000	42393.74						
302.00	54.00	4387.92	4.27	-0.14	-41.41	0.01		
		93.61	3.23		85.63	20.04	0.000000	
	0.00000	42816.98						
317.09	55.00	4388.07	4.42	-0.16	-50.55	0.01		
		94.63	3.35		86.40	19.55	0.000000	
	0.00000	43199.73						
336.69	56.00	4388.26	4.61	-0.21	-69.68	0.02		
		95.96	3.51		87.40	18.94	0.000000	

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		HYCHAN.OUT						
	0.00000	43699.58						
365.63	57.00	4388.56	4.91	-0.29	-107.56	18.10	0.02	0.000000
	0.00000	97.88	3.74		88.83			
404.27	58.00	44416.64	5.29	-0.34	-136.10	17.14	0.03	0.000000
	0.00000	100.25	4.03		90.60			
445.90	59.00	45300.44	5.69	-0.31	-136.04	16.23	0.02	0.000000
	0.00000	102.66	4.34		92.39			
485.14	60.00	46195.77	6.05	-0.24	-116.95	15.52	0.02	0.000000
	0.00000	104.70	4.63		93.90			
520.67	61.00	46948.23	6.39	-0.23	-121.10	14.91	0.02	0.000000
	0.00000	106.56	4.89		95.27			
545.47	62.00	47633.16	6.64	-0.12	-63.40	14.50	0.01	0.000000
	0.00000	107.87	5.06		96.23			
552.88	63.00	48115.96	6.77	-0.02	-11.12	14.29	0.00	0.000000
	0.00000	108.57	5.09		96.74			
577.38	64.00	48372.20	6.90	-0.04	-21.31	14.09	0.00	0.000000
	0.00000	109.22	5.29		97.22			
598.32	65.00	48611.16	7.10	-0.04	-26.48	13.80	0.00	0.000000
	0.00000	110.25	5.43		97.98			
621.35	66.00	48988.52	7.32	-0.01	-8.58	13.50	0.00	0.000000
	0.00000	111.31	5.58		98.75			
649.93	67.00	49373.62	7.52	0.06	37.84	13.23	0.00	0.000015
	0.00557	112.28	5.79		99.46			
673.32	68.00	49730.47	7.72	0.16	108.86	12.98	0.01	0.000000
	0.00000	113.23	5.95		100.15			
696.35	69.00	50076.02	7.91	0.21	148.25	12.74	0.01	0.000022
	0.00820	114.15	6.10		100.82			
721.65	70.00	50409.63	8.12	0.26	188.94	12.50	0.02	0.000014
	0.00562	115.11	6.27		101.51			
744.21	71.00	50757.17	8.31	0.20	145.94	12.29	0.01	0.000000
	0.00000	115.99	6.42		102.15			
777.03	72.00	51076.68	8.55	0.16	123.73	12.03	0.01	0.000000
	0.00000	117.06	6.64		102.93			
801.59	73.00	51464.53	8.77	0.26	210.31	11.82	0.02	0.000035
	0.01472	117.95	6.80		103.60			
820.67	74.00	51801.20	8.95	0.34	277.10	11.64	0.02	0.000000
	0.00000	118.32	6.94		104.18			
835.33	75.00	52087.52	9.10	0.38	314.12	11.50	0.02	0.000000
	0.00000	118.62	7.04		104.63			
853.43	76.00	52315.92	9.27	0.48	407.23	11.34	0.03	0.000000
	0.00000	118.96	7.17		105.15			
872.86	77.00	52574.12	9.47	0.64	562.36	11.17	0.04	0.000053
		119.35	7.31		105.74			

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HYCHAN.OUT									
0.02400	52867.83								
78.00	4393.30	9.65	0.76	672.77	0.04				
890.77	119.72	7.44	106.28	11.01	0.000020				
0.00942	53140.63								
79.00	4393.49	9.84	0.85	774.57	0.05				
908.32	120.09	7.56	106.81	10.86	0.000000				
0.00000	53405.55								
80.00	4393.67	10.02	0.96	887.63	0.05				
926.80	120.45	7.69	107.32	10.71	0.000049				
0.02362	53661.23								
81.00	4393.87	10.22	1.07	1016.08	0.06				
948.65	120.86	7.85	107.91	10.55	0.000045				
0.02180	53953.98								
82.00	4394.12	10.47	1.23	1199.49	0.07				
974.53	121.36	8.03	108.60	10.37	0.000000				
0.00000	54301.82								
83.00	4394.38	10.73	1.31	1312.17	0.07				
1000.29	121.87	8.21	109.29	10.19	0.000020				
0.01029	54645.45								
84.00	4394.62	10.97	1.43	1464.22	0.08				
1025.72	122.35	8.38	109.94	10.02	0.000000				
0.00000	54969.99								
85.00	4394.99	11.34	1.63	1733.00	0.09				
1064.02	123.09	8.64	110.91	9.78	0.000075				
0.04057	55453.62								
86.00	4395.32	11.67	1.82	1998.47	0.09				
1097.67	123.75	8.87	111.75	9.58	0.000056				
0.03122	55875.88								
87.00	4395.63	11.98	2.02	2277.82	0.10				
1128.34	124.38	9.07	112.54	9.39	0.000081				
0.04560	56269.65								
88.00	4395.91	12.26	2.17	2515.31	0.11				
1157.18	124.94	9.26	113.24	9.23	0.000079				
0.04582	56619.06								
89.00	4396.17	12.52	2.28	2701.26	0.11				
1184.17	125.46	9.44	113.87	9.09	0.000083				
0.04898	56935.06								
90.00	4396.38	12.73	2.38	2863.87	0.12				
1205.20	125.87	9.58	114.36	8.98	0.000080				
0.04752	57178.51								
91.00	4396.50	12.85	2.42	2942.90	0.12				
1217.81	126.11	9.66	114.65	8.92	0.000095				
0.05722	57323.30								
92.00	4396.55	12.90	2.42	2953.76	0.12				
1222.83	126.21	9.69	114.76	8.90	0.000080				
0.04807	57379.85								
93.00	4396.54	12.89	2.38	2905.95	0.12				
1221.66	126.19	9.68	114.73	8.90	0.000076				
0.04620	57366.18								
94.00	4396.46	12.81	2.31	2805.18	0.11				
1213.73	126.03	9.63	114.55	8.94	0.000086				
0.05179	57274.93								
95.00	4396.30	12.65	2.20	2635.26	0.11				
1197.80	125.72	9.53	114.18	9.02	0.000076				
0.04503	57090.92								
96.00	4396.13	12.48	2.07	2436.59	0.10				
1179.36	125.36	9.41	113.75	9.12	0.000046				
0.02721	56876.05								
97.00	4395.92	12.27	1.93	2232.70	0.10				
1158.47	124.96	9.27	113.26	9.23	0.000047				
0.02714	56628.23								
98.00	4395.71	12.06	1.81	2064.97	0.09				
1138.15	124.54	9.14	112.75	9.35	0.000049				

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0.02814	56373.20						
99.00	4395.51	11.86	1.69	1884.47	0.09		
1117.79	124.13		9.01	112.23	9.47	0.000017	
0.00958	56115.09						
100.00	4395.27	11.62	1.52	1662.37	0.08		
1094.66	123.65		8.85	111.63	9.61	0.000000	
0.00000	55814.54						
101.00	4394.83	11.18	1.22	1281.58	0.06		
1049.46	122.78		8.55	110.50	9.88	0.000057	
0.03014	55249.64						
102.00	4394.46	10.81	1.07	1079.19	0.06		
1010.95	122.04		8.28	109.53	10.13	0.000000	
0.00000	54762.88						
103.00	4394.28	10.63	1.10	1095.21	0.06		
991.78	121.67		8.15	109.02	10.26	0.000058	
0.02965	54509.29						
104.00	4394.15	10.50	1.12	1099.18	0.06		
979.19	121.42		8.06	108.68	10.35	0.000047	
0.02343	54339.14						
105.00	4394.07	10.42	1.08	1050.18	0.06		
971.30	121.26		8.01	108.46	10.41	0.000000	
0.00000	54228.89						
106.00	4394.00	10.35	1.04	999.36	0.06		
963.35	121.11		7.95	108.26	10.46	0.000016	
0.00777	54127.57						
107.00	4393.92	10.27	0.98	934.99	0.05		
954.95	120.95		7.90	108.03	10.52	0.000000	
0.00000	54016.86						
108.00	4393.81	10.16	0.94	887.34	0.05		
943.79	120.74		7.82	107.74	10.60	0.000000	
0.00000	53870.38						
109.00	4393.67	10.02	0.87	810.72	0.05		
928.70	120.46		7.71	107.34	10.71	0.000034	
0.01622	53668.20						
110.00	4393.52	9.87	0.82	750.25	0.05		
913.84	120.16		7.61	106.91	10.83	0.000050	
0.02372	53455.81						
111.00	4393.37	9.72	0.77	687.68	0.04		
898.44	119.85		7.50	106.47	10.95	0.000000	
0.00000	53236.84						
112.00	4393.22	9.57	0.72	635.84	0.04		
882.31	119.55		7.38	106.03	11.08	0.000030	
0.01387	53016.14						
113.00	4393.07	9.42	0.69	593.96	0.04		
866.61	119.25		7.27	105.59	11.21	0.000028	
0.01291	52792.59						
114.00	4392.91	9.26	0.65	557.12	0.04		
851.13	118.94		7.16	105.13	11.35	0.000008	
0.00350	52563.73						
115.00	4392.74	9.09	0.63	526.72	0.04		
832.90	118.59		7.02	104.59	11.51	0.000028	
0.01226	52294.18						
116.00	4392.53	8.88	0.60	487.61	0.04		
812.13	118.17		6.87	103.95	11.71	0.000026	
0.01104	51974.39						
117.00	4392.37	8.72	0.47	371.59	0.03		
795.17	117.78		6.75	103.45	11.86	0.000000	
0.00000	51725.02						
118.00	4392.26	8.61	0.42	324.90	0.02		
782.12	117.30		6.67	103.11	11.97	0.000025	
0.01039	51553.23						
119.00	4392.17	8.52	0.39	298.24	0.02		
770.74	116.90		6.59	102.82	12.07	0.000017	

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		HYCHAN.OUT						
	0.00680	51407.78						
760.09	120.00	4392.08	8.43	0.35	268.35	12.16	0.02	0.000037
	0.01517	51269.08	6.52		102.54			
750.04	121.00	4392.00	8.35	0.31	232.90	12.25	0.02	0.000009
	0.00366	51137.37	6.46		102.27			
740.87	122.00	4391.93	8.28	0.27	202.28	12.33	0.02	0.000025
	0.00997	51016.03	6.40		102.03			
733.17	123.00	4391.86	8.21	0.25	181.53	12.40	0.02	0.000037
	0.01481	50905.31	6.35		101.81			
724.04	124.00	4391.79	8.14	0.24	170.50	12.48	0.01	0.000000
	0.00000	50794.10	6.28		101.59			
715.89	125.00	4391.72	8.07	0.21	153.69	12.56	0.01	0.000056
	0.02163	50679.41	6.23		101.36			
707.55	126.00	4391.65	8.00	0.20	142.47	12.64	0.01	0.000028
	0.01064	50559.14	6.18		101.12			
698.67	127.00	4391.57	7.92	0.18	127.11	12.73	0.01	0.000011
	0.00421	50425.48	6.12		100.85			
688.27	128.00	4391.50	7.85	0.16	110.75	12.82	0.01	0.000000
	0.00000	50301.29	6.05		100.60			
679.91	129.00	4391.42	7.77	0.15	101.83	12.91	0.01	0.000000
	0.00000	50175.37	5.99		100.35			
670.94	130.00	4391.35	7.70	0.14	92.32	13.00	0.01	0.000000
	0.00000	50049.54	5.93		100.10			
662.42	131.00	4391.28	7.63	0.13	84.71	13.09	0.01	0.000032
	0.01167	49924.80	5.87		99.85			
654.24	132.00	4391.21	7.56	0.12	76.71	13.18	0.01	0.000035
	0.01253	49798.35	5.82		99.60			
646.09	133.00	4391.14	7.49	0.11	73.57	13.27	0.01	0.000000
	0.00000	49678.29	5.76		99.36			
638.39	134.00	4391.08	7.43	0.11	67.40	13.35	0.01	0.000049
	0.01731	49572.70	5.71		99.15			
633.16	135.00	4391.03	7.38	0.10	65.44	13.42	0.01	0.000010
	0.00371	49483.97	5.67		98.97			
627.11	136.00	4390.98	7.33	0.10	63.73	13.48	0.01	0.000055
	0.01925	49398.36	5.63		98.80			
621.37	137.00	4390.93	7.28	0.10	62.97	13.55	0.01	0.000000
	0.00000	49312.72	5.59		98.63			
616.26	138.00	4390.89	7.24	0.10	61.13	13.60	0.01	0.000000
	0.00000	49236.71	5.56		98.47			
611.12	139.00	4390.85	7.20	0.10	62.27	13.66	0.01	0.000042
	0.01454	49159.13	5.52		98.32			
606.62	140.00	4390.81	7.16	0.10	58.46	13.72	0.01	0.000012
		110.52	5.49		98.17			

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HYCHAN.OUT									
0.00398	49087.13								
141.00	4390.77	7.12	0.10	60.99	0.01				
601.93	110.32	5.46		98.02	13.78	0.000000			
0.00000	49012.01								
142.00	4390.72	7.07	0.10	59.54	0.01				
597.01	110.11	5.42		97.87	13.84	0.000000			
0.00000	48937.08								
143.00	4390.68	7.03	0.10	59.90	0.01				
592.07	109.90	5.39		97.72	13.90	0.000000			
0.00000	48858.89								
144.00	4390.64	6.99	0.10	58.59	0.01				
587.16	109.70	5.35		97.57	13.96	0.000073			
0.02442	48784.77								
145.00	4390.60	6.95	0.10	56.62	0.01				
582.74	109.50	5.32		97.42	14.01	0.000000			
0.00000	48711.75								
146.00	4390.56	6.91	0.10	58.25	0.01				
578.35	109.30	5.29		97.28	14.07	0.000016			
0.00544	48638.88								
147.00	4390.52	6.87	0.10	58.34	0.01				
573.39	109.09	5.26		97.12	14.13	0.000000			
0.00000	48561.96								
148.00	4390.48	6.83	0.10	57.79	0.01				
568.16	108.86	5.22		96.96	14.20	0.000020			
0.00646	48480.13								
149.00	4390.44	6.79	0.10	57.80	0.01				
563.98	108.65	5.19		96.80	14.26	0.000019			
0.00617	48401.35								
150.00	4390.40	6.75	0.10	54.64	0.01				
559.46	108.46	5.16		96.67	14.32	0.000000			
0.00000	48333.45								
151.00	4390.36	6.71	0.10	56.83	0.01				
555.22	108.26	5.13		96.52	14.38	0.000020			
0.00624	48260.45								
152.00	4390.33	6.68	0.10	54.61	0.01				
551.10	108.07	5.10		96.38	14.44	0.000018			
0.00583	48190.47								
153.00	4390.29	6.64	0.10	56.43	0.01				
546.81	107.88	5.07		96.24	14.50	0.000008			
0.00251	48118.59								
154.00	4390.25	6.60	0.10	54.30	0.01				
542.49	107.68	5.04		96.09	14.56	0.000000			
0.00000	48045.19								
155.00	4390.21	6.56	0.10	55.27	0.01				
538.22	107.48	5.01		95.94	14.62	0.000009			
0.00291	47972.00								
156.00	4390.18	6.53	0.10	55.02	0.01				
534.05	107.29	4.98		95.81	14.68	0.000020			
0.00606	47903.81								
157.00	4390.14	6.49	0.10	53.78	0.01				
529.93	107.10	4.95		95.66	14.74	0.000039			
0.01218	47832.38								
158.00	4390.12	6.47	0.08	43.74	0.01				
527.47	106.98	4.93		95.58	14.78	0.000000			
0.00000	47789.94								
159.00	4390.11	6.46	0.08	43.31	0.01				
526.87	106.95	4.93		95.55	14.79	0.000000			
0.00000	47776.10								
160.00	4390.10	6.45	0.08	43.38	0.01				
525.94	106.91	4.92		95.53	14.80	0.000030			
0.00910	47762.76								
161.00	4390.10	6.45	0.09	44.82	0.01				
524.94	106.87	4.91		95.49	14.81	0.000000			

		HYCHAN.OUT						
	0.00000	47747.01						
162.00	4390.09	6.44	0.08	42.48	0.01			
523.96	106.81	4.91		95.46	14.83	0.000000		
	0.00000	47727.51						
163.00	4390.08	6.43	0.08	44.37	0.01			
522.91	106.77	4.90		95.42	14.84	0.000000		
	0.00000	47710.20						
164.00	4390.07	6.42	0.08	43.04	0.01			
521.90	106.72	4.89		95.39	14.86	0.000030		
	0.00918	47693.34						
165.00	4390.06	6.41	0.08	42.94	0.01			
521.28	106.68	4.89		95.36	14.87	0.000000		
	0.00000	47678.51						
166.00	4390.05	6.40	0.08	44.15	0.01			
520.27	106.64	4.88		95.33	14.89	0.000000		
	0.00000	47662.70						
167.00	4390.04	6.39	0.09	48.19	0.01			
518.30	106.55	4.86		95.26	14.92	0.000018		
	0.00556	47629.08						
168.00	4390.01	6.36	0.09	47.28	0.01			
515.72	106.42	4.85		95.17	14.95	0.000000		
	0.00000	47583.84						
169.00	4390.00	6.35	0.09	46.13	0.01			
513.82	106.33	4.83		95.10	14.98	0.000021		
	0.00624	47549.66						
170.00	4389.98	6.33	0.09	45.12	0.01			
512.34	106.24	4.82		95.04	15.01	0.000000		
	0.00000	47518.07						
171.00	4389.97	6.32	0.09	44.24	0.01			
510.45	106.17	4.81		94.98	15.04	0.000000		
	0.00000	47491.46						
172.00	4389.95	6.30	0.09	44.23	0.01			
509.40	106.10	4.80		94.93	15.06	0.000038		
	0.01143	47466.20						
173.00	4389.94	6.29	0.09	44.30	0.01			
507.81	106.04	4.79		94.89	15.08	0.000000		
	0.00000	47443.69						
174.00	4389.93	6.28	0.09	44.66	0.01			
506.39	105.97	4.78		94.83	15.10	0.000026		
	0.00761	47417.47						
175.00	4389.91	6.26	0.10	48.92	0.01			
504.32	105.86	4.76		94.75	15.14	0.000029		
	0.00865	47376.68						
176.00	4389.88	6.23	0.10	47.92	0.01			
501.44	105.72	4.74		94.65	15.18	0.000015		
	0.00453	47325.47						
177.00	4389.86	6.21	0.09	46.83	0.01			
499.22	105.61	4.73		94.57	15.22	0.000000		
	0.00000	47282.75						
178.00	4389.84	6.19	0.09	46.35	0.01			
496.86	105.51	4.71		94.49	15.25	0.000000		
	0.00000	47245.84						
179.00	4389.83	6.18	0.09	43.96	0.01			
495.17	105.42	4.70		94.43	15.28	0.000000		
	0.00000	47213.84						
180.00	4389.81	6.17	0.09	44.59	0.01			
493.95	105.34	4.69		94.37	15.31	0.000000		
	0.00000	47185.46						
181.00	4389.80	6.15	0.08	41.33	0.01			
492.48	105.28	4.68		94.33	15.33	0.000000		
	0.00000	47163.39						
182.00	4389.81	6.16	0.06	30.95	0.00			
493.57	105.34	4.69		94.37	15.31	0.000000		

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HYCHAN.OUT									
0.00000	47185.12								
183.00	4389.84	6.19	0.06	30.70	0.00				
496.16	105.48	4.70		94.47	15.26	0.000034			
0.00987	47234.93								
184.00	4389.87	6.22	0.06	28.45	0.00				
499.67	105.63	4.73		94.59	15.21	0.000000			
0.00000	47293.50								
185.00	4389.90	6.25	0.06	30.85	0.00				
502.48	105.79	4.75		94.70	15.16	0.000000			
0.00000	47349.54								
186.00	4389.92	6.27	0.07	34.61	0.00				
504.76	105.89	4.77		94.78	15.13	0.000013			
0.00399	47388.46								
187.00	4389.93	6.28	0.07	35.20	0.00				
506.06	105.95	4.78		94.82	15.11	0.000000			
0.00000	47411.34								
188.00	4389.93	6.28	0.07	36.83	0.01				
506.67	105.99	4.78		94.85	15.09	0.000000			
0.00000	47425.02								
189.00	4389.94	6.29	0.08	38.86	0.01				
507.08	106.01	4.78		94.86	15.09	0.000016			
0.00485	47430.85								
190.00	4389.94	6.29	0.08	38.65	0.01				
507.45	106.02	4.79		94.87	15.09	0.000000			
0.00000	47434.40								
191.00	4389.94	6.29	0.08	39.71	0.01				
507.46	106.02	4.79		94.87	15.09	0.000000			
0.00000	47434.47								
192.00	4389.94	6.29	0.08	41.71	0.01				
507.01	106.00	4.78		94.86	15.09	0.000032			
0.00949	47429.16								
193.00	4389.92	6.27	0.09	46.69	0.01				
505.34	105.92	4.77		94.80	15.12	0.000000			
0.00000	47399.51								
194.00	4389.90	6.25	0.09	45.67	0.01				
503.14	105.80	4.76		94.71	15.16	0.000000			
0.00000	47355.73								
195.00	4389.88	6.23	0.09	45.71	0.01				
500.97	105.71	4.74		94.64	15.19	0.000000			
0.00000	47321.07								
196.00	4389.87	6.22	0.09	43.09	0.01				
499.79	105.64	4.73		94.59	15.21	0.000030			
0.00898	47294.99								
197.00	4389.86	6.21	0.08	42.33	0.01				
498.58	105.58	4.72		94.55	15.23	0.000000			
0.00000	47274.52								
198.00	4389.85	6.20	0.08	41.06	0.01				
497.80	105.54	4.72		94.52	15.24	0.000000			
0.00000	47259.55								
199.00	4389.85	6.20	0.08	41.43	0.01				
496.93	105.51	4.71		94.49	15.25	0.000000			
0.00000	47246.25								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4119

MAXIMUM DISCHARGE (CFS) =	2744.73	AT TIME =	91.11
MAXIMUM STAGE =	4396.53	AT TIME =	91.50

TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE NO.	FLOW
AREA	WETTED PERIMETER	HYDRAULIC	RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY	SLOPE
BED SHEAR STRESS	SURFACE AREA						
(HRS)	(FT)	(FT)		(FPS)	(CFS)		

(FT^2)	(LB/FT^2)	(FT)	(FT^2)	HYCHAN.OUT (FT)	(FT)			
0.00	0.00	4383.46	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	1.00	4383.46	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	2.00	4383.46	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	3.00	4383.46	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	4.00	4383.46	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4383.46	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4383.46	0.00	-0.01	-0.05	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
65.22	7.00	4384.68	1.22	-0.61	-40.09	0.10	0.00	0.000000
	0.00000	62.56	1.04	61.46	50.29			0.000000
		33188.50						
113.02	8.00	4385.50	2.04	-0.41	-46.89	0.05	0.00	0.000000
	0.00000	73.73	1.53	70.36	34.56			0.000000
		37994.23						
120.79	9.00	4385.60	2.14	-0.31	-37.71	0.04	0.00	0.000000
	0.00000	74.96	1.61	71.33	33.28			0.000000
		38516.23						
121.22	10.00	4385.62	2.16	-0.20	-24.47	0.02	0.00	0.000000
	0.00000	75.10	1.61	71.43	33.14			0.000000
		38571.44						
104.00	11.00	4385.61	2.15	0.01	1.42	0.00	0.00	0.000000
	0.00000	74.99	1.39	71.35	33.25			0.000000
		38527.84						
112.46	12.00	4385.55	2.09	0.05	6.09	0.01	0.00	0.000000
	0.00000	74.39	1.51	70.87	33.87			0.000000
		38271.10						
107.00	13.00	4385.48	2.02	0.09	10.09	0.01	0.00	0.000010
	0.00093	73.56	1.45	70.23	34.74			0.000010
		37922.66						
98.87	14.00	4385.37	1.91	0.13	12.62	0.02	0.00	0.000000
	0.00000	72.21	1.37	69.16	36.24			0.000000
		37347.72						
92.07	15.00	4385.26	1.80	0.11	10.58	0.02	0.00	0.000000
	0.00000	70.91	1.30	68.13	37.78			0.000000
		36792.32						
88.23	16.00	4385.21	1.75	0.07	6.22	0.01	0.00	0.000015
	0.00115	70.23	1.26	67.60	38.62			0.000015
		36503.76						
86.19	17.00	4385.18	1.72	0.04	3.54	0.01	0.00	0.000000
	0.00000	69.84	1.23	67.29	39.11			0.000000
		36336.95						
84.98	18.00	4385.17	1.71	0.02	1.54	0.00	0.00	0.000000
	0.00000	69.66	1.22	67.15	39.34			0.000000
		36260.73						
0.00	19.00	4385.16	1.70	0.00	0.00	0.00	0.00	0.000000
	0.00000	69.61	0.00	67.10	39.42			0.000000
		36235.16						

		HYCHAN.OUT						
92.24	20.00	4385.21	1.75	-0.09	-8.68	0.01		
	0.00000	70.22	1.31		67.59	38.63	0.000000	
		36498.29						
100.28	21.00	4385.32	1.86	-0.14	-14.39	0.02		
	0.00000	71.66	1.40		68.73	36.88	0.000000	
		37114.18						
109.50	22.00	4385.45	1.99	-0.17	-18.31	0.02		
	0.00000	73.25	1.49		69.98	35.08	0.000000	
		37789.57						
117.31	23.00	4385.57	2.11	-0.14	-16.92	0.02		
	0.00000	74.53	1.57		70.99	33.72	0.000000	
		38334.22						
121.65	24.00	4385.62	2.16	-0.09	-10.58	0.01		
	0.00000	75.19	1.62		71.50	33.05	0.000000	
		38610.71						
127.68	25.00	4385.70	2.24	-0.13	-16.61	0.02		
	0.00000	76.00	1.68		72.14	32.25	0.000000	
		38955.02						
139.36	26.00	4385.85	2.39	-0.21	-28.81	0.02		
	0.00000	77.62	1.80		73.40	30.73	0.000000	
		39636.11						
153.67	27.00	4386.03	2.57	-0.24	-36.34	0.03		
	0.00000	79.47	1.93		74.84	29.12	0.000000	
		40412.69						
170.74	28.00	4386.25	2.79	-0.27	-46.35	0.03		
	0.00000	81.57	2.09		76.46	27.44	0.000000	
		41289.76						
184.04	29.00	4386.41	2.95	-0.22	-40.45	0.02		
	0.00000	83.10	2.21		77.64	26.30	0.000000	
		41924.14						
192.08	30.00	4386.51	3.05	-0.17	-31.84	0.02		
	0.00000	83.95	2.29		78.29	25.70	0.000000	
		42275.42						
199.66	31.00	4386.60	3.14	-0.16	-32.27	0.02		
	0.00000	84.73	2.36		78.89	25.16	0.000000	
		42599.54						
206.32	32.00	4386.67	3.21	-0.11	-22.78	0.01		
	0.00000	85.42	2.42		79.41	24.70	0.000000	
		42883.76						
210.79	33.00	4386.72	3.26	-0.07	-14.51	0.01		
	0.00000	85.84	2.46		79.74	24.43	0.000000	
		43057.22						
216.79	34.00	4386.79	3.33	-0.09	-20.57	0.01		
	0.00000	86.41	2.51		80.17	24.06	0.000000	
		43294.23						
221.72	35.00	4386.86	3.40	-0.07	-14.77	0.01		
	0.00000	86.95	2.55		80.59	23.72	0.000000	
		43517.14						
222.48	36.00	4386.89	3.43	-0.04	-8.19	0.00		
	0.00000	87.22	2.55		80.79	23.55	0.000000	
		43629.30						
227.51	37.00	4386.93	3.47	-0.03	-5.75	0.00		
	0.00000	87.52	2.60		81.02	23.37	0.000000	
		43752.59						
221.76	38.00	4386.91	3.45	0.04	8.87	0.00		
	0.00428	87.37	2.54		80.91	23.46	0.000027	
		43688.71						
217.80	39.00	4386.86	3.40	0.08	17.54	0.01		
	0.00000	86.98	2.50		80.61	23.70	0.000000	
		43527.71						
213.06	40.00	4386.80	3.34	0.06	12.15	0.01		
	0.00120	86.51	2.46		80.25	24.00	0.000008	
		43334.88						



		HYCHAN.OUT						
209.53	41.00	4386.77	3.31	0.03	5.67	0.00	0.000011	
	0.00165	86.25	2.43	80.05	24.16			
		43228.14						
207.29	42.00	4386.76	3.30	0.01	2.37	0.00	0.000013	
	0.00193	86.12	2.41	79.95	24.25			
		43172.60						
0.00	43.00	4386.75	3.29	0.00	0.00	0.00	0.000010	
	0.00000	86.05	0.00	79.90	24.29			
		43145.99						
0.00	44.00	4386.75	3.29	0.00	0.00	0.00	0.000000	
	0.00000	86.06	0.00	79.91	24.28			
		43149.21						
215.83	45.00	4386.79	3.33	-0.09	-18.64	0.01	0.000000	
	0.00000	86.42	2.50	80.18	24.05			
		43299.68						
221.93	46.00	4386.85	3.39	-0.07	-15.12	0.01	0.000000	
	0.00000	86.92	2.55	80.57	23.74			
		43505.14						
229.20	47.00	4386.93	3.47	-0.10	-23.94	0.01	0.000000	
	0.00000	87.54	2.62	81.04	23.36			
		43759.89						
238.91	48.00	4387.04	3.58	-0.14	-32.48	0.01	0.000000	
	0.00000	88.43	2.70	81.72	22.82			
		44126.47						
250.39	49.00	4387.17	3.71	-0.15	-37.33	0.01	0.000000	
	0.00000	89.43	2.80	82.47	22.24			
		44535.36						
262.83	50.00	4387.30	3.84	-0.15	-40.09	0.01	0.000000	
	0.00000	90.48	2.90	83.27	21.66			
		44965.20						
276.02	51.00	4387.45	3.99	-0.15	-42.58	0.01	0.000000	
	0.00000	91.54	3.02	84.07	21.09			
		45396.47						
290.27	52.00	4387.59	4.13	-0.16	-46.44	0.01	0.000000	
	0.00000	92.62	3.13	84.89	20.53			
		45839.85						
306.52	53.00	4387.77	4.31	-0.18	-54.09	0.01	0.000000	
	0.00000	93.86	3.27	85.82	19.92			
		46341.68						
321.50	54.00	4387.92	4.46	-0.13	-43.40	0.01	0.000000	
	0.00000	94.94	3.39	86.63	19.41			
		46781.49						
336.88	55.00	4388.07	4.61	-0.16	-53.10	0.01	0.000000	
	0.00000	95.93	3.51	87.38	18.95			
		47182.87						
356.91	56.00	4388.27	4.81	-0.21	-73.18	0.02	0.000000	
	0.00000	97.23	3.67	88.35	18.38			
		47708.77						
386.46	57.00	4388.56	5.10	-0.29	-112.81	0.02	0.000000	
	0.00000	99.11	3.90	89.75	17.59			
		48465.28						
425.73	58.00	4388.94	5.48	-0.33	-142.52	0.03	0.000000	
	0.00000	101.42	4.20	91.47	16.69			
		49395.09						
467.82	59.00	4389.34	5.88	-0.30	-142.25	0.02	0.000000	
	0.00000	103.77	4.51	93.21	15.84			
		50334.49						
507.55	60.00	4389.70	6.24	-0.24	-122.44	0.02	0.000000	
	0.00000	105.76	4.80	94.68	15.17			
		51125.46						
544.02	61.00	4390.04	6.58	-0.23	-126.65	0.02	0.000000	
	0.00000	107.58	5.06	96.02	14.59			
		51848.99						

		HYCHAN.OUT					
568.65	62.00	4390.29	6.83	-0.12	-66.12	0.01	0.000000
	0.00000	108.86	5.22		96.95	14.20	
	63.00	52355.55	6.96	-0.02	-13.14	0.00	0.000000
575.34		4390.42	5.25		97.45	14.00	0.000000
	0.00000	109.54	7.09	-0.04	-24.38	0.00	
	64.00	52625.43	5.44		97.93	13.82	0.000000
599.28		4390.55	7.29	-0.05	-30.18	0.00	0.000000
	0.00000	110.18	5.59		98.66	13.53	
	65.00	52879.81	7.51	-0.02	-12.45	0.00	0.000000
621.69		4390.75	5.75		99.42	13.25	0.000000
	0.00000	111.19	7.71	0.05	34.38	0.00	
	66.00	53278.51	5.95		100.12	12.99	0.000000
645.69		4390.96	7.90	0.15	105.37	0.01	0.000013
	0.00000	112.23	6.11		100.80	12.75	
	67.00	53686.85	8.10	0.20	144.67	0.01	0.000000
673.65		4391.17	6.26		101.45	12.52	0.000000
	0.00000	113.19	8.31	0.25	185.58	0.02	0.000000
	68.00	54063.82	6.44		102.14	12.29	
696.85		4391.36	8.50	0.18	140.83	0.01	0.000012
	0.00487	114.12	6.58		102.77	12.08	
	69.00	54430.30	8.74	0.15	118.73	0.01	0.000092
719.63		4391.56	6.79		103.53	11.84	0.000000
	0.00000	115.02	8.96	0.24	197.45	0.01	0.000000
	70.00	54785.00	6.95		104.19	11.63	
746.49		4391.77	9.14	0.30	256.05	0.02	0.000045
	0.00000	115.96	7.09		104.76	11.46	
	71.00	55152.95	9.29	0.33	286.63	0.02	0.000081
769.14		4391.96	7.19		105.20	11.32	0.000000
	0.00498	116.84	9.46	0.43	372.78	0.02	0.000058
	72.00	55494.17	7.33		105.70	11.18	
800.54		4392.20	9.65	0.58	520.68	0.03	0.000000
	0.03881	117.89	7.47		106.27	11.01	
	73.00	55904.36	9.83	0.69	628.98	0.04	0.000019
822.86		4392.42	7.59		106.80	10.86	0.000000
	0.00000	118.33	10.01	0.78	728.38	0.04	0.000036
	74.00	56264.09	7.71		107.32	10.72	
841.05		4392.60	10.19	0.89	840.98	0.05	0.000014
	0.01984	118.70	7.83		107.81	10.58	
	75.00	56568.44	10.40	1.00	963.70	0.05	0.000056
856.13		4392.75	10.64	1.15	1146.16	0.06	0.000000
	0.03639	118.99	8.16		109.07	10.25	
	76.00	56810.22					
874.46		4392.92					
	0.02653	119.33					
	77.00	57080.14					
893.86		4393.11					
	0.00000	119.72					
	78.00	57388.22					
911.84		4393.29					
	0.00878	120.08					
	79.00	57672.37					
928.05		4393.47					
	0.01726	120.44					
	80.00	57950.21					
945.62		4393.65					
	0.00691	120.80					
	81.00	58219.90					
967.46		4393.86					
	0.02787	121.21					
	82.00	58531.21					
993.27		4394.10					
	0.00000	121.70					
		58896.43					

HYCHAN.OUT							
1018.72	83.00	4394.36	10.90	1.23	1251.00	0.07	0.000040
	0.02067	122.21	8.34		109.74	10.07	
1044.17	84.00	4394.60	11.14	1.34	1395.14	0.07	0.000000
	0.00000	122.69	8.51		110.38	9.91	
1081.81	85.00	4394.96	11.50	1.53	1659.35	0.08	0.000028
	0.01553	123.42	8.77		111.33	9.68	
1115.36	86.00	4395.29	11.83	1.70	1898.66	0.09	0.000000
	0.00000	124.08	8.99		112.17	9.48	
1147.21	87.00	4395.61	12.15	1.87	2150.89	0.09	0.000059
	0.03368	124.71	9.20		112.95	9.30	
1175.39	88.00	4395.89	12.43	2.00	2345.91	0.10	0.000018
	0.01038	125.28	9.38		113.65	9.14	
1199.83	89.00	4396.16	12.70	2.08	2489.70	0.10	0.000035
	0.02068	125.81	9.54		114.29	9.00	
1219.52	90.00	4396.36	12.90	2.14	2615.39	0.11	0.000029
	0.01757	126.22	9.66		114.77	8.89	
1233.31	91.00	4396.49	13.03	2.16	2666.81	0.11	0.000050
	0.03070	126.48	9.75		115.07	8.83	
1238.32	92.00	4396.54	13.08	2.16	2674.81	0.11	0.000024
	0.01454	126.57	9.78		115.19	8.81	
1237.45	93.00	4396.53	13.07	2.13	2635.49	0.10	0.000037
	0.02256	126.55	9.78		115.16	8.81	
1229.97	94.00	4396.45	12.99	2.08	2555.45	0.10	0.000038
	0.02280	126.39	9.73		114.98	8.85	
1214.44	95.00	4396.29	12.83	2.00	2424.60	0.10	0.000036
	0.02167	126.08	9.63		114.61	8.93	
1195.40	96.00	4396.11	12.65	1.90	2271.81	0.09	0.000016
	0.00935	125.72	9.51		114.18	9.02	
1177.48	97.00	4395.91	12.45	1.79	2103.84	0.09	0.000042
	0.02486	125.31	9.40		113.69	9.13	
1156.55	98.00	4395.70	12.24	1.71	1971.94	0.09	0.000069
	0.03984	124.89	9.26		113.17	9.25	
1135.88	99.00	4395.49	12.03	1.60	1821.96	0.08	0.000000
	0.00000	124.47	9.13		112.65	9.37	
1113.02	100.00	4395.25	11.79	1.45	1611.87	0.07	0.000021
	0.01198	124.00	8.98		112.07	9.50	
1068.54	101.00	4394.82	11.36	1.16	1235.97	0.06	0.000063
	0.03410	123.13	8.68		110.96	9.77	
1030.08	102.00	4394.45	10.99	1.02	1050.43	0.05	0.000020
	0.01065	122.40	8.42		110.00	10.01	
1010.70	103.00	4394.26	10.80	1.08	1088.24	0.06	0.000084
	0.04352	122.02	8.28		109.49	10.14	
		59124.64					

HYCHAN.OUT							
104.00	4394.14	10.68	1.10	1098.62	0.06		
998.19	121.77	8.20	109.16	10.22	0.000113		
0.05787	58944.15						
105.00	4394.06	10.60	1.06	1051.44	0.06		
990.42	121.61	8.14	108.94	10.28	0.000039		
0.01990	58829.16						
106.00	4393.98	10.53	1.02	1004.71	0.06		
982.53	121.46	8.09	108.74	10.33	0.000000		
0.00000	58720.20						
107.00	4393.91	10.45	0.97	942.40	0.05		
974.60	121.31	8.03	108.53	10.39	0.000000		
0.00000	58604.57						
108.00	4393.80	10.34	0.94	901.79	0.05		
963.38	121.10	7.96	108.23	10.47	0.000000		
0.00000	58446.65						
109.00	4393.66	10.20	0.88	831.47	0.05		
948.60	120.81	7.85	107.84	10.57	0.000023		
0.01121	58232.75						
110.00	4393.51	10.05	0.83	774.22	0.05		
933.83	120.51	7.75	107.42	10.69	0.000000		
0.00000	58005.00						
111.00	4393.36	9.90	0.78	711.87	0.04		
918.18	120.21	7.64	106.99	10.81	0.000059		
0.02836	57774.25						
112.00	4393.21	9.75	0.73	662.52	0.04		
902.46	119.91	7.53	106.56	10.93	0.000010		
0.00490	57539.89						
113.00	4393.06	9.60	0.70	618.10	0.04		
887.04	119.61	7.42	106.12	11.06	0.000035		
0.01600	57304.72						
114.00	4392.91	9.45	0.67	582.03	0.04		
871.32	119.31	7.30	105.67	11.19	0.000000		
0.00000	57061.02						
115.00	4392.73	9.27	0.64	542.74	0.04		
852.89	118.95	7.17	105.14	11.34	0.000000		
0.00000	56775.71						
116.00	4392.52	9.06	0.59	494.43	0.03		
831.95	118.54	7.02	104.52	11.53	0.000000		
0.00000	56439.35						
117.00	4392.36	8.90	0.47	383.55	0.03		
815.11	118.22	6.89	104.03	11.68	0.000010		
0.00417	56175.95						
118.00	4392.26	8.80	0.42	335.59	0.02		
804.29	118.01	6.82	103.69	11.79	0.000000		
0.00000	55993.20						
119.00	4392.17	8.71	0.38	300.24	0.02		
794.64	117.73	6.75	103.41	11.88	0.000019		
0.00783	55841.77						
120.00	4392.08	8.62	0.34	270.09	0.02		
784.72	117.35	6.69	103.14	11.96	0.000000		
0.00000	55694.75						
121.00	4392.00	8.54	0.30	234.01	0.02		
774.47	117.00	6.62	102.88	12.05	0.000017		
0.00686	55556.90						
122.00	4391.93	8.47	0.27	203.38	0.02		
765.14	116.67	6.56	102.64	12.12	0.000000		
0.00000	55428.13						
123.00	4391.86	8.40	0.24	183.04	0.01		
756.65	116.37	6.50	102.43	12.20	0.000034		
0.01393	55312.00						
124.00	4391.79	8.33	0.23	170.91	0.01		
748.25	116.07	6.45	102.21	12.27	0.000000		
0.00000	55193.05						

		HYCHAN.OUT					
125.00	4391.72	8.26	0.21	155.77	0.01		
739.32	115.75	6.39	101.98	12.34	0.000066		
0.02638	55070.08						
126.00	4391.65	8.19	0.20	143.76	0.01		
728.73	115.42	6.31	101.74	12.42	0.000027		
0.01054	54941.94						
127.00	4391.57	8.11	0.18	128.79	0.01		
720.97	115.07	6.27	101.49	12.51	0.000000		
0.00000	54804.09						
128.00	4391.50	8.04	0.16	111.45	0.01		
712.24	114.73	6.21	101.24	12.60	0.000000		
0.00000	54670.32						
129.00	4391.42	7.96	0.15	103.80	0.01		
703.64	114.39	6.15	100.99	12.68	0.000000		
0.00000	54537.08						
130.00	4391.35	7.89	0.14	93.84	0.01		
694.29	114.05	6.09	100.75	12.77	0.000000		
0.00000	54402.67						
131.00	4391.28	7.82	0.12	85.41	0.01		
685.99	113.71	6.03	100.50	12.86	0.000000		
0.00000	54270.56						
132.00	4391.21	7.75	0.11	77.54	0.01		
676.34	113.37	5.97	100.25	12.94	0.000000		
0.00000	54137.65						
133.00	4391.14	7.68	0.11	75.18	0.01		
668.82	113.05	5.92	100.02	13.03	0.000000		
0.00000	54008.43						
134.00	4391.08	7.62	0.10	67.59	0.01		
660.86	112.76	5.86	99.81	13.10	0.000000		
0.00000	53897.27						
135.00	4391.03	7.57	0.10	65.84	0.01		
655.13	112.53	5.82	99.64	13.17	0.000000		
0.00000	53803.73						
136.00	4390.98	7.52	0.10	65.24	0.01		
648.91	112.29	5.78	99.46	13.23	0.000000		
0.00000	53710.29						
137.00	4390.93	7.47	0.10	64.24	0.01		
643.71	112.07	5.74	99.30	13.29	0.000055		
0.01971	53622.64						
138.00	4390.89	7.43	0.10	62.12	0.01		
637.98	111.85	5.70	99.15	13.35	0.000000		
0.00000	53538.90						
139.00	4390.85	7.39	0.10	62.09	0.01		
633.18	111.65	5.67	99.00	13.40	0.000000		
0.00000	53459.36						
140.00	4390.81	7.35	0.10	59.88	0.01		
628.71	111.46	5.64	98.86	13.46	0.000000		
0.00000	53382.36						
141.00	4390.76	7.30	0.10	61.60	0.01		
623.70	111.25	5.61	98.71	13.51	0.000035		
0.01221	53302.91						
142.00	4390.72	7.26	0.10	60.20	0.01		
618.82	111.05	5.57	98.56	13.57	0.000046		
0.01605	53222.69						
143.00	4390.68	7.22	0.10	60.63	0.01		
613.86	110.84	5.54	98.41	13.63	0.000000		
0.00000	53141.11						
144.00	4390.64	7.18	0.10	59.69	0.01		
609.15	110.64	5.51	98.26	13.68	0.000000		
0.00000	53060.95						
145.00	4390.60	7.14	0.09	56.79	0.01		
604.75	110.45	5.48	98.12	13.74	0.000051		
0.01736	52985.32						

HYCHAN.OUT							
146.00	4390.56	7.10	0.10	58.95	0.01		
600.33	110.26	5.44	97.98	13.79	0.000000		
0.00000	52908.98						
147.00	4390.52	7.06	0.10	59.47	0.01		
595.32	110.05	5.41	97.83	13.85	0.000057		
0.01941	52825.75						
148.00	4390.48	7.02	0.10	58.62	0.01		
590.32	109.83	5.37	97.67	13.92	0.000000		
0.00000	52739.48						
149.00	4390.44	6.98	0.10	58.41	0.01		
586.01	109.62	5.35	97.51	13.98	0.000008		
0.00261	52657.49						
150.00	4390.40	6.94	0.10	55.50	0.01		
581.74	109.43	5.32	97.38	14.03	0.000019		
0.00630	52583.08						
151.00	4390.36	6.90	0.10	56.94	0.01		
577.59	109.24	5.29	97.24	14.09	0.000000		
0.00000	52507.66						
152.00	4390.33	6.87	0.10	54.96	0.01		
572.82	109.05	5.25	97.10	14.14	0.000000		
0.00000	52434.27						
153.00	4390.29	6.83	0.10	57.50	0.01		
568.81	108.86	5.23	96.96	14.20	0.000000		
0.00000	52356.95						
154.00	4390.25	6.79	0.10	54.81	0.01		
564.28	108.67	5.19	96.81	14.26	0.000000		
0.00000	52279.98						
155.00	4390.21	6.75	0.10	55.99	0.01		
560.02	108.47	5.16	96.67	14.32	0.000000		
0.00000	52201.86						
156.00	4390.18	6.72	0.10	55.30	0.01		
555.65	108.29	5.13	96.54	14.37	0.000000		
0.00000	52130.29						
157.00	4390.14	6.68	0.10	54.79	0.01		
551.62	108.09	5.10	96.40	14.43	0.000000		
0.00000	52053.68						
158.00	4390.12	6.66	0.08	43.89	0.01		
549.19	107.98	5.09	96.31	14.47	0.000000		
0.00000	52009.27						
159.00	4390.11	6.65	0.08	43.56	0.01		
548.31	107.95	5.08	96.29	14.48	0.000000		
0.00000	51996.35						
160.00	4390.10	6.64	0.08	43.51	0.01		
547.65	107.91	5.08	96.26	14.49	0.000000		
0.00000	51981.15						
161.00	4390.10	6.64	0.08	44.45	0.01		
546.75	107.87	5.07	96.23	14.50	0.000000		
0.00000	51963.56						
162.00	4390.09	6.63	0.08	42.87	0.01		
545.52	107.82	5.06	96.19	14.52	0.000028		
0.00893	51943.78						
163.00	4390.08	6.62	0.08	44.68	0.01		
544.51	107.77	5.05	96.16	14.53	0.000018		
0.00554	51926.61						
164.00	4390.07	6.61	0.08	43.00	0.01		
543.81	107.72	5.05	96.12	14.55	0.000000		
0.00000	51906.75						
165.00	4390.06	6.60	0.08	43.42	0.01		
542.87	107.68	5.04	96.10	14.56	0.000000		
0.00000	51891.39						
166.00	4390.05	6.59	0.08	44.02	0.01		
541.56	107.65	5.03	96.07	14.57	0.000000		
0.00000	51876.71						

		HYCHAN.OUT					
167.00	4390.04	6.58	0.09	48.64	0.01		
539.66	107.55	5.02		96.00	14.60	0.000000	
0.00000	51838.82						
168.00	4390.01	6.55	0.09	47.69	0.01		
537.48	107.44	5.00		95.91	14.63	0.000024	
0.00736	51792.89						
169.00	4390.00	6.54	0.09	46.42	0.01		
535.33	107.34	4.99		95.84	14.66	0.000000	
0.00000	51754.55						
170.00	4389.98	6.52	0.08	45.04	0.01		
533.66	107.26	4.98		95.78	14.69	0.000000	
0.00000	51723.60						
171.00	4389.97	6.51	0.08	44.60	0.01		
531.95	107.18	4.96		95.73	14.71	0.000021	
0.00649	51693.04						
172.00	4389.95	6.49	0.08	44.45	0.01		
530.49	107.12	4.95		95.68	14.73	0.000000	
0.00000	51668.75						
173.00	4389.94	6.48	0.08	44.72	0.01		
529.48	107.06	4.95		95.64	14.75	0.000022	
0.00675	51643.35						
174.00	4389.93	6.47	0.09	44.98	0.01		
527.84	106.99	4.93		95.58	14.77	0.000000	
0.00000	51615.16						
175.00	4389.91	6.45	0.09	48.89	0.01		
525.46	106.88	4.92		95.51	14.81	0.000000	
0.00000	51573.87						
176.00	4389.88	6.42	0.09	48.84	0.01		
522.81	106.75	4.90		95.41	14.85	0.000007	
0.00203	51519.56						
177.00	4389.86	6.40	0.09	47.26	0.01		
520.51	106.63	4.88		95.32	14.89	0.000021	
0.00633	51472.95						
178.00	4389.84	6.38	0.09	46.60	0.01		
518.29	106.53	4.87		95.25	14.92	0.000009	
0.00260	51434.51						
179.00	4389.83	6.37	0.08	43.70	0.01		
516.47	106.45	4.85		95.19	14.95	0.000021	
0.00630	51400.64						
180.00	4389.81	6.35	0.09	45.13	0.01		
514.90	106.37	4.84		95.13	14.97	0.000000	
0.00000	51371.18						
181.00	4389.80	6.34	0.08	41.15	0.01		
513.82	106.32	4.83		95.09	14.99	0.000012	
0.00356	51347.67						
182.00	4389.81	6.35	0.06	30.36	0.00		
515.07	106.37	4.84		95.13	14.97	0.000000	
0.00000	51371.05						
183.00	4389.84	6.38	0.06	30.57	0.00		
517.69	106.51	4.86		95.23	14.93	0.000000	
0.00000	51424.36						
184.00	4389.87	6.41	0.05	27.72	0.00		
520.94	106.66	4.88		95.34	14.88	0.000000	
0.00000	51485.56						
185.00	4389.90	6.44	0.06	30.99	0.00		
524.06	106.81	4.91		95.45	14.83	0.000009	
0.00280	51543.38						
186.00	4389.92	6.46	0.06	34.02	0.00		
526.00	106.91	4.92		95.53	14.80	0.000000	
0.00000	51585.98						
187.00	4389.93	6.47	0.07	34.73	0.00		
527.77	106.98	4.93		95.57	14.78	0.000000	
0.00000	51610.07						

HYCHAN.OUT									
188.00	4389.93	6.47	0.07	37.63	0.00				
528.41	107.01	4.94	95.60	14.77	0.000012				
0.00365	51622.91								
189.00	4389.94	6.48	0.07	37.99	0.00				
528.92	107.03	4.94	95.61	14.76	0.000000				
0.00000	51631.09								
190.00	4389.94	6.48	0.07	38.65	0.01				
529.31	107.04	4.95	95.62	14.76	0.000025				
0.00781	51634.06								
191.00	4389.94	6.48	0.08	40.26	0.01				
528.65	107.03	4.94	95.62	14.76	0.000007				
0.00227	51633.11								
192.00	4389.94	6.48	0.08	41.42	0.01				
528.36	107.02	4.94	95.61	14.76	0.000000				
0.00000	51629.43								
193.00	4389.92	6.46	0.09	46.85	0.01				
526.89	106.94	4.93	95.55	14.79	0.000020				
0.00620	51596.91								
194.00	4389.90	6.44	0.09	46.82	0.01				
524.60	106.83	4.91	95.46	14.83	0.000015				
0.00445	51550.47								
195.00	4389.88	6.42	0.09	45.28	0.01				
522.70	106.73	4.90	95.40	14.86	0.000000				
0.00000	51513.84								
196.00	4389.87	6.41	0.08	43.34	0.01				
520.86	106.67	4.88	95.35	14.88	0.000000				
0.00000	51487.45								
197.00	4389.86	6.40	0.08	42.26	0.01				
520.19	106.61	4.88	95.31	14.89	0.000000				
0.00000	51465.62								
198.00	4389.85	6.39	0.08	41.94	0.01				
519.24	106.57	4.87	95.28	14.91	0.000010				
0.00319	51448.87								
199.00	4389.84	6.38	0.08	41.12	0.01				
518.42	106.53	4.87	95.25	14.92	0.000025				
0.00749	51434.29								

CHANNEL HYDROGRAPH FOR ELEMENT NO: 4184

MAXIMUM DISCHARGE (CFS) = 2660.61 AT TIME = 90.69  
 MAXIMUM STAGE = 4396.51 AT TIME = 91.64

AREA	TIME	ELEV.	THALWEG	DEPTH	VELOCITY	DISCHARGE	FROUDE	NO.	FLOW
BED SHEAR	WETTED PERIMETER	HYDRAULIC RADIUS	TOP WIDTH	WIDTH/DEPTH	ENERGY SLOPE				
(FT^2)	(HRS)	(FT)	(FT)	(FT)	(FPS)	(CFS)			
(LB/FT^2)	(FT)	(FT^2)	(FT)	(FT)	(FT)	(CFS)			
0.00	0.00	4383.25	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	1.00	4383.25	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	2.00	4383.25	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	3.00	4383.25	0.00	0.00	0.00	0.00	0.00	0.000000	
0.00000	4.00	4383.25	0.00	0.00	0.00	0.00	0.00	0.000000	

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HYCHAN.OUT							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	5.00	4383.25	0.00	0.00	0.00	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
0.00	6.00	4383.31	0.06	-0.04	-0.57	0.00	0.000000
0.00	0.00000	0.00	0.00	0.00	0.00	0.00	0.000000
65.22	7.00	4384.91	1.66	0.61	40.09	0.08	0.000000
		69.00	0.95	66.62	40.20		0.000000
	0.00000	33978.55					
113.02	8.00	4385.53	2.28	0.41	46.89	0.05	0.000000
		76.46	1.48	72.49	31.81		0.000000
	0.00000	36971.55					
120.79	9.00	4385.62	2.37	0.31	37.71	0.04	0.000000
		77.44	1.56	73.26	30.90		0.000000
	0.00000	37360.51					
121.22	10.00	4385.62	2.37	0.20	24.47	0.02	0.000000
		77.45	1.56	73.27	30.88		0.000000
	0.00000	37367.83					
104.00	11.00	4385.61	2.36	-0.01	-1.42	0.00	0.000000
		77.27	1.35	73.13	31.05		0.000000
	0.00000	37296.52					
112.46	12.00	4385.55	2.30	-0.05	-6.09	0.01	0.000000
		76.70	1.47	72.68	31.59		0.000000
	0.00000	37066.05					
107.00	13.00	4385.48	2.23	-0.09	-10.09	0.01	0.000000
		75.91	1.41	72.06	32.34		0.000000
	0.00000	36752.70					
98.87	14.00	4385.36	2.11	-0.13	-12.62	0.02	0.000000
		74.64	1.32	71.07	33.61		0.000000
	0.00000	36245.08					
92.07	15.00	4385.26	2.01	-0.11	-10.58	0.01	0.000000
		73.45	1.25	70.14	34.87		0.000000
	0.00000	35768.88					
88.23	16.00	4385.21	1.96	-0.07	-6.22	0.01	0.000037
		72.82	1.21	69.64	35.56		0.000037
	0.00283	35516.71					
86.19	17.00	4385.18	1.93	-0.04	-3.54	0.01	0.000000
		72.48	1.19	69.37	35.94		0.000000
	0.00000	35380.81					
84.98	18.00	4385.17	1.92	-0.02	-1.54	0.00	0.000000
		72.32	1.18	69.25	36.12		0.000000
	0.00000	35315.51					
0.00	19.00	4385.16	1.91	0.00	0.00	0.00	0.000000
		72.26	0.00	69.20	36.19		0.000000
	0.00000	35293.66					
92.24	20.00	4385.21	1.96	0.09	8.68	0.01	0.000000
		72.86	1.27	69.67	35.51		0.000000
	0.00000	35533.77					
100.28	21.00	4385.33	2.08	0.14	14.39	0.02	0.000000
		74.22	1.35	70.75	34.04		0.000000
	0.00000	36080.16					
109.50	22.00	4385.46	2.21	0.17	18.31	0.02	0.000000
		75.71	1.45	71.91	32.53		0.000000
	0.00000	36674.50					
117.31	23.00	4385.57	2.32	0.14	16.92	0.02	0.000000
		76.89	1.53	72.83	31.40		0.000000
	0.00000	37144.83					
121.65	24.00	4385.62	2.37	0.09	10.58	0.01	0.000000
		77.48	1.57	73.29	30.86		0.000000
	0.00000	37377.73					
	25.00	4385.70	2.45	0.13	16.61	0.01	

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		HYCHAN.OUT					
127.68	78.26	1.63	73.90	30.16	0.000000		
0.00000	37688.54						
26.00	4385.85	2.60	0.21	28.81	0.02		
139.36	79.82	1.75	75.11	28.83	0.000000		
0.00000	38305.73						
27.00	4386.04	2.79	0.24	36.34	0.02		
153.67	81.58	1.88	76.47	27.43	0.000000		
0.00000	38999.52						
28.00	4386.26	3.01	0.27	46.35	0.03		
170.74	83.58	2.04	78.01	25.96	0.000000		
0.00000	39785.10						
29.00	4386.42	3.17	0.22	40.45	0.02		
184.04	85.00	2.17	79.10	24.98	0.000000		
0.00000	40340.43						
30.00	4386.51	3.26	0.17	31.84	0.02		
192.08	85.79	2.24	79.70	24.46	0.000000		
0.00000	40647.77						
31.00	4386.60	3.35	0.16	32.27	0.02		
199.66	86.54	2.31	80.27	23.98	0.000000		
0.00000	40938.49						
32.00	4386.68	3.43	0.11	22.78	0.01		
206.32	87.18	2.37	80.76	23.57	0.000000		
0.00000	41189.83						
33.00	4386.72	3.47	0.07	14.51	0.01		
210.79	87.58	2.41	81.07	23.33	0.000000		
0.00000	41344.01						
34.00	4386.79	3.54	0.09	20.57	0.01		
216.79	88.13	2.46	81.49	23.00	0.000000		
0.00000	41559.02						
35.00	4386.86	3.61	0.07	14.77	0.01		
221.72	88.65	2.50	81.88	22.69	0.000000		
0.00000	41759.01						
36.00	4386.89	3.64	0.04	8.19	0.00		
222.48	88.91	2.50	82.08	22.54	0.000000		
0.00000	41860.14						
37.00	4386.93	3.68	0.03	5.75	0.00		
227.51	89.19	2.55	82.29	22.38	0.000035		
0.00556	41968.75						
38.00	4386.91	3.66	-0.04	-8.87	0.00		
221.76	89.04	2.49	82.18	22.47	0.000036		
0.00567	41910.43						
39.00	4386.86	3.61	-0.08	-17.54	0.01		
217.80	88.66	2.46	81.89	22.69	0.000000		
0.00000	41764.23						
40.00	4386.80	3.55	-0.06	-12.15	0.01		
213.06	88.22	2.42	81.55	22.95	0.000000		
0.00000	41591.44						
41.00	4386.77	3.52	-0.03	-5.67	0.00		
209.53	87.97	2.38	81.36	23.10	0.000000		
0.00000	41496.11						
42.00	4386.76	3.51	-0.01	-2.37	0.00		
207.29	87.85	2.36	81.27	23.17	0.000000		
0.00000	41447.32						
43.00	4386.75	3.50	0.00	0.00	0.00		
0.00	87.78	0.00	81.22	23.21	0.000031		
0.00000	41421.77						
44.00	4386.75	3.50	0.00	0.00	0.00		
0.00	87.80	0.00	81.23	23.20	0.000000		
0.00000	41427.97						
45.00	4386.79	3.54	0.09	18.64	0.01		
215.83	88.15	2.45	81.50	22.99	0.000000		
0.00000	41563.55						
46.00	4386.85	3.60	0.07	15.12	0.01		

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		HYCHAN.OUT					
221.93	88.62	2.50	81.86	22.71	0.000000		
0.00000	41748.34						
47.00	4386.93	3.68	0.10	23.94	0.01		
229.20	89.22	2.57	82.31	22.36	0.000000		
0.00000	41980.20						
48.00	4387.04	3.79	0.14	32.48	0.01		
238.91	90.08	2.65	82.97	21.88	0.000000		
0.00000	42313.52						
49.00	4387.17	3.92	0.15	37.33	0.01		
250.39	91.04	2.75	83.70	21.36	0.000000		
0.00000	42684.55						
50.00	4387.31	4.06	0.15	40.09	0.01		
262.83	92.05	2.86	84.46	20.82	0.000000		
0.00000	43074.45						
51.00	4387.45	4.20	0.15	42.58	0.01		
276.02	93.07	2.97	85.23	20.31	0.000000		
0.00000	43466.16						
52.00	4387.60	4.35	0.16	46.44	0.01		
290.27	94.12	3.08	86.02	19.79	0.000000		
0.00000	43869.62						
53.00	4387.77	4.52	0.18	54.09	0.01		
306.52	95.32	3.22	86.92	19.23	0.000000		
0.00000	44327.30						
54.00	4387.92	4.67	0.13	43.40	0.01		
321.50	96.36	3.34	87.70	18.76	0.000000		
0.00000	44726.50						
55.00	4388.07	4.82	0.16	53.10	0.01		
336.88	97.32	3.46	88.42	18.34	0.000000		
0.00000	45093.89						
56.00	4388.27	5.02	0.21	73.18	0.02		
356.91	98.59	3.62	89.37	17.80	0.000000		
0.00000	45576.71						
57.00	4388.56	5.31	0.29	112.81	0.02		
386.46	100.43	3.85	90.73	17.07	0.000000		
0.00000	46273.19						
58.00	4388.94	5.69	0.33	142.52	0.02		
425.73	102.68	4.15	92.41	16.23	0.000000		
0.00000	47127.22						
59.00	4389.35	6.10	0.30	142.25	0.02		
467.82	104.97	4.46	94.09	15.43	0.000000		
0.00000	47987.99						
60.00	4389.70	6.45	0.24	122.44	0.02		
507.55	106.90	4.75	95.52	14.80	0.000000		
0.00000	48713.72						
61.00	4390.04	6.79	0.23	126.65	0.02		
544.02	108.68	5.01	96.83	14.25	0.000000		
0.00000	49381.15						
62.00	4390.29	7.04	0.12	66.12	0.01		
568.65	109.93	5.17	97.74	13.89	0.000000		
0.00000	49846.47						
63.00	4390.42	7.17	0.02	13.14	0.00		
575.34	110.59	5.20	98.22	13.70	0.000000		
0.00000	50094.04						
64.00	4390.55	7.30	0.04	24.38	0.00		
599.28	111.22	5.39	98.69	13.52	0.000000		
0.00000	50329.53						
65.00	4390.75	7.50	0.05	30.18	0.00		
621.69	112.21	5.54	99.41	13.25	0.000000		
0.00000	50698.14						
66.00	4390.96	7.71	0.02	12.45	0.00		
645.69	113.23	5.70	100.15	12.98	0.000000		
0.00000	51076.20						
67.00	4391.17	7.92	-0.05	-34.38	0.00		

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		HYCHAN.OUT					
673.65	114.17	5.90	100.83	12.74	0.000000		
0.00000	51424.73						
68.00	4391.36	8.11	-0.15	-105.37	0.01		
696.85	115.08	6.06	101.50	12.51	0.000000		
0.00000	51762.79						
69.00	4391.56	8.31	-0.20	-144.67	0.01		
719.63	115.97	6.21	102.14	12.29	0.000000		
0.00000	52092.11						
70.00	4391.77	8.52	-0.25	-185.58	0.02		
746.49	116.89	6.39	102.81	12.07	0.000000		
0.00000	52433.04						
71.00	4391.96	8.71	-0.18	-140.83	0.01		
769.14	117.76	6.53	103.44	11.87	0.000071		
0.02898	52752.71						
72.00	4392.20	8.95	-0.15	-118.73	0.01		
800.54	118.32	6.77	104.18	11.64	0.000156		
0.06595	53130.34						
73.00	4392.42	9.17	-0.24	-197.45	0.01		
822.86	118.75	6.93	104.84	11.43	0.000000		
0.00000	53469.08						
74.00	4392.60	9.35	-0.30	-256.05	0.02		
841.05	119.12	7.06	105.39	11.27	0.000031		
0.01352	53748.43						
75.00	4392.75	9.50	-0.33	-286.63	0.02		
856.13	119.42	7.17	105.84	11.14	0.000154		
0.06895	53975.91						
76.00	4392.92	9.67	-0.43	-372.78	0.02		
874.46	119.75	7.30	106.32	11.00	0.000113		
0.05163	54223.76						
77.00	4393.11	9.86	-0.58	-520.68	0.03		
893.86	120.13	7.44	106.88	10.84	0.000000		
0.00000	54507.42						
78.00	4393.29	10.04	-0.69	-628.98	0.04		
911.84	120.49	7.57	107.39	10.70	0.000018		
0.00841	54768.08						
79.00	4393.46	10.21	-0.78	-728.38	0.04		
928.05	120.84	7.68	107.88	10.56	0.000042		
0.02029	55017.79						
80.00	4393.64	10.39	-0.89	-840.98	0.05		
945.62	121.19	7.80	108.36	10.43	0.000000		
0.00000	55264.54						
81.00	4393.84	10.59	-1.00	-963.70	0.05		
967.46	121.60	7.96	108.92	10.28	0.000041		
0.02019	55550.90						
82.00	4394.09	10.84	-1.15	-1146.16	0.06		
993.27	122.09	8.14	109.59	10.11	0.000000		
0.00000	55888.73						
83.00	4394.34	11.09	-1.23	-1251.00	0.07		
1018.72	122.59	8.31	110.25	9.94	0.000029		
0.01514	56227.21						
84.00	4394.57	11.32	-1.34	-1395.14	0.07		
1044.17	123.06	8.49	110.87	9.79	0.000000		
0.00000	56543.08						
85.00	4394.93	11.68	-1.53	-1659.35	0.08		
1081.81	123.78	8.74	111.79	9.57	0.000000		
0.00000	57011.91						
86.00	4395.26	12.01	-1.70	-1898.66	0.09		
1115.36	124.43	8.96	112.60	9.38	0.000000		
0.00000	57427.84						
87.00	4395.56	12.31	-1.87	-2150.89	0.09		
1147.21	125.04	9.17	113.36	9.21	0.000010		
0.00577	57814.92						
88.00	4395.85	12.60	-2.00	-2345.91	0.10		

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HYCHAN.OUT							
1175.39	0.00000	125.61	9.36	114.05	9.05	0.000000	
89.00	4396.11	58163.09	12.86	-2.08	-2489.70	0.10	
1199.83	0.00000	126.13	9.51	114.66	8.92	0.000000	
90.00	4396.31	58478.71	13.06	-2.14	-2615.39	0.10	
1219.52	0.00000	126.53	9.64	115.14	8.82	0.000000	
91.00	4396.44	58720.95	13.19	-2.16	-2666.81	0.10	
1233.31	0.00000	126.78	9.73	115.43	8.75	0.000000	
92.00	4396.49	58870.70	13.24	-2.16	-2674.81	0.10	
1238.32	0.00000	126.88	9.76	115.55	8.73	0.000000	
93.00	4396.47	58929.95	13.22	-2.13	-2635.49	0.10	
1237.45	0.00000	126.86	9.75	115.52	8.74	0.000000	
94.00	4396.40	58916.58	13.15	-2.08	-2555.45	0.10	
1229.97	0.00000	126.71	9.71	115.35	8.77	0.000000	
95.00	4396.25	58828.23	13.00	-2.00	-2424.60	0.10	
1214.44	0.00000	126.41	9.61	114.99	8.85	0.000000	
96.00	4396.07	58646.54	12.82	-1.90	-2271.81	0.09	
1195.40	0.00000	126.05	9.48	114.58	8.94	0.000000	
97.00	4395.87	58434.06	12.62	-1.79	-2103.84	0.09	
1177.48	0.00943	125.65	9.37	114.10	9.04	0.000016	
98.00	4395.66	58189.08	12.41	-1.71	-1971.94	0.09	
1156.55	0.02322	125.23	9.24	113.59	9.15	0.000040	
99.00	4395.45	57932.27	12.20	-1.60	-1821.96	0.08	
1135.88	0.00000	124.82	9.10	113.09	9.27	0.000000	
100.00	4395.23	57676.49	11.98	-1.45	-1611.87	0.07	
1113.02	0.03036	124.37	8.95	112.53	9.39	0.000054	
101.00	4394.80	57391.70	11.55	-1.16	-1235.97	0.06	
1068.54	0.02245	123.51	8.65	111.45	9.65	0.000042	
102.00	4394.44	56840.75	11.19	-1.02	-1050.43	0.05	
1030.08	0.01749	122.79	8.39	110.52	9.88	0.000033	
103.00	4394.25	56364.37	11.00	-1.08	-1088.24	0.06	
1010.70	0.03140	122.41	8.26	110.01	10.00	0.000061	
104.00	4394.12	56106.49	10.87	-1.10	-1098.62	0.06	
998.19	0.03996	122.16	8.17	109.69	10.09	0.000078	
105.00	4394.05	55939.50	10.80	-1.06	-1051.44	0.06	
990.42	0.02035	122.01	8.12	109.48	10.14	0.000040	
106.00	4393.97	55833.66	10.72	-1.02	-1004.71	0.06	
982.53	0.00000	121.86	8.06	109.28	10.19	0.000000	
107.00	4393.90	55731.73	10.65	-0.97	-942.40	0.05	
974.60	0.00000	121.71	8.01	109.07	10.24	0.000000	
108.00	4393.79	55626.98	10.54	-0.94	-901.79	0.05	
963.38	0.00000	121.49	7.93	108.78	10.32	0.000000	
109.00	4393.65	55479.14	10.40	-0.88	-831.47	0.05	

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		HYCHAN.OUT					
948.60	121.21	7.83	108.39	10.42	0.000000		
0.00000	55279.50						
110.00	4393.50	10.25	-0.83	-774.22	0.05		
933.83	120.91	7.72	107.98	10.54	0.000000		
0.00000	55068.04						
111.00	4393.35	10.10	-0.78	-711.87	0.04		
918.18	120.61	7.61	107.56	10.65	0.000078		
0.03705	54854.80						
112.00	4393.20	9.95	-0.73	-662.52	0.04		
902.46	120.31	7.50	107.13	10.77	0.000000		
0.00000	54638.09						
113.00	4393.05	9.80	-0.70	-618.10	0.04		
887.04	120.02	7.39	106.71	10.89	0.000038		
0.01770	54420.39						
114.00	4392.90	9.65	-0.67	-582.03	0.04		
871.32	119.71	7.28	106.27	11.01	0.000000		
0.00000	54195.92						
115.00	4392.72	9.47	-0.64	-542.74	0.04		
852.89	119.36	7.15	105.75	11.16	0.000000		
0.00000	53930.88						
116.00	4392.52	9.27	-0.59	-494.43	0.03		
831.95	118.95	6.99	105.14	11.34	0.000000		
0.00000	53620.20						
117.00	4392.36	9.11	-0.47	-383.55	0.03		
815.11	118.63	6.87	104.66	11.49	0.000029		
0.01254	53376.75						
118.00	4392.25	9.00	-0.42	-335.59	0.02		
804.29	118.42	6.79	104.33	11.59	0.000000		
0.00000	53206.85						
119.00	4392.16	8.91	-0.38	-300.24	0.02		
794.64	118.24	6.72	104.05	11.68	0.000000		
0.00000	53066.44						
120.00	4392.08	8.83	-0.34	-270.09	0.02		
784.72	118.07	6.65	103.79	11.76	0.000000		
0.00000	52931.13						
121.00	4392.00	8.75	-0.30	-234.01	0.02		
774.47	117.91	6.57	103.54	11.84	0.000010		
0.00407	52806.42						
122.00	4391.92	8.67	-0.27	-203.38	0.02		
765.14	117.59	6.51	103.31	11.91	0.000024		
0.00976	52688.42						
123.00	4391.86	8.61	-0.24	-183.04	0.01		
756.65	117.30	6.45	103.10	11.98	0.000012		
0.00484	52581.05						
124.00	4391.79	8.54	-0.23	-170.91	0.01		
748.25	117.00	6.40	102.89	12.05	0.000000		
0.00000	52471.81						
125.00	4391.72	8.47	-0.21	-155.77	0.01		
739.32	116.69	6.34	102.66	12.12	0.000063		
0.02508	52356.15						
126.00	4391.65	8.40	-0.20	-143.76	0.01		
728.73	116.36	6.26	102.43	12.20	0.000020		
0.00796	52237.20						
127.00	4391.57	8.32	-0.18	-128.79	0.01		
720.97	116.02	6.21	102.18	12.28	0.000000		
0.00000	52111.53						
128.00	4391.50	8.25	-0.16	-111.45	0.01		
712.24	115.69	6.16	101.93	12.36	0.000043		
0.01657	51986.78						
129.00	4391.42	8.17	-0.15	-103.80	0.01		
703.64	115.35	6.10	101.69	12.44	0.000000		
0.00000	51863.62						
130.00	4391.35	8.10	-0.14	-93.84	0.01		

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		HYCHAN.OUT				
694.29	115.02	6.04	101.45	12.53	0.000000	
0.00000	51738.18					
131.00	4391.28	8.03	-0.12	-85.41	0.01	
685.99	114.69	5.98	101.21	12.61	0.000000	
0.00000	51616.83					
132.00	4391.20	7.95	-0.11	-77.54	0.01	
676.34	114.35	5.91	100.96	12.69	0.000053	
0.01948	51491.27					
133.00	4391.14	7.89	-0.11	-75.18	0.01	
668.82	114.03	5.87	100.73	12.77	0.000000	
0.00000	51374.55					
134.00	4391.08	7.83	-0.10	-67.59	0.01	
660.86	113.75	5.81	100.53	12.85	0.000077	
0.02803	51269.35					
135.00	4391.03	7.78	-0.10	-65.84	0.01	
655.13	113.52	5.77	100.36	12.91	0.000117	
0.04230	51182.70					
136.00	4390.98	7.73	-0.10	-65.24	0.01	
648.91	113.29	5.73	100.19	12.97	0.000019	
0.00688	51097.46					
137.00	4390.93	7.68	-0.10	-64.24	0.01	
643.71	113.07	5.69	100.03	13.02	0.000033	
0.01188	51016.48					
138.00	4390.89	7.64	-0.10	-62.12	0.01	
637.98	112.86	5.65	99.88	13.08	0.000000	
0.00000	50938.66					
139.00	4390.85	7.60	-0.10	-62.09	0.01	
633.18	112.66	5.62	99.74	13.13	0.000024	
0.00855	50866.07					
140.00	4390.81	7.56	-0.10	-59.88	0.01	
628.71	112.47	5.59	99.60	13.18	0.000000	
0.00000	50794.06					
141.00	4390.76	7.51	-0.10	-61.60	0.01	
623.70	112.27	5.56	99.45	13.24	0.000021	
0.00715	50720.07					
142.00	4390.72	7.47	-0.10	-60.20	0.01	
618.82	112.07	5.52	99.31	13.29	0.000038	
0.01307	50646.95					
143.00	4390.68	7.43	-0.10	-60.63	0.01	
613.86	111.87	5.49	99.16	13.34	0.000000	
0.00000	50571.09					
144.00	4390.64	7.39	-0.10	-59.69	0.01	
609.15	111.67	5.45	99.01	13.40	0.000000	
0.00000	50496.65					
145.00	4390.60	7.35	-0.09	-56.79	0.01	
604.75	111.48	5.42	98.88	13.45	0.000045	
0.01531	50426.43					
146.00	4390.56	7.31	-0.10	-58.95	0.01	
600.33	111.30	5.39	98.74	13.50	0.000016	
0.00551	50357.04					
147.00	4390.52	7.27	-0.10	-59.47	0.01	
595.32	111.08	5.36	98.59	13.56	0.000026	
0.00856	50278.62					
148.00	4390.48	7.23	-0.10	-58.62	0.01	
590.32	110.87	5.32	98.43	13.62	0.000000	
0.00000	50199.92					
149.00	4390.44	7.19	-0.10	-58.41	0.01	
586.01	110.67	5.30	98.28	13.68	0.000000	
0.00000	50123.99					
150.00	4390.40	7.15	-0.10	-55.50	0.01	
581.74	110.49	5.27	98.15	13.73	0.000000	
0.00000	50055.70					
151.00	4390.36	7.11	-0.10	-56.94	0.01	

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		HYCHAN.OUT					
577.59	110.30	5.24	98.01	13.78	0.000000		
0.00000	49985.87						
152.00	4390.33	7.08	-0.10	-54.96	0.01		
572.82	110.12	5.20	97.88	13.83	0.000024		
0.00786	49918.10						
153.00	4390.29	7.04	-0.10	-57.50	0.01		
568.81	109.93	5.17	97.74	13.89	0.000000		
0.00000	49846.59						
154.00	4390.25	7.00	-0.10	-54.81	0.01		
564.28	109.73	5.14	97.60	13.94	0.000000		
0.00000	49774.91						
155.00	4390.21	6.96	-0.10	-55.99	0.01		
560.02	109.54	5.11	97.46	14.00	0.000000		
0.00000	49703.85						
156.00	4390.18	6.93	-0.10	-55.30	0.01		
555.65	109.36	5.08	97.33	14.05	0.000035		
0.01100	49636.54						
157.00	4390.14	6.89	-0.10	-54.79	0.01		
551.62	109.18	5.05	97.19	14.11	0.000000		
0.00000	49567.26						
158.00	4390.12	6.87	-0.08	-43.89	0.01		
549.19	109.07	5.04	97.11	14.14	0.000000		
0.00000	49525.82						
159.00	4390.11	6.86	-0.08	-43.56	0.01		
548.31	109.03	5.03	97.08	14.15	0.000000		
0.00000	49512.56						
160.00	4390.10	6.85	-0.08	-43.51	0.01		
547.65	109.00	5.02	97.06	14.16	0.000000		
0.00000	49499.22						
161.00	4390.10	6.85	-0.08	-44.45	0.01		
546.75	108.95	5.02	97.03	14.17	0.000029		
0.00898	49483.91						
162.00	4390.09	6.84	-0.08	-42.87	0.01		
545.52	108.90	5.01	96.99	14.19	0.000021		
0.00647	49465.02						
163.00	4390.08	6.83	-0.08	-44.68	0.01		
544.51	108.86	5.00	96.96	14.20	0.000000		
0.00000	49448.40						
164.00	4390.07	6.82	-0.08	-43.00	0.01		
543.81	108.81	5.00	96.92	14.21	0.000011		
0.00353	49431.55						
165.00	4390.06	6.81	-0.08	-43.42	0.01		
542.87	108.78	4.99	96.90	14.23	0.000000		
0.00000	49416.78						
166.00	4390.05	6.80	-0.08	-44.02	0.01		
541.56	108.74	4.98	96.87	14.24	0.000000		
0.00000	49401.77						
167.00	4390.04	6.79	-0.09	-48.64	0.01		
539.66	108.65	4.97	96.80	14.27	0.000000		
0.00000	49368.20						
168.00	4390.01	6.76	-0.09	-47.69	0.01		
537.48	108.53	4.95	96.72	14.30	0.000000		
0.00000	49326.28						
169.00	4390.00	6.75	-0.09	-46.42	0.01		
535.33	108.44	4.94	96.65	14.33	0.000000		
0.00000	49291.04						
170.00	4389.98	6.73	-0.08	-45.04	0.01		
533.66	108.36	4.92	96.59	14.35	0.000032		
0.00976	49260.65						
171.00	4389.97	6.72	-0.08	-44.60	0.01		
531.95	108.29	4.91	96.54	14.37	0.000020		
0.00611	49234.77						
172.00	4389.95	6.70	-0.08	-44.45	0.01		

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		HYCHAN.OUT				
530.49	108.22	4.90	96.49	14.39	0.000000	
0.00000	49210.05					
173.00	4389.94	6.69	-0.08	-44.72	0.01	
529.48	108.16	4.90	96.45	14.41	0.000000	
0.00000	49187.73					
174.00	4389.93	6.68	-0.09	-44.98	0.01	
527.84	108.10	4.88	96.40	14.43	0.000000	
0.00000	49162.78					
175.00	4389.91	6.66	-0.09	-48.89	0.01	
525.46	107.99	4.87	96.32	14.46	0.000016	
0.00474	49122.71					
176.00	4389.88	6.63	-0.09	-48.84	0.01	
522.81	107.86	4.85	96.22	14.50	0.000000	
0.00000	49073.93					
177.00	4389.86	6.61	-0.09	-47.26	0.01	
520.51	107.74	4.83	96.14	14.54	0.000000	
0.00000	49030.58					
178.00	4389.84	6.59	-0.09	-46.60	0.01	
518.29	107.65	4.81	96.07	14.57	0.000000	
0.00000	48995.84					
179.00	4389.83	6.58	-0.08	-43.70	0.01	
516.47	107.56	4.80	96.01	14.60	0.000022	
0.00667	48963.17					
180.00	4389.81	6.56	-0.09	-45.13	0.01	
514.90	107.49	4.79	95.96	14.62	0.000000	
0.00000	48937.36					
181.00	4389.80	6.55	-0.08	-41.15	0.01	
513.82	107.44	4.78	95.91	14.63	0.000016	
0.00482	48915.43					
182.00	4389.81	6.56	-0.06	-30.36	0.00	
515.07	107.49	4.79	95.95	14.62	0.000018	
0.00527	48935.88					
183.00	4389.84	6.59	-0.06	-30.57	0.00	
517.69	107.62	4.81	96.05	14.58	0.000000	
0.00000	48985.89					
184.00	4389.87	6.62	-0.05	-27.72	0.00	
520.94	107.77	4.83	96.16	14.53	0.000019	
0.00562	49041.10					
185.00	4389.90	6.65	-0.06	-30.99	0.00	
524.06	107.92	4.86	96.27	14.49	0.000000	
0.00000	49096.36					
186.00	4389.91	6.66	-0.06	-34.02	0.00	
526.00	108.02	4.87	96.34	14.46	0.000000	
0.00000	49133.54					
187.00	4389.93	6.68	-0.07	-34.73	0.00	
527.77	108.08	4.88	96.39	14.44	0.000033	
0.01011	49157.01					
188.00	4389.93	6.68	-0.07	-37.63	0.00	
528.41	108.11	4.89	96.41	14.43	0.000000	
0.00000	49168.91					
189.00	4389.94	6.69	-0.07	-37.99	0.00	
528.92	108.13	4.89	96.42	14.42	0.000026	
0.00783	49175.72					
190.00	4389.94	6.69	-0.07	-38.65	0.00	
529.31	108.14	4.89	96.43	14.42	0.000038	
0.01173	49179.23					
191.00	4389.94	6.69	-0.08	-40.26	0.01	
528.65	108.14	4.89	96.43	14.42	0.000000	
0.00000	49179.48					
192.00	4389.94	6.68	-0.08	-41.42	0.01	
528.36	108.12	4.89	96.42	14.42	0.000000	
0.00000	49172.94					
193.00	4389.92	6.67	-0.09	-46.85	0.01	

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		HYCHAN.OUT				
526.89	108.05	4.88	96.36	14.45	0.000041	
0.01259	49144.91					
194.00	4389.90	6.65	-0.09	-46.82	0.01	
524.60	107.93	4.86	96.28	14.48	0.000000	
0.00000	49102.07					
195.00	4389.88	6.63	-0.09	-45.28	0.01	
522.70	107.84	4.85	96.21	14.51	0.000012	
0.00358	49068.05					
196.00	4389.87	6.62	-0.08	-43.34	0.01	
520.86	107.78	4.83	96.16	14.53	0.000000	
0.00000	49043.27					
197.00	4389.86	6.61	-0.08	-42.26	0.01	
520.19	107.72	4.83	96.12	14.55	0.000024	
0.00736	49023.61					
198.00	4389.85	6.60	-0.08	-41.94	0.01	
519.24	107.68	4.82	96.09	14.56	0.000000	
0.00000	49008.19					
199.00	4389.84	6.59	-0.08	-41.12	0.01	
518.42	107.65	4.82	96.07	14.57	0.000011	
0.00334	48995.48					

## **Attachment 8 – Test Case 3 Hand Calculations**

**EXAMPLE 3 HAND CALCULATION**

Discharge = 50 cfs

Diameter of culvert (D) = 3.0 ft

From attached Chart 2B (Reference 5),

**HW / D = 1.2**

*Where:*

HW is the head water depth

Head water depth = 1.55 \* D

Head water depth = 1.55 \* 3 ft

Head water depth = **4.65 ft**



U.S. Department  
of Transportation

**Federal Highway  
Administration**

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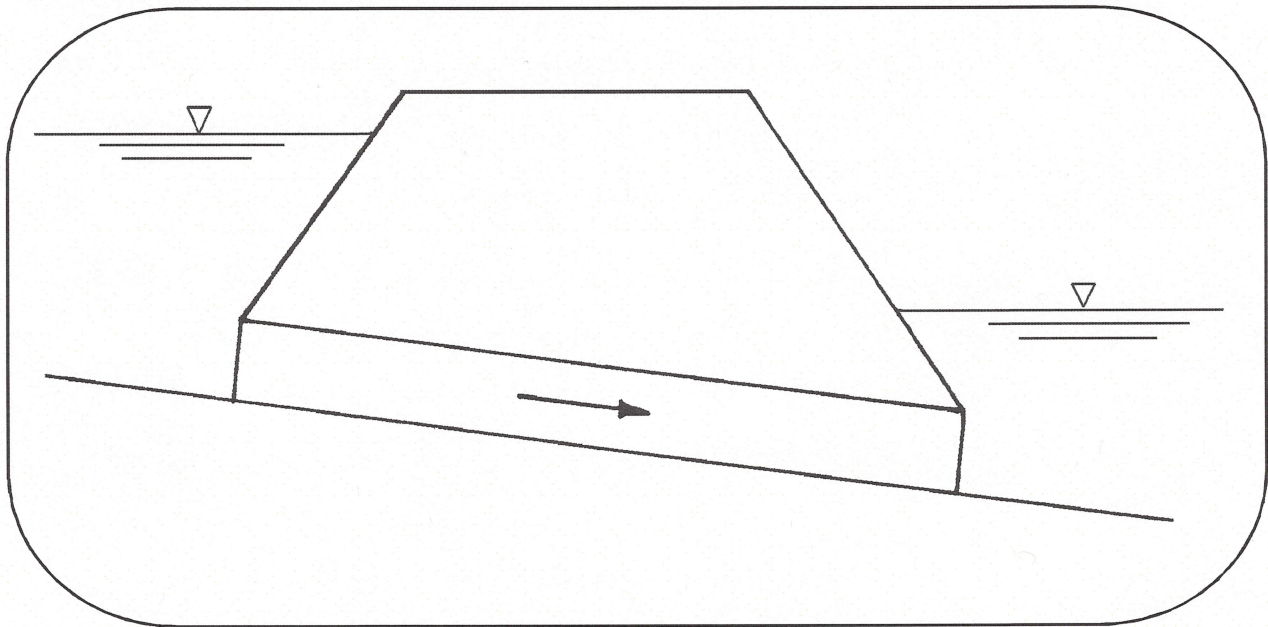
September 2001

(Revised May 2005)

Hydraulic Design Series Number 5

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# HYDRAULIC DESIGN OF HIGHWAY CULVERTS

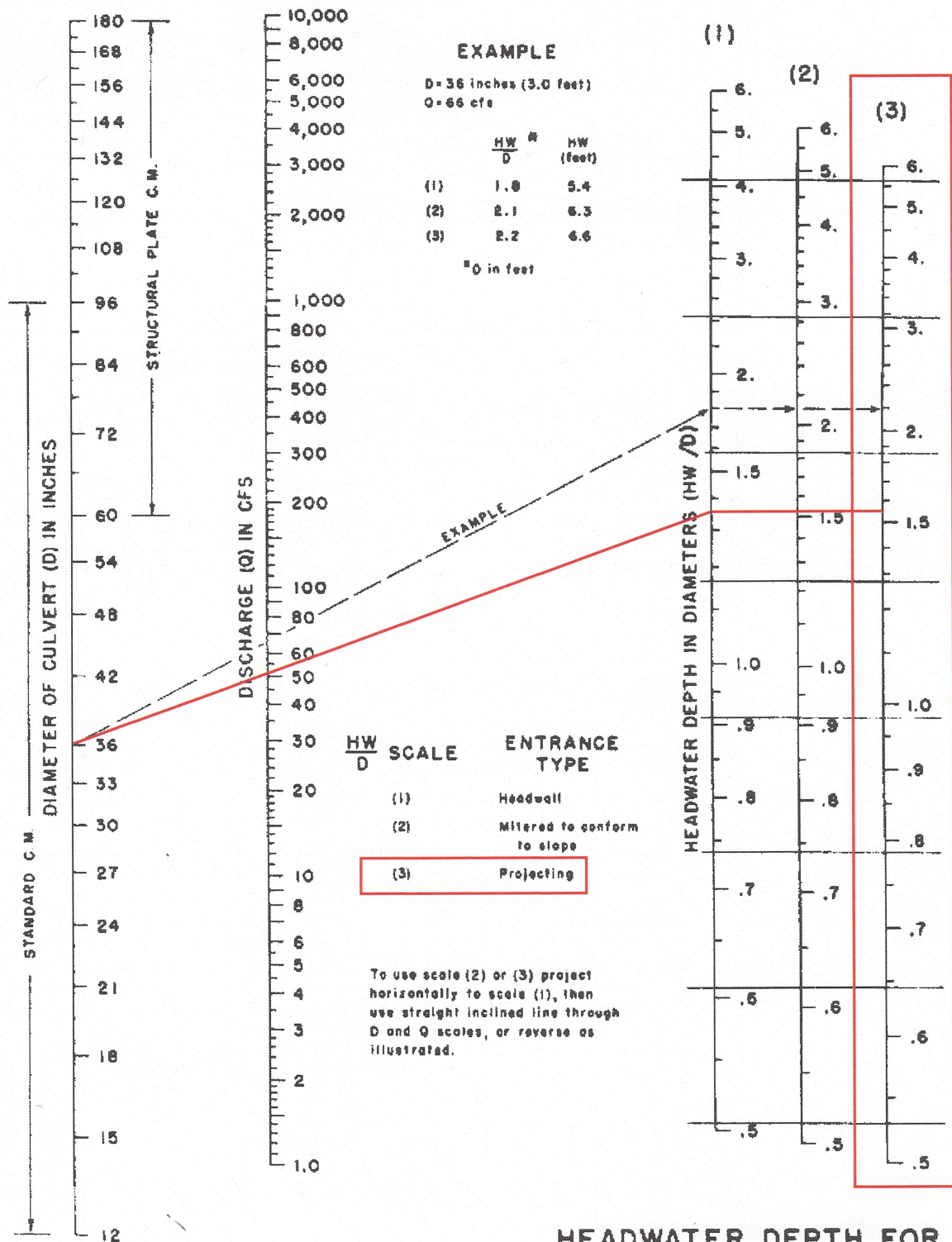


**NATIONAL HIGHWAY INSTITUTE**

*Training Solutions for Transportation Excellence*



## CHART 2B



BUREAU OF PUBLIC ROADS JAN. 1963

## **Attachment 9 – Test Case 3 FLO-2D Pro Input Files**

## CADPTS.DAT

1	626657.125	1193719.000
2	626657.125	1193769.000
3	626657.125	1193819.000
4	626657.125	1193869.000
5	626657.125	1193919.000
6	626657.125	1193969.000
7	626657.125	1194019.000
8	626657.125	1194069.000
9	626657.125	1194119.000
10	626657.125	1194169.000
11	626657.125	1194219.000
12	626657.125	1194269.000
13	626657.125	1194319.000
14	626707.125	1193719.000
15	626707.125	1193769.000
16	626707.125	1193819.000
17	626707.125	1193869.000
18	626707.125	1193919.000
19	626707.125	1193969.000
20	626707.125	1194019.000
21	626707.125	1194069.000
22	626707.125	1194119.000
23	626707.125	1194169.000
24	626707.125	1194219.000
25	626707.125	1194269.000
26	626707.125	1194319.000
27	626757.125	1193719.000
28	626757.125	1193769.000
29	626757.125	1193819.000
30	626757.125	1193869.000
31	626757.125	1193919.000
32	626757.125	1193969.000
33	626757.125	1194019.000
34	626757.125	1194069.000
35	626757.125	1194119.000
36	626757.125	1194169.000
37	626757.125	1194219.000
38	626757.125	1194269.000
39	626757.125	1194319.000
40	626807.125	1193719.000
41	626807.125	1193769.000
42	626807.125	1193819.000
43	626807.125	1193869.000
44	626807.125	1193919.000
45	626807.125	1193969.000
46	626807.125	1194019.000
47	626807.125	1194069.000
48	626807.125	1194119.000
49	626807.125	1194169.000
50	626807.125	1194219.000
51	626807.125	1194269.000
52	626807.125	1194319.000
53	626857.125	1193719.000
54	626857.125	1193769.000
55	626857.125	1193819.000
56	626857.125	1193869.000
57	626857.125	1193919.000
58	626857.125	1193969.000
59	626857.125	1194019.000
60	626857.125	1194069.000
61	626857.125	1194119.000
62	626857.125	1194169.000
63	626857.125	1194219.000



## CADPTS.DAT

64	626857.125	1194269.000
65	626857.125	1194319.000
66	626907.125	1193719.000
67	626907.125	1193769.000
68	626907.125	1193819.000
69	626907.125	1193869.000
70	626907.125	1193919.000
71	626907.125	1193969.000
72	626907.125	1194019.000
73	626907.125	1194069.000
74	626907.125	1194119.000
75	626907.125	1194169.000
76	626907.125	1194219.000
77	626907.125	1194269.000
78	626907.125	1194319.000
79	626957.125	1193719.000
80	626957.125	1193769.000
81	626957.125	1193819.000
82	626957.125	1193869.000
83	626957.125	1193919.000
84	626957.125	1193969.000
85	626957.125	1194019.000
86	626957.125	1194069.000
87	626957.125	1194119.000
88	626957.125	1194169.000
89	626957.125	1194219.000
90	626957.125	1194269.000
91	626957.125	1194319.000
92	627007.125	1193719.000
93	627007.125	1193769.000
94	627007.125	1193819.000
95	627007.125	1193869.000
96	627007.125	1193919.000
97	627007.125	1193969.000
98	627007.125	1194019.000
99	627007.125	1194069.000
100	627007.125	1194119.000
101	627007.125	1194169.000
102	627007.125	1194219.000
103	627007.125	1194269.000
104	627007.125	1194319.000
105	627057.125	1193719.000
106	627057.125	1193769.000
107	627057.125	1193819.000
108	627057.125	1193869.000
109	627057.125	1193919.000
110	627057.125	1193969.000
111	627057.125	1194019.000
112	627057.125	1194069.000
113	627057.125	1194119.000
114	627057.125	1194169.000
115	627057.125	1194219.000
116	627057.125	1194269.000
117	627057.125	1194319.000
118	627107.125	1193719.000
119	627107.125	1193769.000
120	627107.125	1193819.000
121	627107.125	1193869.000
122	627107.125	1193919.000
123	627107.125	1193969.000
124	627107.125	1194019.000
125	627107.125	1194069.000
126	627107.125	1194119.000

			CADPTS.DAT
127	627107.125	1194169.000	
128	627107.125	1194219.000	
129	627107.125	1194269.000	
130	627107.125	1194319.000	

			CHAN . DAT		
0.0	0.0	0.000			
R	54	0.040	6	5	50
R	55	0.040	6	5	50
R	56	0.040	6	5	50
R	57	0.040	6	5	50
R	58	0.040	6	5	50
R	59	0.040	6	5	50
R	60	0.040	6	5	50
R	61	0.040	6	5	50
R	62	0.040	6	5	50
R	63	0.040	6	5	50
R	64	0.040	6	5	50
R	65	0.040	6	5	50

## CHANBANK . DAT

54	0
55	0
56	0
57	0
58	0
59	0
60	0
61	0
62	0
63	0
64	0
65	0

```
CONT.DAT
10.000 0.100 2 0 0 Pro Model - Build No. 16.06.16
 1 0 0 0 0
 0 0 0 0 0
 1 0 0
0.000 0.00 0.000 0.000 0.000 0.200
 0 0.00
 0
 2 0.10
0.10
```

				FPLAIN.DAT		
1	2	14	0	0	0.040	276.36
2	3	15	1	0	0.040	275.01
3	4	16	2	0	0.040	273.16
4	5	17	3	0	0.040	271.42
5	6	18	4	0	0.040	270.18
6	7	19	5	0	0.040	268.96
7	8	20	6	0	0.040	268.38
8	9	21	7	0	0.040	266.93
9	10	22	8	0	0.040	265.97
10	11	23	9	0	0.040	264.50
11	12	24	10	0	0.040	262.23
12	13	25	11	0	0.040	260.87
13	0	26	12	0	0.040	260.02
14	15	27	0	1	0.040	277.31
15	16	28	14	2	0.040	275.99
16	17	29	15	3	0.040	274.34
17	18	30	16	4	0.040	272.56
18	19	31	17	5	0.040	271.18
19	20	32	18	6	0.040	269.79
20	21	33	19	7	0.040	268.32
21	22	34	20	8	0.040	266.67
22	23	35	21	9	0.040	265.31
23	24	36	22	10	0.040	263.67
24	25	37	23	11	0.040	261.52
25	26	38	24	12	0.040	260.36
26	0	39	25	13	0.040	259.41
27	28	40	0	14	0.040	277.90
28	29	41	27	15	0.040	276.99
29	30	42	28	16	0.040	275.63
30	31	43	29	17	0.040	273.34
31	32	44	30	18	0.040	272.45
32	33	45	31	19	0.040	270.04
33	34	46	32	20	0.040	268.36
34	35	47	33	21	0.040	266.15
35	36	48	34	22	0.040	264.96
36	37	49	35	23	0.040	262.87
37	38	50	36	24	0.040	261.72
38	39	51	37	25	0.040	260.26
39	0	52	38	26	0.040	259.50
40	41	53	0	27	0.040	279.24
41	42	54	40	28	0.040	277.43
42	43	55	41	29	0.040	275.98
43	44	56	42	30	0.040	274.06
44	45	57	43	31	0.040	272.15
45	46	58	44	32	0.040	270.41
46	47	59	45	33	0.040	268.14
47	48	60	46	34	0.040	266.24
48	49	61	47	35	0.040	264.84
49	50	62	48	36	0.040	262.31
50	51	63	49	37	0.040	260.19
51	52	64	50	38	0.040	259.44
52	0	65	51	39	0.040	259.11
53	54	66	0	40	0.040	275.00
54	55	67	53	41	0.040	268.00
55	56	68	54	42	0.040	267.00
56	57	69	55	43	0.040	266.00
57	58	70	56	44	0.040	265.00
58	59	71	57	45	0.040	264.00
59	60	72	58	46	0.040	263.00
60	61	73	59	47	0.040	262.00
61	62	74	60	48	0.040	261.00
62	63	75	61	49	0.040	260.00
63	64	76	62	50	0.040	259.00

				FPLAIN.DAT		
64	65	77	63	51	0.040	258.00
65	0	78	64	52	0.040	257.00
66	67	79	0	53	0.040	278.19
67	68	80	66	54	0.040	277.12
68	69	81	67	55	0.040	276.46
69	70	82	68	56	0.040	272.14
70	71	83	69	57	0.040	271.07
71	72	84	70	58	0.040	268.89
72	73	85	71	59	0.040	265.86
73	74	86	72	60	0.040	263.82
74	75	87	73	61	0.040	262.53
75	76	88	74	62	0.040	259.29
76	77	89	75	63	0.040	258.93
77	78	90	76	64	0.040	258.55
78	0	91	77	65	0.040	258.14
79	80	92	0	66	0.040	277.96
80	81	93	79	67	0.040	277.53
81	82	94	80	68	0.040	275.48
82	83	95	81	69	0.040	272.78
83	84	96	82	70	0.040	270.45
84	85	97	83	71	0.040	268.16
85	86	98	84	72	0.040	266.42
86	87	99	85	73	0.040	262.65
87	88	100	86	74	0.040	260.81
88	89	101	87	75	0.040	259.74
89	90	102	88	76	0.040	258.88
90	91	103	89	77	0.040	258.58
91	0	104	90	78	0.040	259.10
92	93	105	0	79	0.040	277.94
93	94	106	92	80	0.040	276.10
94	95	107	93	81	0.040	275.26
95	96	108	94	82	0.040	274.15
96	97	109	95	83	0.040	270.52
97	98	110	96	84	0.040	267.72
98	99	111	97	85	0.040	264.25
99	100	112	98	86	0.040	261.37
100	101	113	99	87	0.040	261.75
101	102	114	100	88	0.040	262.31
102	103	115	101	89	0.040	260.42
103	104	116	102	90	0.040	259.97
104	0	117	103	91	0.040	260.19
105	106	118	0	92	0.040	276.28
106	107	119	105	93	0.040	275.82
107	108	120	106	94	0.040	275.21
108	109	121	107	95	0.040	272.79
109	110	122	108	96	0.040	271.72
110	111	123	109	97	0.040	266.49
111	112	124	110	98	0.040	261.34
112	113	125	111	99	0.040	261.55
113	114	126	112	100	0.040	261.42
114	115	127	113	101	0.040	261.29
115	116	128	114	102	0.040	261.06
116	117	129	115	103	0.040	260.65
117	0	130	116	104	0.040	259.63
118	119	0	0	105	0.040	276.02
119	120	0	118	106	0.040	275.66
120	121	0	119	107	0.040	273.51
121	122	0	120	108	0.040	272.73
122	123	0	121	109	0.040	268.66
123	124	0	122	110	0.040	261.28
124	125	0	123	111	0.040	261.39
125	126	0	124	112	0.040	260.94
126	127	0	125	113	0.040	260.82

			FPLAIN.DAT			
127	128	0	126	114	0.040	261.36
128	129	0	127	115	0.040	261.19
129	130	0	128	116	0.040	261.35
130	0	0	129	117	0.040	262.48



S				HYSTRUC.DAT		
0		Hunu_Culvert	1	2	59	60
	F	0	100	3		
		2	3	0.024	0.9	0

## INFLOW.DAT

0	54	
C	0	54
H	0.0	0.0
H	1.0	5.0
H	2.0	10.0
H	3.0	20.0
H	4.0	30.0
H	5.0	50.0
H	6.0	30.0
H	10.0	5.0

## MANNINGS\_N.DAT

1	0.040
2	0.040
3	0.040
4	0.040
5	0.040
6	0.040
7	0.040
8	0.040
9	0.040
10	0.040
11	0.040
12	0.040
13	0.040
14	0.040
15	0.040
16	0.040
17	0.040
18	0.040
19	0.040
20	0.040
21	0.040
22	0.040
23	0.040
24	0.040
25	0.040
26	0.040
27	0.040
28	0.040
29	0.040
30	0.040
31	0.040
32	0.040
33	0.040
34	0.040
35	0.040
36	0.040
37	0.040
38	0.040
39	0.040
40	0.040
41	0.040
42	0.040
43	0.040
44	0.040
45	0.040
46	0.040
47	0.040
48	0.040
49	0.040
50	0.040
51	0.040
52	0.040
53	0.040
54	0.040
55	0.040
56	0.040
57	0.040
58	0.040
59	0.040
60	0.040
61	0.040
62	0.040
63	0.040

## MANNINGS\_N.DAT

64	0.040
65	0.040
66	0.040
67	0.040
68	0.040
69	0.040
70	0.040
71	0.040
72	0.040
73	0.040
74	0.040
75	0.040
76	0.040
77	0.040
78	0.040
79	0.040
80	0.040
81	0.040
82	0.040
83	0.040
84	0.040
85	0.040
86	0.040
87	0.040
88	0.040
89	0.040
90	0.040
91	0.040
92	0.040
93	0.040
94	0.040
95	0.040
96	0.040
97	0.040
98	0.040
99	0.040
100	0.040
101	0.040
102	0.040
103	0.040
104	0.040
105	0.040
106	0.040
107	0.040
108	0.040
109	0.040
110	0.040
111	0.040
112	0.040
113	0.040
114	0.040
115	0.040
116	0.040
117	0.040
118	0.040
119	0.040
120	0.040
121	0.040
122	0.040
123	0.040
124	0.040
125	0.040
126	0.040

## MANNINGS\_N.DAT

127	0.040
128	0.040
129	0.040
130	0.040

K	65	OUTFLOW.DAT
O	65	

```
SUPPLEMENT.DAT
0      [Shape Files]
0      [Images]
[Modeling Boundary Polygon]=true
4
      626606.38      1194382.50
      627137.63      1194382.50
      627137.63      1193666.50
      626610.94      1193671.13
[Street Polylines]=false
[Channel Polylines]=true
1
2
      626860.38      1193713.00
      626860.38      1194319.00
[Levee Polylines]=false
```

			TOLER.DAT
0.1	0	0	
C	0.6	0	
T	0.1		



## TOPO.DAT

626657.13	1193719.00	276.36
626657.13	1193769.00	275.01
626657.13	1193819.00	273.16
626657.13	1193869.00	271.42
626657.13	1193919.00	270.18
626657.13	1193969.00	268.96
626657.13	1194019.00	268.38
626657.13	1194069.00	266.93
626657.13	1194119.00	265.97
626657.13	1194169.00	264.50
626657.13	1194219.00	262.23
626657.13	1194269.00	260.87
626657.13	1194319.00	260.02
626707.13	1193719.00	277.31
626707.13	1193769.00	275.99
626707.13	1193819.00	274.34
626707.13	1193869.00	272.56
626707.13	1193919.00	271.18
626707.13	1193969.00	269.79
626707.13	1194019.00	268.32
626707.13	1194069.00	266.67
626707.13	1194119.00	265.31
626707.13	1194169.00	263.67
626707.13	1194219.00	261.52
626707.13	1194269.00	260.36
626707.13	1194319.00	259.41
626757.13	1193719.00	277.90
626757.13	1193769.00	276.99
626757.13	1193819.00	275.63
626757.13	1193869.00	273.34
626757.13	1193919.00	272.45
626757.13	1193969.00	270.04
626757.13	1194019.00	268.36
626757.13	1194069.00	266.15
626757.13	1194119.00	264.96
626757.13	1194169.00	262.87
626757.13	1194219.00	261.72
626757.13	1194269.00	260.26
626757.13	1194319.00	259.50
626807.13	1193719.00	279.24
626807.13	1193769.00	277.43
626807.13	1193819.00	275.98
626807.13	1193869.00	274.06
626807.13	1193919.00	272.15
626807.13	1193969.00	270.41
626807.13	1194019.00	268.14
626807.13	1194069.00	266.24
626807.13	1194119.00	264.84
626807.13	1194169.00	262.31
626807.13	1194219.00	260.19
626807.13	1194269.00	259.44
626807.13	1194319.00	259.11
626857.13	1193719.00	275.00
626857.13	1193769.00	268.00
626857.13	1193819.00	267.00
626857.13	1193869.00	266.00
626857.13	1193919.00	265.00
626857.13	1193969.00	264.00
626857.13	1194019.00	263.00
626857.13	1194069.00	262.00
626857.13	1194119.00	261.00
626857.13	1194169.00	260.00
626857.13	1194219.00	259.00

## TOPO.DAT

626857.13	1194269.00	258.00
626857.13	1194319.00	257.00
626907.13	1193719.00	278.19
626907.13	1193769.00	277.12
626907.13	1193819.00	276.46
626907.13	1193869.00	272.14
626907.13	1193919.00	271.07
626907.13	1193969.00	268.89
626907.13	1194019.00	265.86
626907.13	1194069.00	263.82
626907.13	1194119.00	262.53
626907.13	1194169.00	259.29
626907.13	1194219.00	258.93
626907.13	1194269.00	258.55
626907.13	1194319.00	258.14
626957.13	1193719.00	277.96
626957.13	1193769.00	277.53
626957.13	1193819.00	275.48
626957.13	1193869.00	272.78
626957.13	1193919.00	270.45
626957.13	1193969.00	268.16
626957.13	1194019.00	266.42
626957.13	1194069.00	262.65
626957.13	1194119.00	260.81
626957.13	1194169.00	259.74
626957.13	1194219.00	258.88
626957.13	1194269.00	258.58
626957.13	1194319.00	259.10
627007.13	1193719.00	277.94
627007.13	1193769.00	276.10
627007.13	1193819.00	275.26
627007.13	1193869.00	274.15
627007.13	1193919.00	270.52
627007.13	1193969.00	267.72
627007.13	1194019.00	264.25
627007.13	1194069.00	261.37
627007.13	1194119.00	261.75
627007.13	1194169.00	262.31
627007.13	1194219.00	260.42
627007.13	1194269.00	259.97
627007.13	1194319.00	260.19
627057.13	1193719.00	276.28
627057.13	1193769.00	275.82
627057.13	1193819.00	275.21
627057.13	1193869.00	272.79
627057.13	1193919.00	271.72
627057.13	1193969.00	266.49
627057.13	1194019.00	261.34
627057.13	1194069.00	261.55
627057.13	1194119.00	261.42
627057.13	1194169.00	261.29
627057.13	1194219.00	261.06
627057.13	1194269.00	260.65
627057.13	1194319.00	259.63
627107.13	1193719.00	276.02
627107.13	1193769.00	275.66
627107.13	1193819.00	273.51
627107.13	1193869.00	272.73
627107.13	1193919.00	268.66
627107.13	1193969.00	261.28
627107.13	1194019.00	261.39
627107.13	1194069.00	260.94
627107.13	1194119.00	260.82

## TOPO.DAT

627107.13	1194169.00	261.36
627107.13	1194219.00	261.19
627107.13	1194269.00	261.35
627107.13	1194319.00	262.48

## **Attachment 10 – Test Case 3 FLO-2D Pro “DEPTH.OUT” Output Files**

		DEPTH.OUT	
1	626657.12	1193719.00	0.0000
2	626657.12	1193769.00	0.0000
3	626657.12	1193819.00	0.0000
4	626657.12	1193869.00	0.0000
5	626657.12	1193919.00	0.0000
6	626657.12	1193969.00	0.0000
7	626657.12	1194019.00	0.0000
8	626657.12	1194069.00	0.0000
9	626657.12	1194119.00	0.0000
10	626657.12	1194169.00	0.0000
11	626657.12	1194219.00	0.0000
12	626657.12	1194269.00	0.0000
13	626657.12	1194319.00	0.0000
14	626707.12	1193719.00	0.0000
15	626707.12	1193769.00	0.0000
16	626707.12	1193819.00	0.0000
17	626707.12	1193869.00	0.0000
18	626707.12	1193919.00	0.0000
19	626707.12	1193969.00	0.0000
20	626707.12	1194019.00	0.0000
21	626707.12	1194069.00	0.0000
22	626707.12	1194119.00	0.0000
23	626707.12	1194169.00	0.0000
24	626707.12	1194219.00	0.0000
25	626707.12	1194269.00	0.0000
26	626707.12	1194319.00	0.0000
27	626757.12	1193719.00	0.0000
28	626757.12	1193769.00	0.0000
29	626757.12	1193819.00	0.0000
30	626757.12	1193869.00	0.0000
31	626757.12	1193919.00	0.0000
32	626757.12	1193969.00	0.0000
33	626757.12	1194019.00	0.0000
34	626757.12	1194069.00	0.0000
35	626757.12	1194119.00	0.0000
36	626757.12	1194169.00	0.0000
37	626757.12	1194219.00	0.0000
38	626757.12	1194269.00	0.0000
39	626757.12	1194319.00	0.0000
40	626807.12	1193719.00	0.0000
41	626807.12	1193769.00	0.0000
42	626807.12	1193819.00	0.0000
43	626807.12	1193869.00	0.0000
44	626807.12	1193919.00	0.0000
45	626807.12	1193969.00	0.0000
46	626807.12	1194019.00	0.0000
47	626807.12	1194069.00	0.0000
48	626807.12	1194119.00	0.0000
49	626807.12	1194169.00	0.0000

		DEPTH.OUT	
50	626807.12	1194219.00	0.0000
51	626807.12	1194269.00	0.0000
52	626807.12	1194319.00	0.0000
53	626857.12	1193719.00	0.0000
54	626857.12	1193769.00	2.2653
55	626857.12	1193819.00	1.8094
56	626857.12	1193869.00	2.1019
57	626857.12	1193919.00	2.7636
58	626857.12	1193969.00	3.6582
59	626857.12	1194019.00	4.6178
60	626857.12	1194069.00	1.4570
61	626857.12	1194119.00	1.5387
62	626857.12	1194169.00	1.5456
63	626857.12	1194219.00	1.5451
64	626857.12	1194269.00	1.5451
65	626857.12	1194319.00	1.5451
66	626907.12	1193719.00	0.0000
67	626907.12	1193769.00	0.0000
68	626907.12	1193819.00	0.0000
69	626907.12	1193869.00	0.0000
70	626907.12	1193919.00	0.0000
71	626907.12	1193969.00	0.0000
72	626907.12	1194019.00	0.0000
73	626907.12	1194069.00	0.0000
74	626907.12	1194119.00	0.0000
75	626907.12	1194169.00	0.0000
76	626907.12	1194219.00	0.0000
77	626907.12	1194269.00	0.0000
78	626907.12	1194319.00	0.0000
79	626957.12	1193719.00	0.0000
80	626957.12	1193769.00	0.0000
81	626957.12	1193819.00	0.0000
82	626957.12	1193869.00	0.0000
83	626957.12	1193919.00	0.0000
84	626957.12	1193969.00	0.0000
85	626957.12	1194019.00	0.0000
86	626957.12	1194069.00	0.0000
87	626957.12	1194119.00	0.0000
88	626957.12	1194169.00	0.0000
89	626957.12	1194219.00	0.0000
90	626957.12	1194269.00	0.0000
91	626957.12	1194319.00	0.0000
92	627007.12	1193719.00	0.0000
93	627007.12	1193769.00	0.0000
94	627007.12	1193819.00	0.0000
95	627007.12	1193869.00	0.0000
96	627007.12	1193919.00	0.0000
97	627007.12	1193969.00	0.0000
98	627007.12	1194019.00	0.0000

DEPTH.OUT			
99	627007.12	1194069.00	0.0000
100	627007.12	1194119.00	0.0000
101	627007.12	1194169.00	0.0000
102	627007.12	1194219.00	0.0000
103	627007.12	1194269.00	0.0000
104	627007.12	1194319.00	0.0000
105	627057.12	1193719.00	0.0000
106	627057.12	1193769.00	0.0000
107	627057.12	1193819.00	0.0000
108	627057.12	1193869.00	0.0000
109	627057.12	1193919.00	0.0000
110	627057.12	1193969.00	0.0000
111	627057.12	1194019.00	0.0000
112	627057.12	1194069.00	0.0000
113	627057.12	1194119.00	0.0000
114	627057.12	1194169.00	0.0000
115	627057.12	1194219.00	0.0000
116	627057.12	1194269.00	0.0000
117	627057.12	1194319.00	0.0000
118	627107.12	1193719.00	0.0000
119	627107.12	1193769.00	0.0000
120	627107.12	1193819.00	0.0000
121	627107.12	1193869.00	0.0000
122	627107.12	1193919.00	0.0000
123	627107.12	1193969.00	0.0000
124	627107.12	1194019.00	0.0000
125	627107.12	1194069.00	0.0000
126	627107.12	1194119.00	0.0000
127	627107.12	1194169.00	0.0000
128	627107.12	1194219.00	0.0000
129	627107.12	1194269.00	0.0000
130	627107.12	1194319.00	0.0000

## **Attachment 11a – Test Case 4a FLO-2D Pro Input Files**



## CADPTS.DAT

1	1010.000	1705.000
2	1010.000	1715.000
3	1010.000	1725.000
4	1010.000	1735.000
5	1010.000	1745.000
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8	1010.000	1775.000
9	1010.000	1785.000
10	1010.000	1795.000
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23	1010.000	1925.000
24	1010.000	1935.000
25	1010.000	1945.000
26	1010.000	1955.000
27	1010.000	1965.000
28	1010.000	1975.000
29	1020.000	1035.000
30	1020.000	1045.000
31	1020.000	1055.000
32	1020.000	1065.000
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35	1020.000	1095.000
36	1020.000	1105.000
37	1020.000	1115.000
38	1020.000	1125.000
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58	1020.000	1325.000
59	1020.000	1335.000
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61	1020.000	1355.000
62	1020.000	1365.000
63	1020.000	1375.000

## CADPTS.DAT

64	1020.000	1385.000
65	1020.000	1395.000
66	1020.000	1405.000
67	1020.000	1415.000
68	1020.000	1425.000
69	1020.000	1435.000
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121	1020.000	1955.000
122	1020.000	1965.000
123	1020.000	1975.000
124	1030.000	1035.000
125	1030.000	1045.000
126	1030.000	1055.000

## CADPTS.DAT

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130	1030.000	1095.000
131	1030.000	1105.000
132	1030.000	1115.000
133	1030.000	1125.000
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184	1030.000	1635.000
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186	1030.000	1655.000
187	1030.000	1665.000
188	1030.000	1675.000
189	1030.000	1685.000

## CADPTS.DAT

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194	1030.000	1735.000
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247	1040.000	1315.000
248	1040.000	1325.000
249	1040.000	1335.000
250	1040.000	1345.000
251	1040.000	1355.000
252	1040.000	1365.000

## CADPTS.DAT

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255	1040.000	1395.000
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257	1040.000	1415.000
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310	1040.000	1945.000
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313	1040.000	1975.000
314	1050.000	1035.000
315	1050.000	1045.000

## CADPTS.DAT

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318	1050.000	1075.000
319	1050.000	1085.000
320	1050.000	1095.000
321	1050.000	1105.000
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373	1050.000	1625.000
374	1050.000	1635.000
375	1050.000	1645.000
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377	1050.000	1665.000
378	1050.000	1675.000

## CADPTS.DAT

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400	1050.000	1895.000
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## CADPTS.DAT

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485	1060.000	1795.000
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494	1060.000	1885.000
495	1060.000	1895.000
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498	1060.000	1925.000
499	1060.000	1935.000
500	1060.000	1945.000
501	1060.000	1955.000
502	1060.000	1965.000
503	1060.000	1975.000
504	1070.000	1035.000



## CADPTS.DAT

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507	1070.000	1065.000
508	1070.000	1075.000
509	1070.000	1085.000
510	1070.000	1095.000
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1167	1130.000	1965.000
1168	1130.000	1975.000
1169	1140.000	1035.000
1170	1140.000	1045.000
1171	1140.000	1055.000
1172	1140.000	1065.000
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1195	1140.000	1295.000
1196	1140.000	1305.000
1197	1140.000	1315.000

## CADPTS.DAT

1198	1140.000	1325.000
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1200	1140.000	1345.000
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1258	1140.000	1925.000
1259	1140.000	1935.000
1260	1140.000	1945.000

## CADPTS.DAT

1261	1140.000	1955.000
1262	1140.000	1965.000
1263	1140.000	1975.000
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1319	1150.000	1585.000
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1323	1150.000	1625.000

## CADPTS.DAT

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1386	1160.000	1305.000

## CADPTS.DAT

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1449	1160.000	1935.000

## CADPTS.DAT

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## CADPTS.DAT

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1573	1180.000	1275.000
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1575	1180.000	1295.000

## CADPTS.DAT

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1636	1180.000	1905.000
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1638	1180.000	1925.000

## CADPTS.DAT

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1641	1180.000	1955.000
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1643	1180.000	1975.000
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1650	1190.000	1095.000
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1700	1190.000	1595.000
1701	1190.000	1605.000

## CADPTS.DAT

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1709	1190.000	1685.000
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1734	1190.000	1935.000
1735	1190.000	1945.000
1736	1190.000	1955.000
1737	1190.000	1965.000
1738	1190.000	1975.000
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1744	1200.000	1085.000
1745	1200.000	1095.000
1746	1200.000	1105.000
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## CADPTS.DAT

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## CADPTS.DAT

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1888	1210.000	1575.000
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## CADPTS.DAT

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1948	1220.000	1225.000
1949	1220.000	1235.000
1950	1220.000	1245.000
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1953	1220.000	1275.000

## CADPTS.DAT

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2011	1220.000	1855.000
2012	1220.000	1865.000
2013	1220.000	1875.000
2014	1220.000	1885.000
2015	1220.000	1895.000
2016	1220.000	1905.000



## CADPTS.DAT

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2023	1220.000	1975.000
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## CADPTS.DAT

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2140	1240.000	1245.000
2141	1240.000	1255.000
2142	1240.000	1265.000

## CADPTS.DAT

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2173	1240.000	1575.000
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2205	1240.000	1895.000

## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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4665	1500.000	1795.000
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4667	1500.000	1815.000
4668	1500.000	1825.000
4669	1500.000	1835.000
4670	1500.000	1845.000
4671	1500.000	1855.000
4672	1500.000	1865.000
4673	1500.000	1875.000
4674	1500.000	1885.000
4675	1500.000	1895.000
4676	1500.000	1905.000
4677	1500.000	1915.000
4678	1500.000	1925.000
4679	1500.000	1935.000
4680	1500.000	1945.000
4681	1500.000	1955.000
4682	1500.000	1965.000
4683	1500.000	1975.000
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4685	1510.000	1045.000
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4688	1510.000	1075.000
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4692	1510.000	1115.000
4693	1510.000	1125.000
4694	1510.000	1135.000
4695	1510.000	1145.000
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4699	1510.000	1185.000
4700	1510.000	1195.000
4701	1510.000	1205.000
4702	1510.000	1215.000
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4705	1510.000	1245.000
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4723	1510.000	1425.000
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## CADPTS.DAT

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4786	1520.000	1105.000
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4788	1520.000	1125.000

## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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4975	1540.000	1095.000
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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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## CADPTS.DAT

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5216	1560.000	1605.000

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5	6	100	4	0	0.040	8.00
6	7	101	5	0	0.040	8.00
7	8	102	6	0	0.040	8.00
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9	10	104	8	0	0.040	8.00
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12	13	107	11	0	0.040	8.00
13	14	108	12	0	0.040	8.00
14	15	109	13	0	0.040	8.00
15	16	110	14	0	0.040	8.00
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19	20	114	18	0	0.040	8.00
20	21	115	19	0	0.040	8.00
21	22	116	20	0	0.040	8.00
22	23	117	21	0	0.040	8.00
23	24	118	22	0	0.040	8.00
24	25	119	23	0	0.040	8.00
25	26	120	24	0	0.040	8.00
26	27	121	25	0	0.040	8.00
27	28	122	26	0	0.040	8.00
28	0	123	27	0	0.040	8.00
29	30	124	0	0	0.040	8.00
30	31	125	29	0	0.040	8.00
31	32	126	30	0	0.040	8.00
32	33	127	31	0	0.040	8.00
33	34	128	32	0	0.040	8.00
34	35	129	33	0	0.040	8.00
35	36	130	34	0	0.040	8.00
36	37	131	35	0	0.040	8.00
37	38	132	36	0	0.040	8.00
38	39	133	37	0	0.040	8.00
39	40	134	38	0	0.040	8.00
40	41	135	39	0	0.040	8.00
41	42	136	40	0	0.040	8.00
42	43	137	41	0	0.040	8.00
43	44	138	42	0	0.040	8.00
44	45	139	43	0	0.040	8.00
45	46	140	44	0	0.040	8.00
46	47	141	45	0	0.040	8.00
47	48	142	46	0	0.040	8.00
48	49	143	47	0	0.040	8.00
49	50	144	48	0	0.040	8.00
50	51	145	49	0	0.040	8.00
51	52	146	50	0	0.040	8.00
52	53	147	51	0	0.040	8.00
53	54	148	52	0	0.040	8.00
54	55	149	53	0	0.040	8.00
55	56	150	54	0	0.040	8.00
56	57	151	55	0	0.040	8.00
57	58	152	56	0	0.040	8.00
58	59	153	57	0	0.040	8.00
59	60	154	58	0	0.040	8.00
60	61	155	59	0	0.040	8.00
61	62	156	60	0	0.040	8.00
62	63	157	61	0	0.040	8.00
63	64	158	62	0	0.040	8.00

				FPLAIN.DAT		
64	65	159	63	0	0.040	8.00
65	66	160	64	0	0.040	8.00
66	67	161	65	0	0.040	8.00
67	68	162	66	0	0.040	8.00
68	69	163	67	0	0.040	8.00
69	70	164	68	0	0.040	0.10
70	71	165	69	0	0.040	0.10
71	72	166	70	0	0.040	0.10
72	73	167	71	0	0.040	0.10
73	74	168	72	0	0.040	0.10
74	75	169	73	0	0.040	0.10
75	76	170	74	0	0.040	0.10
76	77	171	75	0	0.040	0.10
77	78	172	76	0	0.040	0.10
78	79	173	77	0	0.040	0.10
79	80	174	78	0	0.040	0.10
80	81	175	79	0	0.040	0.10
81	82	176	80	0	0.040	0.10
82	83	177	81	0	0.040	0.10
83	84	178	82	0	0.040	0.10
84	85	179	83	0	0.040	0.10
85	86	180	84	0	0.040	0.10
86	87	181	85	0	0.040	0.10
87	88	182	86	0	0.040	0.10
88	89	183	87	0	0.040	0.10
89	90	184	88	0	0.040	0.10
90	91	185	89	0	0.040	0.10
91	92	186	90	0	0.040	0.10
92	93	187	91	0	0.040	8.00
93	94	188	92	0	0.040	8.00
94	95	189	93	0	0.040	8.00
95	96	190	94	0	0.040	8.00
96	97	191	95	1	0.040	8.00
97	98	192	96	2	0.040	8.00
98	99	193	97	3	0.040	8.00
99	100	194	98	4	0.040	8.00
100	101	195	99	5	0.040	8.00
101	102	196	100	6	0.040	8.00
102	103	197	101	7	0.040	8.00
103	104	198	102	8	0.040	8.00
104	105	199	103	9	0.040	8.00
105	106	200	104	10	0.040	8.00
106	107	201	105	11	0.040	8.00
107	108	202	106	12	0.040	8.00
108	109	203	107	13	0.040	8.00
109	110	204	108	14	0.040	8.00
110	111	205	109	15	0.040	8.00
111	112	206	110	16	0.040	8.00
112	113	207	111	17	0.040	8.00
113	114	208	112	18	0.040	8.00
114	115	209	113	19	0.040	8.00
115	116	210	114	20	0.040	8.00
116	117	211	115	21	0.040	8.00
117	118	212	116	22	0.040	8.00
118	119	213	117	23	0.040	8.00
119	120	214	118	24	0.040	8.00
120	121	215	119	25	0.040	8.00
121	122	216	120	26	0.040	8.00
122	123	217	121	27	0.040	8.00
123	0	218	122	28	0.040	8.00
124	125	219	0	29	0.040	8.00
125	126	220	124	30	0.040	8.00
126	127	221	125	31	0.040	8.00

			FPLAIN.DAT			
127	128	222	126	32	0.040	8.00
128	129	223	127	33	0.040	8.00
129	130	224	128	34	0.040	8.00
130	131	225	129	35	0.040	8.00
131	132	226	130	36	0.040	8.00
132	133	227	131	37	0.040	8.00
133	134	228	132	38	0.040	8.00
134	135	229	133	39	0.040	8.00
135	136	230	134	40	0.040	8.00
136	137	231	135	41	0.040	8.00
137	138	232	136	42	0.040	8.00
138	139	233	137	43	0.040	8.00
139	140	234	138	44	0.040	8.00
140	141	235	139	45	0.040	8.00
141	142	236	140	46	0.040	8.00
142	143	237	141	47	0.040	8.00
143	144	238	142	48	0.040	8.00
144	145	239	143	49	0.040	8.00
145	146	240	144	50	0.040	8.00
146	147	241	145	51	0.040	8.00
147	148	242	146	52	0.040	8.00
148	149	243	147	53	0.040	8.00
149	150	244	148	54	0.040	8.00
150	151	245	149	55	0.040	8.00
151	152	246	150	56	0.040	8.00
152	153	247	151	57	0.040	8.00
153	154	248	152	58	0.040	8.00
154	155	249	153	59	0.040	8.00
155	156	250	154	60	0.040	8.00
156	157	251	155	61	0.040	8.00
157	158	252	156	62	0.040	8.00
158	159	253	157	63	0.040	8.00
159	160	254	158	64	0.040	8.00
160	161	255	159	65	0.040	8.00
161	162	256	160	66	0.040	8.00
162	163	257	161	67	0.040	8.00
163	164	258	162	68	0.040	8.00
164	165	259	163	69	0.040	0.10
165	166	260	164	70	0.040	0.10
166	167	261	165	71	0.040	0.10
167	168	262	166	72	0.040	0.10
168	169	263	167	73	0.040	0.10
169	170	264	168	74	0.040	0.10
170	171	265	169	75	0.040	0.10
171	172	266	170	76	0.040	0.10
172	173	267	171	77	0.040	0.10
173	174	268	172	78	0.040	0.10
174	175	269	173	79	0.040	0.10
175	176	270	174	80	0.040	0.10
176	177	271	175	81	0.040	0.10
177	178	272	176	82	0.040	0.10
178	179	273	177	83	0.040	0.10
179	180	274	178	84	0.040	0.10
180	181	275	179	85	0.040	0.10
181	182	276	180	86	0.040	0.10
182	183	277	181	87	0.040	0.10
183	184	278	182	88	0.040	0.10
184	185	279	183	89	0.040	0.10
185	186	280	184	90	0.040	0.10
186	187	281	185	91	0.040	0.10
187	188	282	186	92	0.040	8.00
188	189	283	187	93	0.040	8.00
189	190	284	188	94	0.040	8.00

FPLAIN.DAT					
190	191	285	189	95	0.040 8.00
191	192	286	190	96	0.040 8.00
192	193	287	191	97	0.040 8.00
193	194	288	192	98	0.040 8.00
194	195	289	193	99	0.040 8.00
195	196	290	194	100	0.040 8.00
196	197	291	195	101	0.040 8.00
197	198	292	196	102	0.040 8.00
198	199	293	197	103	0.040 8.00
199	200	294	198	104	0.040 8.00
200	201	295	199	105	0.040 8.00
201	202	296	200	106	0.040 8.00
202	203	297	201	107	0.040 8.00
203	204	298	202	108	0.040 8.00
204	205	299	203	109	0.040 8.00
205	206	300	204	110	0.040 8.00
206	207	301	205	111	0.040 8.00
207	208	302	206	112	0.040 8.00
208	209	303	207	113	0.040 8.00
209	210	304	208	114	0.040 8.00
210	211	305	209	115	0.040 8.00
211	212	306	210	116	0.040 8.00
212	213	307	211	117	0.040 8.00
213	214	308	212	118	0.040 8.00
214	215	309	213	119	0.040 8.00
215	216	310	214	120	0.040 8.00
216	217	311	215	121	0.040 8.00
217	218	312	216	122	0.040 8.00
218	0	313	217	123	0.040 8.00
219	220	314	0	124	0.040 8.00
220	221	315	219	125	0.040 8.00
221	222	316	220	126	0.040 8.00
222	223	317	221	127	0.040 8.00
223	224	318	222	128	0.040 8.00
224	225	319	223	129	0.040 8.00
225	226	320	224	130	0.040 8.00
226	227	321	225	131	0.040 8.00
227	228	322	226	132	0.040 8.00
228	229	323	227	133	0.040 8.00
229	230	324	228	134	0.040 8.00
230	231	325	229	135	0.040 8.00
231	232	326	230	136	0.040 8.00
232	233	327	231	137	0.040 8.00
233	234	328	232	138	0.040 8.00
234	235	329	233	139	0.040 8.00
235	236	330	234	140	0.040 8.00
236	237	331	235	141	0.040 8.00
237	238	332	236	142	0.040 8.00
238	239	333	237	143	0.040 8.00
239	240	334	238	144	0.040 8.00
240	241	335	239	145	0.040 8.00
241	242	336	240	146	0.040 8.00
242	243	337	241	147	0.040 8.00
243	244	338	242	148	0.040 8.00
244	245	339	243	149	0.040 8.00
245	246	340	244	150	0.040 8.00
246	247	341	245	151	0.040 8.00
247	248	342	246	152	0.040 8.00
248	249	343	247	153	0.040 8.00
249	250	344	248	154	0.040 8.00
250	251	345	249	155	0.040 8.00
251	252	346	250	156	0.040 8.00
252	253	347	251	157	0.040 8.00

			FPLAIN.DAT			
253	254	348	252	158	0.040	8.00
254	255	349	253	159	0.040	8.00
255	256	350	254	160	0.040	8.00
256	257	351	255	161	0.040	8.00
257	258	352	256	162	0.040	8.00
258	259	353	257	163	0.040	8.00
259	260	354	258	164	0.040	0.10
260	261	355	259	165	0.040	0.10
261	262	356	260	166	0.040	0.10
262	263	357	261	167	0.040	0.10
263	264	358	262	168	0.040	0.10
264	265	359	263	169	0.040	0.10
265	266	360	264	170	0.040	0.10
266	267	361	265	171	0.040	0.10
267	268	362	266	172	0.040	0.10
268	269	363	267	173	0.040	0.10
269	270	364	268	174	0.040	0.10
270	271	365	269	175	0.040	0.10
271	272	366	270	176	0.040	0.10
272	273	367	271	177	0.040	0.10
273	274	368	272	178	0.040	0.10
274	275	369	273	179	0.040	0.10
275	276	370	274	180	0.040	0.10
276	277	371	275	181	0.040	0.10
277	278	372	276	182	0.040	0.10
278	279	373	277	183	0.040	0.10
279	280	374	278	184	0.040	0.10
280	281	375	279	185	0.040	0.10
281	282	376	280	186	0.040	0.10
282	283	377	281	187	0.040	8.00
283	284	378	282	188	0.040	8.00
284	285	379	283	189	0.040	8.00
285	286	380	284	190	0.040	8.00
286	287	381	285	191	0.040	8.00
287	288	382	286	192	0.040	8.00
288	289	383	287	193	0.040	8.00
289	290	384	288	194	0.040	8.00
290	291	385	289	195	0.040	8.00
291	292	386	290	196	0.040	8.00
292	293	387	291	197	0.040	8.00
293	294	388	292	198	0.040	8.00
294	295	389	293	199	0.040	8.00
295	296	390	294	200	0.040	8.00
296	297	391	295	201	0.040	8.00
297	298	392	296	202	0.040	8.00
298	299	393	297	203	0.040	8.00
299	300	394	298	204	0.040	8.00
300	301	395	299	205	0.040	8.00
301	302	396	300	206	0.040	8.00
302	303	397	301	207	0.040	8.00
303	304	398	302	208	0.040	8.00
304	305	399	303	209	0.040	8.00
305	306	400	304	210	0.040	8.00
306	307	401	305	211	0.040	8.00
307	308	402	306	212	0.040	8.00
308	309	403	307	213	0.040	8.00
309	310	404	308	214	0.040	8.00
310	311	405	309	215	0.040	8.00
311	312	406	310	216	0.040	8.00
312	313	407	311	217	0.040	8.00
313	0	408	312	218	0.040	8.00
314	315	409	0	219	0.040	8.00
315	316	410	314	220	0.040	8.00



				FPLAIN.DAT		
316	317	411	315	221	0.040	8.00
317	318	412	316	222	0.040	8.00
318	319	413	317	223	0.040	8.00
319	320	414	318	224	0.040	8.00
320	321	415	319	225	0.040	8.00
321	322	416	320	226	0.040	8.00
322	323	417	321	227	0.040	8.00
323	324	418	322	228	0.040	8.00
324	325	419	323	229	0.040	8.00
325	326	420	324	230	0.040	8.00
326	327	421	325	231	0.040	8.00
327	328	422	326	232	0.040	8.00
328	329	423	327	233	0.040	8.00
329	330	424	328	234	0.040	8.00
330	331	425	329	235	0.040	8.00
331	332	426	330	236	0.040	8.00
332	333	427	331	237	0.040	8.00
333	334	428	332	238	0.040	8.00
334	335	429	333	239	0.040	8.00
335	336	430	334	240	0.040	8.00
336	337	431	335	241	0.040	8.00
337	338	432	336	242	0.040	8.00
338	339	433	337	243	0.040	8.00
339	340	434	338	244	0.040	8.00
340	341	435	339	245	0.040	8.00
341	342	436	340	246	0.040	8.00
342	343	437	341	247	0.040	8.00
343	344	438	342	248	0.040	8.00
344	345	439	343	249	0.040	8.00
345	346	440	344	250	0.040	8.00
346	347	441	345	251	0.040	8.00
347	348	442	346	252	0.040	8.00
348	349	443	347	253	0.040	8.00
349	350	444	348	254	0.040	8.00
350	351	445	349	255	0.040	8.00
351	352	446	350	256	0.040	8.00
352	353	447	351	257	0.040	8.00
353	354	448	352	258	0.040	8.00
354	355	449	353	259	0.040	0.10
355	356	450	354	260	0.040	0.10
356	357	451	355	261	0.040	0.10
357	358	452	356	262	0.040	0.10
358	359	453	357	263	0.040	0.10
359	360	454	358	264	0.040	0.10
360	361	455	359	265	0.040	0.10
361	362	456	360	266	0.040	0.10
362	363	457	361	267	0.040	0.10
363	364	458	362	268	0.040	0.10
364	365	459	363	269	0.040	0.10
365	366	460	364	270	0.040	0.10
366	367	461	365	271	0.040	0.10
367	368	462	366	272	0.040	0.10
368	369	463	367	273	0.040	0.10
369	370	464	368	274	0.040	0.10
370	371	465	369	275	0.040	0.10
371	372	466	370	276	0.040	0.10
372	373	467	371	277	0.040	0.10
373	374	468	372	278	0.040	0.10
374	375	469	373	279	0.040	0.10
375	376	470	374	280	0.040	0.10
376	377	471	375	281	0.040	0.10
377	378	472	376	282	0.040	8.00
378	379	473	377	283	0.040	8.00

FPLAIN.DAT					
379	380	474	378	284	0.040 8.00
380	381	475	379	285	0.040 8.00
381	382	476	380	286	0.040 8.00
382	383	477	381	287	0.040 8.00
383	384	478	382	288	0.040 8.00
384	385	479	383	289	0.040 8.00
385	386	480	384	290	0.040 8.00
386	387	481	385	291	0.040 8.00
387	388	482	386	292	0.040 8.00
388	389	483	387	293	0.040 8.00
389	390	484	388	294	0.040 8.00
390	391	485	389	295	0.040 8.00
391	392	486	390	296	0.040 8.00
392	393	487	391	297	0.040 8.00
393	394	488	392	298	0.040 8.00
394	395	489	393	299	0.040 8.00
395	396	490	394	300	0.040 8.00
396	397	491	395	301	0.040 8.00
397	398	492	396	302	0.040 8.00
398	399	493	397	303	0.040 8.00
399	400	494	398	304	0.040 8.00
400	401	495	399	305	0.040 8.00
401	402	496	400	306	0.040 8.00
402	403	497	401	307	0.040 8.00
403	404	498	402	308	0.040 8.00
404	405	499	403	309	0.040 8.00
405	406	500	404	310	0.040 8.00
406	407	501	405	311	0.040 8.00
407	408	502	406	312	0.040 8.00
408	0	503	407	313	0.040 8.00
409	410	504	0	314	0.040 8.00
410	411	505	409	315	0.040 8.00
411	412	506	410	316	0.040 8.00
412	413	507	411	317	0.040 8.00
413	414	508	412	318	0.040 8.00
414	415	509	413	319	0.040 8.00
415	416	510	414	320	0.040 8.00
416	417	511	415	321	0.040 8.00
417	418	512	416	322	0.040 8.00
418	419	513	417	323	0.040 8.00
419	420	514	418	324	0.040 8.00
420	421	515	419	325	0.040 8.00
421	422	516	420	326	0.040 8.00
422	423	517	421	327	0.040 8.00
423	424	518	422	328	0.040 8.00
424	425	519	423	329	0.040 8.00
425	426	520	424	330	0.040 8.00
426	427	521	425	331	0.040 8.00
427	428	522	426	332	0.040 8.00
428	429	523	427	333	0.040 8.00
429	430	524	428	334	0.040 8.00
430	431	525	429	335	0.040 8.00
431	432	526	430	336	0.040 8.00
432	433	527	431	337	0.040 8.00
433	434	528	432	338	0.040 8.00
434	435	529	433	339	0.040 8.00
435	436	530	434	340	0.040 8.00
436	437	531	435	341	0.040 8.00
437	438	532	436	342	0.040 8.00
438	439	533	437	343	0.040 8.00
439	440	534	438	344	0.040 8.00
440	441	535	439	345	0.040 8.00
441	442	536	440	346	0.040 8.00

				FPLAIN.DAT			
442	443	537	441	347	0.040	8.00	
443	444	538	442	348	0.040	8.00	
444	445	539	443	349	0.040	8.00	
445	446	540	444	350	0.040	8.00	
446	447	541	445	351	0.040	8.00	
447	448	542	446	352	0.040	8.00	
448	449	543	447	353	0.040	8.00	
449	450	544	448	354	0.040	0.10	
450	451	545	449	355	0.040	0.10	
451	452	546	450	356	0.040	0.10	
452	453	547	451	357	0.040	0.10	
453	454	548	452	358	0.040	0.10	
454	455	549	453	359	0.040	0.10	
455	456	550	454	360	0.040	0.10	
456	457	551	455	361	0.040	0.10	
457	458	552	456	362	0.040	0.10	
458	459	553	457	363	0.040	0.10	
459	460	554	458	364	0.040	0.10	
460	461	555	459	365	0.040	0.10	
461	462	556	460	366	0.040	0.10	
462	463	557	461	367	0.040	0.10	
463	464	558	462	368	0.040	0.10	
464	465	559	463	369	0.040	0.10	
465	466	560	464	370	0.040	0.10	
466	467	561	465	371	0.040	0.10	
467	468	562	466	372	0.040	0.10	
468	469	563	467	373	0.040	0.10	
469	470	564	468	374	0.040	0.10	
470	471	565	469	375	0.040	0.10	
471	472	566	470	376	0.040	0.10	
472	473	567	471	377	0.040	8.00	
473	474	568	472	378	0.040	8.00	
474	475	569	473	379	0.040	8.00	
475	476	570	474	380	0.040	8.00	
476	477	571	475	381	0.040	8.00	
477	478	572	476	382	0.040	8.00	
478	479	573	477	383	0.040	8.00	
479	480	574	478	384	0.040	8.00	
480	481	575	479	385	0.040	8.00	
481	482	576	480	386	0.040	8.00	
482	483	577	481	387	0.040	8.00	
483	484	578	482	388	0.040	8.00	
484	485	579	483	389	0.040	8.00	
485	486	580	484	390	0.040	8.00	
486	487	581	485	391	0.040	8.00	
487	488	582	486	392	0.040	8.00	
488	489	583	487	393	0.040	8.00	
489	490	584	488	394	0.040	8.00	
490	491	585	489	395	0.040	8.00	
491	492	586	490	396	0.040	8.00	
492	493	587	491	397	0.040	8.00	
493	494	588	492	398	0.040	8.00	
494	495	589	493	399	0.040	8.00	
495	496	590	494	400	0.040	8.00	
496	497	591	495	401	0.040	8.00	
497	498	592	496	402	0.040	8.00	
498	499	593	497	403	0.040	8.00	
499	500	594	498	404	0.040	8.00	
500	501	595	499	405	0.040	8.00	
501	502	596	500	406	0.040	8.00	
502	503	597	501	407	0.040	8.00	
503	0	598	502	408	0.040	8.00	
504	505	599	0	409	0.040	8.00	

FPLAIN.DAT					
505	506	600	504	410	0.040 8.00
506	507	601	505	411	0.040 8.00
507	508	602	506	412	0.040 8.00
508	509	603	507	413	0.040 8.00
509	510	604	508	414	0.040 8.00
510	511	605	509	415	0.040 8.00
511	512	606	510	416	0.040 8.00
512	513	607	511	417	0.040 8.00
513	514	608	512	418	0.040 8.00
514	515	609	513	419	0.040 8.00
515	516	610	514	420	0.040 8.00
516	517	611	515	421	0.040 8.00
517	518	612	516	422	0.040 8.00
518	519	613	517	423	0.040 8.00
519	520	614	518	424	0.040 8.00
520	521	615	519	425	0.040 8.00
521	522	616	520	426	0.040 8.00
522	523	617	521	427	0.040 8.00
523	524	618	522	428	0.040 8.00
524	525	619	523	429	0.040 8.00
525	526	620	524	430	0.040 8.00
526	527	621	525	431	0.040 8.00
527	528	622	526	432	0.040 8.00
528	529	623	527	433	0.040 8.00
529	530	624	528	434	0.040 8.00
530	531	625	529	435	0.040 8.00
531	532	626	530	436	0.040 8.00
532	533	627	531	437	0.040 8.00
533	534	628	532	438	0.040 8.00
534	535	629	533	439	0.040 8.00
535	536	630	534	440	0.040 8.00
536	537	631	535	441	0.040 8.00
537	538	632	536	442	0.040 8.00
538	539	633	537	443	0.040 8.00
539	540	634	538	444	0.040 8.00
540	541	635	539	445	0.040 8.00
541	542	636	540	446	0.040 8.00
542	543	637	541	447	0.040 8.00
543	544	638	542	448	0.040 8.00
544	545	639	543	449	0.040 0.10
545	546	640	544	450	0.040 0.10
546	547	641	545	451	0.040 0.10
547	548	642	546	452	0.040 0.10
548	549	643	547	453	0.040 0.10
549	550	644	548	454	0.040 0.10
550	551	645	549	455	0.040 0.10
551	552	646	550	456	0.040 0.10
552	553	647	551	457	0.040 0.10
553	554	648	552	458	0.040 0.10
554	555	649	553	459	0.040 0.10
555	556	650	554	460	0.040 0.10
556	557	651	555	461	0.040 0.10
557	558	652	556	462	0.040 0.10
558	559	653	557	463	0.040 0.10
559	560	654	558	464	0.040 0.10
560	561	655	559	465	0.040 0.10
561	562	656	560	466	0.040 0.10
562	563	657	561	467	0.040 0.10
563	564	658	562	468	0.040 0.10
564	565	659	563	469	0.040 0.10
565	566	660	564	470	0.040 0.10
566	567	661	565	471	0.040 0.10
567	568	662	566	472	0.040 8.00

				FPLAIN.DAT		
568	569	663	567	473	0.040	8.00
569	570	664	568	474	0.040	8.00
570	571	665	569	475	0.040	8.00
571	572	666	570	476	0.040	8.00
572	573	667	571	477	0.040	8.00
573	574	668	572	478	0.040	8.00
574	575	669	573	479	0.040	8.00
575	576	670	574	480	0.040	8.00
576	577	671	575	481	0.040	8.00
577	578	672	576	482	0.040	8.00
578	579	673	577	483	0.040	8.00
579	580	674	578	484	0.040	8.00
580	581	675	579	485	0.040	8.00
581	582	676	580	486	0.040	8.00
582	583	677	581	487	0.040	8.00
583	584	678	582	488	0.040	8.00
584	585	679	583	489	0.040	8.00
585	586	680	584	490	0.040	8.00
586	587	681	585	491	0.040	8.00
587	588	682	586	492	0.040	8.00
588	589	683	587	493	0.040	8.00
589	590	684	588	494	0.040	8.00
590	591	685	589	495	0.040	8.00
591	592	686	590	496	0.040	8.00
592	593	687	591	497	0.040	8.00
593	594	688	592	498	0.040	8.00
594	595	689	593	499	0.040	8.00
595	596	690	594	500	0.040	8.00
596	597	691	595	501	0.040	8.00
597	598	692	596	502	0.040	8.00
598	0	693	597	503	0.040	8.00
599	600	694	0	504	0.040	8.00
600	601	695	599	505	0.040	8.00
601	602	696	600	506	0.040	8.00
602	603	697	601	507	0.040	8.00
603	604	698	602	508	0.040	8.00
604	605	699	603	509	0.040	8.00
605	606	700	604	510	0.040	8.00
606	607	701	605	511	0.040	8.00
607	608	702	606	512	0.040	8.00
608	609	703	607	513	0.040	8.00
609	610	704	608	514	0.040	8.00
610	611	705	609	515	0.040	8.00
611	612	706	610	516	0.040	8.00
612	613	707	611	517	0.040	8.00
613	614	708	612	518	0.040	8.00
614	615	709	613	519	0.040	8.00
615	616	710	614	520	0.040	8.00
616	617	711	615	521	0.040	8.00
617	618	712	616	522	0.040	8.00
618	619	713	617	523	0.040	8.00
619	620	714	618	524	0.040	8.00
620	621	715	619	525	0.040	8.00
621	622	716	620	526	0.040	8.00
622	623	717	621	527	0.040	8.00
623	624	718	622	528	0.040	8.00
624	625	719	623	529	0.040	8.00
625	626	720	624	530	0.040	8.00
626	627	721	625	531	0.040	8.00
627	628	722	626	532	0.040	8.00
628	629	723	627	533	0.040	8.00
629	630	724	628	534	0.040	8.00
630	631	725	629	535	0.040	8.00

				FPLAIN.DAT			
631	632	726	630	536	0.040	8.00	
632	633	727	631	537	0.040	8.00	
633	634	728	632	538	0.040	8.00	
634	635	729	633	539	0.040	8.00	
635	636	730	634	540	0.040	8.00	
636	637	731	635	541	0.040	8.00	
637	638	732	636	542	0.040	8.00	
638	639	733	637	543	0.040	8.00	
639	640	734	638	544	0.040	0.10	
640	641	735	639	545	0.040	0.10	
641	642	736	640	546	0.040	0.10	
642	643	737	641	547	0.040	0.10	
643	644	738	642	548	0.040	0.10	
644	645	739	643	549	0.040	0.10	
645	646	740	644	550	0.040	0.10	
646	647	741	645	551	0.040	0.10	
647	648	742	646	552	0.040	0.10	
648	649	743	647	553	0.040	0.10	
649	650	744	648	554	0.040	0.10	
650	651	745	649	555	0.040	0.10	
651	652	746	650	556	0.040	0.10	
652	653	747	651	557	0.040	0.10	
653	654	748	652	558	0.040	0.10	
654	655	749	653	559	0.040	0.10	
655	656	750	654	560	0.040	0.10	
656	657	751	655	561	0.040	0.10	
657	658	752	656	562	0.040	0.10	
658	659	753	657	563	0.040	0.10	
659	660	754	658	564	0.040	0.10	
660	661	755	659	565	0.040	0.10	
661	662	756	660	566	0.040	0.10	
662	663	757	661	567	0.040	8.00	
663	664	758	662	568	0.040	8.00	
664	665	759	663	569	0.040	8.00	
665	666	760	664	570	0.040	8.00	
666	667	761	665	571	0.040	8.00	
667	668	762	666	572	0.040	8.00	
668	669	763	667	573	0.040	8.00	
669	670	764	668	574	0.040	8.00	
670	671	765	669	575	0.040	8.00	
671	672	766	670	576	0.040	8.00	
672	673	767	671	577	0.040	8.00	
673	674	768	672	578	0.040	8.00	
674	675	769	673	579	0.040	8.00	
675	676	770	674	580	0.040	8.00	
676	677	771	675	581	0.040	8.00	
677	678	772	676	582	0.040	8.00	
678	679	773	677	583	0.040	8.00	
679	680	774	678	584	0.040	8.00	
680	681	775	679	585	0.040	8.00	
681	682	776	680	586	0.040	8.00	
682	683	777	681	587	0.040	8.00	
683	684	778	682	588	0.040	8.00	
684	685	779	683	589	0.040	8.00	
685	686	780	684	590	0.040	8.00	
686	687	781	685	591	0.040	8.00	
687	688	782	686	592	0.040	8.00	
688	689	783	687	593	0.040	8.00	
689	690	784	688	594	0.040	8.00	
690	691	785	689	595	0.040	8.00	
691	692	786	690	596	0.040	8.00	
692	693	787	691	597	0.040	8.00	
693	0	788	692	598	0.040	8.00	

			FPLAIN.DAT			
694	695	789	0	599	0.040	8.00
695	696	790	694	600	0.040	8.00
696	697	791	695	601	0.040	8.00
697	698	792	696	602	0.040	8.00
698	699	793	697	603	0.040	8.00
699	700	794	698	604	0.040	8.00
700	701	795	699	605	0.040	8.00
701	702	796	700	606	0.040	8.00
702	703	797	701	607	0.040	8.00
703	704	798	702	608	0.040	8.00
704	705	799	703	609	0.040	8.00
705	706	800	704	610	0.040	8.00
706	707	801	705	611	0.040	8.00
707	708	802	706	612	0.040	8.00
708	709	803	707	613	0.040	8.00
709	710	804	708	614	0.040	8.00
710	711	805	709	615	0.040	8.00
711	712	806	710	616	0.040	8.00
712	713	807	711	617	0.040	8.00
713	714	808	712	618	0.040	8.00
714	715	809	713	619	0.040	8.00
715	716	810	714	620	0.040	8.00
716	717	811	715	621	0.040	8.00
717	718	812	716	622	0.040	8.00
718	719	813	717	623	0.040	8.00
719	720	814	718	624	0.040	8.00
720	721	815	719	625	0.040	8.00
721	722	816	720	626	0.040	8.00
722	723	817	721	627	0.040	8.00
723	724	818	722	628	0.040	8.00
724	725	819	723	629	0.040	8.00
725	726	820	724	630	0.040	8.00
726	727	821	725	631	0.040	8.00
727	728	822	726	632	0.040	8.00
728	729	823	727	633	0.040	8.00
729	730	824	728	634	0.040	8.00
730	731	825	729	635	0.040	8.00
731	732	826	730	636	0.040	8.00
732	733	827	731	637	0.040	8.00
733	734	828	732	638	0.040	8.00
734	735	829	733	639	0.040	0.10
735	736	830	734	640	0.040	0.10
736	737	831	735	641	0.040	0.10
737	738	832	736	642	0.040	0.10
738	739	833	737	643	0.040	0.10
739	740	834	738	644	0.040	0.10
740	741	835	739	645	0.040	0.10
741	742	836	740	646	0.040	0.10
742	743	837	741	647	0.040	0.10
743	744	838	742	648	0.040	0.10
744	745	839	743	649	0.040	0.10
745	746	840	744	650	0.040	0.10
746	747	841	745	651	0.040	0.10
747	748	842	746	652	0.040	0.10
748	749	843	747	653	0.040	0.10
749	750	844	748	654	0.040	0.10
750	751	845	749	655	0.040	0.10
751	752	846	750	656	0.040	0.10
752	753	847	751	657	0.040	0.10
753	754	848	752	658	0.040	0.10
754	755	849	753	659	0.040	0.10
755	756	850	754	660	0.040	0.10
756	757	851	755	661	0.040	0.10

			FPLAIN.DAT			
757	758	852	756	662	0.040	8.00
758	759	853	757	663	0.040	8.00
759	760	854	758	664	0.040	8.00
760	761	855	759	665	0.040	8.00
761	762	856	760	666	0.040	8.00
762	763	857	761	667	0.040	8.00
763	764	858	762	668	0.040	8.00
764	765	859	763	669	0.040	8.00
765	766	860	764	670	0.040	8.00
766	767	861	765	671	0.040	8.00
767	768	862	766	672	0.040	8.00
768	769	863	767	673	0.040	8.00
769	770	864	768	674	0.040	8.00
770	771	865	769	675	0.040	8.00
771	772	866	770	676	0.040	8.00
772	773	867	771	677	0.040	8.00
773	774	868	772	678	0.040	8.00
774	775	869	773	679	0.040	8.00
775	776	870	774	680	0.040	8.00
776	777	871	775	681	0.040	8.00
777	778	872	776	682	0.040	8.00
778	779	873	777	683	0.040	8.00
779	780	874	778	684	0.040	8.00
780	781	875	779	685	0.040	8.00
781	782	876	780	686	0.040	8.00
782	783	877	781	687	0.040	8.00
783	784	878	782	688	0.040	8.00
784	785	879	783	689	0.040	8.00
785	786	880	784	690	0.040	8.00
786	787	881	785	691	0.040	8.00
787	788	882	786	692	0.040	8.00
788	0	883	787	693	0.040	8.00
789	790	884	0	694	0.040	8.00
790	791	885	789	695	0.040	8.00
791	792	886	790	696	0.040	8.00
792	793	887	791	697	0.040	8.00
793	794	888	792	698	0.040	8.00
794	795	889	793	699	0.040	8.00
795	796	890	794	700	0.040	8.00
796	797	891	795	701	0.040	8.00
797	798	892	796	702	0.040	8.00
798	799	893	797	703	0.040	8.00
799	800	894	798	704	0.040	8.00
800	801	895	799	705	0.040	8.00
801	802	896	800	706	0.040	8.00
802	803	897	801	707	0.040	8.00
803	804	898	802	708	0.040	8.00
804	805	899	803	709	0.040	8.00
805	806	900	804	710	0.040	8.00
806	807	901	805	711	0.040	8.00
807	808	902	806	712	0.040	8.00
808	809	903	807	713	0.040	8.00
809	810	904	808	714	0.040	8.00
810	811	905	809	715	0.040	8.00
811	812	906	810	716	0.040	8.00
812	813	907	811	717	0.040	8.00
813	814	908	812	718	0.040	8.00
814	815	909	813	719	0.040	8.00
815	816	910	814	720	0.040	8.00
816	817	911	815	721	0.040	8.00
817	818	912	816	722	0.040	8.00
818	819	913	817	723	0.040	8.00
819	820	914	818	724	0.040	8.00



				FPLAIN.DAT		
820	821	915	819	725	0.040	8.00
821	822	916	820	726	0.040	8.00
822	823	917	821	727	0.040	8.00
823	824	918	822	728	0.040	8.00
824	825	919	823	729	0.040	8.00
825	826	920	824	730	0.040	8.00
826	827	921	825	731	0.040	8.00
827	828	922	826	732	0.040	8.00
828	829	923	827	733	0.040	8.00
829	830	924	828	734	0.040	0.10
830	831	925	829	735	0.040	0.10
831	832	926	830	736	0.040	0.10
832	833	927	831	737	0.040	0.10
833	834	928	832	738	0.040	0.10
834	835	929	833	739	0.040	0.10
835	836	930	834	740	0.040	0.10
836	837	931	835	741	0.040	0.10
837	838	932	836	742	0.040	0.10
838	839	933	837	743	0.040	0.10
839	840	934	838	744	0.040	0.10
840	841	935	839	745	0.040	0.10
841	842	936	840	746	0.040	0.10
842	843	937	841	747	0.040	0.10
843	844	938	842	748	0.040	0.10
844	845	939	843	749	0.040	0.10
845	846	940	844	750	0.040	0.10
846	847	941	845	751	0.040	0.10
847	848	942	846	752	0.040	0.10
848	849	943	847	753	0.040	0.10
849	850	944	848	754	0.040	0.10
850	851	945	849	755	0.040	0.10
851	852	946	850	756	0.040	0.10
852	853	947	851	757	0.040	8.00
853	854	948	852	758	0.040	8.00
854	855	949	853	759	0.040	8.00
855	856	950	854	760	0.040	8.00
856	857	951	855	761	0.040	8.00
857	858	952	856	762	0.040	8.00
858	859	953	857	763	0.040	8.00
859	860	954	858	764	0.040	8.00
860	861	955	859	765	0.040	8.00
861	862	956	860	766	0.040	8.00
862	863	957	861	767	0.040	8.00
863	864	958	862	768	0.040	8.00
864	865	959	863	769	0.040	8.00
865	866	960	864	770	0.040	8.00
866	867	961	865	771	0.040	8.00
867	868	962	866	772	0.040	8.00
868	869	963	867	773	0.040	8.00
869	870	964	868	774	0.040	8.00
870	871	965	869	775	0.040	8.00
871	872	966	870	776	0.040	8.00
872	873	967	871	777	0.040	8.00
873	874	968	872	778	0.040	8.00
874	875	969	873	779	0.040	8.00
875	876	970	874	780	0.040	8.00
876	877	971	875	781	0.040	8.00
877	878	972	876	782	0.040	8.00
878	879	973	877	783	0.040	8.00
879	880	974	878	784	0.040	8.00
880	881	975	879	785	0.040	8.00
881	882	976	880	786	0.040	8.00
882	883	977	881	787	0.040	8.00

				FPLAIN.DAT			
883	0	978	882	788	0.040	8.00	
884	885	979	0	789	0.040	8.00	
885	886	980	884	790	0.040	8.00	
886	887	981	885	791	0.040	8.00	
887	888	982	886	792	0.040	8.00	
888	889	983	887	793	0.040	8.00	
889	890	984	888	794	0.040	8.00	
890	891	985	889	795	0.040	8.00	
891	892	986	890	796	0.040	8.00	
892	893	987	891	797	0.040	8.00	
893	894	988	892	798	0.040	8.00	
894	895	989	893	799	0.040	8.00	
895	896	990	894	800	0.040	8.00	
896	897	991	895	801	0.040	8.00	
897	898	992	896	802	0.040	8.00	
898	899	993	897	803	0.040	8.00	
899	900	994	898	804	0.040	8.00	
900	901	995	899	805	0.040	8.00	
901	902	996	900	806	0.040	8.00	
902	903	997	901	807	0.040	8.00	
903	904	998	902	808	0.040	8.00	
904	905	999	903	809	0.040	8.00	
905	906	1000	904	810	0.040	8.00	
906	907	1001	905	811	0.040	8.00	
907	908	1002	906	812	0.040	8.00	
908	909	1003	907	813	0.040	8.00	
909	910	1004	908	814	0.040	8.00	
910	911	1005	909	815	0.040	8.00	
911	912	1006	910	816	0.040	8.00	
912	913	1007	911	817	0.040	8.00	
913	914	1008	912	818	0.040	8.00	
914	915	1009	913	819	0.040	8.00	
915	916	1010	914	820	0.040	8.00	
916	917	1011	915	821	0.040	8.00	
917	918	1012	916	822	0.040	8.00	
918	919	1013	917	823	0.040	8.00	
919	920	1014	918	824	0.040	8.00	
920	921	1015	919	825	0.040	8.00	
921	922	1016	920	826	0.040	8.00	
922	923	1017	921	827	0.040	8.00	
923	924	1018	922	828	0.040	8.00	
924	925	1019	923	829	0.040	0.10	
925	926	1020	924	830	0.040	0.10	
926	927	1021	925	831	0.040	0.10	
927	928	1022	926	832	0.040	0.10	
928	929	1023	927	833	0.040	0.10	
929	930	1024	928	834	0.040	0.10	
930	931	1025	929	835	0.040	0.10	
931	932	1026	930	836	0.040	0.10	
932	933	1027	931	837	0.040	0.10	
933	934	1028	932	838	0.040	0.10	
934	935	1029	933	839	0.040	0.10	
935	936	1030	934	840	0.040	0.10	
936	937	1031	935	841	0.040	0.10	
937	938	1032	936	842	0.040	0.10	
938	939	1033	937	843	0.040	0.10	
939	940	1034	938	844	0.040	0.10	
940	941	1035	939	845	0.040	0.10	
941	942	1036	940	846	0.040	0.10	
942	943	1037	941	847	0.040	0.10	
943	944	1038	942	848	0.040	0.10	
944	945	1039	943	849	0.040	0.10	
945	946	1040	944	850	0.040	0.10	

				FPLAIN.DAT		
946	947	1041	945	851	0.040	0.10
947	948	1042	946	852	0.040	8.00
948	949	1043	947	853	0.040	8.00
949	950	1044	948	854	0.040	8.00
950	951	1045	949	855	0.040	8.00
951	952	1046	950	856	0.040	8.00
952	953	1047	951	857	0.040	8.00
953	954	1048	952	858	0.040	8.00
954	955	1049	953	859	0.040	8.00
955	956	1050	954	860	0.040	8.00
956	957	1051	955	861	0.040	8.00
957	958	1052	956	862	0.040	8.00
958	959	1053	957	863	0.040	8.00
959	960	1054	958	864	0.040	8.00
960	961	1055	959	865	0.040	8.00
961	962	1056	960	866	0.040	8.00
962	963	1057	961	867	0.040	8.00
963	964	1058	962	868	0.040	8.00
964	965	1059	963	869	0.040	8.00
965	966	1060	964	870	0.040	8.00
966	967	1061	965	871	0.040	8.00
967	968	1062	966	872	0.040	8.00
968	969	1063	967	873	0.040	8.00
969	970	1064	968	874	0.040	8.00
970	971	1065	969	875	0.040	8.00
971	972	1066	970	876	0.040	8.00
972	973	1067	971	877	0.040	8.00
973	974	1068	972	878	0.040	8.00
974	975	1069	973	879	0.040	8.00
975	976	1070	974	880	0.040	8.00
976	977	1071	975	881	0.040	8.00
977	978	1072	976	882	0.040	8.00
978	0	1073	977	883	0.040	8.00
979	980	1074	0	884	0.040	8.00
980	981	1075	979	885	0.040	8.00
981	982	1076	980	886	0.040	8.00
982	983	1077	981	887	0.040	8.00
983	984	1078	982	888	0.040	8.00
984	985	1079	983	889	0.040	8.00
985	986	1080	984	890	0.040	8.00
986	987	1081	985	891	0.040	8.00
987	988	1082	986	892	0.040	8.00
988	989	1083	987	893	0.040	8.00
989	990	1084	988	894	0.040	8.00
990	991	1085	989	895	0.040	8.00
991	992	1086	990	896	0.040	8.00
992	993	1087	991	897	0.040	8.00
993	994	1088	992	898	0.040	8.00
994	995	1089	993	899	0.040	8.00
995	996	1090	994	900	0.040	8.00
996	997	1091	995	901	0.040	8.00
997	998	1092	996	902	0.040	8.00
998	999	1093	997	903	0.040	8.00
999	1000	1094	998	904	0.040	8.00
1000	1001	1095	999	905	0.040	8.00
1001	1002	1096	1000	906	0.040	8.00
1002	1003	1097	1001	907	0.040	8.00
1003	1004	1098	1002	908	0.040	8.00
1004	1005	1099	1003	909	0.040	8.00
1005	1006	1100	1004	910	0.040	8.00
1006	1007	1101	1005	911	0.040	8.00
1007	1008	1102	1006	912	0.040	8.00
1008	1009	1103	1007	913	0.040	8.00

			FPLAIN.DAT			
1009	1010	1104	1008	914	0.040	8.00
1010	1011	1105	1009	915	0.040	8.00
1011	1012	1106	1010	916	0.040	8.00
1012	1013	1107	1011	917	0.040	8.00
1013	1014	1108	1012	918	0.040	8.00
1014	1015	1109	1013	919	0.040	8.00
1015	1016	1110	1014	920	0.040	8.00
1016	1017	1111	1015	921	0.040	8.00
1017	1018	1112	1016	922	0.040	8.00
1018	1019	1113	1017	923	0.040	8.00
1019	1020	1114	1018	924	0.040	0.10
1020	1021	1115	1019	925	0.040	0.10
1021	1022	1116	1020	926	0.040	0.10
1022	1023	1117	1021	927	0.040	0.10
1023	1024	1118	1022	928	0.040	0.10
1024	1025	1119	1023	929	0.040	0.10
1025	1026	1120	1024	930	0.040	0.10
1026	1027	1121	1025	931	0.040	0.10
1027	1028	1122	1026	932	0.040	0.10
1028	1029	1123	1027	933	0.040	0.10
1029	1030	1124	1028	934	0.040	0.10
1030	1031	1125	1029	935	0.040	0.10
1031	1032	1126	1030	936	0.040	0.10
1032	1033	1127	1031	937	0.040	0.10
1033	1034	1128	1032	938	0.040	0.10
1034	1035	1129	1033	939	0.040	0.10
1035	1036	1130	1034	940	0.040	0.10
1036	1037	1131	1035	941	0.040	0.10
1037	1038	1132	1036	942	0.040	0.10
1038	1039	1133	1037	943	0.040	0.10
1039	1040	1134	1038	944	0.040	0.10
1040	1041	1135	1039	945	0.040	0.10
1041	1042	1136	1040	946	0.040	0.10
1042	1043	1137	1041	947	0.040	8.00
1043	1044	1138	1042	948	0.040	8.00
1044	1045	1139	1043	949	0.040	8.00
1045	1046	1140	1044	950	0.040	8.00
1046	1047	1141	1045	951	0.040	8.00
1047	1048	1142	1046	952	0.040	8.00
1048	1049	1143	1047	953	0.040	8.00
1049	1050	1144	1048	954	0.040	8.00
1050	1051	1145	1049	955	0.040	8.00
1051	1052	1146	1050	956	0.040	8.00
1052	1053	1147	1051	957	0.040	8.00
1053	1054	1148	1052	958	0.040	8.00
1054	1055	1149	1053	959	0.040	8.00
1055	1056	1150	1054	960	0.040	8.00
1056	1057	1151	1055	961	0.040	8.00
1057	1058	1152	1056	962	0.040	8.00
1058	1059	1153	1057	963	0.040	8.00
1059	1060	1154	1058	964	0.040	8.00
1060	1061	1155	1059	965	0.040	8.00
1061	1062	1156	1060	966	0.040	8.00
1062	1063	1157	1061	967	0.040	8.00
1063	1064	1158	1062	968	0.040	8.00
1064	1065	1159	1063	969	0.040	8.00
1065	1066	1160	1064	970	0.040	8.00
1066	1067	1161	1065	971	0.040	8.00
1067	1068	1162	1066	972	0.040	8.00
1068	1069	1163	1067	973	0.040	8.00
1069	1070	1164	1068	974	0.040	8.00
1070	1071	1165	1069	975	0.040	8.00
1071	1072	1166	1070	976	0.040	8.00

			FPLAIN.DAT			
1072	1073	1167	1071	977	0.040	8.00
1073	0	1168	1072	978	0.040	8.00
1074	1075	1169	0	979	0.040	8.00
1075	1076	1170	1074	980	0.040	8.00
1076	1077	1171	1075	981	0.040	8.00
1077	1078	1172	1076	982	0.040	8.00
1078	1079	1173	1077	983	0.040	8.00
1079	1080	1174	1078	984	0.040	8.00
1080	1081	1175	1079	985	0.040	8.00
1081	1082	1176	1080	986	0.040	8.00
1082	1083	1177	1081	987	0.040	8.00
1083	1084	1178	1082	988	0.040	8.00
1084	1085	1179	1083	989	0.040	8.00
1085	1086	1180	1084	990	0.040	8.00
1086	1087	1181	1085	991	0.040	8.00
1087	1088	1182	1086	992	0.040	8.00
1088	1089	1183	1087	993	0.040	8.00
1089	1090	1184	1088	994	0.040	8.00
1090	1091	1185	1089	995	0.040	8.00
1091	1092	1186	1090	996	0.040	8.00
1092	1093	1187	1091	997	0.040	8.00
1093	1094	1188	1092	998	0.040	8.00
1094	1095	1189	1093	999	0.040	8.00
1095	1096	1190	1094	1000	0.040	8.00
1096	1097	1191	1095	1001	0.040	8.00
1097	1098	1192	1096	1002	0.040	8.00
1098	1099	1193	1097	1003	0.040	8.00
1099	1100	1194	1098	1004	0.040	8.00
1100	1101	1195	1099	1005	0.040	8.00
1101	1102	1196	1100	1006	0.040	8.00
1102	1103	1197	1101	1007	0.040	8.00
1103	1104	1198	1102	1008	0.040	8.00
1104	1105	1199	1103	1009	0.040	8.00
1105	1106	1200	1104	1010	0.040	8.00
1106	1107	1201	1105	1011	0.040	8.00
1107	1108	1202	1106	1012	0.040	8.00
1108	1109	1203	1107	1013	0.040	8.00
1109	1110	1204	1108	1014	0.040	8.00
1110	1111	1205	1109	1015	0.040	8.00
1111	1112	1206	1110	1016	0.040	8.00
1112	1113	1207	1111	1017	0.040	8.00
1113	1114	1208	1112	1018	0.040	8.00
1114	1115	1209	1113	1019	0.040	0.10
1115	1116	1210	1114	1020	0.040	0.10
1116	1117	1211	1115	1021	0.040	0.10
1117	1118	1212	1116	1022	0.040	0.10
1118	1119	1213	1117	1023	0.040	0.10
1119	1120	1214	1118	1024	0.040	0.10
1120	1121	1215	1119	1025	0.040	0.10
1121	1122	1216	1120	1026	0.040	0.10
1122	1123	1217	1121	1027	0.040	0.10
1123	1124	1218	1122	1028	0.040	0.10
1124	1125	1219	1123	1029	0.040	0.10
1125	1126	1220	1124	1030	0.040	0.10
1126	1127	1221	1125	1031	0.040	0.10
1127	1128	1222	1126	1032	0.040	0.10
1128	1129	1223	1127	1033	0.040	0.10
1129	1130	1224	1128	1034	0.040	0.10
1130	1131	1225	1129	1035	0.040	0.10
1131	1132	1226	1130	1036	0.040	0.10
1132	1133	1227	1131	1037	0.040	0.10
1133	1134	1228	1132	1038	0.040	0.10
1134	1135	1229	1133	1039	0.040	0.10

			FPLAIN.DAT			
1135	1136	1230	1134	1040	0.040	0.10
1136	1137	1231	1135	1041	0.040	0.10
1137	1138	1232	1136	1042	0.040	8.00
1138	1139	1233	1137	1043	0.040	8.00
1139	1140	1234	1138	1044	0.040	8.00
1140	1141	1235	1139	1045	0.040	8.00
1141	1142	1236	1140	1046	0.040	8.00
1142	1143	1237	1141	1047	0.040	8.00
1143	1144	1238	1142	1048	0.040	8.00
1144	1145	1239	1143	1049	0.040	8.00
1145	1146	1240	1144	1050	0.040	8.00
1146	1147	1241	1145	1051	0.040	8.00
1147	1148	1242	1146	1052	0.040	8.00
1148	1149	1243	1147	1053	0.040	8.00
1149	1150	1244	1148	1054	0.040	8.00
1150	1151	1245	1149	1055	0.040	8.00
1151	1152	1246	1150	1056	0.040	8.00
1152	1153	1247	1151	1057	0.040	8.00
1153	1154	1248	1152	1058	0.040	8.00
1154	1155	1249	1153	1059	0.040	8.00
1155	1156	1250	1154	1060	0.040	8.00
1156	1157	1251	1155	1061	0.040	8.00
1157	1158	1252	1156	1062	0.040	8.00
1158	1159	1253	1157	1063	0.040	8.00
1159	1160	1254	1158	1064	0.040	8.00
1160	1161	1255	1159	1065	0.040	8.00
1161	1162	1256	1160	1066	0.040	8.00
1162	1163	1257	1161	1067	0.040	8.00
1163	1164	1258	1162	1068	0.040	8.00
1164	1165	1259	1163	1069	0.040	8.00
1165	1166	1260	1164	1070	0.040	8.00
1166	1167	1261	1165	1071	0.040	8.00
1167	1168	1262	1166	1072	0.040	8.00
1168	0	1263	1167	1073	0.040	8.00
1169	1170	1264	0	1074	0.040	8.00
1170	1171	1265	1169	1075	0.040	8.00
1171	1172	1266	1170	1076	0.040	8.00
1172	1173	1267	1171	1077	0.040	8.00
1173	1174	1268	1172	1078	0.040	8.00
1174	1175	1269	1173	1079	0.040	8.00
1175	1176	1270	1174	1080	0.040	8.00
1176	1177	1271	1175	1081	0.040	8.00
1177	1178	1272	1176	1082	0.040	8.00
1178	1179	1273	1177	1083	0.040	8.00
1179	1180	1274	1178	1084	0.040	8.00
1180	1181	1275	1179	1085	0.040	8.00
1181	1182	1276	1180	1086	0.040	8.00
1182	1183	1277	1181	1087	0.040	8.00
1183	1184	1278	1182	1088	0.040	8.00
1184	1185	1279	1183	1089	0.040	8.00
1185	1186	1280	1184	1090	0.040	8.00
1186	1187	1281	1185	1091	0.040	8.00
1187	1188	1282	1186	1092	0.040	8.00
1188	1189	1283	1187	1093	0.040	8.00
1189	1190	1284	1188	1094	0.040	8.00
1190	1191	1285	1189	1095	0.040	8.00
1191	1192	1286	1190	1096	0.040	8.00
1192	1193	1287	1191	1097	0.040	8.00
1193	1194	1288	1192	1098	0.040	8.00
1194	1195	1289	1193	1099	0.040	8.00
1195	1196	1290	1194	1100	0.040	8.00
1196	1197	1291	1195	1101	0.040	8.00
1197	1198	1292	1196	1102	0.040	8.00

FPLAIN.DAT					
1198	1199	1293	1197	1103	0.040 8.00
1199	1200	1294	1198	1104	0.040 8.00
1200	1201	1295	1199	1105	0.040 8.00
1201	1202	1296	1200	1106	0.040 8.00
1202	1203	1297	1201	1107	0.040 8.00
1203	1204	1298	1202	1108	0.040 8.00
1204	1205	1299	1203	1109	0.040 8.00
1205	1206	1300	1204	1110	0.040 8.00
1206	1207	1301	1205	1111	0.040 8.00
1207	1208	1302	1206	1112	0.040 8.00
1208	1209	1303	1207	1113	0.040 8.00
1209	1210	1304	1208	1114	0.040 0.10
1210	1211	1305	1209	1115	0.040 0.10
1211	1212	1306	1210	1116	0.040 0.10
1212	1213	1307	1211	1117	0.040 0.10
1213	1214	1308	1212	1118	0.040 0.10
1214	1215	1309	1213	1119	0.040 0.10
1215	1216	1310	1214	1120	0.040 0.10
1216	1217	1311	1215	1121	0.040 0.10
1217	1218	1312	1216	1122	0.040 0.10
1218	1219	1313	1217	1123	0.040 0.10
1219	1220	1314	1218	1124	0.040 0.10
1220	1221	1315	1219	1125	0.040 0.10
1221	1222	1316	1220	1126	0.040 0.10
1222	1223	1317	1221	1127	0.040 0.10
1223	1224	1318	1222	1128	0.040 0.10
1224	1225	1319	1223	1129	0.040 0.10
1225	1226	1320	1224	1130	0.040 0.10
1226	1227	1321	1225	1131	0.040 0.10
1227	1228	1322	1226	1132	0.040 0.10
1228	1229	1323	1227	1133	0.040 0.10
1229	1230	1324	1228	1134	0.040 0.10
1230	1231	1325	1229	1135	0.040 0.10
1231	1232	1326	1230	1136	0.040 0.10
1232	1233	1327	1231	1137	0.040 8.00
1233	1234	1328	1232	1138	0.040 8.00
1234	1235	1329	1233	1139	0.040 8.00
1235	1236	1330	1234	1140	0.040 8.00
1236	1237	1331	1235	1141	0.040 8.00
1237	1238	1332	1236	1142	0.040 8.00
1238	1239	1333	1237	1143	0.040 8.00
1239	1240	1334	1238	1144	0.040 8.00
1240	1241	1335	1239	1145	0.040 8.00
1241	1242	1336	1240	1146	0.040 8.00
1242	1243	1337	1241	1147	0.040 8.00
1243	1244	1338	1242	1148	0.040 8.00
1244	1245	1339	1243	1149	0.040 8.00
1245	1246	1340	1244	1150	0.040 8.00
1246	1247	1341	1245	1151	0.040 8.00
1247	1248	1342	1246	1152	0.040 8.00
1248	1249	1343	1247	1153	0.040 8.00
1249	1250	1344	1248	1154	0.040 8.00
1250	1251	1345	1249	1155	0.040 8.00
1251	1252	1346	1250	1156	0.040 8.00
1252	1253	1347	1251	1157	0.040 8.00
1253	1254	1348	1252	1158	0.040 8.00
1254	1255	1349	1253	1159	0.040 8.00
1255	1256	1350	1254	1160	0.040 8.00
1256	1257	1351	1255	1161	0.040 8.00
1257	1258	1352	1256	1162	0.040 8.00
1258	1259	1353	1257	1163	0.040 8.00
1259	1260	1354	1258	1164	0.040 8.00
1260	1261	1355	1259	1165	0.040 8.00



				FPLAIN.DAT		
1261	1262	1356	1260	1166	0.040	8.00
1262	1263	1357	1261	1167	0.040	8.00
1263	0	1358	1262	1168	0.040	8.00
1264	1265	1359	0	1169	0.040	8.00
1265	1266	1360	1264	1170	0.040	8.00
1266	1267	1361	1265	1171	0.040	8.00
1267	1268	1362	1266	1172	0.040	8.00
1268	1269	1363	1267	1173	0.040	8.00
1269	1270	1364	1268	1174	0.040	8.00
1270	1271	1365	1269	1175	0.040	8.00
1271	1272	1366	1270	1176	0.040	8.00
1272	1273	1367	1271	1177	0.040	8.00
1273	1274	1368	1272	1178	0.040	8.00
1274	1275	1369	1273	1179	0.040	8.00
1275	1276	1370	1274	1180	0.040	8.00
1276	1277	1371	1275	1181	0.040	8.00
1277	1278	1372	1276	1182	0.040	8.00
1278	1279	1373	1277	1183	0.040	8.00
1279	1280	1374	1278	1184	0.040	8.00
1280	1281	1375	1279	1185	0.040	8.00
1281	1282	1376	1280	1186	0.040	8.00
1282	1283	1377	1281	1187	0.040	8.00
1283	1284	1378	1282	1188	0.040	8.00
1284	1285	1379	1283	1189	0.040	8.00
1285	1286	1380	1284	1190	0.040	8.00
1286	1287	1381	1285	1191	0.040	8.00
1287	1288	1382	1286	1192	0.040	8.00
1288	1289	1383	1287	1193	0.040	8.00
1289	1290	1384	1288	1194	0.040	8.00
1290	1291	1385	1289	1195	0.040	8.00
1291	1292	1386	1290	1196	0.040	8.00
1292	1293	1387	1291	1197	0.040	8.00
1293	1294	1388	1292	1198	0.040	8.00
1294	1295	1389	1293	1199	0.040	8.00
1295	1296	1390	1294	1200	0.040	8.00
1296	1297	1391	1295	1201	0.040	8.00
1297	1298	1392	1296	1202	0.040	8.00
1298	1299	1393	1297	1203	0.040	8.00
1299	1300	1394	1298	1204	0.040	8.00
1300	1301	1395	1299	1205	0.040	8.00
1301	1302	1396	1300	1206	0.040	8.00
1302	1303	1397	1301	1207	0.040	8.00
1303	1304	1398	1302	1208	0.040	8.00
1304	1305	1399	1303	1209	0.040	0.10
1305	1306	1400	1304	1210	0.040	0.10
1306	1307	1401	1305	1211	0.040	0.10
1307	1308	1402	1306	1212	0.040	0.10
1308	1309	1403	1307	1213	0.040	0.10
1309	1310	1404	1308	1214	0.040	0.10
1310	1311	1405	1309	1215	0.040	0.10
1311	1312	1406	1310	1216	0.040	0.10
1312	1313	1407	1311	1217	0.040	0.10
1313	1314	1408	1312	1218	0.040	0.10
1314	1315	1409	1313	1219	0.040	0.10
1315	1316	1410	1314	1220	0.040	0.10
1316	1317	1411	1315	1221	0.040	0.10
1317	1318	1412	1316	1222	0.040	0.10
1318	1319	1413	1317	1223	0.040	0.10
1319	1320	1414	1318	1224	0.040	0.10
1320	1321	1415	1319	1225	0.040	0.10
1321	1322	1416	1320	1226	0.040	0.10
1322	1323	1417	1321	1227	0.040	0.10
1323	1324	1418	1322	1228	0.040	0.10



				FPLAIN.DAT			
1324	1325	1419	1323	1229	0.040	0.10	
1325	1326	1420	1324	1230	0.040	0.10	
1326	1327	1421	1325	1231	0.040	0.10	
1327	1328	1422	1326	1232	0.040	8.00	
1328	1329	1423	1327	1233	0.040	8.00	
1329	1330	1424	1328	1234	0.040	8.00	
1330	1331	1425	1329	1235	0.040	8.00	
1331	1332	1426	1330	1236	0.040	8.00	
1332	1333	1427	1331	1237	0.040	8.00	
1333	1334	1428	1332	1238	0.040	8.00	
1334	1335	1429	1333	1239	0.040	8.00	
1335	1336	1430	1334	1240	0.040	8.00	
1336	1337	1431	1335	1241	0.040	8.00	
1337	1338	1432	1336	1242	0.040	8.00	
1338	1339	1433	1337	1243	0.040	8.00	
1339	1340	1434	1338	1244	0.040	8.00	
1340	1341	1435	1339	1245	0.040	8.00	
1341	1342	1436	1340	1246	0.040	8.00	
1342	1343	1437	1341	1247	0.040	8.00	
1343	1344	1438	1342	1248	0.040	8.00	
1344	1345	1439	1343	1249	0.040	8.00	
1345	1346	1440	1344	1250	0.040	8.00	
1346	1347	1441	1345	1251	0.040	8.00	
1347	1348	1442	1346	1252	0.040	8.00	
1348	1349	1443	1347	1253	0.040	8.00	
1349	1350	1444	1348	1254	0.040	8.00	
1350	1351	1445	1349	1255	0.040	8.00	
1351	1352	1446	1350	1256	0.040	8.00	
1352	1353	1447	1351	1257	0.040	8.00	
1353	1354	1448	1352	1258	0.040	8.00	
1354	1355	1449	1353	1259	0.040	8.00	
1355	1356	1450	1354	1260	0.040	8.00	
1356	1357	1451	1355	1261	0.040	8.00	
1357	1358	1452	1356	1262	0.040	8.00	
1358	0	1453	1357	1263	0.040	8.00	
1359	1360	1454	0	1264	0.040	8.00	
1360	1361	1455	1359	1265	0.040	8.00	
1361	1362	1456	1360	1266	0.040	8.00	
1362	1363	1457	1361	1267	0.040	8.00	
1363	1364	1458	1362	1268	0.040	8.00	
1364	1365	1459	1363	1269	0.040	8.00	
1365	1366	1460	1364	1270	0.040	8.00	
1366	1367	1461	1365	1271	0.040	8.00	
1367	1368	1462	1366	1272	0.040	8.00	
1368	1369	1463	1367	1273	0.040	8.00	
1369	1370	1464	1368	1274	0.040	8.00	
1370	1371	1465	1369	1275	0.040	8.00	
1371	1372	1466	1370	1276	0.040	8.00	
1372	1373	1467	1371	1277	0.040	8.00	
1373	1374	1468	1372	1278	0.040	8.00	
1374	1375	1469	1373	1279	0.040	8.00	
1375	1376	1470	1374	1280	0.040	8.00	
1376	1377	1471	1375	1281	0.040	8.00	
1377	1378	1472	1376	1282	0.040	8.00	
1378	1379	1473	1377	1283	0.040	8.00	
1379	1380	1474	1378	1284	0.040	8.00	
1380	1381	1475	1379	1285	0.040	8.00	
1381	1382	1476	1380	1286	0.040	8.00	
1382	1383	1477	1381	1287	0.040	8.00	
1383	1384	1478	1382	1288	0.040	8.00	
1384	1385	1479	1383	1289	0.040	8.00	
1385	1386	1480	1384	1290	0.040	8.00	
1386	1387	1481	1385	1291	0.040	8.00	

FPLAIN.DAT					
1387	1388	1482	1386	1292	0.040 8.00
1388	1389	1483	1387	1293	0.040 8.00
1389	1390	1484	1388	1294	0.040 8.00
1390	1391	1485	1389	1295	0.040 8.00
1391	1392	1486	1390	1296	0.040 8.00
1392	1393	1487	1391	1297	0.040 8.00
1393	1394	1488	1392	1298	0.040 8.00
1394	1395	1489	1393	1299	0.040 8.00
1395	1396	1490	1394	1300	0.040 8.00
1396	1397	1491	1395	1301	0.040 8.00
1397	1398	1492	1396	1302	0.040 8.00
1398	1399	1493	1397	1303	0.040 8.00
1399	1400	1494	1398	1304	0.040 0.10
1400	1401	1495	1399	1305	0.040 0.10
1401	1402	1496	1400	1306	0.040 0.10
1402	1403	1497	1401	1307	0.040 0.10
1403	1404	1498	1402	1308	0.040 0.10
1404	1405	1499	1403	1309	0.040 0.10
1405	1406	1500	1404	1310	0.040 0.10
1406	1407	1501	1405	1311	0.040 0.10
1407	1408	1502	1406	1312	0.040 0.10
1408	1409	1503	1407	1313	0.040 0.10
1409	1410	1504	1408	1314	0.040 0.10
1410	1411	1505	1409	1315	0.040 0.10
1411	1412	1506	1410	1316	0.040 0.10
1412	1413	1507	1411	1317	0.040 0.10
1413	1414	1508	1412	1318	0.040 0.10
1414	1415	1509	1413	1319	0.040 0.10
1415	1416	1510	1414	1320	0.040 0.10
1416	1417	1511	1415	1321	0.040 0.10
1417	1418	1512	1416	1322	0.040 0.10
1418	1419	1513	1417	1323	0.040 0.10
1419	1420	1514	1418	1324	0.040 0.10
1420	1421	1515	1419	1325	0.040 0.10
1421	1422	1516	1420	1326	0.040 0.10
1422	1423	1517	1421	1327	0.040 8.00
1423	1424	1518	1422	1328	0.040 8.00
1424	1425	1519	1423	1329	0.040 8.00
1425	1426	1520	1424	1330	0.040 8.00
1426	1427	1521	1425	1331	0.040 8.00
1427	1428	1522	1426	1332	0.040 8.00
1428	1429	1523	1427	1333	0.040 8.00
1429	1430	1524	1428	1334	0.040 8.00
1430	1431	1525	1429	1335	0.040 8.00
1431	1432	1526	1430	1336	0.040 8.00
1432	1433	1527	1431	1337	0.040 8.00
1433	1434	1528	1432	1338	0.040 8.00
1434	1435	1529	1433	1339	0.040 8.00
1435	1436	1530	1434	1340	0.040 8.00
1436	1437	1531	1435	1341	0.040 8.00
1437	1438	1532	1436	1342	0.040 8.00
1438	1439	1533	1437	1343	0.040 8.00
1439	1440	1534	1438	1344	0.040 8.00
1440	1441	1535	1439	1345	0.040 8.00
1441	1442	1536	1440	1346	0.040 8.00
1442	1443	1537	1441	1347	0.040 8.00
1443	1444	1538	1442	1348	0.040 8.00
1444	1445	1539	1443	1349	0.040 8.00
1445	1446	1540	1444	1350	0.040 8.00
1446	1447	1541	1445	1351	0.040 8.00
1447	1448	1542	1446	1352	0.040 8.00
1448	1449	1543	1447	1353	0.040 8.00
1449	1450	1544	1448	1354	0.040 8.00

				FPLAIN.DAT		
1450	1451	1545	1449	1355	0.040	8.00
1451	1452	1546	1450	1356	0.040	8.00
1452	1453	1547	1451	1357	0.040	8.00
1453	0	1548	1452	1358	0.040	8.00
1454	1455	1549	0	1359	0.040	8.00
1455	1456	1550	1454	1360	0.040	8.00
1456	1457	1551	1455	1361	0.040	8.00
1457	1458	1552	1456	1362	0.040	8.00
1458	1459	1553	1457	1363	0.040	8.00
1459	1460	1554	1458	1364	0.040	8.00
1460	1461	1555	1459	1365	0.040	8.00
1461	1462	1556	1460	1366	0.040	8.00
1462	1463	1557	1461	1367	0.040	8.00
1463	1464	1558	1462	1368	0.040	8.00
1464	1465	1559	1463	1369	0.040	8.00
1465	1466	1560	1464	1370	0.040	8.00
1466	1467	1561	1465	1371	0.040	8.00
1467	1468	1562	1466	1372	0.040	8.00
1468	1469	1563	1467	1373	0.040	8.00
1469	1470	1564	1468	1374	0.040	8.00
1470	1471	1565	1469	1375	0.040	8.00
1471	1472	1566	1470	1376	0.040	8.00
1472	1473	1567	1471	1377	0.040	8.00
1473	1474	1568	1472	1378	0.040	8.00
1474	1475	1569	1473	1379	0.040	8.00
1475	1476	1570	1474	1380	0.040	8.00
1476	1477	1571	1475	1381	0.040	8.00
1477	1478	1572	1476	1382	0.040	8.00
1478	1479	1573	1477	1383	0.040	8.00
1479	1480	1574	1478	1384	0.040	8.00
1480	1481	1575	1479	1385	0.040	8.00
1481	1482	1576	1480	1386	0.040	8.00
1482	1483	1577	1481	1387	0.040	8.00
1483	1484	1578	1482	1388	0.040	8.00
1484	1485	1579	1483	1389	0.040	8.00
1485	1486	1580	1484	1390	0.040	8.00
1486	1487	1581	1485	1391	0.040	8.00
1487	1488	1582	1486	1392	0.040	8.00
1488	1489	1583	1487	1393	0.040	8.00
1489	1490	1584	1488	1394	0.040	8.00
1490	1491	1585	1489	1395	0.040	8.00
1491	1492	1586	1490	1396	0.040	8.00
1492	1493	1587	1491	1397	0.040	8.00
1493	1494	1588	1492	1398	0.040	8.00
1494	1495	1589	1493	1399	0.040	0.10
1495	1496	1590	1494	1400	0.040	0.10
1496	1497	1591	1495	1401	0.040	0.10
1497	1498	1592	1496	1402	0.040	0.10
1498	1499	1593	1497	1403	0.040	0.10
1499	1500	1594	1498	1404	0.040	0.10
1500	1501	1595	1499	1405	0.040	0.10
1501	1502	1596	1500	1406	0.040	0.10
1502	1503	1597	1501	1407	0.040	0.10
1503	1504	1598	1502	1408	0.040	0.10
1504	1505	1599	1503	1409	0.040	0.10
1505	1506	1600	1504	1410	0.040	0.10
1506	1507	1601	1505	1411	0.040	0.10
1507	1508	1602	1506	1412	0.040	0.10
1508	1509	1603	1507	1413	0.040	0.10
1509	1510	1604	1508	1414	0.040	0.10
1510	1511	1605	1509	1415	0.040	0.10
1511	1512	1606	1510	1416	0.040	0.10
1512	1513	1607	1511	1417	0.040	0.10

				FPLAIN.DAT			
1513	1514	1608	1512	1418	0.040	0.10	
1514	1515	1609	1513	1419	0.040	0.10	
1515	1516	1610	1514	1420	0.040	0.10	
1516	1517	1611	1515	1421	0.040	0.10	
1517	1518	1612	1516	1422	0.040	8.00	
1518	1519	1613	1517	1423	0.040	8.00	
1519	1520	1614	1518	1424	0.040	8.00	
1520	1521	1615	1519	1425	0.040	8.00	
1521	1522	1616	1520	1426	0.040	8.00	
1522	1523	1617	1521	1427	0.040	8.00	
1523	1524	1618	1522	1428	0.040	8.00	
1524	1525	1619	1523	1429	0.040	8.00	
1525	1526	1620	1524	1430	0.040	8.00	
1526	1527	1621	1525	1431	0.040	8.00	
1527	1528	1622	1526	1432	0.040	8.00	
1528	1529	1623	1527	1433	0.040	8.00	
1529	1530	1624	1528	1434	0.040	8.00	
1530	1531	1625	1529	1435	0.040	8.00	
1531	1532	1626	1530	1436	0.040	8.00	
1532	1533	1627	1531	1437	0.040	8.00	
1533	1534	1628	1532	1438	0.040	8.00	
1534	1535	1629	1533	1439	0.040	8.00	
1535	1536	1630	1534	1440	0.040	8.00	
1536	1537	1631	1535	1441	0.040	8.00	
1537	1538	1632	1536	1442	0.040	8.00	
1538	1539	1633	1537	1443	0.040	8.00	
1539	1540	1634	1538	1444	0.040	8.00	
1540	1541	1635	1539	1445	0.040	8.00	
1541	1542	1636	1540	1446	0.040	8.00	
1542	1543	1637	1541	1447	0.040	8.00	
1543	1544	1638	1542	1448	0.040	8.00	
1544	1545	1639	1543	1449	0.040	8.00	
1545	1546	1640	1544	1450	0.040	8.00	
1546	1547	1641	1545	1451	0.040	8.00	
1547	1548	1642	1546	1452	0.040	8.00	
1548	0	1643	1547	1453	0.040	8.00	
1549	1550	1644	0	1454	0.040	8.00	
1550	1551	1645	1549	1455	0.040	8.00	
1551	1552	1646	1550	1456	0.040	8.00	
1552	1553	1647	1551	1457	0.040	8.00	
1553	1554	1648	1552	1458	0.040	8.00	
1554	1555	1649	1553	1459	0.040	8.00	
1555	1556	1650	1554	1460	0.040	8.00	
1556	1557	1651	1555	1461	0.040	8.00	
1557	1558	1652	1556	1462	0.040	8.00	
1558	1559	1653	1557	1463	0.040	8.00	
1559	1560	1654	1558	1464	0.040	8.00	
1560	1561	1655	1559	1465	0.040	8.00	
1561	1562	1656	1560	1466	0.040	8.00	
1562	1563	1657	1561	1467	0.040	8.00	
1563	1564	1658	1562	1468	0.040	8.00	
1564	1565	1659	1563	1469	0.040	8.00	
1565	1566	1660	1564	1470	0.040	8.00	
1566	1567	1661	1565	1471	0.040	8.00	
1567	1568	1662	1566	1472	0.040	8.00	
1568	1569	1663	1567	1473	0.040	8.00	
1569	1570	1664	1568	1474	0.040	8.00	
1570	1571	1665	1569	1475	0.040	8.00	
1571	1572	1666	1570	1476	0.040	8.00	
1572	1573	1667	1571	1477	0.040	8.00	
1573	1574	1668	1572	1478	0.040	8.00	
1574	1575	1669	1573	1479	0.040	8.00	
1575	1576	1670	1574	1480	0.040	8.00	

				FPLAIN.DAT			
1576	1577	1671	1575	1481	0.040	8.00	
1577	1578	1672	1576	1482	0.040	8.00	
1578	1579	1673	1577	1483	0.040	8.00	
1579	1580	1674	1578	1484	0.040	8.00	
1580	1581	1675	1579	1485	0.040	8.00	
1581	1582	1676	1580	1486	0.040	8.00	
1582	1583	1677	1581	1487	0.040	8.00	
1583	1584	1678	1582	1488	0.040	8.00	
1584	1585	1679	1583	1489	0.040	8.00	
1585	1586	1680	1584	1490	0.040	8.00	
1586	1587	1681	1585	1491	0.040	8.00	
1587	1588	1682	1586	1492	0.040	8.00	
1588	1589	1683	1587	1493	0.040	8.00	
1589	1590	1684	1588	1494	0.040	0.10	
1590	1591	1685	1589	1495	0.040	0.10	
1591	1592	1686	1590	1496	0.040	0.10	
1592	1593	1687	1591	1497	0.040	0.10	
1593	1594	1688	1592	1498	0.040	0.10	
1594	1595	1689	1593	1499	0.040	0.10	
1595	1596	1690	1594	1500	0.040	0.10	
1596	1597	1691	1595	1501	0.040	0.10	
1597	1598	1692	1596	1502	0.040	0.10	
1598	1599	1693	1597	1503	0.040	0.10	
1599	1600	1694	1598	1504	0.040	0.10	
1600	1601	1695	1599	1505	0.040	0.10	
1601	1602	1696	1600	1506	0.040	0.10	
1602	1603	1697	1601	1507	0.040	0.10	
1603	1604	1698	1602	1508	0.040	0.10	
1604	1605	1699	1603	1509	0.040	0.10	
1605	1606	1700	1604	1510	0.040	0.10	
1606	1607	1701	1605	1511	0.040	0.10	
1607	1608	1702	1606	1512	0.040	0.10	
1608	1609	1703	1607	1513	0.040	0.10	
1609	1610	1704	1608	1514	0.040	0.10	
1610	1611	1705	1609	1515	0.040	0.10	
1611	1612	1706	1610	1516	0.040	0.10	
1612	1613	1707	1611	1517	0.040	8.00	
1613	1614	1708	1612	1518	0.040	8.00	
1614	1615	1709	1613	1519	0.040	8.00	
1615	1616	1710	1614	1520	0.040	8.00	
1616	1617	1711	1615	1521	0.040	8.00	
1617	1618	1712	1616	1522	0.040	8.00	
1618	1619	1713	1617	1523	0.040	8.00	
1619	1620	1714	1618	1524	0.040	8.00	
1620	1621	1715	1619	1525	0.040	8.00	
1621	1622	1716	1620	1526	0.040	8.00	
1622	1623	1717	1621	1527	0.040	8.00	
1623	1624	1718	1622	1528	0.040	8.00	
1624	1625	1719	1623	1529	0.040	20.00	
1625	1626	1720	1624	1530	0.040	20.00	
1626	1627	1721	1625	1531	0.040	20.00	
1627	1628	1722	1626	1532	0.040	20.00	
1628	1629	1723	1627	1533	0.040	20.00	
1629	1630	1724	1628	1534	0.040	20.00	
1630	1631	1725	1629	1535	0.040	20.00	
1631	1632	1726	1630	1536	0.040	20.00	
1632	1633	1727	1631	1537	0.040	20.00	
1633	1634	1728	1632	1538	0.040	20.00	
1634	1635	1729	1633	1539	0.040	20.00	
1635	1636	1730	1634	1540	0.040	20.00	
1636	1637	1731	1635	1541	0.040	20.00	
1637	1638	1732	1636	1542	0.040	8.00	
1638	1639	1733	1637	1543	0.040	8.00	

FPLAIN.DAT					
1639	1640	1734	1638	1544	0.040 8.00
1640	1641	1735	1639	1545	0.040 8.00
1641	1642	1736	1640	1546	0.040 8.00
1642	1643	1737	1641	1547	0.040 8.00
1643	0	1738	1642	1548	0.040 8.00
1644	1645	1739	0	1549	0.040 8.00
1645	1646	1740	1644	1550	0.040 8.00
1646	1647	1741	1645	1551	0.040 8.00
1647	1648	1742	1646	1552	0.040 8.00
1648	1649	1743	1647	1553	0.040 8.00
1649	1650	1744	1648	1554	0.040 8.00
1650	1651	1745	1649	1555	0.040 8.00
1651	1652	1746	1650	1556	0.040 8.00
1652	1653	1747	1651	1557	0.040 8.00
1653	1654	1748	1652	1558	0.040 8.00
1654	1655	1749	1653	1559	0.040 8.00
1655	1656	1750	1654	1560	0.040 8.00
1656	1657	1751	1655	1561	0.040 8.00
1657	1658	1752	1656	1562	0.040 8.00
1658	1659	1753	1657	1563	0.040 8.00
1659	1660	1754	1658	1564	0.040 8.00
1660	1661	1755	1659	1565	0.040 20.00
1661	1662	1756	1660	1566	0.040 20.00
1662	1663	1757	1661	1567	0.040 20.00
1663	1664	1758	1662	1568	0.040 20.00
1664	1665	1759	1663	1569	0.040 20.00
1665	1666	1760	1664	1570	0.040 20.00
1666	1667	1761	1665	1571	0.040 20.00
1667	1668	1762	1666	1572	0.040 20.00
1668	1669	1763	1667	1573	0.040 20.00
1669	1670	1764	1668	1574	0.040 20.00
1670	1671	1765	1669	1575	0.040 20.00
1671	1672	1766	1670	1576	0.040 20.00
1672	1673	1767	1671	1577	0.040 20.00
1673	1674	1768	1672	1578	0.040 8.00
1674	1675	1769	1673	1579	0.040 8.00
1675	1676	1770	1674	1580	0.040 8.00
1676	1677	1771	1675	1581	0.040 8.00
1677	1678	1772	1676	1582	0.040 8.00
1678	1679	1773	1677	1583	0.040 8.00
1679	1680	1774	1678	1584	0.040 8.00
1680	1681	1775	1679	1585	0.040 8.00
1681	1682	1776	1680	1586	0.040 8.00
1682	1683	1777	1681	1587	0.040 8.00
1683	1684	1778	1682	1588	0.040 8.00
1684	1685	1779	1683	1589	0.040 0.10
1685	1686	1780	1684	1590	0.040 0.10
1686	1687	1781	1685	1591	0.040 0.10
1687	1688	1782	1686	1592	0.040 0.10
1688	1689	1783	1687	1593	0.040 0.10
1689	1690	1784	1688	1594	0.040 0.10
1690	1691	1785	1689	1595	0.040 0.10
1691	1692	1786	1690	1596	0.040 0.10
1692	1693	1787	1691	1597	0.040 0.10
1693	1694	1788	1692	1598	0.040 0.10
1694	1695	1789	1693	1599	0.040 0.10
1695	1696	1790	1694	1600	0.040 0.10
1696	1697	1791	1695	1601	0.040 0.10
1697	1698	1792	1696	1602	0.040 0.10
1698	1699	1793	1697	1603	0.040 0.10
1699	1700	1794	1698	1604	0.040 0.10
1700	1701	1795	1699	1605	0.040 0.10
1701	1702	1796	1700	1606	0.040 0.10

				FPLAIN.DAT		
1702	1703	1797	1701	1607	0.040	0.10
1703	1704	1798	1702	1608	0.040	0.10
1704	1705	1799	1703	1609	0.040	0.10
1705	1706	1800	1704	1610	0.040	0.10
1706	1707	1801	1705	1611	0.040	0.10
1707	1708	1802	1706	1612	0.040	8.00
1708	1709	1803	1707	1613	0.040	8.00
1709	1710	1804	1708	1614	0.040	8.00
1710	1711	1805	1709	1615	0.040	8.00
1711	1712	1806	1710	1616	0.040	8.00
1712	1713	1807	1711	1617	0.040	8.00
1713	1714	1808	1712	1618	0.040	8.00
1714	1715	1809	1713	1619	0.040	8.00
1715	1716	1810	1714	1620	0.040	8.00
1716	1717	1811	1715	1621	0.040	8.00
1717	1718	1812	1716	1622	0.040	8.00
1718	1719	1813	1717	1623	0.040	8.00
1719	1720	1814	1718	1624	0.040	20.00
1720	1721	1815	1719	1625	0.040	20.00
1721	1722	1816	1720	1626	0.040	20.00
1722	1723	1817	1721	1627	0.040	20.00
1723	1724	1818	1722	1628	0.040	20.00
1724	1725	1819	1723	1629	0.040	20.00
1725	1726	1820	1724	1630	0.040	20.00
1726	1727	1821	1725	1631	0.040	20.00
1727	1728	1822	1726	1632	0.040	20.00
1728	1729	1823	1727	1633	0.040	20.00
1729	1730	1824	1728	1634	0.040	20.00
1730	1731	1825	1729	1635	0.040	20.00
1731	1732	1826	1730	1636	0.040	20.00
1732	1733	1827	1731	1637	0.040	8.00
1733	1734	1828	1732	1638	0.040	8.00
1734	1735	1829	1733	1639	0.040	8.00
1735	1736	1830	1734	1640	0.040	8.00
1736	1737	1831	1735	1641	0.040	8.00
1737	1738	1832	1736	1642	0.040	8.00
1738	0	1833	1737	1643	0.040	8.00
1739	1740	1834	0	1644	0.040	8.00
1740	1741	1835	1739	1645	0.040	8.00
1741	1742	1836	1740	1646	0.040	8.00
1742	1743	1837	1741	1647	0.040	8.00
1743	1744	1838	1742	1648	0.040	8.00
1744	1745	1839	1743	1649	0.040	8.00
1745	1746	1840	1744	1650	0.040	8.00
1746	1747	1841	1745	1651	0.040	8.00
1747	1748	1842	1746	1652	0.040	8.00
1748	1749	1843	1747	1653	0.040	8.00
1749	1750	1844	1748	1654	0.040	8.00
1750	1751	1845	1749	1655	0.040	8.00
1751	1752	1846	1750	1656	0.040	8.00
1752	1753	1847	1751	1657	0.040	8.00
1753	1754	1848	1752	1658	0.040	8.00
1754	1755	1849	1753	1659	0.040	8.00
1755	1756	1850	1754	1660	0.040	20.00
1756	1757	1851	1755	1661	0.040	20.00
1757	1758	1852	1756	1662	0.040	20.00
1758	1759	1853	1757	1663	0.040	20.00
1759	1760	1854	1758	1664	0.040	20.00
1760	1761	1855	1759	1665	0.040	20.00
1761	1762	1856	1760	1666	0.040	20.00
1762	1763	1857	1761	1667	0.040	20.00
1763	1764	1858	1762	1668	0.040	20.00
1764	1765	1859	1763	1669	0.040	20.00



FPLAIN.DAT					
1765	1766	1860	1764	1670	0.040 20.00
1766	1767	1861	1765	1671	0.040 20.00
1767	1768	1862	1766	1672	0.040 20.00
1768	1769	1863	1767	1673	0.040 8.00
1769	1770	1864	1768	1674	0.040 8.00
1770	1771	1865	1769	1675	0.040 8.00
1771	1772	1866	1770	1676	0.040 8.00
1772	1773	1867	1771	1677	0.040 8.00
1773	1774	1868	1772	1678	0.040 8.00
1774	1775	1869	1773	1679	0.040 8.00
1775	1776	1870	1774	1680	0.040 8.00
1776	1777	1871	1775	1681	0.040 8.00
1777	1778	1872	1776	1682	0.040 8.00
1778	1779	1873	1777	1683	0.040 8.00
1779	1780	1874	1778	1684	0.040 0.10
1780	1781	1875	1779	1685	0.040 0.10
1781	1782	1876	1780	1686	0.040 0.10
1782	1783	1877	1781	1687	0.040 0.10
1783	1784	1878	1782	1688	0.040 0.10
1784	1785	1879	1783	1689	0.040 0.10
1785	1786	1880	1784	1690	0.040 0.10
1786	1787	1881	1785	1691	0.040 0.10
1787	1788	1882	1786	1692	0.040 0.10
1788	1789	1883	1787	1693	0.040 0.10
1789	1790	1884	1788	1694	0.040 0.10
1790	1791	1885	1789	1695	0.040 0.10
1791	1792	1886	1790	1696	0.040 0.10
1792	1793	1887	1791	1697	0.040 0.10
1793	1794	1888	1792	1698	0.040 0.10
1794	1795	1889	1793	1699	0.040 0.10
1795	1796	1890	1794	1700	0.040 0.10
1796	1797	1891	1795	1701	0.040 0.10
1797	1798	1892	1796	1702	0.040 0.10
1798	1799	1893	1797	1703	0.040 0.10
1799	1800	1894	1798	1704	0.040 0.10
1800	1801	1895	1799	1705	0.040 0.10
1801	1802	1896	1800	1706	0.040 0.10
1802	1803	1897	1801	1707	0.040 8.00
1803	1804	1898	1802	1708	0.040 8.00
1804	1805	1899	1803	1709	0.040 8.00
1805	1806	1900	1804	1710	0.040 8.00
1806	1807	1901	1805	1711	0.040 8.00
1807	1808	1902	1806	1712	0.040 8.00
1808	1809	1903	1807	1713	0.040 8.00
1809	1810	1904	1808	1714	0.040 8.00
1810	1811	1905	1809	1715	0.040 8.00
1811	1812	1906	1810	1716	0.040 8.00
1812	1813	1907	1811	1717	0.040 8.00
1813	1814	1908	1812	1718	0.040 8.00
1814	1815	1909	1813	1719	0.040 20.00
1815	1816	1910	1814	1720	0.040 20.00
1816	1817	1911	1815	1721	0.040 9.40
1817	1818	1912	1816	1722	0.040 9.40
1818	1819	1913	1817	1723	0.040 9.40
1819	1820	1914	1818	1724	0.040 9.40
1820	1821	1915	1819	1725	0.040 9.40
1821	1822	1916	1820	1726	0.040 9.40
1822	1823	1917	1821	1727	0.040 9.40
1823	1824	1918	1822	1728	0.040 9.40
1824	1825	1919	1823	1729	0.040 9.40
1825	1826	1920	1824	1730	0.040 20.00
1826	1827	1921	1825	1731	0.040 20.00
1827	1828	1922	1826	1732	0.040 8.00



FPLAIN.DAT					
1828	1829	1923	1827	1733	0.040 8.00
1829	1830	1924	1828	1734	0.040 8.00
1830	1831	1925	1829	1735	0.040 8.00
1831	1832	1926	1830	1736	0.040 8.00
1832	1833	1927	1831	1737	0.040 8.00
1833	0	1928	1832	1738	0.040 8.00
1834	1835	1929	0	1739	0.040 8.00
1835	1836	1930	1834	1740	0.040 8.00
1836	1837	1931	1835	1741	0.040 8.00
1837	1838	1932	1836	1742	0.040 8.00
1838	1839	1933	1837	1743	0.040 8.00
1839	1840	1934	1838	1744	0.040 8.00
1840	1841	1935	1839	1745	0.040 8.00
1841	1842	1936	1840	1746	0.040 8.00
1842	1843	1937	1841	1747	0.040 8.00
1843	1844	1938	1842	1748	0.040 8.00
1844	1845	1939	1843	1749	0.040 8.00
1845	1846	1940	1844	1750	0.040 8.00
1846	1847	1941	1845	1751	0.040 8.00
1847	1848	1942	1846	1752	0.040 8.00
1848	1849	1943	1847	1753	0.040 8.00
1849	1850	1944	1848	1754	0.040 8.00
1850	1851	1945	1849	1755	0.040 20.00
1851	1852	1946	1850	1756	0.040 20.00
1852	1853	1947	1851	1757	0.040 9.40
1853	1854	1948	1852	1758	0.040 9.40
1854	1855	1949	1853	1759	0.040 9.40
1855	1856	1950	1854	1760	0.040 9.40
1856	1857	1951	1855	1761	0.040 9.40
1857	1858	1952	1856	1762	0.040 9.40
1858	1859	1953	1857	1763	0.040 9.40
1859	1860	1954	1858	1764	0.040 9.40
1860	1861	1955	1859	1765	0.040 9.40
1861	1862	1956	1860	1766	0.040 20.00
1862	1863	1957	1861	1767	0.040 20.00
1863	1864	1958	1862	1768	0.040 8.00
1864	1865	1959	1863	1769	0.040 8.00
1865	1866	1960	1864	1770	0.040 8.00
1866	1867	1961	1865	1771	0.040 8.00
1867	1868	1962	1866	1772	0.040 8.00
1868	1869	1963	1867	1773	0.040 8.00
1869	1870	1964	1868	1774	0.040 8.00
1870	1871	1965	1869	1775	0.040 8.00
1871	1872	1966	1870	1776	0.040 8.00
1872	1873	1967	1871	1777	0.040 8.00
1873	1874	1968	1872	1778	0.040 8.00
1874	1875	1969	1873	1779	0.040 0.10
1875	1876	1970	1874	1780	0.040 0.10
1876	1877	1971	1875	1781	0.040 0.10
1877	1878	1972	1876	1782	0.040 0.10
1878	1879	1973	1877	1783	0.040 0.10
1879	1880	1974	1878	1784	0.040 0.10
1880	1881	1975	1879	1785	0.040 0.10
1881	1882	1976	1880	1786	0.040 0.10
1882	1883	1977	1881	1787	0.040 0.10
1883	1884	1978	1882	1788	0.040 0.10
1884	1885	1979	1883	1789	0.040 0.10
1885	1886	1980	1884	1790	0.040 0.10
1886	1887	1981	1885	1791	0.040 0.10
1887	1888	1982	1886	1792	0.040 0.10
1888	1889	1983	1887	1793	0.040 0.10
1889	1890	1984	1888	1794	0.040 0.10
1890	1891	1985	1889	1795	0.040 0.10

FPLAIN.DAT					
1891	1892	1886	1890	1796	0.040 0.10
1892	1893	1887	1891	1797	0.040 0.10
1893	1894	1888	1892	1798	0.040 0.10
1894	1895	1889	1893	1799	0.040 0.10
1895	1896	1990	1894	1800	0.040 0.10
1896	1897	1991	1895	1801	0.040 0.10
1897	1898	1992	1896	1802	0.040 8.00
1898	1899	1993	1897	1803	0.040 8.00
1899	1900	1994	1898	1804	0.040 8.00
1900	1901	1995	1899	1805	0.040 8.00
1901	1902	1996	1900	1806	0.040 8.00
1902	1903	1997	1901	1807	0.040 8.00
1903	1904	1998	1902	1808	0.040 8.00
1904	1905	1999	1903	1809	0.040 8.00
1905	1906	2000	1904	1810	0.040 8.00
1906	1907	2001	1905	1811	0.040 8.00
1907	1908	2002	1906	1812	0.040 8.00
1908	1909	2003	1907	1813	0.040 8.00
1909	1910	2004	1908	1814	0.040 20.00
1910	1911	2005	1909	1815	0.040 20.00
1911	1912	2006	1910	1816	0.040 9.20
1912	1913	2007	1911	1817	0.040 9.20
1913	1914	2008	1912	1818	0.040 9.20
1914	1915	2009	1913	1819	0.040 9.20
1915	1916	2010	1914	1820	0.040 9.20
1916	1917	2011	1915	1821	0.040 9.20
1917	1918	2012	1916	1822	0.040 9.20
1918	1919	2013	1917	1823	0.040 9.20
1919	1920	2014	1918	1824	0.040 9.20
1920	1921	2015	1919	1825	0.040 20.00
1921	1922	2016	1920	1826	0.040 20.00
1922	1923	2017	1921	1827	0.040 8.00
1923	1924	2018	1922	1828	0.040 8.00
1924	1925	2019	1923	1829	0.040 8.00
1925	1926	2020	1924	1830	0.040 8.00
1926	1927	2021	1925	1831	0.040 8.00
1927	1928	2022	1926	1832	0.040 8.00
1928	0	2023	1927	1833	0.040 8.00
1929	1930	2024	0	1834	0.040 8.00
1930	1931	2025	1929	1835	0.040 8.00
1931	1932	2026	1930	1836	0.040 8.00
1932	1933	2027	1931	1837	0.040 8.00
1933	1934	2028	1932	1838	0.040 8.00
1934	1935	2029	1933	1839	0.040 8.00
1935	1936	2030	1934	1840	0.040 8.00
1936	1937	2031	1935	1841	0.040 8.00
1937	1938	2032	1936	1842	0.040 8.00
1938	1939	2033	1937	1843	0.040 8.00
1939	1940	2034	1938	1844	0.040 8.00
1940	1941	2035	1939	1845	0.040 8.00
1941	1942	2036	1940	1846	0.040 8.00
1942	1943	2037	1941	1847	0.040 8.00
1943	1944	2038	1942	1848	0.040 8.00
1944	1945	2039	1943	1849	0.040 8.00
1945	1946	2040	1944	1850	0.040 20.00
1946	1947	2041	1945	1851	0.040 20.00
1947	1948	2042	1946	1852	0.040 9.20
1948	1949	2043	1947	1853	0.040 9.20
1949	1950	2044	1948	1854	0.040 9.20
1950	1951	2045	1949	1855	0.040 9.20
1951	1952	2046	1950	1856	0.040 9.20
1952	1953	2047	1951	1857	0.040 9.20
1953	1954	2048	1952	1858	0.040 9.20

			FPLAIN.DAT			
1954	1955	2049	1953	1859	0.040	9.20
1955	1956	2050	1954	1860	0.040	9.20
1956	1957	2051	1955	1861	0.040	20.00
1957	1958	2052	1956	1862	0.040	20.00
1958	1959	2053	1957	1863	0.040	8.00
1959	1960	2054	1958	1864	0.040	8.00
1960	1961	2055	1959	1865	0.040	8.00
1961	1962	2056	1960	1866	0.040	8.00
1962	1963	2057	1961	1867	0.040	8.00
1963	1964	2058	1962	1868	0.040	8.00
1964	1965	2059	1963	1869	0.040	8.00
1965	1966	2060	1964	1870	0.040	8.00
1966	1967	2061	1965	1871	0.040	8.00
1967	1968	2062	1966	1872	0.040	8.00
1968	1969	2063	1967	1873	0.040	8.00
1969	1970	2064	1968	1874	0.040	0.10
1970	1971	2065	1969	1875	0.040	0.10
1971	1972	2066	1970	1876	0.040	0.10
1972	1973	2067	1971	1877	0.040	0.10
1973	1974	2068	1972	1878	0.040	0.10
1974	1975	2069	1973	1879	0.040	0.10
1975	1976	2070	1974	1880	0.040	0.10
1976	1977	2071	1975	1881	0.040	0.10
1977	1978	2072	1976	1882	0.040	0.10
1978	1979	2073	1977	1883	0.040	0.10
1979	1980	2074	1978	1884	0.040	0.10
1980	1981	2075	1979	1885	0.040	0.10
1981	1982	2076	1980	1886	0.040	0.10
1982	1983	2077	1981	1887	0.040	0.10
1983	1984	2078	1982	1888	0.040	0.10
1984	1985	2079	1983	1889	0.040	0.10
1985	1986	2080	1984	1890	0.040	0.10
1986	1987	2081	1985	1891	0.040	0.10
1987	1988	2082	1986	1892	0.040	0.10
1988	1989	2083	1987	1893	0.040	0.10
1989	1990	2084	1988	1894	0.040	0.10
1990	1991	2085	1989	1895	0.040	0.10
1991	1992	2086	1990	1896	0.040	0.10
1992	1993	2087	1991	1897	0.040	8.00
1993	1994	2088	1992	1898	0.040	8.00
1994	1995	2089	1993	1899	0.040	8.00
1995	1996	2090	1994	1900	0.040	8.00
1996	1997	2091	1995	1901	0.040	8.00
1997	1998	2092	1996	1902	0.040	8.00
1998	1999	2093	1997	1903	0.040	8.00
1999	2000	2094	1998	1904	0.040	8.00
2000	2001	2095	1999	1905	0.040	8.00
2001	2002	2096	2000	1906	0.040	8.00
2002	2003	2097	2001	1907	0.040	8.00
2003	2004	2098	2002	1908	0.040	8.00
2004	2005	2099	2003	1909	0.040	20.00
2005	2006	2100	2004	1910	0.040	20.00
2006	2007	2101	2005	1911	0.040	9.00
2007	2008	2102	2006	1912	0.040	9.00
2008	2009	2103	2007	1913	0.040	9.00
2009	2010	2104	2008	1914	0.040	9.00
2010	2011	2105	2009	1915	0.040	9.00
2011	2012	2106	2010	1916	0.040	9.00
2012	2013	2107	2011	1917	0.040	9.00
2013	2014	2108	2012	1918	0.040	9.00
2014	2015	2109	2013	1919	0.040	9.00
2015	2016	2110	2014	1920	0.040	20.00
2016	2017	2111	2015	1921	0.040	20.00

			FPLAIN.DAT			
2017	2018	2112	2016	1922	0.040	8.00
2018	2019	2113	2017	1923	0.040	8.00
2019	2020	2114	2018	1924	0.040	8.00
2020	2021	2115	2019	1925	0.040	8.00
2021	2022	2116	2020	1926	0.040	8.00
2022	2023	2117	2021	1927	0.040	8.00
2023	0	2118	2022	1928	0.040	8.00
2024	2025	2119	0	1929	0.040	8.00
2025	2026	2120	2024	1930	0.040	8.00
2026	2027	2121	2025	1931	0.040	8.00
2027	2028	2122	2026	1932	0.040	8.00
2028	2029	2123	2027	1933	0.040	8.00
2029	2030	2124	2028	1934	0.040	8.00
2030	2031	2125	2029	1935	0.040	8.00
2031	2032	2126	2030	1936	0.040	8.00
2032	2033	2127	2031	1937	0.040	8.00
2033	2034	2128	2032	1938	0.040	8.00
2034	2035	2129	2033	1939	0.040	8.00
2035	2036	2130	2034	1940	0.040	8.00
2036	2037	2131	2035	1941	0.040	8.00
2037	2038	2132	2036	1942	0.040	8.00
2038	2039	2133	2037	1943	0.040	8.00
2039	2040	2134	2038	1944	0.040	8.00
2040	2041	2135	2039	1945	0.040	20.00
2041	2042	2136	2040	1946	0.040	20.00
2042	2043	2137	2041	1947	0.040	9.00
2043	2044	2138	2042	1948	0.040	9.00
2044	2045	2139	2043	1949	0.040	9.00
2045	2046	2140	2044	1950	0.040	9.00
2046	2047	2141	2045	1951	0.040	9.00
2047	2048	2142	2046	1952	0.040	9.00
2048	2049	2143	2047	1953	0.040	9.00
2049	2050	2144	2048	1954	0.040	9.00
2050	2051	2145	2049	1955	0.040	9.00
2051	2052	2146	2050	1956	0.040	20.00
2052	2053	2147	2051	1957	0.040	20.00
2053	2054	2148	2052	1958	0.040	8.00
2054	2055	2149	2053	1959	0.040	8.00
2055	2056	2150	2054	1960	0.040	8.00
2056	2057	2151	2055	1961	0.040	8.00
2057	2058	2152	2056	1962	0.040	8.00
2058	2059	2153	2057	1963	0.040	8.00
2059	2060	2154	2058	1964	0.040	8.00
2060	2061	2155	2059	1965	0.040	8.00
2061	2062	2156	2060	1966	0.040	8.00
2062	2063	2157	2061	1967	0.040	8.00
2063	2064	2158	2062	1968	0.040	8.00
2064	2065	2159	2063	1969	0.040	0.10
2065	2066	2160	2064	1970	0.040	0.10
2066	2067	2161	2065	1971	0.040	0.10
2067	2068	2162	2066	1972	0.040	0.10
2068	2069	2163	2067	1973	0.040	0.10
2069	2070	2164	2068	1974	0.040	0.10
2070	2071	2165	2069	1975	0.040	0.10
2071	2072	2166	2070	1976	0.040	0.10
2072	2073	2167	2071	1977	0.040	0.10
2073	2074	2168	2072	1978	0.040	0.10
2074	2075	2169	2073	1979	0.040	0.10
2075	2076	2170	2074	1980	0.040	0.10
2076	2077	2171	2075	1981	0.040	0.10
2077	2078	2172	2076	1982	0.040	0.10
2078	2079	2173	2077	1983	0.040	0.10
2079	2080	2174	2078	1984	0.040	0.10

FPLAIN.DAT					
2080	2081	2175	2079	1985	0.040 0.10
2081	2082	2176	2080	1986	0.040 0.10
2082	2083	2177	2081	1987	0.040 0.10
2083	2084	2178	2082	1988	0.040 0.10
2084	2085	2179	2083	1989	0.040 0.10
2085	2086	2180	2084	1990	0.040 0.10
2086	2087	2181	2085	1991	0.040 0.10
2087	2088	2182	2086	1992	0.040 8.00
2088	2089	2183	2087	1993	0.040 8.00
2089	2090	2184	2088	1994	0.040 8.00
2090	2091	2185	2089	1995	0.040 8.00
2091	2092	2186	2090	1996	0.040 8.00
2092	2093	2187	2091	1997	0.040 8.00
2093	2094	2188	2092	1998	0.040 8.00
2094	2095	2189	2093	1999	0.040 8.00
2095	2096	2190	2094	2000	0.040 8.00
2096	2097	2191	2095	2001	0.040 8.00
2097	2098	2192	2096	2002	0.040 8.00
2098	2099	2193	2097	2003	0.040 8.00
2099	2100	2194	2098	2004	0.040 20.00
2100	2101	2195	2099	2005	0.040 20.00
2101	2102	2196	2100	2006	0.040 8.80
2102	2103	2197	2101	2007	0.040 8.80
2103	2104	2198	2102	2008	0.040 8.80
2104	2105	2199	2103	2009	0.040 8.80
2105	2106	2200	2104	2010	0.040 8.80
2106	2107	2201	2105	2011	0.040 8.80
2107	2108	2202	2106	2012	0.040 8.80
2108	2109	2203	2107	2013	0.040 8.80
2109	2110	2204	2108	2014	0.040 8.80
2110	2111	2205	2109	2015	0.040 20.00
2111	2112	2206	2110	2016	0.040 20.00
2112	2113	2207	2111	2017	0.040 8.00
2113	2114	2208	2112	2018	0.040 8.00
2114	2115	2209	2113	2019	0.040 8.00
2115	2116	2210	2114	2020	0.040 8.00
2116	2117	2211	2115	2021	0.040 8.00
2117	2118	2212	2116	2022	0.040 8.00
2118	0	2213	2117	2023	0.040 8.00
2119	2120	2214	0	2024	0.040 8.00
2120	2121	2215	2119	2025	0.040 8.00
2121	2122	2216	2120	2026	0.040 8.00
2122	2123	2217	2121	2027	0.040 8.00
2123	2124	2218	2122	2028	0.040 8.00
2124	2125	2219	2123	2029	0.040 8.00
2125	2126	2220	2124	2030	0.040 8.00
2126	2127	2221	2125	2031	0.040 8.00
2127	2128	2222	2126	2032	0.040 8.00
2128	2129	2223	2127	2033	0.040 8.00
2129	2130	2224	2128	2034	0.040 8.00
2130	2131	2225	2129	2035	0.040 8.00
2131	2132	2226	2130	2036	0.040 8.00
2132	2133	2227	2131	2037	0.040 8.00
2133	2134	2228	2132	2038	0.040 8.00
2134	2135	2229	2133	2039	0.040 8.00
2135	2136	2230	2134	2040	0.040 20.00
2136	2137	2231	2135	2041	0.040 20.00
2137	2138	2232	2136	2042	0.040 8.80
2138	2139	2233	2137	2043	0.040 8.80
2139	2140	2234	2138	2044	0.040 8.80
2140	2141	2235	2139	2045	0.040 8.80
2141	2142	2236	2140	2046	0.040 8.80
2142	2143	2237	2141	2047	0.040 8.80

			FPLAIN.DAT			
2143	2144	2238	2142	2048	0.040	8.80
2144	2145	2239	2143	2049	0.040	8.80
2145	2146	2240	2144	2050	0.040	8.80
2146	2147	2241	2145	2051	0.040	20.00
2147	2148	2242	2146	2052	0.040	20.00
2148	2149	2243	2147	2053	0.040	8.00
2149	2150	2244	2148	2054	0.040	8.00
2150	2151	2245	2149	2055	0.040	8.00
2151	2152	2246	2150	2056	0.040	8.00
2152	2153	2247	2151	2057	0.040	8.00
2153	2154	2248	2152	2058	0.040	8.00
2154	2155	2249	2153	2059	0.040	8.00
2155	2156	2250	2154	2060	0.040	8.00
2156	2157	2251	2155	2061	0.040	8.00
2157	2158	2252	2156	2062	0.040	8.00
2158	2159	2253	2157	2063	0.040	8.00
2159	2160	2254	2158	2064	0.040	0.10
2160	2161	2255	2159	2065	0.040	0.10
2161	2162	2256	2160	2066	0.040	0.10
2162	2163	2257	2161	2067	0.040	0.10
2163	2164	2258	2162	2068	0.040	0.10
2164	2165	2259	2163	2069	0.040	0.10
2165	2166	2260	2164	2070	0.040	0.10
2166	2167	2261	2165	2071	0.040	0.10
2167	2168	2262	2166	2072	0.040	0.10
2168	2169	2263	2167	2073	0.040	0.10
2169	2170	2264	2168	2074	0.040	0.10
2170	2171	2265	2169	2075	0.040	0.10
2171	2172	2266	2170	2076	0.040	0.10
2172	2173	2267	2171	2077	0.040	0.10
2173	2174	2268	2172	2078	0.040	0.10
2174	2175	2269	2173	2079	0.040	0.10
2175	2176	2270	2174	2080	0.040	0.10
2176	2177	2271	2175	2081	0.040	0.10
2177	2178	2272	2176	2082	0.040	0.10
2178	2179	2273	2177	2083	0.040	0.10
2179	2180	2274	2178	2084	0.040	0.10
2180	2181	2275	2179	2085	0.040	0.10
2181	2182	2276	2180	2086	0.040	0.10
2182	2183	2277	2181	2087	0.040	8.00
2183	2184	2278	2182	2088	0.040	8.00
2184	2185	2279	2183	2089	0.040	8.00
2185	2186	2280	2184	2090	0.040	8.00
2186	2187	2281	2185	2091	0.040	8.00
2187	2188	2282	2186	2092	0.040	8.00
2188	2189	2283	2187	2093	0.040	8.00
2189	2190	2284	2188	2094	0.040	8.00
2190	2191	2285	2189	2095	0.040	8.00
2191	2192	2286	2190	2096	0.040	8.00
2192	2193	2287	2191	2097	0.040	8.00
2193	2194	2288	2192	2098	0.040	8.00
2194	2195	2289	2193	2099	0.040	20.00
2195	2196	2290	2194	2100	0.040	20.00
2196	2197	2291	2195	2101	0.040	8.80
2197	2198	2292	2196	2102	0.040	8.60
2198	2199	2293	2197	2103	0.040	8.60
2199	2200	2294	2198	2104	0.040	8.60
2200	2201	2295	2199	2105	0.040	8.60
2201	2202	2296	2200	2106	0.040	8.60
2202	2203	2297	2201	2107	0.040	8.60
2203	2204	2298	2202	2108	0.040	8.60
2204	2205	2299	2203	2109	0.040	8.80
2205	2206	2300	2204	2110	0.040	20.00

				FPLAIN.DAT		
2206	2207	2301	2205	2111	0.040	20.00
2207	2208	2302	2206	2112	0.040	8.00
2208	2209	2303	2207	2113	0.040	8.00
2209	2210	2304	2208	2114	0.040	8.00
2210	2211	2305	2209	2115	0.040	8.00
2211	2212	2306	2210	2116	0.040	8.00
2212	2213	2307	2211	2117	0.040	8.00
2213	0	2308	2212	2118	0.040	8.00
2214	2215	2309	0	2119	0.040	8.00
2215	2216	2310	2214	2120	0.040	8.00
2216	2217	2311	2215	2121	0.040	8.00
2217	2218	2312	2216	2122	0.040	8.00
2218	2219	2313	2217	2123	0.040	8.00
2219	2220	2314	2218	2124	0.040	8.00
2220	2221	2315	2219	2125	0.040	8.00
2221	2222	2316	2220	2126	0.040	8.00
2222	2223	2317	2221	2127	0.040	8.00
2223	2224	2318	2222	2128	0.040	8.00
2224	2225	2319	2223	2129	0.040	8.00
2225	2226	2320	2224	2130	0.040	8.00
2226	2227	2321	2225	2131	0.040	8.00
2227	2228	2322	2226	2132	0.040	8.00
2228	2229	2323	2227	2133	0.040	8.00
2229	2230	2324	2228	2134	0.040	8.00
2230	2231	2325	2229	2135	0.040	20.00
2231	2232	2326	2230	2136	0.040	20.00
2232	2233	2327	2231	2137	0.040	8.80
2233	2234	2328	2232	2138	0.040	8.60
2234	2235	2329	2233	2139	0.040	8.60
2235	2236	2330	2234	2140	0.040	8.60
2236	2237	2331	2235	2141	0.040	8.60
2237	2238	2332	2236	2142	0.040	8.60
2238	2239	2333	2237	2143	0.040	8.60
2239	2240	2334	2238	2144	0.040	8.60
2240	2241	2335	2239	2145	0.040	8.80
2241	2242	2336	2240	2146	0.040	20.00
2242	2243	2337	2241	2147	0.040	20.00
2243	2244	2338	2242	2148	0.040	8.00
2244	2245	2339	2243	2149	0.040	8.00
2245	2246	2340	2244	2150	0.040	8.00
2246	2247	2341	2245	2151	0.040	8.00
2247	2248	2342	2246	2152	0.040	8.00
2248	2249	2343	2247	2153	0.040	8.00
2249	2250	2344	2248	2154	0.040	8.00
2250	2251	2345	2249	2155	0.040	8.00
2251	2252	2346	2250	2156	0.040	8.00
2252	2253	2347	2251	2157	0.040	8.00
2253	2254	2348	2252	2158	0.040	8.00
2254	2255	2349	2253	2159	0.040	0.10
2255	2256	2350	2254	2160	0.040	0.10
2256	2257	2351	2255	2161	0.040	0.10
2257	2258	2352	2256	2162	0.040	0.10
2258	2259	2353	2257	2163	0.040	0.10
2259	2260	2354	2258	2164	0.040	0.10
2260	2261	2355	2259	2165	0.040	0.10
2261	2262	2356	2260	2166	0.040	0.10
2262	2263	2357	2261	2167	0.040	0.10
2263	2264	2358	2262	2168	0.040	0.10
2264	2265	2359	2263	2169	0.040	0.10
2265	2266	2360	2264	2170	0.040	0.10
2266	2267	2361	2265	2171	0.040	0.10
2267	2268	2362	2266	2172	0.040	0.10
2268	2269	2363	2267	2173	0.040	0.10



FPLAIN.DAT						
2269	2270	2364	2268	2174	0.040	0.10
2270	2271	2365	2269	2175	0.040	0.10
2271	2272	2366	2270	2176	0.040	0.10
2272	2273	2367	2271	2177	0.040	0.10
2273	2274	2368	2272	2178	0.040	0.10
2274	2275	2369	2273	2179	0.040	0.10
2275	2276	2370	2274	2180	0.040	0.10
2276	2277	2371	2275	2181	0.040	0.10
2277	2278	2372	2276	2182	0.040	8.00
2278	2279	2373	2277	2183	0.040	8.00
2279	2280	2374	2278	2184	0.040	8.00
2280	2281	2375	2279	2185	0.040	8.00
2281	2282	2376	2280	2186	0.040	8.00
2282	2283	2377	2281	2187	0.040	8.00
2283	2284	2378	2282	2188	0.040	8.00
2284	2285	2379	2283	2189	0.040	8.00
2285	2286	2380	2284	2190	0.040	8.00
2286	2287	2381	2285	2191	0.040	8.00
2287	2288	2382	2286	2192	0.040	8.00
2288	2289	2383	2287	2193	0.040	8.00
2289	2290	2384	2288	2194	0.040	20.00
2290	2291	2385	2289	2195	0.040	20.00
2291	2292	2386	2290	2196	0.040	8.80
2292	2293	2387	2291	2197	0.040	8.60
2293	2294	2388	2292	2198	0.040	8.40
2294	2295	2389	2293	2199	0.040	8.40
2295	2296	2390	2294	2200	0.040	8.40
2296	2297	2391	2295	2201	0.040	8.40
2297	2298	2392	2296	2202	0.040	8.40
2298	2299	2393	2297	2203	0.040	8.60
2299	2300	2394	2298	2204	0.040	8.80
2300	2301	2395	2299	2205	0.040	20.00
2301	2302	2396	2300	2206	0.040	20.00
2302	2303	2397	2301	2207	0.040	8.00
2303	2304	2398	2302	2208	0.040	8.00
2304	2305	2399	2303	2209	0.040	8.00
2305	2306	2400	2304	2210	0.040	8.00
2306	2307	2401	2305	2211	0.040	8.00
2307	2308	2402	2306	2212	0.040	8.00
2308	0	2403	2307	2213	0.040	8.00
2309	2310	2404	0	2214	0.040	8.00
2310	2311	2405	2309	2215	0.040	8.00
2311	2312	2406	2310	2216	0.040	8.00
2312	2313	2407	2311	2217	0.040	8.00
2313	2314	2408	2312	2218	0.040	8.00
2314	2315	2409	2313	2219	0.040	8.00
2315	2316	2410	2314	2220	0.040	8.00
2316	2317	2411	2315	2221	0.040	8.00
2317	2318	2412	2316	2222	0.040	8.00
2318	2319	2413	2317	2223	0.040	8.00
2319	2320	2414	2318	2224	0.040	8.00
2320	2321	2415	2319	2225	0.040	8.00
2321	2322	2416	2320	2226	0.040	8.00
2322	2323	2417	2321	2227	0.040	8.00
2323	2324	2418	2322	2228	0.040	8.00
2324	2325	2419	2323	2229	0.040	8.00
2325	2326	2420	2324	2230	0.040	20.00
2326	2327	2421	2325	2231	0.040	20.00
2327	2328	2422	2326	2232	0.040	8.80
2328	2329	2423	2327	2233	0.040	8.60
2329	2330	2424	2328	2234	0.040	8.40
2330	2331	2425	2329	2235	0.040	8.40
2331	2332	2426	2330	2236	0.040	8.40



FPLAIN.DAT						
2332	2333	2427	2331	2237	0.040	8.40
2333	2334	2428	2332	2238	0.040	8.40
2334	2335	2429	2333	2239	0.040	8.60
2335	2336	2430	2334	2240	0.040	8.80
2336	2337	2431	2335	2241	0.040	20.00
2337	2338	2432	2336	2242	0.040	20.00
2338	2339	2433	2337	2243	0.040	8.00
2339	2340	2434	2338	2244	0.040	8.00
2340	2341	2435	2339	2245	0.040	8.00
2341	2342	2436	2340	2246	0.040	8.00
2342	2343	2437	2341	2247	0.040	8.00
2343	2344	2438	2342	2248	0.040	8.00
2344	2345	2439	2343	2249	0.040	8.00
2345	2346	2440	2344	2250	0.040	8.00
2346	2347	2441	2345	2251	0.040	8.00
2347	2348	2442	2346	2252	0.040	8.00
2348	2349	2443	2347	2253	0.040	8.00
2349	2350	2444	2348	2254	0.040	0.10
2350	2351	2445	2349	2255	0.040	0.10
2351	2352	2446	2350	2256	0.040	0.10
2352	2353	2447	2351	2257	0.040	0.10
2353	2354	2448	2352	2258	0.040	0.10
2354	2355	2449	2353	2259	0.040	0.10
2355	2356	2450	2354	2260	0.040	0.10
2356	2357	2451	2355	2261	0.040	0.10
2357	2358	2452	2356	2262	0.040	0.10
2358	2359	2453	2357	2263	0.040	0.10
2359	2360	2454	2358	2264	0.040	0.10
2360	2361	2455	2359	2265	0.040	0.10
2361	2362	2456	2360	2266	0.040	0.10
2362	2363	2457	2361	2267	0.040	0.10
2363	2364	2458	2362	2268	0.040	0.10
2364	2365	2459	2363	2269	0.040	0.10
2365	2366	2460	2364	2270	0.040	0.10
2366	2367	2461	2365	2271	0.040	0.10
2367	2368	2462	2366	2272	0.040	0.10
2368	2369	2463	2367	2273	0.040	0.10
2369	2370	2464	2368	2274	0.040	0.10
2370	2371	2465	2369	2275	0.040	0.10
2371	2372	2466	2370	2276	0.040	0.10
2372	2373	2467	2371	2277	0.040	8.00
2373	2374	2468	2372	2278	0.040	8.00
2374	2375	2469	2373	2279	0.040	8.00
2375	2376	2470	2374	2280	0.040	8.00
2376	2377	2471	2375	2281	0.040	8.00
2377	2378	2472	2376	2282	0.040	8.00
2378	2379	2473	2377	2283	0.040	8.00
2379	2380	2474	2378	2284	0.040	8.00
2380	2381	2475	2379	2285	0.040	8.00
2381	2382	2476	2380	2286	0.040	8.00
2382	2383	2477	2381	2287	0.040	8.00
2383	2384	2478	2382	2288	0.040	8.00
2384	2385	2479	2383	2289	0.040	20.00
2385	2386	2480	2384	2290	0.040	20.00
2386	2387	2481	2385	2291	0.040	8.80
2387	2388	2482	2386	2292	0.040	8.60
2388	2389	2483	2387	2293	0.040	8.40
2389	2390	2484	2388	2294	0.040	8.20
2390	2391	2485	2389	2295	0.040	8.20
2391	2392	2486	2390	2296	0.040	8.20
2392	2393	2487	2391	2297	0.040	8.40
2393	2394	2488	2392	2298	0.040	8.60
2394	2395	2489	2393	2299	0.040	8.80

FPLAIN.DAT						
2395	2396	2490	2394	2300	0.040	20.00
2396	2397	2491	2395	2301	0.040	20.00
2397	2398	2492	2396	2302	0.040	8.00
2398	2399	2493	2397	2303	0.040	8.00
2399	2400	2494	2398	2304	0.040	8.00
2400	2401	2495	2399	2305	0.040	8.00
2401	2402	2496	2400	2306	0.040	8.00
2402	2403	2497	2401	2307	0.040	8.00
2403	0	2498	2402	2308	0.040	8.00
2404	2405	2499	0	2309	0.040	8.00
2405	2406	2500	2404	2310	0.040	8.00
2406	2407	2501	2405	2311	0.040	8.00
2407	2408	2502	2406	2312	0.040	8.00
2408	2409	2503	2407	2313	0.040	8.00
2409	2410	2504	2408	2314	0.040	8.00
2410	2411	2505	2409	2315	0.040	8.00
2411	2412	2506	2410	2316	0.040	8.00
2412	2413	2507	2411	2317	0.040	8.00
2413	2414	2508	2412	2318	0.040	8.00
2414	2415	2509	2413	2319	0.040	8.00
2415	2416	2510	2414	2320	0.040	8.00
2416	2417	2511	2415	2321	0.040	8.00
2417	2418	2512	2416	2322	0.040	8.00
2418	2419	2513	2417	2323	0.040	8.00
2419	2420	2514	2418	2324	0.040	8.00
2420	2421	2515	2419	2325	0.040	20.00
2421	2422	2516	2420	2326	0.040	20.00
2422	2423	2517	2421	2327	0.040	8.80
2423	2424	2518	2422	2328	0.040	8.60
2424	2425	2519	2423	2329	0.040	8.40
2425	2426	2520	2424	2330	0.040	8.20
2426	2427	2521	2425	2331	0.040	8.20
2427	2428	2522	2426	2332	0.040	8.20
2428	2429	2523	2427	2333	0.040	8.40
2429	2430	2524	2428	2334	0.040	8.60
2430	2431	2525	2429	2335	0.040	8.80
2431	2432	2526	2430	2336	0.040	20.00
2432	2433	2527	2431	2337	0.040	20.00
2433	2434	2528	2432	2338	0.040	8.00
2434	2435	2529	2433	2339	0.040	8.00
2435	2436	2530	2434	2340	0.040	8.00
2436	2437	2531	2435	2341	0.040	8.00
2437	2438	2532	2436	2342	0.040	8.00
2438	2439	2533	2437	2343	0.040	8.00
2439	2440	2534	2438	2344	0.040	8.00
2440	2441	2535	2439	2345	0.040	8.00
2441	2442	2536	2440	2346	0.040	8.00
2442	2443	2537	2441	2347	0.040	8.00
2443	2444	2538	2442	2348	0.040	8.00
2444	2445	2539	2443	2349	0.040	0.10
2445	2446	2540	2444	2350	0.040	0.10
2446	2447	2541	2445	2351	0.040	0.10
2447	2448	2542	2446	2352	0.040	0.10
2448	2449	2543	2447	2353	0.040	0.10
2449	2450	2544	2448	2354	0.040	0.10
2450	2451	2545	2449	2355	0.040	0.10
2451	2452	2546	2450	2356	0.040	0.10
2452	2453	2547	2451	2357	0.040	0.10
2453	2454	2548	2452	2358	0.040	0.10
2454	2455	2549	2453	2359	0.040	0.10
2455	2456	2550	2454	2360	0.040	0.10
2456	2457	2551	2455	2361	0.040	0.10
2457	2458	2552	2456	2362	0.040	0.10

				FPLAIN.DAT		
2458	2459	2553	2457	2363	0.040	0.10
2459	2460	2554	2458	2364	0.040	0.10
2460	2461	2555	2459	2365	0.040	0.10
2461	2462	2556	2460	2366	0.040	0.10
2462	2463	2557	2461	2367	0.040	0.10
2463	2464	2558	2462	2368	0.040	0.10
2464	2465	2559	2463	2369	0.040	0.10
2465	2466	2560	2464	2370	0.040	0.10
2466	2467	2561	2465	2371	0.040	0.10
2467	2468	2562	2466	2372	0.040	8.00
2468	2469	2563	2467	2373	0.040	8.00
2469	2470	2564	2468	2374	0.040	8.00
2470	2471	2565	2469	2375	0.040	8.00
2471	2472	2566	2470	2376	0.040	8.00
2472	2473	2567	2471	2377	0.040	8.00
2473	2474	2568	2472	2378	0.040	8.00
2474	2475	2569	2473	2379	0.040	8.00
2475	2476	2570	2474	2380	0.040	8.00
2476	2477	2571	2475	2381	0.040	8.00
2477	2478	2572	2476	2382	0.040	8.00
2478	2479	2573	2477	2383	0.040	8.00
2479	2480	2574	2478	2384	0.040	20.00
2480	2481	2575	2479	2385	0.040	20.00
2481	2482	2576	2480	2386	0.040	8.80
2482	2483	2577	2481	2387	0.040	8.60
2483	2484	2578	2482	2388	0.040	8.40
2484	2485	2579	2483	2389	0.040	8.20
2485	2486	2580	2484	2390	0.040	8.00
2486	2487	2581	2485	2391	0.040	8.20
2487	2488	2582	2486	2392	0.040	8.40
2488	2489	2583	2487	2393	0.040	8.60
2489	2490	2584	2488	2394	0.040	8.80
2490	2491	2585	2489	2395	0.040	20.00
2491	2492	2586	2490	2396	0.040	20.00
2492	2493	2587	2491	2397	0.040	8.00
2493	2494	2588	2492	2398	0.040	8.00
2494	2495	2589	2493	2399	0.040	8.00
2495	2496	2590	2494	2400	0.040	8.00
2496	2497	2591	2495	2401	0.040	8.00
2497	2498	2592	2496	2402	0.040	8.00
2498	0	2593	2497	2403	0.040	8.00
2499	2500	2594	0	2404	0.040	8.00
2500	2501	2595	2499	2405	0.040	8.00
2501	2502	2596	2500	2406	0.040	8.00
2502	2503	2597	2501	2407	0.040	8.00
2503	2504	2598	2502	2408	0.040	8.00
2504	2505	2599	2503	2409	0.040	8.00
2505	2506	2600	2504	2410	0.040	8.00
2506	2507	2601	2505	2411	0.040	8.00
2507	2508	2602	2506	2412	0.040	8.00
2508	2509	2603	2507	2413	0.040	8.00
2509	2510	2604	2508	2414	0.040	8.00
2510	2511	2605	2509	2415	0.040	8.00
2511	2512	2606	2510	2416	0.040	8.00
2512	2513	2607	2511	2417	0.040	8.00
2513	2514	2608	2512	2418	0.040	8.00
2514	2515	2609	2513	2419	0.040	8.00
2515	2516	2610	2514	2420	0.040	20.00
2516	2517	2611	2515	2421	0.040	20.00
2517	2518	2612	2516	2422	0.040	8.80
2518	2519	2613	2517	2423	0.040	8.60
2519	2520	2614	2518	2424	0.040	8.40
2520	2521	2615	2519	2425	0.040	8.20

				FPLAIN.DAT			
2521	2522	2616	2520	2426	0.040	8.00	
2522	2523	2617	2521	2427	0.040	8.20	
2523	2524	2618	2522	2428	0.040	8.40	
2524	2525	2619	2523	2429	0.040	8.60	
2525	2526	2620	2524	2430	0.040	8.80	
2526	2527	2621	2525	2431	0.040	20.00	
2527	2528	2622	2526	2432	0.040	20.00	
2528	2529	2623	2527	2433	0.040	8.00	
2529	2530	2624	2528	2434	0.040	8.00	
2530	2531	2625	2529	2435	0.040	8.00	
2531	2532	2626	2530	2436	0.040	8.00	
2532	2533	2627	2531	2437	0.040	8.00	
2533	2534	2628	2532	2438	0.040	8.00	
2534	2535	2629	2533	2439	0.040	8.00	
2535	2536	2630	2534	2440	0.040	8.00	
2536	2537	2631	2535	2441	0.040	8.00	
2537	2538	2632	2536	2442	0.040	8.00	
2538	2539	2633	2537	2443	0.040	8.00	
2539	2540	2634	2538	2444	0.040	0.10	
2540	2541	2635	2539	2445	0.040	0.10	
2541	2542	2636	2540	2446	0.040	0.10	
2542	2543	2637	2541	2447	0.040	0.10	
2543	2544	2638	2542	2448	0.040	0.10	
2544	2545	2639	2543	2449	0.040	0.10	
2545	2546	2640	2544	2450	0.040	0.10	
2546	2547	2641	2545	2451	0.040	0.10	
2547	2548	2642	2546	2452	0.040	0.10	
2548	2549	2643	2547	2453	0.040	0.10	
2549	2550	2644	2548	2454	0.040	0.10	
2550	2551	2645	2549	2455	0.040	0.10	
2551	2552	2646	2550	2456	0.040	0.10	
2552	2553	2647	2551	2457	0.040	0.10	
2553	2554	2648	2552	2458	0.040	0.10	
2554	2555	2649	2553	2459	0.040	0.10	
2555	2556	2650	2554	2460	0.040	0.10	
2556	2557	2651	2555	2461	0.040	0.10	
2557	2558	2652	2556	2462	0.040	0.10	
2558	2559	2653	2557	2463	0.040	0.10	
2559	2560	2654	2558	2464	0.040	0.10	
2560	2561	2655	2559	2465	0.040	0.10	
2561	2562	2656	2560	2466	0.040	0.10	
2562	2563	2657	2561	2467	0.040	8.00	
2563	2564	2658	2562	2468	0.040	8.00	
2564	2565	2659	2563	2469	0.040	8.00	
2565	2566	2660	2564	2470	0.040	8.00	
2566	2567	2661	2565	2471	0.040	8.00	
2567	2568	2662	2566	2472	0.040	8.00	
2568	2569	2663	2567	2473	0.040	8.00	
2569	2570	2664	2568	2474	0.040	8.00	
2570	2571	2665	2569	2475	0.040	8.00	
2571	2572	2666	2570	2476	0.040	8.00	
2572	2573	2667	2571	2477	0.040	8.00	
2573	2574	2668	2572	2478	0.040	8.00	
2574	2575	2669	2573	2479	0.040	20.00	
2575	2576	2670	2574	2480	0.040	20.00	
2576	2577	2671	2575	2481	0.040	8.80	
2577	2578	2672	2576	2482	0.040	8.60	
2578	2579	2673	2577	2483	0.040	8.40	
2579	2580	2674	2578	2484	0.040	8.20	
2580	2581	2675	2579	2485	0.040	8.20	
2581	2582	2676	2580	2486	0.040	8.20	
2582	2583	2677	2581	2487	0.040	8.40	
2583	2584	2678	2582	2488	0.040	8.60	

				FPLAIN.DAT			
2584	2585	2679	2583	2489	0.040	8.80	
2585	2586	2680	2584	2490	0.040	20.00	
2586	2587	2681	2585	2491	0.040	20.00	
2587	2588	2682	2586	2492	0.040	8.00	
2588	2589	2683	2587	2493	0.040	8.00	
2589	2590	2684	2588	2494	0.040	8.00	
2590	2591	2685	2589	2495	0.040	8.00	
2591	2592	2686	2590	2496	0.040	8.00	
2592	2593	2687	2591	2497	0.040	8.00	
2593	0	2688	2592	2498	0.040	8.00	
2594	2595	2689	0	2499	0.040	8.00	
2595	2596	2690	2594	2500	0.040	8.00	
2596	2597	2691	2595	2501	0.040	8.00	
2597	2598	2692	2596	2502	0.040	8.00	
2598	2599	2693	2597	2503	0.040	8.00	
2599	2600	2694	2598	2504	0.040	8.00	
2600	2601	2695	2599	2505	0.040	8.00	
2601	2602	2696	2600	2506	0.040	8.00	
2602	2603	2697	2601	2507	0.040	8.00	
2603	2604	2698	2602	2508	0.040	8.00	
2604	2605	2699	2603	2509	0.040	8.00	
2605	2606	2700	2604	2510	0.040	8.00	
2606	2607	2701	2605	2511	0.040	8.00	
2607	2608	2702	2606	2512	0.040	8.00	
2608	2609	2703	2607	2513	0.040	8.00	
2609	2610	2704	2608	2514	0.040	8.00	
2610	2611	2705	2609	2515	0.040	20.00	
2611	2612	2706	2610	2516	0.040	20.00	
2612	2613	2707	2611	2517	0.040	8.80	
2613	2614	2708	2612	2518	0.040	8.60	
2614	2615	2709	2613	2519	0.040	8.40	
2615	2616	2710	2614	2520	0.040	8.20	
2616	2617	2711	2615	2521	0.040	8.20	
2617	2618	2712	2616	2522	0.040	8.20	
2618	2619	2713	2617	2523	0.040	8.40	
2619	2620	2714	2618	2524	0.040	8.60	
2620	2621	2715	2619	2525	0.040	8.80	
2621	2622	2716	2620	2526	0.040	20.00	
2622	2623	2717	2621	2527	0.040	20.00	
2623	2624	2718	2622	2528	0.040	8.00	
2624	2625	2719	2623	2529	0.040	8.00	
2625	2626	2720	2624	2530	0.040	8.00	
2626	2627	2721	2625	2531	0.040	8.00	
2627	2628	2722	2626	2532	0.040	8.00	
2628	2629	2723	2627	2533	0.040	8.00	
2629	2630	2724	2628	2534	0.040	8.00	
2630	2631	2725	2629	2535	0.040	8.00	
2631	2632	2726	2630	2536	0.040	8.00	
2632	2633	2727	2631	2537	0.040	8.00	
2633	2634	2728	2632	2538	0.040	8.00	
2634	2635	2729	2633	2539	0.040	0.10	
2635	2636	2730	2634	2540	0.040	0.10	
2636	2637	2731	2635	2541	0.040	0.10	
2637	2638	2732	2636	2542	0.040	0.10	
2638	2639	2733	2637	2543	0.040	0.10	
2639	2640	2734	2638	2544	0.040	0.10	
2640	2641	2735	2639	2545	0.040	0.10	
2641	2642	2736	2640	2546	0.040	0.10	
2642	2643	2737	2641	2547	0.040	0.10	
2643	2644	2738	2642	2548	0.040	0.10	
2644	2645	2739	2643	2549	0.040	0.10	
2645	2646	2740	2644	2550	0.040	0.10	
2646	2647	2741	2645	2551	0.040	0.10	

				FPLAIN.DAT		
2647	2648	2742	2646	2552	0.040	0.10
2648	2649	2743	2647	2553	0.040	0.10
2649	2650	2744	2648	2554	0.040	0.10
2650	2651	2745	2649	2555	0.040	0.10
2651	2652	2746	2650	2556	0.040	0.10
2652	2653	2747	2651	2557	0.040	0.10
2653	2654	2748	2652	2558	0.040	0.10
2654	2655	2749	2653	2559	0.040	0.10
2655	2656	2750	2654	2560	0.040	0.10
2656	2657	2751	2655	2561	0.040	0.10
2657	2658	2752	2656	2562	0.040	8.00
2658	2659	2753	2657	2563	0.040	8.00
2659	2660	2754	2658	2564	0.040	8.00
2660	2661	2755	2659	2565	0.040	8.00
2661	2662	2756	2660	2566	0.040	8.00
2662	2663	2757	2661	2567	0.040	8.00
2663	2664	2758	2662	2568	0.040	8.00
2664	2665	2759	2663	2569	0.040	8.00
2665	2666	2760	2664	2570	0.040	8.00
2666	2667	2761	2665	2571	0.040	8.00
2667	2668	2762	2666	2572	0.040	8.00
2668	2669	2763	2667	2573	0.040	8.00
2669	2670	2764	2668	2574	0.040	20.00
2670	2671	2765	2669	2575	0.040	20.00
2671	2672	2766	2670	2576	0.040	8.80
2672	2673	2767	2671	2577	0.040	8.60
2673	2674	2768	2672	2578	0.040	8.40
2674	2675	2769	2673	2579	0.040	8.40
2675	2676	2770	2674	2580	0.040	8.40
2676	2677	2771	2675	2581	0.040	8.40
2677	2678	2772	2676	2582	0.040	8.40
2678	2679	2773	2677	2583	0.040	8.60
2679	2680	2774	2678	2584	0.040	8.80
2680	2681	2775	2679	2585	0.040	20.00
2681	2682	2776	2680	2586	0.040	20.00
2682	2683	2777	2681	2587	0.040	8.00
2683	2684	2778	2682	2588	0.040	8.00
2684	2685	2779	2683	2589	0.040	8.00
2685	2686	2780	2684	2590	0.040	8.00
2686	2687	2781	2685	2591	0.040	8.00
2687	2688	2782	2686	2592	0.040	8.00
2688	0	2783	2687	2593	0.040	8.00
2689	2690	2784	0	2594	0.040	8.00
2690	2691	2785	2689	2595	0.040	8.00
2691	2692	2786	2690	2596	0.040	8.00
2692	2693	2787	2691	2597	0.040	8.00
2693	2694	2788	2692	2598	0.040	8.00
2694	2695	2789	2693	2599	0.040	8.00
2695	2696	2790	2694	2600	0.040	8.00
2696	2697	2791	2695	2601	0.040	8.00
2697	2698	2792	2696	2602	0.040	8.00
2698	2699	2793	2697	2603	0.040	8.00
2699	2700	2794	2698	2604	0.040	8.00
2700	2701	2795	2699	2605	0.040	8.00
2701	2702	2796	2700	2606	0.040	8.00
2702	2703	2797	2701	2607	0.040	8.00
2703	2704	2798	2702	2608	0.040	8.00
2704	2705	2799	2703	2609	0.040	8.00
2705	2706	2800	2704	2610	0.040	20.00
2706	2707	2801	2705	2611	0.040	20.00
2707	2708	2802	2706	2612	0.040	8.80
2708	2709	2803	2707	2613	0.040	8.60
2709	2710	2804	2708	2614	0.040	8.40

FPLAIN.DAT					
2710	2711	2805	2709	2615	0.040 8.40
2711	2712	2806	2710	2616	0.040 8.40
2712	2713	2807	2711	2617	0.040 8.40
2713	2714	2808	2712	2618	0.040 8.40
2714	2715	2809	2713	2619	0.040 8.60
2715	2716	2810	2714	2620	0.040 8.80
2716	2717	2811	2715	2621	0.040 20.00
2717	2718	2812	2716	2622	0.040 20.00
2718	2719	2813	2717	2623	0.040 8.00
2719	2720	2814	2718	2624	0.040 8.00
2720	2721	2815	2719	2625	0.040 8.00
2721	2722	2816	2720	2626	0.040 8.00
2722	2723	2817	2721	2627	0.040 8.00
2723	2724	2818	2722	2628	0.040 8.00
2724	2725	2819	2723	2629	0.040 8.00
2725	2726	2820	2724	2630	0.040 8.00
2726	2727	2821	2725	2631	0.040 8.00
2727	2728	2822	2726	2632	0.040 8.00
2728	2729	2823	2727	2633	0.040 8.00
2729	2730	2824	2728	2634	0.040 0.10
2730	2731	2825	2729	2635	0.040 0.10
2731	2732	2826	2730	2636	0.040 0.10
2732	2733	2827	2731	2637	0.040 0.10
2733	2734	2828	2732	2638	0.040 0.10
2734	2735	2829	2733	2639	0.040 0.10
2735	2736	2830	2734	2640	0.040 0.10
2736	2737	2831	2735	2641	0.040 0.10
2737	2738	2832	2736	2642	0.040 0.10
2738	2739	2833	2737	2643	0.040 0.10
2739	2740	2834	2738	2644	0.040 0.10
2740	2741	2835	2739	2645	0.040 0.10
2741	2742	2836	2740	2646	0.040 0.10
2742	2743	2837	2741	2647	0.040 0.10
2743	2744	2838	2742	2648	0.040 0.10
2744	2745	2839	2743	2649	0.040 0.10
2745	2746	2840	2744	2650	0.040 0.10
2746	2747	2841	2745	2651	0.040 0.10
2747	2748	2842	2746	2652	0.040 0.10
2748	2749	2843	2747	2653	0.040 0.10
2749	2750	2844	2748	2654	0.040 0.10
2750	2751	2845	2749	2655	0.040 0.10
2751	2752	2846	2750	2656	0.040 0.10
2752	2753	2847	2751	2657	0.040 8.00
2753	2754	2848	2752	2658	0.040 8.00
2754	2755	2849	2753	2659	0.040 8.00
2755	2756	2850	2754	2660	0.040 8.00
2756	2757	2851	2755	2661	0.040 8.00
2757	2758	2852	2756	2662	0.040 8.00
2758	2759	2853	2757	2663	0.040 8.00
2759	2760	2854	2758	2664	0.040 8.00
2760	2761	2855	2759	2665	0.040 8.00
2761	2762	2856	2760	2666	0.040 8.00
2762	2763	2857	2761	2667	0.040 8.00
2763	2764	2858	2762	2668	0.040 8.00
2764	2765	2859	2763	2669	0.040 20.00
2765	2766	2860	2764	2670	0.040 20.00
2766	2767	2861	2765	2671	0.040 8.80
2767	2768	2862	2766	2672	0.040 8.60
2768	2769	2863	2767	2673	0.040 8.60
2769	2770	2864	2768	2674	0.040 8.60
2770	2771	2865	2769	2675	0.040 8.60
2771	2772	2866	2770	2676	0.040 8.60
2772	2773	2867	2771	2677	0.040 8.60



			FPLAIN.DAT			
2773	2774	2868	2772	2678	0.040	8.60
2774	2775	2869	2773	2679	0.040	8.80
2775	2776	2870	2774	2680	0.040	20.00
2776	2777	2871	2775	2681	0.040	20.00
2777	2778	2872	2776	2682	0.040	8.00
2778	2779	2873	2777	2683	0.040	8.00
2779	2780	2874	2778	2684	0.040	8.00
2780	2781	2875	2779	2685	0.040	8.00
2781	2782	2876	2780	2686	0.040	8.00
2782	2783	2877	2781	2687	0.040	8.00
2783	0	2878	2782	2688	0.040	8.00
2784	2785	2879	0	2689	0.040	8.00
2785	2786	2880	2784	2690	0.040	8.00
2786	2787	2881	2785	2691	0.040	8.00
2787	2788	2882	2786	2692	0.040	8.00
2788	2789	2883	2787	2693	0.040	8.00
2789	2790	2884	2788	2694	0.040	8.00
2790	2791	2885	2789	2695	0.040	8.00
2791	2792	2886	2790	2696	0.040	8.00
2792	2793	2887	2791	2697	0.040	8.00
2793	2794	2888	2792	2698	0.040	8.00
2794	2795	2889	2793	2699	0.040	8.00
2795	2796	2890	2794	2700	0.040	8.00
2796	2797	2891	2795	2701	0.040	8.00
2797	2798	2892	2796	2702	0.040	8.00
2798	2799	2893	2797	2703	0.040	8.00
2799	2800	2894	2798	2704	0.040	8.00
2800	2801	2895	2799	2705	0.040	20.00
2801	2802	2896	2800	2706	0.040	20.00
2802	2803	2897	2801	2707	0.040	8.80
2803	2804	2898	2802	2708	0.040	8.60
2804	2805	2899	2803	2709	0.040	8.60
2805	2806	2900	2804	2710	0.040	8.60
2806	2807	2901	2805	2711	0.040	8.60
2807	2808	2902	2806	2712	0.040	8.60
2808	2809	2903	2807	2713	0.040	8.60
2809	2810	2904	2808	2714	0.040	8.60
2810	2811	2905	2809	2715	0.040	8.80
2811	2812	2906	2810	2716	0.040	20.00
2812	2813	2907	2811	2717	0.040	20.00
2813	2814	2908	2812	2718	0.040	8.00
2814	2815	2909	2813	2719	0.040	8.00
2815	2816	2910	2814	2720	0.040	8.00
2816	2817	2911	2815	2721	0.040	8.00
2817	2818	2912	2816	2722	0.040	8.00
2818	2819	2913	2817	2723	0.040	8.00
2819	2820	2914	2818	2724	0.040	8.00
2820	2821	2915	2819	2725	0.040	8.00
2821	2822	2916	2820	2726	0.040	8.00
2822	2823	2917	2821	2727	0.040	8.00
2823	2824	2918	2822	2728	0.040	8.00
2824	2825	2919	2823	2729	0.040	0.10
2825	2826	2920	2824	2730	0.040	0.10
2826	2827	2921	2825	2731	0.040	0.10
2827	2828	2922	2826	2732	0.040	0.10
2828	2829	2923	2827	2733	0.040	0.10
2829	2830	2924	2828	2734	0.040	0.10
2830	2831	2925	2829	2735	0.040	0.10
2831	2832	2926	2830	2736	0.040	0.10
2832	2833	2927	2831	2737	0.040	0.10
2833	2834	2928	2832	2738	0.040	0.10
2834	2835	2929	2833	2739	0.040	0.10
2835	2836	2930	2834	2740	0.040	0.10



				FPLAIN.DAT		
2836	2837	2931	2835	2741	0.040	0.10
2837	2838	2932	2836	2742	0.040	0.10
2838	2839	2933	2837	2743	0.040	0.10
2839	2840	2934	2838	2744	0.040	0.10
2840	2841	2935	2839	2745	0.040	0.10
2841	2842	2936	2840	2746	0.040	0.10
2842	2843	2937	2841	2747	0.040	0.10
2843	2844	2938	2842	2748	0.040	0.10
2844	2845	2939	2843	2749	0.040	0.10
2845	2846	2940	2844	2750	0.040	0.10
2846	2847	2941	2845	2751	0.040	0.10
2847	2848	2942	2846	2752	0.040	8.00
2848	2849	2943	2847	2753	0.040	8.00
2849	2850	2944	2848	2754	0.040	8.00
2850	2851	2945	2849	2755	0.040	8.00
2851	2852	2946	2850	2756	0.040	8.00
2852	2853	2947	2851	2757	0.040	8.00
2853	2854	2948	2852	2758	0.040	8.00
2854	2855	2949	2853	2759	0.040	8.00
2855	2856	2950	2854	2760	0.040	8.00
2856	2857	2951	2855	2761	0.040	8.00
2857	2858	2952	2856	2762	0.040	8.00
2858	2859	2953	2857	2763	0.040	8.00
2859	2860	2954	2858	2764	0.040	20.00
2860	2861	2955	2859	2765	0.040	20.00
2861	2862	2956	2860	2766	0.040	8.80
2862	2863	2957	2861	2767	0.040	8.80
2863	2864	2958	2862	2768	0.040	8.80
2864	2865	2959	2863	2769	0.040	8.80
2865	2866	2960	2864	2770	0.040	8.80
2866	2867	2961	2865	2771	0.040	8.80
2867	2868	2962	2866	2772	0.040	8.80
2868	2869	2963	2867	2773	0.040	8.80
2869	2870	2964	2868	2774	0.040	8.80
2870	2871	2965	2869	2775	0.040	20.00
2871	2872	2966	2870	2776	0.040	20.00
2872	2873	2967	2871	2777	0.040	8.00
2873	2874	2968	2872	2778	0.040	8.00
2874	2875	2969	2873	2779	0.040	8.00
2875	2876	2970	2874	2780	0.040	8.00
2876	2877	2971	2875	2781	0.040	8.00
2877	2878	2972	2876	2782	0.040	8.00
2878	0	2973	2877	2783	0.040	8.00
2879	2880	2974	0	2784	0.040	8.00
2880	2881	2975	2879	2785	0.040	8.00
2881	2882	2976	2880	2786	0.040	8.00
2882	2883	2977	2881	2787	0.040	8.00
2883	2884	2978	2882	2788	0.040	8.00
2884	2885	2979	2883	2789	0.040	8.00
2885	2886	2980	2884	2790	0.040	8.00
2886	2887	2981	2885	2791	0.040	8.00
2887	2888	2982	2886	2792	0.040	8.00
2888	2889	2983	2887	2793	0.040	8.00
2889	2890	2984	2888	2794	0.040	8.00
2890	2891	2985	2889	2795	0.040	8.00
2891	2892	2986	2890	2796	0.040	8.00
2892	2893	2987	2891	2797	0.040	8.00
2893	2894	2988	2892	2798	0.040	8.00
2894	2895	2989	2893	2799	0.040	8.00
2895	2896	2990	2894	2800	0.040	20.00
2896	2897	2991	2895	2801	0.040	20.00
2897	2898	2992	2896	2802	0.040	8.80
2898	2899	2993	2897	2803	0.040	8.80

FPLAIN.DAT					
2899	2900	2994	2898	2804	0.040 8.80
2900	2901	2995	2899	2805	0.040 8.80
2901	2902	2996	2900	2806	0.040 8.80
2902	2903	2997	2901	2807	0.040 8.80
2903	2904	2998	2902	2808	0.040 8.80
2904	2905	2999	2903	2809	0.040 8.80
2905	2906	3000	2904	2810	0.040 8.80
2906	2907	3001	2905	2811	0.040 20.00
2907	2908	3002	2906	2812	0.040 20.00
2908	2909	3003	2907	2813	0.040 8.00
2909	2910	3004	2908	2814	0.040 8.00
2910	2911	3005	2909	2815	0.040 8.00
2911	2912	3006	2910	2816	0.040 8.00
2912	2913	3007	2911	2817	0.040 8.00
2913	2914	3008	2912	2818	0.040 8.00
2914	2915	3009	2913	2819	0.040 8.00
2915	2916	3010	2914	2820	0.040 8.00
2916	2917	3011	2915	2821	0.040 8.00
2917	2918	3012	2916	2822	0.040 8.00
2918	2919	3013	2917	2823	0.040 8.00
2919	2920	3014	2918	2824	0.040 8.00
2920	2921	3015	2919	2825	0.040 8.00
2921	2922	3016	2920	2826	0.040 8.00
2922	2923	3017	2921	2827	0.040 8.00
2923	2924	3018	2922	2828	0.040 8.00
2924	2925	3019	2923	2829	0.040 8.00
2925	2926	3020	2924	2830	0.040 8.00
2926	2927	3021	2925	2831	0.040 8.00
2927	2928	3022	2926	2832	0.040 8.00
2928	2929	3023	2927	2833	0.040 8.00
2929	2930	3024	2928	2834	0.040 8.00
2930	2931	3025	2929	2835	0.040 8.00
2931	2932	3026	2930	2836	0.040 8.00
2932	2933	3027	2931	2837	0.040 8.00
2933	2934	3028	2932	2838	0.040 8.00
2934	2935	3029	2933	2839	0.040 8.00
2935	2936	3030	2934	2840	0.040 8.00
2936	2937	3031	2935	2841	0.040 8.00
2937	2938	3032	2936	2842	0.040 8.00
2938	2939	3033	2937	2843	0.040 8.00
2939	2940	3034	2938	2844	0.040 8.00
2940	2941	3035	2939	2845	0.040 8.00
2941	2942	3036	2940	2846	0.040 8.00
2942	2943	3037	2941	2847	0.040 8.00
2943	2944	3038	2942	2848	0.040 8.00
2944	2945	3039	2943	2849	0.040 8.00
2945	2946	3040	2944	2850	0.040 8.00
2946	2947	3041	2945	2851	0.040 8.00
2947	2948	3042	2946	2852	0.040 8.00
2948	2949	3043	2947	2853	0.040 8.00
2949	2950	3044	2948	2854	0.040 8.00
2950	2951	3045	2949	2855	0.040 8.00
2951	2952	3046	2950	2856	0.040 8.00
2952	2953	3047	2951	2857	0.040 8.00
2953	2954	3048	2952	2858	0.040 8.00
2954	2955	3049	2953	2859	0.040 20.00
2955	2956	3050	2954	2860	0.040 20.00
2956	2957	3051	2955	2861	0.040 9.00
2957	2958	3052	2956	2862	0.040 9.00
2958	2959	3053	2957	2863	0.040 9.00
2959	2960	3054	2958	2864	0.040 9.00
2960	2961	3055	2959	2865	0.040 9.00
2961	2962	3056	2960	2866	0.040 9.00

			FPLAIN.DAT			
2962	2963	3057	2961	2867	0.040	9.00
2963	2964	3058	2962	2868	0.040	9.00
2964	2965	3059	2963	2869	0.040	9.00
2965	2966	3060	2964	2870	0.040	20.00
2966	2967	3061	2965	2871	0.040	20.00
2967	2968	3062	2966	2872	0.040	8.00
2968	2969	3063	2967	2873	0.040	8.00
2969	2970	3064	2968	2874	0.040	8.00
2970	2971	3065	2969	2875	0.040	8.00
2971	2972	3066	2970	2876	0.040	8.00
2972	2973	3067	2971	2877	0.040	8.00
2973	0	3068	2972	2878	0.040	8.00
2974	2975	3069	0	2879	0.040	8.00
2975	2976	3070	2974	2880	0.040	8.00
2976	2977	3071	2975	2881	0.040	8.00
2977	2978	3072	2976	2882	0.040	8.00
2978	2979	3073	2977	2883	0.040	8.00
2979	2980	3074	2978	2884	0.040	8.00
2980	2981	3075	2979	2885	0.040	8.00
2981	2982	3076	2980	2886	0.040	8.00
2982	2983	3077	2981	2887	0.040	8.00
2983	2984	3078	2982	2888	0.040	8.00
2984	2985	3079	2983	2889	0.040	8.00
2985	2986	3080	2984	2890	0.040	8.00
2986	2987	3081	2985	2891	0.040	8.00
2987	2988	3082	2986	2892	0.040	8.00
2988	2989	3083	2987	2893	0.040	8.00
2989	2990	3084	2988	2894	0.040	8.00
2990	2991	3085	2989	2895	0.040	20.00
2991	2992	3086	2990	2896	0.040	20.00
2992	2993	3087	2991	2897	0.040	9.00
2993	2994	3088	2992	2898	0.040	9.00
2994	2995	3089	2993	2899	0.040	9.00
2995	2996	3090	2994	2900	0.040	9.00
2996	2997	3091	2995	2901	0.040	9.00
2997	2998	3092	2996	2902	0.040	9.00
2998	2999	3093	2997	2903	0.040	9.00
2999	3000	3094	2998	2904	0.040	9.00
3000	3001	3095	2999	2905	0.040	9.00
3001	3002	3096	3000	2906	0.040	20.00
3002	3003	3097	3001	2907	0.040	20.00
3003	3004	3098	3002	2908	0.040	8.00
3004	3005	3099	3003	2909	0.040	8.00
3005	3006	3100	3004	2910	0.040	8.00
3006	3007	3101	3005	2911	0.040	8.00
3007	3008	3102	3006	2912	0.040	8.00
3008	3009	3103	3007	2913	0.040	8.00
3009	3010	3104	3008	2914	0.040	8.00
3010	3011	3105	3009	2915	0.040	8.00
3011	3012	3106	3010	2916	0.040	8.00
3012	3013	3107	3011	2917	0.040	8.00
3013	3014	3108	3012	2918	0.040	8.00
3014	3015	3109	3013	2919	0.040	8.00
3015	3016	3110	3014	2920	0.040	8.00
3016	3017	3111	3015	2921	0.040	8.00
3017	3018	3112	3016	2922	0.040	8.00
3018	3019	3113	3017	2923	0.040	8.00
3019	3020	3114	3018	2924	0.040	8.00
3020	3021	3115	3019	2925	0.040	8.00
3021	3022	3116	3020	2926	0.040	8.00
3022	3023	3117	3021	2927	0.040	8.00
3023	3024	3118	3022	2928	0.040	8.00
3024	3025	3119	3023	2929	0.040	8.00

FPLAIN.DAT						
3025	3026	3120	3024	2930	0.040	8.00
3026	3027	3121	3025	2931	0.040	8.00
3027	3028	3122	3026	2932	0.040	8.00
3028	3029	3123	3027	2933	0.040	8.00
3029	3030	3124	3028	2934	0.040	8.00
3030	3031	3125	3029	2935	0.040	8.00
3031	3032	3126	3030	2936	0.040	8.00
3032	3033	3127	3031	2937	0.040	8.00
3033	3034	3128	3032	2938	0.040	8.00
3034	3035	3129	3033	2939	0.040	8.00
3035	3036	3130	3034	2940	0.040	8.00
3036	3037	3131	3035	2941	0.040	8.00
3037	3038	3132	3036	2942	0.040	8.00
3038	3039	3133	3037	2943	0.040	8.00
3039	3040	3134	3038	2944	0.040	8.00
3040	3041	3135	3039	2945	0.040	8.00
3041	3042	3136	3040	2946	0.040	8.00
3042	3043	3137	3041	2947	0.040	8.00
3043	3044	3138	3042	2948	0.040	8.00
3044	3045	3139	3043	2949	0.040	8.00
3045	3046	3140	3044	2950	0.040	8.00
3046	3047	3141	3045	2951	0.040	8.00
3047	3048	3142	3046	2952	0.040	8.00
3048	3049	3143	3047	2953	0.040	8.00
3049	3050	3144	3048	2954	0.040	20.00
3050	3051	3145	3049	2955	0.040	20.00
3051	3052	3146	3050	2956	0.040	9.20
3052	3053	3147	3051	2957	0.040	9.20
3053	3054	3148	3052	2958	0.040	9.20
3054	3055	3149	3053	2959	0.040	9.20
3055	3056	3150	3054	2960	0.040	9.20
3056	3057	3151	3055	2961	0.040	9.20
3057	3058	3152	3056	2962	0.040	9.20
3058	3059	3153	3057	2963	0.040	9.20
3059	3060	3154	3058	2964	0.040	9.20
3060	3061	3155	3059	2965	0.040	20.00
3061	3062	3156	3060	2966	0.040	20.00
3062	3063	3157	3061	2967	0.040	8.00
3063	3064	3158	3062	2968	0.040	8.00
3064	3065	3159	3063	2969	0.040	8.00
3065	3066	3160	3064	2970	0.040	8.00
3066	3067	3161	3065	2971	0.040	8.00
3067	3068	3162	3066	2972	0.040	8.00
3068	0	3163	3067	2973	0.040	8.00
3069	3070	3164	0	2974	0.040	8.00
3070	3071	3165	3069	2975	0.040	8.00
3071	3072	3166	3070	2976	0.040	8.00
3072	3073	3167	3071	2977	0.040	8.00
3073	3074	3168	3072	2978	0.040	8.00
3074	3075	3169	3073	2979	0.040	8.00
3075	3076	3170	3074	2980	0.040	8.00
3076	3077	3171	3075	2981	0.040	8.00
3077	3078	3172	3076	2982	0.040	8.00
3078	3079	3173	3077	2983	0.040	8.00
3079	3080	3174	3078	2984	0.040	8.00
3080	3081	3175	3079	2985	0.040	8.00
3081	3082	3176	3080	2986	0.040	8.00
3082	3083	3177	3081	2987	0.040	8.00
3083	3084	3178	3082	2988	0.040	8.00
3084	3085	3179	3083	2989	0.040	8.00
3085	3086	3180	3084	2990	0.040	20.00
3086	3087	3181	3085	2991	0.040	20.00
3087	3088	3182	3086	2992	0.040	9.20

FPLAIN.DAT					
3088	3089	3183	3087	2993	0.040 9.20
3089	3090	3184	3088	2994	0.040 9.20
3090	3091	3185	3089	2995	0.040 9.20
3091	3092	3186	3090	2996	0.040 9.20
3092	3093	3187	3091	2997	0.040 9.20
3093	3094	3188	3092	2998	0.040 9.20
3094	3095	3189	3093	2999	0.040 9.20
3095	3096	3190	3094	3000	0.040 9.20
3096	3097	3191	3095	3001	0.040 20.00
3097	3098	3192	3096	3002	0.040 20.00
3098	3099	3193	3097	3003	0.040 8.00
3099	3100	3194	3098	3004	0.040 8.00
3100	3101	3195	3099	3005	0.040 8.00
3101	3102	3196	3100	3006	0.040 8.00
3102	3103	3197	3101	3007	0.040 8.00
3103	3104	3198	3102	3008	0.040 8.00
3104	3105	3199	3103	3009	0.040 8.00
3105	3106	3200	3104	3010	0.040 8.00
3106	3107	3201	3105	3011	0.040 8.00
3107	3108	3202	3106	3012	0.040 8.00
3108	3109	3203	3107	3013	0.040 8.00
3109	3110	3204	3108	3014	0.040 8.00
3110	3111	3205	3109	3015	0.040 8.00
3111	3112	3206	3110	3016	0.040 8.00
3112	3113	3207	3111	3017	0.040 8.00
3113	3114	3208	3112	3018	0.040 8.00
3114	3115	3209	3113	3019	0.040 8.00
3115	3116	3210	3114	3020	0.040 8.00
3116	3117	3211	3115	3021	0.040 8.00
3117	3118	3212	3116	3022	0.040 8.00
3118	3119	3213	3117	3023	0.040 8.00
3119	3120	3214	3118	3024	0.040 8.00
3120	3121	3215	3119	3025	0.040 8.00
3121	3122	3216	3120	3026	0.040 8.00
3122	3123	3217	3121	3027	0.040 8.00
3123	3124	3218	3122	3028	0.040 8.00
3124	3125	3219	3123	3029	0.040 8.00
3125	3126	3220	3124	3030	0.040 8.00
3126	3127	3221	3125	3031	0.040 8.00
3127	3128	3222	3126	3032	0.040 8.00
3128	3129	3223	3127	3033	0.040 8.00
3129	3130	3224	3128	3034	0.040 8.00
3130	3131	3225	3129	3035	0.040 8.00
3131	3132	3226	3130	3036	0.040 8.00
3132	3133	3227	3131	3037	0.040 8.00
3133	3134	3228	3132	3038	0.040 8.00
3134	3135	3229	3133	3039	0.040 8.00
3135	3136	3230	3134	3040	0.040 8.00
3136	3137	3231	3135	3041	0.040 8.00
3137	3138	3232	3136	3042	0.040 8.00
3138	3139	3233	3137	3043	0.040 8.00
3139	3140	3234	3138	3044	0.040 8.00
3140	3141	3235	3139	3045	0.040 8.00
3141	3142	3236	3140	3046	0.040 8.00
3142	3143	3237	3141	3047	0.040 8.00
3143	3144	3238	3142	3048	0.040 8.00
3144	3145	3239	3143	3049	0.040 20.00
3145	3146	3240	3144	3050	0.040 20.00
3146	3147	3241	3145	3051	0.040 9.40
3147	3148	3242	3146	3052	0.040 9.40
3148	3149	3243	3147	3053	0.040 9.40
3149	3150	3244	3148	3054	0.040 9.40
3150	3151	3245	3149	3055	0.040 9.40

FPLAIN.DAT					
3151	3152	3246	3150	3056	0.040 9.40
3152	3153	3247	3151	3057	0.040 9.40
3153	3154	3248	3152	3058	0.040 9.40
3154	3155	3249	3153	3059	0.040 9.40
3155	3156	3250	3154	3060	0.040 20.00
3156	3157	3251	3155	3061	0.040 20.00
3157	3158	3252	3156	3062	0.040 8.00
3158	3159	3253	3157	3063	0.040 8.00
3159	3160	3254	3158	3064	0.040 8.00
3160	3161	3255	3159	3065	0.040 8.00
3161	3162	3256	3160	3066	0.040 8.00
3162	3163	3257	3161	3067	0.040 8.00
3163	0	3258	3162	3068	0.040 8.00
3164	3165	3259	0	3069	0.040 8.00
3165	3166	3260	3164	3070	0.040 8.00
3166	3167	3261	3165	3071	0.040 8.00
3167	3168	3262	3166	3072	0.040 8.00
3168	3169	3263	3167	3073	0.040 8.00
3169	3170	3264	3168	3074	0.040 8.00
3170	3171	3265	3169	3075	0.040 8.00
3171	3172	3266	3170	3076	0.040 8.00
3172	3173	3267	3171	3077	0.040 8.00
3173	3174	3268	3172	3078	0.040 8.00
3174	3175	3269	3173	3079	0.040 8.00
3175	3176	3270	3174	3080	0.040 8.00
3176	3177	3271	3175	3081	0.040 8.00
3177	3178	3272	3176	3082	0.040 8.00
3178	3179	3273	3177	3083	0.040 8.00
3179	3180	3274	3178	3084	0.040 8.00
3180	3181	3275	3179	3085	0.040 20.00
3181	3182	3276	3180	3086	0.040 20.00
3182	3183	3277	3181	3087	0.040 9.40
3183	3184	3278	3182	3088	0.040 9.40
3184	3185	3279	3183	3089	0.040 9.40
3185	3186	3280	3184	3090	0.040 9.40
3186	3187	3281	3185	3091	0.040 9.40
3187	3188	3282	3186	3092	0.040 9.40
3188	3189	3283	3187	3093	0.040 9.40
3189	3190	3284	3188	3094	0.040 9.40
3190	3191	3285	3189	3095	0.040 9.40
3191	3192	3286	3190	3096	0.040 20.00
3192	3193	3287	3191	3097	0.040 20.00
3193	3194	3288	3192	3098	0.040 8.00
3194	3195	3289	3193	3099	0.040 8.00
3195	3196	3290	3194	3100	0.040 8.00
3196	3197	3291	3195	3101	0.040 8.00
3197	3198	3292	3196	3102	0.040 8.00
3198	3199	3293	3197	3103	0.040 8.00
3199	3200	3294	3198	3104	0.040 8.00
3200	3201	3295	3199	3105	0.040 8.00
3201	3202	3296	3200	3106	0.040 8.00
3202	3203	3297	3201	3107	0.040 8.00
3203	3204	3298	3202	3108	0.040 8.00
3204	3205	3299	3203	3109	0.040 8.00
3205	3206	3300	3204	3110	0.040 8.00
3206	3207	3301	3205	3111	0.040 8.00
3207	3208	3302	3206	3112	0.040 8.00
3208	3209	3303	3207	3113	0.040 8.00
3209	3210	3304	3208	3114	0.040 8.00
3210	3211	3305	3209	3115	0.040 8.00
3211	3212	3306	3210	3116	0.040 8.00
3212	3213	3307	3211	3117	0.040 8.00
3213	3214	3308	3212	3118	0.040 8.00



FPLAIN.DAT						
3214	3215	3309	3213	3119	0.040	8.00
3215	3216	3310	3214	3120	0.040	8.00
3216	3217	3311	3215	3121	0.040	8.00
3217	3218	3312	3216	3122	0.040	8.00
3218	3219	3313	3217	3123	0.040	8.00
3219	3220	3314	3218	3124	0.040	8.00
3220	3221	3315	3219	3125	0.040	8.00
3221	3222	3316	3220	3126	0.040	8.00
3222	3223	3317	3221	3127	0.040	8.00
3223	3224	3318	3222	3128	0.040	8.00
3224	3225	3319	3223	3129	0.040	8.00
3225	3226	3320	3224	3130	0.040	8.00
3226	3227	3321	3225	3131	0.040	8.00
3227	3228	3322	3226	3132	0.040	8.00
3228	3229	3323	3227	3133	0.040	8.00
3229	3230	3324	3228	3134	0.040	8.00
3230	3231	3325	3229	3135	0.040	8.00
3231	3232	3326	3230	3136	0.040	8.00
3232	3233	3327	3231	3137	0.040	8.00
3233	3234	3328	3232	3138	0.040	8.00
3234	3235	3329	3233	3139	0.040	8.00
3235	3236	3330	3234	3140	0.040	8.00
3236	3237	3331	3235	3141	0.040	8.00
3237	3238	3332	3236	3142	0.040	8.00
3238	3239	3333	3237	3143	0.040	8.00
3239	3240	3334	3238	3144	0.040	20.00
3240	3241	3335	3239	3145	0.040	20.00
3241	3242	3336	3240	3146	0.040	20.00
3242	3243	3337	3241	3147	0.040	20.00
3243	3244	3338	3242	3148	0.040	20.00
3244	3245	3339	3243	3149	0.040	20.00
3245	3246	3340	3244	3150	0.040	20.00
3246	3247	3341	3245	3151	0.040	20.00
3247	3248	3342	3246	3152	0.040	20.00
3248	3249	3343	3247	3153	0.040	20.00
3249	3250	3344	3248	3154	0.040	20.00
3250	3251	3345	3249	3155	0.040	20.00
3251	3252	3346	3250	3156	0.040	20.00
3252	3253	3347	3251	3157	0.040	8.00
3253	3254	3348	3252	3158	0.040	8.00
3254	3255	3349	3253	3159	0.040	8.00
3255	3256	3350	3254	3160	0.040	8.00
3256	3257	3351	3255	3161	0.040	8.00
3257	3258	3352	3256	3162	0.040	8.00
3258	0	3353	3257	3163	0.040	8.00
3259	3260	3354	0	3164	0.040	8.00
3260	3261	3355	3259	3165	0.040	8.00
3261	3262	3356	3260	3166	0.040	8.00
3262	3263	3357	3261	3167	0.040	8.00
3263	3264	3358	3262	3168	0.040	8.00
3264	3265	3359	3263	3169	0.040	8.00
3265	3266	3360	3264	3170	0.040	8.00
3266	3267	3361	3265	3171	0.040	8.00
3267	3268	3362	3266	3172	0.040	8.00
3268	3269	3363	3267	3173	0.040	8.00
3269	3270	3364	3268	3174	0.040	8.00
3270	3271	3365	3269	3175	0.040	8.00
3271	3272	3366	3270	3176	0.040	8.00
3272	3273	3367	3271	3177	0.040	8.00
3273	3274	3368	3272	3178	0.040	8.00
3274	3275	3369	3273	3179	0.040	8.00
3275	3276	3370	3274	3180	0.040	20.00
3276	3277	3371	3275	3181	0.040	20.00

FPLAIN.DAT					
3277	3278	3372	3276	3182	0.040 20.00
3278	3279	3373	3277	3183	0.040 20.00
3279	3280	3374	3278	3184	0.040 20.00
3280	3281	3375	3279	3185	0.040 20.00
3281	3282	3376	3280	3186	0.040 20.00
3282	3283	3377	3281	3187	0.040 20.00
3283	3284	3378	3282	3188	0.040 20.00
3284	3285	3379	3283	3189	0.040 20.00
3285	3286	3380	3284	3190	0.040 20.00
3286	3287	3381	3285	3191	0.040 20.00
3287	3288	3382	3286	3192	0.040 20.00
3288	3289	3383	3287	3193	0.040 8.00
3289	3290	3384	3288	3194	0.040 8.00
3290	3291	3385	3289	3195	0.040 8.00
3291	3292	3386	3290	3196	0.040 8.00
3292	3293	3387	3291	3197	0.040 8.00
3293	3294	3388	3292	3198	0.040 8.00
3294	3295	3389	3293	3199	0.040 8.00
3295	3296	3390	3294	3200	0.040 8.00
3296	3297	3391	3295	3201	0.040 8.00
3297	3298	3392	3296	3202	0.040 8.00
3298	3299	3393	3297	3203	0.040 8.00
3299	3300	3394	3298	3204	0.040 8.00
3300	3301	3395	3299	3205	0.040 8.00
3301	3302	3396	3300	3206	0.040 8.00
3302	3303	3397	3301	3207	0.040 8.00
3303	3304	3398	3302	3208	0.040 8.00
3304	3305	3399	3303	3209	0.040 8.00
3305	3306	3400	3304	3210	0.040 8.00
3306	3307	3401	3305	3211	0.040 8.00
3307	3308	3402	3306	3212	0.040 8.00
3308	3309	3403	3307	3213	0.040 8.00
3309	3310	3404	3308	3214	0.040 8.00
3310	3311	3405	3309	3215	0.040 8.00
3311	3312	3406	3310	3216	0.040 8.00
3312	3313	3407	3311	3217	0.040 8.00
3313	3314	3408	3312	3218	0.040 8.00
3314	3315	3409	3313	3219	0.040 8.00
3315	3316	3410	3314	3220	0.040 8.00
3316	3317	3411	3315	3221	0.040 8.00
3317	3318	3412	3316	3222	0.040 8.00
3318	3319	3413	3317	3223	0.040 8.00
3319	3320	3414	3318	3224	0.040 8.00
3320	3321	3415	3319	3225	0.040 8.00
3321	3322	3416	3320	3226	0.040 8.00
3322	3323	3417	3321	3227	0.040 8.00
3323	3324	3418	3322	3228	0.040 8.00
3324	3325	3419	3323	3229	0.040 8.00
3325	3326	3420	3324	3230	0.040 8.00
3326	3327	3421	3325	3231	0.040 8.00
3327	3328	3422	3326	3232	0.040 8.00
3328	3329	3423	3327	3233	0.040 8.00
3329	3330	3424	3328	3234	0.040 8.00
3330	3331	3425	3329	3235	0.040 8.00
3331	3332	3426	3330	3236	0.040 8.00
3332	3333	3427	3331	3237	0.040 8.00
3333	3334	3428	3332	3238	0.040 8.00
3334	3335	3429	3333	3239	0.040 20.00
3335	3336	3430	3334	3240	0.040 20.00
3336	3337	3431	3335	3241	0.040 20.00
3337	3338	3432	3336	3242	0.040 20.00
3338	3339	3433	3337	3243	0.040 20.00
3339	3340	3434	3338	3244	0.040 20.00



				FPLAIN.DAT		
3340	3341	3435	3339	3245	0.040	20.00
3341	3342	3436	3340	3246	0.040	20.00
3342	3343	3437	3341	3247	0.040	20.00
3343	3344	3438	3342	3248	0.040	20.00
3344	3345	3439	3343	3249	0.040	20.00
3345	3346	3440	3344	3250	0.040	20.00
3346	3347	3441	3345	3251	0.040	20.00
3347	3348	3442	3346	3252	0.040	8.00
3348	3349	3443	3347	3253	0.040	8.00
3349	3350	3444	3348	3254	0.040	8.00
3350	3351	3445	3349	3255	0.040	8.00
3351	3352	3446	3350	3256	0.040	8.00
3352	3353	3447	3351	3257	0.040	8.00
3353	0	3448	3352	3258	0.040	8.00
3354	3355	3449	0	3259	0.040	8.00
3355	3356	3450	3354	3260	0.040	8.00
3356	3357	3451	3355	3261	0.040	8.00
3357	3358	3452	3356	3262	0.040	8.00
3358	3359	3453	3357	3263	0.040	8.00
3359	3360	3454	3358	3264	0.040	8.00
3360	3361	3455	3359	3265	0.040	8.00
3361	3362	3456	3360	3266	0.040	8.00
3362	3363	3457	3361	3267	0.040	8.00
3363	3364	3458	3362	3268	0.040	8.00
3364	3365	3459	3363	3269	0.040	8.00
3365	3366	3460	3364	3270	0.040	8.00
3366	3367	3461	3365	3271	0.040	8.00
3367	3368	3462	3366	3272	0.040	8.00
3368	3369	3463	3367	3273	0.040	8.00
3369	3370	3464	3368	3274	0.040	8.00
3370	3371	3465	3369	3275	0.040	20.00
3371	3372	3466	3370	3276	0.040	20.00
3372	3373	3467	3371	3277	0.040	20.00
3373	3374	3468	3372	3278	0.040	20.00
3374	3375	3469	3373	3279	0.040	20.00
3375	3376	3470	3374	3280	0.040	20.00
3376	3377	3471	3375	3281	0.040	20.00
3377	3378	3472	3376	3282	0.040	20.00
3378	3379	3473	3377	3283	0.040	20.00
3379	3380	3474	3378	3284	0.040	20.00
3380	3381	3475	3379	3285	0.040	20.00
3381	3382	3476	3380	3286	0.040	20.00
3382	3383	3477	3381	3287	0.040	20.00
3383	3384	3478	3382	3288	0.040	8.00
3384	3385	3479	3383	3289	0.040	8.00
3385	3386	3480	3384	3290	0.040	8.00
3386	3387	3481	3385	3291	0.040	8.00
3387	3388	3482	3386	3292	0.040	8.00
3388	3389	3483	3387	3293	0.040	8.00
3389	3390	3484	3388	3294	0.040	8.00
3390	3391	3485	3389	3295	0.040	8.00
3391	3392	3486	3390	3296	0.040	8.00
3392	3393	3487	3391	3297	0.040	8.00
3393	3394	3488	3392	3298	0.040	8.00
3394	3395	3489	3393	3299	0.040	8.00
3395	3396	3490	3394	3300	0.040	8.00
3396	3397	3491	3395	3301	0.040	8.00
3397	3398	3492	3396	3302	0.040	8.00
3398	3399	3493	3397	3303	0.040	8.00
3399	3400	3494	3398	3304	0.040	8.00
3400	3401	3495	3399	3305	0.040	8.00
3401	3402	3496	3400	3306	0.040	8.00
3402	3403	3497	3401	3307	0.040	8.00

FPLAIN.DAT					
3403	3404	3498	3402	3308	0.040 8.00
3404	3405	3499	3403	3309	0.040 8.00
3405	3406	3500	3404	3310	0.040 8.00
3406	3407	3501	3405	3311	0.040 8.00
3407	3408	3502	3406	3312	0.040 8.00
3408	3409	3503	3407	3313	0.040 8.00
3409	3410	3504	3408	3314	0.040 8.00
3410	3411	3505	3409	3315	0.040 8.00
3411	3412	3506	3410	3316	0.040 8.00
3412	3413	3507	3411	3317	0.040 8.00
3413	3414	3508	3412	3318	0.040 8.00
3414	3415	3509	3413	3319	0.040 8.00
3415	3416	3510	3414	3320	0.040 8.00
3416	3417	3511	3415	3321	0.040 8.00
3417	3418	3512	3416	3322	0.040 8.00
3418	3419	3513	3417	3323	0.040 8.00
3419	3420	3514	3418	3324	0.040 8.00
3420	3421	3515	3419	3325	0.040 8.00
3421	3422	3516	3420	3326	0.040 8.00
3422	3423	3517	3421	3327	0.040 8.00
3423	3424	3518	3422	3328	0.040 8.00
3424	3425	3519	3423	3329	0.040 8.00
3425	3426	3520	3424	3330	0.040 8.00
3426	3427	3521	3425	3331	0.040 8.00
3427	3428	3522	3426	3332	0.040 8.00
3428	3429	3523	3427	3333	0.040 8.00
3429	3430	3524	3428	3334	0.040 8.00
3430	3431	3525	3429	3335	0.040 8.00
3431	3432	3526	3430	3336	0.040 8.00
3432	3433	3527	3431	3337	0.040 8.00
3433	3434	3528	3432	3338	0.040 8.00
3434	3435	3529	3433	3339	0.040 8.00
3435	3436	3530	3434	3340	0.040 8.00
3436	3437	3531	3435	3341	0.040 8.00
3437	3438	3532	3436	3342	0.040 8.00
3438	3439	3533	3437	3343	0.040 8.00
3439	3440	3534	3438	3344	0.040 8.00
3440	3441	3535	3439	3345	0.040 8.00
3441	3442	3536	3440	3346	0.040 8.00
3442	3443	3537	3441	3347	0.040 8.00
3443	3444	3538	3442	3348	0.040 8.00
3444	3445	3539	3443	3349	0.040 8.00
3445	3446	3540	3444	3350	0.040 8.00
3446	3447	3541	3445	3351	0.040 8.00
3447	3448	3542	3446	3352	0.040 8.00
3448	0	3543	3447	3353	0.040 8.00
3449	3450	3544	0	3354	0.040 8.00
3450	3451	3545	3449	3355	0.040 8.00
3451	3452	3546	3450	3356	0.040 8.00
3452	3453	3547	3451	3357	0.040 8.00
3453	3454	3548	3452	3358	0.040 8.00
3454	3455	3549	3453	3359	0.040 8.00
3455	3456	3550	3454	3360	0.040 8.00
3456	3457	3551	3455	3361	0.040 8.00
3457	3458	3552	3456	3362	0.040 8.00
3458	3459	3553	3457	3363	0.040 8.00
3459	3460	3554	3458	3364	0.040 8.00
3460	3461	3555	3459	3365	0.040 8.00
3461	3462	3556	3460	3366	0.040 8.00
3462	3463	3557	3461	3367	0.040 8.00
3463	3464	3558	3462	3368	0.040 8.00
3464	3465	3559	3463	3369	0.040 8.00
3465	3466	3560	3464	3370	0.040 8.00

FPLAIN.DAT					
3466	3467	3561	3465	3371	0.040 8.00
3467	3468	3562	3466	3372	0.040 8.00
3468	3469	3563	3467	3373	0.040 8.00
3469	3470	3564	3468	3374	0.040 8.00
3470	3471	3565	3469	3375	0.040 8.00
3471	3472	3566	3470	3376	0.040 8.00
3472	3473	3567	3471	3377	0.040 8.00
3473	3474	3568	3472	3378	0.040 8.00
3474	3475	3569	3473	3379	0.040 8.00
3475	3476	3570	3474	3380	0.040 8.00
3476	3477	3571	3475	3381	0.040 8.00
3477	3478	3572	3476	3382	0.040 8.00
3478	3479	3573	3477	3383	0.040 8.00
3479	3480	3574	3478	3384	0.040 8.00
3480	3481	3575	3479	3385	0.040 8.00
3481	3482	3576	3480	3386	0.040 8.00
3482	3483	3577	3481	3387	0.040 8.00
3483	3484	3578	3482	3388	0.040 8.00
3484	3485	3579	3483	3389	0.040 8.00
3485	3486	3580	3484	3390	0.040 8.00
3486	3487	3581	3485	3391	0.040 8.00
3487	3488	3582	3486	3392	0.040 8.00
3488	3489	3583	3487	3393	0.040 8.00
3489	3490	3584	3488	3394	0.040 8.00
3490	3491	3585	3489	3395	0.040 8.00
3491	3492	3586	3490	3396	0.040 8.00
3492	3493	3587	3491	3397	0.040 8.00
3493	3494	3588	3492	3398	0.040 8.00
3494	3495	3589	3493	3399	0.040 8.00
3495	3496	3590	3494	3400	0.040 8.00
3496	3497	3591	3495	3401	0.040 8.00
3497	3498	3592	3496	3402	0.040 8.00
3498	3499	3593	3497	3403	0.040 8.00
3499	3500	3594	3498	3404	0.040 8.00
3500	3501	3595	3499	3405	0.040 8.00
3501	3502	3596	3500	3406	0.040 8.00
3502	3503	3597	3501	3407	0.040 8.00
3503	3504	3598	3502	3408	0.040 8.00
3504	3505	3599	3503	3409	0.040 8.00
3505	3506	3600	3504	3410	0.040 8.00
3506	3507	3601	3505	3411	0.040 8.00
3507	3508	3602	3506	3412	0.040 8.00
3508	3509	3603	3507	3413	0.040 8.00
3509	3510	3604	3508	3414	0.040 8.00
3510	3511	3605	3509	3415	0.040 8.00
3511	3512	3606	3510	3416	0.040 8.00
3512	3513	3607	3511	3417	0.040 8.00
3513	3514	3608	3512	3418	0.040 8.00
3514	3515	3609	3513	3419	0.040 8.00
3515	3516	3610	3514	3420	0.040 8.00
3516	3517	3611	3515	3421	0.040 8.00
3517	3518	3612	3516	3422	0.040 8.00
3518	3519	3613	3517	3423	0.040 8.00
3519	3520	3614	3518	3424	0.040 8.00
3520	3521	3615	3519	3425	0.040 8.00
3521	3522	3616	3520	3426	0.040 8.00
3522	3523	3617	3521	3427	0.040 8.00
3523	3524	3618	3522	3428	0.040 8.00
3524	3525	3619	3523	3429	0.040 8.00
3525	3526	3620	3524	3430	0.040 8.00
3526	3527	3621	3525	3431	0.040 8.00
3527	3528	3622	3526	3432	0.040 8.00
3528	3529	3623	3527	3433	0.040 8.00

FPLAIN.DAT					
3529	3530	3624	3528	3434	0.040 8.00
3530	3531	3625	3529	3435	0.040 8.00
3531	3532	3626	3530	3436	0.040 8.00
3532	3533	3627	3531	3437	0.040 8.00
3533	3534	3628	3532	3438	0.040 8.00
3534	3535	3629	3533	3439	0.040 8.00
3535	3536	3630	3534	3440	0.040 8.00
3536	3537	3631	3535	3441	0.040 8.00
3537	3538	3632	3536	3442	0.040 8.00
3538	3539	3633	3537	3443	0.040 8.00
3539	3540	3634	3538	3444	0.040 8.00
3540	3541	3635	3539	3445	0.040 8.00
3541	3542	3636	3540	3446	0.040 8.00
3542	3543	3637	3541	3447	0.040 8.00
3543	0	3638	3542	3448	0.040 8.00
3544	3545	3639	0	3449	0.040 8.00
3545	3546	3640	3544	3450	0.040 8.00
3546	3547	3641	3545	3451	0.040 8.00
3547	3548	3642	3546	3452	0.040 8.00
3548	3549	3643	3547	3453	0.040 8.00
3549	3550	3644	3548	3454	0.040 8.00
3550	3551	3645	3549	3455	0.040 8.00
3551	3552	3646	3550	3456	0.040 8.00
3552	3553	3647	3551	3457	0.040 8.00
3553	3554	3648	3552	3458	0.040 8.00
3554	3555	3649	3553	3459	0.040 8.00
3555	3556	3650	3554	3460	0.040 8.00
3556	3557	3651	3555	3461	0.040 8.00
3557	3558	3652	3556	3462	0.040 8.00
3558	3559	3653	3557	3463	0.040 8.00
3559	3560	3654	3558	3464	0.040 8.00
3560	3561	3655	3559	3465	0.040 8.00
3561	3562	3656	3560	3466	0.040 8.00
3562	3563	3657	3561	3467	0.040 8.00
3563	3564	3658	3562	3468	0.040 8.00
3564	3565	3659	3563	3469	0.040 8.00
3565	3566	3660	3564	3470	0.040 8.00
3566	3567	3661	3565	3471	0.040 8.00
3567	3568	3662	3566	3472	0.040 8.00
3568	3569	3663	3567	3473	0.040 8.00
3569	3570	3664	3568	3474	0.040 8.00
3570	3571	3665	3569	3475	0.040 8.00
3571	3572	3666	3570	3476	0.040 8.00
3572	3573	3667	3571	3477	0.040 8.00
3573	3574	3668	3572	3478	0.040 8.00
3574	3575	3669	3573	3479	0.040 8.00
3575	3576	3670	3574	3480	0.040 8.00
3576	3577	3671	3575	3481	0.040 8.00
3577	3578	3672	3576	3482	0.040 8.00
3578	3579	3673	3577	3483	0.040 8.00
3579	3580	3674	3578	3484	0.040 8.00
3580	3581	3675	3579	3485	0.040 8.00
3581	3582	3676	3580	3486	0.040 8.00
3582	3583	3677	3581	3487	0.040 8.00
3583	3584	3678	3582	3488	0.040 8.00
3584	3585	3679	3583	3489	0.040 8.00
3585	3586	3680	3584	3490	0.040 8.00
3586	3587	3681	3585	3491	0.040 8.00
3587	3588	3682	3586	3492	0.040 8.00
3588	3589	3683	3587	3493	0.040 8.00
3589	3590	3684	3588	3494	0.040 8.00
3590	3591	3685	3589	3495	0.040 8.00
3591	3592	3686	3590	3496	0.040 8.00

				FPLAIN.DAT			
3592	3593	3687	3591	3497	0.040	8.00	
3593	3594	3688	3592	3498	0.040	8.00	
3594	3595	3689	3593	3499	0.040	8.00	
3595	3596	3690	3594	3500	0.040	8.00	
3596	3597	3691	3595	3501	0.040	8.00	
3597	3598	3692	3596	3502	0.040	8.00	
3598	3599	3693	3597	3503	0.040	8.00	
3599	3600	3694	3598	3504	0.040	8.00	
3600	3601	3695	3599	3505	0.040	8.00	
3601	3602	3696	3600	3506	0.040	8.00	
3602	3603	3697	3601	3507	0.040	8.00	
3603	3604	3698	3602	3508	0.040	8.00	
3604	3605	3699	3603	3509	0.040	8.00	
3605	3606	3700	3604	3510	0.040	8.00	
3606	3607	3701	3605	3511	0.040	8.00	
3607	3608	3702	3606	3512	0.040	8.00	
3608	3609	3703	3607	3513	0.040	8.00	
3609	3610	3704	3608	3514	0.040	8.00	
3610	3611	3705	3609	3515	0.040	8.00	
3611	3612	3706	3610	3516	0.040	8.00	
3612	3613	3707	3611	3517	0.040	8.00	
3613	3614	3708	3612	3518	0.040	8.00	
3614	3615	3709	3613	3519	0.040	8.00	
3615	3616	3710	3614	3520	0.040	8.00	
3616	3617	3711	3615	3521	0.040	8.00	
3617	3618	3712	3616	3522	0.040	8.00	
3618	3619	3713	3617	3523	0.040	8.00	
3619	3620	3714	3618	3524	0.040	8.00	
3620	3621	3715	3619	3525	0.040	8.00	
3621	3622	3716	3620	3526	0.040	8.00	
3622	3623	3717	3621	3527	0.040	8.00	
3623	3624	3718	3622	3528	0.040	8.00	
3624	3625	3719	3623	3529	0.040	8.00	
3625	3626	3720	3624	3530	0.040	8.00	
3626	3627	3721	3625	3531	0.040	8.00	
3627	3628	3722	3626	3532	0.040	8.00	
3628	3629	3723	3627	3533	0.040	8.00	
3629	3630	3724	3628	3534	0.040	8.00	
3630	3631	3725	3629	3535	0.040	8.00	
3631	3632	3726	3630	3536	0.040	8.00	
3632	3633	3727	3631	3537	0.040	8.00	
3633	3634	3728	3632	3538	0.040	8.00	
3634	3635	3729	3633	3539	0.040	8.00	
3635	3636	3730	3634	3540	0.040	8.00	
3636	3637	3731	3635	3541	0.040	8.00	
3637	3638	3732	3636	3542	0.040	8.00	
3638	0	3733	3637	3543	0.040	8.00	
3639	3640	3734	0	3544	0.040	8.00	
3640	3641	3735	3639	3545	0.040	8.00	
3641	3642	3736	3640	3546	0.040	8.00	
3642	3643	3737	3641	3547	0.040	8.00	
3643	3644	3738	3642	3548	0.040	8.00	
3644	3645	3739	3643	3549	0.040	8.00	
3645	3646	3740	3644	3550	0.040	8.00	
3646	3647	3741	3645	3551	0.040	8.00	
3647	3648	3742	3646	3552	0.040	8.00	
3648	3649	3743	3647	3553	0.040	8.00	
3649	3650	3744	3648	3554	0.040	8.00	
3650	3651	3745	3649	3555	0.040	8.00	
3651	3652	3746	3650	3556	0.040	8.00	
3652	3653	3747	3651	3557	0.040	8.00	
3653	3654	3748	3652	3558	0.040	8.00	
3654	3655	3749	3653	3559	0.040	8.00	

				FPLAIN.DAT		
3655	3656	3750	3654	3560	0.040	8.00
3656	3657	3751	3655	3561	0.040	8.00
3657	3658	3752	3656	3562	0.040	8.00
3658	3659	3753	3657	3563	0.040	8.00
3659	3660	3754	3658	3564	0.040	8.00
3660	3661	3755	3659	3565	0.040	8.00
3661	3662	3756	3660	3566	0.040	8.00
3662	3663	3757	3661	3567	0.040	8.00
3663	3664	3758	3662	3568	0.040	8.00
3664	3665	3759	3663	3569	0.040	8.00
3665	3666	3760	3664	3570	0.040	8.00
3666	3667	3761	3665	3571	0.040	8.00
3667	3668	3762	3666	3572	0.040	8.00
3668	3669	3763	3667	3573	0.040	8.00
3669	3670	3764	3668	3574	0.040	8.00
3670	3671	3765	3669	3575	0.040	8.00
3671	3672	3766	3670	3576	0.040	8.00
3672	3673	3767	3671	3577	0.040	8.00
3673	3674	3768	3672	3578	0.040	8.00
3674	3675	3769	3673	3579	0.040	8.00
3675	3676	3770	3674	3580	0.040	8.00
3676	3677	3771	3675	3581	0.040	8.00
3677	3678	3772	3676	3582	0.040	8.00
3678	3679	3773	3677	3583	0.040	8.00
3679	3680	3774	3678	3584	0.040	8.00
3680	3681	3775	3679	3585	0.040	8.00
3681	3682	3776	3680	3586	0.040	8.00
3682	3683	3777	3681	3587	0.040	8.00
3683	3684	3778	3682	3588	0.040	8.00
3684	3685	3779	3683	3589	0.040	8.00
3685	3686	3780	3684	3590	0.040	8.00
3686	3687	3781	3685	3591	0.040	8.00
3687	3688	3782	3686	3592	0.040	8.00
3688	3689	3783	3687	3593	0.040	8.00
3689	3690	3784	3688	3594	0.040	8.00
3690	3691	3785	3689	3595	0.040	8.00
3691	3692	3786	3690	3596	0.040	8.00
3692	3693	3787	3691	3597	0.040	8.00
3693	3694	3788	3692	3598	0.040	8.00
3694	3695	3789	3693	3599	0.040	8.00
3695	3696	3790	3694	3600	0.040	8.00
3696	3697	3791	3695	3601	0.040	8.00
3697	3698	3792	3696	3602	0.040	8.00
3698	3699	3793	3697	3603	0.040	8.00
3699	3700	3794	3698	3604	0.040	8.00
3700	3701	3795	3699	3605	0.040	8.00
3701	3702	3796	3700	3606	0.040	8.00
3702	3703	3797	3701	3607	0.040	8.00
3703	3704	3798	3702	3608	0.040	8.00
3704	3705	3799	3703	3609	0.040	8.00
3705	3706	3800	3704	3610	0.040	8.00
3706	3707	3801	3705	3611	0.040	8.00
3707	3708	3802	3706	3612	0.040	8.00
3708	3709	3803	3707	3613	0.040	8.00
3709	3710	3804	3708	3614	0.040	8.00
3710	3711	3805	3709	3615	0.040	8.00
3711	3712	3806	3710	3616	0.040	8.00
3712	3713	3807	3711	3617	0.040	8.00
3713	3714	3808	3712	3618	0.040	8.00
3714	3715	3809	3713	3619	0.040	8.00
3715	3716	3810	3714	3620	0.040	8.00
3716	3717	3811	3715	3621	0.040	8.00
3717	3718	3812	3716	3622	0.040	8.00



FPLAIN.DAT					
3718	3719	3813	3717	3623	0.040 8.00
3719	3720	3814	3718	3624	0.040 8.00
3720	3721	3815	3719	3625	0.040 8.00
3721	3722	3816	3720	3626	0.040 8.00
3722	3723	3817	3721	3627	0.040 8.00
3723	3724	3818	3722	3628	0.040 8.00
3724	3725	3819	3723	3629	0.040 8.00
3725	3726	3820	3724	3630	0.040 8.00
3726	3727	3821	3725	3631	0.040 8.00
3727	3728	3822	3726	3632	0.040 8.00
3728	3729	3823	3727	3633	0.040 8.00
3729	3730	3824	3728	3634	0.040 8.00
3730	3731	3825	3729	3635	0.040 8.00
3731	3732	3826	3730	3636	0.040 8.00
3732	3733	3827	3731	3637	0.040 8.00
3733	0	3828	3732	3638	0.040 8.00
3734	3735	3829	0	3639	0.040 8.00
3735	3736	3830	3734	3640	0.040 8.00
3736	3737	3831	3735	3641	0.040 8.00
3737	3738	3832	3736	3642	0.040 8.00
3738	3739	3833	3737	3643	0.040 8.00
3739	3740	3834	3738	3644	0.040 8.00
3740	3741	3835	3739	3645	0.040 8.00
3741	3742	3836	3740	3646	0.040 8.00
3742	3743	3837	3741	3647	0.040 8.00
3743	3744	3838	3742	3648	0.040 8.00
3744	3745	3839	3743	3649	0.040 8.00
3745	3746	3840	3744	3650	0.040 8.00
3746	3747	3841	3745	3651	0.040 8.00
3747	3748	3842	3746	3652	0.040 8.00
3748	3749	3843	3747	3653	0.040 8.00
3749	3750	3844	3748	3654	0.040 8.00
3750	3751	3845	3749	3655	0.040 8.00
3751	3752	3846	3750	3656	0.040 8.00
3752	3753	3847	3751	3657	0.040 8.00
3753	3754	3848	3752	3658	0.040 8.00
3754	3755	3849	3753	3659	0.040 8.00
3755	3756	3850	3754	3660	0.040 8.00
3756	3757	3851	3755	3661	0.040 8.00
3757	3758	3852	3756	3662	0.040 8.00
3758	3759	3853	3757	3663	0.040 8.00
3759	3760	3854	3758	3664	0.040 8.00
3760	3761	3855	3759	3665	0.040 8.00
3761	3762	3856	3760	3666	0.040 8.00
3762	3763	3857	3761	3667	0.040 8.00
3763	3764	3858	3762	3668	0.040 8.00
3764	3765	3859	3763	3669	0.040 8.00
3765	3766	3860	3764	3670	0.040 8.00
3766	3767	3861	3765	3671	0.040 8.00
3767	3768	3862	3766	3672	0.040 8.00
3768	3769	3863	3767	3673	0.040 8.00
3769	3770	3864	3768	3674	0.040 8.00
3770	3771	3865	3769	3675	0.040 8.00
3771	3772	3866	3770	3676	0.040 8.00
3772	3773	3867	3771	3677	0.040 8.00
3773	3774	3868	3772	3678	0.040 8.00
3774	3775	3869	3773	3679	0.040 8.00
3775	3776	3870	3774	3680	0.040 8.00
3776	3777	3871	3775	3681	0.040 8.00
3777	3778	3872	3776	3682	0.040 8.00
3778	3779	3873	3777	3683	0.040 8.00
3779	3780	3874	3778	3684	0.040 8.00
3780	3781	3875	3779	3685	0.040 8.00

FPLAIN.DAT					
3781	3782	3876	3780	3686	0.040 8.00
3782	3783	3877	3781	3687	0.040 8.00
3783	3784	3878	3782	3688	0.040 8.00
3784	3785	3879	3783	3689	0.040 8.00
3785	3786	3880	3784	3690	0.040 8.00
3786	3787	3881	3785	3691	0.040 8.00
3787	3788	3882	3786	3692	0.040 8.00
3788	3789	3883	3787	3693	0.040 8.00
3789	3790	3884	3788	3694	0.040 8.00
3790	3791	3885	3789	3695	0.040 8.00
3791	3792	3886	3790	3696	0.040 8.00
3792	3793	3887	3791	3697	0.040 8.00
3793	3794	3888	3792	3698	0.040 8.00
3794	3795	3889	3793	3699	0.040 8.00
3795	3796	3890	3794	3700	0.040 8.00
3796	3797	3891	3795	3701	0.040 8.00
3797	3798	3892	3796	3702	0.040 8.00
3798	3799	3893	3797	3703	0.040 8.00
3799	3800	3894	3798	3704	0.040 8.00
3800	3801	3895	3799	3705	0.040 8.00
3801	3802	3896	3800	3706	0.040 8.00
3802	3803	3897	3801	3707	0.040 8.00
3803	3804	3898	3802	3708	0.040 8.00
3804	3805	3899	3803	3709	0.040 8.00
3805	3806	3900	3804	3710	0.040 8.00
3806	3807	3901	3805	3711	0.040 8.00
3807	3808	3902	3806	3712	0.040 8.00
3808	3809	3903	3807	3713	0.040 8.00
3809	3810	3904	3808	3714	0.040 8.00
3810	3811	3905	3809	3715	0.040 8.00
3811	3812	3906	3810	3716	0.040 8.00
3812	3813	3907	3811	3717	0.040 8.00
3813	3814	3908	3812	3718	0.040 8.00
3814	3815	3909	3813	3719	0.040 8.00
3815	3816	3910	3814	3720	0.040 8.00
3816	3817	3911	3815	3721	0.040 8.00
3817	3818	3912	3816	3722	0.040 8.00
3818	3819	3913	3817	3723	0.040 8.00
3819	3820	3914	3818	3724	0.040 8.00
3820	3821	3915	3819	3725	0.040 8.00
3821	3822	3916	3820	3726	0.040 8.00
3822	3823	3917	3821	3727	0.040 8.00
3823	3824	3918	3822	3728	0.040 8.00
3824	3825	3919	3823	3729	0.040 8.00
3825	3826	3920	3824	3730	0.040 8.00
3826	3827	3921	3825	3731	0.040 8.00
3827	3828	3922	3826	3732	0.040 8.00
3828	0	3923	3827	3733	0.040 8.00
3829	3830	3924	0	3734	0.040 8.00
3830	3831	3925	3829	3735	0.040 8.00
3831	3832	3926	3830	3736	0.040 8.00
3832	3833	3927	3831	3737	0.040 8.00
3833	3834	3928	3832	3738	0.040 8.00
3834	3835	3929	3833	3739	0.040 8.00
3835	3836	3930	3834	3740	0.040 8.00
3836	3837	3931	3835	3741	0.040 8.00
3837	3838	3932	3836	3742	0.040 8.00
3838	3839	3933	3837	3743	0.040 8.00
3839	3840	3934	3838	3744	0.040 8.00
3840	3841	3935	3839	3745	0.040 8.00
3841	3842	3936	3840	3746	0.040 8.00
3842	3843	3937	3841	3747	0.040 8.00
3843	3844	3938	3842	3748	0.040 8.00



FPLAIN.DAT					
3844	3845	3939	3843	3749	0.040 8.00
3845	3846	3940	3844	3750	0.040 8.00
3846	3847	3941	3845	3751	0.040 8.00
3847	3848	3942	3846	3752	0.040 8.00
3848	3849	3943	3847	3753	0.040 8.00
3849	3850	3944	3848	3754	0.040 8.00
3850	3851	3945	3849	3755	0.040 8.00
3851	3852	3946	3850	3756	0.040 8.00
3852	3853	3947	3851	3757	0.040 8.00
3853	3854	3948	3852	3758	0.040 8.00
3854	3855	3949	3853	3759	0.040 8.00
3855	3856	3950	3854	3760	0.040 8.00
3856	3857	3951	3855	3761	0.040 8.00
3857	3858	3952	3856	3762	0.040 8.00
3858	3859	3953	3857	3763	0.040 8.00
3859	3860	3954	3858	3764	0.040 8.00
3860	3861	3955	3859	3765	0.040 8.00
3861	3862	3956	3860	3766	0.040 8.00
3862	3863	3957	3861	3767	0.040 8.00
3863	3864	3958	3862	3768	0.040 8.00
3864	3865	3959	3863	3769	0.040 8.00
3865	3866	3960	3864	3770	0.040 8.00
3866	3867	3961	3865	3771	0.040 8.00
3867	3868	3962	3866	3772	0.040 8.00
3868	3869	3963	3867	3773	0.040 8.00
3869	3870	3964	3868	3774	0.040 8.00
3870	3871	3965	3869	3775	0.040 8.00
3871	3872	3966	3870	3776	0.040 8.00
3872	3873	3967	3871	3777	0.040 8.00
3873	3874	3968	3872	3778	0.040 8.00
3874	3875	3969	3873	3779	0.040 8.00
3875	3876	3970	3874	3780	0.040 8.00
3876	3877	3971	3875	3781	0.040 8.00
3877	3878	3972	3876	3782	0.040 8.00
3878	3879	3973	3877	3783	0.040 8.00
3879	3880	3974	3878	3784	0.040 8.00
3880	3881	3975	3879	3785	0.040 8.00
3881	3882	3976	3880	3786	0.040 8.00
3882	3883	3977	3881	3787	0.040 8.00
3883	3884	3978	3882	3788	0.040 8.00
3884	3885	3979	3883	3789	0.040 8.00
3885	3886	3980	3884	3790	0.040 8.00
3886	3887	3981	3885	3791	0.040 8.00
3887	3888	3982	3886	3792	0.040 8.00
3888	3889	3983	3887	3793	0.040 8.00
3889	3890	3984	3888	3794	0.040 8.00
3890	3891	3985	3889	3795	0.040 8.00
3891	3892	3986	3890	3796	0.040 8.00
3892	3893	3987	3891	3797	0.040 8.00
3893	3894	3988	3892	3798	0.040 8.00
3894	3895	3989	3893	3799	0.040 8.00
3895	3896	3990	3894	3800	0.040 8.00
3896	3897	3991	3895	3801	0.040 8.00
3897	3898	3992	3896	3802	0.040 8.00
3898	3899	3993	3897	3803	0.040 8.00
3899	3900	3994	3898	3804	0.040 8.00
3900	3901	3995	3899	3805	0.040 8.00
3901	3902	3996	3900	3806	0.040 8.00
3902	3903	3997	3901	3807	0.040 8.00
3903	3904	3998	3902	3808	0.040 8.00
3904	3905	3999	3903	3809	0.040 8.00
3905	3906	4000	3904	3810	0.040 8.00
3906	3907	4001	3905	3811	0.040 8.00

FPLAIN.DAT						
3907	3908	4002	3906	3812	0.040	8.00
3908	3909	4003	3907	3813	0.040	8.00
3909	3910	4004	3908	3814	0.040	8.00
3910	3911	4005	3909	3815	0.040	8.00
3911	3912	4006	3910	3816	0.040	8.00
3912	3913	4007	3911	3817	0.040	8.00
3913	3914	4008	3912	3818	0.040	8.00
3914	3915	4009	3913	3819	0.040	8.00
3915	3916	4010	3914	3820	0.040	8.00
3916	3917	4011	3915	3821	0.040	8.00
3917	3918	4012	3916	3822	0.040	8.00
3918	3919	4013	3917	3823	0.040	8.00
3919	3920	4014	3918	3824	0.040	8.00
3920	3921	4015	3919	3825	0.040	8.00
3921	3922	4016	3920	3826	0.040	8.00
3922	3923	4017	3921	3827	0.040	8.00
3923	0	4018	3922	3828	0.040	8.00
3924	3925	4019	0	3829	0.040	8.00
3925	3926	4020	3924	3830	0.040	8.00
3926	3927	4021	3925	3831	0.040	8.00
3927	3928	4022	3926	3832	0.040	8.00
3928	3929	4023	3927	3833	0.040	8.00
3929	3930	4024	3928	3834	0.040	8.00
3930	3931	4025	3929	3835	0.040	8.00
3931	3932	4026	3930	3836	0.040	8.00
3932	3933	4027	3931	3837	0.040	8.00
3933	3934	4028	3932	3838	0.040	8.00
3934	3935	4029	3933	3839	0.040	8.00
3935	3936	4030	3934	3840	0.040	8.00
3936	3937	4031	3935	3841	0.040	8.00
3937	3938	4032	3936	3842	0.040	8.00
3938	3939	4033	3937	3843	0.040	8.00
3939	3940	4034	3938	3844	0.040	8.00
3940	3941	4035	3939	3845	0.040	8.00
3941	3942	4036	3940	3846	0.040	8.00
3942	3943	4037	3941	3847	0.040	8.00
3943	3944	4038	3942	3848	0.040	8.00
3944	3945	4039	3943	3849	0.040	8.00
3945	3946	4040	3944	3850	0.040	8.00
3946	3947	4041	3945	3851	0.040	8.00
3947	3948	4042	3946	3852	0.040	8.00
3948	3949	4043	3947	3853	0.040	8.00
3949	3950	4044	3948	3854	0.040	8.00
3950	3951	4045	3949	3855	0.040	8.00
3951	3952	4046	3950	3856	0.040	8.00
3952	3953	4047	3951	3857	0.040	8.00
3953	3954	4048	3952	3858	0.040	8.00
3954	3955	4049	3953	3859	0.040	8.00
3955	3956	4050	3954	3860	0.040	8.00
3956	3957	4051	3955	3861	0.040	8.00
3957	3958	4052	3956	3862	0.040	8.00
3958	3959	4053	3957	3863	0.040	8.00
3959	3960	4054	3958	3864	0.040	8.00
3960	3961	4055	3959	3865	0.040	8.00
3961	3962	4056	3960	3866	0.040	8.00
3962	3963	4057	3961	3867	0.040	8.00
3963	3964	4058	3962	3868	0.040	8.00
3964	3965	4059	3963	3869	0.040	8.00
3965	3966	4060	3964	3870	0.040	8.00
3966	3967	4061	3965	3871	0.040	8.00
3967	3968	4062	3966	3872	0.040	8.00
3968	3969	4063	3967	3873	0.040	8.00
3969	3970	4064	3968	3874	0.040	8.00

				FPLAIN.DAT		
3970	3971	4065	3969	3875	0.040	8.00
3971	3972	4066	3970	3876	0.040	8.00
3972	3973	4067	3971	3877	0.040	8.00
3973	3974	4068	3972	3878	0.040	8.00
3974	3975	4069	3973	3879	0.040	8.00
3975	3976	4070	3974	3880	0.040	8.00
3976	3977	4071	3975	3881	0.040	8.00
3977	3978	4072	3976	3882	0.040	8.00
3978	3979	4073	3977	3883	0.040	8.00
3979	3980	4074	3978	3884	0.040	8.00
3980	3981	4075	3979	3885	0.040	8.00
3981	3982	4076	3980	3886	0.040	8.00
3982	3983	4077	3981	3887	0.040	8.00
3983	3984	4078	3982	3888	0.040	8.00
3984	3985	4079	3983	3889	0.040	8.00
3985	3986	4080	3984	3890	0.040	8.00
3986	3987	4081	3985	3891	0.040	8.00
3987	3988	4082	3986	3892	0.040	8.00
3988	3989	4083	3987	3893	0.040	8.00
3989	3990	4084	3988	3894	0.040	8.00
3990	3991	4085	3989	3895	0.040	8.00
3991	3992	4086	3990	3896	0.040	8.00
3992	3993	4087	3991	3897	0.040	8.00
3993	3994	4088	3992	3898	0.040	8.00
3994	3995	4089	3993	3899	0.040	8.00
3995	3996	4090	3994	3900	0.040	8.00
3996	3997	4091	3995	3901	0.040	8.00
3997	3998	4092	3996	3902	0.040	8.00
3998	3999	4093	3997	3903	0.040	8.00
3999	4000	4094	3998	3904	0.040	8.00
4000	4001	4095	3999	3905	0.040	8.00
4001	4002	4096	4000	3906	0.040	8.00
4002	4003	4097	4001	3907	0.040	8.00
4003	4004	4098	4002	3908	0.040	8.00
4004	4005	4099	4003	3909	0.040	8.00
4005	4006	4100	4004	3910	0.040	8.00
4006	4007	4101	4005	3911	0.040	8.00
4007	4008	4102	4006	3912	0.040	8.00
4008	4009	4103	4007	3913	0.040	8.00
4009	4010	4104	4008	3914	0.040	8.00
4010	4011	4105	4009	3915	0.040	8.00
4011	4012	4106	4010	3916	0.040	8.00
4012	4013	4107	4011	3917	0.040	8.00
4013	4014	4108	4012	3918	0.040	8.00
4014	4015	4109	4013	3919	0.040	8.00
4015	4016	4110	4014	3920	0.040	8.00
4016	4017	4111	4015	3921	0.040	8.00
4017	4018	4112	4016	3922	0.040	8.00
4018	0	4113	4017	3923	0.040	8.00
4019	4020	4114	0	3924	0.040	8.00
4020	4021	4115	4019	3925	0.040	8.00
4021	4022	4116	4020	3926	0.040	8.00
4022	4023	4117	4021	3927	0.040	8.00
4023	4024	4118	4022	3928	0.040	8.00
4024	4025	4119	4023	3929	0.040	8.00
4025	4026	4120	4024	3930	0.040	8.00
4026	4027	4121	4025	3931	0.040	8.00
4027	4028	4122	4026	3932	0.040	8.00
4028	4029	4123	4027	3933	0.040	8.00
4029	4030	4124	4028	3934	0.040	8.00
4030	4031	4125	4029	3935	0.040	8.00
4031	4032	4126	4030	3936	0.040	8.00
4032	4033	4127	4031	3937	0.040	8.00

				FPLAIN.DAT		
4033	4034	4128	4032	3938	0.040	8.00
4034	4035	4129	4033	3939	0.040	8.00
4035	4036	4130	4034	3940	0.040	8.00
4036	4037	4131	4035	3941	0.040	8.00
4037	4038	4132	4036	3942	0.040	8.00
4038	4039	4133	4037	3943	0.040	8.00
4039	4040	4134	4038	3944	0.040	8.00
4040	4041	4135	4039	3945	0.040	8.00
4041	4042	4136	4040	3946	0.040	8.00
4042	4043	4137	4041	3947	0.040	8.00
4043	4044	4138	4042	3948	0.040	8.00
4044	4045	4139	4043	3949	0.040	8.00
4045	4046	4140	4044	3950	0.040	8.00
4046	4047	4141	4045	3951	0.040	8.00
4047	4048	4142	4046	3952	0.040	8.00
4048	4049	4143	4047	3953	0.040	8.00
4049	4050	4144	4048	3954	0.040	8.00
4050	4051	4145	4049	3955	0.040	8.00
4051	4052	4146	4050	3956	0.040	8.00
4052	4053	4147	4051	3957	0.040	8.00
4053	4054	4148	4052	3958	0.040	8.00
4054	4055	4149	4053	3959	0.040	8.00
4055	4056	4150	4054	3960	0.040	8.00
4056	4057	4151	4055	3961	0.040	8.00
4057	4058	4152	4056	3962	0.040	8.00
4058	4059	4153	4057	3963	0.040	8.00
4059	4060	4154	4058	3964	0.040	8.00
4060	4061	4155	4059	3965	0.040	8.00
4061	4062	4156	4060	3966	0.040	8.00
4062	4063	4157	4061	3967	0.040	8.00
4063	4064	4158	4062	3968	0.040	8.00
4064	4065	4159	4063	3969	0.040	8.00
4065	4066	4160	4064	3970	0.040	8.00
4066	4067	4161	4065	3971	0.040	8.00
4067	4068	4162	4066	3972	0.040	8.00
4068	4069	4163	4067	3973	0.040	8.00
4069	4070	4164	4068	3974	0.040	8.00
4070	4071	4165	4069	3975	0.040	8.00
4071	4072	4166	4070	3976	0.040	8.00
4072	4073	4167	4071	3977	0.040	8.00
4073	4074	4168	4072	3978	0.040	8.00
4074	4075	4169	4073	3979	0.040	8.00
4075	4076	4170	4074	3980	0.040	8.00
4076	4077	4171	4075	3981	0.040	8.00
4077	4078	4172	4076	3982	0.040	8.00
4078	4079	4173	4077	3983	0.040	8.00
4079	4080	4174	4078	3984	0.040	8.00
4080	4081	4175	4079	3985	0.040	8.00
4081	4082	4176	4080	3986	0.040	8.00
4082	4083	4177	4081	3987	0.040	8.00
4083	4084	4178	4082	3988	0.040	8.00
4084	4085	4179	4083	3989	0.040	8.00
4085	4086	4180	4084	3990	0.040	8.00
4086	4087	4181	4085	3991	0.040	8.00
4087	4088	4182	4086	3992	0.040	8.00
4088	4089	4183	4087	3993	0.040	8.00
4089	4090	4184	4088	3994	0.040	8.00
4090	4091	4185	4089	3995	0.040	8.00
4091	4092	4186	4090	3996	0.040	8.00
4092	4093	4187	4091	3997	0.040	8.00
4093	4094	4188	4092	3998	0.040	8.00
4094	4095	4189	4093	3999	0.040	8.00
4095	4096	4190	4094	4000	0.040	8.00

				FPLAIN.DAT		
4096	4097	4191	4095	4001	0.040	8.00
4097	4098	4192	4096	4002	0.040	8.00
4098	4099	4193	4097	4003	0.040	8.00
4099	4100	4194	4098	4004	0.040	8.00
4100	4101	4195	4099	4005	0.040	8.00
4101	4102	4196	4100	4006	0.040	8.00
4102	4103	4197	4101	4007	0.040	8.00
4103	4104	4198	4102	4008	0.040	8.00
4104	4105	4199	4103	4009	0.040	8.00
4105	4106	4200	4104	4010	0.040	8.00
4106	4107	4201	4105	4011	0.040	8.00
4107	4108	4202	4106	4012	0.040	8.00
4108	4109	4203	4107	4013	0.040	8.00
4109	4110	4204	4108	4014	0.040	8.00
4110	4111	4205	4109	4015	0.040	8.00
4111	4112	4206	4110	4016	0.040	8.00
4112	4113	4207	4111	4017	0.040	8.00
4113	0	4208	4112	4018	0.040	8.00
4114	4115	4209	0	4019	0.040	8.00
4115	4116	4210	4114	4020	0.040	8.00
4116	4117	4211	4115	4021	0.040	8.00
4117	4118	4212	4116	4022	0.040	8.00
4118	4119	4213	4117	4023	0.040	8.00
4119	4120	4214	4118	4024	0.040	8.00
4120	4121	4215	4119	4025	0.040	8.00
4121	4122	4216	4120	4026	0.040	8.00
4122	4123	4217	4121	4027	0.040	8.00
4123	4124	4218	4122	4028	0.040	8.00
4124	4125	4219	4123	4029	0.040	8.00
4125	4126	4220	4124	4030	0.040	8.00
4126	4127	4221	4125	4031	0.040	8.00
4127	4128	4222	4126	4032	0.040	8.00
4128	4129	4223	4127	4033	0.040	8.00
4129	4130	4224	4128	4034	0.040	8.00
4130	4131	4225	4129	4035	0.040	8.00
4131	4132	4226	4130	4036	0.040	8.00
4132	4133	4227	4131	4037	0.040	8.00
4133	4134	4228	4132	4038	0.040	8.00
4134	4135	4229	4133	4039	0.040	8.00
4135	4136	4230	4134	4040	0.040	8.00
4136	4137	4231	4135	4041	0.040	8.00
4137	4138	4232	4136	4042	0.040	8.00
4138	4139	4233	4137	4043	0.040	8.00
4139	4140	4234	4138	4044	0.040	8.00
4140	4141	4235	4139	4045	0.040	8.00
4141	4142	4236	4140	4046	0.040	8.00
4142	4143	4237	4141	4047	0.040	8.00
4143	4144	4238	4142	4048	0.040	8.00
4144	4145	4239	4143	4049	0.040	8.00
4145	4146	4240	4144	4050	0.040	8.00
4146	4147	4241	4145	4051	0.040	8.00
4147	4148	4242	4146	4052	0.040	8.00
4148	4149	4243	4147	4053	0.040	8.00
4149	4150	4244	4148	4054	0.040	8.00
4150	4151	4245	4149	4055	0.040	8.00
4151	4152	4246	4150	4056	0.040	8.00
4152	4153	4247	4151	4057	0.040	8.00
4153	4154	4248	4152	4058	0.040	8.00
4154	4155	4249	4153	4059	0.040	8.00
4155	4156	4250	4154	4060	0.040	8.00
4156	4157	4251	4155	4061	0.040	8.00
4157	4158	4252	4156	4062	0.040	8.00
4158	4159	4253	4157	4063	0.040	8.00

				FPLAIN.DAT		
4159	4160	4254	4158	4064	0.040	8.00
4160	4161	4255	4159	4065	0.040	8.00
4161	4162	4256	4160	4066	0.040	8.00
4162	4163	4257	4161	4067	0.040	8.00
4163	4164	4258	4162	4068	0.040	8.00
4164	4165	4259	4163	4069	0.040	8.00
4165	4166	4260	4164	4070	0.040	8.00
4166	4167	4261	4165	4071	0.040	8.00
4167	4168	4262	4166	4072	0.040	8.00
4168	4169	4263	4167	4073	0.040	8.00
4169	4170	4264	4168	4074	0.040	8.00
4170	4171	4265	4169	4075	0.040	8.00
4171	4172	4266	4170	4076	0.040	8.00
4172	4173	4267	4171	4077	0.040	8.00
4173	4174	4268	4172	4078	0.040	8.00
4174	4175	4269	4173	4079	0.040	8.00
4175	4176	4270	4174	4080	0.040	8.00
4176	4177	4271	4175	4081	0.040	8.00
4177	4178	4272	4176	4082	0.040	8.00
4178	4179	4273	4177	4083	0.040	8.00
4179	4180	4274	4178	4084	0.040	8.00
4180	4181	4275	4179	4085	0.040	8.00
4181	4182	4276	4180	4086	0.040	8.00
4182	4183	4277	4181	4087	0.040	8.00
4183	4184	4278	4182	4088	0.040	8.00
4184	4185	4279	4183	4089	0.040	8.00
4185	4186	4280	4184	4090	0.040	8.00
4186	4187	4281	4185	4091	0.040	8.00
4187	4188	4282	4186	4092	0.040	8.00
4188	4189	4283	4187	4093	0.040	8.00
4189	4190	4284	4188	4094	0.040	8.00
4190	4191	4285	4189	4095	0.040	8.00
4191	4192	4286	4190	4096	0.040	8.00
4192	4193	4287	4191	4097	0.040	8.00
4193	4194	4288	4192	4098	0.040	8.00
4194	4195	4289	4193	4099	0.040	8.00
4195	4196	4290	4194	4100	0.040	8.00
4196	4197	4291	4195	4101	0.040	8.00
4197	4198	4292	4196	4102	0.040	8.00
4198	4199	4293	4197	4103	0.040	8.00
4199	4200	4294	4198	4104	0.040	8.00
4200	4201	4295	4199	4105	0.040	8.00
4201	4202	4296	4200	4106	0.040	8.00
4202	4203	4297	4201	4107	0.040	8.00
4203	4204	4298	4202	4108	0.040	8.00
4204	4205	4299	4203	4109	0.040	8.00
4205	4206	4300	4204	4110	0.040	8.00
4206	4207	4301	4205	4111	0.040	8.00
4207	4208	4302	4206	4112	0.040	8.00
4208	0	4303	4207	4113	0.040	8.00
4209	4210	4304	0	4114	0.040	8.00
4210	4211	4305	4209	4115	0.040	8.00
4211	4212	4306	4210	4116	0.040	8.00
4212	4213	4307	4211	4117	0.040	8.00
4213	4214	4308	4212	4118	0.040	8.00
4214	4215	4309	4213	4119	0.040	8.00
4215	4216	4310	4214	4120	0.040	8.00
4216	4217	4311	4215	4121	0.040	8.00
4217	4218	4312	4216	4122	0.040	8.00
4218	4219	4313	4217	4123	0.040	8.00
4219	4220	4314	4218	4124	0.040	8.00
4220	4221	4315	4219	4125	0.040	8.00
4221	4222	4316	4220	4126	0.040	8.00

FPLAIN.DAT					
4222	4223	4317	4221	4127	0.040 8.00
4223	4224	4318	4222	4128	0.040 8.00
4224	4225	4319	4223	4129	0.040 8.00
4225	4226	4320	4224	4130	0.040 8.00
4226	4227	4321	4225	4131	0.040 8.00
4227	4228	4322	4226	4132	0.040 8.00
4228	4229	4323	4227	4133	0.040 8.00
4229	4230	4324	4228	4134	0.040 8.00
4230	4231	4325	4229	4135	0.040 8.00
4231	4232	4326	4230	4136	0.040 8.00
4232	4233	4327	4231	4137	0.040 8.00
4233	4234	4328	4232	4138	0.040 8.00
4234	4235	4329	4233	4139	0.040 8.00
4235	4236	4330	4234	4140	0.040 8.00
4236	4237	4331	4235	4141	0.040 8.00
4237	4238	4332	4236	4142	0.040 8.00
4238	4239	4333	4237	4143	0.040 8.00
4239	4240	4334	4238	4144	0.040 8.00
4240	4241	4335	4239	4145	0.040 8.00
4241	4242	4336	4240	4146	0.040 8.00
4242	4243	4337	4241	4147	0.040 8.00
4243	4244	4338	4242	4148	0.040 8.00
4244	4245	4339	4243	4149	0.040 8.00
4245	4246	4340	4244	4150	0.040 8.00
4246	4247	4341	4245	4151	0.040 8.00
4247	4248	4342	4246	4152	0.040 8.00
4248	4249	4343	4247	4153	0.040 8.00
4249	4250	4344	4248	4154	0.040 8.00
4250	4251	4345	4249	4155	0.040 8.00
4251	4252	4346	4250	4156	0.040 8.00
4252	4253	4347	4251	4157	0.040 8.00
4253	4254	4348	4252	4158	0.040 8.00
4254	4255	4349	4253	4159	0.040 8.00
4255	4256	4350	4254	4160	0.040 8.00
4256	4257	4351	4255	4161	0.040 8.00
4257	4258	4352	4256	4162	0.040 8.00
4258	4259	4353	4257	4163	0.040 8.00
4259	4260	4354	4258	4164	0.040 8.00
4260	4261	4355	4259	4165	0.040 8.00
4261	4262	4356	4260	4166	0.040 8.00
4262	4263	4357	4261	4167	0.040 8.00
4263	4264	4358	4262	4168	0.040 8.00
4264	4265	4359	4263	4169	0.040 8.00
4265	4266	4360	4264	4170	0.040 8.00
4266	4267	4361	4265	4171	0.040 8.00
4267	4268	4362	4266	4172	0.040 8.00
4268	4269	4363	4267	4173	0.040 8.00
4269	4270	4364	4268	4174	0.040 8.00
4270	4271	4365	4269	4175	0.040 8.00
4271	4272	4366	4270	4176	0.040 8.00
4272	4273	4367	4271	4177	0.040 8.00
4273	4274	4368	4272	4178	0.040 8.00
4274	4275	4369	4273	4179	0.040 8.00
4275	4276	4370	4274	4180	0.040 8.00
4276	4277	4371	4275	4181	0.040 8.00
4277	4278	4372	4276	4182	0.040 8.00
4278	4279	4373	4277	4183	0.040 8.00
4279	4280	4374	4278	4184	0.040 8.00
4280	4281	4375	4279	4185	0.040 8.00
4281	4282	4376	4280	4186	0.040 8.00
4282	4283	4377	4281	4187	0.040 8.00
4283	4284	4378	4282	4188	0.040 8.00
4284	4285	4379	4283	4189	0.040 8.00



				FPLAIN.DAT			
4285	4286	4380	4284	4190	0.040	8.00	
4286	4287	4381	4285	4191	0.040	8.00	
4287	4288	4382	4286	4192	0.040	8.00	
4288	4289	4383	4287	4193	0.040	8.00	
4289	4290	4384	4288	4194	0.040	8.00	
4290	4291	4385	4289	4195	0.040	8.00	
4291	4292	4386	4290	4196	0.040	8.00	
4292	4293	4387	4291	4197	0.040	8.00	
4293	4294	4388	4292	4198	0.040	8.00	
4294	4295	4389	4293	4199	0.040	8.00	
4295	4296	4390	4294	4200	0.040	8.00	
4296	4297	4391	4295	4201	0.040	8.00	
4297	4298	4392	4296	4202	0.040	8.00	
4298	4299	4393	4297	4203	0.040	8.00	
4299	4300	4394	4298	4204	0.040	8.00	
4300	4301	4395	4299	4205	0.040	8.00	
4301	4302	4396	4300	4206	0.040	8.00	
4302	4303	4397	4301	4207	0.040	8.00	
4303	0	4398	4302	4208	0.040	8.00	
4304	4305	4399	0	4209	0.040	8.00	
4305	4306	4400	4304	4210	0.040	8.00	
4306	4307	4401	4305	4211	0.040	8.00	
4307	4308	4402	4306	4212	0.040	8.00	
4308	4309	4403	4307	4213	0.040	8.00	
4309	4310	4404	4308	4214	0.040	8.00	
4310	4311	4405	4309	4215	0.040	8.00	
4311	4312	4406	4310	4216	0.040	8.00	
4312	4313	4407	4311	4217	0.040	8.00	
4313	4314	4408	4312	4218	0.040	8.00	
4314	4315	4409	4313	4219	0.040	8.00	
4315	4316	4410	4314	4220	0.040	8.00	
4316	4317	4411	4315	4221	0.040	8.00	
4317	4318	4412	4316	4222	0.040	8.00	
4318	4319	4413	4317	4223	0.040	8.00	
4319	4320	4414	4318	4224	0.040	8.00	
4320	4321	4415	4319	4225	0.040	8.00	
4321	4322	4416	4320	4226	0.040	8.00	
4322	4323	4417	4321	4227	0.040	8.00	
4323	4324	4418	4322	4228	0.040	8.00	
4324	4325	4419	4323	4229	0.040	8.00	
4325	4326	4420	4324	4230	0.040	8.00	
4326	4327	4421	4325	4231	0.040	8.00	
4327	4328	4422	4326	4232	0.040	8.00	
4328	4329	4423	4327	4233	0.040	8.00	
4329	4330	4424	4328	4234	0.040	8.00	
4330	4331	4425	4329	4235	0.040	8.00	
4331	4332	4426	4330	4236	0.040	8.00	
4332	4333	4427	4331	4237	0.040	8.00	
4333	4334	4428	4332	4238	0.040	8.00	
4334	4335	4429	4333	4239	0.040	8.00	
4335	4336	4430	4334	4240	0.040	8.00	
4336	4337	4431	4335	4241	0.040	8.00	
4337	4338	4432	4336	4242	0.040	8.00	
4338	4339	4433	4337	4243	0.040	8.00	
4339	4340	4434	4338	4244	0.040	8.00	
4340	4341	4435	4339	4245	0.040	8.00	
4341	4342	4436	4340	4246	0.040	8.00	
4342	4343	4437	4341	4247	0.040	8.00	
4343	4344	4438	4342	4248	0.040	8.00	
4344	4345	4439	4343	4249	0.040	8.00	
4345	4346	4440	4344	4250	0.040	8.00	
4346	4347	4441	4345	4251	0.040	8.00	
4347	4348	4442	4346	4252	0.040	8.00	



				FPLAIN.DAT		
4348	4349	4443	4347	4253	0.040	8.00
4349	4350	4444	4348	4254	0.040	8.00
4350	4351	4445	4349	4255	0.040	8.00
4351	4352	4446	4350	4256	0.040	8.00
4352	4353	4447	4351	4257	0.040	8.00
4353	4354	4448	4352	4258	0.040	8.00
4354	4355	4449	4353	4259	0.040	8.00
4355	4356	4450	4354	4260	0.040	8.00
4356	4357	4451	4355	4261	0.040	8.00
4357	4358	4452	4356	4262	0.040	8.00
4358	4359	4453	4357	4263	0.040	8.00
4359	4360	4454	4358	4264	0.040	8.00
4360	4361	4455	4359	4265	0.040	8.00
4361	4362	4456	4360	4266	0.040	8.00
4362	4363	4457	4361	4267	0.040	8.00
4363	4364	4458	4362	4268	0.040	8.00
4364	4365	4459	4363	4269	0.040	8.00
4365	4366	4460	4364	4270	0.040	8.00
4366	4367	4461	4365	4271	0.040	8.00
4367	4368	4462	4366	4272	0.040	8.00
4368	4369	4463	4367	4273	0.040	8.00
4369	4370	4464	4368	4274	0.040	8.00
4370	4371	4465	4369	4275	0.040	8.00
4371	4372	4466	4370	4276	0.040	8.00
4372	4373	4467	4371	4277	0.040	8.00
4373	4374	4468	4372	4278	0.040	8.00
4374	4375	4469	4373	4279	0.040	8.00
4375	4376	4470	4374	4280	0.040	8.00
4376	4377	4471	4375	4281	0.040	8.00
4377	4378	4472	4376	4282	0.040	8.00
4378	4379	4473	4377	4283	0.040	8.00
4379	4380	4474	4378	4284	0.040	8.00
4380	4381	4475	4379	4285	0.040	8.00
4381	4382	4476	4380	4286	0.040	8.00
4382	4383	4477	4381	4287	0.040	8.00
4383	4384	4478	4382	4288	0.040	8.00
4384	4385	4479	4383	4289	0.040	8.00
4385	4386	4480	4384	4290	0.040	8.00
4386	4387	4481	4385	4291	0.040	8.00
4387	4388	4482	4386	4292	0.040	8.00
4388	4389	4483	4387	4293	0.040	8.00
4389	4390	4484	4388	4294	0.040	8.00
4390	4391	4485	4389	4295	0.040	8.00
4391	4392	4486	4390	4296	0.040	8.00
4392	4393	4487	4391	4297	0.040	8.00
4393	4394	4488	4392	4298	0.040	8.00
4394	4395	4489	4393	4299	0.040	8.00
4395	4396	4490	4394	4300	0.040	8.00
4396	4397	4491	4395	4301	0.040	8.00
4397	4398	4492	4396	4302	0.040	8.00
4398	0	4493	4397	4303	0.040	8.00
4399	4400	4494	0	4304	0.040	8.00
4400	4401	4495	4399	4305	0.040	8.00
4401	4402	4496	4400	4306	0.040	8.00
4402	4403	4497	4401	4307	0.040	8.00
4403	4404	4498	4402	4308	0.040	8.00
4404	4405	4499	4403	4309	0.040	8.00
4405	4406	4500	4404	4310	0.040	8.00
4406	4407	4501	4405	4311	0.040	8.00
4407	4408	4502	4406	4312	0.040	8.00
4408	4409	4503	4407	4313	0.040	8.00
4409	4410	4504	4408	4314	0.040	8.00
4410	4411	4505	4409	4315	0.040	8.00

FPLAIN.DAT					
4411	4412	4506	4410	4316	0.040 8.00
4412	4413	4507	4411	4317	0.040 8.00
4413	4414	4508	4412	4318	0.040 8.00
4414	4415	4509	4413	4319	0.040 8.00
4415	4416	4510	4414	4320	0.040 8.00
4416	4417	4511	4415	4321	0.040 8.00
4417	4418	4512	4416	4322	0.040 8.00
4418	4419	4513	4417	4323	0.040 8.00
4419	4420	4514	4418	4324	0.040 8.00
4420	4421	4515	4419	4325	0.040 8.00
4421	4422	4516	4420	4326	0.040 8.00
4422	4423	4517	4421	4327	0.040 8.00
4423	4424	4518	4422	4328	0.040 8.00
4424	4425	4519	4423	4329	0.040 8.00
4425	4426	4520	4424	4330	0.040 8.00
4426	4427	4521	4425	4331	0.040 8.00
4427	4428	4522	4426	4332	0.040 8.00
4428	4429	4523	4427	4333	0.040 8.00
4429	4430	4524	4428	4334	0.040 8.00
4430	4431	4525	4429	4335	0.040 8.00
4431	4432	4526	4430	4336	0.040 8.00
4432	4433	4527	4431	4337	0.040 8.00
4433	4434	4528	4432	4338	0.040 8.00
4434	4435	4529	4433	4339	0.040 8.00
4435	4436	4530	4434	4340	0.040 8.00
4436	4437	4531	4435	4341	0.040 8.00
4437	4438	4532	4436	4342	0.040 8.00
4438	4439	4533	4437	4343	0.040 8.00
4439	4440	4534	4438	4344	0.040 8.00
4440	4441	4535	4439	4345	0.040 8.00
4441	4442	4536	4440	4346	0.040 8.00
4442	4443	4537	4441	4347	0.040 8.00
4443	4444	4538	4442	4348	0.040 8.00
4444	4445	4539	4443	4349	0.040 8.00
4445	4446	4540	4444	4350	0.040 8.00
4446	4447	4541	4445	4351	0.040 8.00
4447	4448	4542	4446	4352	0.040 8.00
4448	4449	4543	4447	4353	0.040 8.00
4449	4450	4544	4448	4354	0.040 8.00
4450	4451	4545	4449	4355	0.040 8.00
4451	4452	4546	4450	4356	0.040 8.00
4452	4453	4547	4451	4357	0.040 8.00
4453	4454	4548	4452	4358	0.040 8.00
4454	4455	4549	4453	4359	0.040 8.00
4455	4456	4550	4454	4360	0.040 8.00
4456	4457	4551	4455	4361	0.040 8.00
4457	4458	4552	4456	4362	0.040 8.00
4458	4459	4553	4457	4363	0.040 8.00
4459	4460	4554	4458	4364	0.040 8.00
4460	4461	4555	4459	4365	0.040 8.00
4461	4462	4556	4460	4366	0.040 8.00
4462	4463	4557	4461	4367	0.040 8.00
4463	4464	4558	4462	4368	0.040 8.00
4464	4465	4559	4463	4369	0.040 8.00
4465	4466	4560	4464	4370	0.040 8.00
4466	4467	4561	4465	4371	0.040 8.00
4467	4468	4562	4466	4372	0.040 8.00
4468	4469	4563	4467	4373	0.040 8.00
4469	4470	4564	4468	4374	0.040 8.00
4470	4471	4565	4469	4375	0.040 8.00
4471	4472	4566	4470	4376	0.040 8.00
4472	4473	4567	4471	4377	0.040 8.00
4473	4474	4568	4472	4378	0.040 8.00

FPLAIN.DAT					
4474	4475	4569	4473	4379	0.040 8.00
4475	4476	4570	4474	4380	0.040 8.00
4476	4477	4571	4475	4381	0.040 8.00
4477	4478	4572	4476	4382	0.040 8.00
4478	4479	4573	4477	4383	0.040 8.00
4479	4480	4574	4478	4384	0.040 8.00
4480	4481	4575	4479	4385	0.040 8.00
4481	4482	4576	4480	4386	0.040 8.00
4482	4483	4577	4481	4387	0.040 8.00
4483	4484	4578	4482	4388	0.040 8.00
4484	4485	4579	4483	4389	0.040 8.00
4485	4486	4580	4484	4390	0.040 8.00
4486	4487	4581	4485	4391	0.040 8.00
4487	4488	4582	4486	4392	0.040 8.00
4488	4489	4583	4487	4393	0.040 8.00
4489	4490	4584	4488	4394	0.040 8.00
4490	4491	4585	4489	4395	0.040 8.00
4491	4492	4586	4490	4396	0.040 8.00
4492	4493	4587	4491	4397	0.040 8.00
4493	0	4588	4492	4398	0.040 8.00
4494	4495	4589	0	4399	0.040 8.00
4495	4496	4590	4494	4400	0.040 8.00
4496	4497	4591	4495	4401	0.040 8.00
4497	4498	4592	4496	4402	0.040 8.00
4498	4499	4593	4497	4403	0.040 8.00
4499	4500	4594	4498	4404	0.040 8.00
4500	4501	4595	4499	4405	0.040 8.00
4501	4502	4596	4500	4406	0.040 8.00
4502	4503	4597	4501	4407	0.040 8.00
4503	4504	4598	4502	4408	0.040 8.00
4504	4505	4599	4503	4409	0.040 8.00
4505	4506	4600	4504	4410	0.040 8.00
4506	4507	4601	4505	4411	0.040 8.00
4507	4508	4602	4506	4412	0.040 8.00
4508	4509	4603	4507	4413	0.040 8.00
4509	4510	4604	4508	4414	0.040 8.00
4510	4511	4605	4509	4415	0.040 8.00
4511	4512	4606	4510	4416	0.040 8.00
4512	4513	4607	4511	4417	0.040 8.00
4513	4514	4608	4512	4418	0.040 8.00
4514	4515	4609	4513	4419	0.040 8.00
4515	4516	4610	4514	4420	0.040 8.00
4516	4517	4611	4515	4421	0.040 8.00
4517	4518	4612	4516	4422	0.040 8.00
4518	4519	4613	4517	4423	0.040 8.00
4519	4520	4614	4518	4424	0.040 8.00
4520	4521	4615	4519	4425	0.040 8.00
4521	4522	4616	4520	4426	0.040 8.00
4522	4523	4617	4521	4427	0.040 8.00
4523	4524	4618	4522	4428	0.040 8.00
4524	4525	4619	4523	4429	0.040 8.00
4525	4526	4620	4524	4430	0.040 8.00
4526	4527	4621	4525	4431	0.040 8.00
4527	4528	4622	4526	4432	0.040 8.00
4528	4529	4623	4527	4433	0.040 8.00
4529	4530	4624	4528	4434	0.040 8.00
4530	4531	4625	4529	4435	0.040 8.00
4531	4532	4626	4530	4436	0.040 8.00
4532	4533	4627	4531	4437	0.040 8.00
4533	4534	4628	4532	4438	0.040 8.00
4534	4535	4629	4533	4439	0.040 8.00
4535	4536	4630	4534	4440	0.040 8.00
4536	4537	4631	4535	4441	0.040 8.00

FPLAIN.DAT					
4537	4538	4632	4536	4442	0.040 8.00
4538	4539	4633	4537	4443	0.040 8.00
4539	4540	4634	4538	4444	0.040 8.00
4540	4541	4635	4539	4445	0.040 8.00
4541	4542	4636	4540	4446	0.040 8.00
4542	4543	4637	4541	4447	0.040 8.00
4543	4544	4638	4542	4448	0.040 8.00
4544	4545	4639	4543	4449	0.040 8.00
4545	4546	4640	4544	4450	0.040 8.00
4546	4547	4641	4545	4451	0.040 8.00
4547	4548	4642	4546	4452	0.040 8.00
4548	4549	4643	4547	4453	0.040 8.00
4549	4550	4644	4548	4454	0.040 8.00
4550	4551	4645	4549	4455	0.040 8.00
4551	4552	4646	4550	4456	0.040 8.00
4552	4553	4647	4551	4457	0.040 8.00
4553	4554	4648	4552	4458	0.040 8.00
4554	4555	4649	4553	4459	0.040 8.00
4555	4556	4650	4554	4460	0.040 8.00
4556	4557	4651	4555	4461	0.040 8.00
4557	4558	4652	4556	4462	0.040 8.00
4558	4559	4653	4557	4463	0.040 8.00
4559	4560	4654	4558	4464	0.040 8.00
4560	4561	4655	4559	4465	0.040 8.00
4561	4562	4656	4560	4466	0.040 8.00
4562	4563	4657	4561	4467	0.040 8.00
4563	4564	4658	4562	4468	0.040 8.00
4564	4565	4659	4563	4469	0.040 8.00
4565	4566	4660	4564	4470	0.040 8.00
4566	4567	4661	4565	4471	0.040 8.00
4567	4568	4662	4566	4472	0.040 8.00
4568	4569	4663	4567	4473	0.040 8.00
4569	4570	4664	4568	4474	0.040 8.00
4570	4571	4665	4569	4475	0.040 8.00
4571	4572	4666	4570	4476	0.040 8.00
4572	4573	4667	4571	4477	0.040 8.00
4573	4574	4668	4572	4478	0.040 8.00
4574	4575	4669	4573	4479	0.040 8.00
4575	4576	4670	4574	4480	0.040 8.00
4576	4577	4671	4575	4481	0.040 8.00
4577	4578	4672	4576	4482	0.040 8.00
4578	4579	4673	4577	4483	0.040 8.00
4579	4580	4674	4578	4484	0.040 8.00
4580	4581	4675	4579	4485	0.040 8.00
4581	4582	4676	4580	4486	0.040 8.00
4582	4583	4677	4581	4487	0.040 8.00
4583	4584	4678	4582	4488	0.040 8.00
4584	4585	4679	4583	4489	0.040 8.00
4585	4586	4680	4584	4490	0.040 8.00
4586	4587	4681	4585	4491	0.040 8.00
4587	4588	4682	4586	4492	0.040 8.00
4588	0	4683	4587	4493	0.040 8.00
4589	4590	4684	0	4494	0.040 8.00
4590	4591	4685	4589	4495	0.040 8.00
4591	4592	4686	4590	4496	0.040 8.00
4592	4593	4687	4591	4497	0.040 8.00
4593	4594	4688	4592	4498	0.040 8.00
4594	4595	4689	4593	4499	0.040 8.00
4595	4596	4690	4594	4500	0.040 8.00
4596	4597	4691	4595	4501	0.040 8.00
4597	4598	4692	4596	4502	0.040 8.00
4598	4599	4693	4597	4503	0.040 8.00
4599	4600	4694	4598	4504	0.040 8.00

				FPLAIN.DAT		
4600	4601	4695	4599	4505	0.040	8.00
4601	4602	4696	4600	4506	0.040	8.00
4602	4603	4697	4601	4507	0.040	8.00
4603	4604	4698	4602	4508	0.040	8.00
4604	4605	4699	4603	4509	0.040	8.00
4605	4606	4700	4604	4510	0.040	8.00
4606	4607	4701	4605	4511	0.040	8.00
4607	4608	4702	4606	4512	0.040	8.00
4608	4609	4703	4607	4513	0.040	8.00
4609	4610	4704	4608	4514	0.040	8.00
4610	4611	4705	4609	4515	0.040	8.00
4611	4612	4706	4610	4516	0.040	8.00
4612	4613	4707	4611	4517	0.040	8.00
4613	4614	4708	4612	4518	0.040	8.00
4614	4615	4709	4613	4519	0.040	8.00
4615	4616	4710	4614	4520	0.040	8.00
4616	4617	4711	4615	4521	0.040	8.00
4617	4618	4712	4616	4522	0.040	8.00
4618	4619	4713	4617	4523	0.040	8.00
4619	4620	4714	4618	4524	0.040	8.00
4620	4621	4715	4619	4525	0.040	8.00
4621	4622	4716	4620	4526	0.040	8.00
4622	4623	4717	4621	4527	0.040	8.00
4623	4624	4718	4622	4528	0.040	8.00
4624	4625	4719	4623	4529	0.040	8.00
4625	4626	4720	4624	4530	0.040	8.00
4626	4627	4721	4625	4531	0.040	8.00
4627	4628	4722	4626	4532	0.040	8.00
4628	4629	4723	4627	4533	0.040	8.00
4629	4630	4724	4628	4534	0.040	8.00
4630	4631	4725	4629	4535	0.040	8.00
4631	4632	4726	4630	4536	0.040	8.00
4632	4633	4727	4631	4537	0.040	8.00
4633	4634	4728	4632	4538	0.040	8.00
4634	4635	4729	4633	4539	0.040	8.00
4635	4636	4730	4634	4540	0.040	8.00
4636	4637	4731	4635	4541	0.040	8.00
4637	4638	4732	4636	4542	0.040	8.00
4638	4639	4733	4637	4543	0.040	8.00
4639	4640	4734	4638	4544	0.040	8.00
4640	4641	4735	4639	4545	0.040	8.00
4641	4642	4736	4640	4546	0.040	8.00
4642	4643	4737	4641	4547	0.040	8.00
4643	4644	4738	4642	4548	0.040	8.00
4644	4645	4739	4643	4549	0.040	8.00
4645	4646	4740	4644	4550	0.040	8.00
4646	4647	4741	4645	4551	0.040	8.00
4647	4648	4742	4646	4552	0.040	8.00
4648	4649	4743	4647	4553	0.040	8.00
4649	4650	4744	4648	4554	0.040	8.00
4650	4651	4745	4649	4555	0.040	8.00
4651	4652	4746	4650	4556	0.040	8.00
4652	4653	4747	4651	4557	0.040	8.00
4653	4654	4748	4652	4558	0.040	8.00
4654	4655	4749	4653	4559	0.040	8.00
4655	4656	4750	4654	4560	0.040	8.00
4656	4657	4751	4655	4561	0.040	8.00
4657	4658	4752	4656	4562	0.040	8.00
4658	4659	4753	4657	4563	0.040	8.00
4659	4660	4754	4658	4564	0.040	8.00
4660	4661	4755	4659	4565	0.040	8.00
4661	4662	4756	4660	4566	0.040	8.00
4662	4663	4757	4661	4567	0.040	8.00

				FPLAIN.DAT			
4663	4664	4758	4662	4568	0.040	8.00	
4664	4665	4759	4663	4569	0.040	8.00	
4665	4666	4760	4664	4570	0.040	8.00	
4666	4667	4761	4665	4571	0.040	8.00	
4667	4668	4762	4666	4572	0.040	8.00	
4668	4669	4763	4667	4573	0.040	8.00	
4669	4670	4764	4668	4574	0.040	8.00	
4670	4671	4765	4669	4575	0.040	8.00	
4671	4672	4766	4670	4576	0.040	8.00	
4672	4673	4767	4671	4577	0.040	8.00	
4673	4674	4768	4672	4578	0.040	8.00	
4674	4675	4769	4673	4579	0.040	8.00	
4675	4676	4770	4674	4580	0.040	8.00	
4676	4677	4771	4675	4581	0.040	8.00	
4677	4678	4772	4676	4582	0.040	8.00	
4678	4679	4773	4677	4583	0.040	8.00	
4679	4680	4774	4678	4584	0.040	8.00	
4680	4681	4775	4679	4585	0.040	8.00	
4681	4682	4776	4680	4586	0.040	8.00	
4682	4683	4777	4681	4587	0.040	8.00	
4683	0	4778	4682	4588	0.040	8.00	
4684	4685	4779	0	4589	0.040	8.00	
4685	4686	4780	4684	4590	0.040	8.00	
4686	4687	4781	4685	4591	0.040	8.00	
4687	4688	4782	4686	4592	0.040	8.00	
4688	4689	4783	4687	4593	0.040	8.00	
4689	4690	4784	4688	4594	0.040	8.00	
4690	4691	4785	4689	4595	0.040	8.00	
4691	4692	4786	4690	4596	0.040	8.00	
4692	4693	4787	4691	4597	0.040	8.00	
4693	4694	4788	4692	4598	0.040	8.00	
4694	4695	4789	4693	4599	0.040	8.00	
4695	4696	4790	4694	4600	0.040	8.00	
4696	4697	4791	4695	4601	0.040	8.00	
4697	4698	4792	4696	4602	0.040	8.00	
4698	4699	4793	4697	4603	0.040	8.00	
4699	4700	4794	4698	4604	0.040	8.00	
4700	4701	4795	4699	4605	0.040	8.00	
4701	4702	4796	4700	4606	0.040	8.00	
4702	4703	4797	4701	4607	0.040	8.00	
4703	4704	4798	4702	4608	0.040	8.00	
4704	4705	4799	4703	4609	0.040	8.00	
4705	4706	4800	4704	4610	0.040	8.00	
4706	4707	4801	4705	4611	0.040	8.00	
4707	4708	4802	4706	4612	0.040	8.00	
4708	4709	4803	4707	4613	0.040	8.00	
4709	4710	4804	4708	4614	0.040	8.00	
4710	4711	4805	4709	4615	0.040	8.00	
4711	4712	4806	4710	4616	0.040	8.00	
4712	4713	4807	4711	4617	0.040	8.00	
4713	4714	4808	4712	4618	0.040	8.00	
4714	4715	4809	4713	4619	0.040	8.00	
4715	4716	4810	4714	4620	0.040	8.00	
4716	4717	4811	4715	4621	0.040	8.00	
4717	4718	4812	4716	4622	0.040	8.00	
4718	4719	4813	4717	4623	0.040	8.00	
4719	4720	4814	4718	4624	0.040	8.00	
4720	4721	4815	4719	4625	0.040	8.00	
4721	4722	4816	4720	4626	0.040	8.00	
4722	4723	4817	4721	4627	0.040	8.00	
4723	4724	4818	4722	4628	0.040	8.00	
4724	4725	4819	4723	4629	0.040	8.00	
4725	4726	4820	4724	4630	0.040	8.00	

FPLAIN.DAT					
4726	4727	4821	4725	4631	0.040 8.00
4727	4728	4822	4726	4632	0.040 8.00
4728	4729	4823	4727	4633	0.040 8.00
4729	4730	4824	4728	4634	0.040 8.00
4730	4731	4825	4729	4635	0.040 8.00
4731	4732	4826	4730	4636	0.040 8.00
4732	4733	4827	4731	4637	0.040 8.00
4733	4734	4828	4732	4638	0.040 8.00
4734	4735	4829	4733	4639	0.040 8.00
4735	4736	4830	4734	4640	0.040 8.00
4736	4737	4831	4735	4641	0.040 8.00
4737	4738	4832	4736	4642	0.040 8.00
4738	4739	4833	4737	4643	0.040 8.00
4739	4740	4834	4738	4644	0.040 8.00
4740	4741	4835	4739	4645	0.040 8.00
4741	4742	4836	4740	4646	0.040 8.00
4742	4743	4837	4741	4647	0.040 8.00
4743	4744	4838	4742	4648	0.040 8.00
4744	4745	4839	4743	4649	0.040 8.00
4745	4746	4840	4744	4650	0.040 8.00
4746	4747	4841	4745	4651	0.040 8.00
4747	4748	4842	4746	4652	0.040 8.00
4748	4749	4843	4747	4653	0.040 8.00
4749	4750	4844	4748	4654	0.040 8.00
4750	4751	4845	4749	4655	0.040 8.00
4751	4752	4846	4750	4656	0.040 8.00
4752	4753	4847	4751	4657	0.040 8.00
4753	4754	4848	4752	4658	0.040 8.00
4754	4755	4849	4753	4659	0.040 8.00
4755	4756	4850	4754	4660	0.040 8.00
4756	4757	4851	4755	4661	0.040 8.00
4757	4758	4852	4756	4662	0.040 8.00
4758	4759	4853	4757	4663	0.040 8.00
4759	4760	4854	4758	4664	0.040 8.00
4760	4761	4855	4759	4665	0.040 8.00
4761	4762	4856	4760	4666	0.040 8.00
4762	4763	4857	4761	4667	0.040 8.00
4763	4764	4858	4762	4668	0.040 8.00
4764	4765	4859	4763	4669	0.040 8.00
4765	4766	4860	4764	4670	0.040 8.00
4766	4767	4861	4765	4671	0.040 8.00
4767	4768	4862	4766	4672	0.040 8.00
4768	4769	4863	4767	4673	0.040 8.00
4769	4770	4864	4768	4674	0.040 8.00
4770	4771	4865	4769	4675	0.040 8.00
4771	4772	4866	4770	4676	0.040 8.00
4772	4773	4867	4771	4677	0.040 8.00
4773	4774	4868	4772	4678	0.040 8.00
4774	4775	4869	4773	4679	0.040 8.00
4775	4776	4870	4774	4680	0.040 8.00
4776	4777	4871	4775	4681	0.040 8.00
4777	4778	4872	4776	4682	0.040 8.00
4778	0	4873	4777	4683	0.040 8.00
4779	4780	4874	0	4684	0.040 8.00
4780	4781	4875	4779	4685	0.040 8.00
4781	4782	4876	4780	4686	0.040 8.00
4782	4783	4877	4781	4687	0.040 8.00
4783	4784	4878	4782	4688	0.040 8.00
4784	4785	4879	4783	4689	0.040 8.00
4785	4786	4880	4784	4690	0.040 8.00
4786	4787	4881	4785	4691	0.040 8.00
4787	4788	4882	4786	4692	0.040 8.00
4788	4789	4883	4787	4693	0.040 8.00



FPLAIN.DAT					
4789	4790	4884	4788	4694	0.040 8.00
4790	4791	4885	4789	4695	0.040 8.00
4791	4792	4886	4790	4696	0.040 8.00
4792	4793	4887	4791	4697	0.040 8.00
4793	4794	4888	4792	4698	0.040 8.00
4794	4795	4889	4793	4699	0.040 8.00
4795	4796	4890	4794	4700	0.040 8.00
4796	4797	4891	4795	4701	0.040 8.00
4797	4798	4892	4796	4702	0.040 8.00
4798	4799	4893	4797	4703	0.040 8.00
4799	4800	4894	4798	4704	0.040 8.00
4800	4801	4895	4799	4705	0.040 8.00
4801	4802	4896	4800	4706	0.040 8.00
4802	4803	4897	4801	4707	0.040 8.00
4803	4804	4898	4802	4708	0.040 8.00
4804	4805	4899	4803	4709	0.040 8.00
4805	4806	4900	4804	4710	0.040 8.00
4806	4807	4901	4805	4711	0.040 8.00
4807	4808	4902	4806	4712	0.040 8.00
4808	4809	4903	4807	4713	0.040 8.00
4809	4810	4904	4808	4714	0.040 8.00
4810	4811	4905	4809	4715	0.040 8.00
4811	4812	4906	4810	4716	0.040 8.00
4812	4813	4907	4811	4717	0.040 8.00
4813	4814	4908	4812	4718	0.040 8.00
4814	4815	4909	4813	4719	0.040 8.00
4815	4816	4910	4814	4720	0.040 8.00
4816	4817	4911	4815	4721	0.040 8.00
4817	4818	4912	4816	4722	0.040 8.00
4818	4819	4913	4817	4723	0.040 8.00
4819	4820	4914	4818	4724	0.040 8.00
4820	4821	4915	4819	4725	0.040 8.00
4821	4822	4916	4820	4726	0.040 8.00
4822	4823	4917	4821	4727	0.040 8.00
4823	4824	4918	4822	4728	0.040 8.00
4824	4825	4919	4823	4729	0.040 8.00
4825	4826	4920	4824	4730	0.040 8.00
4826	4827	4921	4825	4731	0.040 8.00
4827	4828	4922	4826	4732	0.040 8.00
4828	4829	4923	4827	4733	0.040 8.00
4829	4830	4924	4828	4734	0.040 8.00
4830	4831	4925	4829	4735	0.040 8.00
4831	4832	4926	4830	4736	0.040 8.00
4832	4833	4927	4831	4737	0.040 8.00
4833	4834	4928	4832	4738	0.040 8.00
4834	4835	4929	4833	4739	0.040 8.00
4835	4836	4930	4834	4740	0.040 8.00
4836	4837	4931	4835	4741	0.040 8.00
4837	4838	4932	4836	4742	0.040 8.00
4838	4839	4933	4837	4743	0.040 8.00
4839	4840	4934	4838	4744	0.040 8.00
4840	4841	4935	4839	4745	0.040 8.00
4841	4842	4936	4840	4746	0.040 8.00
4842	4843	4937	4841	4747	0.040 8.00
4843	4844	4938	4842	4748	0.040 8.00
4844	4845	4939	4843	4749	0.040 8.00
4845	4846	4940	4844	4750	0.040 8.00
4846	4847	4941	4845	4751	0.040 8.00
4847	4848	4942	4846	4752	0.040 8.00
4848	4849	4943	4847	4753	0.040 8.00
4849	4850	4944	4848	4754	0.040 8.00
4850	4851	4945	4849	4755	0.040 8.00
4851	4852	4946	4850	4756	0.040 8.00



				FPLAIN.DAT		
4852	4853	4947	4851	4757	0.040	8.00
4853	4854	4948	4852	4758	0.040	8.00
4854	4855	4949	4853	4759	0.040	8.00
4855	4856	4950	4854	4760	0.040	8.00
4856	4857	4951	4855	4761	0.040	8.00
4857	4858	4952	4856	4762	0.040	8.00
4858	4859	4953	4857	4763	0.040	8.00
4859	4860	4954	4858	4764	0.040	8.00
4860	4861	4955	4859	4765	0.040	8.00
4861	4862	4956	4860	4766	0.040	8.00
4862	4863	4957	4861	4767	0.040	8.00
4863	4864	4958	4862	4768	0.040	8.00
4864	4865	4959	4863	4769	0.040	8.00
4865	4866	4960	4864	4770	0.040	8.00
4866	4867	4961	4865	4771	0.040	8.00
4867	4868	4962	4866	4772	0.040	8.00
4868	4869	4963	4867	4773	0.040	8.00
4869	4870	4964	4868	4774	0.040	8.00
4870	4871	4965	4869	4775	0.040	8.00
4871	4872	4966	4870	4776	0.040	8.00
4872	4873	4967	4871	4777	0.040	8.00
4873	0	4968	4872	4778	0.040	8.00
4874	4875	4969	0	4779	0.040	8.00
4875	4876	4970	4874	4780	0.040	8.00
4876	4877	4971	4875	4781	0.040	8.00
4877	4878	4972	4876	4782	0.040	8.00
4878	4879	4973	4877	4783	0.040	8.00
4879	4880	4974	4878	4784	0.040	8.00
4880	4881	4975	4879	4785	0.040	8.00
4881	4882	4976	4880	4786	0.040	8.00
4882	4883	4977	4881	4787	0.040	8.00
4883	4884	4978	4882	4788	0.040	8.00
4884	4885	4979	4883	4789	0.040	8.00
4885	4886	4980	4884	4790	0.040	8.00
4886	4887	4981	4885	4791	0.040	8.00
4887	4888	4982	4886	4792	0.040	8.00
4888	4889	4983	4887	4793	0.040	8.00
4889	4890	4984	4888	4794	0.040	8.00
4890	4891	4985	4889	4795	0.040	8.00
4891	4892	4986	4890	4796	0.040	8.00
4892	4893	4987	4891	4797	0.040	8.00
4893	4894	4988	4892	4798	0.040	8.00
4894	4895	4989	4893	4799	0.040	8.00
4895	4896	4990	4894	4800	0.040	8.00
4896	4897	4991	4895	4801	0.040	8.00
4897	4898	4992	4896	4802	0.040	8.00
4898	4899	4993	4897	4803	0.040	8.00
4899	4900	4994	4898	4804	0.040	8.00
4900	4901	4995	4899	4805	0.040	8.00
4901	4902	4996	4900	4806	0.040	8.00
4902	4903	4997	4901	4807	0.040	8.00
4903	4904	4998	4902	4808	0.040	8.00
4904	4905	4999	4903	4809	0.040	8.00
4905	4906	5000	4904	4810	0.040	8.00
4906	4907	5001	4905	4811	0.040	8.00
4907	4908	5002	4906	4812	0.040	8.00
4908	4909	5003	4907	4813	0.040	8.00
4909	4910	5004	4908	4814	0.040	8.00
4910	4911	5005	4909	4815	0.040	8.00
4911	4912	5006	4910	4816	0.040	8.00
4912	4913	5007	4911	4817	0.040	8.00
4913	4914	5008	4912	4818	0.040	8.00
4914	4915	5009	4913	4819	0.040	8.00

				FPLAIN.DAT		
4915	4916	5010	4914	4820	0.040	8.00
4916	4917	5011	4915	4821	0.040	8.00
4917	4918	5012	4916	4822	0.040	8.00
4918	4919	5013	4917	4823	0.040	8.00
4919	4920	5014	4918	4824	0.040	8.00
4920	4921	5015	4919	4825	0.040	8.00
4921	4922	5016	4920	4826	0.040	8.00
4922	4923	5017	4921	4827	0.040	8.00
4923	4924	5018	4922	4828	0.040	8.00
4924	4925	5019	4923	4829	0.040	8.00
4925	4926	5020	4924	4830	0.040	8.00
4926	4927	5021	4925	4831	0.040	8.00
4927	4928	5022	4926	4832	0.040	8.00
4928	4929	5023	4927	4833	0.040	8.00
4929	4930	5024	4928	4834	0.040	8.00
4930	4931	5025	4929	4835	0.040	8.00
4931	4932	5026	4930	4836	0.040	8.00
4932	4933	5027	4931	4837	0.040	8.00
4933	4934	5028	4932	4838	0.040	8.00
4934	4935	5029	4933	4839	0.040	8.00
4935	4936	5030	4934	4840	0.040	8.00
4936	4937	5031	4935	4841	0.040	8.00
4937	4938	5032	4936	4842	0.040	8.00
4938	4939	5033	4937	4843	0.040	8.00
4939	4940	5034	4938	4844	0.040	8.00
4940	4941	5035	4939	4845	0.040	8.00
4941	4942	5036	4940	4846	0.040	8.00
4942	4943	5037	4941	4847	0.040	8.00
4943	4944	5038	4942	4848	0.040	8.00
4944	4945	5039	4943	4849	0.040	8.00
4945	4946	5040	4944	4850	0.040	8.00
4946	4947	5041	4945	4851	0.040	8.00
4947	4948	5042	4946	4852	0.040	8.00
4948	4949	5043	4947	4853	0.040	8.00
4949	4950	5044	4948	4854	0.040	8.00
4950	4951	5045	4949	4855	0.040	8.00
4951	4952	5046	4950	4856	0.040	8.00
4952	4953	5047	4951	4857	0.040	8.00
4953	4954	5048	4952	4858	0.040	8.00
4954	4955	5049	4953	4859	0.040	8.00
4955	4956	5050	4954	4860	0.040	8.00
4956	4957	5051	4955	4861	0.040	8.00
4957	4958	5052	4956	4862	0.040	8.00
4958	4959	5053	4957	4863	0.040	8.00
4959	4960	5054	4958	4864	0.040	8.00
4960	4961	5055	4959	4865	0.040	8.00
4961	4962	5056	4960	4866	0.040	8.00
4962	4963	5057	4961	4867	0.040	8.00
4963	4964	5058	4962	4868	0.040	8.00
4964	4965	5059	4963	4869	0.040	8.00
4965	4966	5060	4964	4870	0.040	8.00
4966	4967	5061	4965	4871	0.040	8.00
4967	4968	5062	4966	4872	0.040	8.00
4968	0	5063	4967	4873	0.040	8.00
4969	4970	5064	0	4874	0.040	8.00
4970	4971	5065	4969	4875	0.040	8.00
4971	4972	5066	4970	4876	0.040	8.00
4972	4973	5067	4971	4877	0.040	8.00
4973	4974	5068	4972	4878	0.040	8.00
4974	4975	5069	4973	4879	0.040	8.00
4975	4976	5070	4974	4880	0.040	8.00
4976	4977	5071	4975	4881	0.040	8.00
4977	4978	5072	4976	4882	0.040	8.00

				FPLAIN.DAT		
4978	4979	5073	4977	4883	0.040	8.00
4979	4980	5074	4978	4884	0.040	8.00
4980	4981	5075	4979	4885	0.040	8.00
4981	4982	5076	4980	4886	0.040	8.00
4982	4983	5077	4981	4887	0.040	8.00
4983	4984	5078	4982	4888	0.040	8.00
4984	4985	5079	4983	4889	0.040	8.00
4985	4986	5080	4984	4890	0.040	8.00
4986	4987	5081	4985	4891	0.040	8.00
4987	4988	5082	4986	4892	0.040	8.00
4988	4989	5083	4987	4893	0.040	8.00
4989	4990	5084	4988	4894	0.040	8.00
4990	4991	5085	4989	4895	0.040	8.00
4991	4992	5086	4990	4896	0.040	8.00
4992	4993	5087	4991	4897	0.040	8.00
4993	4994	5088	4992	4898	0.040	8.00
4994	4995	5089	4993	4899	0.040	8.00
4995	4996	5090	4994	4900	0.040	8.00
4996	4997	5091	4995	4901	0.040	8.00
4997	4998	5092	4996	4902	0.040	8.00
4998	4999	5093	4997	4903	0.040	8.00
4999	5000	5094	4998	4904	0.040	8.00
5000	5001	5095	4999	4905	0.040	8.00
5001	5002	5096	5000	4906	0.040	8.00
5002	5003	5097	5001	4907	0.040	8.00
5003	5004	5098	5002	4908	0.040	8.00
5004	5005	5099	5003	4909	0.040	8.00
5005	5006	5100	5004	4910	0.040	8.00
5006	5007	5101	5005	4911	0.040	8.00
5007	5008	5102	5006	4912	0.040	8.00
5008	5009	5103	5007	4913	0.040	8.00
5009	5010	5104	5008	4914	0.040	8.00
5010	5011	5105	5009	4915	0.040	8.00
5011	5012	5106	5010	4916	0.040	8.00
5012	5013	5107	5011	4917	0.040	8.00
5013	5014	5108	5012	4918	0.040	8.00
5014	5015	5109	5013	4919	0.040	8.00
5015	5016	5110	5014	4920	0.040	8.00
5016	5017	5111	5015	4921	0.040	8.00
5017	5018	5112	5016	4922	0.040	8.00
5018	5019	5113	5017	4923	0.040	8.00
5019	5020	5114	5018	4924	0.040	8.00
5020	5021	5115	5019	4925	0.040	8.00
5021	5022	5116	5020	4926	0.040	8.00
5022	5023	5117	5021	4927	0.040	8.00
5023	5024	5118	5022	4928	0.040	8.00
5024	5025	5119	5023	4929	0.040	8.00
5025	5026	5120	5024	4930	0.040	8.00
5026	5027	5121	5025	4931	0.040	8.00
5027	5028	5122	5026	4932	0.040	8.00
5028	5029	5123	5027	4933	0.040	8.00
5029	5030	5124	5028	4934	0.040	8.00
5030	5031	5125	5029	4935	0.040	8.00
5031	5032	5126	5030	4936	0.040	8.00
5032	5033	5127	5031	4937	0.040	8.00
5033	5034	5128	5032	4938	0.040	8.00
5034	5035	5129	5033	4939	0.040	8.00
5035	5036	5130	5034	4940	0.040	8.00
5036	5037	5131	5035	4941	0.040	8.00
5037	5038	5132	5036	4942	0.040	8.00
5038	5039	5133	5037	4943	0.040	8.00
5039	5040	5134	5038	4944	0.040	8.00
5040	5041	5135	5039	4945	0.040	8.00

				FPLAIN.DAT		
5041	5042	5136	5040	4946	0.040	8.00
5042	5043	5137	5041	4947	0.040	8.00
5043	5044	5138	5042	4948	0.040	8.00
5044	5045	5139	5043	4949	0.040	8.00
5045	5046	5140	5044	4950	0.040	8.00
5046	5047	5141	5045	4951	0.040	8.00
5047	5048	5142	5046	4952	0.040	8.00
5048	5049	5143	5047	4953	0.040	8.00
5049	5050	5144	5048	4954	0.040	8.00
5050	5051	5145	5049	4955	0.040	8.00
5051	5052	5146	5050	4956	0.040	8.00
5052	5053	5147	5051	4957	0.040	8.00
5053	5054	5148	5052	4958	0.040	8.00
5054	5055	5149	5053	4959	0.040	8.00
5055	5056	5150	5054	4960	0.040	8.00
5056	5057	5151	5055	4961	0.040	8.00
5057	5058	5152	5056	4962	0.040	8.00
5058	5059	5153	5057	4963	0.040	8.00
5059	5060	5154	5058	4964	0.040	8.00
5060	5061	5155	5059	4965	0.040	8.00
5061	5062	5156	5060	4966	0.040	8.00
5062	5063	5157	5061	4967	0.040	8.00
5063	0	5158	5062	4968	0.040	8.00
5064	5065	5159	0	4969	0.040	8.00
5065	5066	5160	5064	4970	0.040	8.00
5066	5067	5161	5065	4971	0.040	8.00
5067	5068	5162	5066	4972	0.040	8.00
5068	5069	5163	5067	4973	0.040	8.00
5069	5070	5164	5068	4974	0.040	8.00
5070	5071	5165	5069	4975	0.040	8.00
5071	5072	5166	5070	4976	0.040	8.00
5072	5073	5167	5071	4977	0.040	8.00
5073	5074	5168	5072	4978	0.040	8.00
5074	5075	5169	5073	4979	0.040	8.00
5075	5076	5170	5074	4980	0.040	8.00
5076	5077	5171	5075	4981	0.040	8.00
5077	5078	5172	5076	4982	0.040	8.00
5078	5079	5173	5077	4983	0.040	8.00
5079	5080	5174	5078	4984	0.040	8.00
5080	5081	5175	5079	4985	0.040	8.00
5081	5082	5176	5080	4986	0.040	8.00
5082	5083	5177	5081	4987	0.040	8.00
5083	5084	5178	5082	4988	0.040	8.00
5084	5085	5179	5083	4989	0.040	8.00
5085	5086	5180	5084	4990	0.040	8.00
5086	5087	5181	5085	4991	0.040	8.00
5087	5088	5182	5086	4992	0.040	8.00
5088	5089	5183	5087	4993	0.040	8.00
5089	5090	5184	5088	4994	0.040	8.00
5090	5091	5185	5089	4995	0.040	8.00
5091	5092	5186	5090	4996	0.040	8.00
5092	5093	5187	5091	4997	0.040	8.00
5093	5094	5188	5092	4998	0.040	8.00
5094	5095	5189	5093	4999	0.040	8.00
5095	5096	5190	5094	5000	0.040	8.00
5096	5097	5191	5095	5001	0.040	8.00
5097	5098	5192	5096	5002	0.040	8.00
5098	5099	5193	5097	5003	0.040	8.00
5099	5100	5194	5098	5004	0.040	8.00
5100	5101	5195	5099	5005	0.040	8.00
5101	5102	5196	5100	5006	0.040	8.00
5102	5103	5197	5101	5007	0.040	8.00
5103	5104	5198	5102	5008	0.040	8.00

FPLAIN.DAT					
5104	5105	5199	5103	5009	0.040 8.00
5105	5106	5200	5104	5010	0.040 8.00
5106	5107	5201	5105	5011	0.040 8.00
5107	5108	5202	5106	5012	0.040 8.00
5108	5109	5203	5107	5013	0.040 8.00
5109	5110	5204	5108	5014	0.040 8.00
5110	5111	5205	5109	5015	0.040 8.00
5111	5112	5206	5110	5016	0.040 8.00
5112	5113	5207	5111	5017	0.040 8.00
5113	5114	5208	5112	5018	0.040 8.00
5114	5115	5209	5113	5019	0.040 8.00
5115	5116	5210	5114	5020	0.040 8.00
5116	5117	5211	5115	5021	0.040 8.00
5117	5118	5212	5116	5022	0.040 8.00
5118	5119	5213	5117	5023	0.040 8.00
5119	5120	5214	5118	5024	0.040 8.00
5120	5121	5215	5119	5025	0.040 8.00
5121	5122	5216	5120	5026	0.040 8.00
5122	5123	0	5121	5027	0.040 8.00
5123	5124	0	5122	5028	0.040 8.00
5124	5125	0	5123	5029	0.040 8.00
5125	5126	0	5124	5030	0.040 8.00
5126	5127	0	5125	5031	0.040 8.00
5127	5128	0	5126	5032	0.040 8.00
5128	5129	0	5127	5033	0.040 8.00
5129	5130	0	5128	5034	0.040 8.00
5130	5131	0	5129	5035	0.040 8.00
5131	5132	0	5130	5036	0.040 8.00
5132	5133	0	5131	5037	0.040 8.00
5133	5134	0	5132	5038	0.040 8.00
5134	5135	0	5133	5039	0.040 8.00
5135	5136	0	5134	5040	0.040 8.00
5136	5137	0	5135	5041	0.040 8.00
5137	5138	0	5136	5042	0.040 8.00
5138	5139	0	5137	5043	0.040 8.00
5139	5140	0	5138	5044	0.040 8.00
5140	5141	0	5139	5045	0.040 8.00
5141	5142	0	5140	5046	0.040 8.00
5142	5143	0	5141	5047	0.040 8.00
5143	5144	0	5142	5048	0.040 8.00
5144	5145	0	5143	5049	0.040 8.00
5145	5146	0	5144	5050	0.040 8.00
5146	5147	0	5145	5051	0.040 8.00
5147	5148	0	5146	5052	0.040 8.00
5148	5149	0	5147	5053	0.040 8.00
5149	5150	0	5148	5054	0.040 8.00
5150	5151	0	5149	5055	0.040 8.00
5151	5152	0	5150	5056	0.040 8.00
5152	5153	0	5151	5057	0.040 8.00
5153	5154	0	5152	5058	0.040 8.00
5154	5155	0	5153	5059	0.040 8.00
5155	5156	0	5154	5060	0.040 8.00
5156	5157	0	5155	5061	0.040 8.00
5157	5158	0	5156	5062	0.040 8.00
5158	0	0	5157	5063	0.040 8.00
5159	5160	0	0	5064	0.040 8.00
5160	5161	0	5159	5065	0.040 8.00
5161	5162	0	5160	5066	0.040 8.00
5162	5163	0	5161	5067	0.040 8.00
5163	5164	0	5162	5068	0.040 8.00
5164	5165	0	5163	5069	0.040 8.00
5165	5166	0	5164	5070	0.040 8.00
5166	5167	0	5165	5071	0.040 8.00

			FPLAIN.DAT			
5167	5168	0	5166	5072	0.040	8.00
5168	5169	0	5167	5073	0.040	8.00
5169	5170	0	5168	5074	0.040	8.00
5170	5171	0	5169	5075	0.040	8.00
5171	5172	0	5170	5076	0.040	8.00
5172	5173	0	5171	5077	0.040	8.00
5173	5174	0	5172	5078	0.040	8.00
5174	5175	0	5173	5079	0.040	8.00
5175	5176	0	5174	5080	0.040	8.00
5176	5177	0	5175	5081	0.040	8.00
5177	5178	0	5176	5082	0.040	8.00
5178	5179	0	5177	5083	0.040	8.00
5179	5180	0	5178	5084	0.040	8.00
5180	5181	0	5179	5085	0.040	8.00
5181	5182	0	5180	5086	0.040	8.00
5182	5183	0	5181	5087	0.040	8.00
5183	5184	0	5182	5088	0.040	8.00
5184	5185	0	5183	5089	0.040	8.00
5185	5186	0	5184	5090	0.040	8.00
5186	5187	0	5185	5091	0.040	8.00
5187	5188	0	5186	5092	0.040	8.00
5188	5189	0	5187	5093	0.040	8.00
5189	5190	0	5188	5094	0.040	8.00
5190	5191	0	5189	5095	0.040	8.00
5191	5192	0	5190	5096	0.040	8.00
5192	5193	0	5191	5097	0.040	8.00
5193	5194	0	5192	5098	0.040	8.00
5194	5195	0	5193	5099	0.040	8.00
5195	5196	0	5194	5100	0.040	8.00
5196	5197	0	5195	5101	0.040	8.00
5197	5198	0	5196	5102	0.040	8.00
5198	5199	0	5197	5103	0.040	8.00
5199	5200	0	5198	5104	0.040	8.00
5200	5201	0	5199	5105	0.040	8.00
5201	5202	0	5200	5106	0.040	8.00
5202	5203	0	5201	5107	0.040	8.00
5203	5204	0	5202	5108	0.040	8.00
5204	5205	0	5203	5109	0.040	8.00
5205	5206	0	5204	5110	0.040	8.00
5206	5207	0	5205	5111	0.040	8.00
5207	5208	0	5206	5112	0.040	8.00
5208	5209	0	5207	5113	0.040	8.00
5209	5210	0	5208	5114	0.040	8.00
5210	5211	0	5209	5115	0.040	8.00
5211	5212	0	5210	5116	0.040	8.00
5212	5213	0	5211	5117	0.040	8.00
5213	5214	0	5212	5118	0.040	8.00
5214	5215	0	5213	5119	0.040	8.00
5215	5216	0	5214	5120	0.040	8.00
5216	0	0	5215	5121	0.040	8.00

## TOPO.DAT

1010.00	1705.00	8.00
1010.00	1715.00	8.00
1010.00	1725.00	8.00
1010.00	1735.00	8.00
1010.00	1745.00	8.00
1010.00	1755.00	8.00
1010.00	1765.00	8.00
1010.00	1775.00	8.00
1010.00	1785.00	8.00
1010.00	1795.00	8.00
1010.00	1805.00	8.00
1010.00	1815.00	8.00
1010.00	1825.00	8.00
1010.00	1835.00	8.00
1010.00	1845.00	8.00
1010.00	1855.00	8.00
1010.00	1865.00	8.00
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1010.00	1885.00	8.00
1010.00	1895.00	8.00
1010.00	1905.00	8.00
1010.00	1915.00	8.00
1010.00	1925.00	8.00
1010.00	1935.00	8.00
1010.00	1945.00	8.00
1010.00	1955.00	8.00
1010.00	1965.00	8.00
1010.00	1975.00	8.00
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1020.00	1085.00	8.00
1020.00	1095.00	8.00
1020.00	1105.00	8.00
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1020.00	1165.00	8.00
1020.00	1175.00	8.00
1020.00	1185.00	8.00
1020.00	1195.00	8.00
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1020.00	1215.00	8.00
1020.00	1225.00	8.00
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1020.00	1245.00	8.00
1020.00	1255.00	8.00
1020.00	1265.00	8.00
1020.00	1275.00	8.00
1020.00	1285.00	8.00
1020.00	1295.00	8.00
1020.00	1305.00	8.00
1020.00	1315.00	8.00
1020.00	1325.00	8.00
1020.00	1335.00	8.00
1020.00	1345.00	8.00
1020.00	1355.00	8.00
1020.00	1365.00	8.00
1020.00	1375.00	8.00

## TOPO.DAT

1020.00	1385.00	8.00
1020.00	1395.00	8.00
1020.00	1405.00	8.00
1020.00	1415.00	8.00
1020.00	1425.00	8.00
1020.00	1435.00	0.10
1020.00	1445.00	0.10
1020.00	1455.00	0.10
1020.00	1465.00	0.10
1020.00	1475.00	0.10
1020.00	1485.00	0.10
1020.00	1495.00	0.10
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1020.00	1625.00	0.10
1020.00	1635.00	0.10
1020.00	1645.00	0.10
1020.00	1655.00	0.10
1020.00	1665.00	8.00
1020.00	1675.00	8.00
1020.00	1685.00	8.00
1020.00	1695.00	8.00
1020.00	1705.00	8.00
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1020.00	1725.00	8.00
1020.00	1735.00	8.00
1020.00	1745.00	8.00
1020.00	1755.00	8.00
1020.00	1765.00	8.00
1020.00	1775.00	8.00
1020.00	1785.00	8.00
1020.00	1795.00	8.00
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1020.00	1815.00	8.00
1020.00	1825.00	8.00
1020.00	1835.00	8.00
1020.00	1845.00	8.00
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1020.00	1885.00	8.00
1020.00	1895.00	8.00
1020.00	1905.00	8.00
1020.00	1915.00	8.00
1020.00	1925.00	8.00
1020.00	1935.00	8.00
1020.00	1945.00	8.00
1020.00	1955.00	8.00
1020.00	1965.00	8.00
1020.00	1975.00	8.00
1030.00	1035.00	8.00
1030.00	1045.00	8.00
1030.00	1055.00	8.00



## TOPO.DAT

1030.00	1065.00	8.00
1030.00	1075.00	8.00
1030.00	1085.00	8.00
1030.00	1095.00	8.00
1030.00	1105.00	8.00
1030.00	1115.00	8.00
1030.00	1125.00	8.00
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1030.00	1155.00	8.00
1030.00	1165.00	8.00
1030.00	1175.00	8.00
1030.00	1185.00	8.00
1030.00	1195.00	8.00
1030.00	1205.00	8.00
1030.00	1215.00	8.00
1030.00	1225.00	8.00
1030.00	1235.00	8.00
1030.00	1245.00	8.00
1030.00	1255.00	8.00
1030.00	1265.00	8.00
1030.00	1275.00	8.00
1030.00	1285.00	8.00
1030.00	1295.00	8.00
1030.00	1305.00	8.00
1030.00	1315.00	8.00
1030.00	1325.00	8.00
1030.00	1335.00	8.00
1030.00	1345.00	8.00
1030.00	1355.00	8.00
1030.00	1365.00	8.00
1030.00	1375.00	8.00
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1030.00	1395.00	8.00
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1030.00	1415.00	8.00
1030.00	1425.00	8.00
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1030.00	1445.00	0.10
1030.00	1455.00	0.10
1030.00	1465.00	0.10
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1030.00	1485.00	0.10
1030.00	1495.00	0.10
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1030.00	1515.00	0.10
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1030.00	1535.00	0.10
1030.00	1545.00	0.10
1030.00	1555.00	0.10
1030.00	1565.00	0.10
1030.00	1575.00	0.10
1030.00	1585.00	0.10
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1030.00	1685.00	8.00

## TOPO.DAT

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## TOPO.DAT

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1090.00	1395.00	8.00
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1090.00	1645.00	0.10
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## TOPO.DAT

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1090.00	1685.00	8.00
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1090.00	1895.00	8.00
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1090.00	1925.00	8.00
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1090.00	1965.00	8.00
1090.00	1975.00	8.00
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1100.00	1295.00	8.00
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1100.00	1315.00	8.00
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1100.00	1335.00	8.00

## TOPO.DAT

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1100.00	1365.00	8.00
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1100.00	1395.00	8.00
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1100.00	1475.00	0.10
1100.00	1485.00	0.10
1100.00	1495.00	0.10
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1100.00	1915.00	8.00
1100.00	1925.00	8.00
1100.00	1935.00	8.00
1100.00	1945.00	8.00
1100.00	1955.00	8.00
1100.00	1965.00	8.00

## TOPO.DAT

1100.00	1975.00	8.00
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## TOPO.DAT

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1120.00	1325.00	8.00

## TOPO.DAT

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1120.00	1905.00	8.00
1120.00	1915.00	8.00
1120.00	1925.00	8.00
1120.00	1935.00	8.00
1120.00	1945.00	8.00
1120.00	1955.00	8.00

## TOPO.DAT

1120.00	1965.00	8.00
1120.00	1975.00	8.00
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## TOPO.DAT

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1140.00	1295.00	8.00
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## TOPO.DAT

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1140.00	1905.00	8.00
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1140.00	1925.00	8.00
1140.00	1935.00	8.00
1140.00	1945.00	8.00

## TOPO.DAT

1140.00	1955.00	8.00
1140.00	1965.00	8.00
1140.00	1975.00	8.00
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## TOPO.DAT

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1160.00	1925.00	8.00
1160.00	1935.00	8.00

## TOPO.DAT

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1160.00	1975.00	8.00
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## TOPO.DAT

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1180.00	1915.00	8.00
1180.00	1925.00	8.00



## TOPO.DAT

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1180.00	1965.00	8.00
1180.00	1975.00	8.00
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## TOPO.DAT

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1200.00	1285.00	20.00

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1200.00	1885.00	9.40
1200.00	1895.00	20.00
1200.00	1905.00	20.00
1200.00	1915.00	8.00

## TOPO.DAT

1200.00	1925.00	8.00
1200.00	1935.00	8.00
1200.00	1945.00	8.00
1200.00	1955.00	8.00
1200.00	1965.00	8.00
1200.00	1975.00	8.00
1210.00	1035.00	8.00
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1210.00	1075.00	8.00
1210.00	1085.00	8.00
1210.00	1095.00	8.00
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1210.00	1175.00	8.00
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1210.00	1495.00	0.10
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1210.00	1585.00	0.10
1210.00	1595.00	0.10

## TOPO.DAT

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1210.00	1925.00	8.00
1210.00	1935.00	8.00
1210.00	1945.00	8.00
1210.00	1955.00	8.00
1210.00	1965.00	8.00
1210.00	1975.00	8.00
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1220.00	1265.00	9.20
1220.00	1275.00	9.20

## TOPO.DAT

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1220.00	1295.00	9.20
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1220.00	1315.00	20.00
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1220.00	1905.00	20.00

## TOPO.DAT

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1220.00	1935.00	8.00
1220.00	1945.00	8.00
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1220.00	1965.00	8.00
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## TOPO.DAT

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## TOPO.DAT

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1240.00	1295.00	8.80
1240.00	1305.00	20.00
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1240.00	1895.00	20.00

## TOPO.DAT

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1240.00	1925.00	8.00
1240.00	1935.00	8.00
1240.00	1945.00	8.00
1240.00	1955.00	8.00
1240.00	1965.00	8.00
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## TOPO.DAT

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1260.00	1675.00	8.00
1260.00	1685.00	8.00
1260.00	1695.00	8.00
1260.00	1705.00	8.00
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1260.00	1765.00	8.00
1260.00	1775.00	8.00
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1260.00	1845.00	8.20
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1260.00	1875.00	8.60
1260.00	1885.00	8.80

## TOPO.DAT

1260.00	1895.00	20.00
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1260.00	1925.00	8.00
1260.00	1935.00	8.00
1260.00	1945.00	8.00
1260.00	1955.00	8.00
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1260.00	1975.00	8.00
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1270.00	1075.00	8.00
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1270.00	1175.00	8.00
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1270.00	1195.00	20.00
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1270.00	1225.00	8.60
1270.00	1235.00	8.40
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1270.00	1305.00	20.00
1270.00	1315.00	20.00
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1270.00	1505.00	0.10
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1270.00	1535.00	0.10
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1270.00	1555.00	0.10
1270.00	1565.00	0.10

## TOPO.DAT

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1270.00	1625.00	0.10
1270.00	1635.00	0.10
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1270.00	1685.00	8.00
1270.00	1695.00	8.00
1270.00	1705.00	8.00
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1270.00	1805.00	8.80
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1270.00	1875.00	8.60
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1270.00	1895.00	20.00
1270.00	1905.00	20.00
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1280.00	1195.00	20.00
1280.00	1205.00	20.00
1280.00	1215.00	8.80
1280.00	1225.00	8.60
1280.00	1235.00	8.40
1280.00	1245.00	8.20

## TOPO.DAT

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1280.00	1285.00	8.60
1280.00	1295.00	8.80
1280.00	1305.00	20.00
1280.00	1315.00	20.00
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1280.00	1475.00	0.10
1280.00	1485.00	0.10
1280.00	1495.00	0.10
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1280.00	1675.00	8.00
1280.00	1685.00	8.00
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1280.00	1705.00	8.00
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1280.00	1875.00	8.60

## TOPO.DAT

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1280.00	1925.00	8.00
1280.00	1935.00	8.00
1280.00	1945.00	8.00
1280.00	1955.00	8.00
1280.00	1965.00	8.00
1280.00	1975.00	8.00
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1290.00	1045.00	8.00
1290.00	1055.00	8.00
1290.00	1065.00	8.00
1290.00	1075.00	8.00
1290.00	1085.00	8.00
1290.00	1095.00	8.00
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1290.00	1315.00	20.00
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1290.00	1555.00	0.10



## TOPO.DAT

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1290.00	1595.00	0.10
1290.00	1605.00	0.10
1290.00	1615.00	0.10
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1290.00	1675.00	8.00
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1290.00	1695.00	8.00
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1290.00	1795.00	20.00
1290.00	1805.00	8.80
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1290.00	1895.00	20.00
1290.00	1905.00	20.00
1290.00	1915.00	8.00
1290.00	1925.00	8.00
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1290.00	1945.00	8.00
1290.00	1955.00	8.00
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1300.00	1185.00	8.00
1300.00	1195.00	20.00
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1300.00	1215.00	8.80
1300.00	1225.00	8.60
1300.00	1235.00	8.40

## TOPO.DAT

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1300.00	1265.00	8.40
1300.00	1275.00	8.40
1300.00	1285.00	8.60
1300.00	1295.00	8.80
1300.00	1305.00	20.00
1300.00	1315.00	20.00
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1300.00	1355.00	8.00
1300.00	1365.00	8.00
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1300.00	1475.00	0.10
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1300.00	1495.00	0.10
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1300.00	1625.00	0.10
1300.00	1635.00	0.10
1300.00	1645.00	0.10
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1300.00	1675.00	8.00
1300.00	1685.00	8.00
1300.00	1695.00	8.00
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1300.00	1725.00	8.00
1300.00	1735.00	8.00
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1300.00	1775.00	8.00
1300.00	1785.00	20.00
1300.00	1795.00	20.00
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1300.00	1815.00	8.60
1300.00	1825.00	8.60
1300.00	1835.00	8.60
1300.00	1845.00	8.60
1300.00	1855.00	8.60
1300.00	1865.00	8.60

## TOPO.DAT

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1300.00	1905.00	20.00
1300.00	1915.00	8.00
1300.00	1925.00	8.00
1300.00	1935.00	8.00
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1300.00	1965.00	8.00
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1310.00	1535.00	0.10
1310.00	1545.00	0.10

## TOPO.DAT

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1310.00	1935.00	8.00
1310.00	1945.00	8.00
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1310.00	1965.00	8.00
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1320.00	1175.00	8.00
1320.00	1185.00	8.00
1320.00	1195.00	20.00
1320.00	1205.00	20.00
1320.00	1215.00	8.80
1320.00	1225.00	8.80

## TOPO.DAT

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1490.00	1415.00	8.00
1490.00	1425.00	8.00
1490.00	1435.00	8.00
1490.00	1445.00	8.00
1490.00	1455.00	8.00

## TOPO.DAT

1490.00	1465.00	8.00
1490.00	1475.00	8.00
1490.00	1485.00	8.00
1490.00	1495.00	8.00
1490.00	1505.00	8.00
1490.00	1515.00	8.00
1490.00	1525.00	8.00
1490.00	1535.00	8.00
1490.00	1545.00	8.00
1490.00	1555.00	8.00
1490.00	1565.00	8.00
1490.00	1575.00	8.00
1490.00	1585.00	8.00
1490.00	1595.00	8.00
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1490.00	1645.00	8.00
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1490.00	1665.00	8.00
1490.00	1675.00	8.00
1490.00	1685.00	8.00
1490.00	1695.00	8.00
1490.00	1705.00	8.00
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1490.00	1755.00	8.00
1490.00	1765.00	8.00
1490.00	1775.00	8.00
1490.00	1785.00	8.00
1490.00	1795.00	8.00
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1490.00	1875.00	8.00
1490.00	1885.00	8.00
1490.00	1895.00	8.00
1490.00	1905.00	8.00
1490.00	1915.00	8.00
1490.00	1925.00	8.00
1490.00	1935.00	8.00
1490.00	1945.00	8.00
1490.00	1955.00	8.00
1490.00	1965.00	8.00
1490.00	1975.00	8.00
1500.00	1035.00	8.00
1500.00	1045.00	8.00
1500.00	1055.00	8.00
1500.00	1065.00	8.00
1500.00	1075.00	8.00
1500.00	1085.00	8.00
1500.00	1095.00	8.00
1500.00	1105.00	8.00
1500.00	1115.00	8.00
1500.00	1125.00	8.00
1500.00	1135.00	8.00

## TOPO.DAT

1500.00	1145.00	8.00
1500.00	1155.00	8.00
1500.00	1165.00	8.00
1500.00	1175.00	8.00
1500.00	1185.00	8.00
1500.00	1195.00	8.00
1500.00	1205.00	8.00
1500.00	1215.00	8.00
1500.00	1225.00	8.00
1500.00	1235.00	8.00
1500.00	1245.00	8.00
1500.00	1255.00	8.00
1500.00	1265.00	8.00
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1500.00	1345.00	8.00
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1500.00	1365.00	8.00
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1500.00	1555.00	8.00
1500.00	1565.00	8.00
1500.00	1575.00	8.00
1500.00	1585.00	8.00
1500.00	1595.00	8.00
1500.00	1605.00	8.00
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1500.00	1635.00	8.00
1500.00	1645.00	8.00
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1500.00	1665.00	8.00
1500.00	1675.00	8.00
1500.00	1685.00	8.00
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1500.00	1705.00	8.00
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1500.00	1725.00	8.00
1500.00	1735.00	8.00
1500.00	1745.00	8.00
1500.00	1755.00	8.00
1500.00	1765.00	8.00



## TOPO.DAT

1500.00	1775.00	8.00
1500.00	1785.00	8.00
1500.00	1795.00	8.00
1500.00	1805.00	8.00
1500.00	1815.00	8.00
1500.00	1825.00	8.00
1500.00	1835.00	8.00
1500.00	1845.00	8.00
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1500.00	1865.00	8.00
1500.00	1875.00	8.00
1500.00	1885.00	8.00
1500.00	1895.00	8.00
1500.00	1905.00	8.00
1500.00	1915.00	8.00
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1500.00	1935.00	8.00
1500.00	1945.00	8.00
1500.00	1955.00	8.00
1500.00	1965.00	8.00
1500.00	1975.00	8.00
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1510.00	1045.00	8.00
1510.00	1055.00	8.00
1510.00	1065.00	8.00
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1510.00	1425.00	8.00
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## TOPO.DAT

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1510.00	1475.00	8.00
1510.00	1485.00	8.00
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1510.00	1955.00	8.00
1510.00	1965.00	8.00
1510.00	1975.00	8.00
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1520.00	1075.00	8.00
1520.00	1085.00	8.00
1520.00	1095.00	8.00
1520.00	1105.00	8.00
1520.00	1115.00	8.00
1520.00	1125.00	8.00

## TOPO.DAT

1520.00	1135.00	8.00
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1520.00	1155.00	8.00
1520.00	1165.00	8.00
1520.00	1175.00	8.00
1520.00	1185.00	8.00
1520.00	1195.00	8.00
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1520.00	1725.00	8.00
1520.00	1735.00	8.00
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1520.00	1755.00	8.00

## TOPO.DAT

1520.00	1765.00	8.00
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1520.00	1785.00	8.00
1520.00	1795.00	8.00
1520.00	1805.00	8.00
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1520.00	1865.00	8.00
1520.00	1875.00	8.00
1520.00	1885.00	8.00
1520.00	1895.00	8.00
1520.00	1905.00	8.00
1520.00	1915.00	8.00
1520.00	1925.00	8.00
1520.00	1935.00	8.00
1520.00	1945.00	8.00
1520.00	1955.00	8.00
1520.00	1965.00	8.00
1520.00	1975.00	8.00
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1530.00	1045.00	8.00
1530.00	1055.00	8.00
1530.00	1065.00	8.00
1530.00	1075.00	8.00
1530.00	1085.00	8.00
1530.00	1095.00	8.00
1530.00	1105.00	8.00
1530.00	1115.00	8.00
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1530.00	1155.00	8.00
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1530.00	1175.00	8.00
1530.00	1185.00	8.00
1530.00	1195.00	8.00
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1530.00	1385.00	8.00
1530.00	1395.00	8.00
1530.00	1405.00	8.00
1530.00	1415.00	8.00
1530.00	1425.00	8.00
1530.00	1435.00	8.00

## TOPO.DAT

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1530.00	1455.00	8.00
1530.00	1465.00	8.00
1530.00	1475.00	8.00
1530.00	1485.00	8.00
1530.00	1495.00	8.00
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1530.00	1665.00	8.00
1530.00	1675.00	8.00
1530.00	1685.00	8.00
1530.00	1695.00	8.00
1530.00	1705.00	8.00
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1530.00	1905.00	8.00
1530.00	1915.00	8.00
1530.00	1925.00	8.00
1530.00	1935.00	8.00
1530.00	1945.00	8.00
1530.00	1955.00	8.00
1530.00	1965.00	8.00
1530.00	1975.00	8.00
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1540.00	1065.00	8.00
1540.00	1075.00	8.00
1540.00	1085.00	8.00
1540.00	1095.00	8.00
1540.00	1105.00	8.00
1540.00	1115.00	8.00

## TOPO.DAT

1540.00	1125.00	8.00
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1540.00	1145.00	8.00
1540.00	1155.00	8.00
1540.00	1165.00	8.00
1540.00	1175.00	8.00
1540.00	1185.00	8.00
1540.00	1195.00	8.00
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## TOPO.DAT

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1540.00	1765.00	8.00
1540.00	1775.00	8.00
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1540.00	1935.00	8.00
1540.00	1945.00	8.00
1540.00	1955.00	8.00
1540.00	1965.00	8.00
1540.00	1975.00	8.00
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1550.00	1055.00	8.00
1550.00	1065.00	8.00
1550.00	1075.00	8.00
1550.00	1085.00	8.00
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1550.00	1155.00	8.00
1550.00	1165.00	8.00
1550.00	1175.00	8.00
1550.00	1185.00	8.00
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1550.00	1375.00	8.00
1550.00	1385.00	8.00
1550.00	1395.00	8.00
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1550.00	1425.00	8.00

## TOPO.DAT

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1550.00	1465.00	8.00
1550.00	1475.00	8.00
1550.00	1485.00	8.00
1550.00	1495.00	8.00
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1550.00	1675.00	8.00
1550.00	1685.00	8.00
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1560.00	1075.00	8.00
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1560.00	1105.00	8.00



## TOPO.DAT

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1560.00	1565.00	8.00
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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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## MANNINGS\_N.DAT

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4912	0.040
4913	0.040
4914	0.040

## MANNINGS\_N.DAT

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4950	0.040
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4977	0.040



## MANNINGS\_N.DAT

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4998	0.040
4999	0.040
5000	0.040
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5002	0.040
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5006	0.040
5007	0.040
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5039	0.040
5040	0.040

## MANNINGS\_N.DAT

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5081	0.040
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5101	0.040
5102	0.040
5103	0.040

## MANNINGS\_N.DAT

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5109	0.040
5110	0.040
5111	0.040
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5131	0.040
5132	0.040
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5145	0.040
5146	0.040
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5152	0.040
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5160	0.040
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5162	0.040
5163	0.040
5164	0.040
5165	0.040
5166	0.040

## MANNINGS\_N.DAT

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5168	0.040
5169	0.040
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5173	0.040
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5197	0.040
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5199	0.040
5200	0.040
5201	0.040
5202	0.040
5203	0.040
5204	0.040
5205	0.040
5206	0.040
5207	0.040
5208	0.040
5209	0.040
5210	0.040
5211	0.040
5212	0.040
5213	0.040
5214	0.040
5215	0.040
5216	0.040

S 0

ARF.DAT

8	0.01	2	CONT.DAT	0	0	Professional
Model - Build No. 14-08-09	0	0	0	0	0	0
0	0	0	0	0	0	0
1	0	0	0	0	0	0.2
0	0	0	0	0	0	0.2
0	0	0	0	0	0	0.2
2	0	0	0	0	0	0.2
2	0.01	0	0	0	0	0.2
0.01	0.01	0	0	0	0	0.2

	0.01	0	0	TOLER.DAT
C		0.6		
T		0.1		

```
SUPPLEMENT.DAT
0      [Shape Files]
0      [Images]
[Modeling Boundary Polygon]=true
4
      1002.43      1986.01
      1010.94      1020.37
      1573.52      1020.37
      1559.69      1987.07
[Street Polylines]=false
[Channel Polylines]=false
[Levee Polylines]=false
```



0  
F 2676  
H 0 2676  
H 0.0 0.0  
H 1.0 4.0  
H 2.0 8.0  
H 3.0 4.0  
H 4.0 0.0  
F 0 2712  
H 0.0 0.0  
H 1.0 4.0  
H 2.0 8.0  
H 3.0 4.0  
H 4.0 0.0

INFLOW.DAT

## OUTFLOW.DAT

0	1
0	2
0	3
0	4
0	5
0	6
0	7
0	8
0	9
0	10
0	11
0	12
0	13
0	14
0	15
0	16
0	17
0	18
0	19
0	20
0	21
0	22
0	23
0	24
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0	27
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0	30
0	31
0	32
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0	50
0	51
0	52
0	53
0	54
0	55
0	56
0	57
0	58
0	59
0	60
0	61
0	62
0	63

## OUTFLOW.DAT

0	64
0	65
0	66
0	67
0	93
0	94
0	95
0	96
0	123
0	124
0	218
0	219
0	313
0	314
0	408
0	409
0	503
0	504
0	598
0	599
0	693
0	694
0	788
0	789
0	883
0	884
0	978
0	979
0	1073
0	1074
0	1168
0	1169
0	1263
0	1264
0	1358
0	1359
0	1453
0	1454
0	1548
0	1549
0	1643
0	1644
0	1738
0	1739
0	1833
0	1834
0	1928
0	1929
0	2023
0	2024
0	2118
0	2119
0	2213
0	2214
0	2308
0	2309
0	2403
0	2404
0	2498
0	2499
0	2593
0	2594
0	2688

## OUTFLOW.DAT

0	2689
0	2783
0	2784
0	2878
0	2879
0	2973
0	2974
0	3068
0	3069
0	3163
0	3164
0	3258
0	3259
0	3353
0	3354
0	3448
0	3449
0	3543
0	3544
0	3638
0	3639
0	3733
0	3734
0	3828
0	3829
0	3923
0	3924
0	4018
0	4019
0	4113
0	4114
0	4208
0	4209
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0	4304
0	4398
0	4399
0	4493
0	4494
0	4588
0	4589
0	4683
0	4684
0	4778
0	4779
0	4873
0	4874
0	4968
0	4969
0	5063
0	5064
0	5121
0	5122
0	5123
0	5124
0	5125
0	5126
0	5127
0	5128
0	5129
0	5130
0	5131
0	5132

## OUTFLOW.DAT

0	5133
0	5134
0	5135
0	5136
0	5137
0	5138
0	5139
0	5140
0	5141
0	5142
0	5143
0	5144
0	5145
0	5146
0	5147
0	5148
0	5149
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0	5156
0	5157
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0	5160
0	5161
0	5162
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0	5173
0	5174
0	5175
0	5176
0	5177
0	5178
0	5179
0	5180
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0	5183
0	5184
0	5185
0	5186
0	5187
0	5188
0	5189
0	5190
0	5191
0	5192
0	5193
0	5194
0	5195

## OUTFLOW.DAT

0	5196
0	5197
0	5198
0	5199
0	5200
0	5201
0	5202
0	5203
0	5204
0	5205
0	5206
0	5207
0	5208
0	5209
0	5210
0	5211
0	5212
0	5213
0	5214
0	5215
0	5216

## LEVEE.DAT

0	0	
L	1227	
D	5	10.0
L	1228	
D	2	10.0
D	3	10.0
D	4	10.0
D	7	10.0
D	8	10.0
L	1229	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	1321	
D	5	10.0
L	1322	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	1324	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	1415	
D	5	10.0
L	1416	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	1419	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	1508	
D	5	10.0
L	1509	
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	1510	

## LEVEE.DAT

D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	1514	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	1602	
D	5	10.0
L	1603	
D	3	10.0
D	4	10.0
D	7	10.0
L	1609	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	1694	
D	5	10.0
L	1695	
D	3	10.0
D	4	10.0
D	7	10.0
D	8	10.0
L	1696	
D	4	10.0
D	7	10.0
D	8	10.0
L	1697	
D	4	10.0
D	7	10.0
L	1704	
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D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	1788	
D	5	10.0
L	1789	
D	3	10.0
D	4	10.0
D	7	10.0
L	1799	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0



## LEVEE.DAT

D	6	10.0
D	7	10.0
D	8	10.0
L	1882	
D	5	10.0
L	1883	
D	3	10.0
D	4	10.0
D	7	10.0
L	1894	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	1976	
D	5	10.0
L	1977	
D	3	10.0
D	4	10.0
D	7	10.0
L	1989	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2069	
D	5	10.0
L	2070	
D	3	10.0
D	4	10.0
D	7	10.0
D	8	10.0
L	2071	
D	4	10.0
D	7	10.0
L	2084	
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D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2163	
D	5	10.0
L	2164	
D	3	10.0
D	4	10.0
D	7	10.0
L	2179	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0

## LEVEE.DAT

L	2256	
D	5	10.0
L	2257	
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
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D	8	10.0
L	2258	
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D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2274	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2350	
D	5	10.0
L	2351	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
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L	2444	
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D	5	10.0
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D	8	10.0
L	2445	
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D	2	10.0
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D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	2464	
D	1	10.0
D	3	10.0
D	4	10.0

## LEVEE.DAT

D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2539	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2559	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2634	
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D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2654	
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D	3	10.0
D	4	10.0
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D	7	10.0
D	8	10.0
L	2729	
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D	3	10.0
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D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2749	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	2824	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2843	
D	1	10.0
D	2	10.0

## LEVEE.DAT

D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	2844	
D	7	10.0
L	2919	
D	1	10.0
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D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	2937	
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D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	2938	
D	7	10.0
L	3014	
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D	8	10.0
L	3030	
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D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3031	
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D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3032	
D	7	10.0
L	3109	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3124	
D	1	10.0
D	2	10.0
D	3	10.0

## LEVEE.DAT

D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3125	
D	7	10.0
L	3204	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3217	
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3218	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3219	
D	7	10.0
L	3299	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3311	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3312	
D	7	10.0
L	3394	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3404	
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0

## LEVEE.DAT

D	7	10.0
D	8	10.0
L	3405	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3406	
D	7	10.0
L	3489	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3498	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3499	
D	7	10.0
L	3584	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3592	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3593	
D	7	10.0
L	3679	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3685	
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0

## LEVEE.DAT

D	8	10.0
L	3686	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3687	
D	7	10.0
L	3774	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3779	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3780	
D	7	10.0
L	3869	
D	1	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3872	
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3873	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	3874	
D	7	10.0
L	3964	
D	1	10.0
D	3	10.0
D	4	10.0
D	6	10.0
D	7	10.0
D	8	10.0

## LEVEE.DAT

L	3966	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	7	10.0
D	8	10.0
L	3967	
D	7	10.0
L	4059	
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	4060	
D	1	10.0
D	2	10.0
D	3	10.0
D	4	10.0
D	5	10.0
D	6	10.0
D	7	10.0
D	8	10.0
L	4061	
D	7	10.0



			RAIN.DAT
0	0		
20	0		0
R	0	0	
R	0.25	0.5	
R	0.5	0.75	
R	1	1	

				SWMMFLO.DAT			
D 2485		Inlet1		3	30.00	50.00	0.00
3.00	0		0.00				
D 2521		Inlet2		3	30.00	50.00	0.00
3.00	0		0.00				

Outf1	2835	SWMMOUTF.DAT 1
-------	------	-------------------

swmm.inp

## [TITLE]

## [OPTIONS]

```

FLOW_UNITS          CFS
INFILTRATION        HORTON
FLOW_ROUTING        DYNWAVE
START_DATE          08/06/2014
START_TIME          00:00:00
REPORT_START_DATE   08/06/2014
REPORT_START_TIME   00:00:00
END_DATE            08/06/2014
END_TIME            08:00:00
SWEEP_START         01/01
SWEEP_END           12/31
DRY_DAYS            0
REPORT_STEP         00:00:36
WET_STEP            00:01:00
DRY_STEP            00:01:00
ROUTING_STEP        0.05
ALLOW_PONDING       YES
INERTIAL_DAMPING     PARTIAL
VARIABLE_STEP       0.50
LENGTHENING_STEP   0
MIN_SURFAREA        0
NORMAL_FLOW_LIMITED BOTH
SKIP_STEADY_STATE   NO
FORCE_MAIN_EQUATION D-W
LINK_OFFSETS        DEPTH
MIN_SLOPE           0

```

## [EVAPORATION]

```

;;Type      Parameters
;;-----
CONSTANT    0.0
DRY_ONLY    NO

```

## [RAINGAGES]

```

;;
;;Name      Rain      Time      Snow      Data
;;-----   Type      Intrvl   Catch     Source
1           INTENSITY 1:00      1.0       FILE      "swmm.rain"      *      IN

```

## [SUBCATCHMENTS]

```

;;
;;Curb      Snow      Total      Pcnt.      Pcnt.
;;Name      Length   Pack   Raingage   Outlet     Area      Imperv    width     Slope
;;-----
SC1         0         1       1         Inlet1     5         25       2         0.5
SC2         0         1       1         Inlet2     5         25       2         0.5

```

## [SUBAREAS]

```

;;Subcatchment  N-Imperv  N-Perv  S-Imperv  S-Perv  PctZero  RouteTo
PctRouted
;;-----
SC1            0.01    0.1    0.05    0.05    25      OUTLET
SC2            0.01    0.1    0.05    0.05    25      OUTLET

```

## swmm.inp

## [INFILTRATION]

;;Subcatchment	MaxRate	MinRate	Decay	DryTime	MaxInfil
SC1	3.0	0.5	4	7	0
SC2	3.0	0.5	4	7	0

## [JUNCTIONS]

;;Name	Invert Elev.	Max. Depth	Init. Depth	Surcharge Depth	Ponded Area
Inlet1	5.5	2.5	0	0	0
Inlet2	5.5	2.5	0	0	0
Junction1	4.5	1	0	0	0

## [OUTFALLS]

;;Name	Invert Elev.	Outfall Type	Stage/Table Time Series	Tide Gate
Outf1	4	FREE		NO

## [CONDUITS]

;;Name	Offset	Init. Flow	Inlet Node	Max. Flow	Outlet Node	Length	Manning N	Inlet offset
1	0	0	Inlet1	0	Junction1	330	0.025	0
2	0	0	Inlet2	0	Junction1	330	0.025	0
3	0	0	Junction1	0	Outf1	91	0.025	0

## [XSECTIONS]

;;Link Barrels	Shape	Geom1	Geom2	Geom3	Geom4
1	CIRCULAR	2.5	0	0	0
2	CIRCULAR	2.5	0	0	0
3	CIRCULAR	2.5	0	0	0

## [LOSSES]

;;Link	Inlet	Outlet	Average	Flap Gate
--------	-------	--------	---------	-----------

## [REPORT]

INPUT YES  
 CONTROLS YES  
 SUBCATCHMENTS ALL  
 NODES ALL  
 LINKS ALL

## [TAGS]

## [MAP]

DIMENSIONS 0.000 0.000 10000.000 10000.000  
 Units None

## swmm.inp

## [COORDINATES]

;;Node	X-Coord	Y-Coord
Inlet1	1269.080	1845.440
Inlet2	1281.330	1253.960
Junction1	1400.000	1546.000
outf1	1309.000	1546.000

## [VERTICES]

;;Link	X-Coord	Y-Coord
--------	---------	---------

## [Polygons]

;;Subcatchment	X-Coord	Y-Coord
SC1	1174.694	2050.407
SC1	1168.325	1911.872
SC1	1010.682	1908.688
SC1	1012.274	2064.738
SC2	1347.186	1103.516
SC2	1525.530	1095.554
SC2	1530.307	1242.051
SC2	1361.517	1243.643

## [SYMBOLS]

;;Gage	X-Coord	Y-Coord
1	1412.473	1609.885

swmm.rain

*	2014	9	12	01	00	0.001
*	2014	9	12	02	00	0.001
*	2014	9	12	03	00	0.001
*	2014	9	12	04	00	0.001

## **Attachment 11b – Test Case 4a FLO-2D Pro Output Files**



SUMMARY.OUT  
 NEGATIVE VOLUME CONSERVATION (ACRE FEET)  
 INDICATES EXCESS VOLUME (OUTFLOW + STORAGE > INFLOW)

SIMULATION TIME (HOURS)	AVERAGE TIMESTEP (SECONDS)	VOLUME CONSERVATION (ACRE FEET)	PERCENT OF INFLOW
----------------------------	-------------------------------	------------------------------------	-------------------

SUMMARY.OUT FILE  
 Pro Model - Build No. 16.06.16

0.000	1.000	0.000000	0.000000
0.010	1.135	0.000000	0.000000
0.020	1.374	-0.000000	0.000000
0.030	1.575	-0.000000	0.000000
0.040	1.744	-0.000000	0.000000
0.050	1.895	0.000000	0.000000
0.060	2.035	0.000000	0.000000
0.071	2.166	0.000000	0.000000
0.080	2.284	-0.000000	0.000000
0.090	2.393	0.000000	0.000000
0.100	2.501	0.000000	0.000000
0.111	2.603	-0.000000	0.000001
0.120	2.698	-0.000000	0.000000
0.130	2.788	0.000000	0.000001
0.141	2.877	-0.000000	0.000000
0.151	2.962	0.000000	0.000001
0.161	3.043	-0.000000	0.000000
0.170	3.119	0.000000	0.000000
0.180	3.192	0.000000	0.000001
0.190	3.264	0.000000	0.000001
0.200	3.335	-0.000000	0.000001
0.211	3.406	-0.000000	0.000001
0.220	3.473	-0.000000	0.000000
0.230	3.536	0.000000	0.000001
0.240	3.599	-0.000000	0.000000
0.250	3.661	-0.000000	0.000001
0.261	3.723	-0.000000	0.000001
0.270	3.782	0.000000	0.000000
0.281	3.840	0.000000	0.000001
0.290	3.898	-0.000000	0.000001
0.300	3.952	0.000000	0.000000
0.310	4.006	-0.000000	0.000001
0.321	2.615	-0.000000	0.000002
0.330	2.087	-0.000000	0.000002
0.340	2.039	0.000000	0.000001
0.350	2.156	0.000000	0.000001
0.360	2.292	0.000000	0.000001
0.370	2.419	0.000000	0.000001
0.380	2.535	-0.000000	0.000001
0.390	2.085	-0.000000	0.000001

## SUMMARY.OUT

0.400	1.957	0.000000	0.000002
0.410	1.938	0.000000	0.000002
0.420	1.918	0.000000	0.000002
0.430	1.900	-0.000000	0.000002
0.440	1.882	0.000000	0.000001
0.450	1.864	0.000000	0.000002
0.460	1.847	-0.000000	0.000000
0.470	1.831	0.000000	0.000001
0.480	1.924	-0.000000	0.000002
0.491	2.078	0.000000	0.000001
0.500	2.217	-0.000000	0.000001
0.510	2.342	-0.000000	0.000001
0.520	2.461	0.000000	0.000001
0.530	2.574	-0.000000	0.000002
0.540	2.678	-0.000000	0.000001
0.550	2.778	0.000000	0.000001
0.561	2.876	-0.000000	0.000000
0.570	2.969	0.000000	0.000001
0.581	3.057	0.000000	0.000001
0.590	3.141	-0.000000	0.000001
0.600	3.221	0.000000	0.000001
0.610	3.300	0.000000	0.000001
0.620	3.378	-0.000000	0.000001
0.630	3.452	0.000000	0.000000
0.641	3.525	-0.000000	0.000000
0.650	2.456	0.000000	0.000001
0.660	1.789	-0.000000	0.000000
0.670	1.752	-0.000000	0.000002
0.680	1.717	0.000000	0.000002
0.690	1.683	0.000000	0.000001
0.700	1.666	0.000000	0.000001
0.710	1.656	0.000000	0.000002
0.720	1.651	0.000000	0.000002
0.730	1.645	-0.000000	0.000001
0.740	1.640	-0.000000	0.000000
0.750	1.635	-0.000000	0.000002
0.760	1.628	0.000000	0.000001
0.770	1.612	-0.000000	0.000001
0.780	1.596	-0.000000	0.000000
0.790	1.579	0.000000	0.000002
0.800	1.562	-0.000000	0.000002
0.810	1.545	0.000000	0.000001
0.820	1.529	0.000000	0.000001
0.830	1.512	-0.000000	0.000001
0.840	1.501	-0.000000	0.000001
0.850	1.494	-0.000000	0.000001
0.860	1.488	-0.000000	0.000001
0.870	1.482	0.000000	0.000001
0.880	1.478	0.000000	0.000000

## SUMMARY.OUT

0.890	1.474	-0.000000	0.000001
0.900	1.469	-0.000000	0.000001
0.910	1.465	0.000000	0.000003
0.920	1.461	0.000000	0.000001
0.930	1.455	-0.000000	0.000000
0.940	1.449	-0.000000	0.000001
0.950	1.443	-0.000000	0.000002
0.960	1.437	-0.000000	0.000002
0.970	1.431	0.000000	0.000000
0.980	1.425	0.000000	0.000002
0.990	1.420	0.000000	0.000001
1.000	1.414	0.000000	0.000002
1.010	1.409	-0.000000	0.000002
1.020	1.404	0.000000	0.000000
1.030	1.400	0.000000	0.000000
1.040	1.395	0.000000	0.000000
1.050	1.390	0.000000	0.000001
1.060	1.386	0.000000	0.000002
1.070	1.381	0.000000	0.000001
1.080	1.377	-0.000000	0.000001
1.090	1.372	-0.000000	0.000001
1.100	1.368	-0.000000	0.000000
1.110	1.364	-0.000000	0.000002
1.120	1.359	-0.000000	0.000002
1.130	1.355	0.000000	0.000001
1.140	1.320	0.000000	0.000002
1.150	1.227	-0.000000	0.000001
1.160	1.199	-0.000000	0.000001
1.170	1.171	0.000000	0.000001
1.180	1.143	-0.000000	0.000000
1.190	1.133	0.000000	0.000000
1.200	1.131	-0.000000	0.000001
1.210	1.129	0.000000	0.000001
1.220	1.127	0.000000	0.000000
1.230	1.125	0.000000	0.000001
1.240	1.123	-0.000000	0.000000
1.250	1.121	0.000000	0.000000
1.260	1.118	-0.000000	0.000001
1.270	1.116	0.000000	0.000002
1.280	1.114	0.000000	0.000002
1.290	1.111	0.000000	0.000002
1.300	1.108	-0.000000	0.000001
1.310	1.106	-0.000000	0.000001
1.320	1.104	-0.000000	0.000001
1.330	1.101	-0.000000	0.000001
1.340	1.098	-0.000000	0.000001
1.350	1.096	-0.000000	0.000002
1.360	1.082	0.000000	0.000001
1.370	1.065	-0.000000	0.000001

## SUMMARY.OUT

1.380	1.061	0.000000	0.000002
1.390	1.072	-0.000000	0.000002
1.400	1.084	0.000000	0.000001
1.410	1.066	0.000000	0.000002
1.420	1.066	-0.000000	0.000000
1.430	1.058	-0.000000	0.000001
1.440	1.057	-0.000000	0.000000
1.450	1.069	-0.000000	0.000002
1.460	1.078	0.000000	0.000001
1.470	1.085	-0.000000	0.000002
1.480	1.096	0.000000	0.000001
1.490	1.095	0.000000	0.000001
1.500	1.093	0.000000	0.000002
1.510	1.090	-0.000000	0.000001
1.520	1.087	0.000000	0.000001
1.530	1.085	0.000000	0.000001
1.540	1.082	0.000000	0.000002
1.550	1.079	-0.000000	0.000001
1.560	1.076	-0.000000	0.000002
1.570	1.074	-0.000000	0.000001
1.580	1.071	0.000000	0.000000
1.590	1.068	-0.000000	0.000000
1.600	1.066	0.000000	0.000000
1.610	1.064	0.000000	0.000000
1.620	1.062	-0.000000	0.000000
1.630	1.060	-0.000000	0.000001
1.640	1.057	-0.000000	0.000000
1.650	1.055	0.000000	0.000000
1.660	1.052	0.000000	0.000000
1.670	1.049	-0.000000	0.000001
1.680	1.047	0.000000	0.000001
1.690	1.044	0.000000	0.000001
1.700	1.042	-0.000000	0.000001
1.710	1.039	0.000000	0.000001
1.720	1.037	0.000000	0.000001
1.730	1.034	0.000000	0.000000
1.740	1.031	0.000000	0.000001
1.750	1.028	0.000000	0.000001
1.760	1.026	0.000000	0.000001
1.770	1.088	0.000000	0.000001
1.780	1.114	-0.000000	0.000001
1.790	1.065	0.000000	0.000001
1.800	1.061	0.000000	0.000003
1.810	1.057	-0.000000	0.000003
1.820	1.052	-0.000000	0.000003
1.830	1.189	0.000000	0.000002
1.840	1.345	0.000000	0.000001
1.850	1.343	0.000000	0.000001
1.860	1.338	-0.000000	0.000002

## SUMMARY.OUT

1.870	1.333	-0.000000	0.000002
1.880	1.328	0.000000	0.000001
1.890	1.323	-0.000000	0.000002
1.900	1.318	0.000000	0.000003
1.910	1.313	-0.000000	0.000001
1.920	1.309	-0.000000	0.000001
1.930	1.304	-0.000000	0.000002
1.940	1.299	0.000000	0.000001
1.950	1.295	-0.000000	0.000001
1.960	1.290	0.000000	0.000000
1.970	1.285	0.000000	0.000001
1.980	1.280	-0.000000	0.000000
1.990	1.276	-0.000000	0.000000
2.000	1.271	-0.000000	0.000001
2.010	1.268	0.000000	0.000000
2.020	1.267	-0.000000	0.000002
2.030	1.266	-0.000000	0.000002
2.040	1.265	-0.000000	0.000000
2.050	1.264	-0.000000	0.000001
2.060	1.263	-0.000000	0.000002
2.070	1.262	0.000000	0.000001
2.080	1.261	0.000000	0.000002
2.090	1.260	-0.000000	0.000001
2.100	1.259	-0.000000	0.000001
2.110	1.258	0.000000	0.000001
2.120	1.256	-0.000000	0.000001
2.130	1.255	-0.000000	0.000001
2.140	1.255	-0.000000	0.000001
2.150	1.253	-0.000000	0.000000
2.160	1.252	-0.000000	0.000001
2.170	1.252	0.000000	0.000001
2.180	1.250	0.000000	0.000000
2.190	1.252	-0.000000	0.000001
2.200	1.254	0.000000	0.000002
2.210	1.256	-0.000000	0.000000
2.220	1.258	0.000000	0.000002
2.230	1.260	0.000000	0.000001
2.240	1.262	0.000000	0.000001
2.250	1.264	0.000000	0.000001
2.260	1.267	-0.000000	0.000001
2.270	1.269	0.000000	0.000001
2.280	1.271	0.000000	0.000001
2.290	1.273	-0.000000	0.000001
2.300	1.275	-0.000000	0.000002
2.310	1.277	0.000000	0.000001
2.320	1.279	-0.000000	0.000001
2.330	1.282	-0.000000	0.000000
2.340	1.284	0.000000	0.000001
2.350	1.286	-0.000000	0.000002

## SUMMARY.OUT

2.360	1.288	-0.000000	0.000001
2.370	1.291	0.000000	0.000000
2.380	1.293	-0.000000	0.000001
2.390	1.296	0.000000	0.000000
2.400	1.298	0.000000	0.000000
2.410	1.301	-0.000000	0.000001
2.420	1.303	0.000000	0.000001
2.430	1.305	-0.000000	0.000001
2.440	1.308	-0.000000	0.000002
2.450	1.311	0.000000	0.000001
2.460	1.313	-0.000000	0.000000
2.470	1.315	-0.000000	0.000000
2.480	1.318	-0.000000	0.000000
2.490	1.321	-0.000000	0.000001
2.500	1.323	-0.000000	0.000001
2.510	1.326	-0.000000	0.000001
2.520	1.328	0.000000	0.000000
2.530	1.331	0.000000	0.000000
2.540	1.333	0.000000	0.000000
2.550	1.336	0.000000	0.000000
2.560	1.339	0.000000	0.000001
2.570	1.342	0.000000	0.000001
2.580	1.344	0.000000	0.000000
2.590	1.347	0.000000	0.000000
2.600	1.350	-0.000000	0.000001
2.610	1.353	0.000000	0.000001
2.620	1.356	-0.000000	0.000000
2.630	1.359	-0.000000	0.000001
2.640	1.362	-0.000000	0.000002
2.650	1.364	0.000000	0.000003
2.660	1.367	0.000000	0.000000
2.670	1.370	-0.000000	0.000002
2.680	1.373	0.000000	0.000002
2.690	1.377	0.000000	0.000002
2.700	1.380	0.000000	0.000003
2.710	1.383	-0.000000	0.000003
2.720	1.386	-0.000000	0.000001
2.730	1.389	0.000000	0.000002
2.740	1.392	0.000000	0.000000
2.750	1.395	0.000000	0.000002
2.760	1.398	-0.000000	0.000002
2.770	1.401	0.000000	0.000001
2.780	1.404	0.000000	0.000000
2.790	1.408	0.000000	0.000001
2.800	1.411	0.000000	0.000002
2.810	1.415	0.000000	0.000001
2.820	1.418	0.000000	0.000002
2.830	1.421	0.000000	0.000000
2.840	1.425	-0.000000	0.000002

## SUMMARY.OUT

2.850	1.429	0.000000	0.000001
2.860	1.432	-0.000000	0.000001
2.870	1.436	-0.000000	0.000002
2.880	1.439	0.000000	0.000001
2.890	1.443	0.000000	0.000001
2.900	1.446	-0.000000	0.000002
2.910	1.450	0.000000	0.000001
2.920	1.454	0.000000	0.000001
2.930	1.458	0.000000	0.000000
2.940	1.461	0.000000	0.000002
2.950	1.468	0.000000	0.000001
2.960	1.469	-0.000000	0.000002
2.970	1.473	-0.000000	0.000000
2.980	1.476	0.000000	0.000001
2.990	1.473	0.000000	0.000002
3.000	1.475	-0.000000	0.000000
3.010	1.480	0.000000	0.000001
3.020	1.485	-0.000000	0.000001
3.030	1.198	-0.000000	0.000002
3.040	0.889	-0.000000	0.000001
3.050	0.929	0.000000	0.000002
3.060	0.967	-0.000000	0.000000
3.070	1.043	0.000000	0.000000
3.080	1.281	-0.000000	0.000001
3.090	1.049	-0.000000	0.000000
3.100	0.717	0.000000	0.000002
3.110	0.766	0.000000	0.000001
3.120	0.811	0.000000	0.000001
3.130	0.855	-0.000000	0.000002
3.140	0.896	-0.000000	0.000001
3.150	0.935	-0.000000	0.000001
3.160	0.973	0.000000	0.000000
3.170	1.074	0.000000	0.000002
3.180	1.317	-0.000000	0.000001
3.190	1.003	0.000000	0.000001
3.200	0.883	0.000000	0.000002
3.210	0.923	-0.000000	0.000001
3.220	0.961	0.000000	0.000001
3.230	1.019	-0.000000	0.000001
3.240	1.244	-0.000000	0.000001
3.250	1.140	0.000000	0.000002
3.260	0.861	0.000000	0.000001
3.270	0.902	0.000000	0.000002
3.280	0.941	-0.000000	0.000001
3.290	0.978	-0.000000	0.000001
3.300	1.111	-0.000000	0.000001
3.310	1.354	-0.000000	0.000001
3.320	0.881	0.000000	0.000001
3.330	0.873	-0.000000	0.000000

## SUMMARY.OUT

3.340	0.914	0.000000	0.000002
3.350	0.952	0.000000	0.000002
3.360	0.995	-0.000000	0.000001
3.370	1.189	-0.000000	0.000001
3.380	1.192	-0.000000	0.000002
3.390	0.815	0.000000	0.000000
3.400	0.858	-0.000000	0.000002
3.410	0.899	-0.000000	0.000002
3.420	0.938	0.000000	0.000002
3.430	0.976	-0.000000	0.000002
3.440	1.096	-0.000000	0.000000
3.450	1.341	0.000000	0.000000
3.460	0.854	-0.000000	0.000000
3.470	0.879	0.000000	0.000001
3.480	0.919	-0.000000	0.000002
3.490	0.958	0.000000	0.000001
3.500	1.011	-0.000000	0.000001
3.510	1.226	0.000000	0.000001
3.520	1.036	0.000000	0.000000
3.530	0.824	-0.000000	0.000000
3.540	0.867	0.000000	0.000001
3.550	0.908	0.000000	0.000000
3.560	0.947	-0.000000	0.000001
3.570	0.984	0.000000	0.000001
3.580	1.147	-0.000000	0.000002
3.590	1.138	0.000000	0.000002
3.600	0.692	-0.000000	0.000000
3.610	0.742	-0.000000	0.000001
3.620	0.789	-0.000000	0.000002
3.630	0.834	-0.000000	0.000002
3.640	0.876	-0.000000	0.000001
3.650	0.916	-0.000000	0.000001
3.660	0.955	0.000000	0.000001
3.670	1.001	-0.000000	0.000002
3.680	1.205	0.000000	0.000002
3.690	1.024	-0.000000	0.000001
3.700	0.816	-0.000000	0.000001
3.710	0.859	-0.000000	0.000001
3.720	0.900	-0.000000	0.000002
3.730	0.939	0.000000	0.000001
3.740	0.976	-0.000000	0.000001
3.750	1.096	-0.000000	0.000000
3.760	1.312	-0.000000	0.000001
3.770	0.685	0.000000	0.000000
3.780	0.736	-0.000000	0.000001
3.790	0.784	0.000000	0.000002
3.800	0.828	-0.000000	0.000002
3.810	0.871	-0.000000	0.000000
3.820	0.911	-0.000000	0.000002



## SUMMARY.OUT

3.830	0.950	0.000000	0.000001
3.840	0.990	-0.000000	0.000001
3.850	1.172	-0.000000	0.000001
3.860	0.981	-0.000000	0.000000
3.870	0.689	-0.000000	0.000001
3.880	0.740	-0.000000	0.000001
3.890	0.787	0.000000	0.000002
3.900	0.832	-0.000000	0.000000
3.910	0.874	-0.000000	0.000001
3.920	0.914	0.000000	0.000001
3.930	0.953	0.000000	0.000001
3.940	0.995	0.000000	0.000000
3.950	1.189	0.000000	0.000000
3.960	1.046	0.000000	0.000001
3.970	0.819	-0.000000	0.000002
3.980	0.862	-0.000000	0.000000
3.990	0.903	0.000000	0.000001
4.000	0.942	0.000000	0.000001
4.010	0.979	-0.000000	0.000002
4.020	1.115	-0.000000	0.000002
4.030	1.201	-0.000000	0.000001
4.040	0.851	0.000000	0.000002
4.050	0.893	0.000000	0.000001
4.060	0.932	0.000000	0.000001
4.070	0.970	0.000000	0.000002
4.080	1.061	-0.000000	0.000000
4.090	1.305	0.000000	0.000000
4.100	0.838	-0.000000	0.000001
4.110	0.865	0.000000	0.000001
4.120	0.905	-0.000000	0.000002
4.130	0.944	-0.000000	0.000002
4.140	0.981	0.000000	0.000002
4.150	1.131	0.000000	0.000001
4.160	1.085	0.000000	0.000002
4.170	0.655	-0.000000	0.000001
4.180	0.708	-0.000000	0.000001
4.190	0.757	-0.000000	0.000001
4.200	0.803	-0.000000	0.000000
4.210	0.847	0.000000	0.000001
4.220	0.888	0.000000	0.000001
4.230	0.928	0.000000	0.000001
4.240	0.966	-0.000000	0.000001
4.250	1.040	-0.000000	0.000000
4.260	1.276	0.000000	0.000001
4.270	0.836	0.000000	0.000002
4.280	0.817	0.000000	0.000000
4.290	0.860	-0.000000	0.000000
4.300	0.901	-0.000000	0.000000
4.310	0.940	-0.000000	0.000000

## SUMMARY.OUT

4.320	0.977	-0.000000	0.000000
4.330	1.103	-0.000000	0.000000
4.340	1.220	-0.000000	0.000000
4.350	0.810	-0.000000	0.000000
4.360	0.854	-0.000000	0.000000
4.370	0.895	-0.000000	0.000000
4.380	0.934	-0.000000	0.000000
4.390	0.972	-0.000000	0.000000
4.400	1.073	-0.000000	0.000000
4.410	1.307	-0.000000	0.000000
4.420	1.279	-0.000000	0.000000
4.430	0.857	-0.000000	0.000000
4.440	0.885	-0.000000	0.000000
4.450	0.925	-0.000000	0.000000
4.460	0.963	-0.000000	0.000000
4.470	1.028	-0.000000	0.000000
4.480	1.259	-0.000000	0.000000
4.490	0.755	-0.000000	0.000000
4.500	0.706	-0.000000	0.000000
4.510	0.756	-0.000000	0.000000
4.520	0.802	-0.000000	0.000000
4.530	0.846	-0.000000	0.000000
4.540	0.887	-0.000000	0.000000
4.550	0.927	-0.000000	0.000000
4.560	0.965	-0.000000	0.000000
4.570	1.038	-0.000000	0.000000
4.580	1.272	-0.000000	0.000000
4.590	0.888	-0.000000	0.000000
4.600	0.856	-0.000000	0.000000
4.610	0.897	-0.000000	0.000000
4.620	0.936	-0.000000	0.000000
4.630	0.973	-0.000000	0.000000
4.640	1.079	-0.000000	0.000000
4.650	1.271	-0.000000	0.000000
4.660	0.659	-0.000000	0.000000
4.670	0.711	-0.000000	0.000000
4.680	0.760	-0.000000	0.000000
4.690	0.806	-0.000000	0.000000
4.700	0.850	-0.000000	0.000000
4.710	0.891	-0.000000	0.000000
4.720	0.931	-0.000000	0.000000
4.730	0.969	-0.000000	0.000000
4.740	1.050	-0.000000	0.000000
4.750	1.289	-0.000000	0.000000
4.760	0.869	-0.000000	0.000000
4.770	0.867	-0.000000	0.000000
4.780	0.908	-0.000000	0.000000
4.790	0.947	-0.000000	0.000000
4.800	0.984	-0.000000	0.000000

## SUMMARY.OUT

4.810	1.147	-0.000000	0.000000
4.820	1.091	-0.000000	0.000000
4.830	0.805	-0.000000	0.000000
4.840	0.849	-0.000000	0.000000
4.850	0.890	-0.000000	0.000000
4.860	0.930	-0.000000	0.000000
4.870	0.968	-0.000000	0.000000
4.880	1.048	-0.000000	0.000000
4.890	1.289	-0.000000	0.000000
4.900	1.285	-0.000000	0.000000
4.910	0.882	-0.000000	0.000000
4.920	0.865	-0.000000	0.000000
4.930	0.905	-0.000000	0.000000
4.940	0.944	-0.000000	0.000000
4.950	0.982	-0.000000	0.000000
4.960	1.131	-0.000000	0.000000
4.970	1.124	-0.000000	0.000000
4.980	0.834	-0.000000	0.000000
4.990	0.876	-0.000000	0.000000
5.000	0.917	-0.000000	0.000000
5.010	0.955	-0.000000	0.000000
5.020	1.001	-0.000000	0.000000
5.030	1.206	-0.000000	0.000000
5.040	0.978	-0.000000	0.000000
5.050	0.821	-0.000000	0.000000
5.060	0.863	-0.000000	0.000000
5.070	0.904	-0.000000	0.000000
5.080	0.943	-0.000000	0.000000
5.090	0.980	-0.000000	0.000000
5.100	1.122	-0.000000	0.000000
5.110	1.154	-0.000000	0.000000
5.120	0.789	-0.000000	0.000000
5.130	0.834	-0.000000	0.000000
5.140	0.876	-0.000000	0.000000
5.150	0.916	-0.000000	0.000000
5.160	0.955	-0.000000	0.000000
5.170	0.999	-0.000000	0.000000
5.180	1.202	-0.000000	0.000000
5.190	0.873	-0.000000	0.000000
5.200	0.696	-0.000000	0.000000
5.210	0.746	-0.000000	0.000000
5.220	0.793	-0.000000	0.000000
5.230	0.838	-0.000000	0.000000
5.240	0.880	-0.000000	0.000000
5.250	0.920	-0.000000	0.000000
5.260	0.958	-0.000000	0.000000
5.270	1.008	-0.000000	0.000000
5.280	1.223	-0.000000	0.000000
5.290	0.803	-0.000000	0.000000

## SUMMARY.OUT

5.300	0.674	-0.000000	0.000000
5.310	0.726	-0.000000	0.000000
5.320	0.774	-0.000000	0.000000
5.330	0.819	-0.000000	0.000000
5.340	0.862	-0.000000	0.000000
5.350	0.903	-0.000000	0.000000
5.360	0.942	-0.000000	0.000000
5.370	0.979	-0.000000	0.000000
5.380	1.115	-0.000000	0.000000
5.390	1.175	-0.000000	0.000000
5.400	0.804	-0.000000	0.000000
5.410	0.848	-0.000000	0.000000
5.420	0.889	-0.000000	0.000000
5.430	0.929	-0.000000	0.000000
5.440	0.967	-0.000000	0.000000
5.450	1.044	-0.000000	0.000000
5.460	1.280	-0.000000	0.000000
5.470	0.841	-0.000000	0.000000
5.480	0.824	-0.000000	0.000000
5.490	0.866	-0.000000	0.000000
5.500	0.907	-0.000000	0.000000
5.510	0.946	-0.000000	0.000000
5.520	0.983	-0.000000	0.000000
5.530	1.143	-0.000000	0.000000
5.540	1.012	-0.000000	0.000000
5.550	0.670	-0.000000	0.000000
5.560	0.722	-0.000000	0.000000
5.570	0.770	-0.000000	0.000000
5.580	0.815	-0.000000	0.000000
5.590	0.859	-0.000000	0.000000
5.600	0.900	-0.000000	0.000000
5.610	0.939	-0.000000	0.000000
5.620	0.976	-0.000000	0.000000
5.630	1.096	-0.000000	0.000000
5.640	1.311	-0.000000	0.000000
5.650	1.260	-0.000000	0.000000
5.660	0.834	-0.000000	0.000000
5.670	0.876	-0.000000	0.000000
5.680	0.916	-0.000000	0.000000
5.690	0.955	-0.000000	0.000000
5.700	1.001	-0.000000	0.000000
5.710	1.206	-0.000000	0.000000
5.720	0.969	-0.000000	0.000000
5.730	0.808	-0.000000	0.000000
5.740	0.851	-0.000000	0.000000
5.750	0.893	-0.000000	0.000000
5.760	0.932	-0.000000	0.000000
5.770	0.970	-0.000000	0.000000
5.780	1.061	-0.000000	0.000000

## SUMMARY.OUT

5.790	1.305	-0.000000	0.000000
5.800	0.795	-0.000000	0.000000
5.810	0.824	-0.000000	0.000000
5.820	0.867	-0.000000	0.000000
5.830	0.907	-0.000000	0.000000
5.840	0.946	-0.000000	0.000000
5.850	0.984	-0.000000	0.000000
5.860	1.144	-0.000000	0.000000
5.870	1.102	-0.000000	0.000000
5.880	0.795	-0.000000	0.000000
5.890	0.839	-0.000000	0.000000
5.900	0.881	-0.000000	0.000000
5.910	0.921	-0.000000	0.000000
5.920	0.959	-0.000000	0.000000
5.930	1.012	-0.000000	0.000000
5.940	1.227	-0.000000	0.000000
5.950	0.808	-0.000000	0.000000
5.960	0.686	-0.000000	0.000000
5.970	0.736	-0.000000	0.000000
5.980	0.784	-0.000000	0.000000
5.990	0.829	-0.000000	0.000000
6.000	0.871	-0.000000	0.000000
6.010	0.912	-0.000000	0.000000
6.020	0.951	-0.000000	0.000000
6.030	0.991	-0.000000	0.000000
6.040	1.177	-0.000000	0.000000
6.050	1.076	-0.000000	0.000000
6.060	0.864	-0.000000	0.000000
6.070	0.904	-0.000000	0.000000
6.080	0.943	-0.000000	0.000000
6.090	0.981	-0.000000	0.000000
6.100	1.123	-0.000000	0.000000
6.110	1.124	-0.000000	0.000000
6.120	0.795	-0.000000	0.000000
6.130	0.839	-0.000000	0.000000
6.140	0.881	-0.000000	0.000000
6.150	0.921	-0.000000	0.000000
6.160	0.960	-0.000000	0.000000
6.170	1.016	-0.000000	0.000000
6.180	1.235	-0.000000	0.000000
6.190	0.929	-0.000000	0.000000
6.200	0.849	-0.000000	0.000000
6.210	0.890	-0.000000	0.000000
6.220	0.930	-0.000000	0.000000
6.230	0.968	-0.000000	0.000000
6.240	1.048	-0.000000	0.000000
6.250	1.288	-0.000000	0.000000
6.260	0.749	-0.000000	0.000000
6.270	0.732	-0.000000	0.000000

## SUMMARY.OUT

6.280	0.780	-0.000000	0.000000
6.290	0.825	-0.000000	0.000000
6.300	0.868	-0.000000	0.000000
6.310	0.908	-0.000000	0.000000
6.320	0.947	-0.000000	0.000000
6.330	0.985	-0.000000	0.000000
6.340	1.151	-0.000000	0.000000
6.350	1.031	-0.000000	0.000000
6.360	0.677	-0.000000	0.000000
6.370	0.728	-0.000000	0.000000
6.380	0.776	-0.000000	0.000000
6.390	0.821	-0.000000	0.000000
6.400	0.864	-0.000000	0.000000
6.410	0.905	-0.000000	0.000000
6.420	0.944	-0.000000	0.000000
6.430	0.981	-0.000000	0.000000
6.440	1.123	-0.000000	0.000000
6.450	1.160	-0.000000	0.000000
6.460	0.806	-0.000000	0.000000
6.470	0.849	-0.000000	0.000000
6.480	0.891	-0.000000	0.000000
6.490	0.931	-0.000000	0.000000
6.500	0.969	-0.000000	0.000000
6.510	1.050	-0.000000	0.000000
6.520	1.288	-0.000000	0.000000
6.530	0.699	-0.000000	0.000000
6.540	0.687	-0.000000	0.000000
6.550	0.738	-0.000000	0.000000
6.560	0.785	-0.000000	0.000000
6.570	0.830	-0.000000	0.000000
6.580	0.872	-0.000000	0.000000
6.590	0.913	-0.000000	0.000000
6.600	0.951	-0.000000	0.000000
6.610	0.993	-0.000000	0.000000
6.620	1.181	-0.000000	0.000000
6.630	1.057	-0.000000	0.000000
6.640	0.843	-0.000000	0.000000
6.650	0.885	-0.000000	0.000000
6.660	0.925	-0.000000	0.000000
6.670	0.963	-0.000000	0.000000
6.680	1.028	-0.000000	0.000000
6.690	1.259	-0.000000	0.000000
6.700	0.916	-0.000000	0.000000
6.710	0.864	-0.000000	0.000000
6.720	0.905	-0.000000	0.000000
6.730	0.944	-0.000000	0.000000
6.740	0.981	-0.000000	0.000000
6.750	1.131	-0.000000	0.000000
6.760	1.145	-0.000000	0.000000

## SUMMARY.OUT

6.770	0.808	-0.000000	0.000000
6.780	0.852	-0.000000	0.000000
6.790	0.893	-0.000000	0.000000
6.800	0.933	-0.000000	0.000000
6.810	0.970	-0.000000	0.000000
6.820	1.061	-0.000000	0.000000
6.830	1.304	-0.000000	0.000000
6.840	0.819	-0.000000	0.000000
6.850	0.847	-0.000000	0.000000
6.860	0.889	-0.000000	0.000000
6.870	0.928	-0.000000	0.000000
6.880	0.966	-0.000000	0.000000
6.890	1.040	-0.000000	0.000000
6.900	1.276	-0.000000	0.000000
6.910	0.707	-0.000000	0.000000
6.920	0.695	-0.000000	0.000000
6.930	0.745	-0.000000	0.000000
6.940	0.791	-0.000000	0.000000
6.950	0.836	-0.000000	0.000000
6.960	0.878	-0.000000	0.000000
6.970	0.918	-0.000000	0.000000
6.980	0.957	-0.000000	0.000000
6.990	1.005	-0.000000	0.000000
7.000	1.214	-0.000000	0.000000
7.010	0.857	-0.000000	0.000000
7.020	0.686	-0.000000	0.000000
7.030	0.736	-0.000000	0.000000
7.040	0.784	-0.000000	0.000000
7.050	0.829	-0.000000	0.000000
7.060	0.871	-0.000000	0.000000
7.070	0.912	-0.000000	0.000000
7.080	0.950	-0.000000	0.000000
7.090	0.990	-0.000000	0.000000
7.100	1.176	-0.000000	0.000000
7.110	1.036	-0.000000	0.000000
7.120	0.807	-0.000000	0.000000
7.130	0.850	-0.000000	0.000000
7.140	0.891	-0.000000	0.000000
7.150	0.931	-0.000000	0.000000
7.160	0.969	-0.000000	0.000000
7.170	1.054	-0.000000	0.000000
7.180	1.297	-0.000000	0.000000
7.190	0.704	-0.000000	0.000000
7.200	0.723	-0.000000	0.000000
7.210	0.771	-0.000000	0.000000
7.220	0.816	-0.000000	0.000000
7.230	0.859	-0.000000	0.000000
7.240	0.900	-0.000000	0.000000
7.250	0.940	-0.000000	0.000000

## SUMMARY.OUT

7.260	0.977	-0.000000	0.000000
7.270	1.097	-0.000000	0.000000
7.280	1.218	-0.000000	0.000000
7.290	0.795	-0.000000	0.000000
7.300	0.839	-0.000000	0.000000
7.310	0.881	-0.000000	0.000000
7.320	0.921	-0.000000	0.000000
7.330	0.959	-0.000000	0.000000
7.340	1.014	-0.000000	0.000000
7.350	1.234	-0.000000	0.000000
7.360	0.920	-0.000000	0.000000
7.370	0.816	-0.000000	0.000000
7.380	0.859	-0.000000	0.000000
7.390	0.900	-0.000000	0.000000
7.400	0.939	-0.000000	0.000000
7.410	0.977	-0.000000	0.000000
7.420	1.096	-0.000000	0.000000
7.430	1.237	-0.000000	0.000000
7.440	0.819	-0.000000	0.000000
7.450	0.862	-0.000000	0.000000
7.460	0.903	-0.000000	0.000000
7.470	0.942	-0.000000	0.000000
7.480	0.979	-0.000000	0.000000
7.490	1.115	-0.000000	0.000000
7.500	1.178	-0.000000	0.000000
7.510	0.817	-0.000000	0.000000
7.520	0.860	-0.000000	0.000000
7.530	0.901	-0.000000	0.000000
7.540	0.940	-0.000000	0.000000
7.550	0.977	-0.000000	0.000000
7.560	1.103	-0.000000	0.000000
7.570	1.150	-0.000000	0.000000
7.580	0.654	-0.000000	0.000000
7.590	0.707	-0.000000	0.000000
7.600	0.756	-0.000000	0.000000
7.610	0.802	-0.000000	0.000000
7.620	0.846	-0.000000	0.000000
7.630	0.888	-0.000000	0.000000
7.640	0.927	-0.000000	0.000000
7.650	0.965	-0.000000	0.000000
7.660	1.038	-0.000000	0.000000
7.670	1.272	-0.000000	0.000000
7.680	1.279	-0.000000	0.000000
7.690	0.897	-0.000000	0.000000
7.700	0.847	-0.000000	0.000000
7.710	0.889	-0.000000	0.000000
7.720	0.928	-0.000000	0.000000
7.730	0.966	-0.000000	0.000000
7.740	1.042	-0.000000	0.000000



## SUMMARY.OUT

7.750	1.280	-0.000000	0.000000
7.760	0.845	-0.000000	0.000000
7.770	0.828	-0.000000	0.000000
7.780	0.871	-0.000000	0.000000
7.790	0.911	-0.000000	0.000000
7.800	0.950	-0.000000	0.000000
7.810	0.989	-0.000000	0.000000
7.820	1.168	-0.000000	0.000000
7.830	1.037	-0.000000	0.000000
7.840	0.795	-0.000000	0.000000
7.850	0.839	-0.000000	0.000000
7.860	0.881	-0.000000	0.000000
7.870	0.921	-0.000000	0.000000
7.880	0.959	-0.000000	0.000000
7.890	1.015	-0.000000	0.000000
7.900	1.235	-0.000000	0.000000
7.910	0.947	-0.000000	0.000000
7.920	0.866	-0.000000	0.000000
7.930	0.907	-0.000000	0.000000
7.940	0.945	-0.000000	0.000000
7.950	0.983	-0.000000	0.000000
7.960	1.139	-0.000000	0.000000
7.970	1.065	-0.000000	0.000000
7.980	0.654	-0.000000	0.000000
7.990	0.707	-0.000000	0.000000
8.000	0.757	-0.000000	0.000000

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MASS BALANCE      INFLOW - OUTFLOW VOLUME

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\*\*\* INFLOW (ACRE-FEET) \*\*\*

WATER

SURFACE WATER INFLOW HYDROGRAPH

2.645

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\*\*\* SURFACE OUTFLOW (ACRE-FT) \*\*\*

OVERLAND FLOW

WATER

FLOODPLAIN STORAGE

2.645

## SUMMARY.OUT

FLOODPLAIN OUTFLOW HYDROGRAPH	0.000
-----	
FLOODPLAIN OUTFLOW AND STORAGE	2.645
TOL FLOODPLAIN STORAGE	0.018
TOTAL SURFACE OUTFLOW AND STORAGE	2.645

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## \*\*\* FLO-2D STORM DRAIN EXCHANGE VOLUME (ACRE-FT) \*\*\*

## Storm Drain Inflow

SURFACE TO STORM DRAIN SYSTEM THROUGH INLETS	2.643
SURFACE TO STORM DRAIN THROUGH OUTFALLS	0.000
-----	
TOTAL INFLOW (compare w/SWMM.rpt Wet Weather Inflow)	2.643

## Storm Drain Outflow from Outfalls

STORM DRAIN TO SURFACE THROUGH OUTFALLS	2.643
STORM DRAIN OUTFALL (OFF SYSTEM)	0.000
-----	
TOTAL OUTFLOW (compare w/SWMM.rpt External Outflow)	2.643

## Storm Drain Return Flow to Surface

STORM DRAIN RETURN FLOW TO SURFACE THROUGH INLETS	0.000
-----	
TOTAL STORM DRAIN RETURN FLOW + OUTFLOW	2.643
STORM DRAIN SYSTEM STORAGE (FROM swmm.rpt)	0.000
-----	
STORM DRAIN RETURN FLOW + OUTFLOW + STORAGE	2.643

## SUMMARY.OUT

STORM DRAIN MASS BALANCE (INFLOW - OUTFLOW + STORAGE)	0.000
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Extracted from Storm Drain File (swmm.rpt)

WET WEATHER INFLOW	2.643
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EXTERNAL INFLOW	0.000
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EXTERNAL OUTFLOW	2.643
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Return Flow to Surface	0.000
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Total Storm Drain Storage (nodes+links)	0.000
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Continuity Error (%)	-0.001
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\*\*\* TOTALS \*\*\*

TOTAL OUTFLOW FROM GRID SYSTEM	0.000
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TOTAL VOLUME OF OUTFLOW AND STORAGE	2.645
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SURFACE AREA OF INUNDATION REGARDLESS OF THE TIME OF OCCURRENCE:  
(FOR FLOW DEPTHS GREATER THAN THE "TOL" VALUE TYPICALLY 0.1 FT OR 0.03 M)

THE MAXIMUM INUNDATED AREA IS:	1.754 ACRES
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THE MAXIMUM INUNDATED AREA (DEPTH > 0.5 FT) IS:	1.584 ACRES
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AVERAGE GRID ELEMENT FLOW DIRECTION FLOODPLAIN HYDRAULICS:

DISCHARGE (CFS OR CMS):	0.578
VELOCITY (FPS OR CMS):	0.094
FLOW AREA (FT^2 OR M^2):	6.068

	SUMMARY.OUT
FLOW DEPTH (FT OR M):	1.456
FLOW WIDTH (FT OR M):	4.167
TOTAL COMPUTATIONS:	31332561.

COMPUTER RUN TIME IS : 0.04980 HRS

THIS OUTPUT FILE WAS TERMINATED ON: 12/19/2019 AT: 16:43:21

## SWMMQIN.OUT

## INFLOW DISCHARGE TO STORM DRAIN

STORM DRAIN INLET DISCHARGE FOR GRID ELEMENT: 2485 STORM DRAIN INLET: Inlet1

TIME (HRS)	DISCHARGE (CFS OR CMS)	RETURN FLOW (CFS OR CMS)
0.000	0.000	0.000
0.000	0.000	0.000
0.010	0.000	0.000
0.020	0.000	0.000
0.030	0.000	0.000
0.040	0.000	0.000
0.050	0.000	0.000
0.060	0.000	0.000
0.071	0.102	0.000
0.080	0.112	0.000
0.090	0.126	0.000
0.100	0.145	0.000
0.111	0.165	0.000
0.120	0.205	0.000
0.130	0.245	0.000
0.141	0.288	0.000
0.151	0.330	0.000
0.161	0.377	0.000
0.170	0.420	0.000
0.180	0.466	0.000
0.190	0.514	0.000
0.200	0.563	0.000
0.211	0.613	0.000
0.220	0.664	0.000
0.230	0.719	0.000
0.240	0.777	0.000
0.250	0.826	0.000
0.261	0.911	0.000
0.270	0.991	0.000
0.281	1.076	0.000
0.290	1.138	0.000
0.300	1.235	0.000
0.310	1.318	0.000
0.320	1.267	0.000
0.330	1.285	0.000
0.340	1.306	0.000
0.350	1.316	0.000
0.360	1.334	0.000
0.370	1.357	0.000
0.380	1.385	0.000
0.390	1.480	0.000
0.400	1.502	0.000
0.410	1.531	0.000
0.420	1.550	0.000
0.430	1.594	0.000
0.440	1.632	0.000
0.450	1.650	0.000
0.460	1.701	0.000
0.470	1.735	0.000
0.480	1.729	0.000
0.491	1.753	0.000
0.500	1.782	0.000
0.510	1.813	0.000
0.520	1.845	0.000
0.530	1.860	0.000
0.540	1.892	0.000
0.550	1.928	0.000
0.561	1.962	0.000

## SWMMQIN.OUT

0.570	1.991	0.000
0.581	2.026	0.000
0.590	2.154	0.000
0.600	2.300	0.000
0.610	2.448	0.000
0.621	2.584	0.000
0.630	2.749	0.000
0.641	2.930	0.000
0.650	2.609	0.000
0.660	2.616	0.000
0.670	2.628	0.000
0.680	2.670	0.000
0.690	2.693	0.000
0.700	2.720	0.000
0.710	2.716	0.000
0.720	2.768	0.000
0.730	2.782	0.000
0.740	2.840	0.000
0.750	2.871	0.000
0.760	3.069	0.000
0.770	3.009	0.000
0.780	3.125	0.000
0.790	3.033	0.000
0.800	3.181	0.000
0.810	3.249	0.000
0.820	3.195	0.000
0.830	3.341	0.000
0.840	3.343	0.000
0.850	3.357	0.000
0.860	3.376	0.000
0.870	3.381	0.000
0.880	3.406	0.000
0.890	3.474	0.000
0.900	3.503	0.000
0.910	3.522	0.000
0.920	3.626	0.000
0.930	3.593	0.000
0.940	3.669	0.000
0.950	3.811	0.000
0.960	3.612	0.000
0.970	3.967	0.000
0.980	3.738	0.000
0.990	3.751	0.000
1.000	4.044	0.000
1.010	3.916	0.000
1.020	4.039	0.000
1.030	4.051	0.000
1.040	4.175	0.000
1.050	4.112	0.000
1.060	4.104	0.000
1.070	4.332	0.000
1.080	4.258	0.000
1.090	4.375	0.000
1.100	4.489	0.000
1.110	4.523	0.000
1.120	4.451	0.000
1.130	4.326	0.000
1.140	4.805	0.000
1.150	4.676	0.000
1.160	4.622	0.000
1.170	4.700	0.000
1.180	4.731	0.000
1.190	4.800	0.000

		SWMMQIN.OUT	
1.200	4.804		0.000
1.210	4.687		0.000
1.220	4.716		0.000
1.230	4.906		0.000
1.240	4.850		0.000
1.250	4.868		0.000
1.260	4.924		0.000
1.270	5.106		0.000
1.280	5.131		0.000
1.290	5.153		0.000
1.300	5.136		0.000
1.310	5.149		0.000
1.320	5.204		0.000
1.330	5.270		0.000
1.340	5.351		0.000
1.350	5.258		0.000
1.360	5.285		0.000
1.370	5.474		0.000
1.380	5.522		0.000
1.390	5.465		0.000
1.400	5.759		0.000
1.410	5.291		0.000
1.420	5.882		0.000
1.430	5.578		0.000
1.440	5.360		0.000
1.450	6.176		0.000
1.460	5.754		0.000
1.470	6.061		0.000
1.480	5.647		0.000
1.490	5.997		0.000
1.500	6.236		0.000
1.510	5.641		0.000
1.520	6.097		0.000
1.530	6.436		0.000
1.540	6.003		0.000
1.550	5.996		0.000
1.560	5.981		0.000
1.570	6.284		0.000
1.580	6.219		0.000
1.590	6.392		0.000
1.600	6.536		0.000
1.610	6.198		0.000
1.620	6.361		0.000
1.630	6.460		0.000
1.640	6.475		0.000
1.650	6.464		0.000
1.660	6.623		0.000
1.670	6.761		0.000
1.680	6.776		0.000
1.690	6.742		0.000
1.700	6.761		0.000
1.710	6.893		0.000
1.720	6.900		0.000
1.730	6.842		0.000
1.740	7.027		0.000
1.750	6.942		0.000
1.760	7.106		0.000
1.770	6.846		0.000
1.780	7.096		0.000
1.790	7.222		0.000
1.800	7.188		0.000
1.810	7.232		0.000
1.820	7.339		0.000

		SWMMQIN.OUT	
1.830	6.863		0.000
1.840	7.139		0.000
1.850	7.269		0.000
1.860	7.264		0.000
1.870	7.357		0.000
1.880	7.307		0.000
1.890	7.619		0.000
1.900	7.595		0.000
1.910	7.621		0.000
1.920	7.730		0.000
1.930	7.749		0.000
1.940	7.761		0.000
1.950	7.715		0.000
1.960	7.745		0.000
1.970	7.771		0.000
1.980	7.809		0.000
1.990	7.933		0.000
2.000	7.969		0.000
2.010	7.991		0.000
2.020	7.905		0.000
2.030	7.889		0.000
2.040	7.928		0.000
2.050	7.891		0.000
2.060	7.789		0.000
2.070	7.757		0.000
2.080	7.794		0.000
2.090	7.755		0.000
2.100	7.647		0.000
2.110	7.619		0.000
2.120	7.535		0.000
2.130	7.350		0.000
2.140	7.539		0.000
2.150	7.570		0.000
2.160	7.276		0.000
2.170	7.404		0.000
2.180	7.192		0.000
2.190	7.373		0.000
2.200	7.328		0.000
2.210	7.122		0.000
2.220	7.096		0.000
2.230	7.076		0.000
2.240	7.226		0.000
2.250	6.953		0.000
2.260	7.020		0.000
2.270	6.834		0.000
2.280	7.130		0.000
2.290	6.888		0.000
2.300	6.902		0.000
2.310	6.825		0.000
2.320	6.567		0.000
2.330	6.548		0.000
2.340	6.731		0.000
2.350	6.512		0.000
2.360	6.708		0.000
2.370	6.704		0.000
2.380	6.682		0.000
2.390	6.662		0.000
2.400	6.342		0.000
2.410	6.373		0.000
2.420	6.428		0.000
2.430	6.054		0.000
2.440	6.368		0.000
2.450	6.083		0.000



		SWMMQIN.OUT	
2.460	6.409		0.000
2.470	5.813		0.000
2.480	6.369		0.000
2.490	6.155		0.000
2.500	5.631		0.000
2.510	5.824		0.000
2.520	6.292		0.000
2.530	6.178		0.000
2.540	6.281		0.000
2.550	5.948		0.000
2.560	5.446		0.000
2.570	5.819		0.000
2.580	5.957		0.000
2.590	5.700		0.000
2.600	5.420		0.000
2.610	5.595		0.000
2.620	5.309		0.000
2.630	5.492		0.000
2.640	5.345		0.000
2.650	5.342		0.000
2.660	5.355		0.000
2.670	5.260		0.000
2.680	5.330		0.000
2.690	5.225		0.000
2.700	5.203		0.000
2.710	5.201		0.000
2.720	5.197		0.000
2.730	4.950		0.000
2.740	5.107		0.000
2.750	4.915		0.000
2.760	4.864		0.000
2.770	5.027		0.000
2.780	4.784		0.000
2.790	4.788		0.000
2.800	4.784		0.000
2.810	4.949		0.000
2.820	4.791		0.000
2.830	4.674		0.000
2.840	4.533		0.000
2.850	4.529		0.000
2.860	4.559		0.000
2.870	4.587		0.000
2.880	4.475		0.000
2.890	4.584		0.000
2.900	4.306		0.000
2.910	4.387		0.000
2.920	4.393		0.000
2.930	4.199		0.000
2.940	4.153		0.000
2.950	4.169		0.000
2.960	4.112		0.000
2.970	4.103		0.000
2.980	4.112		0.000
2.990	4.066		0.000
3.000	4.058		0.000
3.010	3.799		0.000
3.020	4.050		0.000
3.030	6.701		0.000
3.040	3.999		0.000
3.050	3.918		0.000
3.060	3.726		0.000
3.070	3.639		0.000
3.080	3.424		0.000

		SWMMQIN.OUT	
3.090	2.402		0.000
3.100	3.690		0.000
3.110	3.686		0.000
3.120	3.460		0.000
3.130	3.425		0.000
3.140	3.379		0.000
3.150	3.320		0.000
3.160	3.816		0.000
3.170	3.374		0.000
3.180	3.350		0.000
3.190	3.316		0.000
3.200	3.283		0.000
3.210	3.139		0.000
3.220	2.925		0.000
3.230	3.348		0.000
3.240	3.240		0.000
3.250	3.174		0.000
3.260	2.977		0.000
3.270	2.960		0.000
3.280	2.752		0.000
3.290	2.720		0.000
3.300	3.218		0.000
3.310	2.837		0.000
3.320	2.817		0.000
3.330	2.702		0.000
3.340	2.688		0.000
3.350	2.665		0.000
3.360	2.594		0.000
3.370	2.807		0.000
3.380	2.646		0.000
3.390	2.593		0.000
3.400	2.543		0.000
3.410	2.496		0.000
3.420	2.452		0.000
3.430	2.409		0.000
3.440	2.383		0.000
3.450	2.349		0.000
3.460	2.264		0.000
3.470	2.337		0.000
3.480	2.285		0.000
3.490	2.219		0.000
3.500	2.165		0.000
3.510	2.116		0.000
3.520	2.071		0.000
3.530	2.039		0.000
3.540	1.995		0.000
3.550	1.956		0.000
3.560	1.892		0.000
3.570	1.761		0.000
3.580	1.886		0.000
3.590	1.821		0.000
3.600	1.785		0.000
3.610	1.737		0.000
3.620	1.686		0.000
3.630	1.639		0.000
3.640	1.594		0.000
3.650	1.551		0.000
3.660	1.505		0.000
3.670	1.440		0.000
3.680	1.466		0.000
3.690	1.396		0.000
3.700	1.338		0.000
3.710	1.290		0.000

## SWMMQIN.OUT

3.720	1.244	0.000
3.730	1.198	0.000
3.740	1.156	0.000
3.750	1.116	0.000
3.760	1.075	0.000
3.770	1.025	0.000
3.780	1.015	0.000
3.790	0.969	0.000
3.800	0.929	0.000
3.810	0.891	0.000
3.820	0.854	0.000
3.830	0.817	0.000
3.840	0.773	0.000
3.850	0.757	0.000
3.860	0.715	0.000
3.870	0.675	0.000
3.880	0.637	0.000
3.890	0.599	0.000
3.900	0.564	0.000
3.910	0.522	0.000
3.920	0.499	0.000
3.930	0.459	0.000
3.940	0.421	0.000
3.950	0.384	0.000
3.960	0.348	0.000
3.970	0.313	0.000
3.980	0.280	0.000
3.990	0.247	0.000
4.000	0.217	0.000
4.010	0.185	0.000
4.020	0.159	0.000
4.030	0.138	0.000
4.040	0.119	0.000
4.050	0.104	0.000
4.060	0.103	0.000
4.070	0.102	0.000
4.080	0.103	0.000
4.090	0.104	0.000
4.100	0.096	0.000
4.110	0.096	0.000
4.120	0.096	0.000
4.130	0.095	0.000
4.140	0.095	0.000
4.150	0.095	0.000
4.160	0.095	0.000
4.170	0.095	0.000
4.180	0.095	0.000
4.190	0.096	0.000
4.200	0.093	0.000
4.210	0.093	0.000
4.220	0.093	0.000
4.230	0.093	0.000
4.240	0.093	0.000
4.250	0.093	0.000
4.260	0.093	0.000
4.270	0.092	0.000
4.280	0.091	0.000
4.290	0.000	0.000
4.300	0.000	0.000
4.310	0.000	0.000
4.320	0.000	0.000
4.330	0.000	0.000
4.340	0.000	0.000

		SWMMQIN.OUT	
4.350	0.000		0.000
4.360	0.000		0.000
4.370	0.000		0.000
4.380	0.000		0.000
4.390	0.000		0.000
4.400	0.000		0.000
4.410	0.000		0.000
4.420	0.000		0.000
4.430	0.000		0.000
4.440	0.000		0.000
4.450	0.000		0.000
4.460	0.000		0.000
4.470	0.000		0.000
4.480	0.000		0.000
4.490	0.000		0.000
4.500	0.000		0.000
4.510	0.000		0.000
4.520	0.000		0.000
4.530	0.000		0.000
4.540	0.000		0.000
4.550	0.000		0.000
4.560	0.000		0.000
4.570	0.000		0.000
4.580	0.000		0.000
4.590	0.000		0.000
4.600	0.000		0.000
4.610	0.000		0.000
4.620	0.000		0.000
4.630	0.000		0.000
4.640	0.000		0.000
4.650	0.000		0.000
4.660	0.000		0.000
4.670	0.000		0.000
4.680	0.000		0.000
4.690	0.000		0.000
4.700	0.000		0.000
4.710	0.000		0.000
4.720	0.000		0.000
4.730	0.000		0.000
4.740	0.000		0.000
4.750	0.000		0.000
4.760	0.000		0.000
4.770	0.000		0.000
4.780	0.000		0.000
4.790	0.000		0.000
4.800	0.000		0.000
4.810	0.000		0.000
4.820	0.000		0.000
4.830	0.000		0.000
4.840	0.000		0.000
4.850	0.000		0.000
4.860	0.000		0.000
4.870	0.000		0.000
4.880	0.000		0.000
4.890	0.000		0.000
4.900	0.000		0.000
4.910	0.000		0.000
4.920	0.000		0.000
4.930	0.000		0.000
4.940	0.000		0.000
4.950	0.000		0.000
4.960	0.000		0.000
4.970	0.000		0.000

		SWMMQIN.OUT	
4.980	0.000		0.000
4.990	0.000		0.000
5.000	0.000		0.000
5.010	0.000		0.000
5.020	0.000		0.000
5.030	0.000		0.000
5.040	0.000		0.000
5.050	0.000		0.000
5.060	0.000		0.000
5.070	0.000		0.000
5.080	0.000		0.000
5.090	0.000		0.000
5.100	0.000		0.000
5.110	0.000		0.000
5.120	0.000		0.000
5.130	0.000		0.000
5.140	0.000		0.000
5.150	0.000		0.000
5.160	0.000		0.000
5.170	0.000		0.000
5.180	0.000		0.000
5.190	0.000		0.000
5.200	0.000		0.000
5.210	0.000		0.000
5.220	0.000		0.000
5.230	0.000		0.000
5.240	0.000		0.000
5.250	0.000		0.000
5.260	0.000		0.000
5.270	0.000		0.000
5.280	0.000		0.000
5.290	0.000		0.000
5.300	0.000		0.000
5.310	0.000		0.000
5.320	0.000		0.000
5.330	0.000		0.000
5.340	0.000		0.000
5.350	0.000		0.000
5.360	0.000		0.000
5.370	0.000		0.000
5.380	0.000		0.000
5.390	0.000		0.000
5.400	0.000		0.000
5.410	0.000		0.000
5.420	0.000		0.000
5.430	0.000		0.000
5.440	0.000		0.000
5.450	0.000		0.000
5.460	0.000		0.000
5.470	0.000		0.000
5.480	0.000		0.000
5.490	0.000		0.000
5.500	0.000		0.000
5.510	0.000		0.000
5.520	0.000		0.000
5.530	0.000		0.000
5.540	0.000		0.000
5.550	0.000		0.000
5.560	0.000		0.000
5.570	0.000		0.000
5.580	0.000		0.000
5.590	0.000		0.000
5.600	0.000		0.000

		SWMMQIN.OUT	
5.610	0.000		0.000
5.620	0.000		0.000
5.630	0.000		0.000
5.640	0.000		0.000
5.650	0.000		0.000
5.660	0.000		0.000
5.670	0.000		0.000
5.680	0.000		0.000
5.690	0.000		0.000
5.700	0.000		0.000
5.710	0.000		0.000
5.720	0.000		0.000
5.730	0.000		0.000
5.740	0.000		0.000
5.750	0.000		0.000
5.760	0.000		0.000
5.770	0.000		0.000
5.780	0.000		0.000
5.790	0.000		0.000
5.800	0.000		0.000
5.810	0.000		0.000
5.820	0.000		0.000
5.830	0.000		0.000
5.840	0.000		0.000
5.850	0.000		0.000
5.860	0.000		0.000
5.870	0.000		0.000
5.880	0.000		0.000
5.890	0.000		0.000
5.900	0.000		0.000
5.910	0.000		0.000
5.920	0.000		0.000
5.930	0.000		0.000
5.940	0.000		0.000
5.950	0.000		0.000
5.960	0.000		0.000
5.970	0.000		0.000
5.980	0.000		0.000
5.990	0.000		0.000
6.000	0.000		0.000
6.010	0.000		0.000
6.020	0.000		0.000
6.030	0.000		0.000
6.040	0.000		0.000
6.050	0.000		0.000
6.060	0.000		0.000
6.070	0.000		0.000
6.080	0.000		0.000
6.090	0.000		0.000
6.100	0.000		0.000
6.110	0.000		0.000
6.120	0.000		0.000
6.130	0.000		0.000
6.140	0.000		0.000
6.150	0.000		0.000
6.160	0.000		0.000
6.170	0.000		0.000
6.180	0.000		0.000
6.190	0.000		0.000
6.200	0.000		0.000
6.210	0.000		0.000
6.220	0.000		0.000
6.230	0.000		0.000

		SWMMQIN.OUT	
6.240	0.000		0.000
6.250	0.000		0.000
6.260	0.000		0.000
6.270	0.000		0.000
6.280	0.000		0.000
6.290	0.000		0.000
6.300	0.000		0.000
6.310	0.000		0.000
6.320	0.000		0.000
6.330	0.000		0.000
6.340	0.000		0.000
6.350	0.000		0.000
6.360	0.000		0.000
6.370	0.000		0.000
6.380	0.000		0.000
6.390	0.000		0.000
6.400	0.000		0.000
6.410	0.000		0.000
6.420	0.000		0.000
6.430	0.000		0.000
6.440	0.000		0.000
6.450	0.000		0.000
6.460	0.000		0.000
6.470	0.000		0.000
6.480	0.000		0.000
6.490	0.000		0.000
6.500	0.000		0.000
6.510	0.000		0.000
6.520	0.000		0.000
6.530	0.000		0.000
6.540	0.000		0.000
6.550	0.000		0.000
6.560	0.000		0.000
6.570	0.000		0.000
6.580	0.000		0.000
6.590	0.000		0.000
6.600	0.000		0.000
6.610	0.000		0.000
6.620	0.000		0.000
6.630	0.000		0.000
6.640	0.000		0.000
6.650	0.000		0.000
6.660	0.000		0.000
6.670	0.000		0.000
6.680	0.000		0.000
6.690	0.000		0.000
6.700	0.000		0.000
6.710	0.000		0.000
6.720	0.000		0.000
6.730	0.000		0.000
6.740	0.000		0.000
6.750	0.000		0.000
6.760	0.000		0.000
6.770	0.000		0.000
6.780	0.000		0.000
6.790	0.000		0.000
6.800	0.000		0.000
6.810	0.000		0.000
6.820	0.000		0.000
6.830	0.000		0.000
6.840	0.000		0.000
6.850	0.000		0.000
6.860	0.000		0.000

		SWMMQIN.OUT	
6.870	0.000		0.000
6.880	0.000		0.000
6.890	0.000		0.000
6.900	0.000		0.000
6.910	0.000		0.000
6.920	0.000		0.000
6.930	0.000		0.000
6.940	0.000		0.000
6.950	0.000		0.000
6.960	0.000		0.000
6.970	0.000		0.000
6.980	0.000		0.000
6.990	0.000		0.000
7.000	0.000		0.000
7.010	0.000		0.000
7.020	0.000		0.000
7.030	0.000		0.000
7.040	0.000		0.000
7.050	0.000		0.000
7.060	0.000		0.000
7.070	0.000		0.000
7.080	0.000		0.000
7.090	0.000		0.000
7.100	0.000		0.000
7.110	0.000		0.000
7.120	0.000		0.000
7.130	0.000		0.000
7.140	0.000		0.000
7.150	0.000		0.000
7.160	0.000		0.000
7.170	0.000		0.000
7.180	0.000		0.000
7.190	0.000		0.000
7.200	0.000		0.000
7.210	0.000		0.000
7.220	0.000		0.000
7.230	0.000		0.000
7.240	0.000		0.000
7.250	0.000		0.000
7.260	0.000		0.000
7.270	0.000		0.000
7.280	0.000		0.000
7.290	0.000		0.000
7.300	0.000		0.000
7.310	0.000		0.000
7.320	0.000		0.000
7.330	0.000		0.000
7.340	0.000		0.000
7.350	0.000		0.000
7.360	0.000		0.000
7.370	0.000		0.000
7.380	0.000		0.000
7.390	0.000		0.000
7.400	0.000		0.000
7.410	0.000		0.000
7.420	0.000		0.000
7.430	0.000		0.000
7.440	0.000		0.000
7.450	0.000		0.000
7.460	0.000		0.000
7.470	0.000		0.000
7.480	0.000		0.000
7.490	0.000		0.000



## SWMMQIN.OUT

7.500	0.000	0.000
7.510	0.000	0.000
7.520	0.000	0.000
7.530	0.000	0.000
7.540	0.000	0.000
7.550	0.000	0.000
7.560	0.000	0.000
7.570	0.000	0.000
7.580	0.000	0.000
7.590	0.000	0.000
7.600	0.000	0.000
7.610	0.000	0.000
7.620	0.000	0.000
7.630	0.000	0.000
7.640	0.000	0.000
7.650	0.000	0.000
7.660	0.000	0.000
7.670	0.000	0.000
7.680	0.000	0.000
7.690	0.000	0.000
7.700	0.000	0.000
7.710	0.000	0.000
7.720	0.000	0.000
7.730	0.000	0.000
7.740	0.000	0.000
7.750	0.000	0.000
7.760	0.000	0.000
7.770	0.000	0.000
7.780	0.000	0.000
7.790	0.000	0.000
7.800	0.000	0.000
7.810	0.000	0.000
7.820	0.000	0.000
7.830	0.000	0.000
7.840	0.000	0.000
7.850	0.000	0.000
7.860	0.000	0.000
7.870	0.000	0.000
7.880	0.000	0.000
7.890	0.000	0.000
7.900	0.000	0.000
7.910	0.000	0.000
7.920	0.000	0.000
7.930	0.000	0.000
7.940	0.000	0.000
7.950	0.000	0.000
7.960	0.000	0.000
7.970	0.000	0.000
7.980	0.000	0.000
7.990	0.000	0.000
8.000	0.000	0.000

STORM DRAIN INLET DISCHARGE FOR GRID ELEMENT:

2521 STORM DRAIN INLET: Inlet2

TIME (HRS)	DISCHARGE (CFS OR CMS)	RETURN FLOW (CFS OR CMS)
0.000	0.000	0.000
0.000	0.000	0.000
0.010	0.000	0.000
0.020	0.000	0.000
0.030	0.000	0.000
0.040	0.000	0.000
0.050	0.000	0.000
0.060	0.000	0.000

		SWMMQIN.OUT	
0.071	0.102		0.000
0.080	0.112		0.000
0.090	0.126		0.000
0.100	0.145		0.000
0.111	0.165		0.000
0.120	0.205		0.000
0.130	0.245		0.000
0.141	0.288		0.000
0.151	0.330		0.000
0.161	0.377		0.000
0.170	0.420		0.000
0.180	0.466		0.000
0.190	0.514		0.000
0.200	0.563		0.000
0.211	0.613		0.000
0.220	0.664		0.000
0.230	0.719		0.000
0.240	0.777		0.000
0.250	0.826		0.000
0.261	0.911		0.000
0.270	0.991		0.000
0.281	1.076		0.000
0.290	1.138		0.000
0.300	1.235		0.000
0.310	1.318		0.000
0.320	1.267		0.000
0.330	1.285		0.000
0.340	1.306		0.000
0.350	1.316		0.000
0.360	1.334		0.000
0.370	1.357		0.000
0.380	1.385		0.000
0.390	1.480		0.000
0.400	1.502		0.000
0.410	1.531		0.000
0.420	1.550		0.000
0.430	1.594		0.000
0.440	1.632		0.000
0.450	1.650		0.000
0.460	1.701		0.000
0.470	1.735		0.000
0.480	1.729		0.000
0.491	1.753		0.000
0.500	1.782		0.000
0.510	1.813		0.000
0.520	1.845		0.000
0.530	1.860		0.000
0.540	1.892		0.000
0.550	1.928		0.000
0.561	1.962		0.000
0.570	1.991		0.000
0.581	2.026		0.000
0.590	2.154		0.000
0.600	2.300		0.000
0.610	2.448		0.000
0.621	2.584		0.000
0.630	2.749		0.000
0.641	2.930		0.000
0.650	2.609		0.000
0.660	2.616		0.000
0.670	2.628		0.000
0.680	2.670		0.000
0.690	2.693		0.000

		SWMMQIN.OUT	
0.700	2.720		0.000
0.710	2.716		0.000
0.720	2.768		0.000
0.730	2.782		0.000
0.740	2.840		0.000
0.750	2.871		0.000
0.760	3.069		0.000
0.770	3.009		0.000
0.780	3.125		0.000
0.790	3.033		0.000
0.800	3.181		0.000
0.810	3.249		0.000
0.820	3.195		0.000
0.830	3.341		0.000
0.840	3.343		0.000
0.850	3.357		0.000
0.860	3.376		0.000
0.870	3.381		0.000
0.880	3.406		0.000
0.890	3.474		0.000
0.900	3.503		0.000
0.910	3.522		0.000
0.920	3.626		0.000
0.930	3.593		0.000
0.940	3.669		0.000
0.950	3.811		0.000
0.960	3.612		0.000
0.970	3.967		0.000
0.980	3.738		0.000
0.990	3.751		0.000
1.000	4.044		0.000
1.010	3.916		0.000
1.020	4.039		0.000
1.030	4.051		0.000
1.040	4.175		0.000
1.050	4.112		0.000
1.060	4.104		0.000
1.070	4.332		0.000
1.080	4.258		0.000
1.090	4.375		0.000
1.100	4.489		0.000
1.110	4.523		0.000
1.120	4.451		0.000
1.130	4.326		0.000
1.140	4.805		0.000
1.150	4.676		0.000
1.160	4.622		0.000
1.170	4.700		0.000
1.180	4.731		0.000
1.190	4.800		0.000
1.200	4.804		0.000
1.210	4.687		0.000
1.220	4.716		0.000
1.230	4.906		0.000
1.240	4.850		0.000
1.250	4.868		0.000
1.260	4.924		0.000
1.270	5.106		0.000
1.280	5.131		0.000
1.290	5.153		0.000
1.300	5.136		0.000
1.310	5.149		0.000
1.320	5.204		0.000

		SWMMQIN.OUT	
1.330	5.270		0.000
1.340	5.351		0.000
1.350	5.258		0.000
1.360	5.285		0.000
1.370	5.474		0.000
1.380	5.522		0.000
1.390	5.465		0.000
1.400	5.759		0.000
1.410	5.291		0.000
1.420	5.882		0.000
1.430	5.578		0.000
1.440	5.360		0.000
1.450	6.176		0.000
1.460	5.754		0.000
1.470	6.061		0.000
1.480	5.647		0.000
1.490	5.997		0.000
1.500	6.236		0.000
1.510	5.641		0.000
1.520	6.097		0.000
1.530	6.436		0.000
1.540	6.003		0.000
1.550	5.996		0.000
1.560	5.981		0.000
1.570	6.284		0.000
1.580	6.219		0.000
1.590	6.392		0.000
1.600	6.536		0.000
1.610	6.198		0.000
1.620	6.361		0.000
1.630	6.460		0.000
1.640	6.475		0.000
1.650	6.464		0.000
1.660	6.623		0.000
1.670	6.761		0.000
1.680	6.776		0.000
1.690	6.742		0.000
1.700	6.761		0.000
1.710	6.893		0.000
1.720	6.900		0.000
1.730	6.842		0.000
1.740	7.027		0.000
1.750	6.942		0.000
1.760	7.106		0.000
1.770	6.846		0.000
1.780	7.096		0.000
1.790	7.222		0.000
1.800	7.188		0.000
1.810	7.232		0.000
1.820	7.339		0.000
1.830	6.863		0.000
1.840	7.139		0.000
1.850	7.269		0.000
1.860	7.264		0.000
1.870	7.357		0.000
1.880	7.307		0.000
1.890	7.619		0.000
1.900	7.595		0.000
1.910	7.621		0.000
1.920	7.730		0.000
1.930	7.749		0.000
1.940	7.761		0.000
1.950	7.715		0.000

## SWMMQIN.OUT

1.960	7.745	0.000
1.970	7.771	0.000
1.980	7.809	0.000
1.990	7.933	0.000
2.000	7.969	0.000
2.010	7.991	0.000
2.020	7.905	0.000
2.030	7.889	0.000
2.040	7.928	0.000
2.050	7.891	0.000
2.060	7.789	0.000
2.070	7.757	0.000
2.080	7.794	0.000
2.090	7.755	0.000
2.100	7.647	0.000
2.110	7.619	0.000
2.120	7.535	0.000
2.130	7.350	0.000
2.140	7.539	0.000
2.150	7.570	0.000
2.160	7.276	0.000
2.170	7.404	0.000
2.180	7.192	0.000
2.190	7.373	0.000
2.200	7.328	0.000
2.210	7.122	0.000
2.220	7.096	0.000
2.230	7.076	0.000
2.240	7.226	0.000
2.250	6.953	0.000
2.260	7.020	0.000
2.270	6.834	0.000
2.280	7.130	0.000
2.290	6.888	0.000
2.300	6.902	0.000
2.310	6.825	0.000
2.320	6.567	0.000
2.330	6.548	0.000
2.340	6.731	0.000
2.350	6.512	0.000
2.360	6.708	0.000
2.370	6.704	0.000
2.380	6.682	0.000
2.390	6.662	0.000
2.400	6.342	0.000
2.410	6.373	0.000
2.420	6.428	0.000
2.430	6.054	0.000
2.440	6.368	0.000
2.450	6.083	0.000
2.460	6.409	0.000
2.470	5.813	0.000
2.480	6.369	0.000
2.490	6.155	0.000
2.500	5.631	0.000
2.510	5.824	0.000
2.520	6.292	0.000
2.530	6.178	0.000
2.540	6.281	0.000
2.550	5.948	0.000
2.560	5.446	0.000
2.570	5.819	0.000
2.580	5.957	0.000

		SWMMQIN.OUT	
2.590	5.700		0.000
2.600	5.420		0.000
2.610	5.595		0.000
2.620	5.309		0.000
2.630	5.492		0.000
2.640	5.345		0.000
2.650	5.342		0.000
2.660	5.355		0.000
2.670	5.260		0.000
2.680	5.330		0.000
2.690	5.225		0.000
2.700	5.203		0.000
2.710	5.201		0.000
2.720	5.197		0.000
2.730	4.950		0.000
2.740	5.107		0.000
2.750	4.915		0.000
2.760	4.864		0.000
2.770	5.027		0.000
2.780	4.784		0.000
2.790	4.788		0.000
2.800	4.784		0.000
2.810	4.949		0.000
2.820	4.791		0.000
2.830	4.674		0.000
2.840	4.533		0.000
2.850	4.529		0.000
2.860	4.559		0.000
2.870	4.587		0.000
2.880	4.475		0.000
2.890	4.584		0.000
2.900	4.306		0.000
2.910	4.387		0.000
2.920	4.393		0.000
2.930	4.199		0.000
2.940	4.153		0.000
2.950	4.169		0.000
2.960	4.112		0.000
2.970	4.103		0.000
2.980	4.112		0.000
2.990	4.066		0.000
3.000	4.058		0.000
3.010	3.799		0.000
3.020	4.050		0.000
3.030	6.701		0.000
3.040	3.999		0.000
3.050	3.918		0.000
3.060	3.726		0.000
3.070	3.639		0.000
3.080	3.424		0.000
3.090	2.402		0.000
3.100	3.690		0.000
3.110	3.686		0.000
3.120	3.460		0.000
3.130	3.425		0.000
3.140	3.379		0.000
3.150	3.320		0.000
3.160	3.816		0.000
3.170	3.374		0.000
3.180	3.350		0.000
3.190	3.316		0.000
3.200	3.283		0.000
3.210	3.139		0.000

		SWMMQIN.OUT	
3.220	2.925		0.000
3.230	3.348		0.000
3.240	3.240		0.000
3.250	3.174		0.000
3.260	2.977		0.000
3.270	2.960		0.000
3.280	2.752		0.000
3.290	2.720		0.000
3.300	3.218		0.000
3.310	2.837		0.000
3.320	2.817		0.000
3.330	2.702		0.000
3.340	2.688		0.000
3.350	2.665		0.000
3.360	2.594		0.000
3.370	2.807		0.000
3.380	2.646		0.000
3.390	2.593		0.000
3.400	2.543		0.000
3.410	2.496		0.000
3.420	2.452		0.000
3.430	2.409		0.000
3.440	2.383		0.000
3.450	2.349		0.000
3.460	2.264		0.000
3.470	2.337		0.000
3.480	2.285		0.000
3.490	2.219		0.000
3.500	2.165		0.000
3.510	2.116		0.000
3.520	2.071		0.000
3.530	2.039		0.000
3.540	1.995		0.000
3.550	1.956		0.000
3.560	1.892		0.000
3.570	1.761		0.000
3.580	1.886		0.000
3.590	1.821		0.000
3.600	1.785		0.000
3.610	1.737		0.000
3.620	1.686		0.000
3.630	1.639		0.000
3.640	1.594		0.000
3.650	1.551		0.000
3.660	1.505		0.000
3.670	1.440		0.000
3.680	1.466		0.000
3.690	1.396		0.000
3.700	1.338		0.000
3.710	1.290		0.000
3.720	1.244		0.000
3.730	1.198		0.000
3.740	1.156		0.000
3.750	1.116		0.000
3.760	1.075		0.000
3.770	1.025		0.000
3.780	1.015		0.000
3.790	0.969		0.000
3.800	0.929		0.000
3.810	0.891		0.000
3.820	0.854		0.000
3.830	0.817		0.000
3.840	0.773		0.000

		SWMMQIN.OUT	
3.850	0.757		0.000
3.860	0.715		0.000
3.870	0.675		0.000
3.880	0.637		0.000
3.890	0.599		0.000
3.900	0.564		0.000
3.910	0.522		0.000
3.920	0.499		0.000
3.930	0.459		0.000
3.940	0.421		0.000
3.950	0.384		0.000
3.960	0.348		0.000
3.970	0.313		0.000
3.980	0.280		0.000
3.990	0.247		0.000
4.000	0.217		0.000
4.010	0.185		0.000
4.020	0.159		0.000
4.030	0.138		0.000
4.040	0.119		0.000
4.050	0.104		0.000
4.060	0.103		0.000
4.070	0.102		0.000
4.080	0.103		0.000
4.090	0.104		0.000
4.100	0.096		0.000
4.110	0.096		0.000
4.120	0.096		0.000
4.130	0.095		0.000
4.140	0.095		0.000
4.150	0.095		0.000
4.160	0.095		0.000
4.170	0.095		0.000
4.180	0.095		0.000
4.190	0.096		0.000
4.200	0.093		0.000
4.210	0.093		0.000
4.220	0.093		0.000
4.230	0.093		0.000
4.240	0.093		0.000
4.250	0.093		0.000
4.260	0.093		0.000
4.270	0.092		0.000
4.280	0.091		0.000
4.290	0.000		0.000
4.300	0.000		0.000
4.310	0.000		0.000
4.320	0.000		0.000
4.330	0.000		0.000
4.340	0.000		0.000
4.350	0.000		0.000
4.360	0.000		0.000
4.370	0.000		0.000
4.380	0.000		0.000
4.390	0.000		0.000
4.400	0.000		0.000
4.410	0.000		0.000
4.420	0.000		0.000
4.430	0.000		0.000
4.440	0.000		0.000
4.450	0.000		0.000
4.460	0.000		0.000
4.470	0.000		0.000



		SWMMQIN.OUT	
4.480	0.000		0.000
4.490	0.000		0.000
4.500	0.000		0.000
4.510	0.000		0.000
4.520	0.000		0.000
4.530	0.000		0.000
4.540	0.000		0.000
4.550	0.000		0.000
4.560	0.000		0.000
4.570	0.000		0.000
4.580	0.000		0.000
4.590	0.000		0.000
4.600	0.000		0.000
4.610	0.000		0.000
4.620	0.000		0.000
4.630	0.000		0.000
4.640	0.000		0.000
4.650	0.000		0.000
4.660	0.000		0.000
4.670	0.000		0.000
4.680	0.000		0.000
4.690	0.000		0.000
4.700	0.000		0.000
4.710	0.000		0.000
4.720	0.000		0.000
4.730	0.000		0.000
4.740	0.000		0.000
4.750	0.000		0.000
4.760	0.000		0.000
4.770	0.000		0.000
4.780	0.000		0.000
4.790	0.000		0.000
4.800	0.000		0.000
4.810	0.000		0.000
4.820	0.000		0.000
4.830	0.000		0.000
4.840	0.000		0.000
4.850	0.000		0.000
4.860	0.000		0.000
4.870	0.000		0.000
4.880	0.000		0.000
4.890	0.000		0.000
4.900	0.000		0.000
4.910	0.000		0.000
4.920	0.000		0.000
4.930	0.000		0.000
4.940	0.000		0.000
4.950	0.000		0.000
4.960	0.000		0.000
4.970	0.000		0.000
4.980	0.000		0.000
4.990	0.000		0.000
5.000	0.000		0.000
5.010	0.000		0.000
5.020	0.000		0.000
5.030	0.000		0.000
5.040	0.000		0.000
5.050	0.000		0.000
5.060	0.000		0.000
5.070	0.000		0.000
5.080	0.000		0.000
5.090	0.000		0.000
5.100	0.000		0.000

		SWMMQIN.OUT	
5.110	0.000		0.000
5.120	0.000		0.000
5.130	0.000		0.000
5.140	0.000		0.000
5.150	0.000		0.000
5.160	0.000		0.000
5.170	0.000		0.000
5.180	0.000		0.000
5.190	0.000		0.000
5.200	0.000		0.000
5.210	0.000		0.000
5.220	0.000		0.000
5.230	0.000		0.000
5.240	0.000		0.000
5.250	0.000		0.000
5.260	0.000		0.000
5.270	0.000		0.000
5.280	0.000		0.000
5.290	0.000		0.000
5.300	0.000		0.000
5.310	0.000		0.000
5.320	0.000		0.000
5.330	0.000		0.000
5.340	0.000		0.000
5.350	0.000		0.000
5.360	0.000		0.000
5.370	0.000		0.000
5.380	0.000		0.000
5.390	0.000		0.000
5.400	0.000		0.000
5.410	0.000		0.000
5.420	0.000		0.000
5.430	0.000		0.000
5.440	0.000		0.000
5.450	0.000		0.000
5.460	0.000		0.000
5.470	0.000		0.000
5.480	0.000		0.000
5.490	0.000		0.000
5.500	0.000		0.000
5.510	0.000		0.000
5.520	0.000		0.000
5.530	0.000		0.000
5.540	0.000		0.000
5.550	0.000		0.000
5.560	0.000		0.000
5.570	0.000		0.000
5.580	0.000		0.000
5.590	0.000		0.000
5.600	0.000		0.000
5.610	0.000		0.000
5.620	0.000		0.000
5.630	0.000		0.000
5.640	0.000		0.000
5.650	0.000		0.000
5.660	0.000		0.000
5.670	0.000		0.000
5.680	0.000		0.000
5.690	0.000		0.000
5.700	0.000		0.000
5.710	0.000		0.000
5.720	0.000		0.000
5.730	0.000		0.000

		SWMMQIN.OUT	
5.740	0.000		0.000
5.750	0.000		0.000
5.760	0.000		0.000
5.770	0.000		0.000
5.780	0.000		0.000
5.790	0.000		0.000
5.800	0.000		0.000
5.810	0.000		0.000
5.820	0.000		0.000
5.830	0.000		0.000
5.840	0.000		0.000
5.850	0.000		0.000
5.860	0.000		0.000
5.870	0.000		0.000
5.880	0.000		0.000
5.890	0.000		0.000
5.900	0.000		0.000
5.910	0.000		0.000
5.920	0.000		0.000
5.930	0.000		0.000
5.940	0.000		0.000
5.950	0.000		0.000
5.960	0.000		0.000
5.970	0.000		0.000
5.980	0.000		0.000
5.990	0.000		0.000
6.000	0.000		0.000
6.010	0.000		0.000
6.020	0.000		0.000
6.030	0.000		0.000
6.040	0.000		0.000
6.050	0.000		0.000
6.060	0.000		0.000
6.070	0.000		0.000
6.080	0.000		0.000
6.090	0.000		0.000
6.100	0.000		0.000
6.110	0.000		0.000
6.120	0.000		0.000
6.130	0.000		0.000
6.140	0.000		0.000
6.150	0.000		0.000
6.160	0.000		0.000
6.170	0.000		0.000
6.180	0.000		0.000
6.190	0.000		0.000
6.200	0.000		0.000
6.210	0.000		0.000
6.220	0.000		0.000
6.230	0.000		0.000
6.240	0.000		0.000
6.250	0.000		0.000
6.260	0.000		0.000
6.270	0.000		0.000
6.280	0.000		0.000
6.290	0.000		0.000
6.300	0.000		0.000
6.310	0.000		0.000
6.320	0.000		0.000
6.330	0.000		0.000
6.340	0.000		0.000
6.350	0.000		0.000
6.360	0.000		0.000

		SWMMQIN.OUT	
6.370	0.000		0.000
6.380	0.000		0.000
6.390	0.000		0.000
6.400	0.000		0.000
6.410	0.000		0.000
6.420	0.000		0.000
6.430	0.000		0.000
6.440	0.000		0.000
6.450	0.000		0.000
6.460	0.000		0.000
6.470	0.000		0.000
6.480	0.000		0.000
6.490	0.000		0.000
6.500	0.000		0.000
6.510	0.000		0.000
6.520	0.000		0.000
6.530	0.000		0.000
6.540	0.000		0.000
6.550	0.000		0.000
6.560	0.000		0.000
6.570	0.000		0.000
6.580	0.000		0.000
6.590	0.000		0.000
6.600	0.000		0.000
6.610	0.000		0.000
6.620	0.000		0.000
6.630	0.000		0.000
6.640	0.000		0.000
6.650	0.000		0.000
6.660	0.000		0.000
6.670	0.000		0.000
6.680	0.000		0.000
6.690	0.000		0.000
6.700	0.000		0.000
6.710	0.000		0.000
6.720	0.000		0.000
6.730	0.000		0.000
6.740	0.000		0.000
6.750	0.000		0.000
6.760	0.000		0.000
6.770	0.000		0.000
6.780	0.000		0.000
6.790	0.000		0.000
6.800	0.000		0.000
6.810	0.000		0.000
6.820	0.000		0.000
6.830	0.000		0.000
6.840	0.000		0.000
6.850	0.000		0.000
6.860	0.000		0.000
6.870	0.000		0.000
6.880	0.000		0.000
6.890	0.000		0.000
6.900	0.000		0.000
6.910	0.000		0.000
6.920	0.000		0.000
6.930	0.000		0.000
6.940	0.000		0.000
6.950	0.000		0.000
6.960	0.000		0.000
6.970	0.000		0.000
6.980	0.000		0.000
6.990	0.000		0.000

		SWMMQIN.OUT	
7.000	0.000		0.000
7.010	0.000		0.000
7.020	0.000		0.000
7.030	0.000		0.000
7.040	0.000		0.000
7.050	0.000		0.000
7.060	0.000		0.000
7.070	0.000		0.000
7.080	0.000		0.000
7.090	0.000		0.000
7.100	0.000		0.000
7.110	0.000		0.000
7.120	0.000		0.000
7.130	0.000		0.000
7.140	0.000		0.000
7.150	0.000		0.000
7.160	0.000		0.000
7.170	0.000		0.000
7.180	0.000		0.000
7.190	0.000		0.000
7.200	0.000		0.000
7.210	0.000		0.000
7.220	0.000		0.000
7.230	0.000		0.000
7.240	0.000		0.000
7.250	0.000		0.000
7.260	0.000		0.000
7.270	0.000		0.000
7.280	0.000		0.000
7.290	0.000		0.000
7.300	0.000		0.000
7.310	0.000		0.000
7.320	0.000		0.000
7.330	0.000		0.000
7.340	0.000		0.000
7.350	0.000		0.000
7.360	0.000		0.000
7.370	0.000		0.000
7.380	0.000		0.000
7.390	0.000		0.000
7.400	0.000		0.000
7.410	0.000		0.000
7.420	0.000		0.000
7.430	0.000		0.000
7.440	0.000		0.000
7.450	0.000		0.000
7.460	0.000		0.000
7.470	0.000		0.000
7.480	0.000		0.000
7.490	0.000		0.000
7.500	0.000		0.000
7.510	0.000		0.000
7.520	0.000		0.000
7.530	0.000		0.000
7.540	0.000		0.000
7.550	0.000		0.000
7.560	0.000		0.000
7.570	0.000		0.000
7.580	0.000		0.000
7.590	0.000		0.000
7.600	0.000		0.000
7.610	0.000		0.000
7.620	0.000		0.000

		SWMMQIN.OUT	
7.630	0.000		0.000
7.640	0.000		0.000
7.650	0.000		0.000
7.660	0.000		0.000
7.670	0.000		0.000
7.680	0.000		0.000
7.690	0.000		0.000
7.700	0.000		0.000
7.710	0.000		0.000
7.720	0.000		0.000
7.730	0.000		0.000
7.740	0.000		0.000
7.750	0.000		0.000
7.760	0.000		0.000
7.770	0.000		0.000
7.780	0.000		0.000
7.790	0.000		0.000
7.800	0.000		0.000
7.810	0.000		0.000
7.820	0.000		0.000
7.830	0.000		0.000
7.840	0.000		0.000
7.850	0.000		0.000
7.860	0.000		0.000
7.870	0.000		0.000
7.880	0.000		0.000
7.890	0.000		0.000
7.900	0.000		0.000
7.910	0.000		0.000
7.920	0.000		0.000
7.930	0.000		0.000
7.940	0.000		0.000
7.950	0.000		0.000
7.960	0.000		0.000
7.970	0.000		0.000
7.980	0.000		0.000
7.990	0.000		0.000
8.000	0.000		0.000

## swmm.RPT

## EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

\*\*\*\*\*  
 NOTE: The summary statistics displayed in this report are  
 based on results found at every computational time step,  
 not just on results from each reporting time step.  
 \*\*\*\*\*

\*\*\*\*\*  
 Analysis Options  
 \*\*\*\*\*

Flow Units ..... CFS  
 Process Models:  
   Snowmelt ..... NO  
   Groundwater ..... NO  
   Flow Routing ..... YES  
   Ponding Allowed ..... YES  
   Water Quality ..... NO  
 Infiltration Method ..... HORTON  
 Flow Routing Method ..... DYNWAVE  
 Starting Date ..... AUG-06-2014 00:00:00  
 Ending Date ..... AUG-06-2014 08:00:00  
 Antecedent Dry Days ..... 0.0  
 Report Time Step ..... 00:00:36  
 Wet Time Step ..... 00:01:00  
 Dry Time Step ..... 00:01:00  
 Routing Time Step ..... 0.05 sec

WARNING 02: maximum depth increased for Node Junction1

\*\*\*\*\*  
 Element Count  
 \*\*\*\*\*

Number of nodes ..... 4  
 Number of links ..... 3  
 Number of pollutants ..... 0  
 Number of land uses ..... 0

\*\*\*\*\*  
 Rainage Summary  
 \*\*\*\*\*

Name	Data Source	Data Type	Recording Interval
------	-------------	-----------	--------------------

## swmm.RPT

1 swmm.rain

\*\*\*\*\*

## Subcatchment Summary

\*\*\*\*\*

Name	Area	Width	%Imperv	%Slope	Rain Gage
Outlet					

-----

SC1	5.00	2.00	25.00	0.5000	1
Inlet1					
SC2	5.00	2.00	25.00	0.5000	1
Inlet2					

\*\*\*\*\*

## Node Summary

\*\*\*\*\*

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
Inlet1	JUNCTION	5.50	2.50	0.0	
Inlet2	JUNCTION	5.50	2.50	0.0	
Junction1	JUNCTION	4.50	2.50	0.0	
Outf1	OUTFALL	4.00	2.50	0.0	

\*\*\*\*\*

## Link Summary

\*\*\*\*\*

Name	From Node	To Node	Type	Length	%Slope
Roughness					

-----

1	Inlet1	Junction1	CONDUIT	330.0	0.3030
0.0250					
2	Inlet2	Junction1	CONDUIT	330.0	0.3030
0.0250					
3	Junction1	Outf1	CONDUIT	91.0	0.5495
0.0250					

\*\*\*\*\*

## Cross Section Summary

\*\*\*\*\*

Full	Full	Hyd.	Max.	No. of
------	------	------	------	--------



swmm.RPT

Full Conduit Flow	Shape	Depth	Area	Rad.	Width	Barrels
-------------------------	-------	-------	------	------	-------	---------

1	CIRCULAR	2.50	4.91	0.63	2.50	1
11.74						
2	CIRCULAR	2.50	4.91	0.63	2.50	1
11.74						
3	CIRCULAR	2.50	4.91	0.63	2.50	1
15.81						

\*\*\*\*\*  
Control Actions Taken  
\*\*\*\*\*

	Volume acre-feet	Depth inches
Runoff Quantity Continuity		
Total Precipitation .....	0.000	0.000
Evaporation Loss .....	0.000	0.000
Infiltration Loss .....	0.000	0.000
Surface Runoff .....	0.000	0.000
Final Surface Storage ....	0.000	0.000
Continuity Error (%) .....	0.000	

	Volume acre-feet	Volume 10 <sup>6</sup> gal
Flow Routing Continuity		
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	2.643	0.861
Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000
External Inflow .....	0.000	0.000
External Outflow .....	2.643	0.861
Internal Outflow .....	0.000	0.000
Return Flow to Surface....	0.000	0.000
Initial Stored Volume ....	0.000	0.000
Final Stored Volume .....	0.000	0.000
Continuity Error (%) .....	-0.001	

\*\*\*\*\*  
Time-Step Critical Elements

## swmm.RPT

\*\*\*\*\*

None

\*\*\*\*\*

## Highest Flow Instability Indices

\*\*\*\*\*

All links are stable.

\*\*\*\*\*

## Routing Time Step Summary

\*\*\*\*\*

Minimum Time Step	:	0.05 sec
Average Time Step	:	1.07 sec
Maximum Time Step	:	4.05 sec
Percent in Steady State	:	0.00
Average Iterations per Step	:	2.00

\*\*\*\*\*

## Subcatchment Runoff Summary

\*\*\*\*\*

Total	Peak	Runoff	Total	Total	Total	Total	Total
Runoff	Runoff	Coeff	Precip	Runon	Evap	Infil	Runoff
Subcatchment	Subcatchment		in	in	in	in	in
10^6 gal	CFS						

SC1			0.00	0.00	0.00	0.00	0.00
0.00	8.00	0.000					
SC2			0.00	0.00	0.00	0.00	0.00
0.00	8.00	0.000					

\*\*\*\*\*

## Node Depth Summary

\*\*\*\*\*

Average	Maximum	Maximum	Time of Max
Depth	Depth	HGL	Occurrence

Node	Type	swmm.RPT		Feet	days	hr:min
		Feet	Feet			
Inlet1	JUNCTION	0.42	1.52	7.02	0	02:01
Inlet2	JUNCTION	0.42	1.52	7.02	0	02:01
Junction1	JUNCTION	0.54	1.82	6.32	0	02:02
Outf1	OUTFALL	0.39	1.34	5.34	0	02:02

\*\*\*\*\*

#### Node Inflow Summary

\*\*\*\*\*

		Maximum	Maximum			Lateral	
		Lateral	Total	Time of Max		Inflow	
		Inflow	Inflow	Occurrence		Volume	
Node	Type	CFS	CFS	days	hr:min	10^6 gal	10^6
Inlet1	JUNCTION	8.00	8.00	0	02:00	0.431	
Inlet2	JUNCTION	8.00	8.00	0	02:00	0.431	
Junction1	JUNCTION	0.00	15.85	0	02:01	0.000	
Outf1	OUTFALL	0.00	15.82	0	02:02	0.000	

\*\*\*\*\*

#### Node Surcharge Summary

\*\*\*\*\*

No nodes were surcharged.

\*\*\*\*\*

#### Node Flooding Summary

\*\*\*\*\*

No nodes were flooded.

## swmm.RPT

\*\*\*\*\*

## Outfall Loading Summary

\*\*\*\*\*

Outfall Node	Flow Freq. Pcnt.	Avg. Flow CFS	Max. Flow CFS	Total Volume 10^6 gal
Outf1	70.20	4.97	15.82	0.861
System	70.20	4.97	15.82	0.861

\*\*\*\*\*

## Link Flow Summary

\*\*\*\*\*

Link	Type	Maximum  Flow  CFS	Time of Max Occurrence days hr:min	Maximum  Veloc  ft/sec	Max/ Full Flow	Max/ Full Depth
1	CONDUIT	7.92	0 02:01	2.28	0.67	0.67
2	CONDUIT	7.92	0 02:01	2.28	0.67	0.67
3	CONDUIT	15.82	0 02:02	4.84	1.00	0.63

\*\*\*\*\*

## Flow Classification Summary

\*\*\*\*\*

Avg. Flow Conduit Change	Adjusted /Actual Length	--- Fraction of Time in Flow Class ---								Avg. Froude Number
		Dry	Dry	Dry	Crit	Crit	Crit	Crit	Crit	
1 0.0001	1.00	0.01	0.23	0.00	0.77	0.00	0.00	0.00	0.00	0.16
2 0.0001	1.00	0.01	0.23	0.00	0.77	0.00	0.00	0.00	0.00	0.16

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3                      1.00    0.01   0.00   0.00   0.99   0.00   0.00   0.00    0.50  
 0.0001

\*\*\*\*\*  
 Conduit Surge Summary  
 \*\*\*\*\*

Conduit	----- Both Ends	Hours Full Upstream	----- Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited
3	0.01	0.01	0.01	0.01	0.01

\*\*\*\*\*  
 Node Results  
 \*\*\*\*\*

<<< Node Inlet1 >>>

Date	Time	Inflow CFS	Flooding CFS	Depth feet	Head feet
AUG-06-2014	00:00:36	0.000	0.000	0.000	5.500
AUG-06-2014	00:01:12	0.000	0.000	0.000	5.500
AUG-06-2014	00:01:48	0.000	0.000	0.000	5.500
AUG-06-2014	00:02:24	0.000	0.000	0.000	5.500
AUG-06-2014	00:03:00	0.000	0.000	0.000	5.500
AUG-06-2014	00:03:36	0.000	0.000	0.000	5.500
AUG-06-2014	00:04:12	0.033	0.000	0.009	5.509
AUG-06-2014	00:04:48	0.059	0.000	0.037	5.537
AUG-06-2014	00:05:24	0.092	0.000	0.062	5.562
AUG-06-2014	00:06:00	0.130	0.000	0.091	5.591
AUG-06-2014	00:06:36	0.163	0.000	0.122	5.622
AUG-06-2014	00:07:12	0.203	0.000	0.155	5.655
AUG-06-2014	00:07:48	0.243	0.000	0.190	5.690
AUG-06-2014	00:08:24	0.283	0.000	0.224	5.724
AUG-06-2014	00:09:00	0.326	0.000	0.259	5.759
AUG-06-2014	00:09:36	0.372	0.000	0.293	5.793
AUG-06-2014	00:10:12	0.418	0.000	0.325	5.825
AUG-06-2014	00:10:48	0.465	0.000	0.353	5.853
AUG-06-2014	00:11:24	0.513	0.000	0.379	5.879
AUG-06-2014	00:12:00	0.560	0.000	0.401	5.901
AUG-06-2014	00:12:36	0.609	0.000	0.418	5.918
AUG-06-2014	00:13:12	0.661	0.000	0.431	5.931
AUG-06-2014	00:13:48	0.718	0.000	0.441	5.941
AUG-06-2014	00:14:24	0.777	0.000	0.449	5.949

		swmm.RPT			
AUG-06-2014	00:15:00	0.826	0.000	0.454	5.954
AUG-06-2014	00:15:36	0.873	0.000	0.457	5.957
AUG-06-2014	00:16:12	0.930	0.000	0.461	5.961
AUG-06-2014	00:16:48	0.975	0.000	0.468	5.968
AUG-06-2014	00:17:24	1.017	0.000	0.477	5.977
AUG-06-2014	00:18:00	1.066	0.000	0.486	5.986
AUG-06-2014	00:18:36	1.108	0.000	0.496	5.996
AUG-06-2014	00:19:12	1.266	0.000	0.506	6.006
AUG-06-2014	00:19:48	1.284	0.000	0.524	6.024
AUG-06-2014	00:20:24	1.305	0.000	0.537	6.037
AUG-06-2014	00:21:00	1.316	0.000	0.547	6.047
AUG-06-2014	00:21:36	1.333	0.000	0.555	6.055
AUG-06-2014	00:22:12	1.355	0.000	0.561	6.061
AUG-06-2014	00:22:48	1.383	0.000	0.567	6.067
AUG-06-2014	00:23:24	1.475	0.000	0.574	6.074
AUG-06-2014	00:24:00	1.495	0.000	0.584	6.084
AUG-06-2014	00:24:36	1.526	0.000	0.592	6.092
AUG-06-2014	00:25:12	1.562	0.000	0.600	6.100
AUG-06-2014	00:25:48	1.583	0.000	0.607	6.107
AUG-06-2014	00:26:24	1.626	0.000	0.614	6.114
AUG-06-2014	00:27:00	1.660	0.000	0.621	6.121
AUG-06-2014	00:27:36	1.692	0.000	0.628	6.128
AUG-06-2014	00:28:12	1.734	0.000	0.634	6.134
AUG-06-2014	00:28:48	1.729	0.000	0.640	6.140
AUG-06-2014	00:29:24	1.750	0.000	0.644	6.144
AUG-06-2014	00:30:00	1.780	0.000	0.649	6.149
AUG-06-2014	00:30:36	1.812	0.000	0.654	6.154
AUG-06-2014	00:31:12	1.843	0.000	0.659	6.159
AUG-06-2014	00:31:48	1.859	0.000	0.664	6.164
AUG-06-2014	00:32:24	1.891	0.000	0.669	6.169
AUG-06-2014	00:33:00	1.925	0.000	0.674	6.174
AUG-06-2014	00:33:36	1.958	0.000	0.680	6.180
AUG-06-2014	00:34:12	1.991	0.000	0.685	6.185
AUG-06-2014	00:34:48	2.023	0.000	0.691	6.191
AUG-06-2014	00:35:24	2.066	0.000	0.697	6.197
AUG-06-2014	00:36:00	2.119	0.000	0.704	6.204
AUG-06-2014	00:36:36	2.169	0.000	0.713	6.213
AUG-06-2014	00:37:12	2.205	0.000	0.720	6.220
AUG-06-2014	00:37:48	2.264	0.000	0.729	6.229
AUG-06-2014	00:38:24	2.319	0.000	0.737	6.237
AUG-06-2014	00:39:00	2.607	0.000	0.746	6.246
AUG-06-2014	00:39:36	2.631	0.000	0.770	6.270
AUG-06-2014	00:40:12	2.640	0.000	0.785	6.285
AUG-06-2014	00:40:48	2.657	0.000	0.795	6.295
AUG-06-2014	00:41:24	2.677	0.000	0.802	6.302
AUG-06-2014	00:42:00	2.713	0.000	0.807	6.307
AUG-06-2014	00:42:36	2.744	0.000	0.812	6.312
AUG-06-2014	00:43:12	2.748	0.000	0.817	6.317
AUG-06-2014	00:43:48	2.794	0.000	0.822	6.322

		swmm.RPT			
AUG-06-2014	00:44:24	2.823	0.000	0.826	6.326
AUG-06-2014	00:45:00	2.990	0.000	0.833	6.333
AUG-06-2014	00:45:36	2.888	0.000	0.842	6.342
AUG-06-2014	00:46:12	3.212	0.000	0.851	6.351
AUG-06-2014	00:46:48	2.960	0.000	0.859	6.359
AUG-06-2014	00:47:24	3.183	0.000	0.867	6.367
AUG-06-2014	00:48:00	3.173	0.000	0.875	6.375
AUG-06-2014	00:48:36	3.154	0.000	0.881	6.381
AUG-06-2014	00:49:12	3.105	0.000	0.889	6.389
AUG-06-2014	00:49:48	3.319	0.000	0.895	6.395
AUG-06-2014	00:50:24	3.324	0.000	0.902	6.402
AUG-06-2014	00:51:00	3.339	0.000	0.907	6.407
AUG-06-2014	00:51:36	3.361	0.000	0.910	6.410
AUG-06-2014	00:52:12	3.391	0.000	0.914	6.414
AUG-06-2014	00:52:48	3.421	0.000	0.917	6.417
AUG-06-2014	00:53:24	3.458	0.000	0.921	6.421
AUG-06-2014	00:54:00	3.481	0.000	0.926	6.426
AUG-06-2014	00:54:36	3.599	0.000	0.932	6.432
AUG-06-2014	00:55:12	3.760	0.000	0.940	6.440
AUG-06-2014	00:55:48	3.683	0.000	0.948	6.448
AUG-06-2014	00:56:24	3.771	0.000	0.956	6.456
AUG-06-2014	00:57:00	3.655	0.000	0.963	6.463
AUG-06-2014	00:57:36	3.813	0.000	0.968	6.468
AUG-06-2014	00:58:12	3.824	0.000	0.975	6.475
AUG-06-2014	00:58:48	4.004	0.000	0.982	6.482
AUG-06-2014	00:59:24	4.012	0.000	0.988	6.488
AUG-06-2014	01:00:00	4.003	0.000	0.992	6.492
AUG-06-2014	01:00:36	3.958	0.000	0.998	6.498
AUG-06-2014	01:01:12	4.076	0.000	1.004	6.504
AUG-06-2014	01:01:48	4.077	0.000	1.009	6.509
AUG-06-2014	01:02:24	4.209	0.000	1.013	6.513
AUG-06-2014	01:03:00	4.255	0.000	1.020	6.520
AUG-06-2014	01:03:36	4.178	0.000	1.026	6.526
AUG-06-2014	01:04:12	4.185	0.000	1.031	6.531
AUG-06-2014	01:04:48	4.422	0.000	1.036	6.536
AUG-06-2014	01:05:24	4.279	0.000	1.042	6.542
AUG-06-2014	01:06:00	4.315	0.000	1.047	6.547
AUG-06-2014	01:06:36	4.469	0.000	1.052	6.552
AUG-06-2014	01:07:12	4.314	0.000	1.058	6.558
AUG-06-2014	01:07:48	4.445	0.000	1.063	6.563
AUG-06-2014	01:08:24	4.764	0.000	1.071	6.571
AUG-06-2014	01:09:00	4.782	0.000	1.087	6.587
AUG-06-2014	01:09:36	4.651	0.000	1.092	6.592
AUG-06-2014	01:10:12	4.691	0.000	1.095	6.595
AUG-06-2014	01:10:48	4.675	0.000	1.099	6.599
AUG-06-2014	01:11:24	4.766	0.000	1.101	6.601
AUG-06-2014	01:12:00	4.750	0.000	1.104	6.604
AUG-06-2014	01:12:36	4.779	0.000	1.108	6.608
AUG-06-2014	01:13:12	4.791	0.000	1.111	6.611

			swmm.RPT		
AUG-06-2014 01:13:48	4.891	0.000	1.116	6.616	
AUG-06-2014 01:14:24	4.900	0.000	1.121	6.621	
AUG-06-2014 01:15:00	4.950	0.000	1.125	6.625	
AUG-06-2014 01:15:36	5.051	0.000	1.131	6.631	
AUG-06-2014 01:16:12	5.051	0.000	1.136	6.636	
AUG-06-2014 01:16:48	5.094	0.000	1.140	6.640	
AUG-06-2014 01:17:24	5.108	0.000	1.147	6.647	
AUG-06-2014 01:18:00	5.140	0.000	1.152	6.652	
AUG-06-2014 01:18:36	5.196	0.000	1.156	6.656	
AUG-06-2014 01:19:12	5.291	0.000	1.161	6.661	
AUG-06-2014 01:19:48	5.190	0.000	1.168	6.668	
AUG-06-2014 01:20:24	5.360	0.000	1.174	6.674	
AUG-06-2014 01:21:00	5.244	0.000	1.179	6.679	
AUG-06-2014 01:21:36	5.487	0.000	1.188	6.688	
AUG-06-2014 01:22:12	5.705	0.000	1.193	6.693	
AUG-06-2014 01:22:48	5.680	0.000	1.195	6.695	
AUG-06-2014 01:23:24	5.346	0.000	1.198	6.698	
AUG-06-2014 01:24:00	5.794	0.000	1.206	6.706	
AUG-06-2014 01:24:36	5.299	0.000	1.211	6.711	
AUG-06-2014 01:25:12	5.676	0.000	1.216	6.716	
AUG-06-2014 01:25:48	5.740	0.000	1.220	6.720	
AUG-06-2014 01:26:24	5.380	0.000	1.225	6.725	
AUG-06-2014 01:27:00	5.724	0.000	1.227	6.727	
AUG-06-2014 01:27:36	5.416	0.000	1.232	6.732	
AUG-06-2014 01:28:12	5.395	0.000	1.238	6.738	
AUG-06-2014 01:28:48	6.023	0.000	1.241	6.741	
AUG-06-2014 01:29:24	5.821	0.000	1.246	6.746	
AUG-06-2014 01:30:00	5.616	0.000	1.255	6.755	
AUG-06-2014 01:30:36	6.412	0.000	1.258	6.758	
AUG-06-2014 01:31:12	5.967	0.000	1.263	6.763	
AUG-06-2014 01:31:48	5.932	0.000	1.271	6.771	
AUG-06-2014 01:32:24	6.013	0.000	1.274	6.774	
AUG-06-2014 01:33:00	5.822	0.000	1.280	6.780	
AUG-06-2014 01:33:36	5.838	0.000	1.284	6.784	
AUG-06-2014 01:34:12	6.396	0.000	1.290	6.790	
AUG-06-2014 01:34:48	6.116	0.000	1.295	6.795	
AUG-06-2014 01:35:24	6.296	0.000	1.300	6.800	
AUG-06-2014 01:36:00	6.216	0.000	1.305	6.805	
AUG-06-2014 01:36:36	6.299	0.000	1.310	6.810	
AUG-06-2014 01:37:12	6.376	0.000	1.315	6.815	
AUG-06-2014 01:37:48	6.451	0.000	1.320	6.820	
AUG-06-2014 01:38:24	6.620	0.000	1.324	6.824	
AUG-06-2014 01:39:00	6.561	0.000	1.329	6.829	
AUG-06-2014 01:39:36	6.543	0.000	1.334	6.834	
AUG-06-2014 01:40:12	6.705	0.000	1.339	6.839	
AUG-06-2014 01:40:48	6.770	0.000	1.344	6.844	
AUG-06-2014 01:41:24	6.764	0.000	1.348	6.848	
AUG-06-2014 01:42:00	6.711	0.000	1.354	6.854	
AUG-06-2014 01:42:36	6.880	0.000	1.359	6.859	



		swmm.RPT			
AUG-06-2014	01:43:12	6.828	0.000	1.364	6.864
AUG-06-2014	01:43:48	6.838	0.000	1.369	6.869
AUG-06-2014	01:44:24	6.909	0.000	1.374	6.874
AUG-06-2014	01:45:00	6.953	0.000	1.378	6.878
AUG-06-2014	01:45:36	6.958	0.000	1.383	6.883
AUG-06-2014	01:46:12	6.720	0.000	1.377	6.877
AUG-06-2014	01:46:48	7.119	0.000	1.384	6.884
AUG-06-2014	01:47:24	7.181	0.000	1.395	6.895
AUG-06-2014	01:48:00	7.169	0.000	1.402	6.902
AUG-06-2014	01:48:36	7.142	0.000	1.407	6.907
AUG-06-2014	01:49:12	7.265	0.000	1.412	6.912
AUG-06-2014	01:49:48	6.796	0.000	1.400	6.900
AUG-06-2014	01:50:24	7.132	0.000	1.393	6.893
AUG-06-2014	01:51:00	7.183	0.000	1.407	6.907
AUG-06-2014	01:51:36	7.399	0.000	1.420	6.920
AUG-06-2014	01:52:12	7.474	0.000	1.431	6.931
AUG-06-2014	01:52:48	7.386	0.000	1.439	6.939
AUG-06-2014	01:53:24	7.373	0.000	1.447	6.947
AUG-06-2014	01:54:00	7.453	0.000	1.453	6.953
AUG-06-2014	01:54:36	7.683	0.000	1.460	6.960
AUG-06-2014	01:55:12	7.489	0.000	1.466	6.966
AUG-06-2014	01:55:48	7.619	0.000	1.472	6.972
AUG-06-2014	01:56:24	7.704	0.000	1.481	6.981
AUG-06-2014	01:57:00	7.746	0.000	1.486	6.986
AUG-06-2014	01:57:36	7.789	0.000	1.491	6.991
AUG-06-2014	01:58:12	7.817	0.000	1.497	6.997
AUG-06-2014	01:58:48	7.844	0.000	1.502	7.002
AUG-06-2014	01:59:24	7.870	0.000	1.507	7.007
AUG-06-2014	02:00:00	7.899	0.000	1.513	7.013
AUG-06-2014	02:00:36	7.949	0.000	1.518	7.018
AUG-06-2014	02:01:12	7.970	0.000	1.522	7.022
AUG-06-2014	02:01:48	7.940	0.000	1.522	7.022
AUG-06-2014	02:02:24	7.871	0.000	1.521	7.021
AUG-06-2014	02:03:00	7.835	0.000	1.519	7.019
AUG-06-2014	02:03:36	7.847	0.000	1.516	7.016
AUG-06-2014	02:04:12	7.814	0.000	1.512	7.012
AUG-06-2014	02:04:48	7.730	0.000	1.507	7.007
AUG-06-2014	02:05:24	7.713	0.000	1.502	7.002
AUG-06-2014	02:06:00	7.723	0.000	1.497	6.997
AUG-06-2014	02:06:36	7.634	0.000	1.490	6.990
AUG-06-2014	02:07:12	7.430	0.000	1.484	6.984
AUG-06-2014	02:07:48	7.638	0.000	1.478	6.978
AUG-06-2014	02:08:24	7.559	0.000	1.472	6.972
AUG-06-2014	02:09:00	7.506	0.000	1.466	6.966
AUG-06-2014	02:09:36	7.516	0.000	1.460	6.960
AUG-06-2014	02:10:12	7.407	0.000	1.454	6.954
AUG-06-2014	02:10:48	7.322	0.000	1.447	6.947
AUG-06-2014	02:11:24	7.252	0.000	1.441	6.941
AUG-06-2014	02:12:00	7.174	0.000	1.434	6.934

			swmm.RPT		
AUG-06-2014	02:12:36	7.274	0.000	1.428	6.928
AUG-06-2014	02:13:12	7.194	0.000	1.422	6.922
AUG-06-2014	02:13:48	7.089	0.000	1.416	6.916
AUG-06-2014	02:14:24	7.105	0.000	1.410	6.910
AUG-06-2014	02:15:00	7.035	0.000	1.404	6.904
AUG-06-2014	02:15:36	7.020	0.000	1.399	6.899
AUG-06-2014	02:16:12	6.733	0.000	1.392	6.892
AUG-06-2014	02:16:48	6.900	0.000	1.388	6.888
AUG-06-2014	02:17:24	7.031	0.000	1.382	6.882
AUG-06-2014	02:18:00	6.813	0.000	1.378	6.878
AUG-06-2014	02:18:36	6.862	0.000	1.373	6.873
AUG-06-2014	02:19:12	6.834	0.000	1.368	6.868
AUG-06-2014	02:19:48	6.731	0.000	1.363	6.863
AUG-06-2014	02:20:24	6.720	0.000	1.357	6.857
AUG-06-2014	02:21:00	6.573	0.000	1.353	6.853
AUG-06-2014	02:21:36	6.764	0.000	1.348	6.848
AUG-06-2014	02:22:12	6.649	0.000	1.343	6.843
AUG-06-2014	02:22:48	6.601	0.000	1.339	6.839
AUG-06-2014	02:23:24	6.325	0.000	1.333	6.833
AUG-06-2014	02:24:00	6.618	0.000	1.327	6.827
AUG-06-2014	02:24:36	6.670	0.000	1.323	6.823
AUG-06-2014	02:25:12	6.147	0.000	1.318	6.818
AUG-06-2014	02:25:48	6.412	0.000	1.311	6.811
AUG-06-2014	02:26:24	6.470	0.000	1.308	6.808
AUG-06-2014	02:27:00	6.332	0.000	1.303	6.803
AUG-06-2014	02:27:36	6.035	0.000	1.298	6.798
AUG-06-2014	02:28:12	5.882	0.000	1.294	6.794
AUG-06-2014	02:28:48	5.772	0.000	1.288	6.788
AUG-06-2014	02:29:24	6.367	0.000	1.283	6.783
AUG-06-2014	02:30:00	5.948	0.000	1.278	6.778
AUG-06-2014	02:30:36	6.191	0.000	1.272	6.772
AUG-06-2014	02:31:12	6.244	0.000	1.269	6.769
AUG-06-2014	02:31:48	5.876	0.000	1.263	6.763
AUG-06-2014	02:32:24	6.233	0.000	1.259	6.759
AUG-06-2014	02:33:00	5.439	0.000	1.252	6.752
AUG-06-2014	02:33:36	5.564	0.000	1.248	6.748
AUG-06-2014	02:34:12	5.678	0.000	1.242	6.742
AUG-06-2014	02:34:48	5.837	0.000	1.237	6.737
AUG-06-2014	02:35:24	5.742	0.000	1.232	6.732
AUG-06-2014	02:36:00	5.462	0.000	1.228	6.728
AUG-06-2014	02:36:36	5.760	0.000	1.223	6.723
AUG-06-2014	02:37:12	5.637	0.000	1.217	6.717
AUG-06-2014	02:37:48	5.382	0.000	1.211	6.711
AUG-06-2014	02:38:24	5.487	0.000	1.207	6.707
AUG-06-2014	02:39:00	5.525	0.000	1.203	6.703
AUG-06-2014	02:39:36	5.338	0.000	1.196	6.696
AUG-06-2014	02:40:12	5.325	0.000	1.191	6.691
AUG-06-2014	02:40:48	5.433	0.000	1.188	6.688
AUG-06-2014	02:41:24	5.250	0.000	1.183	6.683

			swmm.RPT		
AUG-06-2014 02:42:00	5.239	0.000	1.179	6.679	
AUG-06-2014 02:42:36	5.207	0.000	1.171	6.671	
AUG-06-2014 02:43:12	5.096	0.000	1.166	6.666	
AUG-06-2014 02:43:48	5.100	0.000	1.162	6.662	
AUG-06-2014 02:44:24	5.127	0.000	1.158	6.658	
AUG-06-2014 02:45:00	5.093	0.000	1.153	6.653	
AUG-06-2014 02:45:36	5.157	0.000	1.148	6.648	
AUG-06-2014 02:46:12	5.047	0.000	1.143	6.643	
AUG-06-2014 02:46:48	4.867	0.000	1.138	6.638	
AUG-06-2014 02:47:24	4.876	0.000	1.132	6.632	
AUG-06-2014 02:48:00	4.738	0.000	1.127	6.627	
AUG-06-2014 02:48:36	4.713	0.000	1.122	6.622	
AUG-06-2014 02:49:12	4.684	0.000	1.117	6.617	
AUG-06-2014 02:49:48	4.759	0.000	1.111	6.611	
AUG-06-2014 02:50:24	4.695	0.000	1.107	6.607	
AUG-06-2014 02:51:00	4.637	0.000	1.098	6.598	
AUG-06-2014 02:51:36	4.719	0.000	1.093	6.593	
AUG-06-2014 02:52:12	4.582	0.000	1.087	6.587	
AUG-06-2014 02:52:48	4.587	0.000	1.082	6.582	
AUG-06-2014 02:53:24	4.353	0.000	1.078	6.578	
AUG-06-2014 02:54:00	4.334	0.000	1.073	6.573	
AUG-06-2014 02:54:36	4.210	0.000	1.068	6.568	
AUG-06-2014 02:55:12	4.325	0.000	1.062	6.562	
AUG-06-2014 02:55:48	4.240	0.000	1.057	6.557	
AUG-06-2014 02:56:24	4.187	0.000	1.052	6.552	
AUG-06-2014 02:57:00	4.267	0.000	1.047	6.547	
AUG-06-2014 02:57:36	4.238	0.000	1.042	6.542	
AUG-06-2014 02:58:12	4.288	0.000	1.036	6.536	
AUG-06-2014 02:58:48	4.081	0.000	1.031	6.531	
AUG-06-2014 02:59:24	4.087	0.000	1.025	6.525	
AUG-06-2014 03:00:00	4.085	0.000	1.021	6.521	
AUG-06-2014 03:00:36	3.940	0.000	1.014	6.514	
AUG-06-2014 03:01:12	3.828	0.000	1.008	6.508	
AUG-06-2014 03:01:48	6.534	0.000	1.042	6.542	
AUG-06-2014 03:02:24	4.189	0.000	1.040	6.540	
AUG-06-2014 03:03:00	3.916	0.000	1.022	6.522	
AUG-06-2014 03:03:36	3.719	0.000	1.006	6.506	
AUG-06-2014 03:04:12	3.608	0.000	0.987	6.487	
AUG-06-2014 03:04:48	3.435	0.000	0.961	6.461	
AUG-06-2014 03:05:24	6.446	0.000	0.982	6.482	
AUG-06-2014 03:06:00	3.827	0.000	0.991	6.491	
AUG-06-2014 03:06:36	3.646	0.000	0.979	6.479	
AUG-06-2014 03:07:12	3.498	0.000	0.962	6.462	
AUG-06-2014 03:07:48	3.472	0.000	0.948	6.448	
AUG-06-2014 03:08:24	3.390	0.000	0.937	6.437	
AUG-06-2014 03:09:00	3.369	0.000	0.928	6.428	
AUG-06-2014 03:09:36	3.361	0.000	0.923	6.423	
AUG-06-2014 03:10:12	3.316	0.000	0.919	6.419	
AUG-06-2014 03:10:48	3.221	0.000	0.910	6.410	

		swmm.RPT			
AUG-06-2014	03:11:24	3.458	0.000	0.912	6.412
AUG-06-2014	03:12:00	3.332	0.000	0.914	6.414
AUG-06-2014	03:12:36	3.280	0.000	0.911	6.411
AUG-06-2014	03:13:12	3.229	0.000	0.906	6.406
AUG-06-2014	03:13:48	3.146	0.000	0.899	6.399
AUG-06-2014	03:14:24	2.881	0.000	0.880	6.380
AUG-06-2014	03:15:00	3.337	0.000	0.866	6.366
AUG-06-2014	03:15:36	3.215	0.000	0.882	6.382
AUG-06-2014	03:16:12	2.970	0.000	0.880	6.380
AUG-06-2014	03:16:48	2.872	0.000	0.869	6.369
AUG-06-2014	03:17:24	2.842	0.000	0.858	6.358
AUG-06-2014	03:18:00	2.718	0.000	0.844	6.344
AUG-06-2014	03:18:36	2.689	0.000	0.832	6.332
AUG-06-2014	03:19:12	2.946	0.000	0.841	6.341
AUG-06-2014	03:19:48	2.746	0.000	0.837	6.337
AUG-06-2014	03:20:24	2.698	0.000	0.829	6.329
AUG-06-2014	03:21:00	2.675	0.000	0.822	6.322
AUG-06-2014	03:21:36	2.662	0.000	0.817	6.317
AUG-06-2014	03:22:12	2.581	0.000	0.810	6.310
AUG-06-2014	03:22:48	2.591	0.000	0.799	6.299
AUG-06-2014	03:23:24	2.613	0.000	0.802	6.302
AUG-06-2014	03:24:00	2.557	0.000	0.800	6.300
AUG-06-2014	03:24:36	2.508	0.000	0.795	6.295
AUG-06-2014	03:25:12	2.462	0.000	0.789	6.289
AUG-06-2014	03:25:48	2.418	0.000	0.782	6.282
AUG-06-2014	03:26:24	2.368	0.000	0.775	6.275
AUG-06-2014	03:27:00	2.302	0.000	0.767	6.267
AUG-06-2014	03:27:36	2.362	0.000	0.762	6.262
AUG-06-2014	03:28:12	2.299	0.000	0.759	6.259
AUG-06-2014	03:28:48	2.245	0.000	0.753	6.253
AUG-06-2014	03:29:24	2.197	0.000	0.746	6.246
AUG-06-2014	03:30:00	2.158	0.000	0.739	6.239
AUG-06-2014	03:30:36	2.080	0.000	0.730	6.230
AUG-06-2014	03:31:12	2.133	0.000	0.720	6.220
AUG-06-2014	03:31:48	2.075	0.000	0.718	6.218
AUG-06-2014	03:32:24	2.021	0.000	0.713	6.213
AUG-06-2014	03:33:00	1.970	0.000	0.707	6.207
AUG-06-2014	03:33:36	1.924	0.000	0.699	6.199
AUG-06-2014	03:34:12	1.880	0.000	0.691	6.191
AUG-06-2014	03:34:48	1.822	0.000	0.684	6.184
AUG-06-2014	03:35:24	1.744	0.000	0.671	6.171
AUG-06-2014	03:36:00	1.817	0.000	0.670	6.170
AUG-06-2014	03:36:36	1.758	0.000	0.666	6.166
AUG-06-2014	03:37:12	1.701	0.000	0.659	6.159
AUG-06-2014	03:37:48	1.650	0.000	0.650	6.150
AUG-06-2014	03:38:24	1.602	0.000	0.642	6.142
AUG-06-2014	03:39:00	1.556	0.000	0.633	6.133
AUG-06-2014	03:39:36	1.512	0.000	0.624	6.124
AUG-06-2014	03:40:12	1.473	0.000	0.615	6.115

		swmm.RPT			
AUG-06-2014	03:40:48	1.403	0.000	0.606	6.106
AUG-06-2014	03:41:24	1.408	0.000	0.594	6.094
AUG-06-2014	03:42:00	1.351	0.000	0.588	6.088
AUG-06-2014	03:42:36	1.299	0.000	0.580	6.080
AUG-06-2014	03:43:12	1.250	0.000	0.571	6.071
AUG-06-2014	03:43:48	1.204	0.000	0.562	6.062
AUG-06-2014	03:44:24	1.159	0.000	0.552	6.052
AUG-06-2014	03:45:00	1.116	0.000	0.543	6.043
AUG-06-2014	03:45:36	1.066	0.000	0.533	6.033
AUG-06-2014	03:46:12	1.065	0.000	0.524	6.024
AUG-06-2014	03:46:48	1.012	0.000	0.516	6.016
AUG-06-2014	03:47:24	0.967	0.000	0.507	6.007
AUG-06-2014	03:48:00	0.929	0.000	0.498	5.998
AUG-06-2014	03:48:36	0.892	0.000	0.489	5.989
AUG-06-2014	03:49:12	0.855	0.000	0.479	5.979
AUG-06-2014	03:49:48	0.817	0.000	0.470	5.970
AUG-06-2014	03:50:24	0.784	0.000	0.461	5.961
AUG-06-2014	03:51:00	0.740	0.000	0.451	5.951
AUG-06-2014	03:51:36	0.715	0.000	0.440	5.940
AUG-06-2014	03:52:12	0.685	0.000	0.432	5.932
AUG-06-2014	03:52:48	0.643	0.000	0.423	5.923
AUG-06-2014	03:53:24	0.604	0.000	0.413	5.913
AUG-06-2014	03:54:00	0.565	0.000	0.403	5.903
AUG-06-2014	03:54:36	0.527	0.000	0.392	5.892
AUG-06-2014	03:55:12	0.490	0.000	0.381	5.881
AUG-06-2014	03:55:48	0.453	0.000	0.369	5.869
AUG-06-2014	03:56:24	0.420	0.000	0.358	5.858
AUG-06-2014	03:57:00	0.381	0.000	0.346	5.846
AUG-06-2014	03:57:36	0.348	0.000	0.333	5.833
AUG-06-2014	03:58:12	0.317	0.000	0.322	5.822
AUG-06-2014	03:58:48	0.283	0.000	0.310	5.810
AUG-06-2014	03:59:24	0.250	0.000	0.297	5.797
AUG-06-2014	04:00:00	0.218	0.000	0.284	5.784
AUG-06-2014	04:00:36	0.187	0.000	0.271	5.771
AUG-06-2014	04:01:12	0.161	0.000	0.258	5.758
AUG-06-2014	04:01:48	0.132	0.000	0.245	5.745
AUG-06-2014	04:02:24	0.120	0.000	0.232	5.732
AUG-06-2014	04:03:00	0.101	0.000	0.220	5.720
AUG-06-2014	04:03:36	0.090	0.000	0.209	5.709
AUG-06-2014	04:04:12	0.081	0.000	0.198	5.698
AUG-06-2014	04:04:48	0.072	0.000	0.189	5.689
AUG-06-2014	04:05:24	0.065	0.000	0.180	5.680
AUG-06-2014	04:06:00	0.058	0.000	0.172	5.672
AUG-06-2014	04:06:36	0.053	0.000	0.164	5.664
AUG-06-2014	04:07:12	0.048	0.000	0.157	5.657
AUG-06-2014	04:07:48	0.044	0.000	0.150	5.650
AUG-06-2014	04:08:24	0.040	0.000	0.144	5.644
AUG-06-2014	04:09:00	0.037	0.000	0.138	5.638
AUG-06-2014	04:09:36	0.034	0.000	0.133	5.633

		swmm.RPT			
AUG-06-2014	04:10:12	0.031	0.000	0.128	5.628
AUG-06-2014	04:10:48	0.029	0.000	0.123	5.623
AUG-06-2014	04:11:24	0.027	0.000	0.119	5.619
AUG-06-2014	04:12:00	0.025	0.000	0.114	5.614
AUG-06-2014	04:12:36	0.023	0.000	0.111	5.611
AUG-06-2014	04:13:12	0.022	0.000	0.107	5.607
AUG-06-2014	04:13:48	0.020	0.000	0.104	5.604
AUG-06-2014	04:14:24	0.019	0.000	0.100	5.600
AUG-06-2014	04:15:00	0.018	0.000	0.097	5.597
AUG-06-2014	04:15:36	0.017	0.000	0.095	5.595
AUG-06-2014	04:16:12	0.016	0.000	0.092	5.592
AUG-06-2014	04:16:48	0.007	0.000	0.089	5.589
AUG-06-2014	04:17:24	0.000	0.000	0.084	5.584
AUG-06-2014	04:18:00	0.000	0.000	0.080	5.580
AUG-06-2014	04:18:36	0.000	0.000	0.075	5.575
AUG-06-2014	04:19:12	0.000	0.000	0.072	5.572
AUG-06-2014	04:19:48	0.000	0.000	0.068	5.568
AUG-06-2014	04:20:24	0.000	0.000	0.065	5.565
AUG-06-2014	04:21:00	0.000	0.000	0.062	5.562
AUG-06-2014	04:21:36	0.000	0.000	0.059	5.559
AUG-06-2014	04:22:12	0.000	0.000	0.057	5.557
AUG-06-2014	04:22:48	0.000	0.000	0.054	5.554
AUG-06-2014	04:23:24	0.000	0.000	0.052	5.552
AUG-06-2014	04:24:00	0.000	0.000	0.050	5.550
AUG-06-2014	04:24:36	0.000	0.000	0.048	5.548
AUG-06-2014	04:25:12	0.000	0.000	0.047	5.547
AUG-06-2014	04:25:48	0.000	0.000	0.045	5.545
AUG-06-2014	04:26:24	0.000	0.000	0.043	5.543
AUG-06-2014	04:27:00	0.000	0.000	0.042	5.542
AUG-06-2014	04:27:36	0.000	0.000	0.041	5.541
AUG-06-2014	04:28:12	0.000	0.000	0.039	5.539
AUG-06-2014	04:28:48	0.000	0.000	0.038	5.538
AUG-06-2014	04:29:24	0.000	0.000	0.037	5.537
AUG-06-2014	04:30:00	0.000	0.000	0.036	5.536
AUG-06-2014	04:30:36	0.000	0.000	0.035	5.535
AUG-06-2014	04:31:12	0.000	0.000	0.033	5.533
AUG-06-2014	04:31:48	0.000	0.000	0.032	5.532
AUG-06-2014	04:32:24	0.000	0.000	0.031	5.531
AUG-06-2014	04:33:00	0.000	0.000	0.031	5.531
AUG-06-2014	04:33:36	0.000	0.000	0.030	5.530
AUG-06-2014	04:34:12	0.000	0.000	0.029	5.529
AUG-06-2014	04:34:48	0.000	0.000	0.028	5.528
AUG-06-2014	04:35:24	0.000	0.000	0.027	5.527
AUG-06-2014	04:36:00	0.000	0.000	0.026	5.526
AUG-06-2014	04:36:36	0.000	0.000	0.026	5.526
AUG-06-2014	04:37:12	0.000	0.000	0.025	5.525
AUG-06-2014	04:37:48	0.000	0.000	0.024	5.524
AUG-06-2014	04:38:24	0.000	0.000	0.024	5.524
AUG-06-2014	04:39:00	0.000	0.000	0.023	5.523

			swmm.RPT		
AUG-06-2014	04:39:36	0.000	0.000	0.022	5.522
AUG-06-2014	04:40:12	0.000	0.000	0.022	5.522
AUG-06-2014	04:40:48	0.000	0.000	0.021	5.521
AUG-06-2014	04:41:24	0.000	0.000	0.021	5.521
AUG-06-2014	04:42:00	0.000	0.000	0.020	5.520
AUG-06-2014	04:42:36	0.000	0.000	0.020	5.520
AUG-06-2014	04:43:12	0.000	0.000	0.019	5.519
AUG-06-2014	04:43:48	0.000	0.000	0.019	5.519
AUG-06-2014	04:44:24	0.000	0.000	0.018	5.518
AUG-06-2014	04:45:00	0.000	0.000	0.018	5.518
AUG-06-2014	04:45:36	0.000	0.000	0.017	5.517
AUG-06-2014	04:46:12	0.000	0.000	0.017	5.517
AUG-06-2014	04:46:48	0.000	0.000	0.016	5.516
AUG-06-2014	04:47:24	0.000	0.000	0.016	5.516
AUG-06-2014	04:48:00	0.000	0.000	0.016	5.516
AUG-06-2014	04:48:36	0.000	0.000	0.015	5.515
AUG-06-2014	04:49:12	0.000	0.000	0.015	5.515
AUG-06-2014	04:49:48	0.000	0.000	0.015	5.515
AUG-06-2014	04:50:24	0.000	0.000	0.014	5.514
AUG-06-2014	04:51:00	0.000	0.000	0.014	5.514
AUG-06-2014	04:51:36	0.000	0.000	0.014	5.514
AUG-06-2014	04:52:12	0.000	0.000	0.013	5.513
AUG-06-2014	04:52:48	0.000	0.000	0.013	5.513
AUG-06-2014	04:53:24	0.000	0.000	0.013	5.513
AUG-06-2014	04:54:00	0.000	0.000	0.012	5.512
AUG-06-2014	04:54:36	0.000	0.000	0.012	5.512
AUG-06-2014	04:55:12	0.000	0.000	0.012	5.512
AUG-06-2014	04:55:48	0.000	0.000	0.011	5.511
AUG-06-2014	04:56:24	0.000	0.000	0.011	5.511
AUG-06-2014	04:57:00	0.000	0.000	0.011	5.511
AUG-06-2014	04:57:36	0.000	0.000	0.011	5.511
AUG-06-2014	04:58:12	0.000	0.000	0.010	5.510
AUG-06-2014	04:58:48	0.000	0.000	0.010	5.510
AUG-06-2014	04:59:24	0.000	0.000	0.010	5.510
AUG-06-2014	05:00:00	0.000	0.000	0.010	5.510
AUG-06-2014	05:00:36	0.000	0.000	0.009	5.509
AUG-06-2014	05:01:12	0.000	0.000	0.009	5.509
AUG-06-2014	05:01:48	0.000	0.000	0.009	5.509
AUG-06-2014	05:02:24	0.000	0.000	0.009	5.509
AUG-06-2014	05:03:00	0.000	0.000	0.009	5.509
AUG-06-2014	05:03:36	0.000	0.000	0.008	5.508
AUG-06-2014	05:04:12	0.000	0.000	0.008	5.508
AUG-06-2014	05:04:48	0.000	0.000	0.008	5.508
AUG-06-2014	05:05:24	0.000	0.000	0.008	5.508
AUG-06-2014	05:06:00	0.000	0.000	0.008	5.508
AUG-06-2014	05:06:36	0.000	0.000	0.007	5.507
AUG-06-2014	05:07:12	0.000	0.000	0.007	5.507
AUG-06-2014	05:07:48	0.000	0.000	0.007	5.507
AUG-06-2014	05:08:24	0.000	0.000	0.007	5.507



			swmm.RPT		
AUG-06-2014	05:09:00	0.000	0.000	0.007	5.507
AUG-06-2014	05:09:36	0.000	0.000	0.007	5.507
AUG-06-2014	05:10:12	0.000	0.000	0.006	5.506
AUG-06-2014	05:10:48	0.000	0.000	0.006	5.506
AUG-06-2014	05:11:24	0.000	0.000	0.006	5.506
AUG-06-2014	05:12:00	0.000	0.000	0.006	5.506
AUG-06-2014	05:12:36	0.000	0.000	0.006	5.506
AUG-06-2014	05:13:12	0.000	0.000	0.006	5.506
AUG-06-2014	05:13:48	0.000	0.000	0.006	5.506
AUG-06-2014	05:14:24	0.000	0.000	0.005	5.505
AUG-06-2014	05:15:00	0.000	0.000	0.005	5.505
AUG-06-2014	05:15:36	0.000	0.000	0.005	5.505
AUG-06-2014	05:16:12	0.000	0.000	0.005	5.505
AUG-06-2014	05:16:48	0.000	0.000	0.005	5.505
AUG-06-2014	05:17:24	0.000	0.000	0.005	5.505
AUG-06-2014	05:18:00	0.000	0.000	0.005	5.505
AUG-06-2014	05:18:36	0.000	0.000	0.005	5.505
AUG-06-2014	05:19:12	0.000	0.000	0.004	5.504
AUG-06-2014	05:19:48	0.000	0.000	0.004	5.504
AUG-06-2014	05:20:24	0.000	0.000	0.004	5.504
AUG-06-2014	05:21:00	0.000	0.000	0.004	5.504
AUG-06-2014	05:21:36	0.000	0.000	0.004	5.504
AUG-06-2014	05:22:12	0.000	0.000	0.004	5.504
AUG-06-2014	05:22:48	0.000	0.000	0.004	5.504
AUG-06-2014	05:23:24	0.000	0.000	0.004	5.504
AUG-06-2014	05:24:00	0.000	0.000	0.004	5.504
AUG-06-2014	05:24:36	0.000	0.000	0.003	5.503
AUG-06-2014	05:25:12	0.000	0.000	0.003	5.503
AUG-06-2014	05:25:48	0.000	0.000	0.003	5.503
AUG-06-2014	05:26:24	0.000	0.000	0.003	5.503
AUG-06-2014	05:27:00	0.000	0.000	0.003	5.503
AUG-06-2014	05:27:36	0.000	0.000	0.003	5.503
AUG-06-2014	05:28:12	0.000	0.000	0.003	5.503
AUG-06-2014	05:28:48	0.000	0.000	0.003	5.503
AUG-06-2014	05:29:24	0.000	0.000	0.003	5.503
AUG-06-2014	05:30:00	0.000	0.000	0.003	5.503
AUG-06-2014	05:30:36	0.000	0.000	0.003	5.503
AUG-06-2014	05:31:12	0.000	0.000	0.003	5.503
AUG-06-2014	05:31:48	0.000	0.000	0.003	5.503
AUG-06-2014	05:32:24	0.000	0.000	0.002	5.502
AUG-06-2014	05:33:00	0.000	0.000	0.002	5.502
AUG-06-2014	05:33:36	0.000	0.000	0.002	5.502
AUG-06-2014	05:34:12	0.000	0.000	0.002	5.502
AUG-06-2014	05:34:48	0.000	0.000	0.002	5.502
AUG-06-2014	05:35:24	0.000	0.000	0.002	5.502
AUG-06-2014	05:36:00	0.000	0.000	0.002	5.502
AUG-06-2014	05:36:36	0.000	0.000	0.002	5.502
AUG-06-2014	05:37:12	0.000	0.000	0.002	5.502
AUG-06-2014	05:37:48	0.000	0.000	0.002	5.502



		swmm.RPT			
AUG-06-2014	05:38:24	0.000	0.000	0.002	5.502
AUG-06-2014	05:39:00	0.000	0.000	0.002	5.502
AUG-06-2014	05:39:36	0.000	0.000	0.002	5.502
AUG-06-2014	05:40:12	0.000	0.000	0.002	5.502
AUG-06-2014	05:40:48	0.000	0.000	0.002	5.502
AUG-06-2014	05:41:24	0.000	0.000	0.002	5.502
AUG-06-2014	05:42:00	0.000	0.000	0.002	5.502
AUG-06-2014	05:42:36	0.000	0.000	0.002	5.502
AUG-06-2014	05:43:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:43:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:44:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:45:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:45:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:46:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:46:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:47:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:48:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:48:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:49:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:49:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:50:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:51:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:51:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:52:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:52:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:53:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:54:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:54:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:55:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:55:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:56:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:57:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:57:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:58:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:58:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:59:24	0.000	0.000	0.001	5.501
AUG-06-2014	06:00:00	0.000	0.000	0.001	5.501
AUG-06-2014	06:00:36	0.000	0.000	0.001	5.501
AUG-06-2014	06:01:12	0.000	0.000	0.001	5.501
AUG-06-2014	06:01:48	0.000	0.000	0.001	5.501
AUG-06-2014	06:02:24	0.000	0.000	0.001	5.501
AUG-06-2014	06:03:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:03:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:04:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:04:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:05:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:06:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:06:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:07:12	0.000	0.000	0.000	5.500

		swmm.RPT			
AUG-06-2014	06:07:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:08:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:09:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:09:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:10:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:10:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:11:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:12:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:12:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:13:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:13:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:14:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:15:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:15:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:16:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:16:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:17:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:18:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:18:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:19:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:19:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:20:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:21:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:21:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:22:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:22:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:23:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:24:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:24:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:25:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:25:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:26:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:27:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:27:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:28:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:28:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:29:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:30:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:30:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:31:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:31:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:32:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:33:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:33:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:34:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:34:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:35:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:36:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:36:36	0.000	0.000	0.000	5.500

		swmm.RPT			
AUG-06-2014	06:37:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:37:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:38:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:39:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:39:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:40:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:40:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:41:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:42:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:42:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:43:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:43:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:44:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:45:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:45:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:46:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:46:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:47:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:48:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:48:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:49:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:49:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:50:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:51:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:51:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:52:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:52:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:53:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:54:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:54:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:55:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:55:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:56:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:57:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:57:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:58:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:58:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:59:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:00:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:00:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:01:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:01:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:02:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:03:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:03:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:04:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:04:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:05:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:06:00	0.000	0.000	0.000	5.500

		swmm.RPT			
AUG-06-2014	07:06:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:07:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:07:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:08:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:09:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:09:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:10:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:10:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:11:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:12:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:12:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:13:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:13:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:14:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:15:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:15:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:16:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:16:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:17:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:18:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:18:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:19:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:19:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:20:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:21:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:21:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:22:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:22:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:23:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:24:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:24:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:25:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:25:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:26:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:27:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:27:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:28:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:28:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:29:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:30:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:30:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:31:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:31:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:32:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:33:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:33:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:34:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:34:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:35:24	0.000	0.000	0.000	5.500

## swmm.RPT

AUG-06-2014 07:36:00	0.000	0.000	0.000	5.500
AUG-06-2014 07:36:36	0.000	0.000	0.000	5.500
AUG-06-2014 07:37:12	0.000	0.000	0.000	5.500
AUG-06-2014 07:37:48	0.000	0.000	0.000	5.500
AUG-06-2014 07:38:24	0.000	0.000	0.000	5.500
AUG-06-2014 07:39:00	0.000	0.000	0.000	5.500
AUG-06-2014 07:39:36	0.000	0.000	0.000	5.500
AUG-06-2014 07:40:12	0.000	0.000	0.000	5.500
AUG-06-2014 07:40:48	0.000	0.000	0.000	5.500
AUG-06-2014 07:41:24	0.000	0.000	0.000	5.500
AUG-06-2014 07:42:00	0.000	0.000	0.000	5.500
AUG-06-2014 07:42:36	0.000	0.000	0.000	5.500
AUG-06-2014 07:43:12	0.000	0.000	0.000	5.500
AUG-06-2014 07:43:48	0.000	0.000	0.000	5.500
AUG-06-2014 07:44:24	0.000	0.000	0.000	5.500
AUG-06-2014 07:45:00	0.000	0.000	0.000	5.500
AUG-06-2014 07:45:36	0.000	0.000	0.000	5.500
AUG-06-2014 07:46:12	0.000	0.000	0.000	5.500
AUG-06-2014 07:46:48	0.000	0.000	0.000	5.500
AUG-06-2014 07:47:24	0.000	0.000	0.000	5.500
AUG-06-2014 07:48:00	0.000	0.000	0.000	5.500
AUG-06-2014 07:48:36	0.000	0.000	0.000	5.500
AUG-06-2014 07:49:12	0.000	0.000	0.000	5.500
AUG-06-2014 07:49:48	0.000	0.000	0.000	5.500
AUG-06-2014 07:50:24	0.000	0.000	0.000	5.500
AUG-06-2014 07:51:00	0.000	0.000	0.000	5.500
AUG-06-2014 07:51:36	0.000	0.000	0.000	5.500
AUG-06-2014 07:52:12	0.000	0.000	0.000	5.500
AUG-06-2014 07:52:48	0.000	0.000	0.000	5.500
AUG-06-2014 07:53:24	0.000	0.000	0.000	5.500
AUG-06-2014 07:54:00	0.000	0.000	0.000	5.500
AUG-06-2014 07:54:36	0.000	0.000	0.000	5.500
AUG-06-2014 07:55:12	0.000	0.000	0.000	5.500
AUG-06-2014 07:55:48	0.000	0.000	0.000	5.500
AUG-06-2014 07:56:24	0.000	0.000	0.000	5.500
AUG-06-2014 07:57:00	0.000	0.000	0.000	5.500
AUG-06-2014 07:57:36	0.000	0.000	0.000	5.500
AUG-06-2014 07:58:12	0.000	0.000	0.000	5.500
AUG-06-2014 07:58:48	0.000	0.000	0.000	5.500
AUG-06-2014 07:59:24	0.000	0.000	0.000	5.500
AUG-06-2014 08:00:00	0.000	0.000	0.000	5.500

&lt;&lt;&lt; Node Inlet2 &gt;&gt;&gt;

Date	Time	Inflow CFS	Flooding CFS	Depth feet	Head feet
AUG-06-2014	00:00:36	0.000	0.000	0.000	5.500

		swmm.RPT			
AUG-06-2014	00:01:12	0.000	0.000	0.000	5.500
AUG-06-2014	00:01:48	0.000	0.000	0.000	5.500
AUG-06-2014	00:02:24	0.000	0.000	0.000	5.500
AUG-06-2014	00:03:00	0.000	0.000	0.000	5.500
AUG-06-2014	00:03:36	0.000	0.000	0.000	5.500
AUG-06-2014	00:04:12	0.033	0.000	0.009	5.509
AUG-06-2014	00:04:48	0.059	0.000	0.037	5.537
AUG-06-2014	00:05:24	0.092	0.000	0.062	5.562
AUG-06-2014	00:06:00	0.130	0.000	0.091	5.591
AUG-06-2014	00:06:36	0.163	0.000	0.122	5.622
AUG-06-2014	00:07:12	0.203	0.000	0.155	5.655
AUG-06-2014	00:07:48	0.243	0.000	0.190	5.690
AUG-06-2014	00:08:24	0.283	0.000	0.224	5.724
AUG-06-2014	00:09:00	0.326	0.000	0.259	5.759
AUG-06-2014	00:09:36	0.372	0.000	0.293	5.793
AUG-06-2014	00:10:12	0.418	0.000	0.325	5.825
AUG-06-2014	00:10:48	0.465	0.000	0.353	5.853
AUG-06-2014	00:11:24	0.513	0.000	0.379	5.879
AUG-06-2014	00:12:00	0.560	0.000	0.401	5.901
AUG-06-2014	00:12:36	0.609	0.000	0.418	5.918
AUG-06-2014	00:13:12	0.661	0.000	0.431	5.931
AUG-06-2014	00:13:48	0.718	0.000	0.441	5.941
AUG-06-2014	00:14:24	0.777	0.000	0.449	5.949
AUG-06-2014	00:15:00	0.826	0.000	0.454	5.954
AUG-06-2014	00:15:36	0.873	0.000	0.457	5.957
AUG-06-2014	00:16:12	0.930	0.000	0.461	5.961
AUG-06-2014	00:16:48	0.975	0.000	0.468	5.968
AUG-06-2014	00:17:24	1.017	0.000	0.477	5.977
AUG-06-2014	00:18:00	1.066	0.000	0.486	5.986
AUG-06-2014	00:18:36	1.108	0.000	0.496	5.996
AUG-06-2014	00:19:12	1.266	0.000	0.506	6.006
AUG-06-2014	00:19:48	1.284	0.000	0.524	6.024
AUG-06-2014	00:20:24	1.305	0.000	0.537	6.037
AUG-06-2014	00:21:00	1.316	0.000	0.547	6.047
AUG-06-2014	00:21:36	1.333	0.000	0.555	6.055
AUG-06-2014	00:22:12	1.355	0.000	0.561	6.061
AUG-06-2014	00:22:48	1.383	0.000	0.567	6.067
AUG-06-2014	00:23:24	1.475	0.000	0.574	6.074
AUG-06-2014	00:24:00	1.495	0.000	0.584	6.084
AUG-06-2014	00:24:36	1.526	0.000	0.592	6.092
AUG-06-2014	00:25:12	1.562	0.000	0.600	6.100
AUG-06-2014	00:25:48	1.583	0.000	0.607	6.107
AUG-06-2014	00:26:24	1.626	0.000	0.614	6.114
AUG-06-2014	00:27:00	1.660	0.000	0.621	6.121
AUG-06-2014	00:27:36	1.692	0.000	0.628	6.128
AUG-06-2014	00:28:12	1.734	0.000	0.634	6.134
AUG-06-2014	00:28:48	1.729	0.000	0.640	6.140
AUG-06-2014	00:29:24	1.750	0.000	0.644	6.144
AUG-06-2014	00:30:00	1.780	0.000	0.649	6.149

		swmm.RPT			
AUG-06-2014	00:30:36	1.812	0.000	0.654	6.154
AUG-06-2014	00:31:12	1.843	0.000	0.659	6.159
AUG-06-2014	00:31:48	1.859	0.000	0.664	6.164
AUG-06-2014	00:32:24	1.891	0.000	0.669	6.169
AUG-06-2014	00:33:00	1.925	0.000	0.674	6.174
AUG-06-2014	00:33:36	1.958	0.000	0.680	6.180
AUG-06-2014	00:34:12	1.991	0.000	0.685	6.185
AUG-06-2014	00:34:48	2.023	0.000	0.691	6.191
AUG-06-2014	00:35:24	2.066	0.000	0.697	6.197
AUG-06-2014	00:36:00	2.119	0.000	0.704	6.204
AUG-06-2014	00:36:36	2.169	0.000	0.713	6.213
AUG-06-2014	00:37:12	2.205	0.000	0.720	6.220
AUG-06-2014	00:37:48	2.264	0.000	0.729	6.229
AUG-06-2014	00:38:24	2.319	0.000	0.737	6.237
AUG-06-2014	00:39:00	2.607	0.000	0.746	6.246
AUG-06-2014	00:39:36	2.631	0.000	0.770	6.270
AUG-06-2014	00:40:12	2.640	0.000	0.785	6.285
AUG-06-2014	00:40:48	2.657	0.000	0.795	6.295
AUG-06-2014	00:41:24	2.677	0.000	0.802	6.302
AUG-06-2014	00:42:00	2.713	0.000	0.807	6.307
AUG-06-2014	00:42:36	2.744	0.000	0.812	6.312
AUG-06-2014	00:43:12	2.748	0.000	0.817	6.317
AUG-06-2014	00:43:48	2.794	0.000	0.822	6.322
AUG-06-2014	00:44:24	2.823	0.000	0.826	6.326
AUG-06-2014	00:45:00	2.990	0.000	0.833	6.333
AUG-06-2014	00:45:36	2.888	0.000	0.842	6.342
AUG-06-2014	00:46:12	3.212	0.000	0.851	6.351
AUG-06-2014	00:46:48	2.960	0.000	0.859	6.359
AUG-06-2014	00:47:24	3.183	0.000	0.867	6.367
AUG-06-2014	00:48:00	3.173	0.000	0.875	6.375
AUG-06-2014	00:48:36	3.154	0.000	0.881	6.381
AUG-06-2014	00:49:12	3.105	0.000	0.889	6.389
AUG-06-2014	00:49:48	3.319	0.000	0.895	6.395
AUG-06-2014	00:50:24	3.324	0.000	0.902	6.402
AUG-06-2014	00:51:00	3.339	0.000	0.907	6.407
AUG-06-2014	00:51:36	3.361	0.000	0.910	6.410
AUG-06-2014	00:52:12	3.391	0.000	0.914	6.414
AUG-06-2014	00:52:48	3.421	0.000	0.917	6.417
AUG-06-2014	00:53:24	3.458	0.000	0.921	6.421
AUG-06-2014	00:54:00	3.481	0.000	0.926	6.426
AUG-06-2014	00:54:36	3.599	0.000	0.932	6.432
AUG-06-2014	00:55:12	3.760	0.000	0.940	6.440
AUG-06-2014	00:55:48	3.683	0.000	0.948	6.448
AUG-06-2014	00:56:24	3.771	0.000	0.956	6.456
AUG-06-2014	00:57:00	3.655	0.000	0.963	6.463
AUG-06-2014	00:57:36	3.813	0.000	0.968	6.468
AUG-06-2014	00:58:12	3.824	0.000	0.975	6.475
AUG-06-2014	00:58:48	4.004	0.000	0.982	6.482
AUG-06-2014	00:59:24	4.012	0.000	0.988	6.488



		swmm.RPT			
AUG-06-2014	01:00:00	4.003	0.000	0.992	6.492
AUG-06-2014	01:00:36	3.958	0.000	0.998	6.498
AUG-06-2014	01:01:12	4.076	0.000	1.004	6.504
AUG-06-2014	01:01:48	4.077	0.000	1.009	6.509
AUG-06-2014	01:02:24	4.209	0.000	1.013	6.513
AUG-06-2014	01:03:00	4.255	0.000	1.020	6.520
AUG-06-2014	01:03:36	4.178	0.000	1.026	6.526
AUG-06-2014	01:04:12	4.185	0.000	1.031	6.531
AUG-06-2014	01:04:48	4.422	0.000	1.036	6.536
AUG-06-2014	01:05:24	4.279	0.000	1.042	6.542
AUG-06-2014	01:06:00	4.315	0.000	1.047	6.547
AUG-06-2014	01:06:36	4.469	0.000	1.052	6.552
AUG-06-2014	01:07:12	4.314	0.000	1.058	6.558
AUG-06-2014	01:07:48	4.445	0.000	1.063	6.563
AUG-06-2014	01:08:24	4.764	0.000	1.071	6.571
AUG-06-2014	01:09:00	4.782	0.000	1.087	6.587
AUG-06-2014	01:09:36	4.651	0.000	1.092	6.592
AUG-06-2014	01:10:12	4.691	0.000	1.095	6.595
AUG-06-2014	01:10:48	4.675	0.000	1.099	6.599
AUG-06-2014	01:11:24	4.766	0.000	1.101	6.601
AUG-06-2014	01:12:00	4.750	0.000	1.104	6.604
AUG-06-2014	01:12:36	4.779	0.000	1.108	6.608
AUG-06-2014	01:13:12	4.791	0.000	1.111	6.611
AUG-06-2014	01:13:48	4.891	0.000	1.116	6.616
AUG-06-2014	01:14:24	4.900	0.000	1.121	6.621
AUG-06-2014	01:15:00	4.950	0.000	1.125	6.625
AUG-06-2014	01:15:36	5.051	0.000	1.131	6.631
AUG-06-2014	01:16:12	5.051	0.000	1.136	6.636
AUG-06-2014	01:16:48	5.094	0.000	1.140	6.640
AUG-06-2014	01:17:24	5.108	0.000	1.147	6.647
AUG-06-2014	01:18:00	5.140	0.000	1.152	6.652
AUG-06-2014	01:18:36	5.196	0.000	1.156	6.656
AUG-06-2014	01:19:12	5.291	0.000	1.161	6.661
AUG-06-2014	01:19:48	5.190	0.000	1.168	6.668
AUG-06-2014	01:20:24	5.360	0.000	1.174	6.674
AUG-06-2014	01:21:00	5.244	0.000	1.179	6.679
AUG-06-2014	01:21:36	5.487	0.000	1.188	6.688
AUG-06-2014	01:22:12	5.705	0.000	1.193	6.693
AUG-06-2014	01:22:48	5.680	0.000	1.195	6.695
AUG-06-2014	01:23:24	5.346	0.000	1.198	6.698
AUG-06-2014	01:24:00	5.794	0.000	1.206	6.706
AUG-06-2014	01:24:36	5.299	0.000	1.211	6.711
AUG-06-2014	01:25:12	5.676	0.000	1.216	6.716
AUG-06-2014	01:25:48	5.740	0.000	1.220	6.720
AUG-06-2014	01:26:24	5.380	0.000	1.225	6.725
AUG-06-2014	01:27:00	5.724	0.000	1.227	6.727
AUG-06-2014	01:27:36	5.416	0.000	1.232	6.732
AUG-06-2014	01:28:12	5.395	0.000	1.238	6.738
AUG-06-2014	01:28:48	6.023	0.000	1.241	6.741



		swmm.RPT			
AUG-06-2014	01:29:24	5.821	0.000	1.246	6.746
AUG-06-2014	01:30:00	5.616	0.000	1.255	6.755
AUG-06-2014	01:30:36	6.412	0.000	1.258	6.758
AUG-06-2014	01:31:12	5.967	0.000	1.263	6.763
AUG-06-2014	01:31:48	5.932	0.000	1.271	6.771
AUG-06-2014	01:32:24	6.013	0.000	1.274	6.774
AUG-06-2014	01:33:00	5.822	0.000	1.280	6.780
AUG-06-2014	01:33:36	5.838	0.000	1.284	6.784
AUG-06-2014	01:34:12	6.396	0.000	1.290	6.790
AUG-06-2014	01:34:48	6.116	0.000	1.295	6.795
AUG-06-2014	01:35:24	6.296	0.000	1.300	6.800
AUG-06-2014	01:36:00	6.216	0.000	1.305	6.805
AUG-06-2014	01:36:36	6.299	0.000	1.310	6.810
AUG-06-2014	01:37:12	6.376	0.000	1.315	6.815
AUG-06-2014	01:37:48	6.451	0.000	1.320	6.820
AUG-06-2014	01:38:24	6.620	0.000	1.324	6.824
AUG-06-2014	01:39:00	6.561	0.000	1.329	6.829
AUG-06-2014	01:39:36	6.543	0.000	1.334	6.834
AUG-06-2014	01:40:12	6.705	0.000	1.339	6.839
AUG-06-2014	01:40:48	6.770	0.000	1.344	6.844
AUG-06-2014	01:41:24	6.764	0.000	1.348	6.848
AUG-06-2014	01:42:00	6.711	0.000	1.354	6.854
AUG-06-2014	01:42:36	6.880	0.000	1.359	6.859
AUG-06-2014	01:43:12	6.828	0.000	1.364	6.864
AUG-06-2014	01:43:48	6.838	0.000	1.369	6.869
AUG-06-2014	01:44:24	6.909	0.000	1.374	6.874
AUG-06-2014	01:45:00	6.953	0.000	1.378	6.878
AUG-06-2014	01:45:36	6.958	0.000	1.383	6.883
AUG-06-2014	01:46:12	6.720	0.000	1.377	6.877
AUG-06-2014	01:46:48	7.119	0.000	1.384	6.884
AUG-06-2014	01:47:24	7.181	0.000	1.395	6.895
AUG-06-2014	01:48:00	7.169	0.000	1.402	6.902
AUG-06-2014	01:48:36	7.142	0.000	1.407	6.907
AUG-06-2014	01:49:12	7.265	0.000	1.412	6.912
AUG-06-2014	01:49:48	6.796	0.000	1.400	6.900
AUG-06-2014	01:50:24	7.132	0.000	1.393	6.893
AUG-06-2014	01:51:00	7.183	0.000	1.407	6.907
AUG-06-2014	01:51:36	7.399	0.000	1.420	6.920
AUG-06-2014	01:52:12	7.474	0.000	1.431	6.931
AUG-06-2014	01:52:48	7.386	0.000	1.439	6.939
AUG-06-2014	01:53:24	7.373	0.000	1.447	6.947
AUG-06-2014	01:54:00	7.453	0.000	1.453	6.953
AUG-06-2014	01:54:36	7.683	0.000	1.460	6.960
AUG-06-2014	01:55:12	7.489	0.000	1.466	6.966
AUG-06-2014	01:55:48	7.619	0.000	1.472	6.972
AUG-06-2014	01:56:24	7.704	0.000	1.481	6.981
AUG-06-2014	01:57:00	7.746	0.000	1.486	6.986
AUG-06-2014	01:57:36	7.789	0.000	1.491	6.991
AUG-06-2014	01:58:12	7.817	0.000	1.497	6.997

			swmm.RPT		
AUG-06-2014 01:58:48	7.844	0.000	1.502	7.002	
AUG-06-2014 01:59:24	7.870	0.000	1.507	7.007	
AUG-06-2014 02:00:00	7.899	0.000	1.513	7.013	
AUG-06-2014 02:00:36	7.949	0.000	1.518	7.018	
AUG-06-2014 02:01:12	7.970	0.000	1.522	7.022	
AUG-06-2014 02:01:48	7.940	0.000	1.522	7.022	
AUG-06-2014 02:02:24	7.871	0.000	1.521	7.021	
AUG-06-2014 02:03:00	7.835	0.000	1.519	7.019	
AUG-06-2014 02:03:36	7.847	0.000	1.516	7.016	
AUG-06-2014 02:04:12	7.814	0.000	1.512	7.012	
AUG-06-2014 02:04:48	7.730	0.000	1.507	7.007	
AUG-06-2014 02:05:24	7.713	0.000	1.502	7.002	
AUG-06-2014 02:06:00	7.723	0.000	1.497	6.997	
AUG-06-2014 02:06:36	7.634	0.000	1.490	6.990	
AUG-06-2014 02:07:12	7.430	0.000	1.484	6.984	
AUG-06-2014 02:07:48	7.638	0.000	1.478	6.978	
AUG-06-2014 02:08:24	7.559	0.000	1.472	6.972	
AUG-06-2014 02:09:00	7.506	0.000	1.466	6.966	
AUG-06-2014 02:09:36	7.516	0.000	1.460	6.960	
AUG-06-2014 02:10:12	7.407	0.000	1.454	6.954	
AUG-06-2014 02:10:48	7.322	0.000	1.447	6.947	
AUG-06-2014 02:11:24	7.252	0.000	1.441	6.941	
AUG-06-2014 02:12:00	7.174	0.000	1.434	6.934	
AUG-06-2014 02:12:36	7.274	0.000	1.428	6.928	
AUG-06-2014 02:13:12	7.194	0.000	1.422	6.922	
AUG-06-2014 02:13:48	7.089	0.000	1.416	6.916	
AUG-06-2014 02:14:24	7.105	0.000	1.410	6.910	
AUG-06-2014 02:15:00	7.035	0.000	1.404	6.904	
AUG-06-2014 02:15:36	7.020	0.000	1.399	6.899	
AUG-06-2014 02:16:12	6.733	0.000	1.392	6.892	
AUG-06-2014 02:16:48	6.900	0.000	1.388	6.888	
AUG-06-2014 02:17:24	7.031	0.000	1.382	6.882	
AUG-06-2014 02:18:00	6.813	0.000	1.378	6.878	
AUG-06-2014 02:18:36	6.862	0.000	1.373	6.873	
AUG-06-2014 02:19:12	6.834	0.000	1.368	6.868	
AUG-06-2014 02:19:48	6.731	0.000	1.363	6.863	
AUG-06-2014 02:20:24	6.720	0.000	1.357	6.857	
AUG-06-2014 02:21:00	6.573	0.000	1.353	6.853	
AUG-06-2014 02:21:36	6.764	0.000	1.348	6.848	
AUG-06-2014 02:22:12	6.649	0.000	1.343	6.843	
AUG-06-2014 02:22:48	6.601	0.000	1.339	6.839	
AUG-06-2014 02:23:24	6.325	0.000	1.333	6.833	
AUG-06-2014 02:24:00	6.618	0.000	1.327	6.827	
AUG-06-2014 02:24:36	6.670	0.000	1.323	6.823	
AUG-06-2014 02:25:12	6.147	0.000	1.318	6.818	
AUG-06-2014 02:25:48	6.412	0.000	1.311	6.811	
AUG-06-2014 02:26:24	6.470	0.000	1.308	6.808	
AUG-06-2014 02:27:00	6.332	0.000	1.303	6.803	
AUG-06-2014 02:27:36	6.035	0.000	1.298	6.798	

			swmm.RPT		
AUG-06-2014 02:28:12	5.882	0.000	1.294	6.794	
AUG-06-2014 02:28:48	5.772	0.000	1.288	6.788	
AUG-06-2014 02:29:24	6.367	0.000	1.283	6.783	
AUG-06-2014 02:30:00	5.948	0.000	1.278	6.778	
AUG-06-2014 02:30:36	6.191	0.000	1.272	6.772	
AUG-06-2014 02:31:12	6.244	0.000	1.269	6.769	
AUG-06-2014 02:31:48	5.876	0.000	1.263	6.763	
AUG-06-2014 02:32:24	6.233	0.000	1.259	6.759	
AUG-06-2014 02:33:00	5.439	0.000	1.252	6.752	
AUG-06-2014 02:33:36	5.564	0.000	1.248	6.748	
AUG-06-2014 02:34:12	5.678	0.000	1.242	6.742	
AUG-06-2014 02:34:48	5.837	0.000	1.237	6.737	
AUG-06-2014 02:35:24	5.742	0.000	1.232	6.732	
AUG-06-2014 02:36:00	5.462	0.000	1.228	6.728	
AUG-06-2014 02:36:36	5.760	0.000	1.223	6.723	
AUG-06-2014 02:37:12	5.637	0.000	1.217	6.717	
AUG-06-2014 02:37:48	5.382	0.000	1.211	6.711	
AUG-06-2014 02:38:24	5.487	0.000	1.207	6.707	
AUG-06-2014 02:39:00	5.525	0.000	1.203	6.703	
AUG-06-2014 02:39:36	5.338	0.000	1.196	6.696	
AUG-06-2014 02:40:12	5.325	0.000	1.191	6.691	
AUG-06-2014 02:40:48	5.433	0.000	1.188	6.688	
AUG-06-2014 02:41:24	5.250	0.000	1.183	6.683	
AUG-06-2014 02:42:00	5.239	0.000	1.179	6.679	
AUG-06-2014 02:42:36	5.207	0.000	1.171	6.671	
AUG-06-2014 02:43:12	5.096	0.000	1.166	6.666	
AUG-06-2014 02:43:48	5.100	0.000	1.162	6.662	
AUG-06-2014 02:44:24	5.127	0.000	1.158	6.658	
AUG-06-2014 02:45:00	5.093	0.000	1.153	6.653	
AUG-06-2014 02:45:36	5.157	0.000	1.148	6.648	
AUG-06-2014 02:46:12	5.047	0.000	1.143	6.643	
AUG-06-2014 02:46:48	4.867	0.000	1.138	6.638	
AUG-06-2014 02:47:24	4.876	0.000	1.132	6.632	
AUG-06-2014 02:48:00	4.738	0.000	1.127	6.627	
AUG-06-2014 02:48:36	4.713	0.000	1.122	6.622	
AUG-06-2014 02:49:12	4.684	0.000	1.117	6.617	
AUG-06-2014 02:49:48	4.759	0.000	1.111	6.611	
AUG-06-2014 02:50:24	4.695	0.000	1.107	6.607	
AUG-06-2014 02:51:00	4.637	0.000	1.098	6.598	
AUG-06-2014 02:51:36	4.719	0.000	1.093	6.593	
AUG-06-2014 02:52:12	4.582	0.000	1.087	6.587	
AUG-06-2014 02:52:48	4.587	0.000	1.082	6.582	
AUG-06-2014 02:53:24	4.353	0.000	1.078	6.578	
AUG-06-2014 02:54:00	4.334	0.000	1.073	6.573	
AUG-06-2014 02:54:36	4.210	0.000	1.068	6.568	
AUG-06-2014 02:55:12	4.325	0.000	1.062	6.562	
AUG-06-2014 02:55:48	4.240	0.000	1.057	6.557	
AUG-06-2014 02:56:24	4.187	0.000	1.052	6.552	
AUG-06-2014 02:57:00	4.267	0.000	1.047	6.547	

			swmm.RPT		
AUG-06-2014 02:57:36	4.238	0.000	1.042	6.542	
AUG-06-2014 02:58:12	4.288	0.000	1.036	6.536	
AUG-06-2014 02:58:48	4.081	0.000	1.031	6.531	
AUG-06-2014 02:59:24	4.087	0.000	1.025	6.525	
AUG-06-2014 03:00:00	4.085	0.000	1.021	6.521	
AUG-06-2014 03:00:36	3.940	0.000	1.014	6.514	
AUG-06-2014 03:01:12	3.828	0.000	1.008	6.508	
AUG-06-2014 03:01:48	6.534	0.000	1.042	6.542	
AUG-06-2014 03:02:24	4.189	0.000	1.040	6.540	
AUG-06-2014 03:03:00	3.916	0.000	1.022	6.522	
AUG-06-2014 03:03:36	3.719	0.000	1.006	6.506	
AUG-06-2014 03:04:12	3.608	0.000	0.987	6.487	
AUG-06-2014 03:04:48	3.435	0.000	0.961	6.461	
AUG-06-2014 03:05:24	6.446	0.000	0.982	6.482	
AUG-06-2014 03:06:00	3.827	0.000	0.991	6.491	
AUG-06-2014 03:06:36	3.646	0.000	0.979	6.479	
AUG-06-2014 03:07:12	3.498	0.000	0.962	6.462	
AUG-06-2014 03:07:48	3.472	0.000	0.948	6.448	
AUG-06-2014 03:08:24	3.390	0.000	0.937	6.437	
AUG-06-2014 03:09:00	3.369	0.000	0.928	6.428	
AUG-06-2014 03:09:36	3.361	0.000	0.923	6.423	
AUG-06-2014 03:10:12	3.316	0.000	0.919	6.419	
AUG-06-2014 03:10:48	3.221	0.000	0.910	6.410	
AUG-06-2014 03:11:24	3.458	0.000	0.912	6.412	
AUG-06-2014 03:12:00	3.332	0.000	0.914	6.414	
AUG-06-2014 03:12:36	3.280	0.000	0.911	6.411	
AUG-06-2014 03:13:12	3.229	0.000	0.906	6.406	
AUG-06-2014 03:13:48	3.146	0.000	0.899	6.399	
AUG-06-2014 03:14:24	2.881	0.000	0.880	6.380	
AUG-06-2014 03:15:00	3.337	0.000	0.866	6.366	
AUG-06-2014 03:15:36	3.215	0.000	0.882	6.382	
AUG-06-2014 03:16:12	2.970	0.000	0.880	6.380	
AUG-06-2014 03:16:48	2.872	0.000	0.869	6.369	
AUG-06-2014 03:17:24	2.842	0.000	0.858	6.358	
AUG-06-2014 03:18:00	2.718	0.000	0.844	6.344	
AUG-06-2014 03:18:36	2.689	0.000	0.832	6.332	
AUG-06-2014 03:19:12	2.946	0.000	0.841	6.341	
AUG-06-2014 03:19:48	2.746	0.000	0.837	6.337	
AUG-06-2014 03:20:24	2.698	0.000	0.829	6.329	
AUG-06-2014 03:21:00	2.675	0.000	0.822	6.322	
AUG-06-2014 03:21:36	2.662	0.000	0.817	6.317	
AUG-06-2014 03:22:12	2.581	0.000	0.810	6.310	
AUG-06-2014 03:22:48	2.591	0.000	0.799	6.299	
AUG-06-2014 03:23:24	2.613	0.000	0.802	6.302	
AUG-06-2014 03:24:00	2.557	0.000	0.800	6.300	
AUG-06-2014 03:24:36	2.508	0.000	0.795	6.295	
AUG-06-2014 03:25:12	2.462	0.000	0.789	6.289	
AUG-06-2014 03:25:48	2.418	0.000	0.782	6.282	
AUG-06-2014 03:26:24	2.368	0.000	0.775	6.275	

		swmm.RPT			
AUG-06-2014	03:27:00	2.302	0.000	0.767	6.267
AUG-06-2014	03:27:36	2.362	0.000	0.762	6.262
AUG-06-2014	03:28:12	2.299	0.000	0.759	6.259
AUG-06-2014	03:28:48	2.245	0.000	0.753	6.253
AUG-06-2014	03:29:24	2.197	0.000	0.746	6.246
AUG-06-2014	03:30:00	2.158	0.000	0.739	6.239
AUG-06-2014	03:30:36	2.080	0.000	0.730	6.230
AUG-06-2014	03:31:12	2.133	0.000	0.720	6.220
AUG-06-2014	03:31:48	2.075	0.000	0.718	6.218
AUG-06-2014	03:32:24	2.021	0.000	0.713	6.213
AUG-06-2014	03:33:00	1.970	0.000	0.707	6.207
AUG-06-2014	03:33:36	1.924	0.000	0.699	6.199
AUG-06-2014	03:34:12	1.880	0.000	0.691	6.191
AUG-06-2014	03:34:48	1.822	0.000	0.684	6.184
AUG-06-2014	03:35:24	1.744	0.000	0.671	6.171
AUG-06-2014	03:36:00	1.817	0.000	0.670	6.170
AUG-06-2014	03:36:36	1.758	0.000	0.666	6.166
AUG-06-2014	03:37:12	1.701	0.000	0.659	6.159
AUG-06-2014	03:37:48	1.650	0.000	0.650	6.150
AUG-06-2014	03:38:24	1.602	0.000	0.642	6.142
AUG-06-2014	03:39:00	1.556	0.000	0.633	6.133
AUG-06-2014	03:39:36	1.512	0.000	0.624	6.124
AUG-06-2014	03:40:12	1.473	0.000	0.615	6.115
AUG-06-2014	03:40:48	1.403	0.000	0.606	6.106
AUG-06-2014	03:41:24	1.408	0.000	0.594	6.094
AUG-06-2014	03:42:00	1.351	0.000	0.588	6.088
AUG-06-2014	03:42:36	1.299	0.000	0.580	6.080
AUG-06-2014	03:43:12	1.250	0.000	0.571	6.071
AUG-06-2014	03:43:48	1.204	0.000	0.562	6.062
AUG-06-2014	03:44:24	1.159	0.000	0.552	6.052
AUG-06-2014	03:45:00	1.116	0.000	0.543	6.043
AUG-06-2014	03:45:36	1.066	0.000	0.533	6.033
AUG-06-2014	03:46:12	1.065	0.000	0.524	6.024
AUG-06-2014	03:46:48	1.012	0.000	0.516	6.016
AUG-06-2014	03:47:24	0.967	0.000	0.507	6.007
AUG-06-2014	03:48:00	0.929	0.000	0.498	5.998
AUG-06-2014	03:48:36	0.892	0.000	0.489	5.989
AUG-06-2014	03:49:12	0.855	0.000	0.479	5.979
AUG-06-2014	03:49:48	0.817	0.000	0.470	5.970
AUG-06-2014	03:50:24	0.784	0.000	0.461	5.961
AUG-06-2014	03:51:00	0.740	0.000	0.451	5.951
AUG-06-2014	03:51:36	0.715	0.000	0.440	5.940
AUG-06-2014	03:52:12	0.685	0.000	0.432	5.932
AUG-06-2014	03:52:48	0.643	0.000	0.423	5.923
AUG-06-2014	03:53:24	0.604	0.000	0.413	5.913
AUG-06-2014	03:54:00	0.565	0.000	0.403	5.903
AUG-06-2014	03:54:36	0.527	0.000	0.392	5.892
AUG-06-2014	03:55:12	0.490	0.000	0.381	5.881
AUG-06-2014	03:55:48	0.453	0.000	0.369	5.869

		swmm.RPT			
AUG-06-2014	03:56:24	0.420	0.000	0.358	5.858
AUG-06-2014	03:57:00	0.381	0.000	0.346	5.846
AUG-06-2014	03:57:36	0.348	0.000	0.333	5.833
AUG-06-2014	03:58:12	0.317	0.000	0.322	5.822
AUG-06-2014	03:58:48	0.283	0.000	0.310	5.810
AUG-06-2014	03:59:24	0.250	0.000	0.297	5.797
AUG-06-2014	04:00:00	0.218	0.000	0.284	5.784
AUG-06-2014	04:00:36	0.187	0.000	0.271	5.771
AUG-06-2014	04:01:12	0.161	0.000	0.258	5.758
AUG-06-2014	04:01:48	0.132	0.000	0.245	5.745
AUG-06-2014	04:02:24	0.120	0.000	0.232	5.732
AUG-06-2014	04:03:00	0.101	0.000	0.220	5.720
AUG-06-2014	04:03:36	0.090	0.000	0.209	5.709
AUG-06-2014	04:04:12	0.081	0.000	0.198	5.698
AUG-06-2014	04:04:48	0.072	0.000	0.189	5.689
AUG-06-2014	04:05:24	0.065	0.000	0.180	5.680
AUG-06-2014	04:06:00	0.058	0.000	0.172	5.672
AUG-06-2014	04:06:36	0.053	0.000	0.164	5.664
AUG-06-2014	04:07:12	0.048	0.000	0.157	5.657
AUG-06-2014	04:07:48	0.044	0.000	0.150	5.650
AUG-06-2014	04:08:24	0.040	0.000	0.144	5.644
AUG-06-2014	04:09:00	0.037	0.000	0.138	5.638
AUG-06-2014	04:09:36	0.034	0.000	0.133	5.633
AUG-06-2014	04:10:12	0.031	0.000	0.128	5.628
AUG-06-2014	04:10:48	0.029	0.000	0.123	5.623
AUG-06-2014	04:11:24	0.027	0.000	0.119	5.619
AUG-06-2014	04:12:00	0.025	0.000	0.114	5.614
AUG-06-2014	04:12:36	0.023	0.000	0.111	5.611
AUG-06-2014	04:13:12	0.022	0.000	0.107	5.607
AUG-06-2014	04:13:48	0.020	0.000	0.104	5.604
AUG-06-2014	04:14:24	0.019	0.000	0.100	5.600
AUG-06-2014	04:15:00	0.018	0.000	0.097	5.597
AUG-06-2014	04:15:36	0.017	0.000	0.095	5.595
AUG-06-2014	04:16:12	0.016	0.000	0.092	5.592
AUG-06-2014	04:16:48	0.007	0.000	0.089	5.589
AUG-06-2014	04:17:24	0.000	0.000	0.084	5.584
AUG-06-2014	04:18:00	0.000	0.000	0.080	5.580
AUG-06-2014	04:18:36	0.000	0.000	0.075	5.575
AUG-06-2014	04:19:12	0.000	0.000	0.072	5.572
AUG-06-2014	04:19:48	0.000	0.000	0.068	5.568
AUG-06-2014	04:20:24	0.000	0.000	0.065	5.565
AUG-06-2014	04:21:00	0.000	0.000	0.062	5.562
AUG-06-2014	04:21:36	0.000	0.000	0.059	5.559
AUG-06-2014	04:22:12	0.000	0.000	0.057	5.557
AUG-06-2014	04:22:48	0.000	0.000	0.054	5.554
AUG-06-2014	04:23:24	0.000	0.000	0.052	5.552
AUG-06-2014	04:24:00	0.000	0.000	0.050	5.550
AUG-06-2014	04:24:36	0.000	0.000	0.048	5.548
AUG-06-2014	04:25:12	0.000	0.000	0.047	5.547



			swmm.RPT		
AUG-06-2014	04:25:48	0.000	0.000	0.045	5.545
AUG-06-2014	04:26:24	0.000	0.000	0.043	5.543
AUG-06-2014	04:27:00	0.000	0.000	0.042	5.542
AUG-06-2014	04:27:36	0.000	0.000	0.041	5.541
AUG-06-2014	04:28:12	0.000	0.000	0.039	5.539
AUG-06-2014	04:28:48	0.000	0.000	0.038	5.538
AUG-06-2014	04:29:24	0.000	0.000	0.037	5.537
AUG-06-2014	04:30:00	0.000	0.000	0.036	5.536
AUG-06-2014	04:30:36	0.000	0.000	0.035	5.535
AUG-06-2014	04:31:12	0.000	0.000	0.033	5.533
AUG-06-2014	04:31:48	0.000	0.000	0.032	5.532
AUG-06-2014	04:32:24	0.000	0.000	0.031	5.531
AUG-06-2014	04:33:00	0.000	0.000	0.031	5.531
AUG-06-2014	04:33:36	0.000	0.000	0.030	5.530
AUG-06-2014	04:34:12	0.000	0.000	0.029	5.529
AUG-06-2014	04:34:48	0.000	0.000	0.028	5.528
AUG-06-2014	04:35:24	0.000	0.000	0.027	5.527
AUG-06-2014	04:36:00	0.000	0.000	0.026	5.526
AUG-06-2014	04:36:36	0.000	0.000	0.026	5.526
AUG-06-2014	04:37:12	0.000	0.000	0.025	5.525
AUG-06-2014	04:37:48	0.000	0.000	0.024	5.524
AUG-06-2014	04:38:24	0.000	0.000	0.024	5.524
AUG-06-2014	04:39:00	0.000	0.000	0.023	5.523
AUG-06-2014	04:39:36	0.000	0.000	0.022	5.522
AUG-06-2014	04:40:12	0.000	0.000	0.022	5.522
AUG-06-2014	04:40:48	0.000	0.000	0.021	5.521
AUG-06-2014	04:41:24	0.000	0.000	0.021	5.521
AUG-06-2014	04:42:00	0.000	0.000	0.020	5.520
AUG-06-2014	04:42:36	0.000	0.000	0.020	5.520
AUG-06-2014	04:43:12	0.000	0.000	0.019	5.519
AUG-06-2014	04:43:48	0.000	0.000	0.019	5.519
AUG-06-2014	04:44:24	0.000	0.000	0.018	5.518
AUG-06-2014	04:45:00	0.000	0.000	0.018	5.518
AUG-06-2014	04:45:36	0.000	0.000	0.017	5.517
AUG-06-2014	04:46:12	0.000	0.000	0.017	5.517
AUG-06-2014	04:46:48	0.000	0.000	0.016	5.516
AUG-06-2014	04:47:24	0.000	0.000	0.016	5.516
AUG-06-2014	04:48:00	0.000	0.000	0.016	5.516
AUG-06-2014	04:48:36	0.000	0.000	0.015	5.515
AUG-06-2014	04:49:12	0.000	0.000	0.015	5.515
AUG-06-2014	04:49:48	0.000	0.000	0.015	5.515
AUG-06-2014	04:50:24	0.000	0.000	0.014	5.514
AUG-06-2014	04:51:00	0.000	0.000	0.014	5.514
AUG-06-2014	04:51:36	0.000	0.000	0.014	5.514
AUG-06-2014	04:52:12	0.000	0.000	0.013	5.513
AUG-06-2014	04:52:48	0.000	0.000	0.013	5.513
AUG-06-2014	04:53:24	0.000	0.000	0.013	5.513
AUG-06-2014	04:54:00	0.000	0.000	0.012	5.512
AUG-06-2014	04:54:36	0.000	0.000	0.012	5.512

			swmm.RPT		
AUG-06-2014	04:55:12	0.000	0.000	0.012	5.512
AUG-06-2014	04:55:48	0.000	0.000	0.011	5.511
AUG-06-2014	04:56:24	0.000	0.000	0.011	5.511
AUG-06-2014	04:57:00	0.000	0.000	0.011	5.511
AUG-06-2014	04:57:36	0.000	0.000	0.011	5.511
AUG-06-2014	04:58:12	0.000	0.000	0.010	5.510
AUG-06-2014	04:58:48	0.000	0.000	0.010	5.510
AUG-06-2014	04:59:24	0.000	0.000	0.010	5.510
AUG-06-2014	05:00:00	0.000	0.000	0.010	5.510
AUG-06-2014	05:00:36	0.000	0.000	0.009	5.509
AUG-06-2014	05:01:12	0.000	0.000	0.009	5.509
AUG-06-2014	05:01:48	0.000	0.000	0.009	5.509
AUG-06-2014	05:02:24	0.000	0.000	0.009	5.509
AUG-06-2014	05:03:00	0.000	0.000	0.009	5.509
AUG-06-2014	05:03:36	0.000	0.000	0.008	5.508
AUG-06-2014	05:04:12	0.000	0.000	0.008	5.508
AUG-06-2014	05:04:48	0.000	0.000	0.008	5.508
AUG-06-2014	05:05:24	0.000	0.000	0.008	5.508
AUG-06-2014	05:06:00	0.000	0.000	0.008	5.508
AUG-06-2014	05:06:36	0.000	0.000	0.007	5.507
AUG-06-2014	05:07:12	0.000	0.000	0.007	5.507
AUG-06-2014	05:07:48	0.000	0.000	0.007	5.507
AUG-06-2014	05:08:24	0.000	0.000	0.007	5.507
AUG-06-2014	05:09:00	0.000	0.000	0.007	5.507
AUG-06-2014	05:09:36	0.000	0.000	0.007	5.507
AUG-06-2014	05:10:12	0.000	0.000	0.006	5.506
AUG-06-2014	05:10:48	0.000	0.000	0.006	5.506
AUG-06-2014	05:11:24	0.000	0.000	0.006	5.506
AUG-06-2014	05:12:00	0.000	0.000	0.006	5.506
AUG-06-2014	05:12:36	0.000	0.000	0.006	5.506
AUG-06-2014	05:13:12	0.000	0.000	0.006	5.506
AUG-06-2014	05:13:48	0.000	0.000	0.006	5.506
AUG-06-2014	05:14:24	0.000	0.000	0.005	5.505
AUG-06-2014	05:15:00	0.000	0.000	0.005	5.505
AUG-06-2014	05:15:36	0.000	0.000	0.005	5.505
AUG-06-2014	05:16:12	0.000	0.000	0.005	5.505
AUG-06-2014	05:16:48	0.000	0.000	0.005	5.505
AUG-06-2014	05:17:24	0.000	0.000	0.005	5.505
AUG-06-2014	05:18:00	0.000	0.000	0.005	5.505
AUG-06-2014	05:18:36	0.000	0.000	0.005	5.505
AUG-06-2014	05:19:12	0.000	0.000	0.004	5.504
AUG-06-2014	05:19:48	0.000	0.000	0.004	5.504
AUG-06-2014	05:20:24	0.000	0.000	0.004	5.504
AUG-06-2014	05:21:00	0.000	0.000	0.004	5.504
AUG-06-2014	05:21:36	0.000	0.000	0.004	5.504
AUG-06-2014	05:22:12	0.000	0.000	0.004	5.504
AUG-06-2014	05:22:48	0.000	0.000	0.004	5.504
AUG-06-2014	05:23:24	0.000	0.000	0.004	5.504
AUG-06-2014	05:24:00	0.000	0.000	0.004	5.504



			swmm.RPT		
AUG-06-2014	05:24:36	0.000	0.000	0.003	5.503
AUG-06-2014	05:25:12	0.000	0.000	0.003	5.503
AUG-06-2014	05:25:48	0.000	0.000	0.003	5.503
AUG-06-2014	05:26:24	0.000	0.000	0.003	5.503
AUG-06-2014	05:27:00	0.000	0.000	0.003	5.503
AUG-06-2014	05:27:36	0.000	0.000	0.003	5.503
AUG-06-2014	05:28:12	0.000	0.000	0.003	5.503
AUG-06-2014	05:28:48	0.000	0.000	0.003	5.503
AUG-06-2014	05:29:24	0.000	0.000	0.003	5.503
AUG-06-2014	05:30:00	0.000	0.000	0.003	5.503
AUG-06-2014	05:30:36	0.000	0.000	0.003	5.503
AUG-06-2014	05:31:12	0.000	0.000	0.003	5.503
AUG-06-2014	05:31:48	0.000	0.000	0.003	5.503
AUG-06-2014	05:32:24	0.000	0.000	0.002	5.502
AUG-06-2014	05:33:00	0.000	0.000	0.002	5.502
AUG-06-2014	05:33:36	0.000	0.000	0.002	5.502
AUG-06-2014	05:34:12	0.000	0.000	0.002	5.502
AUG-06-2014	05:34:48	0.000	0.000	0.002	5.502
AUG-06-2014	05:35:24	0.000	0.000	0.002	5.502
AUG-06-2014	05:36:00	0.000	0.000	0.002	5.502
AUG-06-2014	05:36:36	0.000	0.000	0.002	5.502
AUG-06-2014	05:37:12	0.000	0.000	0.002	5.502
AUG-06-2014	05:37:48	0.000	0.000	0.002	5.502
AUG-06-2014	05:38:24	0.000	0.000	0.002	5.502
AUG-06-2014	05:39:00	0.000	0.000	0.002	5.502
AUG-06-2014	05:39:36	0.000	0.000	0.002	5.502
AUG-06-2014	05:40:12	0.000	0.000	0.002	5.502
AUG-06-2014	05:40:48	0.000	0.000	0.002	5.502
AUG-06-2014	05:41:24	0.000	0.000	0.002	5.502
AUG-06-2014	05:42:00	0.000	0.000	0.002	5.502
AUG-06-2014	05:42:36	0.000	0.000	0.002	5.502
AUG-06-2014	05:43:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:43:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:44:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:45:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:45:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:46:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:46:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:47:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:48:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:48:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:49:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:49:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:50:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:51:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:51:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:52:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:52:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:53:24	0.000	0.000	0.001	5.501

		swmm.RPT			
AUG-06-2014	05:54:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:54:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:55:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:55:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:56:24	0.000	0.000	0.001	5.501
AUG-06-2014	05:57:00	0.000	0.000	0.001	5.501
AUG-06-2014	05:57:36	0.000	0.000	0.001	5.501
AUG-06-2014	05:58:12	0.000	0.000	0.001	5.501
AUG-06-2014	05:58:48	0.000	0.000	0.001	5.501
AUG-06-2014	05:59:24	0.000	0.000	0.001	5.501
AUG-06-2014	06:00:00	0.000	0.000	0.001	5.501
AUG-06-2014	06:00:36	0.000	0.000	0.001	5.501
AUG-06-2014	06:01:12	0.000	0.000	0.001	5.501
AUG-06-2014	06:01:48	0.000	0.000	0.001	5.501
AUG-06-2014	06:02:24	0.000	0.000	0.001	5.501
AUG-06-2014	06:03:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:03:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:04:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:04:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:05:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:06:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:06:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:07:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:07:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:08:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:09:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:09:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:10:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:10:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:11:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:12:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:12:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:13:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:13:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:14:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:15:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:15:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:16:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:16:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:17:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:18:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:18:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:19:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:19:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:20:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:21:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:21:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:22:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:22:48	0.000	0.000	0.000	5.500

		swmm.RPT			
AUG-06-2014	06:23:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:24:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:24:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:25:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:25:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:26:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:27:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:27:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:28:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:28:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:29:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:30:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:30:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:31:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:31:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:32:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:33:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:33:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:34:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:34:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:35:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:36:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:36:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:37:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:37:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:38:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:39:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:39:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:40:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:40:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:41:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:42:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:42:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:43:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:43:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:44:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:45:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:45:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:46:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:46:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:47:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:48:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:48:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:49:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:49:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:50:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:51:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:51:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:52:12	0.000	0.000	0.000	5.500

		swmm.RPT			
AUG-06-2014	06:52:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:53:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:54:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:54:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:55:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:55:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:56:24	0.000	0.000	0.000	5.500
AUG-06-2014	06:57:00	0.000	0.000	0.000	5.500
AUG-06-2014	06:57:36	0.000	0.000	0.000	5.500
AUG-06-2014	06:58:12	0.000	0.000	0.000	5.500
AUG-06-2014	06:58:48	0.000	0.000	0.000	5.500
AUG-06-2014	06:59:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:00:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:00:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:01:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:01:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:02:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:03:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:03:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:04:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:04:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:05:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:06:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:06:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:07:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:07:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:08:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:09:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:09:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:10:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:10:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:11:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:12:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:12:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:13:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:13:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:14:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:15:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:15:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:16:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:16:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:17:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:18:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:18:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:19:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:19:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:20:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:21:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:21:36	0.000	0.000	0.000	5.500

		swmm.RPT			
AUG-06-2014	07:22:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:22:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:23:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:24:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:24:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:25:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:25:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:26:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:27:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:27:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:28:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:28:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:29:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:30:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:30:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:31:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:31:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:32:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:33:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:33:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:34:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:34:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:35:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:36:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:36:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:37:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:37:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:38:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:39:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:39:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:40:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:40:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:41:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:42:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:42:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:43:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:43:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:44:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:45:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:45:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:46:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:46:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:47:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:48:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:48:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:49:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:49:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:50:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:51:00	0.000	0.000	0.000	5.500

## swmm.RPT

AUG-06-2014	07:51:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:52:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:52:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:53:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:54:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:54:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:55:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:55:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:56:24	0.000	0.000	0.000	5.500
AUG-06-2014	07:57:00	0.000	0.000	0.000	5.500
AUG-06-2014	07:57:36	0.000	0.000	0.000	5.500
AUG-06-2014	07:58:12	0.000	0.000	0.000	5.500
AUG-06-2014	07:58:48	0.000	0.000	0.000	5.500
AUG-06-2014	07:59:24	0.000	0.000	0.000	5.500
AUG-06-2014	08:00:00	0.000	0.000	0.000	5.500

## &lt;&lt;&lt; Node Junction1 &gt;&gt;&gt;

Date	Time	Inflow CFS	Flooding CFS	Depth feet	Head feet
AUG-06-2014	00:00:36	0.000	0.000	0.000	4.500
AUG-06-2014	00:01:12	0.000	0.000	0.000	4.500
AUG-06-2014	00:01:48	0.000	0.000	0.000	4.500
AUG-06-2014	00:02:24	0.000	0.000	0.000	4.500
AUG-06-2014	00:03:00	0.000	0.000	0.000	4.500
AUG-06-2014	00:03:36	0.000	0.000	0.000	4.500
AUG-06-2014	00:04:12	0.000	0.000	0.000	4.500
AUG-06-2014	00:04:48	0.003	0.000	0.001	4.501
AUG-06-2014	00:05:24	0.007	0.000	0.003	4.503
AUG-06-2014	00:06:00	0.015	0.000	0.006	4.506
AUG-06-2014	00:06:36	0.030	0.000	0.010	4.510
AUG-06-2014	00:07:12	0.053	0.000	0.018	4.518
AUG-06-2014	00:07:48	0.089	0.000	0.028	4.528
AUG-06-2014	00:08:24	0.137	0.000	0.041	4.541
AUG-06-2014	00:09:00	0.200	0.000	0.058	4.558
AUG-06-2014	00:09:36	0.283	0.000	0.080	4.580
AUG-06-2014	00:10:12	0.385	0.000	0.106	4.606
AUG-06-2014	00:10:48	0.508	0.000	0.138	4.638
AUG-06-2014	00:11:24	0.649	0.000	0.174	4.674
AUG-06-2014	00:12:00	0.800	0.000	0.213	4.713
AUG-06-2014	00:12:36	0.961	0.000	0.254	4.754
AUG-06-2014	00:13:12	1.125	0.000	0.297	4.797
AUG-06-2014	00:13:48	1.285	0.000	0.340	4.840
AUG-06-2014	00:14:24	1.443	0.000	0.383	4.883
AUG-06-2014	00:15:00	1.588	0.000	0.423	4.923
AUG-06-2014	00:15:36	1.707	0.000	0.461	4.961
AUG-06-2014	00:16:12	1.741	0.000	0.492	4.992

		swmm.RPT			
AUG-06-2014	00:16:48	1.798	0.000	0.518	5.018
AUG-06-2014	00:17:24	1.865	0.000	0.541	5.041
AUG-06-2014	00:18:00	1.940	0.000	0.560	5.060
AUG-06-2014	00:18:36	2.021	0.000	0.578	5.078
AUG-06-2014	00:19:12	2.102	0.000	0.594	5.094
AUG-06-2014	00:19:48	2.258	0.000	0.611	5.111
AUG-06-2014	00:20:24	2.377	0.000	0.628	5.128
AUG-06-2014	00:21:00	2.466	0.000	0.645	5.145
AUG-06-2014	00:21:36	2.534	0.000	0.660	5.160
AUG-06-2014	00:22:12	2.591	0.000	0.673	5.173
AUG-06-2014	00:22:48	2.646	0.000	0.685	5.185
AUG-06-2014	00:23:24	2.711	0.000	0.695	5.195
AUG-06-2014	00:24:00	2.810	0.000	0.705	5.205
AUG-06-2014	00:24:36	2.891	0.000	0.716	5.216
AUG-06-2014	00:25:12	2.964	0.000	0.727	5.227
AUG-06-2014	00:25:48	3.034	0.000	0.737	5.237
AUG-06-2014	00:26:24	3.104	0.000	0.746	5.246
AUG-06-2014	00:27:00	3.174	0.000	0.755	5.255
AUG-06-2014	00:27:36	3.244	0.000	0.764	5.264
AUG-06-2014	00:28:12	3.313	0.000	0.773	5.273
AUG-06-2014	00:28:48	3.371	0.000	0.781	5.281
AUG-06-2014	00:29:24	3.413	0.000	0.789	5.289
AUG-06-2014	00:30:00	3.460	0.000	0.796	5.296
AUG-06-2014	00:30:36	3.513	0.000	0.802	5.302
AUG-06-2014	00:31:12	3.570	0.000	0.808	5.308
AUG-06-2014	00:31:48	3.624	0.000	0.815	5.315
AUG-06-2014	00:32:24	3.675	0.000	0.821	5.321
AUG-06-2014	00:33:00	3.732	0.000	0.827	5.327
AUG-06-2014	00:33:36	3.794	0.000	0.833	5.333
AUG-06-2014	00:34:12	3.857	0.000	0.840	5.340
AUG-06-2014	00:34:48	3.920	0.000	0.846	5.346
AUG-06-2014	00:35:24	3.986	0.000	0.853	5.353
AUG-06-2014	00:36:00	4.067	0.000	0.860	5.360
AUG-06-2014	00:36:36	4.160	0.000	0.868	5.368
AUG-06-2014	00:37:12	4.248	0.000	0.876	5.376
AUG-06-2014	00:37:48	4.342	0.000	0.885	5.385
AUG-06-2014	00:38:24	4.444	0.000	0.894	5.394
AUG-06-2014	00:39:00	4.542	0.000	0.903	5.403
AUG-06-2014	00:39:36	4.833	0.000	0.917	5.417
AUG-06-2014	00:40:12	5.017	0.000	0.934	5.434
AUG-06-2014	00:40:48	5.136	0.000	0.950	5.450
AUG-06-2014	00:41:24	5.225	0.000	0.964	5.464
AUG-06-2014	00:42:00	5.297	0.000	0.976	5.476
AUG-06-2014	00:42:36	5.359	0.000	0.985	5.485
AUG-06-2014	00:43:12	5.418	0.000	0.994	5.494
AUG-06-2014	00:43:48	5.478	0.000	1.001	5.501
AUG-06-2014	00:44:24	5.540	0.000	1.008	5.508
AUG-06-2014	00:45:00	5.626	0.000	1.014	5.514
AUG-06-2014	00:45:36	5.746	0.000	1.022	5.522



			swmm.RPT		
AUG-06-2014 00:46:12	5.847	0.000	1.031	5.531	
AUG-06-2014 00:46:48	5.961	0.000	1.040	5.540	
AUG-06-2014 00:47:24	6.072	0.000	1.049	5.549	
AUG-06-2014 00:48:00	6.167	0.000	1.059	5.559	
AUG-06-2014 00:48:36	6.261	0.000	1.068	5.568	
AUG-06-2014 00:49:12	6.362	0.000	1.077	5.577	
AUG-06-2014 00:49:48	6.448	0.000	1.086	5.586	
AUG-06-2014 00:50:24	6.544	0.000	1.094	5.594	
AUG-06-2014 00:51:00	6.604	0.000	1.102	5.602	
AUG-06-2014 00:51:36	6.651	0.000	1.109	5.609	
AUG-06-2014 00:52:12	6.698	0.000	1.114	5.614	
AUG-06-2014 00:52:48	6.747	0.000	1.119	5.619	
AUG-06-2014 00:53:24	6.801	0.000	1.124	5.624	
AUG-06-2014 00:54:00	6.864	0.000	1.129	5.629	
AUG-06-2014 00:54:36	6.943	0.000	1.134	5.634	
AUG-06-2014 00:55:12	7.058	0.000	1.141	5.641	
AUG-06-2014 00:55:48	7.171	0.000	1.149	5.649	
AUG-06-2014 00:56:24	7.276	0.000	1.157	5.657	
AUG-06-2014 00:57:00	7.379	0.000	1.165	5.665	
AUG-06-2014 00:57:36	7.454	0.000	1.174	5.674	
AUG-06-2014 00:58:12	7.554	0.000	1.181	5.681	
AUG-06-2014 00:58:48	7.657	0.000	1.189	5.689	
AUG-06-2014 00:59:24	7.731	0.000	1.197	5.697	
AUG-06-2014 01:00:00	7.798	0.000	1.204	5.704	
AUG-06-2014 01:00:36	7.880	0.000	1.211	5.711	
AUG-06-2014 01:01:12	7.975	0.000	1.217	5.717	
AUG-06-2014 01:01:48	8.045	0.000	1.224	5.724	
AUG-06-2014 01:02:24	8.101	0.000	1.231	5.731	
AUG-06-2014 01:03:00	8.205	0.000	1.237	5.737	
AUG-06-2014 01:03:36	8.285	0.000	1.244	5.744	
AUG-06-2014 01:04:12	8.362	0.000	1.250	5.750	
AUG-06-2014 01:04:48	8.439	0.000	1.257	5.757	
AUG-06-2014 01:05:24	8.530	0.000	1.263	5.763	
AUG-06-2014 01:06:00	8.604	0.000	1.270	5.770	
AUG-06-2014 01:06:36	8.683	0.000	1.276	5.776	
AUG-06-2014 01:07:12	8.763	0.000	1.283	5.783	
AUG-06-2014 01:07:48	8.842	0.000	1.289	5.789	
AUG-06-2014 01:08:24	8.960	0.000	1.295	5.795	
AUG-06-2014 01:09:00	9.196	0.000	1.306	5.806	
AUG-06-2014 01:09:36	9.275	0.000	1.317	5.817	
AUG-06-2014 01:10:12	9.321	0.000	1.325	5.825	
AUG-06-2014 01:10:48	9.382	0.000	1.332	5.832	
AUG-06-2014 01:11:24	9.417	0.000	1.337	5.837	
AUG-06-2014 01:12:00	9.460	0.000	1.342	5.842	
AUG-06-2014 01:12:36	9.510	0.000	1.346	5.846	
AUG-06-2014 01:13:12	9.570	0.000	1.350	5.850	
AUG-06-2014 01:13:48	9.636	0.000	1.354	5.854	
AUG-06-2014 01:14:24	9.707	0.000	1.359	5.859	
AUG-06-2014 01:15:00	9.783	0.000	1.364	5.864	



			swmm.RPT		
AUG-06-2014 01:15:36	9.861	0.000	1.370	5.870	
AUG-06-2014 01:16:12	9.944	0.000	1.375	5.875	
AUG-06-2014 01:16:48	10.010	0.000	1.381	5.881	
AUG-06-2014 01:17:24	10.111	0.000	1.387	5.887	
AUG-06-2014 01:18:00	10.188	0.000	1.394	5.894	
AUG-06-2014 01:18:36	10.249	0.000	1.399	5.899	
AUG-06-2014 01:19:12	10.340	0.000	1.405	5.905	
AUG-06-2014 01:19:48	10.437	0.000	1.411	5.911	
AUG-06-2014 01:20:24	10.531	0.000	1.418	5.918	
AUG-06-2014 01:21:00	10.610	0.000	1.425	5.925	
AUG-06-2014 01:21:36	10.757	0.000	1.433	5.933	
AUG-06-2014 01:22:12	10.827	0.000	1.441	5.941	
AUG-06-2014 01:22:48	10.869	0.000	1.447	5.947	
AUG-06-2014 01:23:24	10.909	0.000	1.453	5.953	
AUG-06-2014 01:24:00	11.031	0.000	1.457	5.957	
AUG-06-2014 01:24:36	11.115	0.000	1.464	5.964	
AUG-06-2014 01:25:12	11.206	0.000	1.471	5.971	
AUG-06-2014 01:25:48	11.266	0.000	1.476	5.976	
AUG-06-2014 01:26:24	11.348	0.000	1.482	5.982	
AUG-06-2014 01:27:00	11.377	0.000	1.487	5.987	
AUG-06-2014 01:27:36	11.464	0.000	1.491	5.991	
AUG-06-2014 01:28:12	11.556	0.000	1.497	5.997	
AUG-06-2014 01:28:48	11.600	0.000	1.502	6.002	
AUG-06-2014 01:29:24	11.686	0.000	1.507	6.007	
AUG-06-2014 01:30:00	11.821	0.000	1.514	6.014	
AUG-06-2014 01:30:36	11.866	0.000	1.520	6.020	
AUG-06-2014 01:31:12	11.942	0.000	1.526	6.026	
AUG-06-2014 01:31:48	12.071	0.000	1.533	6.033	
AUG-06-2014 01:32:24	12.121	0.000	1.539	6.039	
AUG-06-2014 01:33:00	12.215	0.000	1.545	6.045	
AUG-06-2014 01:33:36	12.289	0.000	1.551	6.051	
AUG-06-2014 01:34:12	12.375	0.000	1.557	6.057	
AUG-06-2014 01:34:48	12.452	0.000	1.563	6.063	
AUG-06-2014 01:35:24	12.536	0.000	1.569	6.069	
AUG-06-2014 01:36:00	12.617	0.000	1.576	6.076	
AUG-06-2014 01:36:36	12.704	0.000	1.581	6.081	
AUG-06-2014 01:37:12	12.781	0.000	1.587	6.087	
AUG-06-2014 01:37:48	12.856	0.000	1.593	6.093	
AUG-06-2014 01:38:24	12.927	0.000	1.599	6.099	
AUG-06-2014 01:39:00	13.009	0.000	1.605	6.105	
AUG-06-2014 01:39:36	13.087	0.000	1.610	6.110	
AUG-06-2014 01:40:12	13.160	0.000	1.616	6.116	
AUG-06-2014 01:40:48	13.242	0.000	1.622	6.122	
AUG-06-2014 01:41:24	13.316	0.000	1.627	6.127	
AUG-06-2014 01:42:00	13.413	0.000	1.633	6.133	
AUG-06-2014 01:42:36	13.490	0.000	1.639	6.139	
AUG-06-2014 01:43:12	13.573	0.000	1.645	6.145	
AUG-06-2014 01:43:48	13.652	0.000	1.651	6.151	
AUG-06-2014 01:44:24	13.731	0.000	1.657	6.157	

			swmm.RPT		
AUG-06-2014	01:45:00	13.800	0.000	1.662	6.162
AUG-06-2014	01:45:36	13.876	0.000	1.668	6.168
AUG-06-2014	01:46:12	13.786	0.000	1.672	6.172
AUG-06-2014	01:46:48	13.886	0.000	1.672	6.172
AUG-06-2014	01:47:24	14.074	0.000	1.678	6.178
AUG-06-2014	01:48:00	14.181	0.000	1.686	6.186
AUG-06-2014	01:48:36	14.274	0.000	1.694	6.194
AUG-06-2014	01:49:12	14.357	0.000	1.701	6.201
AUG-06-2014	01:49:48	14.157	0.000	1.704	6.204
AUG-06-2014	01:50:24	14.020	0.000	1.697	6.197
AUG-06-2014	01:51:00	14.252	0.000	1.697	6.197
AUG-06-2014	01:51:36	14.473	0.000	1.704	6.204
AUG-06-2014	01:52:12	14.643	0.000	1.715	6.215
AUG-06-2014	01:52:48	14.756	0.000	1.725	6.225
AUG-06-2014	01:53:24	14.852	0.000	1.734	6.234
AUG-06-2014	01:54:00	14.939	0.000	1.742	6.242
AUG-06-2014	01:54:36	15.029	0.000	1.750	6.250
AUG-06-2014	01:55:12	15.107	0.000	1.757	6.257
AUG-06-2014	01:55:48	15.190	0.000	1.763	6.263
AUG-06-2014	01:56:24	15.296	0.000	1.770	6.270
AUG-06-2014	01:57:00	15.377	0.000	1.777	6.277
AUG-06-2014	01:57:36	15.443	0.000	1.783	6.283
AUG-06-2014	01:58:12	15.509	0.000	1.788	6.288
AUG-06-2014	01:58:48	15.579	0.000	1.794	6.294
AUG-06-2014	01:59:24	15.652	0.000	1.799	6.299
AUG-06-2014	02:00:00	15.727	0.000	1.804	6.304
AUG-06-2014	02:00:36	15.799	0.000	1.810	6.310
AUG-06-2014	02:01:12	15.841	0.000	1.815	6.315
AUG-06-2014	02:01:48	15.848	0.000	1.818	6.318
AUG-06-2014	02:02:24	15.828	0.000	1.820	6.320
AUG-06-2014	02:03:00	15.791	0.000	1.820	6.320
AUG-06-2014	02:03:36	15.742	0.000	1.818	6.318
AUG-06-2014	02:04:12	15.686	0.000	1.815	6.315
AUG-06-2014	02:04:48	15.624	0.000	1.812	6.312
AUG-06-2014	02:05:24	15.554	0.000	1.808	6.308
AUG-06-2014	02:06:00	15.482	0.000	1.803	6.303
AUG-06-2014	02:06:36	15.399	0.000	1.798	6.298
AUG-06-2014	02:07:12	15.297	0.000	1.792	6.292
AUG-06-2014	02:07:48	15.219	0.000	1.786	6.286
AUG-06-2014	02:08:24	15.143	0.000	1.780	6.280
AUG-06-2014	02:09:00	15.061	0.000	1.774	6.274
AUG-06-2014	02:09:36	14.978	0.000	1.768	6.268
AUG-06-2014	02:10:12	14.901	0.000	1.762	6.262
AUG-06-2014	02:10:48	14.816	0.000	1.757	6.257
AUG-06-2014	02:11:24	14.732	0.000	1.751	6.251
AUG-06-2014	02:12:00	14.642	0.000	1.744	6.244
AUG-06-2014	02:12:36	14.556	0.000	1.738	6.238
AUG-06-2014	02:13:12	14.481	0.000	1.732	6.232
AUG-06-2014	02:13:48	14.396	0.000	1.726	6.226

			swmm.RPT		
AUG-06-2014	02:14:24	14.315	0.000	1.720	6.220
AUG-06-2014	02:15:00	14.227	0.000	1.714	6.214
AUG-06-2014	02:15:36	14.146	0.000	1.707	6.207
AUG-06-2014	02:16:12	14.035	0.000	1.701	6.201
AUG-06-2014	02:16:48	13.959	0.000	1.694	6.194
AUG-06-2014	02:17:24	13.869	0.000	1.687	6.188
AUG-06-2014	02:18:00	13.802	0.000	1.682	6.182
AUG-06-2014	02:18:36	13.718	0.000	1.676	6.176
AUG-06-2014	02:19:12	13.637	0.000	1.670	6.170
AUG-06-2014	02:19:48	13.554	0.000	1.664	6.164
AUG-06-2014	02:20:24	13.467	0.000	1.658	6.158
AUG-06-2014	02:21:00	13.405	0.000	1.652	6.152
AUG-06-2014	02:21:36	13.310	0.000	1.646	6.146
AUG-06-2014	02:22:12	13.235	0.000	1.641	6.141
AUG-06-2014	02:22:48	13.177	0.000	1.635	6.135
AUG-06-2014	02:23:24	13.076	0.000	1.630	6.130
AUG-06-2014	02:24:00	12.969	0.000	1.623	6.123
AUG-06-2014	02:24:36	12.901	0.000	1.617	6.117
AUG-06-2014	02:25:12	12.827	0.000	1.611	6.111
AUG-06-2014	02:25:48	12.715	0.000	1.605	6.105
AUG-06-2014	02:26:24	12.658	0.000	1.599	6.099
AUG-06-2014	02:27:00	12.575	0.000	1.593	6.093
AUG-06-2014	02:27:36	12.507	0.000	1.587	6.087
AUG-06-2014	02:28:12	12.441	0.000	1.582	6.082
AUG-06-2014	02:28:48	12.351	0.000	1.576	6.076
AUG-06-2014	02:29:24	12.262	0.000	1.571	6.071
AUG-06-2014	02:30:00	12.185	0.000	1.565	6.065
AUG-06-2014	02:30:36	12.088	0.000	1.559	6.059
AUG-06-2014	02:31:12	12.030	0.000	1.553	6.053
AUG-06-2014	02:31:48	11.951	0.000	1.547	6.047
AUG-06-2014	02:32:24	11.878	0.000	1.541	6.041
AUG-06-2014	02:33:00	11.785	0.000	1.536	6.036
AUG-06-2014	02:33:36	11.708	0.000	1.529	6.029
AUG-06-2014	02:34:12	11.614	0.000	1.523	6.023
AUG-06-2014	02:34:48	11.528	0.000	1.517	6.017
AUG-06-2014	02:35:24	11.446	0.000	1.511	6.011
AUG-06-2014	02:36:00	11.394	0.000	1.505	6.005
AUG-06-2014	02:36:36	11.312	0.000	1.500	6.000
AUG-06-2014	02:37:12	11.216	0.000	1.494	5.994
AUG-06-2014	02:37:48	11.129	0.000	1.487	5.987
AUG-06-2014	02:38:24	11.066	0.000	1.481	5.981
AUG-06-2014	02:39:00	10.989	0.000	1.476	5.976
AUG-06-2014	02:39:36	10.887	0.000	1.470	5.970
AUG-06-2014	02:40:12	10.811	0.000	1.463	5.963
AUG-06-2014	02:40:48	10.752	0.000	1.458	5.958
AUG-06-2014	02:41:24	10.682	0.000	1.452	5.952
AUG-06-2014	02:42:00	10.622	0.000	1.447	5.947
AUG-06-2014	02:42:36	10.497	0.000	1.441	5.941
AUG-06-2014	02:43:12	10.418	0.000	1.434	5.934

			swmm.RPT		
AUG-06-2014	02:43:48	10.352	0.000	1.428	5.928
AUG-06-2014	02:44:24	10.285	0.000	1.422	5.922
AUG-06-2014	02:45:00	10.207	0.000	1.417	5.917
AUG-06-2014	02:45:36	10.135	0.000	1.411	5.911
AUG-06-2014	02:46:12	10.063	0.000	1.406	5.906
AUG-06-2014	02:46:48	9.984	0.000	1.400	5.900
AUG-06-2014	02:47:24	9.889	0.000	1.394	5.894
AUG-06-2014	02:48:00	9.817	0.000	1.388	5.888
AUG-06-2014	02:48:36	9.731	0.000	1.382	5.882
AUG-06-2014	02:49:12	9.655	0.000	1.376	5.876
AUG-06-2014	02:49:48	9.570	0.000	1.369	5.869
AUG-06-2014	02:50:24	9.503	0.000	1.363	5.863
AUG-06-2014	02:51:00	9.372	0.000	1.356	5.856
AUG-06-2014	02:51:36	9.294	0.000	1.349	5.849
AUG-06-2014	02:52:12	9.195	0.000	1.342	5.842
AUG-06-2014	02:52:48	9.122	0.000	1.335	5.835
AUG-06-2014	02:53:24	9.071	0.000	1.329	5.829
AUG-06-2014	02:54:00	8.999	0.000	1.324	5.824
AUG-06-2014	02:54:36	8.917	0.000	1.318	5.818
AUG-06-2014	02:55:12	8.825	0.000	1.312	5.812
AUG-06-2014	02:55:48	8.758	0.000	1.306	5.806
AUG-06-2014	02:56:24	8.683	0.000	1.300	5.800
AUG-06-2014	02:57:00	8.604	0.000	1.294	5.794
AUG-06-2014	02:57:36	8.528	0.000	1.288	5.788
AUG-06-2014	02:58:12	8.449	0.000	1.282	5.782
AUG-06-2014	02:58:48	8.364	0.000	1.276	5.776
AUG-06-2014	02:59:24	8.279	0.000	1.269	5.769
AUG-06-2014	03:00:00	8.221	0.000	1.263	5.763
AUG-06-2014	03:00:36	8.119	0.000	1.257	5.757
AUG-06-2014	03:01:12	8.027	0.000	1.250	5.750
AUG-06-2014	03:01:48	8.447	0.000	1.244	5.744
AUG-06-2014	03:02:24	8.508	0.000	1.259	5.759
AUG-06-2014	03:03:00	8.238	0.000	1.261	5.761
AUG-06-2014	03:03:36	8.006	0.000	1.254	5.754
AUG-06-2014	03:04:12	7.728	0.000	1.242	5.742
AUG-06-2014	03:04:48	7.357	0.000	1.223	5.723
AUG-06-2014	03:05:24	7.585	0.000	1.203	5.703
AUG-06-2014	03:06:00	7.785	0.000	1.210	5.710
AUG-06-2014	03:06:36	7.606	0.000	1.210	5.710
AUG-06-2014	03:07:12	7.373	0.000	1.203	5.703
AUG-06-2014	03:07:48	7.174	0.000	1.191	5.691
AUG-06-2014	03:08:24	7.025	0.000	1.179	5.679
AUG-06-2014	03:09:00	6.900	0.000	1.167	5.667
AUG-06-2014	03:09:36	6.823	0.000	1.156	5.656
AUG-06-2014	03:10:12	6.767	0.000	1.147	5.647
AUG-06-2014	03:10:48	6.650	0.000	1.139	5.639
AUG-06-2014	03:11:24	6.673	0.000	1.131	5.631
AUG-06-2014	03:12:00	6.698	0.000	1.129	5.629
AUG-06-2014	03:12:36	6.657	0.000	1.127	5.627

			swmm.RPT		
AUG-06-2014 03:13:12	6.590	0.000	1.124	5.624	
AUG-06-2014 03:13:48	6.504	0.000	1.119	5.619	
AUG-06-2014 03:14:24	6.242	0.000	1.111	5.611	
AUG-06-2014 03:15:00	6.047	0.000	1.097	5.597	
AUG-06-2014 03:15:36	6.268	0.000	1.091	5.591	
AUG-06-2014 03:16:12	6.241	0.000	1.090	5.590	
AUG-06-2014 03:16:48	6.096	0.000	1.086	5.586	
AUG-06-2014 03:17:24	5.948	0.000	1.078	5.578	
AUG-06-2014 03:18:00	5.774	0.000	1.069	5.569	
AUG-06-2014 03:18:36	5.612	0.000	1.056	5.556	
AUG-06-2014 03:19:12	5.724	0.000	1.047	5.547	
AUG-06-2014 03:19:48	5.682	0.000	1.044	5.544	
AUG-06-2014 03:20:24	5.571	0.000	1.039	5.539	
AUG-06-2014 03:21:00	5.485	0.000	1.032	5.532	
AUG-06-2014 03:21:36	5.415	0.000	1.026	5.526	
AUG-06-2014 03:22:12	5.337	0.000	1.019	5.519	
AUG-06-2014 03:22:48	5.193	0.000	1.011	5.511	
AUG-06-2014 03:23:24	5.230	0.000	1.004	5.504	
AUG-06-2014 03:24:00	5.202	0.000	1.000	5.500	
AUG-06-2014 03:24:36	5.142	0.000	0.996	5.496	
AUG-06-2014 03:25:12	5.067	0.000	0.991	5.491	
AUG-06-2014 03:25:48	4.985	0.000	0.985	5.485	
AUG-06-2014 03:26:24	4.904	0.000	0.978	5.478	
AUG-06-2014 03:27:00	4.804	0.000	0.971	5.471	
AUG-06-2014 03:27:36	4.745	0.000	0.963	5.463	
AUG-06-2014 03:28:12	4.707	0.000	0.956	5.456	
AUG-06-2014 03:28:48	4.637	0.000	0.951	5.451	
AUG-06-2014 03:29:24	4.554	0.000	0.944	5.444	
AUG-06-2014 03:30:00	4.470	0.000	0.937	5.437	
AUG-06-2014 03:30:36	4.370	0.000	0.929	5.429	
AUG-06-2014 03:31:12	4.249	0.000	0.920	5.420	
AUG-06-2014 03:31:48	4.229	0.000	0.912	5.412	
AUG-06-2014 03:32:24	4.173	0.000	0.905	5.405	
AUG-06-2014 03:33:00	4.097	0.000	0.899	5.399	
AUG-06-2014 03:33:36	4.013	0.000	0.891	5.391	
AUG-06-2014 03:34:12	3.927	0.000	0.883	5.383	
AUG-06-2014 03:34:48	3.840	0.000	0.875	5.375	
AUG-06-2014 03:35:24	3.705	0.000	0.866	5.366	
AUG-06-2014 03:36:00	3.691	0.000	0.857	5.357	
AUG-06-2014 03:36:36	3.644	0.000	0.850	5.350	
AUG-06-2014 03:37:12	3.569	0.000	0.843	5.343	
AUG-06-2014 03:37:48	3.481	0.000	0.835	5.335	
AUG-06-2014 03:38:24	3.390	0.000	0.827	5.327	
AUG-06-2014 03:39:00	3.298	0.000	0.818	5.318	
AUG-06-2014 03:39:36	3.208	0.000	0.809	5.309	
AUG-06-2014 03:40:12	3.120	0.000	0.799	5.299	
AUG-06-2014 03:40:48	3.023	0.000	0.789	5.289	
AUG-06-2014 03:41:24	2.909	0.000	0.779	5.279	
AUG-06-2014 03:42:00	2.853	0.000	0.768	5.268	

		swmm.RPT			
AUG-06-2014	03:42:36	2.776	0.000	0.759	5.259
AUG-06-2014	03:43:12	2.690	0.000	0.749	5.249
AUG-06-2014	03:43:48	2.601	0.000	0.739	5.239
AUG-06-2014	03:44:24	2.512	0.000	0.728	5.228
AUG-06-2014	03:45:00	2.427	0.000	0.718	5.218
AUG-06-2014	03:45:36	2.338	0.000	0.707	5.207
AUG-06-2014	03:46:12	2.260	0.000	0.696	5.196
AUG-06-2014	03:46:48	2.194	0.000	0.686	5.186
AUG-06-2014	03:47:24	2.116	0.000	0.676	5.176
AUG-06-2014	03:48:00	2.038	0.000	0.665	5.165
AUG-06-2014	03:48:36	1.963	0.000	0.655	5.155
AUG-06-2014	03:49:12	1.889	0.000	0.645	5.145
AUG-06-2014	03:49:48	1.815	0.000	0.634	5.134
AUG-06-2014	03:50:24	1.741	0.000	0.624	5.124
AUG-06-2014	03:51:00	1.669	0.000	0.613	5.113
AUG-06-2014	03:51:36	1.584	0.000	0.602	5.102
AUG-06-2014	03:52:12	1.528	0.000	0.591	5.091
AUG-06-2014	03:52:48	1.463	0.000	0.581	5.081
AUG-06-2014	03:53:24	1.394	0.000	0.570	5.070
AUG-06-2014	03:54:00	1.323	0.000	0.559	5.059
AUG-06-2014	03:54:36	1.251	0.000	0.548	5.048
AUG-06-2014	03:55:12	1.179	0.000	0.537	5.037
AUG-06-2014	03:55:48	1.108	0.000	0.525	5.025
AUG-06-2014	03:56:24	1.037	0.000	0.513	5.013
AUG-06-2014	03:57:00	0.968	0.000	0.501	5.001
AUG-06-2014	03:57:36	0.896	0.000	0.488	4.988
AUG-06-2014	03:58:12	0.833	0.000	0.476	4.976
AUG-06-2014	03:58:48	0.769	0.000	0.463	4.963
AUG-06-2014	03:59:24	0.705	0.000	0.450	4.950
AUG-06-2014	04:00:00	0.644	0.000	0.437	4.937
AUG-06-2014	04:00:36	0.584	0.000	0.423	4.923
AUG-06-2014	04:01:12	0.526	0.000	0.410	4.910
AUG-06-2014	04:01:48	0.470	0.000	0.396	4.896
AUG-06-2014	04:02:24	0.421	0.000	0.383	4.883
AUG-06-2014	04:03:00	0.377	0.000	0.370	4.870
AUG-06-2014	04:03:36	0.336	0.000	0.357	4.857
AUG-06-2014	04:04:12	0.301	0.000	0.344	4.844
AUG-06-2014	04:04:48	0.272	0.000	0.332	4.832
AUG-06-2014	04:05:24	0.246	0.000	0.320	4.820
AUG-06-2014	04:06:00	0.222	0.000	0.308	4.808
AUG-06-2014	04:06:36	0.202	0.000	0.298	4.798
AUG-06-2014	04:07:12	0.183	0.000	0.287	4.787
AUG-06-2014	04:07:48	0.167	0.000	0.278	4.778
AUG-06-2014	04:08:24	0.153	0.000	0.269	4.769
AUG-06-2014	04:09:00	0.141	0.000	0.260	4.760
AUG-06-2014	04:09:36	0.130	0.000	0.252	4.752
AUG-06-2014	04:10:12	0.120	0.000	0.245	4.745
AUG-06-2014	04:10:48	0.111	0.000	0.238	4.738
AUG-06-2014	04:11:24	0.102	0.000	0.231	4.731



			swmm.RPT		
AUG-06-2014	04:12:00	0.095	0.000	0.224	4.724
AUG-06-2014	04:12:36	0.088	0.000	0.218	4.718
AUG-06-2014	04:13:12	0.081	0.000	0.212	4.712
AUG-06-2014	04:13:48	0.076	0.000	0.206	4.706
AUG-06-2014	04:14:24	0.071	0.000	0.201	4.701
AUG-06-2014	04:15:00	0.066	0.000	0.196	4.696
AUG-06-2014	04:15:36	0.062	0.000	0.191	4.691
AUG-06-2014	04:16:12	0.058	0.000	0.186	4.686
AUG-06-2014	04:16:48	0.055	0.000	0.181	4.681
AUG-06-2014	04:17:24	0.049	0.000	0.177	4.677
AUG-06-2014	04:18:00	0.043	0.000	0.172	4.672
AUG-06-2014	04:18:36	0.038	0.000	0.168	4.668
AUG-06-2014	04:19:12	0.034	0.000	0.163	4.663
AUG-06-2014	04:19:48	0.031	0.000	0.159	4.659
AUG-06-2014	04:20:24	0.028	0.000	0.155	4.655
AUG-06-2014	04:21:00	0.025	0.000	0.152	4.652
AUG-06-2014	04:21:36	0.023	0.000	0.149	4.649
AUG-06-2014	04:22:12	0.021	0.000	0.146	4.646
AUG-06-2014	04:22:48	0.019	0.000	0.143	4.643
AUG-06-2014	04:23:24	0.017	0.000	0.140	4.640
AUG-06-2014	04:24:00	0.016	0.000	0.137	4.637
AUG-06-2014	04:24:36	0.015	0.000	0.135	4.635
AUG-06-2014	04:25:12	0.014	0.000	0.132	4.632
AUG-06-2014	04:25:48	0.013	0.000	0.130	4.630
AUG-06-2014	04:26:24	0.012	0.000	0.128	4.628
AUG-06-2014	04:27:00	0.011	0.000	0.126	4.626
AUG-06-2014	04:27:36	0.010	0.000	0.124	4.624
AUG-06-2014	04:28:12	0.010	0.000	0.122	4.622
AUG-06-2014	04:28:48	0.009	0.000	0.121	4.621
AUG-06-2014	04:29:24	0.009	0.000	0.119	4.619
AUG-06-2014	04:30:00	0.008	0.000	0.117	4.617
AUG-06-2014	04:30:36	0.008	0.000	0.116	4.616
AUG-06-2014	04:31:12	0.007	0.000	0.114	4.614
AUG-06-2014	04:31:48	0.007	0.000	0.113	4.613
AUG-06-2014	04:32:24	0.006	0.000	0.111	4.611
AUG-06-2014	04:33:00	0.006	0.000	0.110	4.610
AUG-06-2014	04:33:36	0.006	0.000	0.108	4.608
AUG-06-2014	04:34:12	0.005	0.000	0.107	4.607
AUG-06-2014	04:34:48	0.005	0.000	0.106	4.606
AUG-06-2014	04:35:24	0.005	0.000	0.104	4.604
AUG-06-2014	04:36:00	0.005	0.000	0.103	4.603
AUG-06-2014	04:36:36	0.004	0.000	0.102	4.602
AUG-06-2014	04:37:12	0.004	0.000	0.101	4.601
AUG-06-2014	04:37:48	0.004	0.000	0.099	4.599
AUG-06-2014	04:38:24	0.004	0.000	0.098	4.598
AUG-06-2014	04:39:00	0.004	0.000	0.097	4.597
AUG-06-2014	04:39:36	0.004	0.000	0.096	4.596
AUG-06-2014	04:40:12	0.003	0.000	0.095	4.595
AUG-06-2014	04:40:48	0.003	0.000	0.094	4.594

			swmm.RPT		
AUG-06-2014	04:41:24	0.003	0.000	0.093	4.593
AUG-06-2014	04:42:00	0.003	0.000	0.092	4.592
AUG-06-2014	04:42:36	0.003	0.000	0.091	4.591
AUG-06-2014	04:43:12	0.003	0.000	0.090	4.590
AUG-06-2014	04:43:48	0.003	0.000	0.089	4.589
AUG-06-2014	04:44:24	0.002	0.000	0.088	4.588
AUG-06-2014	04:45:00	0.002	0.000	0.087	4.587
AUG-06-2014	04:45:36	0.002	0.000	0.086	4.586
AUG-06-2014	04:46:12	0.002	0.000	0.085	4.585
AUG-06-2014	04:46:48	0.002	0.000	0.084	4.584
AUG-06-2014	04:47:24	0.002	0.000	0.083	4.583
AUG-06-2014	04:48:00	0.002	0.000	0.082	4.582
AUG-06-2014	04:48:36	0.002	0.000	0.081	4.581
AUG-06-2014	04:49:12	0.002	0.000	0.081	4.581
AUG-06-2014	04:49:48	0.002	0.000	0.080	4.580
AUG-06-2014	04:50:24	0.002	0.000	0.079	4.579
AUG-06-2014	04:51:00	0.002	0.000	0.078	4.578
AUG-06-2014	04:51:36	0.002	0.000	0.077	4.577
AUG-06-2014	04:52:12	0.002	0.000	0.077	4.577
AUG-06-2014	04:52:48	0.001	0.000	0.076	4.576
AUG-06-2014	04:53:24	0.001	0.000	0.075	4.575
AUG-06-2014	04:54:00	0.001	0.000	0.074	4.574
AUG-06-2014	04:54:36	0.001	0.000	0.073	4.573
AUG-06-2014	04:55:12	0.001	0.000	0.073	4.573
AUG-06-2014	04:55:48	0.001	0.000	0.072	4.572
AUG-06-2014	04:56:24	0.001	0.000	0.071	4.571
AUG-06-2014	04:57:00	0.001	0.000	0.071	4.571
AUG-06-2014	04:57:36	0.001	0.000	0.070	4.570
AUG-06-2014	04:58:12	0.001	0.000	0.069	4.569
AUG-06-2014	04:58:48	0.001	0.000	0.068	4.568
AUG-06-2014	04:59:24	0.001	0.000	0.068	4.568
AUG-06-2014	05:00:00	0.001	0.000	0.067	4.567
AUG-06-2014	05:00:36	0.001	0.000	0.066	4.566
AUG-06-2014	05:01:12	0.001	0.000	0.066	4.566
AUG-06-2014	05:01:48	0.001	0.000	0.065	4.565
AUG-06-2014	05:02:24	0.001	0.000	0.064	4.564
AUG-06-2014	05:03:00	0.001	0.000	0.064	4.564
AUG-06-2014	05:03:36	0.001	0.000	0.063	4.563
AUG-06-2014	05:04:12	0.001	0.000	0.063	4.563
AUG-06-2014	05:04:48	0.001	0.000	0.062	4.562
AUG-06-2014	05:05:24	0.001	0.000	0.061	4.561
AUG-06-2014	05:06:00	0.001	0.000	0.061	4.561
AUG-06-2014	05:06:36	0.001	0.000	0.060	4.560
AUG-06-2014	05:07:12	0.001	0.000	0.060	4.560
AUG-06-2014	05:07:48	0.001	0.000	0.059	4.559
AUG-06-2014	05:08:24	0.001	0.000	0.058	4.558
AUG-06-2014	05:09:00	0.001	0.000	0.058	4.558
AUG-06-2014	05:09:36	0.001	0.000	0.057	4.557
AUG-06-2014	05:10:12	0.001	0.000	0.057	4.557



			swmm.RPT		
AUG-06-2014	05:10:48	0.001	0.000	0.056	4.556
AUG-06-2014	05:11:24	0.001	0.000	0.056	4.556
AUG-06-2014	05:12:00	0.000	0.000	0.055	4.555
AUG-06-2014	05:12:36	0.000	0.000	0.055	4.555
AUG-06-2014	05:13:12	0.000	0.000	0.054	4.554
AUG-06-2014	05:13:48	0.000	0.000	0.054	4.554
AUG-06-2014	05:14:24	0.000	0.000	0.053	4.553
AUG-06-2014	05:15:00	0.000	0.000	0.053	4.553
AUG-06-2014	05:15:36	0.000	0.000	0.052	4.552
AUG-06-2014	05:16:12	0.000	0.000	0.052	4.552
AUG-06-2014	05:16:48	0.000	0.000	0.051	4.551
AUG-06-2014	05:17:24	0.000	0.000	0.051	4.551
AUG-06-2014	05:18:00	0.000	0.000	0.050	4.550
AUG-06-2014	05:18:36	0.000	0.000	0.050	4.550
AUG-06-2014	05:19:12	0.000	0.000	0.049	4.549
AUG-06-2014	05:19:48	0.000	0.000	0.049	4.549
AUG-06-2014	05:20:24	0.000	0.000	0.048	4.548
AUG-06-2014	05:21:00	0.000	0.000	0.048	4.548
AUG-06-2014	05:21:36	0.000	0.000	0.047	4.547
AUG-06-2014	05:22:12	0.000	0.000	0.047	4.547
AUG-06-2014	05:22:48	0.000	0.000	0.046	4.546
AUG-06-2014	05:23:24	0.000	0.000	0.046	4.546
AUG-06-2014	05:24:00	0.000	0.000	0.046	4.546
AUG-06-2014	05:24:36	0.000	0.000	0.045	4.545
AUG-06-2014	05:25:12	0.000	0.000	0.045	4.545
AUG-06-2014	05:25:48	0.000	0.000	0.044	4.544
AUG-06-2014	05:26:24	0.000	0.000	0.044	4.544
AUG-06-2014	05:27:00	0.000	0.000	0.043	4.543
AUG-06-2014	05:27:36	0.000	0.000	0.043	4.543
AUG-06-2014	05:28:12	0.000	0.000	0.043	4.543
AUG-06-2014	05:28:48	0.000	0.000	0.042	4.542
AUG-06-2014	05:29:24	0.000	0.000	0.042	4.542
AUG-06-2014	05:30:00	0.000	0.000	0.041	4.541
AUG-06-2014	05:30:36	0.000	0.000	0.041	4.541
AUG-06-2014	05:31:12	0.000	0.000	0.041	4.541
AUG-06-2014	05:31:48	0.000	0.000	0.040	4.540
AUG-06-2014	05:32:24	0.000	0.000	0.040	4.540
AUG-06-2014	05:33:00	0.000	0.000	0.039	4.539
AUG-06-2014	05:33:36	0.000	0.000	0.039	4.539
AUG-06-2014	05:34:12	0.000	0.000	0.039	4.539
AUG-06-2014	05:34:48	0.000	0.000	0.038	4.538
AUG-06-2014	05:35:24	0.000	0.000	0.038	4.538
AUG-06-2014	05:36:00	0.000	0.000	0.038	4.538
AUG-06-2014	05:36:36	0.000	0.000	0.037	4.537
AUG-06-2014	05:37:12	0.000	0.000	0.037	4.537
AUG-06-2014	05:37:48	0.000	0.000	0.037	4.537
AUG-06-2014	05:38:24	0.000	0.000	0.036	4.536
AUG-06-2014	05:39:00	0.000	0.000	0.036	4.536
AUG-06-2014	05:39:36	0.000	0.000	0.035	4.535

			swmm.RPT		
AUG-06-2014	05:40:12	0.000	0.000	0.035	4.535
AUG-06-2014	05:40:48	0.000	0.000	0.035	4.535
AUG-06-2014	05:41:24	0.000	0.000	0.034	4.534
AUG-06-2014	05:42:00	0.000	0.000	0.034	4.534
AUG-06-2014	05:42:36	0.000	0.000	0.034	4.534
AUG-06-2014	05:43:12	0.000	0.000	0.033	4.533
AUG-06-2014	05:43:48	0.000	0.000	0.033	4.533
AUG-06-2014	05:44:24	0.000	0.000	0.033	4.533
AUG-06-2014	05:45:00	0.000	0.000	0.032	4.532
AUG-06-2014	05:45:36	0.000	0.000	0.032	4.532
AUG-06-2014	05:46:12	0.000	0.000	0.032	4.532
AUG-06-2014	05:46:48	0.000	0.000	0.031	4.531
AUG-06-2014	05:47:24	0.000	0.000	0.031	4.531
AUG-06-2014	05:48:00	0.000	0.000	0.031	4.531
AUG-06-2014	05:48:36	0.000	0.000	0.030	4.530
AUG-06-2014	05:49:12	0.000	0.000	0.030	4.530
AUG-06-2014	05:49:48	0.000	0.000	0.030	4.530
AUG-06-2014	05:50:24	0.000	0.000	0.030	4.530
AUG-06-2014	05:51:00	0.000	0.000	0.029	4.529
AUG-06-2014	05:51:36	0.000	0.000	0.029	4.529
AUG-06-2014	05:52:12	0.000	0.000	0.029	4.529
AUG-06-2014	05:52:48	0.000	0.000	0.028	4.528
AUG-06-2014	05:53:24	0.000	0.000	0.028	4.528
AUG-06-2014	05:54:00	0.000	0.000	0.028	4.528
AUG-06-2014	05:54:36	0.000	0.000	0.027	4.527
AUG-06-2014	05:55:12	0.000	0.000	0.027	4.527
AUG-06-2014	05:55:48	0.000	0.000	0.027	4.527
AUG-06-2014	05:56:24	0.000	0.000	0.027	4.527
AUG-06-2014	05:57:00	0.000	0.000	0.026	4.526
AUG-06-2014	05:57:36	0.000	0.000	0.026	4.526
AUG-06-2014	05:58:12	0.000	0.000	0.026	4.526
AUG-06-2014	05:58:48	0.000	0.000	0.026	4.526
AUG-06-2014	05:59:24	0.000	0.000	0.025	4.525
AUG-06-2014	06:00:00	0.000	0.000	0.025	4.525
AUG-06-2014	06:00:36	0.000	0.000	0.025	4.525
AUG-06-2014	06:01:12	0.000	0.000	0.024	4.524
AUG-06-2014	06:01:48	0.000	0.000	0.024	4.524
AUG-06-2014	06:02:24	0.000	0.000	0.024	4.524
AUG-06-2014	06:03:00	0.000	0.000	0.024	4.524
AUG-06-2014	06:03:36	0.000	0.000	0.023	4.523
AUG-06-2014	06:04:12	0.000	0.000	0.023	4.523
AUG-06-2014	06:04:48	0.000	0.000	0.023	4.523
AUG-06-2014	06:05:24	0.000	0.000	0.023	4.523
AUG-06-2014	06:06:00	0.000	0.000	0.022	4.522
AUG-06-2014	06:06:36	0.000	0.000	0.022	4.522
AUG-06-2014	06:07:12	0.000	0.000	0.022	4.522
AUG-06-2014	06:07:48	0.000	0.000	0.022	4.522
AUG-06-2014	06:08:24	0.000	0.000	0.021	4.521
AUG-06-2014	06:09:00	0.000	0.000	0.021	4.521

			swmm.RPT		
AUG-06-2014	06:09:36	0.000	0.000	0.021	4.521
AUG-06-2014	06:10:12	0.000	0.000	0.021	4.521
AUG-06-2014	06:10:48	0.000	0.000	0.020	4.520
AUG-06-2014	06:11:24	0.000	0.000	0.020	4.520
AUG-06-2014	06:12:00	0.000	0.000	0.020	4.520
AUG-06-2014	06:12:36	0.000	0.000	0.020	4.520
AUG-06-2014	06:13:12	0.000	0.000	0.019	4.519
AUG-06-2014	06:13:48	0.000	0.000	0.019	4.519
AUG-06-2014	06:14:24	0.000	0.000	0.019	4.519
AUG-06-2014	06:15:00	0.000	0.000	0.019	4.519
AUG-06-2014	06:15:36	0.000	0.000	0.019	4.519
AUG-06-2014	06:16:12	0.000	0.000	0.018	4.518
AUG-06-2014	06:16:48	0.000	0.000	0.018	4.518
AUG-06-2014	06:17:24	0.000	0.000	0.018	4.518
AUG-06-2014	06:18:00	0.000	0.000	0.018	4.518
AUG-06-2014	06:18:36	0.000	0.000	0.017	4.517
AUG-06-2014	06:19:12	0.000	0.000	0.017	4.517
AUG-06-2014	06:19:48	0.000	0.000	0.017	4.517
AUG-06-2014	06:20:24	0.000	0.000	0.017	4.517
AUG-06-2014	06:21:00	0.000	0.000	0.017	4.517
AUG-06-2014	06:21:36	0.000	0.000	0.016	4.516
AUG-06-2014	06:22:12	0.000	0.000	0.016	4.516
AUG-06-2014	06:22:48	0.000	0.000	0.016	4.516
AUG-06-2014	06:23:24	0.000	0.000	0.016	4.516
AUG-06-2014	06:24:00	0.000	0.000	0.016	4.516
AUG-06-2014	06:24:36	0.000	0.000	0.015	4.515
AUG-06-2014	06:25:12	0.000	0.000	0.015	4.515
AUG-06-2014	06:25:48	0.000	0.000	0.015	4.515
AUG-06-2014	06:26:24	0.000	0.000	0.015	4.515
AUG-06-2014	06:27:00	0.000	0.000	0.015	4.515
AUG-06-2014	06:27:36	0.000	0.000	0.014	4.514
AUG-06-2014	06:28:12	0.000	0.000	0.014	4.514
AUG-06-2014	06:28:48	0.000	0.000	0.014	4.514
AUG-06-2014	06:29:24	0.000	0.000	0.014	4.514
AUG-06-2014	06:30:00	0.000	0.000	0.014	4.514
AUG-06-2014	06:30:36	0.000	0.000	0.013	4.513
AUG-06-2014	06:31:12	0.000	0.000	0.013	4.513
AUG-06-2014	06:31:48	0.000	0.000	0.013	4.513
AUG-06-2014	06:32:24	0.000	0.000	0.013	4.513
AUG-06-2014	06:33:00	0.000	0.000	0.013	4.513
AUG-06-2014	06:33:36	0.000	0.000	0.012	4.512
AUG-06-2014	06:34:12	0.000	0.000	0.012	4.512
AUG-06-2014	06:34:48	0.000	0.000	0.012	4.512
AUG-06-2014	06:35:24	0.000	0.000	0.012	4.512
AUG-06-2014	06:36:00	0.000	0.000	0.012	4.512
AUG-06-2014	06:36:36	0.000	0.000	0.012	4.512
AUG-06-2014	06:37:12	0.000	0.000	0.011	4.511
AUG-06-2014	06:37:48	0.000	0.000	0.011	4.511
AUG-06-2014	06:38:24	0.000	0.000	0.011	4.511

			swmm.RPT		
AUG-06-2014	06:39:00	0.000	0.000	0.011	4.511
AUG-06-2014	06:39:36	0.000	0.000	0.011	4.511
AUG-06-2014	06:40:12	0.000	0.000	0.011	4.511
AUG-06-2014	06:40:48	0.000	0.000	0.010	4.510
AUG-06-2014	06:41:24	0.000	0.000	0.010	4.510
AUG-06-2014	06:42:00	0.000	0.000	0.010	4.510
AUG-06-2014	06:42:36	0.000	0.000	0.010	4.510
AUG-06-2014	06:43:12	0.000	0.000	0.010	4.510
AUG-06-2014	06:43:48	0.000	0.000	0.010	4.510
AUG-06-2014	06:44:24	0.000	0.000	0.009	4.509
AUG-06-2014	06:45:00	0.000	0.000	0.009	4.509
AUG-06-2014	06:45:36	0.000	0.000	0.009	4.509
AUG-06-2014	06:46:12	0.000	0.000	0.009	4.509
AUG-06-2014	06:46:48	0.000	0.000	0.009	4.509
AUG-06-2014	06:47:24	0.000	0.000	0.009	4.509
AUG-06-2014	06:48:00	0.000	0.000	0.009	4.509
AUG-06-2014	06:48:36	0.000	0.000	0.008	4.508
AUG-06-2014	06:49:12	0.000	0.000	0.008	4.508
AUG-06-2014	06:49:48	0.000	0.000	0.008	4.508
AUG-06-2014	06:50:24	0.000	0.000	0.008	4.508
AUG-06-2014	06:51:00	0.000	0.000	0.008	4.508
AUG-06-2014	06:51:36	0.000	0.000	0.008	4.508
AUG-06-2014	06:52:12	0.000	0.000	0.008	4.508
AUG-06-2014	06:52:48	0.000	0.000	0.007	4.507
AUG-06-2014	06:53:24	0.000	0.000	0.007	4.507
AUG-06-2014	06:54:00	0.000	0.000	0.007	4.507
AUG-06-2014	06:54:36	0.000	0.000	0.007	4.507
AUG-06-2014	06:55:12	0.000	0.000	0.007	4.507
AUG-06-2014	06:55:48	0.000	0.000	0.007	4.507
AUG-06-2014	06:56:24	0.000	0.000	0.007	4.507
AUG-06-2014	06:57:00	0.000	0.000	0.006	4.506
AUG-06-2014	06:57:36	0.000	0.000	0.006	4.506
AUG-06-2014	06:58:12	0.000	0.000	0.006	4.506
AUG-06-2014	06:58:48	0.000	0.000	0.006	4.506
AUG-06-2014	06:59:24	0.000	0.000	0.006	4.506
AUG-06-2014	07:00:00	0.000	0.000	0.006	4.506
AUG-06-2014	07:00:36	0.000	0.000	0.006	4.506
AUG-06-2014	07:01:12	0.000	0.000	0.006	4.506
AUG-06-2014	07:01:48	0.000	0.000	0.005	4.505
AUG-06-2014	07:02:24	0.000	0.000	0.005	4.505
AUG-06-2014	07:03:00	0.000	0.000	0.005	4.505
AUG-06-2014	07:03:36	0.000	0.000	0.005	4.505
AUG-06-2014	07:04:12	0.000	0.000	0.005	4.505
AUG-06-2014	07:04:48	0.000	0.000	0.005	4.505
AUG-06-2014	07:05:24	0.000	0.000	0.005	4.505
AUG-06-2014	07:06:00	0.000	0.000	0.005	4.505
AUG-06-2014	07:06:36	0.000	0.000	0.005	4.505
AUG-06-2014	07:07:12	0.000	0.000	0.004	4.504
AUG-06-2014	07:07:48	0.000	0.000	0.004	4.504

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AUG-06-2014	07:08:24	0.000	0.000	0.004	4.504
AUG-06-2014	07:09:00	0.000	0.000	0.004	4.504
AUG-06-2014	07:09:36	0.000	0.000	0.004	4.504
AUG-06-2014	07:10:12	0.000	0.000	0.004	4.504
AUG-06-2014	07:10:48	0.000	0.000	0.004	4.504
AUG-06-2014	07:11:24	0.000	0.000	0.004	4.504
AUG-06-2014	07:12:00	0.000	0.000	0.004	4.504
AUG-06-2014	07:12:36	0.000	0.000	0.004	4.504
AUG-06-2014	07:13:12	0.000	0.000	0.003	4.503
AUG-06-2014	07:13:48	0.000	0.000	0.003	4.503
AUG-06-2014	07:14:24	0.000	0.000	0.003	4.503
AUG-06-2014	07:15:00	0.000	0.000	0.003	4.503
AUG-06-2014	07:15:36	0.000	0.000	0.003	4.503
AUG-06-2014	07:16:12	0.000	0.000	0.003	4.503
AUG-06-2014	07:16:48	0.000	0.000	0.003	4.503
AUG-06-2014	07:17:24	0.000	0.000	0.003	4.503
AUG-06-2014	07:18:00	0.000	0.000	0.003	4.503
AUG-06-2014	07:18:36	0.000	0.000	0.003	4.503
AUG-06-2014	07:19:12	0.000	0.000	0.003	4.503
AUG-06-2014	07:19:48	0.000	0.000	0.002	4.502
AUG-06-2014	07:20:24	0.000	0.000	0.002	4.502
AUG-06-2014	07:21:00	0.000	0.000	0.002	4.502
AUG-06-2014	07:21:36	0.000	0.000	0.002	4.502
AUG-06-2014	07:22:12	0.000	0.000	0.002	4.502
AUG-06-2014	07:22:48	0.000	0.000	0.002	4.502
AUG-06-2014	07:23:24	0.000	0.000	0.002	4.502
AUG-06-2014	07:24:00	0.000	0.000	0.002	4.502
AUG-06-2014	07:24:36	0.000	0.000	0.002	4.502
AUG-06-2014	07:25:12	0.000	0.000	0.002	4.502
AUG-06-2014	07:25:48	0.000	0.000	0.002	4.502
AUG-06-2014	07:26:24	0.000	0.000	0.002	4.502
AUG-06-2014	07:27:00	0.000	0.000	0.002	4.502
AUG-06-2014	07:27:36	0.000	0.000	0.002	4.502
AUG-06-2014	07:28:12	0.000	0.000	0.001	4.501
AUG-06-2014	07:28:48	0.000	0.000	0.001	4.501
AUG-06-2014	07:29:24	0.000	0.000	0.001	4.501
AUG-06-2014	07:30:00	0.000	0.000	0.001	4.501
AUG-06-2014	07:30:36	0.000	0.000	0.001	4.501
AUG-06-2014	07:31:12	0.000	0.000	0.001	4.501
AUG-06-2014	07:31:48	0.000	0.000	0.001	4.501
AUG-06-2014	07:32:24	0.000	0.000	0.001	4.501
AUG-06-2014	07:33:00	0.000	0.000	0.001	4.501
AUG-06-2014	07:33:36	0.000	0.000	0.001	4.501
AUG-06-2014	07:34:12	0.000	0.000	0.001	4.501
AUG-06-2014	07:34:48	0.000	0.000	0.001	4.501
AUG-06-2014	07:35:24	0.000	0.000	0.001	4.501
AUG-06-2014	07:36:00	0.000	0.000	0.001	4.501
AUG-06-2014	07:36:36	0.000	0.000	0.001	4.501
AUG-06-2014	07:37:12	0.000	0.000	0.001	4.501

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AUG-06-2014 07:37:48	0.000	0.000	0.001	4.501
AUG-06-2014 07:38:24	0.000	0.000	0.001	4.501
AUG-06-2014 07:39:00	0.000	0.000	0.001	4.501
AUG-06-2014 07:39:36	0.000	0.000	0.001	4.501
AUG-06-2014 07:40:12	0.000	0.000	0.001	4.501
AUG-06-2014 07:40:48	0.000	0.000	0.001	4.501
AUG-06-2014 07:41:24	0.000	0.000	0.001	4.501
AUG-06-2014 07:42:00	0.000	0.000	0.001	4.501
AUG-06-2014 07:42:36	0.000	0.000	0.001	4.501
AUG-06-2014 07:43:12	0.000	0.000	0.001	4.501
AUG-06-2014 07:43:48	0.000	0.000	0.001	4.501
AUG-06-2014 07:44:24	0.000	0.000	0.001	4.501
AUG-06-2014 07:45:00	0.000	0.000	0.001	4.501
AUG-06-2014 07:45:36	0.000	0.000	0.001	4.501
AUG-06-2014 07:46:12	0.000	0.000	0.001	4.501
AUG-06-2014 07:46:48	0.000	0.000	0.001	4.501
AUG-06-2014 07:47:24	0.000	0.000	0.001	4.501
AUG-06-2014 07:48:00	0.000	0.000	0.001	4.501
AUG-06-2014 07:48:36	0.000	0.000	0.001	4.501
AUG-06-2014 07:49:12	0.000	0.000	0.001	4.501
AUG-06-2014 07:49:48	0.000	0.000	0.001	4.501
AUG-06-2014 07:50:24	0.000	0.000	0.001	4.501
AUG-06-2014 07:51:00	0.000	0.000	0.001	4.501
AUG-06-2014 07:51:36	0.000	0.000	0.001	4.501
AUG-06-2014 07:52:12	0.000	0.000	0.001	4.501
AUG-06-2014 07:52:48	0.000	0.000	0.001	4.501
AUG-06-2014 07:53:24	0.000	0.000	0.001	4.501
AUG-06-2014 07:54:00	0.000	0.000	0.001	4.501
AUG-06-2014 07:54:36	0.000	0.000	0.001	4.501
AUG-06-2014 07:55:12	0.000	0.000	0.001	4.501
AUG-06-2014 07:55:48	0.000	0.000	0.001	4.501
AUG-06-2014 07:56:24	0.000	0.000	0.001	4.501
AUG-06-2014 07:57:00	0.000	0.000	0.001	4.501
AUG-06-2014 07:57:36	0.000	0.000	0.001	4.501
AUG-06-2014 07:58:12	0.000	0.000	0.001	4.501
AUG-06-2014 07:58:48	0.000	0.000	0.001	4.501
AUG-06-2014 07:59:24	0.000	0.000	0.001	4.501
AUG-06-2014 08:00:00	0.000	0.000	0.001	4.501

&lt;&lt;&lt; Node Outf1 &gt;&gt;&gt;

Date	Time	Inflow CFS	Flooding CFS	Depth feet	Head feet
AUG-06-2014	00:00:36	0.000	0.000	0.000	4.000
AUG-06-2014	00:01:12	0.000	0.000	0.000	4.000
AUG-06-2014	00:01:48	0.000	0.000	0.000	4.000
AUG-06-2014	00:02:24	0.000	0.000	0.000	4.000

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AUG-06-2014	00:03:00	0.000	0.000	0.000	4.000
AUG-06-2014	00:03:36	0.000	0.000	0.000	4.000
AUG-06-2014	00:04:12	0.000	0.000	0.000	4.000
AUG-06-2014	00:04:48	0.000	0.000	0.000	4.000
AUG-06-2014	00:05:24	0.000	0.000	0.000	4.000
AUG-06-2014	00:06:00	0.000	0.000	0.000	4.000
AUG-06-2014	00:06:36	0.000	0.000	0.000	4.000
AUG-06-2014	00:07:12	0.001	0.000	0.001	4.001
AUG-06-2014	00:07:48	0.001	0.000	0.001	4.001
AUG-06-2014	00:08:24	0.002	0.000	0.002	4.002
AUG-06-2014	00:09:00	0.004	0.000	0.005	4.005
AUG-06-2014	00:09:36	0.009	0.000	0.009	4.009
AUG-06-2014	00:10:12	0.018	0.000	0.019	4.019
AUG-06-2014	00:10:48	0.038	0.000	0.040	4.040
AUG-06-2014	00:11:24	0.096	0.000	0.098	4.098
AUG-06-2014	00:12:00	0.155	0.000	0.120	4.120
AUG-06-2014	00:12:36	0.238	0.000	0.149	4.149
AUG-06-2014	00:13:12	0.355	0.000	0.190	4.190
AUG-06-2014	00:13:48	0.486	0.000	0.222	4.222
AUG-06-2014	00:14:24	0.638	0.000	0.254	4.254
AUG-06-2014	00:15:00	0.809	0.000	0.290	4.290
AUG-06-2014	00:15:36	0.982	0.000	0.319	4.319
AUG-06-2014	00:16:12	1.146	0.000	0.344	4.344
AUG-06-2014	00:16:48	1.291	0.000	0.366	4.366
AUG-06-2014	00:17:24	1.421	0.000	0.386	4.386
AUG-06-2014	00:18:00	1.539	0.000	0.403	4.403
AUG-06-2014	00:18:36	1.648	0.000	0.416	4.416
AUG-06-2014	00:19:12	1.754	0.000	0.429	4.429
AUG-06-2014	00:19:48	1.863	0.000	0.442	4.442
AUG-06-2014	00:20:24	1.982	0.000	0.457	4.457
AUG-06-2014	00:21:00	2.101	0.000	0.471	4.471
AUG-06-2014	00:21:36	2.211	0.000	0.484	4.484
AUG-06-2014	00:22:12	2.308	0.000	0.496	4.496
AUG-06-2014	00:22:48	2.395	0.000	0.505	4.505
AUG-06-2014	00:23:24	2.473	0.000	0.513	4.513
AUG-06-2014	00:24:00	2.554	0.000	0.521	4.521
AUG-06-2014	00:24:36	2.638	0.000	0.529	4.529
AUG-06-2014	00:25:12	2.722	0.000	0.538	4.538
AUG-06-2014	00:25:48	2.803	0.000	0.546	4.546
AUG-06-2014	00:26:24	2.881	0.000	0.554	4.554
AUG-06-2014	00:27:00	2.957	0.000	0.561	4.561
AUG-06-2014	00:27:36	3.032	0.000	0.569	4.569
AUG-06-2014	00:28:12	3.105	0.000	0.576	4.576
AUG-06-2014	00:28:48	3.178	0.000	0.583	4.583
AUG-06-2014	00:29:24	3.243	0.000	0.590	4.590
AUG-06-2014	00:30:00	3.302	0.000	0.596	4.596
AUG-06-2014	00:30:36	3.358	0.000	0.601	4.601
AUG-06-2014	00:31:12	3.414	0.000	0.606	4.606
AUG-06-2014	00:31:48	3.471	0.000	0.611	4.611



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AUG-06-2014 00:32:24	3.526	0.000	0.615	4.615	
AUG-06-2014 00:33:00	3.581	0.000	0.620	4.620	
AUG-06-2014 00:33:36	3.638	0.000	0.625	4.625	
AUG-06-2014 00:34:12	3.696	0.000	0.630	4.630	
AUG-06-2014 00:34:48	3.757	0.000	0.635	4.635	
AUG-06-2014 00:35:24	3.818	0.000	0.640	4.640	
AUG-06-2014 00:36:00	3.883	0.000	0.646	4.646	
AUG-06-2014 00:36:36	3.955	0.000	0.652	4.652	
AUG-06-2014 00:37:12	4.034	0.000	0.659	4.659	
AUG-06-2014 00:37:48	4.117	0.000	0.666	4.666	
AUG-06-2014 00:38:24	4.205	0.000	0.673	4.673	
AUG-06-2014 00:39:00	4.297	0.000	0.681	4.681	
AUG-06-2014 00:39:36	4.421	0.000	0.692	4.692	
AUG-06-2014 00:40:12	4.586	0.000	0.705	4.705	
AUG-06-2014 00:40:48	4.752	0.000	0.717	4.717	
AUG-06-2014 00:41:24	4.900	0.000	0.728	4.728	
AUG-06-2014 00:42:00	5.025	0.000	0.738	4.738	
AUG-06-2014 00:42:36	5.130	0.000	0.746	4.746	
AUG-06-2014 00:43:12	5.220	0.000	0.752	4.752	
AUG-06-2014 00:43:48	5.300	0.000	0.758	4.758	
AUG-06-2014 00:44:24	5.372	0.000	0.764	4.764	
AUG-06-2014 00:45:00	5.443	0.000	0.769	4.769	
AUG-06-2014 00:45:36	5.526	0.000	0.775	4.775	
AUG-06-2014 00:46:12	5.618	0.000	0.782	4.782	
AUG-06-2014 00:46:48	5.717	0.000	0.790	4.790	
AUG-06-2014 00:47:24	5.821	0.000	0.797	4.797	
AUG-06-2014 00:48:00	5.927	0.000	0.805	4.805	
AUG-06-2014 00:48:36	6.029	0.000	0.812	4.812	
AUG-06-2014 00:49:12	6.130	0.000	0.818	4.818	
AUG-06-2014 00:49:48	6.227	0.000	0.825	4.825	
AUG-06-2014 00:50:24	6.325	0.000	0.831	4.831	
AUG-06-2014 00:51:00	6.416	0.000	0.837	4.837	
AUG-06-2014 00:51:36	6.494	0.000	0.843	4.843	
AUG-06-2014 00:52:12	6.560	0.000	0.847	4.847	
AUG-06-2014 00:52:48	6.620	0.000	0.851	4.851	
AUG-06-2014 00:53:24	6.676	0.000	0.855	4.855	
AUG-06-2014 00:54:00	6.733	0.000	0.859	4.859	
AUG-06-2014 00:54:36	6.793	0.000	0.863	4.863	
AUG-06-2014 00:55:12	6.868	0.000	0.868	4.868	
AUG-06-2014 00:55:48	6.958	0.000	0.874	4.874	
AUG-06-2014 00:56:24	7.055	0.000	0.880	4.880	
AUG-06-2014 00:57:00	7.155	0.000	0.887	4.887	
AUG-06-2014 00:57:36	7.252	0.000	0.893	4.893	
AUG-06-2014 00:58:12	7.345	0.000	0.899	4.899	
AUG-06-2014 00:58:48	7.443	0.000	0.905	4.905	
AUG-06-2014 00:59:24	7.537	0.000	0.911	4.911	
AUG-06-2014 01:00:00	7.623	0.000	0.916	4.916	
AUG-06-2014 01:00:36	7.704	0.000	0.921	4.921	
AUG-06-2014 01:01:12	7.786	0.000	0.926	4.926	



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AUG-06-2014 01:01:48	7.872	0.000	0.931	4.931	
AUG-06-2014 01:02:24	7.949	0.000	0.936	4.936	
AUG-06-2014 01:03:00	8.028	0.000	0.941	4.941	
AUG-06-2014 01:03:36	8.111	0.000	0.946	4.946	
AUG-06-2014 01:04:12	8.193	0.000	0.951	4.951	
AUG-06-2014 01:04:48	8.271	0.000	0.956	4.956	
AUG-06-2014 01:05:24	8.353	0.000	0.961	4.961	
AUG-06-2014 01:06:00	8.435	0.000	0.966	4.966	
AUG-06-2014 01:06:36	8.514	0.000	0.970	4.970	
AUG-06-2014 01:07:12	8.594	0.000	0.975	4.975	
AUG-06-2014 01:07:48	8.674	0.000	0.980	4.980	
AUG-06-2014 01:08:24	8.753	0.000	0.985	4.985	
AUG-06-2014 01:09:00	8.883	0.000	0.993	4.993	
AUG-06-2014 01:09:36	9.023	0.000	1.001	5.001	
AUG-06-2014 01:10:12	9.134	0.000	1.007	5.007	
AUG-06-2014 01:10:48	9.220	0.000	1.012	5.012	
AUG-06-2014 01:11:24	9.293	0.000	1.016	5.016	
AUG-06-2014 01:12:00	9.352	0.000	1.019	5.019	
AUG-06-2014 01:12:36	9.405	0.000	1.022	5.022	
AUG-06-2014 01:13:12	9.457	0.000	1.025	5.025	
AUG-06-2014 01:13:48	9.514	0.000	1.028	5.028	
AUG-06-2014 01:14:24	9.576	0.000	1.032	5.032	
AUG-06-2014 01:15:00	9.644	0.000	1.036	5.036	
AUG-06-2014 01:15:36	9.714	0.000	1.039	5.039	
AUG-06-2014 01:16:12	9.789	0.000	1.044	5.044	
AUG-06-2014 01:16:48	9.863	0.000	1.048	5.048	
AUG-06-2014 01:17:24	9.941	0.000	1.052	5.052	
AUG-06-2014 01:18:00	10.025	0.000	1.057	5.057	
AUG-06-2014 01:18:36	10.104	0.000	1.061	5.061	
AUG-06-2014 01:19:12	10.180	0.000	1.065	5.065	
AUG-06-2014 01:19:48	10.260	0.000	1.070	5.070	
AUG-06-2014 01:20:24	10.350	0.000	1.075	5.075	
AUG-06-2014 01:21:00	10.438	0.000	1.080	5.080	
AUG-06-2014 01:21:36	10.540	0.000	1.085	5.085	
AUG-06-2014 01:22:12	10.648	0.000	1.091	5.091	
AUG-06-2014 01:22:48	10.729	0.000	1.096	5.096	
AUG-06-2014 01:23:24	10.807	0.000	1.100	5.100	
AUG-06-2014 01:24:00	10.865	0.000	1.103	5.103	
AUG-06-2014 01:24:36	10.952	0.000	1.108	5.108	
AUG-06-2014 01:25:12	11.043	0.000	1.112	5.112	
AUG-06-2014 01:25:48	11.122	0.000	1.116	5.116	
AUG-06-2014 01:26:24	11.205	0.000	1.120	5.120	
AUG-06-2014 01:27:00	11.267	0.000	1.124	5.124	
AUG-06-2014 01:27:36	11.328	0.000	1.127	5.127	
AUG-06-2014 01:28:12	11.397	0.000	1.130	5.130	
AUG-06-2014 01:28:48	11.469	0.000	1.134	5.134	
AUG-06-2014 01:29:24	11.541	0.000	1.138	5.138	
AUG-06-2014 01:30:00	11.622	0.000	1.142	5.142	
AUG-06-2014 01:30:36	11.708	0.000	1.146	5.146	

			swmm.RPT		
AUG-06-2014 01:31:12	11.797	0.000	1.151	5.151	
AUG-06-2014 01:31:48	11.882	0.000	1.155	5.155	
AUG-06-2014 01:32:24	11.965	0.000	1.159	5.159	
AUG-06-2014 01:33:00	12.052	0.000	1.164	5.164	
AUG-06-2014 01:33:36	12.135	0.000	1.168	5.168	
AUG-06-2014 01:34:12	12.217	0.000	1.172	5.172	
AUG-06-2014 01:34:48	12.298	0.000	1.176	5.176	
AUG-06-2014 01:35:24	12.381	0.000	1.181	5.181	
AUG-06-2014 01:36:00	12.464	0.000	1.185	5.185	
AUG-06-2014 01:36:36	12.543	0.000	1.189	5.189	
AUG-06-2014 01:37:12	12.623	0.000	1.193	5.193	
AUG-06-2014 01:37:48	12.705	0.000	1.197	5.197	
AUG-06-2014 01:38:24	12.784	0.000	1.201	5.201	
AUG-06-2014 01:39:00	12.861	0.000	1.205	5.205	
AUG-06-2014 01:39:36	12.939	0.000	1.208	5.208	
AUG-06-2014 01:40:12	13.018	0.000	1.212	5.212	
AUG-06-2014 01:40:48	13.095	0.000	1.216	5.216	
AUG-06-2014 01:41:24	13.174	0.000	1.219	5.219	
AUG-06-2014 01:42:00	13.255	0.000	1.223	5.223	
AUG-06-2014 01:42:36	13.338	0.000	1.227	5.227	
AUG-06-2014 01:43:12	13.420	0.000	1.231	5.231	
AUG-06-2014 01:43:48	13.503	0.000	1.235	5.235	
AUG-06-2014 01:44:24	13.584	0.000	1.239	5.239	
AUG-06-2014 01:45:00	13.661	0.000	1.243	5.243	
AUG-06-2014 01:45:36	13.735	0.000	1.246	5.246	
AUG-06-2014 01:46:12	13.800	0.000	1.249	5.249	
AUG-06-2014 01:46:48	13.802	0.000	1.249	5.249	
AUG-06-2014 01:47:24	13.877	0.000	1.253	5.253	
AUG-06-2014 01:48:00	13.985	0.000	1.258	5.258	
AUG-06-2014 01:48:36	14.090	0.000	1.263	5.263	
AUG-06-2014 01:49:12	14.188	0.000	1.267	5.267	
AUG-06-2014 01:49:48	14.244	0.000	1.270	5.270	
AUG-06-2014 01:50:24	14.159	0.000	1.266	5.266	
AUG-06-2014 01:51:00	14.137	0.000	1.265	5.265	
AUG-06-2014 01:51:36	14.229	0.000	1.269	5.269	
AUG-06-2014 01:52:12	14.369	0.000	1.276	5.276	
AUG-06-2014 01:52:48	14.511	0.000	1.283	5.283	
AUG-06-2014 01:53:24	14.636	0.000	1.289	5.289	
AUG-06-2014 01:54:00	14.747	0.000	1.294	5.294	
AUG-06-2014 01:54:36	14.849	0.000	1.299	5.299	
AUG-06-2014 01:55:12	14.942	0.000	1.303	5.303	
AUG-06-2014 01:55:48	15.032	0.000	1.307	5.307	
AUG-06-2014 01:56:24	15.123	0.000	1.311	5.311	
AUG-06-2014 01:57:00	15.217	0.000	1.315	5.315	
AUG-06-2014 01:57:36	15.302	0.000	1.319	5.319	
AUG-06-2014 01:58:12	15.377	0.000	1.322	5.322	
AUG-06-2014 01:58:48	15.449	0.000	1.325	5.325	
AUG-06-2014 01:59:24	15.521	0.000	1.329	5.329	
AUG-06-2014 02:00:00	15.594	0.000	1.332	5.332	

			swmm.RPT		
AUG-06-2014	02:00:36	15.668	0.000	1.335	5.335
AUG-06-2014	02:01:12	15.737	0.000	1.338	5.338
AUG-06-2014	02:01:48	15.787	0.000	1.340	5.340
AUG-06-2014	02:02:24	15.812	0.000	1.341	5.341
AUG-06-2014	02:03:00	15.813	0.000	1.341	5.341
AUG-06-2014	02:03:36	15.794	0.000	1.341	5.341
AUG-06-2014	02:04:12	15.761	0.000	1.339	5.339
AUG-06-2014	02:04:48	15.715	0.000	1.337	5.337
AUG-06-2014	02:05:24	15.661	0.000	1.335	5.335
AUG-06-2014	02:06:00	15.600	0.000	1.332	5.332
AUG-06-2014	02:06:36	15.533	0.000	1.329	5.329
AUG-06-2014	02:07:12	15.453	0.000	1.326	5.326
AUG-06-2014	02:07:48	15.367	0.000	1.322	5.322
AUG-06-2014	02:08:24	15.286	0.000	1.318	5.318
AUG-06-2014	02:09:00	15.206	0.000	1.315	5.315
AUG-06-2014	02:09:36	15.125	0.000	1.311	5.311
AUG-06-2014	02:10:12	15.045	0.000	1.308	5.308
AUG-06-2014	02:10:48	14.964	0.000	1.304	5.304
AUG-06-2014	02:11:24	14.883	0.000	1.300	5.300
AUG-06-2014	02:12:00	14.800	0.000	1.296	5.296
AUG-06-2014	02:12:36	14.714	0.000	1.292	5.292
AUG-06-2014	02:13:12	14.631	0.000	1.288	5.288
AUG-06-2014	02:13:48	14.549	0.000	1.285	5.285
AUG-06-2014	02:14:24	14.467	0.000	1.281	5.281
AUG-06-2014	02:15:00	14.384	0.000	1.277	5.277
AUG-06-2014	02:15:36	14.300	0.000	1.273	5.273
AUG-06-2014	02:16:12	14.212	0.000	1.269	5.269
AUG-06-2014	02:16:48	14.116	0.000	1.264	5.264
AUG-06-2014	02:17:24	14.029	0.000	1.260	5.260
AUG-06-2014	02:18:00	13.946	0.000	1.256	5.256
AUG-06-2014	02:18:36	13.866	0.000	1.252	5.252
AUG-06-2014	02:19:12	13.785	0.000	1.248	5.248
AUG-06-2014	02:19:48	13.704	0.000	1.245	5.245
AUG-06-2014	02:20:24	13.619	0.000	1.241	5.241
AUG-06-2014	02:21:00	13.542	0.000	1.237	5.237
AUG-06-2014	02:21:36	13.464	0.000	1.233	5.233
AUG-06-2014	02:22:12	13.382	0.000	1.229	5.229
AUG-06-2014	02:22:48	13.305	0.000	1.226	5.226
AUG-06-2014	02:23:24	13.233	0.000	1.222	5.222
AUG-06-2014	02:24:00	13.146	0.000	1.218	5.218
AUG-06-2014	02:24:36	13.059	0.000	1.214	5.214
AUG-06-2014	02:25:12	12.975	0.000	1.210	5.210
AUG-06-2014	02:25:48	12.890	0.000	1.206	5.206
AUG-06-2014	02:26:24	12.807	0.000	1.202	5.202
AUG-06-2014	02:27:00	12.727	0.000	1.198	5.198
AUG-06-2014	02:27:36	12.646	0.000	1.194	5.194
AUG-06-2014	02:28:12	12.570	0.000	1.190	5.190
AUG-06-2014	02:28:48	12.495	0.000	1.186	5.186
AUG-06-2014	02:29:24	12.418	0.000	1.182	5.182

			swmm.RPT		
AUG-06-2014 02:30:00	12.339	0.000	1.178	5.178	
AUG-06-2014 02:30:36	12.258	0.000	1.174	5.174	
AUG-06-2014 02:31:12	12.178	0.000	1.170	5.170	
AUG-06-2014 02:31:48	12.098	0.000	1.166	5.166	
AUG-06-2014 02:32:24	12.021	0.000	1.162	5.162	
AUG-06-2014 02:33:00	11.945	0.000	1.158	5.158	
AUG-06-2014 02:33:36	11.862	0.000	1.154	5.154	
AUG-06-2014 02:34:12	11.778	0.000	1.150	5.150	
AUG-06-2014 02:34:48	11.699	0.000	1.146	5.146	
AUG-06-2014 02:35:24	11.617	0.000	1.142	5.142	
AUG-06-2014 02:36:00	11.537	0.000	1.137	5.137	
AUG-06-2014 02:36:36	11.461	0.000	1.134	5.134	
AUG-06-2014 02:37:12	11.384	0.000	1.130	5.130	
AUG-06-2014 02:37:48	11.295	0.000	1.125	5.125	
AUG-06-2014 02:38:24	11.213	0.000	1.121	5.121	
AUG-06-2014 02:39:00	11.138	0.000	1.117	5.117	
AUG-06-2014 02:39:36	11.061	0.000	1.113	5.113	
AUG-06-2014 02:40:12	10.974	0.000	1.109	5.109	
AUG-06-2014 02:40:48	10.894	0.000	1.105	5.105	
AUG-06-2014 02:41:24	10.823	0.000	1.101	5.101	
AUG-06-2014 02:42:00	10.754	0.000	1.097	5.097	
AUG-06-2014 02:42:36	10.679	0.000	1.093	5.093	
AUG-06-2014 02:43:12	10.590	0.000	1.088	5.088	
AUG-06-2014 02:43:48	10.505	0.000	1.083	5.083	
AUG-06-2014 02:44:24	10.427	0.000	1.079	5.079	
AUG-06-2014 02:45:00	10.353	0.000	1.075	5.075	
AUG-06-2014 02:45:36	10.278	0.000	1.071	5.071	
AUG-06-2014 02:46:12	10.207	0.000	1.067	5.067	
AUG-06-2014 02:46:48	10.135	0.000	1.063	5.063	
AUG-06-2014 02:47:24	10.057	0.000	1.059	5.059	
AUG-06-2014 02:48:00	9.976	0.000	1.054	5.054	
AUG-06-2014 02:48:36	9.894	0.000	1.049	5.049	
AUG-06-2014 02:49:12	9.815	0.000	1.045	5.045	
AUG-06-2014 02:49:48	9.735	0.000	1.041	5.041	
AUG-06-2014 02:50:24	9.656	0.000	1.036	5.036	
AUG-06-2014 02:51:00	9.567	0.000	1.031	5.031	
AUG-06-2014 02:51:36	9.473	0.000	1.026	5.026	
AUG-06-2014 02:52:12	9.383	0.000	1.021	5.021	
AUG-06-2014 02:52:48	9.293	0.000	1.016	5.016	
AUG-06-2014 02:53:24	9.213	0.000	1.012	5.012	
AUG-06-2014 02:54:00	9.143	0.000	1.008	5.008	
AUG-06-2014 02:54:36	9.072	0.000	1.004	5.004	
AUG-06-2014 02:55:12	8.993	0.000	0.999	4.999	
AUG-06-2014 02:55:48	8.916	0.000	0.995	4.995	
AUG-06-2014 02:56:24	8.839	0.000	0.990	4.990	
AUG-06-2014 02:57:00	8.762	0.000	0.985	4.985	
AUG-06-2014 02:57:36	8.686	0.000	0.981	4.981	
AUG-06-2014 02:58:12	8.610	0.000	0.976	4.976	
AUG-06-2014 02:58:48	8.533	0.000	0.971	4.971	

		swmm.RPT			
AUG-06-2014	02:59:24	8.451	0.000	0.966	4.966
AUG-06-2014	03:00:00	8.373	0.000	0.962	4.962
AUG-06-2014	03:00:36	8.301	0.000	0.957	4.957
AUG-06-2014	03:01:12	8.213	0.000	0.952	4.952
AUG-06-2014	03:01:48	8.132	0.000	0.947	4.947
AUG-06-2014	03:02:24	8.295	0.000	0.957	4.957
AUG-06-2014	03:03:00	8.340	0.000	0.960	4.960
AUG-06-2014	03:03:36	8.265	0.000	0.955	4.955
AUG-06-2014	03:04:12	8.124	0.000	0.947	4.947
AUG-06-2014	03:04:48	7.908	0.000	0.934	4.934
AUG-06-2014	03:05:24	7.657	0.000	0.918	4.918
AUG-06-2014	03:06:00	7.703	0.000	0.921	4.921
AUG-06-2014	03:06:36	7.713	0.000	0.922	4.922
AUG-06-2014	03:07:12	7.636	0.000	0.917	4.917
AUG-06-2014	03:07:48	7.503	0.000	0.909	4.909
AUG-06-2014	03:08:24	7.350	0.000	0.900	4.900
AUG-06-2014	03:09:00	7.204	0.000	0.890	4.890
AUG-06-2014	03:09:36	7.075	0.000	0.881	4.881
AUG-06-2014	03:10:12	6.971	0.000	0.874	4.874
AUG-06-2014	03:10:48	6.878	0.000	0.868	4.868
AUG-06-2014	03:11:24	6.771	0.000	0.861	4.861
AUG-06-2014	03:12:00	6.739	0.000	0.859	4.859
AUG-06-2014	03:12:36	6.718	0.000	0.858	4.858
AUG-06-2014	03:13:12	6.685	0.000	0.855	4.855
AUG-06-2014	03:13:48	6.638	0.000	0.852	4.852
AUG-06-2014	03:14:24	6.549	0.000	0.846	4.846
AUG-06-2014	03:15:00	6.392	0.000	0.836	4.836
AUG-06-2014	03:15:36	6.303	0.000	0.830	4.830
AUG-06-2014	03:16:12	6.292	0.000	0.829	4.829
AUG-06-2014	03:16:48	6.252	0.000	0.826	4.826
AUG-06-2014	03:17:24	6.173	0.000	0.821	4.821
AUG-06-2014	03:18:00	6.068	0.000	0.814	4.814
AUG-06-2014	03:18:36	5.935	0.000	0.805	4.805
AUG-06-2014	03:19:12	5.819	0.000	0.797	4.797
AUG-06-2014	03:19:48	5.780	0.000	0.794	4.794
AUG-06-2014	03:20:24	5.729	0.000	0.790	4.790
AUG-06-2014	03:21:00	5.659	0.000	0.785	4.785
AUG-06-2014	03:21:36	5.586	0.000	0.780	4.780
AUG-06-2014	03:22:12	5.515	0.000	0.774	4.774
AUG-06-2014	03:22:48	5.435	0.000	0.768	4.768
AUG-06-2014	03:23:24	5.357	0.000	0.763	4.763
AUG-06-2014	03:24:00	5.308	0.000	0.759	4.759
AUG-06-2014	03:24:36	5.262	0.000	0.756	4.756
AUG-06-2014	03:25:12	5.209	0.000	0.752	4.752
AUG-06-2014	03:25:48	5.147	0.000	0.747	4.747
AUG-06-2014	03:26:24	5.079	0.000	0.742	4.742
AUG-06-2014	03:27:00	5.004	0.000	0.736	4.736
AUG-06-2014	03:27:36	4.918	0.000	0.730	4.730
AUG-06-2014	03:28:12	4.853	0.000	0.725	4.725

			swmm.RPT		
AUG-06-2014 03:28:48	4.792	0.000	0.720	4.720	
AUG-06-2014 03:29:24	4.727	0.000	0.716	4.716	
AUG-06-2014 03:30:00	4.655	0.000	0.710	4.710	
AUG-06-2014 03:30:36	4.578	0.000	0.704	4.704	
AUG-06-2014 03:31:12	4.489	0.000	0.697	4.697	
AUG-06-2014 03:31:48	4.406	0.000	0.690	4.690	
AUG-06-2014 03:32:24	4.340	0.000	0.685	4.685	
AUG-06-2014 03:33:00	4.274	0.000	0.679	4.679	
AUG-06-2014 03:33:36	4.203	0.000	0.673	4.673	
AUG-06-2014 03:34:12	4.128	0.000	0.667	4.667	
AUG-06-2014 03:34:48	4.050	0.000	0.660	4.660	
AUG-06-2014 03:35:24	3.966	0.000	0.653	4.653	
AUG-06-2014 03:36:00	3.879	0.000	0.645	4.645	
AUG-06-2014 03:36:36	3.812	0.000	0.640	4.640	
AUG-06-2014 03:37:12	3.747	0.000	0.634	4.634	
AUG-06-2014 03:37:48	3.678	0.000	0.628	4.628	
AUG-06-2014 03:38:24	3.602	0.000	0.622	4.622	
AUG-06-2014 03:39:00	3.522	0.000	0.615	4.615	
AUG-06-2014 03:39:36	3.439	0.000	0.608	4.608	
AUG-06-2014 03:40:12	3.355	0.000	0.601	4.601	
AUG-06-2014 03:40:48	3.269	0.000	0.592	4.592	
AUG-06-2014 03:41:24	3.177	0.000	0.583	4.583	
AUG-06-2014 03:42:00	3.088	0.000	0.574	4.574	
AUG-06-2014 03:42:36	3.006	0.000	0.566	4.566	
AUG-06-2014 03:43:12	2.926	0.000	0.558	4.558	
AUG-06-2014 03:43:48	2.843	0.000	0.550	4.550	
AUG-06-2014 03:44:24	2.760	0.000	0.542	4.542	
AUG-06-2014 03:45:00	2.676	0.000	0.533	4.533	
AUG-06-2014 03:45:36	2.592	0.000	0.525	4.525	
AUG-06-2014 03:46:12	2.505	0.000	0.516	4.516	
AUG-06-2014 03:46:48	2.427	0.000	0.508	4.508	
AUG-06-2014 03:47:24	2.351	0.000	0.501	4.501	
AUG-06-2014 03:48:00	2.274	0.000	0.492	4.492	
AUG-06-2014 03:48:36	2.199	0.000	0.483	4.483	
AUG-06-2014 03:49:12	2.124	0.000	0.474	4.474	
AUG-06-2014 03:49:48	2.051	0.000	0.465	4.465	
AUG-06-2014 03:50:24	1.978	0.000	0.456	4.456	
AUG-06-2014 03:51:00	1.906	0.000	0.447	4.447	
AUG-06-2014 03:51:36	1.833	0.000	0.439	4.439	
AUG-06-2014 03:52:12	1.761	0.000	0.430	4.430	
AUG-06-2014 03:52:48	1.693	0.000	0.422	4.422	
AUG-06-2014 03:53:24	1.627	0.000	0.414	4.414	
AUG-06-2014 03:54:00	1.560	0.000	0.406	4.406	
AUG-06-2014 03:54:36	1.492	0.000	0.397	4.397	
AUG-06-2014 03:55:12	1.424	0.000	0.386	4.386	
AUG-06-2014 03:55:48	1.356	0.000	0.376	4.376	
AUG-06-2014 03:56:24	1.289	0.000	0.366	4.366	
AUG-06-2014 03:57:00	1.221	0.000	0.355	4.355	
AUG-06-2014 03:57:36	1.155	0.000	0.345	4.345	



			swmm.RPT		
AUG-06-2014 03:58:12	1.089	0.000	0.335	4.335	
AUG-06-2014 03:58:48	1.025	0.000	0.325	4.325	
AUG-06-2014 03:59:24	0.962	0.000	0.316	4.316	
AUG-06-2014 04:00:00	0.901	0.000	0.306	4.306	
AUG-06-2014 04:00:36	0.840	0.000	0.296	4.296	
AUG-06-2014 04:01:12	0.780	0.000	0.283	4.283	
AUG-06-2014 04:01:48	0.722	0.000	0.271	4.271	
AUG-06-2014 04:02:24	0.666	0.000	0.260	4.260	
AUG-06-2014 04:03:00	0.614	0.000	0.249	4.249	
AUG-06-2014 04:03:36	0.565	0.000	0.238	4.238	
AUG-06-2014 04:04:12	0.520	0.000	0.229	4.229	
AUG-06-2014 04:04:48	0.479	0.000	0.220	4.220	
AUG-06-2014 04:05:24	0.441	0.000	0.212	4.212	
AUG-06-2014 04:06:00	0.407	0.000	0.205	4.205	
AUG-06-2014 04:06:36	0.374	0.000	0.197	4.197	
AUG-06-2014 04:07:12	0.343	0.000	0.186	4.186	
AUG-06-2014 04:07:48	0.315	0.000	0.176	4.176	
AUG-06-2014 04:08:24	0.290	0.000	0.167	4.167	
AUG-06-2014 04:09:00	0.267	0.000	0.160	4.160	
AUG-06-2014 04:09:36	0.247	0.000	0.152	4.152	
AUG-06-2014 04:10:12	0.230	0.000	0.146	4.146	
AUG-06-2014 04:10:48	0.214	0.000	0.141	4.141	
AUG-06-2014 04:11:24	0.199	0.000	0.136	4.136	
AUG-06-2014 04:12:00	0.186	0.000	0.131	4.131	
AUG-06-2014 04:12:36	0.174	0.000	0.127	4.127	
AUG-06-2014 04:13:12	0.163	0.000	0.123	4.123	
AUG-06-2014 04:13:48	0.153	0.000	0.119	4.119	
AUG-06-2014 04:14:24	0.143	0.000	0.116	4.116	
AUG-06-2014 04:15:00	0.135	0.000	0.113	4.113	
AUG-06-2014 04:15:36	0.127	0.000	0.111	4.111	
AUG-06-2014 04:16:12	0.120	0.000	0.108	4.108	
AUG-06-2014 04:16:48	0.114	0.000	0.106	4.106	
AUG-06-2014 04:17:24	0.108	0.000	0.104	4.104	
AUG-06-2014 04:18:00	0.102	0.000	0.102	4.102	
AUG-06-2014 04:18:36	0.095	0.000	0.099	4.099	
AUG-06-2014 04:19:12	0.085	0.000	0.088	4.088	
AUG-06-2014 04:19:48	0.077	0.000	0.080	4.080	
AUG-06-2014 04:20:24	0.070	0.000	0.073	4.073	
AUG-06-2014 04:21:00	0.065	0.000	0.067	4.067	
AUG-06-2014 04:21:36	0.060	0.000	0.062	4.062	
AUG-06-2014 04:22:12	0.056	0.000	0.058	4.058	
AUG-06-2014 04:22:48	0.052	0.000	0.054	4.054	
AUG-06-2014 04:23:24	0.048	0.000	0.050	4.050	
AUG-06-2014 04:24:00	0.045	0.000	0.047	4.047	
AUG-06-2014 04:24:36	0.042	0.000	0.044	4.044	
AUG-06-2014 04:25:12	0.039	0.000	0.041	4.041	
AUG-06-2014 04:25:48	0.036	0.000	0.038	4.038	
AUG-06-2014 04:26:24	0.034	0.000	0.035	4.035	
AUG-06-2014 04:27:00	0.031	0.000	0.032	4.032	

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AUG-06-2014	04:27:36	0.029	0.000	0.030	4.030
AUG-06-2014	04:28:12	0.028	0.000	0.029	4.029
AUG-06-2014	04:28:48	0.027	0.000	0.027	4.027
AUG-06-2014	04:29:24	0.025	0.000	0.026	4.026
AUG-06-2014	04:30:00	0.024	0.000	0.025	4.025
AUG-06-2014	04:30:36	0.024	0.000	0.024	4.024
AUG-06-2014	04:31:12	0.023	0.000	0.023	4.023
AUG-06-2014	04:31:48	0.022	0.000	0.023	4.023
AUG-06-2014	04:32:24	0.021	0.000	0.022	4.022
AUG-06-2014	04:33:00	0.020	0.000	0.021	4.021
AUG-06-2014	04:33:36	0.020	0.000	0.020	4.020
AUG-06-2014	04:34:12	0.019	0.000	0.019	4.019
AUG-06-2014	04:34:48	0.018	0.000	0.019	4.019
AUG-06-2014	04:35:24	0.018	0.000	0.018	4.018
AUG-06-2014	04:36:00	0.017	0.000	0.018	4.018
AUG-06-2014	04:36:36	0.016	0.000	0.017	4.017
AUG-06-2014	04:37:12	0.016	0.000	0.016	4.016
AUG-06-2014	04:37:48	0.015	0.000	0.016	4.016
AUG-06-2014	04:38:24	0.015	0.000	0.015	4.015
AUG-06-2014	04:39:00	0.014	0.000	0.015	4.015
AUG-06-2014	04:39:36	0.014	0.000	0.014	4.014
AUG-06-2014	04:40:12	0.013	0.000	0.014	4.014
AUG-06-2014	04:40:48	0.013	0.000	0.013	4.013
AUG-06-2014	04:41:24	0.013	0.000	0.013	4.013
AUG-06-2014	04:42:00	0.012	0.000	0.013	4.013
AUG-06-2014	04:42:36	0.012	0.000	0.012	4.012
AUG-06-2014	04:43:12	0.012	0.000	0.012	4.012
AUG-06-2014	04:43:48	0.011	0.000	0.012	4.012
AUG-06-2014	04:44:24	0.011	0.000	0.011	4.011
AUG-06-2014	04:45:00	0.011	0.000	0.011	4.011
AUG-06-2014	04:45:36	0.010	0.000	0.011	4.011
AUG-06-2014	04:46:12	0.010	0.000	0.010	4.010
AUG-06-2014	04:46:48	0.010	0.000	0.010	4.010
AUG-06-2014	04:47:24	0.010	0.000	0.010	4.010
AUG-06-2014	04:48:00	0.009	0.000	0.010	4.010
AUG-06-2014	04:48:36	0.009	0.000	0.009	4.009
AUG-06-2014	04:49:12	0.009	0.000	0.009	4.009
AUG-06-2014	04:49:48	0.009	0.000	0.009	4.009
AUG-06-2014	04:50:24	0.009	0.000	0.009	4.009
AUG-06-2014	04:51:00	0.008	0.000	0.009	4.009
AUG-06-2014	04:51:36	0.008	0.000	0.008	4.008
AUG-06-2014	04:52:12	0.008	0.000	0.008	4.008
AUG-06-2014	04:52:48	0.008	0.000	0.008	4.008
AUG-06-2014	04:53:24	0.008	0.000	0.008	4.008
AUG-06-2014	04:54:00	0.007	0.000	0.008	4.008
AUG-06-2014	04:54:36	0.007	0.000	0.008	4.008
AUG-06-2014	04:55:12	0.007	0.000	0.007	4.007
AUG-06-2014	04:55:48	0.007	0.000	0.007	4.007
AUG-06-2014	04:56:24	0.007	0.000	0.007	4.007



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AUG-06-2014 04:57:00	0.007	0.000	0.007	4.007
AUG-06-2014 04:57:36	0.007	0.000	0.007	4.007
AUG-06-2014 04:58:12	0.006	0.000	0.007	4.007
AUG-06-2014 04:58:48	0.006	0.000	0.006	4.006
AUG-06-2014 04:59:24	0.006	0.000	0.006	4.006
AUG-06-2014 05:00:00	0.006	0.000	0.006	4.006
AUG-06-2014 05:00:36	0.006	0.000	0.006	4.006
AUG-06-2014 05:01:12	0.006	0.000	0.006	4.006
AUG-06-2014 05:01:48	0.006	0.000	0.006	4.006
AUG-06-2014 05:02:24	0.006	0.000	0.006	4.006
AUG-06-2014 05:03:00	0.005	0.000	0.006	4.006
AUG-06-2014 05:03:36	0.005	0.000	0.005	4.005
AUG-06-2014 05:04:12	0.005	0.000	0.005	4.005
AUG-06-2014 05:04:48	0.005	0.000	0.005	4.005
AUG-06-2014 05:05:24	0.005	0.000	0.005	4.005
AUG-06-2014 05:06:00	0.005	0.000	0.005	4.005
AUG-06-2014 05:06:36	0.005	0.000	0.005	4.005
AUG-06-2014 05:07:12	0.005	0.000	0.005	4.005
AUG-06-2014 05:07:48	0.005	0.000	0.005	4.005
AUG-06-2014 05:08:24	0.005	0.000	0.005	4.005
AUG-06-2014 05:09:00	0.004	0.000	0.005	4.005
AUG-06-2014 05:09:36	0.004	0.000	0.004	4.004
AUG-06-2014 05:10:12	0.004	0.000	0.004	4.004
AUG-06-2014 05:10:48	0.004	0.000	0.004	4.004
AUG-06-2014 05:11:24	0.004	0.000	0.004	4.004
AUG-06-2014 05:12:00	0.004	0.000	0.004	4.004
AUG-06-2014 05:12:36	0.004	0.000	0.004	4.004
AUG-06-2014 05:13:12	0.004	0.000	0.004	4.004
AUG-06-2014 05:13:48	0.004	0.000	0.004	4.004
AUG-06-2014 05:14:24	0.004	0.000	0.004	4.004
AUG-06-2014 05:15:00	0.004	0.000	0.004	4.004
AUG-06-2014 05:15:36	0.004	0.000	0.004	4.004
AUG-06-2014 05:16:12	0.004	0.000	0.004	4.004
AUG-06-2014 05:16:48	0.003	0.000	0.004	4.004
AUG-06-2014 05:17:24	0.003	0.000	0.004	4.004
AUG-06-2014 05:18:00	0.003	0.000	0.003	4.003
AUG-06-2014 05:18:36	0.003	0.000	0.003	4.003
AUG-06-2014 05:19:12	0.003	0.000	0.003	4.003
AUG-06-2014 05:19:48	0.003	0.000	0.003	4.003
AUG-06-2014 05:20:24	0.003	0.000	0.003	4.003
AUG-06-2014 05:21:00	0.003	0.000	0.003	4.003
AUG-06-2014 05:21:36	0.003	0.000	0.003	4.003
AUG-06-2014 05:22:12	0.003	0.000	0.003	4.003
AUG-06-2014 05:22:48	0.003	0.000	0.003	4.003
AUG-06-2014 05:23:24	0.003	0.000	0.003	4.003
AUG-06-2014 05:24:00	0.003	0.000	0.003	4.003
AUG-06-2014 05:24:36	0.003	0.000	0.003	4.003
AUG-06-2014 05:25:12	0.003	0.000	0.003	4.003
AUG-06-2014 05:25:48	0.003	0.000	0.003	4.003

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AUG-06-2014	05:26:24	0.003	0.000	0.003	4.003
AUG-06-2014	05:27:00	0.003	0.000	0.003	4.003
AUG-06-2014	05:27:36	0.003	0.000	0.003	4.003
AUG-06-2014	05:28:12	0.002	0.000	0.003	4.003
AUG-06-2014	05:28:48	0.002	0.000	0.003	4.003
AUG-06-2014	05:29:24	0.002	0.000	0.002	4.002
AUG-06-2014	05:30:00	0.002	0.000	0.002	4.002
AUG-06-2014	05:30:36	0.002	0.000	0.002	4.002
AUG-06-2014	05:31:12	0.002	0.000	0.002	4.002
AUG-06-2014	05:31:48	0.002	0.000	0.002	4.002
AUG-06-2014	05:32:24	0.002	0.000	0.002	4.002
AUG-06-2014	05:33:00	0.002	0.000	0.002	4.002
AUG-06-2014	05:33:36	0.002	0.000	0.002	4.002
AUG-06-2014	05:34:12	0.002	0.000	0.002	4.002
AUG-06-2014	05:34:48	0.002	0.000	0.002	4.002
AUG-06-2014	05:35:24	0.002	0.000	0.002	4.002
AUG-06-2014	05:36:00	0.002	0.000	0.002	4.002
AUG-06-2014	05:36:36	0.002	0.000	0.002	4.002
AUG-06-2014	05:37:12	0.002	0.000	0.002	4.002
AUG-06-2014	05:37:48	0.002	0.000	0.002	4.002
AUG-06-2014	05:38:24	0.002	0.000	0.002	4.002
AUG-06-2014	05:39:00	0.002	0.000	0.002	4.002
AUG-06-2014	05:39:36	0.002	0.000	0.002	4.002
AUG-06-2014	05:40:12	0.002	0.000	0.002	4.002
AUG-06-2014	05:40:48	0.002	0.000	0.002	4.002
AUG-06-2014	05:41:24	0.002	0.000	0.002	4.002
AUG-06-2014	05:42:00	0.002	0.000	0.002	4.002
AUG-06-2014	05:42:36	0.002	0.000	0.002	4.002
AUG-06-2014	05:43:12	0.002	0.000	0.002	4.002
AUG-06-2014	05:43:48	0.002	0.000	0.002	4.002
AUG-06-2014	05:44:24	0.002	0.000	0.002	4.002
AUG-06-2014	05:45:00	0.002	0.000	0.002	4.002
AUG-06-2014	05:45:36	0.002	0.000	0.002	4.002
AUG-06-2014	05:46:12	0.001	0.000	0.002	4.002
AUG-06-2014	05:46:48	0.001	0.000	0.002	4.002
AUG-06-2014	05:47:24	0.001	0.000	0.001	4.001
AUG-06-2014	05:48:00	0.001	0.000	0.001	4.001
AUG-06-2014	05:48:36	0.001	0.000	0.001	4.001
AUG-06-2014	05:49:12	0.001	0.000	0.001	4.001
AUG-06-2014	05:49:48	0.001	0.000	0.001	4.001
AUG-06-2014	05:50:24	0.001	0.000	0.001	4.001
AUG-06-2014	05:51:00	0.001	0.000	0.001	4.001
AUG-06-2014	05:51:36	0.001	0.000	0.001	4.001
AUG-06-2014	05:52:12	0.001	0.000	0.001	4.001
AUG-06-2014	05:52:48	0.001	0.000	0.001	4.001
AUG-06-2014	05:53:24	0.001	0.000	0.001	4.001
AUG-06-2014	05:54:00	0.001	0.000	0.001	4.001
AUG-06-2014	05:54:36	0.001	0.000	0.001	4.001
AUG-06-2014	05:55:12	0.001	0.000	0.001	4.001

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AUG-06-2014 05:55:48	0.001	0.000	0.001	4.001
AUG-06-2014 05:56:24	0.001	0.000	0.001	4.001
AUG-06-2014 05:57:00	0.001	0.000	0.001	4.001
AUG-06-2014 05:57:36	0.001	0.000	0.001	4.001
AUG-06-2014 05:58:12	0.001	0.000	0.001	4.001
AUG-06-2014 05:58:48	0.001	0.000	0.001	4.001
AUG-06-2014 05:59:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:00:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:00:36	0.001	0.000	0.001	4.001
AUG-06-2014 06:01:12	0.001	0.000	0.001	4.001
AUG-06-2014 06:01:48	0.001	0.000	0.001	4.001
AUG-06-2014 06:02:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:03:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:03:36	0.001	0.000	0.001	4.001
AUG-06-2014 06:04:12	0.001	0.000	0.001	4.001
AUG-06-2014 06:04:48	0.001	0.000	0.001	4.001
AUG-06-2014 06:05:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:06:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:06:36	0.001	0.000	0.001	4.001
AUG-06-2014 06:07:12	0.001	0.000	0.001	4.001
AUG-06-2014 06:07:48	0.001	0.000	0.001	4.001
AUG-06-2014 06:08:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:09:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:09:36	0.001	0.000	0.001	4.001
AUG-06-2014 06:10:12	0.001	0.000	0.001	4.001
AUG-06-2014 06:10:48	0.001	0.000	0.001	4.001
AUG-06-2014 06:11:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:12:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:12:36	0.001	0.000	0.001	4.001
AUG-06-2014 06:13:12	0.001	0.000	0.001	4.001
AUG-06-2014 06:13:48	0.001	0.000	0.001	4.001
AUG-06-2014 06:14:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:15:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:15:36	0.001	0.000	0.001	4.001
AUG-06-2014 06:16:12	0.001	0.000	0.001	4.001
AUG-06-2014 06:16:48	0.001	0.000	0.001	4.001
AUG-06-2014 06:17:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:18:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:18:36	0.001	0.000	0.001	4.001
AUG-06-2014 06:19:12	0.001	0.000	0.001	4.001
AUG-06-2014 06:19:48	0.001	0.000	0.001	4.001
AUG-06-2014 06:20:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:21:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:21:36	0.001	0.000	0.001	4.001
AUG-06-2014 06:22:12	0.001	0.000	0.001	4.001
AUG-06-2014 06:22:48	0.001	0.000	0.001	4.001
AUG-06-2014 06:23:24	0.001	0.000	0.001	4.001
AUG-06-2014 06:24:00	0.001	0.000	0.001	4.001
AUG-06-2014 06:24:36	0.000	0.000	0.001	4.001

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AUG-06-2014 06:25:12	0.000	0.000	0.001	4.001
AUG-06-2014 06:25:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:26:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:27:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:27:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:28:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:28:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:29:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:30:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:30:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:31:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:31:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:32:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:33:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:33:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:34:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:34:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:35:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:36:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:36:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:37:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:37:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:38:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:39:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:39:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:40:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:40:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:41:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:42:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:42:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:43:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:43:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:44:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:45:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:45:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:46:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:46:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:47:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:48:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:48:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:49:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:49:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:50:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:51:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:51:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:52:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:52:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:53:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:54:00	0.000	0.000	0.000	4.000

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AUG-06-2014 06:54:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:55:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:55:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:56:24	0.000	0.000	0.000	4.000
AUG-06-2014 06:57:00	0.000	0.000	0.000	4.000
AUG-06-2014 06:57:36	0.000	0.000	0.000	4.000
AUG-06-2014 06:58:12	0.000	0.000	0.000	4.000
AUG-06-2014 06:58:48	0.000	0.000	0.000	4.000
AUG-06-2014 06:59:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:00:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:00:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:01:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:01:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:02:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:03:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:03:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:04:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:04:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:05:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:06:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:06:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:07:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:07:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:08:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:09:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:09:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:10:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:10:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:11:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:12:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:12:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:13:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:13:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:14:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:15:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:15:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:16:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:16:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:17:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:18:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:18:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:19:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:19:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:20:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:21:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:21:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:22:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:22:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:23:24	0.000	0.000	0.000	4.000

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AUG-06-2014 07:24:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:24:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:25:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:25:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:26:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:27:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:27:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:28:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:28:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:29:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:30:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:30:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:31:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:31:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:32:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:33:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:33:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:34:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:34:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:35:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:36:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:36:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:37:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:37:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:38:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:39:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:39:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:40:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:40:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:41:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:42:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:42:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:43:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:43:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:44:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:45:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:45:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:46:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:46:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:47:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:48:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:48:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:49:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:49:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:50:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:51:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:51:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:52:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:52:48	0.000	0.000	0.000	4.000

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AUG-06-2014 07:53:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:54:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:54:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:55:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:55:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:56:24	0.000	0.000	0.000	4.000
AUG-06-2014 07:57:00	0.000	0.000	0.000	4.000
AUG-06-2014 07:57:36	0.000	0.000	0.000	4.000
AUG-06-2014 07:58:12	0.000	0.000	0.000	4.000
AUG-06-2014 07:58:48	0.000	0.000	0.000	4.000
AUG-06-2014 07:59:24	0.000	0.000	0.000	4.000
AUG-06-2014 08:00:00	0.000	0.000	0.000	4.000

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## Link Results

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## &lt;&lt;&lt; Link 1 &gt;&gt;&gt;

Date	Time	Flow CFS	Velocity ft/sec	Depth feet	Percent Full
AUG-06-2014	00:00:36	0.000	0.000	0.000	0.0
AUG-06-2014	00:01:12	0.000	0.000	0.000	0.0
AUG-06-2014	00:01:48	0.000	0.000	0.000	0.0
AUG-06-2014	00:02:24	0.000	0.000	0.000	0.0
AUG-06-2014	00:03:00	0.000	0.000	0.000	0.0
AUG-06-2014	00:03:36	0.000	0.000	0.000	0.0
AUG-06-2014	00:04:12	0.000	0.000	0.005	0.2
AUG-06-2014	00:04:48	0.001	0.206	0.019	0.8
AUG-06-2014	00:05:24	0.003	0.269	0.033	1.3
AUG-06-2014	00:06:00	0.007	0.338	0.048	1.9
AUG-06-2014	00:06:36	0.015	0.420	0.066	2.7
AUG-06-2014	00:07:12	0.027	0.504	0.086	3.5
AUG-06-2014	00:07:48	0.044	0.591	0.109	4.3
AUG-06-2014	00:08:24	0.069	0.678	0.133	5.3
AUG-06-2014	00:09:00	0.100	0.765	0.159	6.3
AUG-06-2014	00:09:36	0.141	0.851	0.186	7.4
AUG-06-2014	00:10:12	0.193	0.936	0.215	8.6
AUG-06-2014	00:10:48	0.254	1.017	0.246	9.8
AUG-06-2014	00:11:24	0.324	1.092	0.277	11.1
AUG-06-2014	00:12:00	0.400	1.159	0.307	12.3
AUG-06-2014	00:12:36	0.480	1.218	0.336	13.4
AUG-06-2014	00:13:12	0.562	1.269	0.364	14.6
AUG-06-2014	00:13:48	0.643	1.310	0.391	15.6
AUG-06-2014	00:14:24	0.721	1.345	0.416	16.6
AUG-06-2014	00:15:00	0.794	1.371	0.438	17.5
AUG-06-2014	00:15:36	0.854	1.383	0.459	18.3

		swmm.RPT			
AUG-06-2014	00:16:12	0.871	1.334	0.477	19.1
AUG-06-2014	00:16:48	0.899	1.311	0.493	19.7
AUG-06-2014	00:17:24	0.933	1.302	0.509	20.4
AUG-06-2014	00:18:00	0.970	1.301	0.523	20.9
AUG-06-2014	00:18:36	1.011	1.306	0.537	21.5
AUG-06-2014	00:19:12	1.051	1.313	0.550	22.0
AUG-06-2014	00:19:48	1.129	1.349	0.567	22.7
AUG-06-2014	00:20:24	1.188	1.367	0.583	23.3
AUG-06-2014	00:21:00	1.233	1.374	0.596	23.8
AUG-06-2014	00:21:36	1.267	1.374	0.607	24.3
AUG-06-2014	00:22:12	1.295	1.374	0.617	24.7
AUG-06-2014	00:22:48	1.323	1.376	0.626	25.0
AUG-06-2014	00:23:24	1.356	1.383	0.634	25.4
AUG-06-2014	00:24:00	1.405	1.401	0.645	25.8
AUG-06-2014	00:24:36	1.445	1.412	0.654	26.2
AUG-06-2014	00:25:12	1.482	1.420	0.663	26.5
AUG-06-2014	00:25:48	1.517	1.428	0.672	26.9
AUG-06-2014	00:26:24	1.552	1.436	0.680	27.2
AUG-06-2014	00:27:00	1.587	1.444	0.688	27.5
AUG-06-2014	00:27:36	1.622	1.453	0.696	27.8
AUG-06-2014	00:28:12	1.657	1.461	0.704	28.1
AUG-06-2014	00:28:48	1.686	1.467	0.711	28.4
AUG-06-2014	00:29:24	1.707	1.468	0.716	28.7
AUG-06-2014	00:30:00	1.730	1.472	0.722	28.9
AUG-06-2014	00:30:36	1.756	1.478	0.728	29.1
AUG-06-2014	00:31:12	1.785	1.486	0.734	29.3
AUG-06-2014	00:31:48	1.812	1.492	0.739	29.6
AUG-06-2014	00:32:24	1.837	1.498	0.745	29.8
AUG-06-2014	00:33:00	1.866	1.505	0.751	30.0
AUG-06-2014	00:33:36	1.897	1.513	0.756	30.3
AUG-06-2014	00:34:12	1.928	1.521	0.763	30.5
AUG-06-2014	00:34:48	1.960	1.529	0.769	30.7
AUG-06-2014	00:35:24	1.993	1.537	0.775	31.0
AUG-06-2014	00:36:00	2.034	1.549	0.782	31.3
AUG-06-2014	00:36:36	2.080	1.562	0.790	31.6
AUG-06-2014	00:37:12	2.124	1.573	0.798	31.9
AUG-06-2014	00:37:48	2.171	1.585	0.807	32.3
AUG-06-2014	00:38:24	2.222	1.597	0.816	32.6
AUG-06-2014	00:39:00	2.271	1.608	0.825	33.0
AUG-06-2014	00:39:36	2.416	1.659	0.843	33.7
AUG-06-2014	00:40:12	2.508	1.679	0.859	34.4
AUG-06-2014	00:40:48	2.568	1.684	0.872	34.9
AUG-06-2014	00:41:24	2.613	1.685	0.883	35.3
AUG-06-2014	00:42:00	2.648	1.686	0.891	35.7
AUG-06-2014	00:42:36	2.680	1.687	0.899	36.0
AUG-06-2014	00:43:12	2.709	1.689	0.905	36.2
AUG-06-2014	00:43:48	2.739	1.692	0.911	36.5
AUG-06-2014	00:44:24	2.770	1.697	0.917	36.7
AUG-06-2014	00:45:00	2.813	1.706	0.924	37.0



		swmm.RPT			
AUG-06-2014 00:45:36	2.873	1.721	0.932	37.3	
AUG-06-2014 00:46:12	2.924	1.730	0.941	37.6	
AUG-06-2014 00:46:48	2.980	1.742	0.949	38.0	
AUG-06-2014 00:47:24	3.036	1.752	0.958	38.3	
AUG-06-2014 00:48:00	3.083	1.759	0.967	38.7	
AUG-06-2014 00:48:36	3.131	1.766	0.975	39.0	
AUG-06-2014 00:49:12	3.181	1.775	0.983	39.3	
AUG-06-2014 00:49:48	3.224	1.780	0.991	39.6	
AUG-06-2014 00:50:24	3.272	1.788	0.998	39.9	
AUG-06-2014 00:51:00	3.302	1.790	1.004	40.2	
AUG-06-2014 00:51:36	3.325	1.790	1.009	40.4	
AUG-06-2014 00:52:12	3.349	1.792	1.014	40.6	
AUG-06-2014 00:52:48	3.374	1.795	1.018	40.7	
AUG-06-2014 00:53:24	3.401	1.799	1.023	40.9	
AUG-06-2014 00:54:00	3.432	1.805	1.027	41.1	
AUG-06-2014 00:54:36	3.472	1.812	1.033	41.3	
AUG-06-2014 00:55:12	3.529	1.825	1.040	41.6	
AUG-06-2014 00:55:48	3.586	1.835	1.048	41.9	
AUG-06-2014 00:56:24	3.638	1.844	1.056	42.3	
AUG-06-2014 00:57:00	3.690	1.852	1.064	42.6	
AUG-06-2014 00:57:36	3.727	1.856	1.071	42.8	
AUG-06-2014 00:58:12	3.777	1.864	1.078	43.1	
AUG-06-2014 00:58:48	3.828	1.872	1.086	43.4	
AUG-06-2014 00:59:24	3.865	1.875	1.092	43.7	
AUG-06-2014 01:00:00	3.899	1.879	1.098	43.9	
AUG-06-2014 01:00:36	3.940	1.885	1.104	44.2	
AUG-06-2014 01:01:12	3.987	1.892	1.111	44.4	
AUG-06-2014 01:01:48	4.023	1.896	1.117	44.7	
AUG-06-2014 01:02:24	4.050	1.898	1.122	44.9	
AUG-06-2014 01:03:00	4.103	1.907	1.129	45.1	
AUG-06-2014 01:03:36	4.143	1.912	1.135	45.4	
AUG-06-2014 01:04:12	4.181	1.917	1.140	45.6	
AUG-06-2014 01:04:48	4.219	1.922	1.146	45.9	
AUG-06-2014 01:05:24	4.265	1.929	1.153	46.1	
AUG-06-2014 01:06:00	4.302	1.933	1.158	46.3	
AUG-06-2014 01:06:36	4.341	1.938	1.164	46.6	
AUG-06-2014 01:07:12	4.382	1.943	1.170	46.8	
AUG-06-2014 01:07:48	4.421	1.948	1.176	47.0	
AUG-06-2014 01:08:24	4.480	1.959	1.183	47.3	
AUG-06-2014 01:09:00	4.598	1.981	1.197	47.9	
AUG-06-2014 01:09:36	4.637	1.981	1.205	48.2	
AUG-06-2014 01:10:12	4.661	1.979	1.210	48.4	
AUG-06-2014 01:10:48	4.691	1.981	1.215	48.6	
AUG-06-2014 01:11:24	4.708	1.980	1.219	48.8	
AUG-06-2014 01:12:00	4.730	1.982	1.223	48.9	
AUG-06-2014 01:12:36	4.755	1.985	1.227	49.1	
AUG-06-2014 01:13:12	4.785	1.989	1.231	49.2	
AUG-06-2014 01:13:48	4.818	1.994	1.235	49.4	
AUG-06-2014 01:14:24	4.854	1.999	1.240	49.6	

		swmm.RPT			
AUG-06-2014	01:15:00	4.891	2.004	1.245	49.8
AUG-06-2014	01:15:36	4.930	2.009	1.250	50.0
AUG-06-2014	01:16:12	4.972	2.014	1.256	50.2
AUG-06-2014	01:16:48	5.005	2.017	1.261	50.4
AUG-06-2014	01:17:24	5.055	2.025	1.267	50.7
AUG-06-2014	01:18:00	5.094	2.029	1.273	50.9
AUG-06-2014	01:18:36	5.124	2.031	1.277	51.1
AUG-06-2014	01:19:12	5.170	2.037	1.283	51.3
AUG-06-2014	01:19:48	5.218	2.044	1.289	51.6
AUG-06-2014	01:20:24	5.266	2.049	1.296	51.8
AUG-06-2014	01:21:00	5.305	2.053	1.302	52.1
AUG-06-2014	01:21:36	5.379	2.064	1.311	52.4
AUG-06-2014	01:22:12	5.413	2.065	1.317	52.7
AUG-06-2014	01:22:48	5.434	2.065	1.321	52.8
AUG-06-2014	01:23:24	5.454	2.064	1.325	53.0
AUG-06-2014	01:24:00	5.515	2.075	1.331	53.3
AUG-06-2014	01:24:36	5.557	2.080	1.337	53.5
AUG-06-2014	01:25:12	5.603	2.084	1.344	53.7
AUG-06-2014	01:25:48	5.633	2.086	1.348	53.9
AUG-06-2014	01:26:24	5.674	2.091	1.354	54.2
AUG-06-2014	01:27:00	5.689	2.090	1.357	54.3
AUG-06-2014	01:27:36	5.732	2.097	1.362	54.5
AUG-06-2014	01:28:12	5.778	2.103	1.367	54.7
AUG-06-2014	01:28:48	5.800	2.103	1.372	54.9
AUG-06-2014	01:29:24	5.843	2.108	1.377	55.1
AUG-06-2014	01:30:00	5.910	2.119	1.384	55.4
AUG-06-2014	01:30:36	5.933	2.118	1.389	55.6
AUG-06-2014	01:31:12	5.971	2.121	1.395	55.8
AUG-06-2014	01:31:48	6.035	2.130	1.402	56.1
AUG-06-2014	01:32:24	6.060	2.131	1.406	56.3
AUG-06-2014	01:33:00	6.107	2.136	1.412	56.5
AUG-06-2014	01:33:36	6.144	2.139	1.418	56.7
AUG-06-2014	01:34:12	6.187	2.143	1.424	56.9
AUG-06-2014	01:34:48	6.226	2.147	1.429	57.2
AUG-06-2014	01:35:24	6.268	2.151	1.435	57.4
AUG-06-2014	01:36:00	6.309	2.155	1.440	57.6
AUG-06-2014	01:36:36	6.352	2.159	1.446	57.8
AUG-06-2014	01:37:12	6.390	2.163	1.451	58.0
AUG-06-2014	01:37:48	6.428	2.166	1.456	58.3
AUG-06-2014	01:38:24	6.464	2.169	1.462	58.5
AUG-06-2014	01:39:00	6.504	2.173	1.467	58.7
AUG-06-2014	01:39:36	6.543	2.177	1.472	58.9
AUG-06-2014	01:40:12	6.580	2.180	1.477	59.1
AUG-06-2014	01:40:48	6.621	2.184	1.483	59.3
AUG-06-2014	01:41:24	6.658	2.187	1.488	59.5
AUG-06-2014	01:42:00	6.707	2.192	1.494	59.7
AUG-06-2014	01:42:36	6.745	2.195	1.499	60.0
AUG-06-2014	01:43:12	6.787	2.199	1.505	60.2
AUG-06-2014	01:43:48	6.826	2.203	1.510	60.4

		swmm.RPT			
AUG-06-2014	01:44:24	6.865	2.206	1.515	60.6
AUG-06-2014	01:45:00	6.900	2.209	1.520	60.8
AUG-06-2014	01:45:36	6.938	2.212	1.525	61.0
AUG-06-2014	01:46:12	6.893	2.199	1.524	61.0
AUG-06-2014	01:46:48	6.943	2.209	1.528	61.1
AUG-06-2014	01:47:24	7.037	2.224	1.537	61.5
AUG-06-2014	01:48:00	7.090	2.228	1.544	61.8
AUG-06-2014	01:48:36	7.137	2.232	1.551	62.0
AUG-06-2014	01:49:12	7.178	2.234	1.557	62.3
AUG-06-2014	01:49:48	7.079	2.211	1.552	62.1
AUG-06-2014	01:50:24	7.010	2.202	1.545	61.8
AUG-06-2014	01:51:00	7.126	2.226	1.552	62.1
AUG-06-2014	01:51:36	7.236	2.243	1.562	62.5
AUG-06-2014	01:52:12	7.321	2.251	1.573	62.9
AUG-06-2014	01:52:48	7.378	2.253	1.582	63.3
AUG-06-2014	01:53:24	7.426	2.254	1.590	63.6
AUG-06-2014	01:54:00	7.469	2.255	1.598	63.9
AUG-06-2014	01:54:36	7.514	2.257	1.605	64.2
AUG-06-2014	01:55:12	7.554	2.258	1.611	64.5
AUG-06-2014	01:55:48	7.595	2.260	1.618	64.7
AUG-06-2014	01:56:24	7.648	2.264	1.625	65.0
AUG-06-2014	01:57:00	7.688	2.266	1.632	65.3
AUG-06-2014	01:57:36	7.721	2.267	1.637	65.5
AUG-06-2014	01:58:12	7.754	2.268	1.642	65.7
AUG-06-2014	01:58:48	7.789	2.270	1.648	65.9
AUG-06-2014	01:59:24	7.826	2.272	1.653	66.1
AUG-06-2014	02:00:00	7.863	2.274	1.659	66.4
AUG-06-2014	02:00:36	7.900	2.276	1.664	66.6
AUG-06-2014	02:01:12	7.921	2.276	1.668	66.7
AUG-06-2014	02:01:48	7.924	2.274	1.670	66.8
AUG-06-2014	02:02:24	7.914	2.271	1.671	66.8
AUG-06-2014	02:03:00	7.896	2.267	1.669	66.8
AUG-06-2014	02:03:36	7.871	2.264	1.667	66.7
AUG-06-2014	02:04:12	7.843	2.261	1.664	66.5
AUG-06-2014	02:04:48	7.812	2.258	1.660	66.4
AUG-06-2014	02:05:24	7.777	2.255	1.655	66.2
AUG-06-2014	02:06:00	7.741	2.252	1.650	66.0
AUG-06-2014	02:06:36	7.700	2.249	1.644	65.8
AUG-06-2014	02:07:12	7.648	2.244	1.638	65.5
AUG-06-2014	02:07:48	7.609	2.242	1.632	65.3
AUG-06-2014	02:08:24	7.571	2.240	1.626	65.0
AUG-06-2014	02:09:00	7.530	2.238	1.620	64.8
AUG-06-2014	02:09:36	7.489	2.235	1.614	64.6
AUG-06-2014	02:10:12	7.451	2.233	1.608	64.3
AUG-06-2014	02:10:48	7.408	2.230	1.602	64.1
AUG-06-2014	02:11:24	7.366	2.227	1.596	63.8
AUG-06-2014	02:12:00	7.321	2.224	1.589	63.6
AUG-06-2014	02:12:36	7.278	2.221	1.583	63.3
AUG-06-2014	02:13:12	7.240	2.219	1.577	63.1

			swmm.RPT		
AUG-06-2014 02:13:48	7.198	2.217	1.571	62.8	
AUG-06-2014 02:14:24	7.157	2.214	1.565	62.6	
AUG-06-2014 02:15:00	7.114	2.210	1.559	62.4	
AUG-06-2014 02:15:36	7.073	2.207	1.553	62.1	
AUG-06-2014 02:16:12	7.017	2.201	1.546	61.9	
AUG-06-2014 02:16:48	6.979	2.199	1.541	61.6	
AUG-06-2014 02:17:24	6.934	2.194	1.535	61.4	
AUG-06-2014 02:18:00	6.901	2.193	1.530	61.2	
AUG-06-2014 02:18:36	6.859	2.188	1.524	61.0	
AUG-06-2014 02:19:12	6.818	2.185	1.519	60.8	
AUG-06-2014 02:19:48	6.777	2.181	1.513	60.5	
AUG-06-2014 02:20:24	6.733	2.177	1.507	60.3	
AUG-06-2014 02:21:00	6.703	2.175	1.503	60.1	
AUG-06-2014 02:21:36	6.655	2.169	1.497	59.9	
AUG-06-2014 02:22:12	6.617	2.166	1.492	59.7	
AUG-06-2014 02:22:48	6.588	2.165	1.487	59.5	
AUG-06-2014 02:23:24	6.538	2.158	1.481	59.3	
AUG-06-2014 02:24:00	6.484	2.152	1.475	59.0	
AUG-06-2014 02:24:36	6.450	2.149	1.470	58.8	
AUG-06-2014 02:25:12	6.413	2.147	1.464	58.6	
AUG-06-2014 02:25:48	6.357	2.140	1.458	58.3	
AUG-06-2014 02:26:24	6.329	2.138	1.453	58.1	
AUG-06-2014 02:27:00	6.287	2.134	1.448	57.9	
AUG-06-2014 02:27:36	6.254	2.132	1.443	57.7	
AUG-06-2014 02:28:12	6.221	2.129	1.438	57.5	
AUG-06-2014 02:28:48	6.175	2.124	1.432	57.3	
AUG-06-2014 02:29:24	6.131	2.118	1.427	57.1	
AUG-06-2014 02:30:00	6.092	2.115	1.421	56.9	
AUG-06-2014 02:30:36	6.044	2.109	1.415	56.6	
AUG-06-2014 02:31:12	6.015	2.107	1.411	56.4	
AUG-06-2014 02:31:48	5.976	2.103	1.405	56.2	
AUG-06-2014 02:32:24	5.939	2.099	1.400	56.0	
AUG-06-2014 02:33:00	5.893	2.094	1.394	55.8	
AUG-06-2014 02:33:36	5.854	2.091	1.389	55.5	
AUG-06-2014 02:34:12	5.807	2.085	1.383	55.3	
AUG-06-2014 02:34:48	5.764	2.080	1.377	55.1	
AUG-06-2014 02:35:24	5.723	2.075	1.371	54.9	
AUG-06-2014 02:36:00	5.697	2.075	1.367	54.7	
AUG-06-2014 02:36:36	5.656	2.070	1.361	54.5	
AUG-06-2014 02:37:12	5.608	2.063	1.356	54.2	
AUG-06-2014 02:37:48	5.565	2.059	1.349	54.0	
AUG-06-2014 02:38:24	5.533	2.057	1.344	53.8	
AUG-06-2014 02:39:00	5.495	2.052	1.339	53.6	
AUG-06-2014 02:39:36	5.444	2.045	1.333	53.3	
AUG-06-2014 02:40:12	5.406	2.041	1.327	53.1	
AUG-06-2014 02:40:48	5.376	2.039	1.323	52.9	
AUG-06-2014 02:41:24	5.341	2.036	1.318	52.7	
AUG-06-2014 02:42:00	5.311	2.033	1.313	52.5	
AUG-06-2014 02:42:36	5.249	2.022	1.306	52.3	

		swmm.RPT			
AUG-06-2014	02:43:12	5.209	2.019	1.300	52.0
AUG-06-2014	02:43:48	5.176	2.016	1.295	51.8
AUG-06-2014	02:44:24	5.142	2.013	1.290	51.6
AUG-06-2014	02:45:00	5.103	2.008	1.285	51.4
AUG-06-2014	02:45:36	5.067	2.004	1.280	51.2
AUG-06-2014	02:46:12	5.031	2.000	1.274	51.0
AUG-06-2014	02:46:48	4.992	1.995	1.269	50.8
AUG-06-2014	02:47:24	4.944	1.988	1.263	50.5
AUG-06-2014	02:48:00	4.909	1.985	1.258	50.3
AUG-06-2014	02:48:36	4.866	1.979	1.252	50.1
AUG-06-2014	02:49:12	4.828	1.975	1.246	49.8
AUG-06-2014	02:49:48	4.785	1.969	1.240	49.6
AUG-06-2014	02:50:24	4.751	1.966	1.235	49.4
AUG-06-2014	02:51:00	4.686	1.954	1.227	49.1
AUG-06-2014	02:51:36	4.647	1.950	1.221	48.9
AUG-06-2014	02:52:12	4.597	1.944	1.214	48.6
AUG-06-2014	02:52:48	4.561	1.940	1.209	48.3
AUG-06-2014	02:53:24	4.535	1.939	1.204	48.2
AUG-06-2014	02:54:00	4.499	1.934	1.199	47.9
AUG-06-2014	02:54:36	4.459	1.928	1.193	47.7
AUG-06-2014	02:55:12	4.413	1.921	1.187	47.5
AUG-06-2014	02:55:48	4.379	1.918	1.182	47.3
AUG-06-2014	02:56:24	4.341	1.913	1.176	47.0
AUG-06-2014	02:57:00	4.302	1.908	1.170	46.8
AUG-06-2014	02:57:36	4.264	1.902	1.165	46.6
AUG-06-2014	02:58:12	4.224	1.897	1.159	46.4
AUG-06-2014	02:58:48	4.182	1.890	1.153	46.1
AUG-06-2014	02:59:24	4.139	1.884	1.147	45.9
AUG-06-2014	03:00:00	4.110	1.882	1.142	45.7
AUG-06-2014	03:00:36	4.059	1.872	1.135	45.4
AUG-06-2014	03:01:12	4.013	1.866	1.129	45.1
AUG-06-2014	03:01:48	4.223	1.931	1.143	45.7
AUG-06-2014	03:02:24	4.254	1.930	1.150	46.0
AUG-06-2014	03:03:00	4.119	1.887	1.141	45.7
AUG-06-2014	03:03:36	4.003	1.858	1.130	45.2
AUG-06-2014	03:04:12	3.864	1.827	1.114	44.6
AUG-06-2014	03:04:48	3.679	1.786	1.092	43.7
AUG-06-2014	03:05:24	3.793	1.839	1.093	43.7
AUG-06-2014	03:06:00	3.892	1.870	1.101	44.0
AUG-06-2014	03:06:36	3.803	1.841	1.094	43.8
AUG-06-2014	03:07:12	3.687	1.810	1.082	43.3
AUG-06-2014	03:07:48	3.587	1.788	1.070	42.8
AUG-06-2014	03:08:24	3.512	1.777	1.058	42.3
AUG-06-2014	03:09:00	3.450	1.768	1.047	41.9
AUG-06-2014	03:09:36	3.411	1.767	1.039	41.6
AUG-06-2014	03:10:12	3.384	1.766	1.033	41.3
AUG-06-2014	03:10:48	3.325	1.755	1.025	41.0
AUG-06-2014	03:11:24	3.336	1.769	1.021	40.9
AUG-06-2014	03:12:00	3.349	1.776	1.021	40.8

		swmm.RPT			
AUG-06-2014	03:12:36	3.328	1.770	1.019	40.7
AUG-06-2014	03:13:12	3.295	1.762	1.015	40.6
AUG-06-2014	03:13:48	3.252	1.751	1.009	40.4
AUG-06-2014	03:14:24	3.121	1.713	0.995	39.8
AUG-06-2014	03:15:00	3.024	1.691	0.981	39.2
AUG-06-2014	03:15:36	3.134	1.741	0.986	39.5
AUG-06-2014	03:16:12	3.120	1.737	0.985	39.4
AUG-06-2014	03:16:48	3.048	1.714	0.977	39.1
AUG-06-2014	03:17:24	2.974	1.694	0.968	38.7
AUG-06-2014	03:18:00	2.887	1.671	0.956	38.3
AUG-06-2014	03:18:36	2.806	1.653	0.944	37.8
AUG-06-2014	03:19:12	2.862	1.686	0.944	37.8
AUG-06-2014	03:19:48	2.841	1.682	0.941	37.6
AUG-06-2014	03:20:24	2.786	1.665	0.934	37.4
AUG-06-2014	03:21:00	2.742	1.655	0.927	37.1
AUG-06-2014	03:21:36	2.708	1.649	0.921	36.8
AUG-06-2014	03:22:12	2.668	1.641	0.915	36.6
AUG-06-2014	03:22:48	2.597	1.619	0.905	36.2
AUG-06-2014	03:23:24	2.615	1.635	0.903	36.1
AUG-06-2014	03:24:00	2.601	1.635	0.900	36.0
AUG-06-2014	03:24:36	2.571	1.627	0.895	35.8
AUG-06-2014	03:25:12	2.533	1.617	0.890	35.6
AUG-06-2014	03:25:48	2.493	1.607	0.883	35.3
AUG-06-2014	03:26:24	2.452	1.597	0.877	35.1
AUG-06-2014	03:27:00	2.402	1.583	0.869	34.8
AUG-06-2014	03:27:36	2.373	1.580	0.862	34.5
AUG-06-2014	03:28:12	2.353	1.579	0.858	34.3
AUG-06-2014	03:28:48	2.318	1.570	0.852	34.1
AUG-06-2014	03:29:24	2.277	1.559	0.845	33.8
AUG-06-2014	03:30:00	2.235	1.548	0.838	33.5
AUG-06-2014	03:30:36	2.185	1.534	0.830	33.2
AUG-06-2014	03:31:12	2.125	1.516	0.820	32.8
AUG-06-2014	03:31:48	2.115	1.521	0.815	32.6
AUG-06-2014	03:32:24	2.087	1.516	0.809	32.4
AUG-06-2014	03:33:00	2.049	1.506	0.803	32.1
AUG-06-2014	03:33:36	2.006	1.494	0.795	31.8
AUG-06-2014	03:34:12	1.963	1.482	0.787	31.5
AUG-06-2014	03:34:48	1.920	1.469	0.779	31.2
AUG-06-2014	03:35:24	1.853	1.445	0.769	30.7
AUG-06-2014	03:36:00	1.845	1.453	0.764	30.5
AUG-06-2014	03:36:36	1.822	1.449	0.758	30.3
AUG-06-2014	03:37:12	1.784	1.438	0.751	30.0
AUG-06-2014	03:37:48	1.740	1.424	0.743	29.7
AUG-06-2014	03:38:24	1.695	1.409	0.734	29.4
AUG-06-2014	03:39:00	1.649	1.394	0.725	29.0
AUG-06-2014	03:39:36	1.604	1.380	0.716	28.7
AUG-06-2014	03:40:12	1.560	1.366	0.707	28.3
AUG-06-2014	03:40:48	1.511	1.350	0.697	27.9
AUG-06-2014	03:41:24	1.454	1.328	0.686	27.5



		swmm.RPT			
AUG-06-2014 03:42:00	1.427	1.325	0.678	27.1	
AUG-06-2014 03:42:36	1.388	1.313	0.669	26.8	
AUG-06-2014 03:43:12	1.345	1.297	0.660	26.4	
AUG-06-2014 03:43:48	1.300	1.281	0.650	26.0	
AUG-06-2014 03:44:24	1.256	1.265	0.640	25.6	
AUG-06-2014 03:45:00	1.214	1.249	0.630	25.2	
AUG-06-2014 03:45:36	1.169	1.232	0.620	24.8	
AUG-06-2014 03:46:12	1.130	1.219	0.610	24.4	
AUG-06-2014 03:46:48	1.097	1.208	0.601	24.0	
AUG-06-2014 03:47:24	1.058	1.192	0.591	23.7	
AUG-06-2014 03:48:00	1.019	1.176	0.582	23.3	
AUG-06-2014 03:48:36	0.981	1.160	0.572	22.9	
AUG-06-2014 03:49:12	0.944	1.143	0.562	22.5	
AUG-06-2014 03:49:48	0.907	1.127	0.552	22.1	
AUG-06-2014 03:50:24	0.871	1.110	0.542	21.7	
AUG-06-2014 03:51:00	0.834	1.092	0.532	21.3	
AUG-06-2014 03:51:36	0.792	1.069	0.521	20.8	
AUG-06-2014 03:52:12	0.764	1.058	0.512	20.5	
AUG-06-2014 03:52:48	0.732	1.042	0.502	20.1	
AUG-06-2014 03:53:24	0.697	1.022	0.492	19.7	
AUG-06-2014 03:54:00	0.661	1.000	0.481	19.2	
AUG-06-2014 03:54:36	0.626	0.978	0.470	18.8	
AUG-06-2014 03:55:12	0.590	0.955	0.459	18.3	
AUG-06-2014 03:55:48	0.554	0.931	0.447	17.9	
AUG-06-2014 03:56:24	0.518	0.904	0.435	17.4	
AUG-06-2014 03:57:00	0.484	0.879	0.423	16.9	
AUG-06-2014 03:57:36	0.448	0.850	0.411	16.4	
AUG-06-2014 03:58:12	0.416	0.825	0.399	15.9	
AUG-06-2014 03:58:48	0.384	0.797	0.386	15.4	
AUG-06-2014 03:59:24	0.353	0.767	0.374	14.9	
AUG-06-2014 04:00:00	0.322	0.738	0.361	14.4	
AUG-06-2014 04:00:36	0.292	0.707	0.347	13.9	
AUG-06-2014 04:01:12	0.263	0.673	0.334	13.4	
AUG-06-2014 04:01:48	0.235	0.638	0.321	12.8	
AUG-06-2014 04:02:24	0.211	0.608	0.308	12.3	
AUG-06-2014 04:03:00	0.188	0.578	0.295	11.8	
AUG-06-2014 04:03:36	0.168	0.548	0.283	11.3	
AUG-06-2014 04:04:12	0.150	0.521	0.271	10.8	
AUG-06-2014 04:04:48	0.136	0.501	0.260	10.4	
AUG-06-2014 04:05:24	0.123	0.482	0.250	10.0	
AUG-06-2014 04:06:00	0.111	0.461	0.240	9.6	
AUG-06-2014 04:06:36	0.101	0.443	0.231	9.2	
AUG-06-2014 04:07:12	0.092	0.425	0.222	8.9	
AUG-06-2014 04:07:48	0.083	0.409	0.214	8.6	
AUG-06-2014 04:08:24	0.077	0.397	0.206	8.3	
AUG-06-2014 04:09:00	0.071	0.386	0.199	8.0	
AUG-06-2014 04:09:36	0.065	0.373	0.193	7.7	
AUG-06-2014 04:10:12	0.060	0.360	0.186	7.5	
AUG-06-2014 04:10:48	0.055	0.349	0.180	7.2	

		swmm.RPT			
AUG-06-2014	04:11:24	0.051	0.338	0.175	7.0
AUG-06-2014	04:12:00	0.047	0.327	0.169	6.8
AUG-06-2014	04:12:36	0.044	0.317	0.164	6.6
AUG-06-2014	04:13:12	0.041	0.308	0.159	6.4
AUG-06-2014	04:13:48	0.038	0.300	0.155	6.2
AUG-06-2014	04:14:24	0.035	0.292	0.151	6.0
AUG-06-2014	04:15:00	0.033	0.284	0.147	5.9
AUG-06-2014	04:15:36	0.031	0.277	0.143	5.7
AUG-06-2014	04:16:12	0.029	0.270	0.139	5.6
AUG-06-2014	04:16:48	0.027	0.263	0.135	5.4
AUG-06-2014	04:17:24	0.024	0.247	0.131	5.2
AUG-06-2014	04:18:00	0.022	0.230	0.126	5.0
AUG-06-2014	04:18:36	0.019	0.216	0.122	4.9
AUG-06-2014	04:19:12	0.017	0.203	0.117	4.7
AUG-06-2014	04:19:48	0.015	0.191	0.114	4.5
AUG-06-2014	04:20:24	0.014	0.180	0.110	4.4
AUG-06-2014	04:21:00	0.013	0.171	0.107	4.3
AUG-06-2014	04:21:36	0.011	0.162	0.104	4.2
AUG-06-2014	04:22:12	0.010	0.154	0.101	4.0
AUG-06-2014	04:22:48	0.009	0.146	0.099	3.9
AUG-06-2014	04:23:24	0.009	0.139	0.096	3.8
AUG-06-2014	04:24:00	0.008	0.132	0.094	3.8
AUG-06-2014	04:24:36	0.007	0.127	0.092	3.7
AUG-06-2014	04:25:12	0.007	0.122	0.089	3.6
AUG-06-2014	04:25:48	0.006	0.117	0.088	3.5
AUG-06-2014	04:26:24	0.006	0.113	0.086	3.4
AUG-06-2014	04:27:00	0.006	0.108	0.084	3.4
AUG-06-2014	04:27:36	0.005	0.104	0.082	3.3
AUG-06-2014	04:28:12	0.005	0.101	0.081	3.2
AUG-06-2014	04:28:48	0.005	0.097	0.079	3.2
AUG-06-2014	04:29:24	0.004	0.094	0.078	3.1
AUG-06-2014	04:30:00	0.004	0.091	0.077	3.1
AUG-06-2014	04:30:36	0.004	0.088	0.075	3.0
AUG-06-2014	04:31:12	0.004	0.085	0.074	3.0
AUG-06-2014	04:31:48	0.003	0.082	0.073	2.9
AUG-06-2014	04:32:24	0.003	0.080	0.071	2.9
AUG-06-2014	04:33:00	0.003	0.078	0.070	2.8
AUG-06-2014	04:33:36	0.003	0.075	0.069	2.8
AUG-06-2014	04:34:12	0.003	0.073	0.068	2.7
AUG-06-2014	04:34:48	0.003	0.071	0.067	2.7
AUG-06-2014	04:35:24	0.002	0.069	0.066	2.6
AUG-06-2014	04:36:00	0.002	0.068	0.065	2.6
AUG-06-2014	04:36:36	0.002	0.066	0.064	2.6
AUG-06-2014	04:37:12	0.002	0.064	0.063	2.5
AUG-06-2014	04:37:48	0.002	0.063	0.062	2.5
AUG-06-2014	04:38:24	0.002	0.061	0.061	2.4
AUG-06-2014	04:39:00	0.002	0.060	0.060	2.4
AUG-06-2014	04:39:36	0.002	0.058	0.059	2.4
AUG-06-2014	04:40:12	0.002	0.057	0.058	2.3



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AUG-06-2014	04:40:48	0.002	0.056	0.058	2.3
AUG-06-2014	04:41:24	0.002	0.054	0.057	2.3
AUG-06-2014	04:42:00	0.001	0.053	0.056	2.2
AUG-06-2014	04:42:36	0.001	0.052	0.055	2.2
AUG-06-2014	04:43:12	0.001	0.051	0.054	2.2
AUG-06-2014	04:43:48	0.001	0.050	0.054	2.1
AUG-06-2014	04:44:24	0.001	0.049	0.053	2.1
AUG-06-2014	04:45:00	0.001	0.048	0.052	2.1
AUG-06-2014	04:45:36	0.001	0.047	0.052	2.1
AUG-06-2014	04:46:12	0.001	0.046	0.051	2.0
AUG-06-2014	04:46:48	0.001	0.045	0.050	2.0
AUG-06-2014	04:47:24	0.001	0.044	0.050	2.0
AUG-06-2014	04:48:00	0.001	0.044	0.049	2.0
AUG-06-2014	04:48:36	0.001	0.043	0.048	1.9
AUG-06-2014	04:49:12	0.001	0.042	0.048	1.9
AUG-06-2014	04:49:48	0.001	0.041	0.047	1.9
AUG-06-2014	04:50:24	0.001	0.040	0.047	1.9
AUG-06-2014	04:51:00	0.001	0.039	0.046	1.8
AUG-06-2014	04:51:36	0.001	0.039	0.045	1.8
AUG-06-2014	04:52:12	0.001	0.038	0.045	1.8
AUG-06-2014	04:52:48	0.001	0.037	0.044	1.8
AUG-06-2014	04:53:24	0.001	0.036	0.044	1.8
AUG-06-2014	04:54:00	0.001	0.036	0.043	1.7
AUG-06-2014	04:54:36	0.001	0.035	0.043	1.7
AUG-06-2014	04:55:12	0.001	0.034	0.042	1.7
AUG-06-2014	04:55:48	0.001	0.034	0.042	1.7
AUG-06-2014	04:56:24	0.001	0.033	0.041	1.6
AUG-06-2014	04:57:00	0.001	0.033	0.041	1.6
AUG-06-2014	04:57:36	0.001	0.032	0.040	1.6
AUG-06-2014	04:58:12	0.001	0.031	0.040	1.6
AUG-06-2014	04:58:48	0.001	0.031	0.039	1.6
AUG-06-2014	04:59:24	0.000	0.030	0.039	1.6
AUG-06-2014	05:00:00	0.000	0.030	0.038	1.5
AUG-06-2014	05:00:36	0.000	0.029	0.038	1.5
AUG-06-2014	05:01:12	0.000	0.029	0.037	1.5
AUG-06-2014	05:01:48	0.000	0.028	0.037	1.5
AUG-06-2014	05:02:24	0.000	0.028	0.037	1.5
AUG-06-2014	05:03:00	0.000	0.027	0.036	1.4
AUG-06-2014	05:03:36	0.000	0.027	0.036	1.4
AUG-06-2014	05:04:12	0.000	0.026	0.035	1.4
AUG-06-2014	05:04:48	0.000	0.026	0.035	1.4
AUG-06-2014	05:05:24	0.000	0.025	0.035	1.4
AUG-06-2014	05:06:00	0.000	0.025	0.034	1.4
AUG-06-2014	05:06:36	0.000	0.024	0.034	1.4
AUG-06-2014	05:07:12	0.000	0.024	0.033	1.3
AUG-06-2014	05:07:48	0.000	0.024	0.033	1.3
AUG-06-2014	05:08:24	0.000	0.023	0.033	1.3
AUG-06-2014	05:09:00	0.000	0.023	0.032	1.3
AUG-06-2014	05:09:36	0.000	0.022	0.032	1.3

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AUG-06-2014	05:10:12	0.000	0.022	0.032	1.3
AUG-06-2014	05:10:48	0.000	0.022	0.031	1.2
AUG-06-2014	05:11:24	0.000	0.021	0.031	1.2
AUG-06-2014	05:12:00	0.000	0.021	0.031	1.2
AUG-06-2014	05:12:36	0.000	0.021	0.030	1.2
AUG-06-2014	05:13:12	0.000	0.020	0.030	1.2
AUG-06-2014	05:13:48	0.000	0.020	0.030	1.2
AUG-06-2014	05:14:24	0.000	0.019	0.029	1.2
AUG-06-2014	05:15:00	0.000	0.019	0.029	1.2
AUG-06-2014	05:15:36	0.000	0.019	0.029	1.1
AUG-06-2014	05:16:12	0.000	0.018	0.028	1.1
AUG-06-2014	05:16:48	0.000	0.018	0.028	1.1
AUG-06-2014	05:17:24	0.000	0.018	0.028	1.1
AUG-06-2014	05:18:00	0.000	0.018	0.027	1.1
AUG-06-2014	05:18:36	0.000	0.017	0.027	1.1
AUG-06-2014	05:19:12	0.000	0.017	0.027	1.1
AUG-06-2014	05:19:48	0.000	0.017	0.027	1.1
AUG-06-2014	05:20:24	0.000	0.016	0.026	1.0
AUG-06-2014	05:21:00	0.000	0.016	0.026	1.0
AUG-06-2014	05:21:36	0.000	0.016	0.026	1.0
AUG-06-2014	05:22:12	0.000	0.016	0.025	1.0
AUG-06-2014	05:22:48	0.000	0.015	0.025	1.0
AUG-06-2014	05:23:24	0.000	0.015	0.025	1.0
AUG-06-2014	05:24:00	0.000	0.015	0.025	1.0
AUG-06-2014	05:24:36	0.000	0.014	0.024	1.0
AUG-06-2014	05:25:12	0.000	0.014	0.024	1.0
AUG-06-2014	05:25:48	0.000	0.014	0.024	1.0
AUG-06-2014	05:26:24	0.000	0.014	0.024	0.9
AUG-06-2014	05:27:00	0.000	0.013	0.023	0.9
AUG-06-2014	05:27:36	0.000	0.013	0.023	0.9
AUG-06-2014	05:28:12	0.000	0.013	0.023	0.9
AUG-06-2014	05:28:48	0.000	0.013	0.023	0.9
AUG-06-2014	05:29:24	0.000	0.013	0.022	0.9
AUG-06-2014	05:30:00	0.000	0.012	0.022	0.9
AUG-06-2014	05:30:36	0.000	0.012	0.022	0.9
AUG-06-2014	05:31:12	0.000	0.012	0.022	0.9
AUG-06-2014	05:31:48	0.000	0.012	0.021	0.9
AUG-06-2014	05:32:24	0.000	0.011	0.021	0.8
AUG-06-2014	05:33:00	0.000	0.011	0.021	0.8
AUG-06-2014	05:33:36	0.000	0.011	0.021	0.8
AUG-06-2014	05:34:12	0.000	0.011	0.020	0.8
AUG-06-2014	05:34:48	0.000	0.011	0.020	0.8
AUG-06-2014	05:35:24	0.000	0.010	0.020	0.8
AUG-06-2014	05:36:00	0.000	0.010	0.020	0.8
AUG-06-2014	05:36:36	0.000	0.010	0.020	0.8
AUG-06-2014	05:37:12	0.000	0.010	0.019	0.8
AUG-06-2014	05:37:48	0.000	0.010	0.019	0.8
AUG-06-2014	05:38:24	0.000	0.010	0.019	0.8
AUG-06-2014	05:39:00	0.000	0.009	0.019	0.8

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AUG-06-2014 05:39:36	0.000	0.009	0.019	0.7
AUG-06-2014 05:40:12	0.000	0.009	0.018	0.7
AUG-06-2014 05:40:48	0.000	0.009	0.018	0.7
AUG-06-2014 05:41:24	0.000	0.009	0.018	0.7
AUG-06-2014 05:42:00	0.000	0.008	0.018	0.7
AUG-06-2014 05:42:36	0.000	0.008	0.018	0.7
AUG-06-2014 05:43:12	0.000	0.008	0.017	0.7
AUG-06-2014 05:43:48	0.000	0.008	0.017	0.7
AUG-06-2014 05:44:24	0.000	0.008	0.017	0.7
AUG-06-2014 05:45:00	0.000	0.008	0.017	0.7
AUG-06-2014 05:45:36	0.000	0.008	0.017	0.7
AUG-06-2014 05:46:12	0.000	0.007	0.017	0.7
AUG-06-2014 05:46:48	0.000	0.007	0.016	0.7
AUG-06-2014 05:47:24	0.000	0.007	0.016	0.6
AUG-06-2014 05:48:00	0.000	0.007	0.016	0.6
AUG-06-2014 05:48:36	0.000	0.007	0.016	0.6
AUG-06-2014 05:49:12	0.000	0.007	0.016	0.6
AUG-06-2014 05:49:48	0.000	0.007	0.015	0.6
AUG-06-2014 05:50:24	0.000	0.006	0.015	0.6
AUG-06-2014 05:51:00	0.000	0.006	0.015	0.6
AUG-06-2014 05:51:36	0.000	0.006	0.015	0.6
AUG-06-2014 05:52:12	0.000	0.006	0.015	0.6
AUG-06-2014 05:52:48	0.000	0.006	0.015	0.6
AUG-06-2014 05:53:24	0.000	0.006	0.014	0.6
AUG-06-2014 05:54:00	0.000	0.006	0.014	0.6
AUG-06-2014 05:54:36	0.000	0.005	0.014	0.6
AUG-06-2014 05:55:12	0.000	0.005	0.014	0.6
AUG-06-2014 05:55:48	0.000	0.005	0.014	0.6
AUG-06-2014 05:56:24	0.000	0.005	0.014	0.5
AUG-06-2014 05:57:00	0.000	0.005	0.014	0.5
AUG-06-2014 05:57:36	0.000	0.005	0.013	0.5
AUG-06-2014 05:58:12	0.000	0.005	0.013	0.5
AUG-06-2014 05:58:48	0.000	0.005	0.013	0.5
AUG-06-2014 05:59:24	0.000	0.005	0.013	0.5
AUG-06-2014 06:00:00	0.000	0.004	0.013	0.5
AUG-06-2014 06:00:36	0.000	0.004	0.013	0.5
AUG-06-2014 06:01:12	0.000	0.004	0.012	0.5
AUG-06-2014 06:01:48	0.000	0.004	0.012	0.5
AUG-06-2014 06:02:24	0.000	0.004	0.012	0.5
AUG-06-2014 06:03:00	0.000	0.004	0.012	0.5
AUG-06-2014 06:03:36	0.000	0.004	0.012	0.5
AUG-06-2014 06:04:12	0.000	0.004	0.012	0.5
AUG-06-2014 06:04:48	0.000	0.004	0.012	0.5
AUG-06-2014 06:05:24	0.000	0.004	0.012	0.5
AUG-06-2014 06:06:00	0.000	0.004	0.011	0.5
AUG-06-2014 06:06:36	0.000	0.003	0.011	0.4
AUG-06-2014 06:07:12	0.000	0.003	0.011	0.4
AUG-06-2014 06:07:48	0.000	0.003	0.011	0.4
AUG-06-2014 06:08:24	0.000	0.003	0.011	0.4

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AUG-06-2014 06:09:00	0.000	0.003	0.011	0.4
AUG-06-2014 06:09:36	0.000	0.003	0.011	0.4
AUG-06-2014 06:10:12	0.000	0.003	0.010	0.4
AUG-06-2014 06:10:48	0.000	0.003	0.010	0.4
AUG-06-2014 06:11:24	0.000	0.003	0.010	0.4
AUG-06-2014 06:12:00	0.000	0.003	0.010	0.4
AUG-06-2014 06:12:36	0.000	0.000	0.010	0.4
AUG-06-2014 06:13:12	0.000	0.000	0.010	0.4
AUG-06-2014 06:13:48	0.000	0.000	0.010	0.4
AUG-06-2014 06:14:24	0.000	0.000	0.010	0.4
AUG-06-2014 06:15:00	0.000	0.000	0.010	0.4
AUG-06-2014 06:15:36	0.000	0.000	0.009	0.4
AUG-06-2014 06:16:12	0.000	0.000	0.009	0.4
AUG-06-2014 06:16:48	0.000	0.000	0.009	0.4
AUG-06-2014 06:17:24	0.000	0.000	0.009	0.4
AUG-06-2014 06:18:00	0.000	0.000	0.009	0.4
AUG-06-2014 06:18:36	0.000	0.000	0.009	0.4
AUG-06-2014 06:19:12	0.000	0.000	0.009	0.3
AUG-06-2014 06:19:48	0.000	0.000	0.009	0.3
AUG-06-2014 06:20:24	0.000	0.000	0.008	0.3
AUG-06-2014 06:21:00	0.000	0.000	0.008	0.3
AUG-06-2014 06:21:36	0.000	0.000	0.008	0.3
AUG-06-2014 06:22:12	0.000	0.000	0.008	0.3
AUG-06-2014 06:22:48	0.000	0.000	0.008	0.3
AUG-06-2014 06:23:24	0.000	0.000	0.008	0.3
AUG-06-2014 06:24:00	0.000	0.000	0.008	0.3
AUG-06-2014 06:24:36	0.000	0.000	0.008	0.3
AUG-06-2014 06:25:12	0.000	0.000	0.008	0.3
AUG-06-2014 06:25:48	0.000	0.000	0.008	0.3
AUG-06-2014 06:26:24	0.000	0.000	0.007	0.3
AUG-06-2014 06:27:00	0.000	0.000	0.007	0.3
AUG-06-2014 06:27:36	0.000	0.000	0.007	0.3
AUG-06-2014 06:28:12	0.000	0.000	0.007	0.3
AUG-06-2014 06:28:48	0.000	0.000	0.007	0.3
AUG-06-2014 06:29:24	0.000	0.000	0.007	0.3
AUG-06-2014 06:30:00	0.000	0.000	0.007	0.3
AUG-06-2014 06:30:36	0.000	0.000	0.007	0.3
AUG-06-2014 06:31:12	0.000	0.000	0.007	0.3
AUG-06-2014 06:31:48	0.000	0.000	0.007	0.3
AUG-06-2014 06:32:24	0.000	0.000	0.006	0.3
AUG-06-2014 06:33:00	0.000	0.000	0.006	0.3
AUG-06-2014 06:33:36	0.000	0.000	0.006	0.3
AUG-06-2014 06:34:12	0.000	0.000	0.006	0.2
AUG-06-2014 06:34:48	0.000	0.000	0.006	0.2
AUG-06-2014 06:35:24	0.000	0.000	0.006	0.2
AUG-06-2014 06:36:00	0.000	0.000	0.006	0.2
AUG-06-2014 06:36:36	0.000	0.000	0.006	0.2
AUG-06-2014 06:37:12	0.000	0.000	0.006	0.2
AUG-06-2014 06:37:48	0.000	0.000	0.006	0.2

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AUG-06-2014	06:38:24	0.000	0.000	0.006	0.2
AUG-06-2014	06:39:00	0.000	0.000	0.005	0.2
AUG-06-2014	06:39:36	0.000	0.000	0.005	0.2
AUG-06-2014	06:40:12	0.000	0.000	0.005	0.2
AUG-06-2014	06:40:48	0.000	0.000	0.005	0.2
AUG-06-2014	06:41:24	0.000	0.000	0.005	0.2
AUG-06-2014	06:42:00	0.000	0.000	0.005	0.2
AUG-06-2014	06:42:36	0.000	0.000	0.005	0.2
AUG-06-2014	06:43:12	0.000	0.000	0.005	0.2
AUG-06-2014	06:43:48	0.000	0.000	0.005	0.2
AUG-06-2014	06:44:24	0.000	0.000	0.005	0.2
AUG-06-2014	06:45:00	0.000	0.000	0.005	0.2
AUG-06-2014	06:45:36	0.000	0.000	0.005	0.2
AUG-06-2014	06:46:12	0.000	0.000	0.005	0.2
AUG-06-2014	06:46:48	0.000	0.000	0.004	0.2
AUG-06-2014	06:47:24	0.000	0.000	0.004	0.2
AUG-06-2014	06:48:00	0.000	0.000	0.004	0.2
AUG-06-2014	06:48:36	0.000	0.000	0.004	0.2
AUG-06-2014	06:49:12	0.000	0.000	0.004	0.2
AUG-06-2014	06:49:48	0.000	0.000	0.004	0.2
AUG-06-2014	06:50:24	0.000	0.000	0.004	0.2
AUG-06-2014	06:51:00	0.000	0.000	0.004	0.2
AUG-06-2014	06:51:36	0.000	0.000	0.004	0.2
AUG-06-2014	06:52:12	0.000	0.000	0.004	0.2
AUG-06-2014	06:52:48	0.000	0.000	0.004	0.1
AUG-06-2014	06:53:24	0.000	0.000	0.004	0.1
AUG-06-2014	06:54:00	0.000	0.000	0.004	0.1
AUG-06-2014	06:54:36	0.000	0.000	0.004	0.1
AUG-06-2014	06:55:12	0.000	0.000	0.003	0.1
AUG-06-2014	06:55:48	0.000	0.000	0.003	0.1
AUG-06-2014	06:56:24	0.000	0.000	0.003	0.1
AUG-06-2014	06:57:00	0.000	0.000	0.003	0.1
AUG-06-2014	06:57:36	0.000	0.000	0.003	0.1
AUG-06-2014	06:58:12	0.000	0.000	0.003	0.1
AUG-06-2014	06:58:48	0.000	0.000	0.003	0.1
AUG-06-2014	06:59:24	0.000	0.000	0.003	0.1
AUG-06-2014	07:00:00	0.000	0.000	0.003	0.1
AUG-06-2014	07:00:36	0.000	0.000	0.003	0.1
AUG-06-2014	07:01:12	0.000	0.000	0.003	0.1
AUG-06-2014	07:01:48	0.000	0.000	0.003	0.1
AUG-06-2014	07:02:24	0.000	0.000	0.003	0.1
AUG-06-2014	07:03:00	0.000	0.000	0.003	0.1
AUG-06-2014	07:03:36	0.000	0.000	0.003	0.1
AUG-06-2014	07:04:12	0.000	0.000	0.003	0.1
AUG-06-2014	07:04:48	0.000	0.000	0.002	0.1
AUG-06-2014	07:05:24	0.000	0.000	0.002	0.1
AUG-06-2014	07:06:00	0.000	0.000	0.002	0.1
AUG-06-2014	07:06:36	0.000	0.000	0.002	0.1
AUG-06-2014	07:07:12	0.000	0.000	0.002	0.1

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AUG-06-2014 07:07:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:08:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:09:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:09:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:10:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:10:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:11:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:12:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:12:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:13:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:13:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:14:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:15:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:15:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:16:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:16:48	0.000	0.000	0.001	0.1
AUG-06-2014 07:17:24	0.000	0.000	0.001	0.1
AUG-06-2014 07:18:00	0.000	0.000	0.001	0.1
AUG-06-2014 07:18:36	0.000	0.000	0.001	0.1
AUG-06-2014 07:19:12	0.000	0.000	0.001	0.1
AUG-06-2014 07:19:48	0.000	0.000	0.001	0.1
AUG-06-2014 07:20:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:21:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:21:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:22:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:22:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:23:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:24:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:24:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:25:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:25:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:26:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:27:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:27:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:28:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:28:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:29:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:30:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:30:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:31:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:31:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:32:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:33:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:33:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:34:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:34:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:35:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:36:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:36:36	0.000	0.000	0.000	0.0

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AUG-06-2014 07:37:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:37:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:38:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:39:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:39:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:40:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:40:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:41:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:42:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:42:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:43:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:43:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:44:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:45:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:45:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:46:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:46:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:47:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:48:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:48:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:49:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:49:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:50:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:51:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:51:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:52:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:52:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:53:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:54:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:54:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:55:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:55:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:56:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:57:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:57:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:58:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:58:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:59:24	0.000	0.000	0.000	0.0
AUG-06-2014 08:00:00	0.000	0.000	0.000	0.0

&lt;&lt;&lt; Link 2 &gt;&gt;&gt;

Date	Time	Flow CFS	Velocity ft/sec	Depth feet	Percent Full
AUG-06-2014	00:00:36	0.000	0.000	0.000	0.0
AUG-06-2014	00:01:12	0.000	0.000	0.000	0.0
AUG-06-2014	00:01:48	0.000	0.000	0.000	0.0

		swmm.RPT			
AUG-06-2014	00:02:24	0.000	0.000	0.000	0.0
AUG-06-2014	00:03:00	0.000	0.000	0.000	0.0
AUG-06-2014	00:03:36	0.000	0.000	0.000	0.0
AUG-06-2014	00:04:12	0.000	0.000	0.005	0.2
AUG-06-2014	00:04:48	0.001	0.206	0.019	0.8
AUG-06-2014	00:05:24	0.003	0.269	0.033	1.3
AUG-06-2014	00:06:00	0.007	0.338	0.048	1.9
AUG-06-2014	00:06:36	0.015	0.420	0.066	2.7
AUG-06-2014	00:07:12	0.027	0.504	0.086	3.5
AUG-06-2014	00:07:48	0.044	0.591	0.109	4.3
AUG-06-2014	00:08:24	0.069	0.678	0.133	5.3
AUG-06-2014	00:09:00	0.100	0.765	0.159	6.3
AUG-06-2014	00:09:36	0.141	0.851	0.186	7.4
AUG-06-2014	00:10:12	0.193	0.936	0.215	8.6
AUG-06-2014	00:10:48	0.254	1.017	0.246	9.8
AUG-06-2014	00:11:24	0.324	1.092	0.277	11.1
AUG-06-2014	00:12:00	0.400	1.159	0.307	12.3
AUG-06-2014	00:12:36	0.480	1.218	0.336	13.4
AUG-06-2014	00:13:12	0.562	1.269	0.364	14.6
AUG-06-2014	00:13:48	0.643	1.310	0.391	15.6
AUG-06-2014	00:14:24	0.721	1.345	0.416	16.6
AUG-06-2014	00:15:00	0.794	1.371	0.438	17.5
AUG-06-2014	00:15:36	0.854	1.383	0.459	18.3
AUG-06-2014	00:16:12	0.871	1.334	0.477	19.1
AUG-06-2014	00:16:48	0.899	1.311	0.493	19.7
AUG-06-2014	00:17:24	0.933	1.302	0.509	20.4
AUG-06-2014	00:18:00	0.970	1.301	0.523	20.9
AUG-06-2014	00:18:36	1.011	1.306	0.537	21.5
AUG-06-2014	00:19:12	1.051	1.313	0.550	22.0
AUG-06-2014	00:19:48	1.129	1.349	0.567	22.7
AUG-06-2014	00:20:24	1.188	1.367	0.583	23.3
AUG-06-2014	00:21:00	1.233	1.374	0.596	23.8
AUG-06-2014	00:21:36	1.267	1.374	0.607	24.3
AUG-06-2014	00:22:12	1.295	1.374	0.617	24.7
AUG-06-2014	00:22:48	1.323	1.376	0.626	25.0
AUG-06-2014	00:23:24	1.356	1.383	0.634	25.4
AUG-06-2014	00:24:00	1.405	1.401	0.645	25.8
AUG-06-2014	00:24:36	1.445	1.412	0.654	26.2
AUG-06-2014	00:25:12	1.482	1.420	0.663	26.5
AUG-06-2014	00:25:48	1.517	1.428	0.672	26.9
AUG-06-2014	00:26:24	1.552	1.436	0.680	27.2
AUG-06-2014	00:27:00	1.587	1.444	0.688	27.5
AUG-06-2014	00:27:36	1.622	1.453	0.696	27.8
AUG-06-2014	00:28:12	1.657	1.461	0.704	28.1
AUG-06-2014	00:28:48	1.686	1.467	0.711	28.4
AUG-06-2014	00:29:24	1.707	1.468	0.716	28.7
AUG-06-2014	00:30:00	1.730	1.472	0.722	28.9
AUG-06-2014	00:30:36	1.756	1.478	0.728	29.1
AUG-06-2014	00:31:12	1.785	1.486	0.734	29.3



		swmm.RPT			
AUG-06-2014 00:31:48	1.812	1.492	0.739	29.6	
AUG-06-2014 00:32:24	1.837	1.498	0.745	29.8	
AUG-06-2014 00:33:00	1.866	1.505	0.751	30.0	
AUG-06-2014 00:33:36	1.897	1.513	0.756	30.3	
AUG-06-2014 00:34:12	1.928	1.521	0.763	30.5	
AUG-06-2014 00:34:48	1.960	1.529	0.769	30.7	
AUG-06-2014 00:35:24	1.993	1.537	0.775	31.0	
AUG-06-2014 00:36:00	2.034	1.549	0.782	31.3	
AUG-06-2014 00:36:36	2.080	1.562	0.790	31.6	
AUG-06-2014 00:37:12	2.124	1.573	0.798	31.9	
AUG-06-2014 00:37:48	2.171	1.585	0.807	32.3	
AUG-06-2014 00:38:24	2.222	1.597	0.816	32.6	
AUG-06-2014 00:39:00	2.271	1.608	0.825	33.0	
AUG-06-2014 00:39:36	2.416	1.659	0.843	33.7	
AUG-06-2014 00:40:12	2.508	1.679	0.859	34.4	
AUG-06-2014 00:40:48	2.568	1.684	0.872	34.9	
AUG-06-2014 00:41:24	2.613	1.685	0.883	35.3	
AUG-06-2014 00:42:00	2.648	1.686	0.891	35.7	
AUG-06-2014 00:42:36	2.680	1.687	0.899	36.0	
AUG-06-2014 00:43:12	2.709	1.689	0.905	36.2	
AUG-06-2014 00:43:48	2.739	1.692	0.911	36.5	
AUG-06-2014 00:44:24	2.770	1.697	0.917	36.7	
AUG-06-2014 00:45:00	2.813	1.706	0.924	37.0	
AUG-06-2014 00:45:36	2.873	1.721	0.932	37.3	
AUG-06-2014 00:46:12	2.924	1.730	0.941	37.6	
AUG-06-2014 00:46:48	2.980	1.742	0.949	38.0	
AUG-06-2014 00:47:24	3.036	1.752	0.958	38.3	
AUG-06-2014 00:48:00	3.083	1.759	0.967	38.7	
AUG-06-2014 00:48:36	3.131	1.766	0.975	39.0	
AUG-06-2014 00:49:12	3.181	1.775	0.983	39.3	
AUG-06-2014 00:49:48	3.224	1.780	0.991	39.6	
AUG-06-2014 00:50:24	3.272	1.788	0.998	39.9	
AUG-06-2014 00:51:00	3.302	1.790	1.004	40.2	
AUG-06-2014 00:51:36	3.325	1.790	1.009	40.4	
AUG-06-2014 00:52:12	3.349	1.792	1.014	40.6	
AUG-06-2014 00:52:48	3.374	1.795	1.018	40.7	
AUG-06-2014 00:53:24	3.401	1.799	1.023	40.9	
AUG-06-2014 00:54:00	3.432	1.805	1.027	41.1	
AUG-06-2014 00:54:36	3.472	1.812	1.033	41.3	
AUG-06-2014 00:55:12	3.529	1.825	1.040	41.6	
AUG-06-2014 00:55:48	3.586	1.835	1.048	41.9	
AUG-06-2014 00:56:24	3.638	1.844	1.056	42.3	
AUG-06-2014 00:57:00	3.690	1.852	1.064	42.6	
AUG-06-2014 00:57:36	3.727	1.856	1.071	42.8	
AUG-06-2014 00:58:12	3.777	1.864	1.078	43.1	
AUG-06-2014 00:58:48	3.828	1.872	1.086	43.4	
AUG-06-2014 00:59:24	3.865	1.875	1.092	43.7	
AUG-06-2014 01:00:00	3.899	1.879	1.098	43.9	
AUG-06-2014 01:00:36	3.940	1.885	1.104	44.2	

		swmm.RPT			
AUG-06-2014	01:01:12	3.987	1.892	1.111	44.4
AUG-06-2014	01:01:48	4.023	1.896	1.117	44.7
AUG-06-2014	01:02:24	4.050	1.898	1.122	44.9
AUG-06-2014	01:03:00	4.103	1.907	1.129	45.1
AUG-06-2014	01:03:36	4.143	1.912	1.135	45.4
AUG-06-2014	01:04:12	4.181	1.917	1.140	45.6
AUG-06-2014	01:04:48	4.219	1.922	1.146	45.9
AUG-06-2014	01:05:24	4.265	1.929	1.153	46.1
AUG-06-2014	01:06:00	4.302	1.933	1.158	46.3
AUG-06-2014	01:06:36	4.341	1.938	1.164	46.6
AUG-06-2014	01:07:12	4.382	1.943	1.170	46.8
AUG-06-2014	01:07:48	4.421	1.948	1.176	47.0
AUG-06-2014	01:08:24	4.480	1.959	1.183	47.3
AUG-06-2014	01:09:00	4.598	1.981	1.197	47.9
AUG-06-2014	01:09:36	4.637	1.981	1.205	48.2
AUG-06-2014	01:10:12	4.661	1.979	1.210	48.4
AUG-06-2014	01:10:48	4.691	1.981	1.215	48.6
AUG-06-2014	01:11:24	4.708	1.980	1.219	48.8
AUG-06-2014	01:12:00	4.730	1.982	1.223	48.9
AUG-06-2014	01:12:36	4.755	1.985	1.227	49.1
AUG-06-2014	01:13:12	4.785	1.989	1.231	49.2
AUG-06-2014	01:13:48	4.818	1.994	1.235	49.4
AUG-06-2014	01:14:24	4.854	1.999	1.240	49.6
AUG-06-2014	01:15:00	4.891	2.004	1.245	49.8
AUG-06-2014	01:15:36	4.930	2.009	1.250	50.0
AUG-06-2014	01:16:12	4.972	2.014	1.256	50.2
AUG-06-2014	01:16:48	5.005	2.017	1.261	50.4
AUG-06-2014	01:17:24	5.055	2.025	1.267	50.7
AUG-06-2014	01:18:00	5.094	2.029	1.273	50.9
AUG-06-2014	01:18:36	5.124	2.031	1.277	51.1
AUG-06-2014	01:19:12	5.170	2.037	1.283	51.3
AUG-06-2014	01:19:48	5.218	2.044	1.289	51.6
AUG-06-2014	01:20:24	5.266	2.049	1.296	51.8
AUG-06-2014	01:21:00	5.305	2.053	1.302	52.1
AUG-06-2014	01:21:36	5.379	2.064	1.311	52.4
AUG-06-2014	01:22:12	5.413	2.065	1.317	52.7
AUG-06-2014	01:22:48	5.434	2.065	1.321	52.8
AUG-06-2014	01:23:24	5.454	2.064	1.325	53.0
AUG-06-2014	01:24:00	5.515	2.075	1.331	53.3
AUG-06-2014	01:24:36	5.557	2.080	1.337	53.5
AUG-06-2014	01:25:12	5.603	2.084	1.344	53.7
AUG-06-2014	01:25:48	5.633	2.086	1.348	53.9
AUG-06-2014	01:26:24	5.674	2.091	1.354	54.2
AUG-06-2014	01:27:00	5.689	2.090	1.357	54.3
AUG-06-2014	01:27:36	5.732	2.097	1.362	54.5
AUG-06-2014	01:28:12	5.778	2.103	1.367	54.7
AUG-06-2014	01:28:48	5.800	2.103	1.372	54.9
AUG-06-2014	01:29:24	5.843	2.108	1.377	55.1
AUG-06-2014	01:30:00	5.910	2.119	1.384	55.4

		swmm.RPT			
AUG-06-2014	01:30:36	5.933	2.118	1.389	55.6
AUG-06-2014	01:31:12	5.971	2.121	1.395	55.8
AUG-06-2014	01:31:48	6.035	2.130	1.402	56.1
AUG-06-2014	01:32:24	6.060	2.131	1.406	56.3
AUG-06-2014	01:33:00	6.107	2.136	1.412	56.5
AUG-06-2014	01:33:36	6.144	2.139	1.418	56.7
AUG-06-2014	01:34:12	6.187	2.143	1.424	56.9
AUG-06-2014	01:34:48	6.226	2.147	1.429	57.2
AUG-06-2014	01:35:24	6.268	2.151	1.435	57.4
AUG-06-2014	01:36:00	6.309	2.155	1.440	57.6
AUG-06-2014	01:36:36	6.352	2.159	1.446	57.8
AUG-06-2014	01:37:12	6.390	2.163	1.451	58.0
AUG-06-2014	01:37:48	6.428	2.166	1.456	58.3
AUG-06-2014	01:38:24	6.464	2.169	1.462	58.5
AUG-06-2014	01:39:00	6.504	2.173	1.467	58.7
AUG-06-2014	01:39:36	6.543	2.177	1.472	58.9
AUG-06-2014	01:40:12	6.580	2.180	1.477	59.1
AUG-06-2014	01:40:48	6.621	2.184	1.483	59.3
AUG-06-2014	01:41:24	6.658	2.187	1.488	59.5
AUG-06-2014	01:42:00	6.707	2.192	1.494	59.7
AUG-06-2014	01:42:36	6.745	2.195	1.499	60.0
AUG-06-2014	01:43:12	6.787	2.199	1.505	60.2
AUG-06-2014	01:43:48	6.826	2.203	1.510	60.4
AUG-06-2014	01:44:24	6.865	2.206	1.515	60.6
AUG-06-2014	01:45:00	6.900	2.209	1.520	60.8
AUG-06-2014	01:45:36	6.938	2.212	1.525	61.0
AUG-06-2014	01:46:12	6.893	2.199	1.524	61.0
AUG-06-2014	01:46:48	6.943	2.209	1.528	61.1
AUG-06-2014	01:47:24	7.037	2.224	1.537	61.5
AUG-06-2014	01:48:00	7.090	2.228	1.544	61.8
AUG-06-2014	01:48:36	7.137	2.232	1.551	62.0
AUG-06-2014	01:49:12	7.178	2.234	1.557	62.3
AUG-06-2014	01:49:48	7.079	2.211	1.552	62.1
AUG-06-2014	01:50:24	7.010	2.202	1.545	61.8
AUG-06-2014	01:51:00	7.126	2.226	1.552	62.1
AUG-06-2014	01:51:36	7.236	2.243	1.562	62.5
AUG-06-2014	01:52:12	7.321	2.251	1.573	62.9
AUG-06-2014	01:52:48	7.378	2.253	1.582	63.3
AUG-06-2014	01:53:24	7.426	2.254	1.590	63.6
AUG-06-2014	01:54:00	7.469	2.255	1.598	63.9
AUG-06-2014	01:54:36	7.514	2.257	1.605	64.2
AUG-06-2014	01:55:12	7.554	2.258	1.611	64.5
AUG-06-2014	01:55:48	7.595	2.260	1.618	64.7
AUG-06-2014	01:56:24	7.648	2.264	1.625	65.0
AUG-06-2014	01:57:00	7.688	2.266	1.632	65.3
AUG-06-2014	01:57:36	7.721	2.267	1.637	65.5
AUG-06-2014	01:58:12	7.754	2.268	1.642	65.7
AUG-06-2014	01:58:48	7.789	2.270	1.648	65.9
AUG-06-2014	01:59:24	7.826	2.272	1.653	66.1

		swmm.RPT			
AUG-06-2014	02:00:00	7.863	2.274	1.659	66.4
AUG-06-2014	02:00:36	7.900	2.276	1.664	66.6
AUG-06-2014	02:01:12	7.921	2.276	1.668	66.7
AUG-06-2014	02:01:48	7.924	2.274	1.670	66.8
AUG-06-2014	02:02:24	7.914	2.271	1.671	66.8
AUG-06-2014	02:03:00	7.896	2.267	1.669	66.8
AUG-06-2014	02:03:36	7.871	2.264	1.667	66.7
AUG-06-2014	02:04:12	7.843	2.261	1.664	66.5
AUG-06-2014	02:04:48	7.812	2.258	1.660	66.4
AUG-06-2014	02:05:24	7.777	2.255	1.655	66.2
AUG-06-2014	02:06:00	7.741	2.252	1.650	66.0
AUG-06-2014	02:06:36	7.700	2.249	1.644	65.8
AUG-06-2014	02:07:12	7.648	2.244	1.638	65.5
AUG-06-2014	02:07:48	7.609	2.242	1.632	65.3
AUG-06-2014	02:08:24	7.571	2.240	1.626	65.0
AUG-06-2014	02:09:00	7.530	2.238	1.620	64.8
AUG-06-2014	02:09:36	7.489	2.235	1.614	64.6
AUG-06-2014	02:10:12	7.451	2.233	1.608	64.3
AUG-06-2014	02:10:48	7.408	2.230	1.602	64.1
AUG-06-2014	02:11:24	7.366	2.227	1.596	63.8
AUG-06-2014	02:12:00	7.321	2.224	1.589	63.6
AUG-06-2014	02:12:36	7.278	2.221	1.583	63.3
AUG-06-2014	02:13:12	7.240	2.219	1.577	63.1
AUG-06-2014	02:13:48	7.198	2.217	1.571	62.8
AUG-06-2014	02:14:24	7.157	2.214	1.565	62.6
AUG-06-2014	02:15:00	7.114	2.210	1.559	62.4
AUG-06-2014	02:15:36	7.073	2.207	1.553	62.1
AUG-06-2014	02:16:12	7.017	2.201	1.546	61.9
AUG-06-2014	02:16:48	6.979	2.199	1.541	61.6
AUG-06-2014	02:17:24	6.934	2.194	1.535	61.4
AUG-06-2014	02:18:00	6.901	2.193	1.530	61.2
AUG-06-2014	02:18:36	6.859	2.188	1.524	61.0
AUG-06-2014	02:19:12	6.818	2.185	1.519	60.8
AUG-06-2014	02:19:48	6.777	2.181	1.513	60.5
AUG-06-2014	02:20:24	6.733	2.177	1.507	60.3
AUG-06-2014	02:21:00	6.703	2.175	1.503	60.1
AUG-06-2014	02:21:36	6.655	2.169	1.497	59.9
AUG-06-2014	02:22:12	6.617	2.166	1.492	59.7
AUG-06-2014	02:22:48	6.588	2.165	1.487	59.5
AUG-06-2014	02:23:24	6.538	2.158	1.481	59.3
AUG-06-2014	02:24:00	6.484	2.152	1.475	59.0
AUG-06-2014	02:24:36	6.450	2.149	1.470	58.8
AUG-06-2014	02:25:12	6.413	2.147	1.464	58.6
AUG-06-2014	02:25:48	6.357	2.140	1.458	58.3
AUG-06-2014	02:26:24	6.329	2.138	1.453	58.1
AUG-06-2014	02:27:00	6.287	2.134	1.448	57.9
AUG-06-2014	02:27:36	6.254	2.132	1.443	57.7
AUG-06-2014	02:28:12	6.221	2.129	1.438	57.5
AUG-06-2014	02:28:48	6.175	2.124	1.432	57.3

		swmm.RPT			
AUG-06-2014	02:29:24	6.131	2.118	1.427	57.1
AUG-06-2014	02:30:00	6.092	2.115	1.421	56.9
AUG-06-2014	02:30:36	6.044	2.109	1.415	56.6
AUG-06-2014	02:31:12	6.015	2.107	1.411	56.4
AUG-06-2014	02:31:48	5.976	2.103	1.405	56.2
AUG-06-2014	02:32:24	5.939	2.099	1.400	56.0
AUG-06-2014	02:33:00	5.893	2.094	1.394	55.8
AUG-06-2014	02:33:36	5.854	2.091	1.389	55.5
AUG-06-2014	02:34:12	5.807	2.085	1.383	55.3
AUG-06-2014	02:34:48	5.764	2.080	1.377	55.1
AUG-06-2014	02:35:24	5.723	2.075	1.371	54.9
AUG-06-2014	02:36:00	5.697	2.075	1.367	54.7
AUG-06-2014	02:36:36	5.656	2.070	1.361	54.5
AUG-06-2014	02:37:12	5.608	2.063	1.356	54.2
AUG-06-2014	02:37:48	5.565	2.059	1.349	54.0
AUG-06-2014	02:38:24	5.533	2.057	1.344	53.8
AUG-06-2014	02:39:00	5.495	2.052	1.339	53.6
AUG-06-2014	02:39:36	5.444	2.045	1.333	53.3
AUG-06-2014	02:40:12	5.406	2.041	1.327	53.1
AUG-06-2014	02:40:48	5.376	2.039	1.323	52.9
AUG-06-2014	02:41:24	5.341	2.036	1.318	52.7
AUG-06-2014	02:42:00	5.311	2.033	1.313	52.5
AUG-06-2014	02:42:36	5.249	2.022	1.306	52.3
AUG-06-2014	02:43:12	5.209	2.019	1.300	52.0
AUG-06-2014	02:43:48	5.176	2.016	1.295	51.8
AUG-06-2014	02:44:24	5.142	2.013	1.290	51.6
AUG-06-2014	02:45:00	5.103	2.008	1.285	51.4
AUG-06-2014	02:45:36	5.067	2.004	1.280	51.2
AUG-06-2014	02:46:12	5.031	2.000	1.274	51.0
AUG-06-2014	02:46:48	4.992	1.995	1.269	50.8
AUG-06-2014	02:47:24	4.944	1.988	1.263	50.5
AUG-06-2014	02:48:00	4.909	1.985	1.258	50.3
AUG-06-2014	02:48:36	4.866	1.979	1.252	50.1
AUG-06-2014	02:49:12	4.828	1.975	1.246	49.8
AUG-06-2014	02:49:48	4.785	1.969	1.240	49.6
AUG-06-2014	02:50:24	4.751	1.966	1.235	49.4
AUG-06-2014	02:51:00	4.686	1.954	1.227	49.1
AUG-06-2014	02:51:36	4.647	1.950	1.221	48.9
AUG-06-2014	02:52:12	4.597	1.944	1.214	48.6
AUG-06-2014	02:52:48	4.561	1.940	1.209	48.3
AUG-06-2014	02:53:24	4.535	1.939	1.204	48.2
AUG-06-2014	02:54:00	4.499	1.934	1.199	47.9
AUG-06-2014	02:54:36	4.459	1.928	1.193	47.7
AUG-06-2014	02:55:12	4.413	1.921	1.187	47.5
AUG-06-2014	02:55:48	4.379	1.918	1.182	47.3
AUG-06-2014	02:56:24	4.341	1.913	1.176	47.0
AUG-06-2014	02:57:00	4.302	1.908	1.170	46.8
AUG-06-2014	02:57:36	4.264	1.902	1.165	46.6
AUG-06-2014	02:58:12	4.224	1.897	1.159	46.4

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AUG-06-2014 02:58:48	4.182	1.890	1.153	46.1	
AUG-06-2014 02:59:24	4.139	1.884	1.147	45.9	
AUG-06-2014 03:00:00	4.110	1.882	1.142	45.7	
AUG-06-2014 03:00:36	4.059	1.872	1.135	45.4	
AUG-06-2014 03:01:12	4.013	1.866	1.129	45.1	
AUG-06-2014 03:01:48	4.223	1.931	1.143	45.7	
AUG-06-2014 03:02:24	4.254	1.930	1.150	46.0	
AUG-06-2014 03:03:00	4.119	1.887	1.141	45.7	
AUG-06-2014 03:03:36	4.003	1.858	1.130	45.2	
AUG-06-2014 03:04:12	3.864	1.827	1.114	44.6	
AUG-06-2014 03:04:48	3.679	1.786	1.092	43.7	
AUG-06-2014 03:05:24	3.793	1.839	1.093	43.7	
AUG-06-2014 03:06:00	3.892	1.870	1.101	44.0	
AUG-06-2014 03:06:36	3.803	1.841	1.094	43.8	
AUG-06-2014 03:07:12	3.687	1.810	1.082	43.3	
AUG-06-2014 03:07:48	3.587	1.788	1.070	42.8	
AUG-06-2014 03:08:24	3.512	1.777	1.058	42.3	
AUG-06-2014 03:09:00	3.450	1.768	1.047	41.9	
AUG-06-2014 03:09:36	3.411	1.767	1.039	41.6	
AUG-06-2014 03:10:12	3.384	1.766	1.033	41.3	
AUG-06-2014 03:10:48	3.325	1.755	1.025	41.0	
AUG-06-2014 03:11:24	3.336	1.769	1.021	40.9	
AUG-06-2014 03:12:00	3.349	1.776	1.021	40.8	
AUG-06-2014 03:12:36	3.328	1.770	1.019	40.7	
AUG-06-2014 03:13:12	3.295	1.762	1.015	40.6	
AUG-06-2014 03:13:48	3.252	1.751	1.009	40.4	
AUG-06-2014 03:14:24	3.121	1.713	0.995	39.8	
AUG-06-2014 03:15:00	3.024	1.691	0.981	39.2	
AUG-06-2014 03:15:36	3.134	1.741	0.986	39.5	
AUG-06-2014 03:16:12	3.120	1.737	0.985	39.4	
AUG-06-2014 03:16:48	3.048	1.714	0.977	39.1	
AUG-06-2014 03:17:24	2.974	1.694	0.968	38.7	
AUG-06-2014 03:18:00	2.887	1.671	0.956	38.3	
AUG-06-2014 03:18:36	2.806	1.653	0.944	37.8	
AUG-06-2014 03:19:12	2.862	1.686	0.944	37.8	
AUG-06-2014 03:19:48	2.841	1.682	0.941	37.6	
AUG-06-2014 03:20:24	2.786	1.665	0.934	37.4	
AUG-06-2014 03:21:00	2.742	1.655	0.927	37.1	
AUG-06-2014 03:21:36	2.708	1.649	0.921	36.8	
AUG-06-2014 03:22:12	2.668	1.641	0.915	36.6	
AUG-06-2014 03:22:48	2.597	1.619	0.905	36.2	
AUG-06-2014 03:23:24	2.615	1.635	0.903	36.1	
AUG-06-2014 03:24:00	2.601	1.635	0.900	36.0	
AUG-06-2014 03:24:36	2.571	1.627	0.895	35.8	
AUG-06-2014 03:25:12	2.533	1.617	0.890	35.6	
AUG-06-2014 03:25:48	2.493	1.607	0.883	35.3	
AUG-06-2014 03:26:24	2.452	1.597	0.877	35.1	
AUG-06-2014 03:27:00	2.402	1.583	0.869	34.8	
AUG-06-2014 03:27:36	2.373	1.580	0.862	34.5	



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AUG-06-2014 03:28:12	2.353	1.579	0.858	34.3	
AUG-06-2014 03:28:48	2.318	1.570	0.852	34.1	
AUG-06-2014 03:29:24	2.277	1.559	0.845	33.8	
AUG-06-2014 03:30:00	2.235	1.548	0.838	33.5	
AUG-06-2014 03:30:36	2.185	1.534	0.830	33.2	
AUG-06-2014 03:31:12	2.125	1.516	0.820	32.8	
AUG-06-2014 03:31:48	2.115	1.521	0.815	32.6	
AUG-06-2014 03:32:24	2.087	1.516	0.809	32.4	
AUG-06-2014 03:33:00	2.049	1.506	0.803	32.1	
AUG-06-2014 03:33:36	2.006	1.494	0.795	31.8	
AUG-06-2014 03:34:12	1.963	1.482	0.787	31.5	
AUG-06-2014 03:34:48	1.920	1.469	0.779	31.2	
AUG-06-2014 03:35:24	1.853	1.445	0.769	30.7	
AUG-06-2014 03:36:00	1.845	1.453	0.764	30.5	
AUG-06-2014 03:36:36	1.822	1.449	0.758	30.3	
AUG-06-2014 03:37:12	1.784	1.438	0.751	30.0	
AUG-06-2014 03:37:48	1.740	1.424	0.743	29.7	
AUG-06-2014 03:38:24	1.695	1.409	0.734	29.4	
AUG-06-2014 03:39:00	1.649	1.394	0.725	29.0	
AUG-06-2014 03:39:36	1.604	1.380	0.716	28.7	
AUG-06-2014 03:40:12	1.560	1.366	0.707	28.3	
AUG-06-2014 03:40:48	1.511	1.350	0.697	27.9	
AUG-06-2014 03:41:24	1.454	1.328	0.686	27.5	
AUG-06-2014 03:42:00	1.427	1.325	0.678	27.1	
AUG-06-2014 03:42:36	1.388	1.313	0.669	26.8	
AUG-06-2014 03:43:12	1.345	1.297	0.660	26.4	
AUG-06-2014 03:43:48	1.300	1.281	0.650	26.0	
AUG-06-2014 03:44:24	1.256	1.265	0.640	25.6	
AUG-06-2014 03:45:00	1.214	1.249	0.630	25.2	
AUG-06-2014 03:45:36	1.169	1.232	0.620	24.8	
AUG-06-2014 03:46:12	1.130	1.219	0.610	24.4	
AUG-06-2014 03:46:48	1.097	1.208	0.601	24.0	
AUG-06-2014 03:47:24	1.058	1.192	0.591	23.7	
AUG-06-2014 03:48:00	1.019	1.176	0.582	23.3	
AUG-06-2014 03:48:36	0.981	1.160	0.572	22.9	
AUG-06-2014 03:49:12	0.944	1.143	0.562	22.5	
AUG-06-2014 03:49:48	0.907	1.127	0.552	22.1	
AUG-06-2014 03:50:24	0.871	1.110	0.542	21.7	
AUG-06-2014 03:51:00	0.834	1.092	0.532	21.3	
AUG-06-2014 03:51:36	0.792	1.069	0.521	20.8	
AUG-06-2014 03:52:12	0.764	1.058	0.512	20.5	
AUG-06-2014 03:52:48	0.732	1.042	0.502	20.1	
AUG-06-2014 03:53:24	0.697	1.022	0.492	19.7	
AUG-06-2014 03:54:00	0.661	1.000	0.481	19.2	
AUG-06-2014 03:54:36	0.626	0.978	0.470	18.8	
AUG-06-2014 03:55:12	0.590	0.955	0.459	18.3	
AUG-06-2014 03:55:48	0.554	0.931	0.447	17.9	
AUG-06-2014 03:56:24	0.518	0.904	0.435	17.4	
AUG-06-2014 03:57:00	0.484	0.879	0.423	16.9	

		swmm.RPT			
AUG-06-2014	03:57:36	0.448	0.850	0.411	16.4
AUG-06-2014	03:58:12	0.416	0.825	0.399	15.9
AUG-06-2014	03:58:48	0.384	0.797	0.386	15.4
AUG-06-2014	03:59:24	0.353	0.767	0.374	14.9
AUG-06-2014	04:00:00	0.322	0.738	0.361	14.4
AUG-06-2014	04:00:36	0.292	0.707	0.347	13.9
AUG-06-2014	04:01:12	0.263	0.673	0.334	13.4
AUG-06-2014	04:01:48	0.235	0.638	0.321	12.8
AUG-06-2014	04:02:24	0.211	0.608	0.308	12.3
AUG-06-2014	04:03:00	0.188	0.578	0.295	11.8
AUG-06-2014	04:03:36	0.168	0.548	0.283	11.3
AUG-06-2014	04:04:12	0.150	0.521	0.271	10.8
AUG-06-2014	04:04:48	0.136	0.501	0.260	10.4
AUG-06-2014	04:05:24	0.123	0.482	0.250	10.0
AUG-06-2014	04:06:00	0.111	0.461	0.240	9.6
AUG-06-2014	04:06:36	0.101	0.443	0.231	9.2
AUG-06-2014	04:07:12	0.092	0.425	0.222	8.9
AUG-06-2014	04:07:48	0.083	0.409	0.214	8.6
AUG-06-2014	04:08:24	0.077	0.397	0.206	8.3
AUG-06-2014	04:09:00	0.071	0.386	0.199	8.0
AUG-06-2014	04:09:36	0.065	0.373	0.193	7.7
AUG-06-2014	04:10:12	0.060	0.360	0.186	7.5
AUG-06-2014	04:10:48	0.055	0.349	0.180	7.2
AUG-06-2014	04:11:24	0.051	0.338	0.175	7.0
AUG-06-2014	04:12:00	0.047	0.327	0.169	6.8
AUG-06-2014	04:12:36	0.044	0.317	0.164	6.6
AUG-06-2014	04:13:12	0.041	0.308	0.159	6.4
AUG-06-2014	04:13:48	0.038	0.300	0.155	6.2
AUG-06-2014	04:14:24	0.035	0.292	0.151	6.0
AUG-06-2014	04:15:00	0.033	0.284	0.147	5.9
AUG-06-2014	04:15:36	0.031	0.277	0.143	5.7
AUG-06-2014	04:16:12	0.029	0.270	0.139	5.6
AUG-06-2014	04:16:48	0.027	0.263	0.135	5.4
AUG-06-2014	04:17:24	0.024	0.247	0.131	5.2
AUG-06-2014	04:18:00	0.022	0.230	0.126	5.0
AUG-06-2014	04:18:36	0.019	0.216	0.122	4.9
AUG-06-2014	04:19:12	0.017	0.203	0.117	4.7
AUG-06-2014	04:19:48	0.015	0.191	0.114	4.5
AUG-06-2014	04:20:24	0.014	0.180	0.110	4.4
AUG-06-2014	04:21:00	0.013	0.171	0.107	4.3
AUG-06-2014	04:21:36	0.011	0.162	0.104	4.2
AUG-06-2014	04:22:12	0.010	0.154	0.101	4.0
AUG-06-2014	04:22:48	0.009	0.146	0.099	3.9
AUG-06-2014	04:23:24	0.009	0.139	0.096	3.8
AUG-06-2014	04:24:00	0.008	0.132	0.094	3.8
AUG-06-2014	04:24:36	0.007	0.127	0.092	3.7
AUG-06-2014	04:25:12	0.007	0.122	0.089	3.6
AUG-06-2014	04:25:48	0.006	0.117	0.088	3.5
AUG-06-2014	04:26:24	0.006	0.113	0.086	3.4



			swmm.RPT		
AUG-06-2014	04:27:00	0.006	0.108	0.084	3.4
AUG-06-2014	04:27:36	0.005	0.104	0.082	3.3
AUG-06-2014	04:28:12	0.005	0.101	0.081	3.2
AUG-06-2014	04:28:48	0.005	0.097	0.079	3.2
AUG-06-2014	04:29:24	0.004	0.094	0.078	3.1
AUG-06-2014	04:30:00	0.004	0.091	0.077	3.1
AUG-06-2014	04:30:36	0.004	0.088	0.075	3.0
AUG-06-2014	04:31:12	0.004	0.085	0.074	3.0
AUG-06-2014	04:31:48	0.003	0.082	0.073	2.9
AUG-06-2014	04:32:24	0.003	0.080	0.071	2.9
AUG-06-2014	04:33:00	0.003	0.078	0.070	2.8
AUG-06-2014	04:33:36	0.003	0.075	0.069	2.8
AUG-06-2014	04:34:12	0.003	0.073	0.068	2.7
AUG-06-2014	04:34:48	0.003	0.071	0.067	2.7
AUG-06-2014	04:35:24	0.002	0.069	0.066	2.6
AUG-06-2014	04:36:00	0.002	0.068	0.065	2.6
AUG-06-2014	04:36:36	0.002	0.066	0.064	2.6
AUG-06-2014	04:37:12	0.002	0.064	0.063	2.5
AUG-06-2014	04:37:48	0.002	0.063	0.062	2.5
AUG-06-2014	04:38:24	0.002	0.061	0.061	2.4
AUG-06-2014	04:39:00	0.002	0.060	0.060	2.4
AUG-06-2014	04:39:36	0.002	0.058	0.059	2.4
AUG-06-2014	04:40:12	0.002	0.057	0.058	2.3
AUG-06-2014	04:40:48	0.002	0.056	0.058	2.3
AUG-06-2014	04:41:24	0.002	0.054	0.057	2.3
AUG-06-2014	04:42:00	0.001	0.053	0.056	2.2
AUG-06-2014	04:42:36	0.001	0.052	0.055	2.2
AUG-06-2014	04:43:12	0.001	0.051	0.054	2.2
AUG-06-2014	04:43:48	0.001	0.050	0.054	2.1
AUG-06-2014	04:44:24	0.001	0.049	0.053	2.1
AUG-06-2014	04:45:00	0.001	0.048	0.052	2.1
AUG-06-2014	04:45:36	0.001	0.047	0.052	2.1
AUG-06-2014	04:46:12	0.001	0.046	0.051	2.0
AUG-06-2014	04:46:48	0.001	0.045	0.050	2.0
AUG-06-2014	04:47:24	0.001	0.044	0.050	2.0
AUG-06-2014	04:48:00	0.001	0.044	0.049	2.0
AUG-06-2014	04:48:36	0.001	0.043	0.048	1.9
AUG-06-2014	04:49:12	0.001	0.042	0.048	1.9
AUG-06-2014	04:49:48	0.001	0.041	0.047	1.9
AUG-06-2014	04:50:24	0.001	0.040	0.047	1.9
AUG-06-2014	04:51:00	0.001	0.039	0.046	1.8
AUG-06-2014	04:51:36	0.001	0.039	0.045	1.8
AUG-06-2014	04:52:12	0.001	0.038	0.045	1.8
AUG-06-2014	04:52:48	0.001	0.037	0.044	1.8
AUG-06-2014	04:53:24	0.001	0.036	0.044	1.8
AUG-06-2014	04:54:00	0.001	0.036	0.043	1.7
AUG-06-2014	04:54:36	0.001	0.035	0.043	1.7
AUG-06-2014	04:55:12	0.001	0.034	0.042	1.7
AUG-06-2014	04:55:48	0.001	0.034	0.042	1.7

		swmm.RPT			
AUG-06-2014	04:56:24	0.001	0.033	0.041	1.6
AUG-06-2014	04:57:00	0.001	0.033	0.041	1.6
AUG-06-2014	04:57:36	0.001	0.032	0.040	1.6
AUG-06-2014	04:58:12	0.001	0.031	0.040	1.6
AUG-06-2014	04:58:48	0.001	0.031	0.039	1.6
AUG-06-2014	04:59:24	0.000	0.030	0.039	1.6
AUG-06-2014	05:00:00	0.000	0.030	0.038	1.5
AUG-06-2014	05:00:36	0.000	0.029	0.038	1.5
AUG-06-2014	05:01:12	0.000	0.029	0.037	1.5
AUG-06-2014	05:01:48	0.000	0.028	0.037	1.5
AUG-06-2014	05:02:24	0.000	0.028	0.037	1.5
AUG-06-2014	05:03:00	0.000	0.027	0.036	1.4
AUG-06-2014	05:03:36	0.000	0.027	0.036	1.4
AUG-06-2014	05:04:12	0.000	0.026	0.035	1.4
AUG-06-2014	05:04:48	0.000	0.026	0.035	1.4
AUG-06-2014	05:05:24	0.000	0.025	0.035	1.4
AUG-06-2014	05:06:00	0.000	0.025	0.034	1.4
AUG-06-2014	05:06:36	0.000	0.024	0.034	1.4
AUG-06-2014	05:07:12	0.000	0.024	0.033	1.3
AUG-06-2014	05:07:48	0.000	0.024	0.033	1.3
AUG-06-2014	05:08:24	0.000	0.023	0.033	1.3
AUG-06-2014	05:09:00	0.000	0.023	0.032	1.3
AUG-06-2014	05:09:36	0.000	0.022	0.032	1.3
AUG-06-2014	05:10:12	0.000	0.022	0.032	1.3
AUG-06-2014	05:10:48	0.000	0.022	0.031	1.2
AUG-06-2014	05:11:24	0.000	0.021	0.031	1.2
AUG-06-2014	05:12:00	0.000	0.021	0.031	1.2
AUG-06-2014	05:12:36	0.000	0.021	0.030	1.2
AUG-06-2014	05:13:12	0.000	0.020	0.030	1.2
AUG-06-2014	05:13:48	0.000	0.020	0.030	1.2
AUG-06-2014	05:14:24	0.000	0.019	0.029	1.2
AUG-06-2014	05:15:00	0.000	0.019	0.029	1.2
AUG-06-2014	05:15:36	0.000	0.019	0.029	1.1
AUG-06-2014	05:16:12	0.000	0.018	0.028	1.1
AUG-06-2014	05:16:48	0.000	0.018	0.028	1.1
AUG-06-2014	05:17:24	0.000	0.018	0.028	1.1
AUG-06-2014	05:18:00	0.000	0.018	0.027	1.1
AUG-06-2014	05:18:36	0.000	0.017	0.027	1.1
AUG-06-2014	05:19:12	0.000	0.017	0.027	1.1
AUG-06-2014	05:19:48	0.000	0.017	0.027	1.1
AUG-06-2014	05:20:24	0.000	0.016	0.026	1.0
AUG-06-2014	05:21:00	0.000	0.016	0.026	1.0
AUG-06-2014	05:21:36	0.000	0.016	0.026	1.0
AUG-06-2014	05:22:12	0.000	0.016	0.025	1.0
AUG-06-2014	05:22:48	0.000	0.015	0.025	1.0
AUG-06-2014	05:23:24	0.000	0.015	0.025	1.0
AUG-06-2014	05:24:00	0.000	0.015	0.025	1.0
AUG-06-2014	05:24:36	0.000	0.014	0.024	1.0
AUG-06-2014	05:25:12	0.000	0.014	0.024	1.0

			swmm.RPT		
AUG-06-2014	05:25:48	0.000	0.014	0.024	1.0
AUG-06-2014	05:26:24	0.000	0.014	0.024	0.9
AUG-06-2014	05:27:00	0.000	0.013	0.023	0.9
AUG-06-2014	05:27:36	0.000	0.013	0.023	0.9
AUG-06-2014	05:28:12	0.000	0.013	0.023	0.9
AUG-06-2014	05:28:48	0.000	0.013	0.023	0.9
AUG-06-2014	05:29:24	0.000	0.013	0.022	0.9
AUG-06-2014	05:30:00	0.000	0.012	0.022	0.9
AUG-06-2014	05:30:36	0.000	0.012	0.022	0.9
AUG-06-2014	05:31:12	0.000	0.012	0.022	0.9
AUG-06-2014	05:31:48	0.000	0.012	0.021	0.9
AUG-06-2014	05:32:24	0.000	0.011	0.021	0.8
AUG-06-2014	05:33:00	0.000	0.011	0.021	0.8
AUG-06-2014	05:33:36	0.000	0.011	0.021	0.8
AUG-06-2014	05:34:12	0.000	0.011	0.020	0.8
AUG-06-2014	05:34:48	0.000	0.011	0.020	0.8
AUG-06-2014	05:35:24	0.000	0.010	0.020	0.8
AUG-06-2014	05:36:00	0.000	0.010	0.020	0.8
AUG-06-2014	05:36:36	0.000	0.010	0.020	0.8
AUG-06-2014	05:37:12	0.000	0.010	0.019	0.8
AUG-06-2014	05:37:48	0.000	0.010	0.019	0.8
AUG-06-2014	05:38:24	0.000	0.010	0.019	0.8
AUG-06-2014	05:39:00	0.000	0.009	0.019	0.8
AUG-06-2014	05:39:36	0.000	0.009	0.019	0.7
AUG-06-2014	05:40:12	0.000	0.009	0.018	0.7
AUG-06-2014	05:40:48	0.000	0.009	0.018	0.7
AUG-06-2014	05:41:24	0.000	0.009	0.018	0.7
AUG-06-2014	05:42:00	0.000	0.008	0.018	0.7
AUG-06-2014	05:42:36	0.000	0.008	0.018	0.7
AUG-06-2014	05:43:12	0.000	0.008	0.017	0.7
AUG-06-2014	05:43:48	0.000	0.008	0.017	0.7
AUG-06-2014	05:44:24	0.000	0.008	0.017	0.7
AUG-06-2014	05:45:00	0.000	0.008	0.017	0.7
AUG-06-2014	05:45:36	0.000	0.008	0.017	0.7
AUG-06-2014	05:46:12	0.000	0.007	0.017	0.7
AUG-06-2014	05:46:48	0.000	0.007	0.016	0.7
AUG-06-2014	05:47:24	0.000	0.007	0.016	0.6
AUG-06-2014	05:48:00	0.000	0.007	0.016	0.6
AUG-06-2014	05:48:36	0.000	0.007	0.016	0.6
AUG-06-2014	05:49:12	0.000	0.007	0.016	0.6
AUG-06-2014	05:49:48	0.000	0.007	0.015	0.6
AUG-06-2014	05:50:24	0.000	0.006	0.015	0.6
AUG-06-2014	05:51:00	0.000	0.006	0.015	0.6
AUG-06-2014	05:51:36	0.000	0.006	0.015	0.6
AUG-06-2014	05:52:12	0.000	0.006	0.015	0.6
AUG-06-2014	05:52:48	0.000	0.006	0.015	0.6
AUG-06-2014	05:53:24	0.000	0.006	0.014	0.6
AUG-06-2014	05:54:00	0.000	0.006	0.014	0.6
AUG-06-2014	05:54:36	0.000	0.005	0.014	0.6

			swmm.RPT		
AUG-06-2014	05:55:12	0.000	0.005	0.014	0.6
AUG-06-2014	05:55:48	0.000	0.005	0.014	0.6
AUG-06-2014	05:56:24	0.000	0.005	0.014	0.5
AUG-06-2014	05:57:00	0.000	0.005	0.014	0.5
AUG-06-2014	05:57:36	0.000	0.005	0.013	0.5
AUG-06-2014	05:58:12	0.000	0.005	0.013	0.5
AUG-06-2014	05:58:48	0.000	0.005	0.013	0.5
AUG-06-2014	05:59:24	0.000	0.005	0.013	0.5
AUG-06-2014	06:00:00	0.000	0.004	0.013	0.5
AUG-06-2014	06:00:36	0.000	0.004	0.013	0.5
AUG-06-2014	06:01:12	0.000	0.004	0.012	0.5
AUG-06-2014	06:01:48	0.000	0.004	0.012	0.5
AUG-06-2014	06:02:24	0.000	0.004	0.012	0.5
AUG-06-2014	06:03:00	0.000	0.004	0.012	0.5
AUG-06-2014	06:03:36	0.000	0.004	0.012	0.5
AUG-06-2014	06:04:12	0.000	0.004	0.012	0.5
AUG-06-2014	06:04:48	0.000	0.004	0.012	0.5
AUG-06-2014	06:05:24	0.000	0.004	0.012	0.5
AUG-06-2014	06:06:00	0.000	0.004	0.011	0.5
AUG-06-2014	06:06:36	0.000	0.003	0.011	0.4
AUG-06-2014	06:07:12	0.000	0.003	0.011	0.4
AUG-06-2014	06:07:48	0.000	0.003	0.011	0.4
AUG-06-2014	06:08:24	0.000	0.003	0.011	0.4
AUG-06-2014	06:09:00	0.000	0.003	0.011	0.4
AUG-06-2014	06:09:36	0.000	0.003	0.011	0.4
AUG-06-2014	06:10:12	0.000	0.003	0.010	0.4
AUG-06-2014	06:10:48	0.000	0.003	0.010	0.4
AUG-06-2014	06:11:24	0.000	0.003	0.010	0.4
AUG-06-2014	06:12:00	0.000	0.003	0.010	0.4
AUG-06-2014	06:12:36	0.000	0.000	0.010	0.4
AUG-06-2014	06:13:12	0.000	0.000	0.010	0.4
AUG-06-2014	06:13:48	0.000	0.000	0.010	0.4
AUG-06-2014	06:14:24	0.000	0.000	0.010	0.4
AUG-06-2014	06:15:00	0.000	0.000	0.010	0.4
AUG-06-2014	06:15:36	0.000	0.000	0.009	0.4
AUG-06-2014	06:16:12	0.000	0.000	0.009	0.4
AUG-06-2014	06:16:48	0.000	0.000	0.009	0.4
AUG-06-2014	06:17:24	0.000	0.000	0.009	0.4
AUG-06-2014	06:18:00	0.000	0.000	0.009	0.4
AUG-06-2014	06:18:36	0.000	0.000	0.009	0.4
AUG-06-2014	06:19:12	0.000	0.000	0.009	0.3
AUG-06-2014	06:19:48	0.000	0.000	0.009	0.3
AUG-06-2014	06:20:24	0.000	0.000	0.008	0.3
AUG-06-2014	06:21:00	0.000	0.000	0.008	0.3
AUG-06-2014	06:21:36	0.000	0.000	0.008	0.3
AUG-06-2014	06:22:12	0.000	0.000	0.008	0.3
AUG-06-2014	06:22:48	0.000	0.000	0.008	0.3
AUG-06-2014	06:23:24	0.000	0.000	0.008	0.3
AUG-06-2014	06:24:00	0.000	0.000	0.008	0.3

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AUG-06-2014 06:24:36	0.000	0.000	0.008	0.3
AUG-06-2014 06:25:12	0.000	0.000	0.008	0.3
AUG-06-2014 06:25:48	0.000	0.000	0.008	0.3
AUG-06-2014 06:26:24	0.000	0.000	0.007	0.3
AUG-06-2014 06:27:00	0.000	0.000	0.007	0.3
AUG-06-2014 06:27:36	0.000	0.000	0.007	0.3
AUG-06-2014 06:28:12	0.000	0.000	0.007	0.3
AUG-06-2014 06:28:48	0.000	0.000	0.007	0.3
AUG-06-2014 06:29:24	0.000	0.000	0.007	0.3
AUG-06-2014 06:30:00	0.000	0.000	0.007	0.3
AUG-06-2014 06:30:36	0.000	0.000	0.007	0.3
AUG-06-2014 06:31:12	0.000	0.000	0.007	0.3
AUG-06-2014 06:31:48	0.000	0.000	0.007	0.3
AUG-06-2014 06:32:24	0.000	0.000	0.006	0.3
AUG-06-2014 06:33:00	0.000	0.000	0.006	0.3
AUG-06-2014 06:33:36	0.000	0.000	0.006	0.3
AUG-06-2014 06:34:12	0.000	0.000	0.006	0.2
AUG-06-2014 06:34:48	0.000	0.000	0.006	0.2
AUG-06-2014 06:35:24	0.000	0.000	0.006	0.2
AUG-06-2014 06:36:00	0.000	0.000	0.006	0.2
AUG-06-2014 06:36:36	0.000	0.000	0.006	0.2
AUG-06-2014 06:37:12	0.000	0.000	0.006	0.2
AUG-06-2014 06:37:48	0.000	0.000	0.006	0.2
AUG-06-2014 06:38:24	0.000	0.000	0.006	0.2
AUG-06-2014 06:39:00	0.000	0.000	0.005	0.2
AUG-06-2014 06:39:36	0.000	0.000	0.005	0.2
AUG-06-2014 06:40:12	0.000	0.000	0.005	0.2
AUG-06-2014 06:40:48	0.000	0.000	0.005	0.2
AUG-06-2014 06:41:24	0.000	0.000	0.005	0.2
AUG-06-2014 06:42:00	0.000	0.000	0.005	0.2
AUG-06-2014 06:42:36	0.000	0.000	0.005	0.2
AUG-06-2014 06:43:12	0.000	0.000	0.005	0.2
AUG-06-2014 06:43:48	0.000	0.000	0.005	0.2
AUG-06-2014 06:44:24	0.000	0.000	0.005	0.2
AUG-06-2014 06:45:00	0.000	0.000	0.005	0.2
AUG-06-2014 06:45:36	0.000	0.000	0.005	0.2
AUG-06-2014 06:46:12	0.000	0.000	0.005	0.2
AUG-06-2014 06:46:48	0.000	0.000	0.004	0.2
AUG-06-2014 06:47:24	0.000	0.000	0.004	0.2
AUG-06-2014 06:48:00	0.000	0.000	0.004	0.2
AUG-06-2014 06:48:36	0.000	0.000	0.004	0.2
AUG-06-2014 06:49:12	0.000	0.000	0.004	0.2
AUG-06-2014 06:49:48	0.000	0.000	0.004	0.2
AUG-06-2014 06:50:24	0.000	0.000	0.004	0.2
AUG-06-2014 06:51:00	0.000	0.000	0.004	0.2
AUG-06-2014 06:51:36	0.000	0.000	0.004	0.2
AUG-06-2014 06:52:12	0.000	0.000	0.004	0.2
AUG-06-2014 06:52:48	0.000	0.000	0.004	0.1
AUG-06-2014 06:53:24	0.000	0.000	0.004	0.1

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AUG-06-2014 06:54:00	0.000	0.000	0.004	0.1
AUG-06-2014 06:54:36	0.000	0.000	0.004	0.1
AUG-06-2014 06:55:12	0.000	0.000	0.003	0.1
AUG-06-2014 06:55:48	0.000	0.000	0.003	0.1
AUG-06-2014 06:56:24	0.000	0.000	0.003	0.1
AUG-06-2014 06:57:00	0.000	0.000	0.003	0.1
AUG-06-2014 06:57:36	0.000	0.000	0.003	0.1
AUG-06-2014 06:58:12	0.000	0.000	0.003	0.1
AUG-06-2014 06:58:48	0.000	0.000	0.003	0.1
AUG-06-2014 06:59:24	0.000	0.000	0.003	0.1
AUG-06-2014 07:00:00	0.000	0.000	0.003	0.1
AUG-06-2014 07:00:36	0.000	0.000	0.003	0.1
AUG-06-2014 07:01:12	0.000	0.000	0.003	0.1
AUG-06-2014 07:01:48	0.000	0.000	0.003	0.1
AUG-06-2014 07:02:24	0.000	0.000	0.003	0.1
AUG-06-2014 07:03:00	0.000	0.000	0.003	0.1
AUG-06-2014 07:03:36	0.000	0.000	0.003	0.1
AUG-06-2014 07:04:12	0.000	0.000	0.003	0.1
AUG-06-2014 07:04:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:05:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:06:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:06:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:07:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:07:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:08:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:09:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:09:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:10:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:10:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:11:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:12:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:12:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:13:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:13:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:14:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:15:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:15:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:16:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:16:48	0.000	0.000	0.001	0.1
AUG-06-2014 07:17:24	0.000	0.000	0.001	0.1
AUG-06-2014 07:18:00	0.000	0.000	0.001	0.1
AUG-06-2014 07:18:36	0.000	0.000	0.001	0.1
AUG-06-2014 07:19:12	0.000	0.000	0.001	0.1
AUG-06-2014 07:19:48	0.000	0.000	0.001	0.1
AUG-06-2014 07:20:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:21:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:21:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:22:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:22:48	0.000	0.000	0.001	0.0

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AUG-06-2014 07:23:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:24:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:24:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:25:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:25:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:26:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:27:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:27:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:28:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:28:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:29:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:30:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:30:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:31:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:31:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:32:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:33:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:33:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:34:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:34:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:35:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:36:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:36:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:37:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:37:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:38:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:39:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:39:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:40:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:40:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:41:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:42:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:42:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:43:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:43:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:44:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:45:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:45:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:46:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:46:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:47:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:48:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:48:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:49:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:49:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:50:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:51:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:51:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:52:12	0.000	0.000	0.000	0.0

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AUG-06-2014 07:52:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:53:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:54:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:54:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:55:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:55:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:56:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:57:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:57:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:58:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:58:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:59:24	0.000	0.000	0.000	0.0
AUG-06-2014 08:00:00	0.000	0.000	0.000	0.0

&lt;&lt;&lt; Link 3 &gt;&gt;&gt;

Date	Time	Flow CFS	Velocity ft/sec	Depth feet	Percent Full
AUG-06-2014	00:00:36	0.000	0.000	0.000	0.0
AUG-06-2014	00:01:12	0.000	0.000	0.000	0.0
AUG-06-2014	00:01:48	0.000	0.000	0.000	0.0
AUG-06-2014	00:02:24	0.000	0.000	0.000	0.0
AUG-06-2014	00:03:00	0.000	0.000	0.000	0.0
AUG-06-2014	00:03:36	0.000	0.000	0.000	0.0
AUG-06-2014	00:04:12	0.000	0.000	0.000	0.0
AUG-06-2014	00:04:48	0.000	0.000	0.001	0.0
AUG-06-2014	00:05:24	0.000	0.000	0.001	0.1
AUG-06-2014	00:06:00	0.000	0.000	0.003	0.1
AUG-06-2014	00:06:36	0.000	0.000	0.005	0.2
AUG-06-2014	00:07:12	0.001	0.000	0.009	0.4
AUG-06-2014	00:07:48	0.001	0.253	0.014	0.6
AUG-06-2014	00:08:24	0.002	0.301	0.022	0.9
AUG-06-2014	00:09:00	0.004	0.362	0.031	1.2
AUG-06-2014	00:09:36	0.009	0.442	0.044	1.8
AUG-06-2014	00:10:12	0.018	0.555	0.062	2.5
AUG-06-2014	00:10:48	0.038	0.704	0.088	3.5
AUG-06-2014	00:11:24	0.096	0.927	0.135	5.4
AUG-06-2014	00:12:00	0.155	1.106	0.166	6.6
AUG-06-2014	00:12:36	0.238	1.286	0.201	8.0
AUG-06-2014	00:13:12	0.355	1.447	0.243	9.7
AUG-06-2014	00:13:48	0.486	1.604	0.280	11.2
AUG-06-2014	00:14:24	0.638	1.759	0.317	12.7
AUG-06-2014	00:15:00	0.809	1.893	0.356	14.2
AUG-06-2014	00:15:36	0.982	2.014	0.389	15.6
AUG-06-2014	00:16:12	1.146	2.123	0.418	16.7
AUG-06-2014	00:16:48	1.291	2.206	0.442	17.7
AUG-06-2014	00:17:24	1.421	2.271	0.463	18.5



		swmm.RPT			
AUG-06-2014 00:18:00	1.539	2.326	0.481	19.3	
AUG-06-2014 00:18:36	1.648	2.382	0.497	19.9	
AUG-06-2014 00:19:12	1.754	2.431	0.511	20.4	
AUG-06-2014 00:19:48	1.863	2.478	0.526	21.0	
AUG-06-2014 00:20:24	1.982	2.526	0.542	21.7	
AUG-06-2014 00:21:00	2.101	2.572	0.558	22.3	
AUG-06-2014 00:21:36	2.211	2.611	0.572	22.9	
AUG-06-2014 00:22:12	2.308	2.645	0.584	23.4	
AUG-06-2014 00:22:48	2.395	2.676	0.595	23.8	
AUG-06-2014 00:23:24	2.473	2.706	0.604	24.1	
AUG-06-2014 00:24:00	2.554	2.734	0.613	24.5	
AUG-06-2014 00:24:36	2.638	2.763	0.623	24.9	
AUG-06-2014 00:25:12	2.722	2.790	0.632	25.3	
AUG-06-2014 00:25:48	2.803	2.816	0.641	25.6	
AUG-06-2014 00:26:24	2.881	2.841	0.650	26.0	
AUG-06-2014 00:27:00	2.957	2.864	0.658	26.3	
AUG-06-2014 00:27:36	3.032	2.886	0.666	26.7	
AUG-06-2014 00:28:12	3.105	2.907	0.674	27.0	
AUG-06-2014 00:28:48	3.178	2.927	0.682	27.3	
AUG-06-2014 00:29:24	3.243	2.945	0.689	27.6	
AUG-06-2014 00:30:00	3.302	2.961	0.695	27.8	
AUG-06-2014 00:30:36	3.358	2.976	0.701	28.1	
AUG-06-2014 00:31:12	3.414	2.992	0.707	28.3	
AUG-06-2014 00:31:48	3.471	3.008	0.713	28.5	
AUG-06-2014 00:32:24	3.526	3.024	0.718	28.7	
AUG-06-2014 00:33:00	3.581	3.039	0.723	28.9	
AUG-06-2014 00:33:36	3.638	3.055	0.729	29.2	
AUG-06-2014 00:34:12	3.696	3.070	0.735	29.4	
AUG-06-2014 00:34:48	3.757	3.086	0.740	29.6	
AUG-06-2014 00:35:24	3.818	3.103	0.746	29.9	
AUG-06-2014 00:36:00	3.883	3.119	0.753	30.1	
AUG-06-2014 00:36:36	3.955	3.136	0.760	30.4	
AUG-06-2014 00:37:12	4.034	3.155	0.767	30.7	
AUG-06-2014 00:37:48	4.117	3.175	0.775	31.0	
AUG-06-2014 00:38:24	4.205	3.195	0.784	31.3	
AUG-06-2014 00:39:00	4.297	3.216	0.792	31.7	
AUG-06-2014 00:39:36	4.421	3.241	0.804	32.2	
AUG-06-2014 00:40:12	4.586	3.276	0.819	32.8	
AUG-06-2014 00:40:48	4.752	3.315	0.834	33.3	
AUG-06-2014 00:41:24	4.900	3.350	0.846	33.8	
AUG-06-2014 00:42:00	5.025	3.377	0.857	34.3	
AUG-06-2014 00:42:36	5.130	3.400	0.866	34.6	
AUG-06-2014 00:43:12	5.220	3.419	0.873	34.9	
AUG-06-2014 00:43:48	5.300	3.435	0.880	35.2	
AUG-06-2014 00:44:24	5.372	3.450	0.886	35.4	
AUG-06-2014 00:45:00	5.443	3.463	0.892	35.7	
AUG-06-2014 00:45:36	5.526	3.479	0.899	35.9	
AUG-06-2014 00:46:12	5.618	3.496	0.906	36.3	
AUG-06-2014 00:46:48	5.717	3.514	0.915	36.6	

			swmm.RPT		
AUG-06-2014 00:47:24	5.821	3.533	0.923	36.9	
AUG-06-2014 00:48:00	5.927	3.553	0.932	37.3	
AUG-06-2014 00:48:36	6.029	3.573	0.940	37.6	
AUG-06-2014 00:49:12	6.130	3.593	0.948	37.9	
AUG-06-2014 00:49:48	6.227	3.611	0.955	38.2	
AUG-06-2014 00:50:24	6.325	3.629	0.963	38.5	
AUG-06-2014 00:51:00	6.416	3.646	0.970	38.8	
AUG-06-2014 00:51:36	6.494	3.660	0.976	39.0	
AUG-06-2014 00:52:12	6.560	3.672	0.981	39.2	
AUG-06-2014 00:52:48	6.620	3.682	0.985	39.4	
AUG-06-2014 00:53:24	6.676	3.692	0.989	39.6	
AUG-06-2014 00:54:00	6.733	3.702	0.994	39.8	
AUG-06-2014 00:54:36	6.793	3.712	0.998	39.9	
AUG-06-2014 00:55:12	6.868	3.724	1.004	40.2	
AUG-06-2014 00:55:48	6.958	3.738	1.011	40.4	
AUG-06-2014 00:56:24	7.055	3.754	1.018	40.7	
AUG-06-2014 00:57:00	7.155	3.769	1.026	41.0	
AUG-06-2014 00:57:36	7.252	3.784	1.033	41.3	
AUG-06-2014 00:58:12	7.345	3.799	1.040	41.6	
AUG-06-2014 00:58:48	7.443	3.815	1.047	41.9	
AUG-06-2014 00:59:24	7.537	3.831	1.054	42.2	
AUG-06-2014 01:00:00	7.623	3.845	1.060	42.4	
AUG-06-2014 01:00:36	7.704	3.859	1.066	42.6	
AUG-06-2014 01:01:12	7.786	3.872	1.072	42.9	
AUG-06-2014 01:01:48	7.872	3.886	1.078	43.1	
AUG-06-2014 01:02:24	7.949	3.898	1.083	43.3	
AUG-06-2014 01:03:00	8.028	3.911	1.089	43.6	
AUG-06-2014 01:03:36	8.111	3.924	1.095	43.8	
AUG-06-2014 01:04:12	8.193	3.937	1.101	44.0	
AUG-06-2014 01:04:48	8.271	3.948	1.106	44.2	
AUG-06-2014 01:05:24	8.353	3.960	1.112	44.5	
AUG-06-2014 01:06:00	8.435	3.972	1.118	44.7	
AUG-06-2014 01:06:36	8.514	3.983	1.123	44.9	
AUG-06-2014 01:07:12	8.594	3.994	1.129	45.2	
AUG-06-2014 01:07:48	8.674	4.005	1.134	45.4	
AUG-06-2014 01:08:24	8.753	4.016	1.140	45.6	
AUG-06-2014 01:09:00	8.883	4.032	1.149	46.0	
AUG-06-2014 01:09:36	9.023	4.052	1.159	46.4	
AUG-06-2014 01:10:12	9.134	4.069	1.166	46.7	
AUG-06-2014 01:10:48	9.220	4.082	1.172	46.9	
AUG-06-2014 01:11:24	9.293	4.092	1.177	47.1	
AUG-06-2014 01:12:00	9.352	4.101	1.180	47.2	
AUG-06-2014 01:12:36	9.405	4.109	1.184	47.4	
AUG-06-2014 01:13:12	9.457	4.116	1.187	47.5	
AUG-06-2014 01:13:48	9.514	4.124	1.191	47.6	
AUG-06-2014 01:14:24	9.576	4.132	1.195	47.8	
AUG-06-2014 01:15:00	9.644	4.141	1.200	48.0	
AUG-06-2014 01:15:36	9.714	4.151	1.205	48.2	
AUG-06-2014 01:16:12	9.789	4.160	1.209	48.4	

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AUG-06-2014 01:16:48	9.863	4.170	1.214	48.6	
AUG-06-2014 01:17:24	9.941	4.180	1.220	48.8	
AUG-06-2014 01:18:00	10.025	4.191	1.225	49.0	
AUG-06-2014 01:18:36	10.104	4.201	1.230	49.2	
AUG-06-2014 01:19:12	10.180	4.211	1.235	49.4	
AUG-06-2014 01:19:48	10.260	4.221	1.241	49.6	
AUG-06-2014 01:20:24	10.350	4.232	1.246	49.9	
AUG-06-2014 01:21:00	10.438	4.243	1.252	50.1	
AUG-06-2014 01:21:36	10.540	4.255	1.259	50.4	
AUG-06-2014 01:22:12	10.648	4.268	1.266	50.6	
AUG-06-2014 01:22:48	10.729	4.279	1.271	50.9	
AUG-06-2014 01:23:24	10.807	4.288	1.276	51.1	
AUG-06-2014 01:24:00	10.865	4.295	1.280	51.2	
AUG-06-2014 01:24:36	10.952	4.306	1.286	51.4	
AUG-06-2014 01:25:12	11.043	4.317	1.291	51.7	
AUG-06-2014 01:25:48	11.122	4.327	1.296	51.9	
AUG-06-2014 01:26:24	11.205	4.338	1.301	52.1	
AUG-06-2014 01:27:00	11.267	4.346	1.305	52.2	
AUG-06-2014 01:27:36	11.328	4.353	1.309	52.4	
AUG-06-2014 01:28:12	11.397	4.361	1.313	52.5	
AUG-06-2014 01:28:48	11.469	4.370	1.318	52.7	
AUG-06-2014 01:29:24	11.541	4.379	1.323	52.9	
AUG-06-2014 01:30:00	11.622	4.388	1.328	53.1	
AUG-06-2014 01:30:36	11.708	4.398	1.333	53.3	
AUG-06-2014 01:31:12	11.797	4.409	1.339	53.5	
AUG-06-2014 01:31:48	11.882	4.419	1.344	53.8	
AUG-06-2014 01:32:24	11.965	4.428	1.349	54.0	
AUG-06-2014 01:33:00	12.052	4.438	1.354	54.2	
AUG-06-2014 01:33:36	12.135	4.448	1.360	54.4	
AUG-06-2014 01:34:12	12.217	4.457	1.365	54.6	
AUG-06-2014 01:34:48	12.298	4.466	1.370	54.8	
AUG-06-2014 01:35:24	12.381	4.475	1.375	55.0	
AUG-06-2014 01:36:00	12.464	4.484	1.380	55.2	
AUG-06-2014 01:36:36	12.543	4.493	1.385	55.4	
AUG-06-2014 01:37:12	12.623	4.502	1.390	55.6	
AUG-06-2014 01:37:48	12.705	4.511	1.395	55.8	
AUG-06-2014 01:38:24	12.784	4.519	1.400	56.0	
AUG-06-2014 01:39:00	12.861	4.528	1.405	56.2	
AUG-06-2014 01:39:36	12.939	4.537	1.409	56.4	
AUG-06-2014 01:40:12	13.018	4.546	1.414	56.6	
AUG-06-2014 01:40:48	13.095	4.555	1.419	56.7	
AUG-06-2014 01:41:24	13.174	4.564	1.423	56.9	
AUG-06-2014 01:42:00	13.255	4.573	1.428	57.1	
AUG-06-2014 01:42:36	13.338	4.583	1.433	57.3	
AUG-06-2014 01:43:12	13.420	4.592	1.438	57.5	
AUG-06-2014 01:43:48	13.503	4.601	1.443	57.7	
AUG-06-2014 01:44:24	13.584	4.610	1.448	57.9	
AUG-06-2014 01:45:00	13.661	4.619	1.452	58.1	
AUG-06-2014 01:45:36	13.735	4.627	1.457	58.3	

			swmm.RPT		
AUG-06-2014 01:46:12	13.800	4.634	1.461	58.4	
AUG-06-2014 01:46:48	13.802	4.634	1.461	58.4	
AUG-06-2014 01:47:24	13.877	4.641	1.466	58.6	
AUG-06-2014 01:48:00	13.985	4.652	1.472	58.9	
AUG-06-2014 01:48:36	14.090	4.663	1.478	59.1	
AUG-06-2014 01:49:12	14.188	4.673	1.484	59.4	
AUG-06-2014 01:49:48	14.244	4.681	1.487	59.5	
AUG-06-2014 01:50:24	14.159	4.674	1.481	59.3	
AUG-06-2014 01:51:00	14.137	4.669	1.481	59.2	
AUG-06-2014 01:51:36	14.229	4.677	1.487	59.5	
AUG-06-2014 01:52:12	14.369	4.690	1.495	59.8	
AUG-06-2014 01:52:48	14.511	4.705	1.504	60.2	
AUG-06-2014 01:53:24	14.636	4.717	1.511	60.5	
AUG-06-2014 01:54:00	14.747	4.728	1.518	60.7	
AUG-06-2014 01:54:36	14.849	4.738	1.524	61.0	
AUG-06-2014 01:55:12	14.942	4.747	1.530	61.2	
AUG-06-2014 01:55:48	15.032	4.756	1.535	61.4	
AUG-06-2014 01:56:24	15.123	4.765	1.540	61.6	
AUG-06-2014 01:57:00	15.217	4.775	1.546	61.8	
AUG-06-2014 01:57:36	15.302	4.783	1.551	62.0	
AUG-06-2014 01:58:12	15.377	4.791	1.555	62.2	
AUG-06-2014 01:58:48	15.449	4.798	1.560	62.4	
AUG-06-2014 01:59:24	15.521	4.805	1.564	62.6	
AUG-06-2014 02:00:00	15.594	4.812	1.568	62.7	
AUG-06-2014 02:00:36	15.668	4.820	1.572	62.9	
AUG-06-2014 02:01:12	15.737	4.827	1.576	63.1	
AUG-06-2014 02:01:48	15.787	4.832	1.579	63.2	
AUG-06-2014 02:02:24	15.812	4.835	1.581	63.2	
AUG-06-2014 02:03:00	15.813	4.835	1.581	63.2	
AUG-06-2014 02:03:36	15.794	4.834	1.579	63.2	
AUG-06-2014 02:04:12	15.761	4.831	1.577	63.1	
AUG-06-2014 02:04:48	15.715	4.826	1.575	63.0	
AUG-06-2014 02:05:24	15.661	4.821	1.571	62.9	
AUG-06-2014 02:06:00	15.600	4.815	1.568	62.7	
AUG-06-2014 02:06:36	15.533	4.809	1.564	62.6	
AUG-06-2014 02:07:12	15.453	4.801	1.559	62.4	
AUG-06-2014 02:07:48	15.367	4.793	1.554	62.2	
AUG-06-2014 02:08:24	15.286	4.785	1.549	62.0	
AUG-06-2014 02:09:00	15.206	4.777	1.545	61.8	
AUG-06-2014 02:09:36	15.125	4.769	1.540	61.6	
AUG-06-2014 02:10:12	15.045	4.761	1.535	61.4	
AUG-06-2014 02:10:48	14.964	4.753	1.530	61.2	
AUG-06-2014 02:11:24	14.883	4.744	1.525	61.0	
AUG-06-2014 02:12:00	14.800	4.736	1.520	60.8	
AUG-06-2014 02:12:36	14.714	4.728	1.515	60.6	
AUG-06-2014 02:13:12	14.631	4.720	1.510	60.4	
AUG-06-2014 02:13:48	14.549	4.712	1.505	60.2	
AUG-06-2014 02:14:24	14.467	4.704	1.500	60.0	
AUG-06-2014 02:15:00	14.384	4.696	1.495	59.8	

			swmm.RPT		
AUG-06-2014	02:15:36	14.300	4.688	1.490	59.6
AUG-06-2014	02:16:12	14.212	4.679	1.485	59.4
AUG-06-2014	02:16:48	14.116	4.669	1.479	59.2
AUG-06-2014	02:17:24	14.029	4.660	1.474	59.0
AUG-06-2014	02:18:00	13.946	4.652	1.469	58.8
AUG-06-2014	02:18:36	13.866	4.643	1.464	58.6
AUG-06-2014	02:19:12	13.785	4.635	1.459	58.4
AUG-06-2014	02:19:48	13.704	4.626	1.454	58.2
AUG-06-2014	02:20:24	13.619	4.617	1.449	58.0
AUG-06-2014	02:21:00	13.542	4.608	1.445	57.8
AUG-06-2014	02:21:36	13.464	4.600	1.440	57.6
AUG-06-2014	02:22:12	13.382	4.591	1.435	57.4
AUG-06-2014	02:22:48	13.305	4.582	1.430	57.2
AUG-06-2014	02:23:24	13.233	4.574	1.426	57.0
AUG-06-2014	02:24:00	13.146	4.564	1.421	56.8
AUG-06-2014	02:24:36	13.059	4.554	1.416	56.6
AUG-06-2014	02:25:12	12.975	4.545	1.411	56.4
AUG-06-2014	02:25:48	12.890	4.535	1.405	56.2
AUG-06-2014	02:26:24	12.807	4.525	1.401	56.0
AUG-06-2014	02:27:00	12.727	4.516	1.396	55.8
AUG-06-2014	02:27:36	12.646	4.507	1.391	55.6
AUG-06-2014	02:28:12	12.570	4.499	1.386	55.4
AUG-06-2014	02:28:48	12.495	4.491	1.381	55.3
AUG-06-2014	02:29:24	12.418	4.483	1.376	55.1
AUG-06-2014	02:30:00	12.339	4.474	1.372	54.9
AUG-06-2014	02:30:36	12.258	4.465	1.366	54.7
AUG-06-2014	02:31:12	12.178	4.456	1.362	54.5
AUG-06-2014	02:31:48	12.098	4.447	1.357	54.3
AUG-06-2014	02:32:24	12.021	4.438	1.352	54.1
AUG-06-2014	02:33:00	11.945	4.430	1.347	53.9
AUG-06-2014	02:33:36	11.862	4.420	1.342	53.7
AUG-06-2014	02:34:12	11.778	4.410	1.337	53.5
AUG-06-2014	02:34:48	11.699	4.401	1.332	53.3
AUG-06-2014	02:35:24	11.617	4.391	1.326	53.1
AUG-06-2014	02:36:00	11.537	4.382	1.321	52.9
AUG-06-2014	02:36:36	11.461	4.372	1.317	52.7
AUG-06-2014	02:37:12	11.384	4.363	1.312	52.5
AUG-06-2014	02:37:48	11.295	4.353	1.306	52.2
AUG-06-2014	02:38:24	11.213	4.342	1.301	52.0
AUG-06-2014	02:39:00	11.138	4.333	1.296	51.9
AUG-06-2014	02:39:36	11.061	4.323	1.292	51.7
AUG-06-2014	02:40:12	10.974	4.312	1.286	51.4
AUG-06-2014	02:40:48	10.894	4.302	1.281	51.2
AUG-06-2014	02:41:24	10.823	4.293	1.277	51.1
AUG-06-2014	02:42:00	10.754	4.285	1.272	50.9
AUG-06-2014	02:42:36	10.679	4.276	1.267	50.7
AUG-06-2014	02:43:12	10.590	4.265	1.261	50.5
AUG-06-2014	02:43:48	10.505	4.255	1.256	50.2
AUG-06-2014	02:44:24	10.427	4.246	1.251	50.0

		swmm.RPT			
AUG-06-2014	02:45:00	10.353	4.236	1.246	49.8
AUG-06-2014	02:45:36	10.278	4.227	1.241	49.6
AUG-06-2014	02:46:12	10.207	4.218	1.236	49.4
AUG-06-2014	02:46:48	10.135	4.209	1.231	49.3
AUG-06-2014	02:47:24	10.057	4.199	1.226	49.1
AUG-06-2014	02:48:00	9.976	4.189	1.221	48.8
AUG-06-2014	02:48:36	9.894	4.178	1.216	48.6
AUG-06-2014	02:49:12	9.815	4.168	1.210	48.4
AUG-06-2014	02:49:48	9.735	4.157	1.205	48.2
AUG-06-2014	02:50:24	9.656	4.146	1.200	48.0
AUG-06-2014	02:51:00	9.567	4.135	1.194	47.8
AUG-06-2014	02:51:36	9.473	4.122	1.188	47.5
AUG-06-2014	02:52:12	9.383	4.109	1.182	47.3
AUG-06-2014	02:52:48	9.293	4.096	1.176	47.0
AUG-06-2014	02:53:24	9.213	4.085	1.171	46.8
AUG-06-2014	02:54:00	9.143	4.074	1.166	46.6
AUG-06-2014	02:54:36	9.072	4.064	1.161	46.4
AUG-06-2014	02:55:12	8.993	4.053	1.156	46.2
AUG-06-2014	02:55:48	8.916	4.043	1.150	46.0
AUG-06-2014	02:56:24	8.839	4.032	1.145	45.8
AUG-06-2014	02:57:00	8.762	4.022	1.140	45.6
AUG-06-2014	02:57:36	8.686	4.011	1.134	45.4
AUG-06-2014	02:58:12	8.610	4.001	1.129	45.2
AUG-06-2014	02:58:48	8.533	3.990	1.124	44.9
AUG-06-2014	02:59:24	8.451	3.978	1.118	44.7
AUG-06-2014	03:00:00	8.373	3.967	1.112	44.5
AUG-06-2014	03:00:36	8.301	3.957	1.107	44.3
AUG-06-2014	03:01:12	8.213	3.944	1.101	44.0
AUG-06-2014	03:01:48	8.132	3.930	1.096	43.8
AUG-06-2014	03:02:24	8.295	3.950	1.108	44.3
AUG-06-2014	03:03:00	8.340	3.961	1.110	44.4
AUG-06-2014	03:03:36	8.265	3.952	1.105	44.2
AUG-06-2014	03:04:12	8.124	3.933	1.094	43.8
AUG-06-2014	03:04:48	7.908	3.901	1.079	43.1
AUG-06-2014	03:05:24	7.657	3.859	1.061	42.4
AUG-06-2014	03:06:00	7.703	3.859	1.066	42.6
AUG-06-2014	03:06:36	7.713	3.863	1.066	42.6
AUG-06-2014	03:07:12	7.636	3.853	1.060	42.4
AUG-06-2014	03:07:48	7.503	3.832	1.050	42.0
AUG-06-2014	03:08:24	7.350	3.806	1.039	41.6
AUG-06-2014	03:09:00	7.204	3.784	1.028	41.1
AUG-06-2014	03:09:36	7.075	3.763	1.019	40.7
AUG-06-2014	03:10:12	6.971	3.746	1.011	40.4
AUG-06-2014	03:10:48	6.878	3.731	1.004	40.2
AUG-06-2014	03:11:24	6.771	3.713	0.996	39.8
AUG-06-2014	03:12:00	6.739	3.705	0.994	39.7
AUG-06-2014	03:12:36	6.718	3.702	0.992	39.7
AUG-06-2014	03:13:12	6.685	3.697	0.990	39.6
AUG-06-2014	03:13:48	6.638	3.689	0.986	39.4



		swmm.RPT			
AUG-06-2014	03:14:24	6.549	3.676	0.979	39.1
AUG-06-2014	03:15:00	6.392	3.650	0.966	38.7
AUG-06-2014	03:15:36	6.303	3.629	0.960	38.4
AUG-06-2014	03:16:12	6.292	3.626	0.959	38.4
AUG-06-2014	03:16:48	6.252	3.621	0.956	38.2
AUG-06-2014	03:17:24	6.173	3.607	0.950	38.0
AUG-06-2014	03:18:00	6.068	3.588	0.941	37.7
AUG-06-2014	03:18:36	5.935	3.563	0.931	37.2
AUG-06-2014	03:19:12	5.819	3.538	0.922	36.9
AUG-06-2014	03:19:48	5.780	3.530	0.919	36.8
AUG-06-2014	03:20:24	5.729	3.522	0.915	36.6
AUG-06-2014	03:21:00	5.659	3.509	0.909	36.4
AUG-06-2014	03:21:36	5.586	3.496	0.903	36.1
AUG-06-2014	03:22:12	5.515	3.482	0.897	35.9
AUG-06-2014	03:22:48	5.435	3.468	0.890	35.6
AUG-06-2014	03:23:24	5.357	3.451	0.884	35.3
AUG-06-2014	03:24:00	5.308	3.441	0.880	35.2
AUG-06-2014	03:24:36	5.262	3.432	0.876	35.0
AUG-06-2014	03:25:12	5.209	3.422	0.871	34.8
AUG-06-2014	03:25:48	5.147	3.409	0.866	34.6
AUG-06-2014	03:26:24	5.079	3.395	0.860	34.4
AUG-06-2014	03:27:00	5.004	3.380	0.854	34.1
AUG-06-2014	03:27:36	4.918	3.362	0.846	33.8
AUG-06-2014	03:28:12	4.853	3.347	0.841	33.6
AUG-06-2014	03:28:48	4.792	3.333	0.836	33.4
AUG-06-2014	03:29:24	4.727	3.318	0.830	33.2
AUG-06-2014	03:30:00	4.655	3.302	0.824	32.9
AUG-06-2014	03:30:36	4.578	3.284	0.817	32.7
AUG-06-2014	03:31:12	4.489	3.265	0.809	32.4
AUG-06-2014	03:31:48	4.406	3.246	0.801	32.0
AUG-06-2014	03:32:24	4.340	3.232	0.795	31.8
AUG-06-2014	03:33:00	4.274	3.217	0.789	31.6
AUG-06-2014	03:33:36	4.203	3.201	0.782	31.3
AUG-06-2014	03:34:12	4.128	3.184	0.775	31.0
AUG-06-2014	03:34:48	4.050	3.165	0.768	30.7
AUG-06-2014	03:35:24	3.966	3.146	0.760	30.4
AUG-06-2014	03:36:00	3.879	3.124	0.751	30.1
AUG-06-2014	03:36:36	3.812	3.106	0.745	29.8
AUG-06-2014	03:37:12	3.747	3.089	0.739	29.5
AUG-06-2014	03:37:48	3.678	3.071	0.732	29.3
AUG-06-2014	03:38:24	3.602	3.051	0.724	29.0
AUG-06-2014	03:39:00	3.522	3.029	0.717	28.7
AUG-06-2014	03:39:36	3.439	3.006	0.708	28.3
AUG-06-2014	03:40:12	3.355	2.982	0.700	28.0
AUG-06-2014	03:40:48	3.269	2.959	0.691	27.6
AUG-06-2014	03:41:24	3.177	2.934	0.681	27.2
AUG-06-2014	03:42:00	3.088	2.909	0.671	26.9
AUG-06-2014	03:42:36	3.006	2.886	0.662	26.5
AUG-06-2014	03:43:12	2.926	2.862	0.653	26.1

			swmm.RPT		
AUG-06-2014 03:43:48	2.843	2.837	0.644	25.8	
AUG-06-2014 03:44:24	2.760	2.811	0.635	25.4	
AUG-06-2014 03:45:00	2.676	2.784	0.626	25.0	
AUG-06-2014 03:45:36	2.592	2.756	0.616	24.6	
AUG-06-2014 03:46:12	2.505	2.726	0.606	24.2	
AUG-06-2014 03:46:48	2.427	2.698	0.597	23.9	
AUG-06-2014 03:47:24	2.351	2.668	0.588	23.5	
AUG-06-2014 03:48:00	2.274	2.642	0.579	23.1	
AUG-06-2014 03:48:36	2.199	2.617	0.569	22.8	
AUG-06-2014 03:49:12	2.124	2.591	0.559	22.4	
AUG-06-2014 03:49:48	2.051	2.564	0.550	22.0	
AUG-06-2014 03:50:24	1.978	2.536	0.540	21.6	
AUG-06-2014 03:51:00	1.906	2.507	0.530	21.2	
AUG-06-2014 03:51:36	1.833	2.477	0.520	20.8	
AUG-06-2014 03:52:12	1.761	2.445	0.511	20.4	
AUG-06-2014 03:52:48	1.693	2.415	0.501	20.1	
AUG-06-2014 03:53:24	1.627	2.383	0.492	19.7	
AUG-06-2014 03:54:00	1.560	2.349	0.482	19.3	
AUG-06-2014 03:54:36	1.492	2.315	0.472	18.9	
AUG-06-2014 03:55:12	1.424	2.285	0.462	18.5	
AUG-06-2014 03:55:48	1.356	2.254	0.451	18.0	
AUG-06-2014 03:56:24	1.289	2.219	0.439	17.6	
AUG-06-2014 03:57:00	1.221	2.182	0.428	17.1	
AUG-06-2014 03:57:36	1.155	2.144	0.417	16.7	
AUG-06-2014 03:58:12	1.089	2.106	0.405	16.2	
AUG-06-2014 03:58:48	1.025	2.064	0.394	15.8	
AUG-06-2014 03:59:24	0.962	2.020	0.383	15.3	
AUG-06-2014 04:00:00	0.901	1.975	0.372	14.9	
AUG-06-2014 04:00:36	0.840	1.931	0.360	14.4	
AUG-06-2014 04:01:12	0.780	1.893	0.347	13.9	
AUG-06-2014 04:01:48	0.722	1.849	0.334	13.4	
AUG-06-2014 04:02:24	0.666	1.804	0.321	12.9	
AUG-06-2014 04:03:00	0.614	1.759	0.309	12.4	
AUG-06-2014 04:03:36	0.565	1.714	0.298	11.9	
AUG-06-2014 04:04:12	0.520	1.665	0.286	11.5	
AUG-06-2014 04:04:48	0.479	1.617	0.276	11.0	
AUG-06-2014 04:05:24	0.441	1.572	0.266	10.6	
AUG-06-2014 04:06:00	0.407	1.528	0.257	10.3	
AUG-06-2014 04:06:36	0.374	1.486	0.247	9.9	
AUG-06-2014 04:07:12	0.343	1.449	0.237	9.5	
AUG-06-2014 04:07:48	0.315	1.414	0.227	9.1	
AUG-06-2014 04:08:24	0.290	1.381	0.218	8.7	
AUG-06-2014 04:09:00	0.267	1.351	0.210	8.4	
AUG-06-2014 04:09:36	0.247	1.321	0.202	8.1	
AUG-06-2014 04:10:12	0.230	1.290	0.196	7.8	
AUG-06-2014 04:10:48	0.214	1.258	0.189	7.6	
AUG-06-2014 04:11:24	0.199	1.227	0.183	7.3	
AUG-06-2014 04:12:00	0.186	1.197	0.178	7.1	
AUG-06-2014 04:12:36	0.174	1.170	0.172	6.9	



		swmm.RPT			
AUG-06-2014	04:13:12	0.163	1.143	0.168	6.7
AUG-06-2014	04:13:48	0.153	1.118	0.163	6.5
AUG-06-2014	04:14:24	0.143	1.094	0.159	6.3
AUG-06-2014	04:15:00	0.135	1.072	0.155	6.2
AUG-06-2014	04:15:36	0.127	1.051	0.151	6.0
AUG-06-2014	04:16:12	0.120	1.028	0.147	5.9
AUG-06-2014	04:16:48	0.114	1.005	0.144	5.7
AUG-06-2014	04:17:24	0.108	0.982	0.140	5.6
AUG-06-2014	04:18:00	0.102	0.960	0.137	5.5
AUG-06-2014	04:18:36	0.095	0.938	0.133	5.3
AUG-06-2014	04:19:12	0.085	0.911	0.126	5.0
AUG-06-2014	04:19:48	0.077	0.888	0.120	4.8
AUG-06-2014	04:20:24	0.070	0.868	0.114	4.6
AUG-06-2014	04:21:00	0.065	0.850	0.109	4.4
AUG-06-2014	04:21:36	0.060	0.836	0.105	4.2
AUG-06-2014	04:22:12	0.056	0.824	0.102	4.1
AUG-06-2014	04:22:48	0.052	0.812	0.098	3.9
AUG-06-2014	04:23:24	0.048	0.794	0.095	3.8
AUG-06-2014	04:24:00	0.045	0.776	0.092	3.7
AUG-06-2014	04:24:36	0.042	0.758	0.089	3.6
AUG-06-2014	04:25:12	0.039	0.739	0.086	3.5
AUG-06-2014	04:25:48	0.036	0.718	0.084	3.4
AUG-06-2014	04:26:24	0.034	0.696	0.081	3.3
AUG-06-2014	04:27:00	0.031	0.670	0.079	3.2
AUG-06-2014	04:27:36	0.029	0.645	0.077	3.1
AUG-06-2014	04:28:12	0.028	0.636	0.075	3.0
AUG-06-2014	04:28:48	0.027	0.628	0.074	3.0
AUG-06-2014	04:29:24	0.025	0.620	0.073	2.9
AUG-06-2014	04:30:00	0.024	0.613	0.071	2.9
AUG-06-2014	04:30:36	0.024	0.605	0.070	2.8
AUG-06-2014	04:31:12	0.023	0.598	0.069	2.8
AUG-06-2014	04:31:48	0.022	0.591	0.068	2.7
AUG-06-2014	04:32:24	0.021	0.584	0.067	2.7
AUG-06-2014	04:33:00	0.020	0.578	0.065	2.6
AUG-06-2014	04:33:36	0.020	0.571	0.064	2.6
AUG-06-2014	04:34:12	0.019	0.565	0.063	2.5
AUG-06-2014	04:34:48	0.018	0.559	0.062	2.5
AUG-06-2014	04:35:24	0.018	0.553	0.061	2.5
AUG-06-2014	04:36:00	0.017	0.547	0.060	2.4
AUG-06-2014	04:36:36	0.016	0.541	0.059	2.4
AUG-06-2014	04:37:12	0.016	0.535	0.059	2.3
AUG-06-2014	04:37:48	0.015	0.530	0.058	2.3
AUG-06-2014	04:38:24	0.015	0.524	0.057	2.3
AUG-06-2014	04:39:00	0.014	0.519	0.056	2.2
AUG-06-2014	04:39:36	0.014	0.514	0.055	2.2
AUG-06-2014	04:40:12	0.013	0.509	0.054	2.2
AUG-06-2014	04:40:48	0.013	0.504	0.054	2.1
AUG-06-2014	04:41:24	0.013	0.499	0.053	2.1
AUG-06-2014	04:42:00	0.012	0.495	0.052	2.1

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AUG-06-2014	04:42:36	0.012	0.490	0.051	2.1
AUG-06-2014	04:43:12	0.012	0.486	0.051	2.0
AUG-06-2014	04:43:48	0.011	0.481	0.050	2.0
AUG-06-2014	04:44:24	0.011	0.477	0.050	2.0
AUG-06-2014	04:45:00	0.011	0.474	0.049	2.0
AUG-06-2014	04:45:36	0.010	0.470	0.048	1.9
AUG-06-2014	04:46:12	0.010	0.466	0.048	1.9
AUG-06-2014	04:46:48	0.010	0.463	0.047	1.9
AUG-06-2014	04:47:24	0.010	0.459	0.047	1.9
AUG-06-2014	04:48:00	0.009	0.456	0.046	1.8
AUG-06-2014	04:48:36	0.009	0.453	0.045	1.8
AUG-06-2014	04:49:12	0.009	0.449	0.045	1.8
AUG-06-2014	04:49:48	0.009	0.446	0.044	1.8
AUG-06-2014	04:50:24	0.009	0.443	0.044	1.8
AUG-06-2014	04:51:00	0.008	0.440	0.043	1.7
AUG-06-2014	04:51:36	0.008	0.437	0.043	1.7
AUG-06-2014	04:52:12	0.008	0.434	0.042	1.7
AUG-06-2014	04:52:48	0.008	0.431	0.042	1.7
AUG-06-2014	04:53:24	0.008	0.428	0.041	1.7
AUG-06-2014	04:54:00	0.007	0.425	0.041	1.6
AUG-06-2014	04:54:36	0.007	0.422	0.040	1.6
AUG-06-2014	04:55:12	0.007	0.419	0.040	1.6
AUG-06-2014	04:55:48	0.007	0.416	0.040	1.6
AUG-06-2014	04:56:24	0.007	0.414	0.039	1.6
AUG-06-2014	04:57:00	0.007	0.411	0.039	1.5
AUG-06-2014	04:57:36	0.007	0.408	0.038	1.5
AUG-06-2014	04:58:12	0.006	0.406	0.038	1.5
AUG-06-2014	04:58:48	0.006	0.403	0.037	1.5
AUG-06-2014	04:59:24	0.006	0.401	0.037	1.5
AUG-06-2014	05:00:00	0.006	0.398	0.037	1.5
AUG-06-2014	05:00:36	0.006	0.396	0.036	1.4
AUG-06-2014	05:01:12	0.006	0.393	0.036	1.4
AUG-06-2014	05:01:48	0.006	0.391	0.035	1.4
AUG-06-2014	05:02:24	0.006	0.388	0.035	1.4
AUG-06-2014	05:03:00	0.005	0.386	0.035	1.4
AUG-06-2014	05:03:36	0.005	0.384	0.034	1.4
AUG-06-2014	05:04:12	0.005	0.381	0.034	1.4
AUG-06-2014	05:04:48	0.005	0.379	0.034	1.3
AUG-06-2014	05:05:24	0.005	0.377	0.033	1.3
AUG-06-2014	05:06:00	0.005	0.375	0.033	1.3
AUG-06-2014	05:06:36	0.005	0.372	0.033	1.3
AUG-06-2014	05:07:12	0.005	0.370	0.032	1.3
AUG-06-2014	05:07:48	0.005	0.368	0.032	1.3
AUG-06-2014	05:08:24	0.005	0.366	0.032	1.3
AUG-06-2014	05:09:00	0.004	0.364	0.031	1.2
AUG-06-2014	05:09:36	0.004	0.362	0.031	1.2
AUG-06-2014	05:10:12	0.004	0.360	0.031	1.2
AUG-06-2014	05:10:48	0.004	0.358	0.030	1.2
AUG-06-2014	05:11:24	0.004	0.356	0.030	1.2

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AUG-06-2014	05:12:00	0.004	0.354	0.030	1.2
AUG-06-2014	05:12:36	0.004	0.352	0.029	1.2
AUG-06-2014	05:13:12	0.004	0.350	0.029	1.2
AUG-06-2014	05:13:48	0.004	0.348	0.029	1.2
AUG-06-2014	05:14:24	0.004	0.346	0.028	1.1
AUG-06-2014	05:15:00	0.004	0.345	0.028	1.1
AUG-06-2014	05:15:36	0.004	0.343	0.028	1.1
AUG-06-2014	05:16:12	0.004	0.341	0.028	1.1
AUG-06-2014	05:16:48	0.003	0.339	0.027	1.1
AUG-06-2014	05:17:24	0.003	0.337	0.027	1.1
AUG-06-2014	05:18:00	0.003	0.336	0.027	1.1
AUG-06-2014	05:18:36	0.003	0.334	0.027	1.1
AUG-06-2014	05:19:12	0.003	0.332	0.026	1.1
AUG-06-2014	05:19:48	0.003	0.331	0.026	1.0
AUG-06-2014	05:20:24	0.003	0.329	0.026	1.0
AUG-06-2014	05:21:00	0.003	0.327	0.025	1.0
AUG-06-2014	05:21:36	0.003	0.326	0.025	1.0
AUG-06-2014	05:22:12	0.003	0.324	0.025	1.0
AUG-06-2014	05:22:48	0.003	0.322	0.025	1.0
AUG-06-2014	05:23:24	0.003	0.321	0.024	1.0
AUG-06-2014	05:24:00	0.003	0.319	0.024	1.0
AUG-06-2014	05:24:36	0.003	0.318	0.024	1.0
AUG-06-2014	05:25:12	0.003	0.316	0.024	1.0
AUG-06-2014	05:25:48	0.003	0.314	0.024	0.9
AUG-06-2014	05:26:24	0.003	0.313	0.023	0.9
AUG-06-2014	05:27:00	0.003	0.311	0.023	0.9
AUG-06-2014	05:27:36	0.003	0.310	0.023	0.9
AUG-06-2014	05:28:12	0.002	0.308	0.023	0.9
AUG-06-2014	05:28:48	0.002	0.307	0.022	0.9
AUG-06-2014	05:29:24	0.002	0.305	0.022	0.9
AUG-06-2014	05:30:00	0.002	0.304	0.022	0.9
AUG-06-2014	05:30:36	0.002	0.303	0.022	0.9
AUG-06-2014	05:31:12	0.002	0.301	0.021	0.9
AUG-06-2014	05:31:48	0.002	0.300	0.021	0.9
AUG-06-2014	05:32:24	0.002	0.298	0.021	0.8
AUG-06-2014	05:33:00	0.002	0.297	0.021	0.8
AUG-06-2014	05:33:36	0.002	0.295	0.021	0.8
AUG-06-2014	05:34:12	0.002	0.294	0.020	0.8
AUG-06-2014	05:34:48	0.002	0.293	0.020	0.8
AUG-06-2014	05:35:24	0.002	0.291	0.020	0.8
AUG-06-2014	05:36:00	0.002	0.290	0.020	0.8
AUG-06-2014	05:36:36	0.002	0.289	0.020	0.8
AUG-06-2014	05:37:12	0.002	0.287	0.019	0.8
AUG-06-2014	05:37:48	0.002	0.286	0.019	0.8
AUG-06-2014	05:38:24	0.002	0.285	0.019	0.8
AUG-06-2014	05:39:00	0.002	0.284	0.019	0.8
AUG-06-2014	05:39:36	0.002	0.282	0.019	0.7
AUG-06-2014	05:40:12	0.002	0.281	0.018	0.7
AUG-06-2014	05:40:48	0.002	0.280	0.018	0.7

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AUG-06-2014	05:41:24	0.002	0.278	0.018	0.7
AUG-06-2014	05:42:00	0.002	0.277	0.018	0.7
AUG-06-2014	05:42:36	0.002	0.276	0.018	0.7
AUG-06-2014	05:43:12	0.002	0.275	0.018	0.7
AUG-06-2014	05:43:48	0.002	0.274	0.017	0.7
AUG-06-2014	05:44:24	0.002	0.272	0.017	0.7
AUG-06-2014	05:45:00	0.002	0.271	0.017	0.7
AUG-06-2014	05:45:36	0.002	0.270	0.017	0.7
AUG-06-2014	05:46:12	0.001	0.269	0.017	0.7
AUG-06-2014	05:46:48	0.001	0.268	0.016	0.7
AUG-06-2014	05:47:24	0.001	0.266	0.016	0.7
AUG-06-2014	05:48:00	0.001	0.265	0.016	0.6
AUG-06-2014	05:48:36	0.001	0.264	0.016	0.6
AUG-06-2014	05:49:12	0.001	0.263	0.016	0.6
AUG-06-2014	05:49:48	0.001	0.262	0.016	0.6
AUG-06-2014	05:50:24	0.001	0.261	0.015	0.6
AUG-06-2014	05:51:00	0.001	0.260	0.015	0.6
AUG-06-2014	05:51:36	0.001	0.259	0.015	0.6
AUG-06-2014	05:52:12	0.001	0.258	0.015	0.6
AUG-06-2014	05:52:48	0.001	0.256	0.015	0.6
AUG-06-2014	05:53:24	0.001	0.255	0.015	0.6
AUG-06-2014	05:54:00	0.001	0.254	0.015	0.6
AUG-06-2014	05:54:36	0.001	0.253	0.014	0.6
AUG-06-2014	05:55:12	0.001	0.252	0.014	0.6
AUG-06-2014	05:55:48	0.001	0.251	0.014	0.6
AUG-06-2014	05:56:24	0.001	0.250	0.014	0.6
AUG-06-2014	05:57:00	0.001	0.249	0.014	0.5
AUG-06-2014	05:57:36	0.001	0.248	0.014	0.5
AUG-06-2014	05:58:12	0.001	0.247	0.013	0.5
AUG-06-2014	05:58:48	0.001	0.246	0.013	0.5
AUG-06-2014	05:59:24	0.001	0.245	0.013	0.5
AUG-06-2014	06:00:00	0.001	0.244	0.013	0.5
AUG-06-2014	06:00:36	0.001	0.243	0.013	0.5
AUG-06-2014	06:01:12	0.001	0.242	0.013	0.5
AUG-06-2014	06:01:48	0.001	0.241	0.013	0.5
AUG-06-2014	06:02:24	0.001	0.240	0.012	0.5
AUG-06-2014	06:03:00	0.001	0.239	0.012	0.5
AUG-06-2014	06:03:36	0.001	0.238	0.012	0.5
AUG-06-2014	06:04:12	0.001	0.237	0.012	0.5
AUG-06-2014	06:04:48	0.001	0.236	0.012	0.5
AUG-06-2014	06:05:24	0.001	0.235	0.012	0.5
AUG-06-2014	06:06:00	0.001	0.234	0.012	0.5
AUG-06-2014	06:06:36	0.001	0.234	0.011	0.5
AUG-06-2014	06:07:12	0.001	0.233	0.011	0.5
AUG-06-2014	06:07:48	0.001	0.232	0.011	0.4
AUG-06-2014	06:08:24	0.001	0.231	0.011	0.4
AUG-06-2014	06:09:00	0.001	0.230	0.011	0.4
AUG-06-2014	06:09:36	0.001	0.229	0.011	0.4
AUG-06-2014	06:10:12	0.001	0.228	0.011	0.4

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AUG-06-2014	06:10:48	0.001	0.227	0.011	0.4
AUG-06-2014	06:11:24	0.001	0.226	0.010	0.4
AUG-06-2014	06:12:00	0.001	0.225	0.010	0.4
AUG-06-2014	06:12:36	0.001	0.225	0.010	0.4
AUG-06-2014	06:13:12	0.001	0.224	0.010	0.4
AUG-06-2014	06:13:48	0.001	0.000	0.010	0.4
AUG-06-2014	06:14:24	0.001	0.000	0.010	0.4
AUG-06-2014	06:15:00	0.001	0.000	0.010	0.4
AUG-06-2014	06:15:36	0.001	0.000	0.010	0.4
AUG-06-2014	06:16:12	0.001	0.000	0.009	0.4
AUG-06-2014	06:16:48	0.001	0.000	0.009	0.4
AUG-06-2014	06:17:24	0.001	0.000	0.009	0.4
AUG-06-2014	06:18:00	0.001	0.000	0.009	0.4
AUG-06-2014	06:18:36	0.001	0.000	0.009	0.4
AUG-06-2014	06:19:12	0.001	0.000	0.009	0.4
AUG-06-2014	06:19:48	0.001	0.000	0.009	0.4
AUG-06-2014	06:20:24	0.001	0.000	0.009	0.3
AUG-06-2014	06:21:00	0.001	0.000	0.009	0.3
AUG-06-2014	06:21:36	0.001	0.000	0.008	0.3
AUG-06-2014	06:22:12	0.001	0.000	0.008	0.3
AUG-06-2014	06:22:48	0.001	0.000	0.008	0.3
AUG-06-2014	06:23:24	0.001	0.000	0.008	0.3
AUG-06-2014	06:24:00	0.001	0.000	0.008	0.3
AUG-06-2014	06:24:36	0.000	0.000	0.008	0.3
AUG-06-2014	06:25:12	0.000	0.000	0.008	0.3
AUG-06-2014	06:25:48	0.000	0.000	0.008	0.3
AUG-06-2014	06:26:24	0.000	0.000	0.008	0.3
AUG-06-2014	06:27:00	0.000	0.000	0.008	0.3
AUG-06-2014	06:27:36	0.000	0.000	0.007	0.3
AUG-06-2014	06:28:12	0.000	0.000	0.007	0.3
AUG-06-2014	06:28:48	0.000	0.000	0.007	0.3
AUG-06-2014	06:29:24	0.000	0.000	0.007	0.3
AUG-06-2014	06:30:00	0.000	0.000	0.007	0.3
AUG-06-2014	06:30:36	0.000	0.000	0.007	0.3
AUG-06-2014	06:31:12	0.000	0.000	0.007	0.3
AUG-06-2014	06:31:48	0.000	0.000	0.007	0.3
AUG-06-2014	06:32:24	0.000	0.000	0.007	0.3
AUG-06-2014	06:33:00	0.000	0.000	0.007	0.3
AUG-06-2014	06:33:36	0.000	0.000	0.006	0.3
AUG-06-2014	06:34:12	0.000	0.000	0.006	0.3
AUG-06-2014	06:34:48	0.000	0.000	0.006	0.2
AUG-06-2014	06:35:24	0.000	0.000	0.006	0.2
AUG-06-2014	06:36:00	0.000	0.000	0.006	0.2
AUG-06-2014	06:36:36	0.000	0.000	0.006	0.2
AUG-06-2014	06:37:12	0.000	0.000	0.006	0.2
AUG-06-2014	06:37:48	0.000	0.000	0.006	0.2
AUG-06-2014	06:38:24	0.000	0.000	0.006	0.2
AUG-06-2014	06:39:00	0.000	0.000	0.006	0.2
AUG-06-2014	06:39:36	0.000	0.000	0.006	0.2

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AUG-06-2014	06:40:12	0.000	0.000	0.005	0.2
AUG-06-2014	06:40:48	0.000	0.000	0.005	0.2
AUG-06-2014	06:41:24	0.000	0.000	0.005	0.2
AUG-06-2014	06:42:00	0.000	0.000	0.005	0.2
AUG-06-2014	06:42:36	0.000	0.000	0.005	0.2
AUG-06-2014	06:43:12	0.000	0.000	0.005	0.2
AUG-06-2014	06:43:48	0.000	0.000	0.005	0.2
AUG-06-2014	06:44:24	0.000	0.000	0.005	0.2
AUG-06-2014	06:45:00	0.000	0.000	0.005	0.2
AUG-06-2014	06:45:36	0.000	0.000	0.005	0.2
AUG-06-2014	06:46:12	0.000	0.000	0.005	0.2
AUG-06-2014	06:46:48	0.000	0.000	0.005	0.2
AUG-06-2014	06:47:24	0.000	0.000	0.004	0.2
AUG-06-2014	06:48:00	0.000	0.000	0.004	0.2
AUG-06-2014	06:48:36	0.000	0.000	0.004	0.2
AUG-06-2014	06:49:12	0.000	0.000	0.004	0.2
AUG-06-2014	06:49:48	0.000	0.000	0.004	0.2
AUG-06-2014	06:50:24	0.000	0.000	0.004	0.2
AUG-06-2014	06:51:00	0.000	0.000	0.004	0.2
AUG-06-2014	06:51:36	0.000	0.000	0.004	0.2
AUG-06-2014	06:52:12	0.000	0.000	0.004	0.2
AUG-06-2014	06:52:48	0.000	0.000	0.004	0.2
AUG-06-2014	06:53:24	0.000	0.000	0.004	0.1
AUG-06-2014	06:54:00	0.000	0.000	0.004	0.1
AUG-06-2014	06:54:36	0.000	0.000	0.004	0.1
AUG-06-2014	06:55:12	0.000	0.000	0.004	0.1
AUG-06-2014	06:55:48	0.000	0.000	0.003	0.1
AUG-06-2014	06:56:24	0.000	0.000	0.003	0.1
AUG-06-2014	06:57:00	0.000	0.000	0.003	0.1
AUG-06-2014	06:57:36	0.000	0.000	0.003	0.1
AUG-06-2014	06:58:12	0.000	0.000	0.003	0.1
AUG-06-2014	06:58:48	0.000	0.000	0.003	0.1
AUG-06-2014	06:59:24	0.000	0.000	0.003	0.1
AUG-06-2014	07:00:00	0.000	0.000	0.003	0.1
AUG-06-2014	07:00:36	0.000	0.000	0.003	0.1
AUG-06-2014	07:01:12	0.000	0.000	0.003	0.1
AUG-06-2014	07:01:48	0.000	0.000	0.003	0.1
AUG-06-2014	07:02:24	0.000	0.000	0.003	0.1
AUG-06-2014	07:03:00	0.000	0.000	0.003	0.1
AUG-06-2014	07:03:36	0.000	0.000	0.003	0.1
AUG-06-2014	07:04:12	0.000	0.000	0.003	0.1
AUG-06-2014	07:04:48	0.000	0.000	0.002	0.1
AUG-06-2014	07:05:24	0.000	0.000	0.002	0.1
AUG-06-2014	07:06:00	0.000	0.000	0.002	0.1
AUG-06-2014	07:06:36	0.000	0.000	0.002	0.1
AUG-06-2014	07:07:12	0.000	0.000	0.002	0.1
AUG-06-2014	07:07:48	0.000	0.000	0.002	0.1
AUG-06-2014	07:08:24	0.000	0.000	0.002	0.1
AUG-06-2014	07:09:00	0.000	0.000	0.002	0.1

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AUG-06-2014 07:09:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:10:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:10:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:11:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:12:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:12:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:13:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:13:48	0.000	0.000	0.002	0.1
AUG-06-2014 07:14:24	0.000	0.000	0.002	0.1
AUG-06-2014 07:15:00	0.000	0.000	0.002	0.1
AUG-06-2014 07:15:36	0.000	0.000	0.002	0.1
AUG-06-2014 07:16:12	0.000	0.000	0.002	0.1
AUG-06-2014 07:16:48	0.000	0.000	0.001	0.1
AUG-06-2014 07:17:24	0.000	0.000	0.001	0.1
AUG-06-2014 07:18:00	0.000	0.000	0.001	0.1
AUG-06-2014 07:18:36	0.000	0.000	0.001	0.1
AUG-06-2014 07:19:12	0.000	0.000	0.001	0.1
AUG-06-2014 07:19:48	0.000	0.000	0.001	0.1
AUG-06-2014 07:20:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:21:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:21:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:22:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:22:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:23:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:24:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:24:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:25:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:25:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:26:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:27:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:27:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:28:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:28:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:29:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:30:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:30:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:31:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:31:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:32:24	0.000	0.000	0.001	0.0
AUG-06-2014 07:33:00	0.000	0.000	0.001	0.0
AUG-06-2014 07:33:36	0.000	0.000	0.001	0.0
AUG-06-2014 07:34:12	0.000	0.000	0.001	0.0
AUG-06-2014 07:34:48	0.000	0.000	0.001	0.0
AUG-06-2014 07:35:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:36:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:36:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:37:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:37:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:38:24	0.000	0.000	0.000	0.0



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AUG-06-2014 07:39:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:39:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:40:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:40:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:41:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:42:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:42:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:43:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:43:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:44:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:45:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:45:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:46:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:46:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:47:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:48:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:48:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:49:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:49:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:50:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:51:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:51:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:52:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:52:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:53:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:54:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:54:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:55:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:55:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:56:24	0.000	0.000	0.000	0.0
AUG-06-2014 07:57:00	0.000	0.000	0.000	0.0
AUG-06-2014 07:57:36	0.000	0.000	0.000	0.0
AUG-06-2014 07:58:12	0.000	0.000	0.000	0.0
AUG-06-2014 07:58:48	0.000	0.000	0.000	0.0
AUG-06-2014 07:59:24	0.000	0.000	0.000	0.0
AUG-06-2014 08:00:00	0.000	0.000	0.000	0.0

Analysis begun on: Thu Dec 19 16:40:23 2019

Analysis ended on: Thu Dec 19 16:43:20 2019

Total elapsed time: 00:02:57



Inlet Area	50 Inlet Perimeter	30 Weir Coeff.	3 Entrance Loss Coeff.	0.67 gravity	32.2	Qw Equation	Qo Equation	Qo Equation	Qo Equation
h	1.666666667					1 (H < h)	2 (H > h)	1 (H < h)	2 (H > h)
Time (hr)	depth, H (ft)	0.75 <= H < 1.8	Qw Equation Qo Equation	Qw	Qo	H < 0.75	H >= 1.8	Qo Equation	Qo
0.016944	No, Check Other Conditions	Yes	1	0	No, Check Other Conditions	1	0	68.46531969	0
0.025278	0 No, Check Other Conditions	Yes	1	0	No, Check Other Conditions	1	0	68.46531969	0
0.033611	0 No, Check Other Conditions	Yes	1	0	No, Check Other Conditions	1	0	68.46531969	0
0.041944	0 No, Check Other Conditions	Yes	1	0	No, Check Other Conditions	1	0	68.46531969	0
0.050772	0.00098894 No, Check Other Conditions	Yes	1	0.002798965	No, Check Other Conditions	1	0.002798965	68.58723041	8.45420379
0.060147	0.0045781 No, Check Other Conditions	Yes	1	0.027878565	No, Check Other Conditions	1	0.027878565	69.03028781	18.18990279
0.070096	0.011094 No, Check Other Conditions	Yes	1	0.105165854	No, Check Other Conditions	1	0.105165854	69.83705761	28.31599464
0.080666	0.011933 No, Check Other Conditions	Yes	1	0.117318627	No, Check Other Conditions	1	0.117318627	69.94116576	29.36720136
0.09035	0.012771 No, Check Other Conditions	Yes	1	0.12891241	No, Check Other Conditions	1	0.12891241	70.138086908	30.38086908
0.10029	0.013642 No, Check Other Conditions	Yes	1	0.143403443	No, Check Other Conditions	1	0.143403443	70.15338854	31.39979143
0.11059	0.014739 No, Check Other Conditions	Yes	1	0.161043996	No, Check Other Conditions	1	0.161043996	70.28972636	32.63786563
0.12059	0.017052 No, Check Other Conditions	Yes	1	0.200403589	No, Check Other Conditions	1	0.200403589	70.5774806	35.10551938
0.13033	0.019204 No, Check Other Conditions	Yes	1	0.239513532	No, Check Other Conditions	1	0.239513532	70.84555694	37.25491607
0.14048	0.021376 No, Check Other Conditions	Yes	1	0.281275672	No, Check Other Conditions	1	0.281275672	71.11646797	39.30528604
0.1504	0.023484 No, Check Other Conditions	Yes	1	0.323892295	No, Check Other Conditions	1	0.323892295	71.37972573	41.19777644
0.16013	0.025689 No, Check Other Conditions	Yes	1	0.37056407	No, Check Other Conditions	1	0.37056407	71.65544409	43.08849647
0.17028	0.027965 No, Check Other Conditions	Yes	1	0.420886257	No, Check Other Conditions	1	0.420886257	71.94041184	44.95677533
0.18027	0.03002 No, Check Other Conditions	Yes	1	0.46812145	No, Check Other Conditions	1	0.46812145	72.19803284	46.57931363
0.19011	0.032125 No, Check Other Conditions	Yes	1	0.5182117	No, Check Other Conditions	1	0.5182117	72.46224006	48.18471659
0.20038	0.034204 No, Check Other Conditions	Yes	1	0.569321855	No, Check Other Conditions	1	0.569321855	72.72349499	49.71943555
0.2105	0.036222 No, Check Other Conditions	Yes	1	0.620441942	No, Check Other Conditions	1	0.620441942	72.97739288	51.16511491
0.22013	0.038035 No, Check Other Conditions	Yes	1	0.667602017	No, Check Other Conditions	1	0.667602017	73.20574573	52.4299509
0.23051	0.040725 No, Check Other Conditions	Yes	1	0.739663433	No, Check Other Conditions	1	0.739663433	73.54499725	54.25231656
0.2401	0.043187 No, Check Other Conditions	Yes	1	0.807740882	No, Check Other Conditions	1	0.807740882	73.85595229	55.86814595
0.25021	0.044402 No, Check Other Conditions	Yes	1	0.842066341	No, Check Other Conditions	1	0.842066341	74.00957007	56.64857726
0.26023	0.046517 No, Check Other Conditions	Yes	1	0.90294242	No, Check Other Conditions	1	0.90294242	74.27723247	57.98205317
0.2701	0.048105 No, Check Other Conditions	Yes	1	0.949571864	No, Check Other Conditions	1	0.949571864	74.47841234	58.96344507
0.28033	0.049519 No, Check Other Conditions	Yes	1	0.991745659	No, Check Other Conditions	1	0.991745659	74.65770117	59.82375561
0.29047	0.050932 No, Check Other Conditions	Yes	1	1.034495498	No, Check Other Conditions	1	1.034495498	74.83700669	60.6712728
0.30003	0.052395 No, Check Other Conditions	Yes	1	1.079387232	No, Check Other Conditions	1	1.079387232	75.02280807	61.53648183
0.31045	0.053705 No, Check Other Conditions	Yes	1	1.120120101	No, Check Other Conditions	1	1.120120101	75.18930869	62.30101199
0.32033	0.055206 No, Check Other Conditions	Yes	1	1.167406027	No, Check Other Conditions	1	1.167406027	75.38023654	63.16563716
0.33014	0.056302 No, Check Other Conditions	Yes	1	1.202342623	No, Check Other Conditions	1	1.202342623	75.51975014	63.78956667
0.34036	0.057706 No, Check Other Conditions	Yes	1	1.247959598	No, Check Other Conditions	1	1.247959598	75.69859569	64.58002762
0.35062	0.058798 No, Check Other Conditions	Yes	1	1.283176331	No, Check Other Conditions	1	1.283176331	75.83779525	65.18820426
0.36011	0.059963 No, Check Other Conditions	Yes	1	1.32150113	No, Check Other Conditions	1	1.32150113	75.98639423	65.8308431
0.37013	0.060957 No, Check Other Conditions	Yes	1	1.3544965	No, Check Other Conditions	1	1.3544965	76.11325832	66.3742357
0.38008	0.062214 No, Check Other Conditions	Yes	1	1.396608551	No, Check Other Conditions	1	1.396608551	76.27379004	67.05509824
0.39043	0.063066 No, Check Other Conditions	Yes	1	1.425395683	No, Check Other Conditions	1	1.425395683	76.38266322	67.51268556
0.40024	0.064088 No, Check Other Conditions	Yes	1	1.460184007	No, Check Other Conditions	1	1.460184007	76.51332819	68.05751696
0.41046	0.065365 No, Check Other Conditions	Yes	1	1.504043537	No, Check Other Conditions	1	1.504043537	76.67670006	68.73222031
0.42015	0.066556 No, Check Other Conditions	Yes	1	1.538377102	No, Check Other Conditions	1	1.538377102	76.8035628	69.25128556
0.43025	0.067203 No, Check Other Conditions	Yes	1	1.567925779	No, Check Other Conditions	1	1.567925779	76.91204679	69.6918625
0.44029	0.068384 No, Check Other Conditions	Yes	1	1.609438034	No, Check Other Conditions	1	1.609438034	77.06339477	70.30156466
0.45026	0.069325 No, Check Other Conditions	Yes	1	1.642772132	No, Check Other Conditions	1	1.642772132	77.18405714	70.8360539
0.46025	0.069495 No, Check Other Conditions	Yes	1	1.648818487	No, Check Other Conditions	1	1.648818487	77.20586258	70.87034066
0.4702	0.070482 No, Check Other Conditions	Yes	1	1.684068832	No, Check Other Conditions	1	1.684068832	77.33250295	71.37183294
0.48008	0.071595 No, Check Other Conditions	Yes	1	1.724116268	No, Check Other Conditions	1	1.724116268	77.47539315	71.93315144
0.49035	0.072968 No, Check Other Conditions	Yes	1	1.773949178	No, Check Other Conditions	1	1.773949178	77.651784	72.61961834
0.50012	0.073972 No, Check Other Conditions	Yes	1	1.810687698	No, Check Other Conditions	1	1.810687698	77.88085362	73.11751472
0.51029	0.074727 No, Check Other Conditions	Yes	1	1.838664187	No, Check Other Conditions	1	1.838664187	77.86663323	73.40216532
0.52044	0.075435 No, Check Other Conditions	Yes	1	1.864669432	No, Check Other Conditions	1	1.864669432	77.96905804	73.83702467
0.53016	0.076245 No, Check Other Conditions	Yes	1	1.894783362	No, Check Other Conditions	1	1.894783362	78.0733239	74.23238687
0.54026	0.077336 No, Check Other Conditions	Yes	1	1.935597568	No, Check Other Conditions	1	1.935597568	78.21383439	74.76160107
0.55032	0.078662 No, Check Other Conditions	Yes	1	1.985591869	No, Check Other Conditions	1	1.985591869	78.38472401	75.39980676
0.56033	0.079473 No, Check Other Conditions	Yes	1	2.016377861	No, Check Other Conditions	1	2.016377861	78.48930372	75.78749357
0.57029	0.080525 No, Check Other Conditions	Yes	1	2.05654686	No, Check Other Conditions	1	2.05654686	78.62502999	76.28745161
0.58023	0.081488 No, Check Other Conditions	Yes	1	2.093548362	No, Check Other Conditions	1	2.093548362	78.74934223	76.74225743
0.59012	0.082649 No, Check Other Conditions	Yes	1	2.138449084	No, Check Other Conditions	1	2.138449084	78.899301	77.28701645
0.6004	0.083936 No, Check Other Conditions	Yes	1	2.188592531	No, Check Other Conditions	1	2.188592531	79.06564546	77.88644384
0.61022	0.084854 No, Check Other Conditions	Yes	1	2.224595165	No, Check Other Conditions	1	2.224595165	79.18436809	78.3112039
0.62009	0.085821 No, Check Other Conditions	Yes	1	2.26273068	No, Check Other Conditions	1	2.26273068	79.30949197	78.75615881
0.63034	0.087075 No, Check Other Conditions	Yes	1	2.312505286	No, Check Other Conditions	1	2.312505286	79.47184994	79.32945712
0.64012	0.087963 No, Check Other Conditions	Yes	1	2.34797008	No, Check Other Conditions	1	2.34797008	79.58688804	79.73293612
0.65029	0.089176 No, Check Other Conditions	Yes	1	2.396704502	No, Check Other Conditions	1	2.396704502	79.74411867	80.28080798
0.66	0.090256 No, Check Other Conditions	Yes	1	2.440375369	No, Check Other Conditions	1	2.440375369	79.88419668	80.76548064
0.67008	0.091703 No, Check Other Conditions	Yes	1	2.499296752	No, Check Other Conditions	1	2.499296752	80.07200368	81.4103295
0.68013	0.092662 No, Check Other Conditions	Yes	1	2.538604315	No, Check Other Conditions	1	2.538604315	80.19655384	81.83490368
0.69014	0.093697 No, Check Other Conditions	Yes	1	2.58125576	No, Check Other Conditions	1	2.58125576	80.33104689	82.29066722
0.70013	0.094693 No, Check Other Conditions	Yes	1	2.622523105	No, Check Other Conditions	1	2.622523105	80.46054299	82.72688632
0.71032	0.099874 No, Check Other Conditions	Yes	1	2.840672555	No, Check Other Conditions	1	2.840672555	81.13527711	84.95989415
0.72005	0.10213 No, Check Other Conditions	Yes	1	2.937463692	No, Check Other Conditions	1	2.937463692	81.42966791	85.91409242
0.73026	0.10193 No, Check Other Conditions	Yes	1	2.928839316	No, Check Other Conditions	1	2.928839316	81.40355508	85.82992891
0.74002	0.10053 No, Check Other Conditions	Yes	1	2.868705944	No, Check Other Conditions	1	2.868705944	81.22084346	85.2384575
0.75008	0.10355 No, Check Other Conditions	Yes	1	2.998939222	No, Check Other Conditions	1	2.998939222	81.61514925	86.50929889
0.76008	0.10396 No, Check Other Conditions	Yes	1	3.016768021	No, Check Other Conditions	1	3.016768021	81.66872989	86.68393889
0.77	0.10431 No, Check Other Conditions	Yes	1	3.032015573	No, Check Other Conditions	1	3.032015573	81.74478703	86.82618383
0.78021	0.10485 No, Check Other Conditions	Yes	1	3.055590574	No, Check Other Conditions	1	3.055590574	81.78507941	87.05063794
0.79001	0.10518 No, Check Other Conditions	Yes	1	3.070027454	No, Check Other Conditions	1	3.070027454	81.82823428	87.18751988
0.80011	0.10614 No, Check Other Conditions	Yes	1	3.112154395	No, Check Other Conditions	1	3.112154395	81.95381884	87.58450551
0.81016	0.10644 No, Check Other Conditions	Yes	1	3.125358264	No, Check Other Conditions	1	3.125358264	81.99307718	87.70819503
0.82018	0.10714 No, Check Other Conditions	Yes	1	3.156239659	No, Check Other Conditions	1	3.156239659	82.08470433	87.99612779
0.83016	0.10829 No, Check Other Conditions	Yes	1	3.207192591	No, Check Other Conditions	1	3.207192591	82.2353087	88.46712576
0.84011	0.1083 No, Check Other Conditions	Yes	1	3.207636852	No, Check Other Conditions	1	3.207636852	82.23661871	88.47123104
0.85003	0.11437 No, Check Other Conditions	Yes	1	3.481053445	No, Check Other Conditions	1	3.481053445	83.03307501	90.91672879
0.86025	0.11432 No, Check Other Conditions	Yes	1	3.478770937	No, Check Other Conditions	1	3.478770937	83.02650397	90.89685323
0.87006	0.11495 No, Check Other Conditions	Yes	1	3.507566979	No, Check Other Conditions	1	3.507566979	83.10931176	91.14696844
0.88017	0.11621 No, Check Other Conditions	Yes	1	3.565395904	No, Check Other Conditions	1	3.565395904	83.27500988	91.64515104
0.89022	0.11458 No, Check Other Conditions	Yes	1	3.490645427	No, Check Other Conditions	1	3.490645427	83.06067528	91.00015869
0.90021	0.11628 No, Check Other Conditions	Yes	1	3.568617855	No, Check Other Conditions	1	3.568617855	83.28421856	91.67274847
0.91016	0.11716 No, Check Other Conditions	Yes	1	3.60920503	No, Check Other Conditions	1	3.60920503	83.40001373	92.01898154
0.92008	0.11847 No, Check Other Conditions	Yes	1	3.669907281	No, Check Other Conditions	1	3.669907281	83.57248993	92.53199697

0.93032	0.11888	No, Check Other Conditions	Yes	1	3.688974932	No, Check Other Conditions	3.688974932	83.62649543	92.69197566	262.3341743
0.94019	0.11951	No, Check Other Conditions	Yes	1	3.718338121	No, Check Other Conditions	3.718338121	83.70950215	92.93725991	262.4209423
0.95003	0.11972	No, Check Other Conditions	Yes	1	3.728143082	No, Check Other Conditions	3.728143082	83.73717716	93.01887759	262.4498586
0.96018	0.12070	No, Check Other Conditions	Yes	1	3.774482223	No, Check Other Conditions	3.774482223	83.86768611	93.40268604	262.5861353
0.97031	0.12421	No, Check Other Conditions	Yes	1	3.944587626	No, Check Other Conditions	3.944587626	84.34283483	94.78525307	263.0810918
0.98007	0.12461	No, Check Other Conditions	Yes	1	3.958875585	No, Check Other Conditions	3.958875585	84.38247093	94.89955779	263.1222962
0.99013	0.12253	No, Check Other Conditions	Yes	1	3.860167587	No, Check Other Conditions	3.860167587	84.10778836	94.10418926	262.8364798
1.0002	0.12363	No, Check Other Conditions	Yes	1	3.912265441	No, Check Other Conditions	3.912265441	84.25301599	94.52565063	262.9876714
1.0101	0.12487	No, Check Other Conditions	Yes	1	3.971272396	No, Check Other Conditions	3.971272396	84.41682724	94.99851074	263.1580014
1.0201	0.12817	No, Check Other Conditions	Yes	1	4.129734063	No, Check Other Conditions	4.129734063	84.85329292	96.24561077	263.6107628
1.0301	0.12801	No, Check Other Conditions	Yes	1	4.122003496	No, Check Other Conditions	4.122003496	84.83211364	96.18551829	263.5888287
1.0403	0.12688	No, Check Other Conditions	Yes	1	4.057938377	No, Check Other Conditions	4.057938377	84.65612915	95.68453883	263.4064305
1.0502	0.12777	No, Check Other Conditions	Yes	1	4.110416702	No, Check Other Conditions	4.110416702	84.80034803	96.09530911	263.555924
1.0601	0.13336	No, Check Other Conditions	Yes	1	4.38309506	No, Check Other Conditions	4.38309506	85.5412505	98.17491504	264.321264
1.0703	0.13112	No, Check Other Conditions	Yes	1	4.273128178	No, Check Other Conditions	4.273128178	85.24410141	97.34691905	264.0148468
1.0801	0.13412	No, Check Other Conditions	Yes	1	4.42061636	No, Check Other Conditions	4.42061636	85.64214722	98.5426018	264.4251463
1.0902	0.13459	No, Check Other Conditions	Yes	1	4.443873616	No, Check Other Conditions	4.443873616	85.70456372	98.62661715	264.4893689
1.1003	0.13261	No, Check Other Conditions	Yes	1	4.346172125	No, Check Other Conditions	4.346172125	85.44172024	97.89846408	264.2187085
1.1101	0.13474	No, Check Other Conditions	Yes	1	4.451304704	No, Check Other Conditions	4.451304704	85.72448706	98.68156133	264.5098622
1.1201	0.13563	No, Check Other Conditions	Yes	1	4.495480851	No, Check Other Conditions	4.495480851	85.84273068	99.00693626	264.6314231
1.1301	0.13404	No, Check Other Conditions	Yes	1	4.416661731	No, Check Other Conditions	4.416661731	85.63152465	98.42489277	264.4142133
1.14	0.13708	No, Check Other Conditions	Yes	1	4.567763955	No, Check Other Conditions	4.567763955	86.03549109	99.53476343	264.8293522
1.1503	0.13718	No, Check Other Conditions	Yes	1	4.572763149	No, Check Other Conditions	4.572763149	86.04879022	99.57106217	264.8429971
1.1602	0.13636	No, Check Other Conditions	Yes	1	4.531823616	No, Check Other Conditions	4.531823616	85.93975756	99.27302073	264.7310887
1.17	0.13755	No, Check Other Conditions	Yes	1	4.591276008	No, Check Other Conditions	4.591276008	86.09800297	99.70525259	264.8934768
1.1801	0.13933	No, Check Other Conditions	Yes	1	4.68068554	No, Check Other Conditions	4.68068554	86.33488726	100.3483092	265.1361911
1.1902	0.13972	No, Check Other Conditions	Yes	1	4.700351917	No, Check Other Conditions	4.700351917	86.38681784	100.4897546	265.1893404
1.2	0.14045	No, Check Other Conditions	Yes	1	4.737237132	No, Check Other Conditions	4.737237132	86.44804092	100.7508253	265.2887964
1.2101	0.14157	No, Check Other Conditions	Yes	1	4.794014657	No, Check Other Conditions	4.794014657	86.63236995	101.1517397	265.4413139
1.2201	0.1421	No, Check Other Conditions	Yes	1	4.82096109	No, Check Other Conditions	4.82096109	86.70395301	101.3409053	265.5134568
1.2301	0.1421	No, Check Other Conditions	Yes	1	4.82096109	No, Check Other Conditions	4.82096109	86.70395301	101.3409053	265.5134568
1.2401	0.14484	No, Check Other Conditions	Yes	1	4.961069186	No, Check Other Conditions	4.961069186	87.06953759	102.3132779	265.88611
1.2501	0.1453	No, Check Other Conditions	Yes	1	4.984721866	No, Check Other Conditions	4.984721866	87.13096335	102.4756184	265.948621
1.26	0.15033	No, Check Other Conditions	Yes	1	5.245791144	No, Check Other Conditions	5.245791144	87.8035821	104.2342792	266.6312092
1.2702	0.14525	No, Check Other Conditions	Yes	1	4.982149107	No, Check Other Conditions	4.982149107	87.12428594	102.4579852	265.9418271
1.2801	0.14456	No, Check Other Conditions	Yes	1	4.946690273	No, Check Other Conditions	4.946690273	87.03215506	102.2143357	265.8480526
1.2903	0.15319	No, Check Other Conditions	Yes	1	5.396260194	No, Check Other Conditions	5.396260194	88.18679353	105.2211269	267.0185428
1.3	0.14971	No, Check Other Conditions	Yes	1	5.211377219	No, Check Other Conditions	5.211377219	87.2055161	104.019113	266.5471675
1.3101	0.14554	No, Check Other Conditions	Yes	1	4.997077274	No, Check Other Conditions	4.997077274	87.16301731	102.5602158	266.9812297
1.3201	0.15266	No, Check Other Conditions	Yes	1	5.368221122	No, Check Other Conditions	5.368221122	88.11573684	105.0389495	266.9468067
1.3302	0.14651	No, Check Other Conditions	Yes	1	5.047117459	No, Check Other Conditions	5.047117459	87.29260875	102.9014217	266.1129821
1.3402	0.15193	No, Check Other Conditions	Yes	1	5.329762001	No, Check Other Conditions	5.329762001	88.01789757	104.7875074	266.8479686
1.3502	0.15507	No, Check Other Conditions	Yes	1	5.495841381	No, Check Other Conditions	5.495841381	88.4389976	105.8648129	267.272848
1.36	0.1493	No, Check Other Conditions	Yes	1	5.191970558	No, Check Other Conditions	5.191970558	87.66570869	103.8765805	266.491577
1.3702	0.16531	No, Check Other Conditions	Yes	1	6.049106048	No, Check Other Conditions	6.049106048	89.81691123	109.3043142	268.653773
1.3802	0.14623	No, Check Other Conditions	Yes	1	5.03265581	No, Check Other Conditions	5.03265581	87.25519432	102.803045	266.0749572
1.3902	0.16372	No, Check Other Conditions	Yes	1	5.962043129	No, Check Other Conditions	5.962043129	89.60249319	107.773836	268.4398179
1.4003	0.15067	No, Check Other Conditions	Yes	1	5.263597741	No, Check Other Conditions	5.263597741	87.84910957	104.352086	266.6772853
1.41	0.15188	No, Check Other Conditions	Yes	1	5.327131189	No, Check Other Conditions	5.327131189	88.01119757	104.7702632	266.8411976
1.4201	0.15689	No, Check Other Conditions	Yes	1	5.592878747	No, Check Other Conditions	5.592878747	88.68338121	106.484249	267.5188067
1.4303	0.16204	No, Check Other Conditions	Yes	1	5.870510392	No, Check Other Conditions	5.870510392	89.37612301	108.2178392	268.2135667
1.4402	0.15775	No, Check Other Conditions	Yes	1	5.638928155	No, Check Other Conditions	5.638928155	88.79893736	106.7756994	267.6349503
1.4501	0.15742	No, Check Other Conditions	Yes	1	5.621243152	No, Check Other Conditions	5.621243152	88.75459012	106.6639579	267.5903896
1.4602	0.15709	No, Check Other Conditions	Yes	1	5.603576677	No, Check Other Conditions	5.603576677	88.73102626	106.5259993	267.5458214
1.4703	0.15884	No, Check Other Conditions	Yes	1	5.697473673	No, Check Other Conditions	5.697473673	88.94547012	107.1439566	267.7820832
1.4801	0.16308	No, Check Other Conditions	Yes	1	5.927117865	No, Check Other Conditions	5.927117865	89.51623443	108.5645639	268.3536495
1.4902	0.16162	No, Check Other Conditions	Yes	1	5.847701061	No, Check Other Conditions	5.847701061	89.3195603	108.0775004	268.1569741
1.5002	0.16149	No, Check Other Conditions	Yes	1	5.840647031	No, Check Other Conditions	5.840647031	89.30205521	108.0340523	268.1394549
1.5102	0.16516	No, Check Other Conditions	Yes	1	6.040874604	No, Check Other Conditions	6.040874604	89.79667663	109.2547123	268.6335959
1.5202	0.1659	No, Check Other Conditions	Yes	1	6.081519288	No, Check Other Conditions	6.081519288	89.89651984	109.4991968	268.7331218
1.5302	0.16693	No, Check Other Conditions	Yes	1	6.138243315	No, Check Other Conditions	6.138243315	90.03555234	109.838587	268.8715899
1.5401	0.16676	No, Check Other Conditions	Yes	1	6.12869906	No, Check Other Conditions	6.12869906	90.01260029	109.7826435	268.8487409
1.55	0.16974	No, Check Other Conditions	Yes	1	6.293885041	No, Check Other Conditions	6.293885041	90.41521862	110.7592075	269.2489902
1.5602	0.1684	No, Check Other Conditions	Yes	1	6.219502406	No, Check Other Conditions	6.219502406	90.23410137	110.321151	269.069086
1.5703	0.16705	No, Check Other Conditions	Yes	1	6.144863349	No, Check Other Conditions	6.144863349	90.05175496	109.8780594	268.8877175
1.5801	0.17011	No, Check Other Conditions	Yes	1	6.314475409	No, Check Other Conditions	6.314475409	90.46524993	110.8798585	269.298644
1.5901	0.17128	No, Check Other Conditions	Yes	1	6.379732817	No, Check Other Conditions	6.379732817	90.62351774	111.2605155	269.4555974
1.6001	0.17037	No, Check Other Conditions	Yes	1	6.328957722	No, Check Other Conditions	6.328957722	90.50041259	110.9645618	269.3335305
1.6101	0.17331	No, Check Other Conditions	Yes	1	6.493486513	No, Check Other Conditions	6.493486513	90.89833787	111.9178998	269.7277015
1.6201	0.17169	No, Check Other Conditions	Yes	1	6.402653664	No, Check Other Conditions	6.402653664	90.67900093	111.3936004	269.5105765
1.6301	0.17142	No, Check Other Conditions	Yes	1	6.543569741	No, Check Other Conditions	6.543569741	91.01891295	112.2048982	269.8469119
1.64	0.17449	No, Check Other Conditions	Yes	1	6.559916682	No, Check Other Conditions	6.559916682	91.05821297	112.2982561	269.8857443
1.6502	0.17419	No, Check Other Conditions	Yes	1	6.543006296	No, Check Other Conditions	6.543006296	91.01755788	112.2016776	269.8455727
1.6601	0.17627	No, Check Other Conditions	Yes	1	6.660550358	No, Check Other Conditions	6.660550358	91.2995576	112.8695888	270.1239729
1.67	0.17452	No, Check Other Conditions	Yes	1	6.561608521	No, Check Other Conditions	6.561608521	91.06227881	112.3079094	269.8897612
1.6801	0.17495	No, Check Other Conditions	Yes	1	6.585874183	No, Check Other Conditions	6.585874183	91.12056252	112.446182	269.9473292
1.6902	0.17511	No, Check Other Conditions	Yes	1	6.594910886	No, Check Other Conditions	6.594910886	91.14225266	112.4975889	269.9687467
1.7	0.17728	No, Check Other Conditions	Yes	1	6.717878177	No, Check Other Conditions	6.717878177	91.436595	113.1924896	270.2590542
1.7101	0.17977	No, Check Other Conditions	Yes	1	6.871359715	No, Check Other Conditions	6.871359715	91.89198985	114.048329	270.6184962
1.7201	0.17929	No, Check Other Conditions	Yes	1	6.832452329	No, Check Other Conditions	6.832452329	91.70951675	113.832369	270.5276786
1.7301	0.17874	No, Check Other Conditions	Yes	1	6.801037036	No, Check Other Conditions	6.801037036	91.63480973	113.6576357	270.454201
1.74	0.18035	No, Check Other Conditions	Yes	1	6.893134132	No, Check Other Conditions	6.893134132	91.8535548	114.1683735	270.6692339
1.7503	0.18127	No, Check Other Conditions	Yes	1	6.945946143	No, Check Other Conditions	6.945946143	91.97863001	114.4592005	270.7920332
1.7602	0.18183	No, Check Other Conditions	Yes	1	6.978158305	No, Check Other Conditions	6.978158305	92.05479052	114.6358644	270.8667534
1.7701	0.18238	No, Check Other Conditions	Yes	1	7.009843571	No, Check Other Conditions	7.009843571	92.12961148	114.809109	270.9401192
1.7802	0.18299	No, Check Other Conditions	Yes	1	7.045041328	No, Check Other Conditions	7.045041328	92.21261841	115.0009477	271.0214653
1.7901	0.18358	No, Check Other Conditions	Yes	1	7.079140921	No, Check Other Conditions	7.079140921	92.29291751	115.1861927	271.1001211
1.8002	0.18478	No, Check Other Conditions	Yes	1	7.14866513	No, Check Other Conditions	7.14866513	92.45633993	115.3620459	271.1800286
1.8102	0.18439	No, Check Other Conditions	Yes	1	7.126044924	No, Check Other Conditions	7.126044924	92.40320332	115.4400279	271.208069
1.8203	0.18546	No, Check Other Conditions	Yes	1	7.1					

1.8801	0.1898 No, Check Other Conditions	Yes	1	7.441951264	No, Check Other Conditions	7.441951264	93.14099231	117.1212894	271.9279557
1.8901	0.19059 No, Check Other Conditions	Yes	1	7.488462762	No, Check Other Conditions	7.488462762	93.24888966	117.3647818	272.0329184
1.9	0.19095 No, Check Other Conditions	Yes	1	7.509689893	No, Check Other Conditions	7.509689893	93.29807189	117.475573	272.080736
1.9103	0.19192 No, Check Other Conditions	Yes	1	7.566984805	No, Check Other Conditions	7.566984805	93.43096367	117.773575	272.2095363
1.9202	0.19242 No, Check Other Conditions	Yes	1	7.596574912	No, Check Other Conditions	7.596574912	93.49898899	117.9268901	272.2759043
1.9302	0.19322 No, Check Other Conditions	Yes	1	7.643999908	No, Check Other Conditions	7.643999908	93.60839216	118.1717806	272.3820596
1.9401	0.19334 No, Check Other Conditions	Yes	1	7.651121186	No, Check Other Conditions	7.651121186	93.62480631	118.2084704	272.3979793
1.9501	0.19442 No, Check Other Conditions	Yes	1	7.71531954	No, Check Other Conditions	7.71531954	93.77257684	118.5381678	272.541215
1.9601	0.19503 No, Check Other Conditions	Yes	1	7.751658661	No, Check Other Conditions	7.751658661	93.85607415	118.7239811	272.6220834
1.97	0.19595 No, Check Other Conditions	Yes	1	7.806572748	No, Check Other Conditions	7.806572748	93.98205136	119.0036754	272.7440035
1.9803	0.19654 No, Check Other Conditions	Yes	1	7.841857335	No, Check Other Conditions	7.841857335	94.06287074	119.1826991	272.8221626
1.9902	0.19634 No, Check Other Conditions	Yes	1	7.828980516	No, Check Other Conditions	7.828980516	94.09164715	119.1220432	272.7956705
2.0002	0.19675 No, Check Other Conditions	Yes	1	7.854429049	No, Check Other Conditions	7.854429049	94.09164754	119.2463546	272.8499766
2.0101	0.19745 No, Check Other Conditions	Yes	1	7.896383213	No, Check Other Conditions	7.896383213	94.18756974	119.4582944	272.9426694
2.02	0.19725 No, Check Other Conditions	Yes	1	7.884388708	No, Check Other Conditions	7.884388708	94.16015864	119.3977786	272.916189
2.03	0.19757 No, Check Other Conditions	Yes	1	7.903582832	No, Check Other Conditions	7.903582832	94.20401767	119.4945892	272.9585564
2.0402	0.19734 No, Check Other Conditions	Yes	1	7.889785483	No, Check Other Conditions	7.889785483	94.17249331	119.4250145	272.9281055
2.0502	0.1967 No, Check Other Conditions	Yes	1	7.851435175	No, Check Other Conditions	7.851435175	94.08479185	119.2312016	272.8433545
2.0601	0.19634 No, Check Other Conditions	Yes	1	7.829890516	No, Check Other Conditions	7.829890516	94.03547175	119.1220432	272.7956705
2.0701	0.19584 No, Check Other Conditions	Yes	1	7.800000134	No, Check Other Conditions	7.800000134	93.96689591	118.9702683	272.7294285
2.08	0.19514 No, Check Other Conditions	Yes	1	7.758217672	No, Check Other Conditions	7.758217672	93.87113368	118.7574575	272.6366637
2.09	0.19443 No, Check Other Conditions	Yes	1	7.715914804	No, Check Other Conditions	7.715914804	93.77394545	118.5412162	272.5425409
2.1002	0.19286 No, Check Other Conditions	Yes	1	7.62264603	No, Check Other Conditions	7.62264603	93.55915545	118.0616428	272.3342949
2.1102	0.19325 No, Check Other Conditions	Yes	1	7.645779399	No, Check Other Conditions	7.645779399	93.6124956	118.1809542	272.3860396
2.1202	0.19249 No, Check Other Conditions	Yes	1	7.600720598	No, Check Other Conditions	7.600720598	93.50856007	117.9483384	272.2851946
2.1301	0.19116 No, Check Other Conditions	Yes	1	7.522081632	No, Check Other Conditions	7.522081632	93.32676551	117.540153	272.1086258
2.1401	0.19238 No, Check Other Conditions	Yes	1	7.594206287	No, Check Other Conditions	7.594206287	93.49351995	117.9146323	272.2705955
2.15	0.19169 No, Check Other Conditions	Yes	1	7.553386288	No, Check Other Conditions	7.553386288	93.39919582	117.702983	272.1790015
2.1603	0.19103 No, Check Other Conditions	Yes	1	7.514409752	No, Check Other Conditions	7.514409752	93.38900244	117.5001791	272.091361
2.1702	0.18888 No, Check Other Conditions	Yes	1	7.387907863	No, Check Other Conditions	7.387907863	93.01539219	116.8370889	271.8056696
2.1801	0.1879 No, Check Other Conditions	Yes	1	7.330408497	No, Check Other Conditions	7.330408497	92.88166291	116.5335913	271.6753478
2.19	0.18806 No, Check Other Conditions	Yes	1	7.339849535	No, Check Other Conditions	7.339849535	92.90349188	116.5831959	271.6966291
2.2003	0.18732 No, Check Other Conditions	Yes	1	7.296569662	No, Check Other Conditions	7.296569662	92.80254723	116.3535974	271.598189
2.2102	0.18658 No, Check Other Conditions	Yes	1	7.253375191	No, Check Other Conditions	7.253375191	92.70163916	116.1235449	271.4997133
2.2201	0.18597 No, Check Other Conditions	Yes	1	7.217833275	No, Check Other Conditions	7.217833275	92.61848571	115.9335638	271.4185106
2.23	0.18511 No, Check Other Conditions	Yes	1	7.167823961	No, Check Other Conditions	7.167823961	92.50129524	115.6651915	271.3039867
2.2402	0.18451 No, Check Other Conditions	Yes	1	7.133002442	No, Check Other Conditions	7.133002442	92.41465373	115.4775856	271.2240576
2.2501	0.18353 No, Check Other Conditions	Yes	1	7.076248997	No, Check Other Conditions	7.076248997	92.28612075	115.1705055	271.0934562
2.26	0.18324 No, Check Other Conditions	Yes	1	7.059483607	No, Check Other Conditions	7.059483607	92.24664485	115.0794777	271.0547968
2.2702	0.18233 No, Check Other Conditions	Yes	1	7.006961115	No, Check Other Conditions	7.006961115	92.12280874	114.7933703	270.9334504
2.28	0.18169 No, Check Other Conditions	Yes	1	6.970100607	No, Check Other Conditions	6.970100607	92.03574843	114.591724	270.8480753
2.2902	0.18091 No, Check Other Conditions	Yes	1	6.925264574	No, Check Other Conditions	6.925264574	91.92968078	114.3454867	270.7439879
2.3	0.18059 No, Check Other Conditions	Yes	1	6.906898222	No, Check Other Conditions	6.906898222	91.88617764	114.2443128	270.7012739
2.3101	0.17925 No, Check Other Conditions	Yes	1	6.830165954	No, Check Other Conditions	6.830165954	91.70408283	113.8196702	270.5223355
2.3201	0.17811 No, Check Other Conditions	Yes	1	6.765111594	No, Check Other Conditions	6.765111594	91.54926117	113.4571559	270.3700111
2.3302	0.17767 No, Check Other Conditions	Yes	1	6.740058453	No, Check Other Conditions	6.740058453	91.48952879	113.3169279	270.3111962
2.3402	0.17676 No, Check Other Conditions	Yes	1	6.688342411	No, Check Other Conditions	6.688342411	91.36603253	113.0263589	270.1895158
2.35	0.17482 No, Check Other Conditions	Yes	1	6.578534904	No, Check Other Conditions	6.578534904	91.10294055	112.4043966	269.9299262
2.36	0.17439 No, Check Other Conditions	Yes	1	6.55427827	No, Check Other Conditions	6.55427827	91.0446606	112.2660725	269.8723545
2.3701	0.17602 No, Check Other Conditions	Yes	1	6.646385608	No, Check Other Conditions	6.646385608	91.26564803	112.7895202	270.0905265
2.3801	0.17451 No, Check Other Conditions	Yes	1	6.561044558	No, Check Other Conditions	6.561044558	91.06092352	112.3046917	269.8884222
2.3901	0.17303 No, Check Other Conditions	Yes	1	6.477756535	No, Check Other Conditions	6.477756535	90.86041516	111.8274559	269.6901862
2.4001	0.17412 No, Check Other Conditions	Yes	1	6.539062633	No, Check Other Conditions	6.539062633	91.00807256	112.1791306	269.8361985
2.41	0.17437 No, Check Other Conditions	Yes	1	6.551150782	No, Check Other Conditions	6.551150782	91.04198201	112.2596347	269.8696764
2.4201	0.17245 No, Check Other Conditions	Yes	1	6.445213491	No, Check Other Conditions	6.445213491	90.78187775	111.6398746	269.6124594
2.4302	0.16887 No, Check Other Conditions	Yes	1	6.245558269	No, Check Other Conditions	6.245558269	90.29761379	110.4749955	269.1322004
2.44	0.16965 No, Check Other Conditions	Yes	1	6.288879964	No, Check Other Conditions	6.288879964	90.40305024	110.7298401	269.2369108
2.4501	0.16909 No, Check Other Conditions	Yes	1	6.2577671	No, Check Other Conditions	6.2577671	90.32734812	110.5469342	269.1617382
2.4602	0.17133 No, Check Other Conditions	Yes	1	6.382526575	No, Check Other Conditions	6.382526575	90.63028338	111.2767539	269.4623028
2.4702	0.16607 No, Check Other Conditions	Yes	1	6.090869406	No, Check Other Conditions	6.090869406	89.91946202	109.5552851	268.7559807
2.4801	0.16711 No, Check Other Conditions	Yes	1	6.148174258	No, Check Other Conditions	6.148174258	90.05985663	109.8977903	268.8957809
2.4902	0.16712 No, Check Other Conditions	Yes	1	6.148726134	No, Check Other Conditions	6.148726134	90.06120694	109.9010785	268.8971248
2.5002	0.16602 No, Check Other Conditions	Yes	1	6.088118874	No, Check Other Conditions	6.088118874	89.91271412	109.5387916	268.7492577
2.5101	0.1636 No, Check Other Conditions	Yes	1	5.955489434	No, Check Other Conditions	5.955489434	89.58631756	108.7375117	268.4236635
2.52	0.16129 No, Check Other Conditions	Yes	1	5.829800022	No, Check Other Conditions	5.829800022	89.27512654	107.9671063	268.1125001
2.5301	0.1615 No, Check Other Conditions	Yes	1	5.841189548	No, Check Other Conditions	5.841189548	89.3040171	108.0373702	268.1408026
2.5401	0.16764 No, Check Other Conditions	Yes	1	6.177446426	No, Check Other Conditions	6.177446426	90.13143197	110.0719263	268.9669973
2.5502	0.16349 No, Check Other Conditions	Yes	1	5.94948399	No, Check Other Conditions	5.94948399	89.57149076	108.7009495	268.4088543
2.56	0.15645 No, Check Other Conditions	Yes	1	5.569367301	No, Check Other Conditions	5.569367301	88.64247886	106.3348259	267.4593649
2.57	0.15934 No, Check Other Conditions	Yes	1	5.724396779	No, Check Other Conditions	5.724396779	89.01271392	107.3124591	267.8495484
2.5801	0.16098 No, Check Other Conditions	Yes	1	5.813000951	No, Check Other Conditions	5.813000951	89.2339245	107.8632998	268.0707148
2.59	0.16641 No, Check Other Conditions	Yes	1	6.109584001	No, Check Other Conditions	6.109584001	89.96535222	109.6673757	268.8016926
2.6001	0.16869 No, Check Other Conditions	Yes	1	6.235575138	No, Check Other Conditions	6.235575138	90.27328812	110.4161016	269.1080307
2.6102	0.15208 No, Check Other Conditions	Yes	1	5.337657035	No, Check Other Conditions	5.337657035	88.03799857	104.8392228	266.8682808
2.6202	0.14787 No, Check Other Conditions	Yes	1	5.117556177	No, Check Other Conditions	5.117556177	87.47441199	103.377917	266.2975974
2.6301	0.16566 No, Check Other Conditions	Yes	1	6.068327275	No, Check Other Conditions	6.068327275	89.86413421	109.4199644	268.7008472
2.6402	0.14762 No, Check Other Conditions	Yes	1	5.104583483	No, Check Other Conditions	5.104583483	87.44098282	103.2904908	266.2636704
2.6502	0.14896 No, Check Other Conditions	Yes	1	5.174245193	No, Check Other Conditions	5.174245193	87.62021294	103.7582343	266.4454688
2.66	0.14638 No, Check Other Conditions	Yes	1	5.970238627	No, Check Other Conditions	5.970238627	89.26390028	102.6652703	266.4600097
2.6701	0.14412 No, Check Other Conditions	Yes	1	4.924122965	No, Check Other Conditions	4.924122965	86.97342191	102.0586613	265.7882372
2.6801	0.15606 No, Check Other Conditions	Yes	1	5.54855523	No, Check Other Conditions	5.54855523	88.57190366	106.202207	267.4066668
2.6901	0.14384 No, Check Other Conditions	Yes	1	4.909779871	No, Check Other Conditions	4.909779871	86.93605315	101.959472	265.7501658
2.7001	0.1603 No, Check Other Conditions	Yes	1	5.776207591	No, Check Other Conditions	5.776207591	89.14186949	107.6352446	267.9790338
2.71	0.151 No, Check Other Conditions	Yes	1	5.280899838	No, Check Other Conditions	5.280899838	87.89330551	104.4663035	266.7219987
2.7201	0.14141 No, Check Other Conditions	Yes	1	4.785889784	No, Check Other Conditions	4.785889784	86.61197059	101.0945636	265.419531
2.73	0.14355 No, Check Other Conditions	Yes	1	4.894939233	No, Check Other Conditions	4.894939233	86.89735543	101.8566384	265.7107289
2.7402	0.14584 No, Check Other Conditions	Yes	1	5.012535863	No, Check Other Conditions	5.012535863	87.26309028	102.6658645	266.0219848
2.7501	0.14769 No, Check Other Conditions	Yes	1	5.108214731	No, Check Other Conditions	5.108214731	87.45034256	103.3148776	266.2731704
2.7601	0.14328 No, Check Other Conditions	Yes	1	4.881135555	No, Check Other Conditions	4.881135555	86.86133168	101.7608034	265.6740066
2.7701	0.15113 No, Check Other Conditions	Yes	1	5.287721011	No, Check Other Conditions	5.287721011	87.91071807	104.5112596	266.7396109
2.7801	0.14502 No, Check Other Conditions	Yes	1	4.970320116	No, Check Other Conditions	4.970320116	87.09357204	102.3768331	265.9105726
2.7902	0.14028 No, Check Other Conditions	Yes	1	4.728638842	No, Check Other Conditions	4.728638842	86.46140302	100.6988327	265.2656387
2.8	0.1388								

2.8302	0.13964	No, Check Other Conditions	Yes	1	4.696315547	No, Check Other Conditions	4.696315547	86.37616456	100.4598813	265.1784388
2.84	0.13949	No, Check Other Conditions	Yes	1	4.688750472	No, Check Other Conditions	4.688750472	86.35619085	100.4059103	265.1579972
2.85	0.13916	No, Check Other Conditions	Yes	1	4.672121622	No, Check Other Conditions	4.672121622	86.31225411	100.2870718	265.1130201
2.8602	0.13175	No, Check Other Conditions	Yes	1	4.588772814	No, Check Other Conditions	4.588772814	86.09135205	99.68712931	264.8866528
2.87	0.13733	No, Check Other Conditions	Yes	1	4.580265357	No, Check Other Conditions	4.580265357	85.06874021	99.62548548	264.863463
2.8801	0.13533	No, Check Other Conditions	Yes	1	4.48057377	No, Check Other Conditions	4.48057377	85.80286721	98.89737892	264.5904538
2.89	0.13495	No, Check Other Conditions	Yes	1	4.461715178	No, Check Other Conditions	4.461715178	85.75238235	98.75843182	264.5385502
2.9002	0.13496	No, Check Other Conditions	Yes	1	4.462211117	No, Check Other Conditions	4.462211117	85.75371077	98.76209082	264.5399162
2.91	0.13402	No, Check Other Conditions	Yes	1	4.415673258	No, Check Other Conditions	4.415673258	85.62886907	98.41754954	264.4114799
2.92	0.13272	No, Check Other Conditions	Yes	1	4.351580971	No, Check Other Conditions	4.351580971	85.45631559	97.93905905	264.2337525
2.9302	0.13117	No, Check Other Conditions	Yes	1	4.301512328	No, Check Other Conditions	4.301512328	85.32100873	97.56189807	264.0942211
2.94	0.13124	No, Check Other Conditions	Yes	1	4.335852375	No, Check Other Conditions	4.335852375	85.41385869	97.82091718	264.1899859
2.9501	0.13172	No, Check Other Conditions	Yes	1	4.302492208	No, Check Other Conditions	4.302492208	85.32366112	97.56939208	264.0969577
2.96	0.13009	No, Check Other Conditions	Yes	1	4.222876495	No, Check Other Conditions	4.222876495	85.10758162	96.96381573	263.8738301
2.9702	0.13014	No, Check Other Conditions	Yes	1	4.225311319	No, Check Other Conditions	4.225311319	85.11420711	96.98244793	263.8806773
2.9801	0.12912	No, Check Other Conditions	Yes	1	4.175733613	No, Check Other Conditions	4.175733613	84.97908115	96.60163999	263.7409591
2.9902	0.12751	No, Check Other Conditions	Yes	1	4.097876617	No, Check Other Conditions	4.097876617	84.76593977	95.99748684	263.5202727
3.0002	0.12431	No, Check Other Conditions	Yes	1	3.944587636	No, Check Other Conditions	3.944587636	84.34283483	94.78525307	263.0810918
3.01	0.12549	No, Check Other Conditions	Yes	1	4.000886106	No, Check Other Conditions	4.000886106	84.49877263	95.23406019	263.2431251
3.0202	0.12452	No, Check Other Conditions	Yes	1	3.945063623	No, Check Other Conditions	3.945063623	84.34415594	94.78906545	263.0824654
3.03	0.12314	No, Check Other Conditions	Yes	1	3.898029463	No, Check Other Conditions	3.898029463	84.18831336	94.33814131	262.9203331
3.0401	0.12115	No, Check Other Conditions	Yes	1	3.81159656	No, Check Other Conditions	3.81159656	83.97187821	93.70782972	262.6948306
3.05	0.12263	No, Check Other Conditions	Yes	1	3.864894129	No, Check Other Conditions	3.864894129	84.12098742	94.1425819	262.8502281
3.0602	0.11987	No, Check Other Conditions	Yes	1	3.735151893	No, Check Other Conditions	3.735151893	83.75694689	93.07713212	262.4705111
3.0701	0.1187	No, Check Other Conditions	Yes	1	3.680599713	No, Check Other Conditions	3.680599713	83.60278426	92.62177514	262.3093782
3.0802	0.1186	No, Check Other Conditions	Yes	1	3.675949555	No, Check Other Conditions	3.675949555	83.58961236	92.58275185	262.2956016
3.09	0.11855	No, Check Other Conditions	Yes	1	3.673625212	No, Check Other Conditions	3.673625212	83.58302667	92.56325402	262.288713
3.1	0.11796	No, Check Other Conditions	Yes	1	3.646234998	No, Check Other Conditions	3.646234998	83.50532858	92.33261225	262.207414
3.1101	0.11759	No, Check Other Conditions	Yes	1	3.629092978	No, Check Other Conditions	3.629092978	83.45661496	92.18769067	262.156417
3.1201	0.11666	No, Check Other Conditions	Yes	1	3.586125364	No, Check Other Conditions	3.586125364	83.33421444	91.82241836	262.0281916
3.1301	0.11554	No, Check Other Conditions	Yes	1	3.534606357	No, Check Other Conditions	3.534606357	83.18686867	91.38058254	261.8736862
3.1401	0.11457	No, Check Other Conditions	Yes	1	3.490188467	No, Check Other Conditions	3.490188467	83.05936091	90.99618757	261.7397998
3.15	0.11375	No, Check Other Conditions	Yes	1	3.452785645	No, Check Other Conditions	3.452785645	82.95160634	90.66996402	261.6265641
3.16	0.11181	No, Check Other Conditions	Yes	1	3.364832737	No, Check Other Conditions	3.364832737	82.69686052	89.89345332	261.3584696
3.1702	0.11124	No, Check Other Conditions	Yes	1	3.339135015	No, Check Other Conditions	3.339135015	82.62206218	89.66402509	261.2796472
3.1801	0.1111	No, Check Other Conditions	Yes	1	3.332833346	No, Check Other Conditions	3.332833346	82.60369411	89.60758444	261.2602837
3.1901	0.10991	No, Check Other Conditions	Yes	1	3.24324409	No, Check Other Conditions	3.24324409	82.34144178	88.79737265	260.9835053
3.2001	0.10622	No, Check Other Conditions	Yes	1	3.115673605	No, Check Other Conditions	3.115673605	81.96428711	87.61750646	260.5844428
3.2101	0.10676	No, Check Other Conditions	Yes	1	3.139462914	No, Check Other Conditions	3.139462914	82.03495964	87.83993855	260.6593015
3.22	0.10627	No, Check Other Conditions	Yes	1	3.117873784	No, Check Other Conditions	3.117873784	81.97083001	87.63812574	260.5913616
3.2301	0.10616	No, Check Other Conditions	Yes	1	3.113034073	No, Check Other Conditions	3.113034073	81.95643586	87.59275692	260.5761074
3.24	0.10597	No, Check Other Conditions	Yes	1	3.104680479	No, Check Other Conditions	3.104680479	81.93157523	87.51433719	260.549757
3.2502	0.10552	No, Check Other Conditions	Yes	1	3.08492552	No, Check Other Conditions	3.08492552	81.87277048	87.32832535	260.4873376
3.2602	0.10471	No, Check Other Conditions	Yes	1	3.049472694	No, Check Other Conditions	3.049472694	81.76677358	86.99250174	260.3749451
3.2702	0.1041	No, Check Other Conditions	Yes	1	3.022863967	No, Check Other Conditions	3.022863967	81.6870284	86.73873927	260.2902717
3.2802	0.1035	No, Check Other Conditions	Yes	1	2.99676739	No, Check Other Conditions	2.99676739	81.60861583	86.4884105	260.2069596
3.2902	0.1028	No, Check Other Conditions	Yes	1	2.966416864	No, Check Other Conditions	2.966416864	81.53171662	86.3544141	260.1097284
3.3002	0.10088	No, Check Other Conditions	Yes	1	2.883700281	No, Check Other Conditions	2.883700281	81.26505083	85.38670946	259.8428502
3.3101	0.099239	No, Check Other Conditions	Yes	1	2.813624121	No, Check Other Conditions	2.813624121	81.05247857	84.6893755	259.6145354
3.3202	0.098905	No, Check Other Conditions	Yes	1	2.799431727	No, Check Other Conditions	2.799431727	81.00893916	84.54673959	259.5680409
3.3302	0.096041	No, Check Other Conditions	Yes	1	2.678721229	No, Check Other Conditions	2.678721229	80.63591547	83.31363387	259.1690148
3.3401	0.095756	No, Check Other Conditions	Yes	1	2.66806491	No, Check Other Conditions	2.66806491	80.59882686	83.18992615	259.1292737
3.3502	0.092544	No, Check Other Conditions	Yes	1	2.645446293	No, Check Other Conditions	2.645446293	80.53221176	82.96722297	259.0578637
3.3602	0.093127	No, Check Other Conditions	Yes	1	2.561858114	No, Check Other Conditions	2.561858114	80.26998344	82.08401579	258.7763558
3.37	0.093091	No, Check Other Conditions	Yes	1	2.556254282	No, Check Other Conditions	2.556254282	80.25229112	82.02412166	258.7573636
3.3802	0.092716	No, Check Other Conditions	Yes	1	2.540823746	No, Check Other Conditions	2.540823746	80.20356901	81.85874539	258.7049881
3.3901	0.092347	No, Check Other Conditions	Yes	1	2.525670529	No, Check Other Conditions	2.525670529	80.15563609	81.69568836	258.6534403
3.4001	0.091956	No, Check Other Conditions	Yes	1	2.509646871	No, Check Other Conditions	2.509646871	80.1048558	81.52255389	258.5988079
3.4102	0.091172	No, Check Other Conditions	Yes	1	2.477620194	No, Check Other Conditions	2.477620194	80.0030678	81.17428681	258.489229
3.4202	0.090531	No, Check Other Conditions	Yes	1	2.451537189	No, Check Other Conditions	2.451537189	79.91987778	80.88842878	258.3996025
3.4302	0.089759	No, Check Other Conditions	Yes	1	2.420246037	No, Check Other Conditions	2.420246037	79.81972467	80.54280372	258.2916179
3.4402	0.088835	No, Check Other Conditions	Yes	1	2.382970519	No, Check Other Conditions	2.382970519	79.69990735	80.12716812	258.1623128
3.4501	0.087428	No, Check Other Conditions	Yes	1	2.326581791	No, Check Other Conditions	2.326581791	79.51757353	79.49000436	257.9852918
3.4602	0.086967	No, Check Other Conditions	Yes	1	2.308204285	No, Check Other Conditions	2.308204285	79.4578626	79.2802453	257.9007056
3.4702	0.086341	No, Check Other Conditions	Yes	1	2.283327046	No, Check Other Conditions	2.283327046	79.37680401	78.94395111	257.812977
3.4801	0.085467	No, Check Other Conditions	Yes	1	2.248744941	No, Check Other Conditions	2.248744941	79.2636789	78.9356172	257.6904434
3.4901	0.084385	No, Check Other Conditions	Yes	1	2.206177198	No, Check Other Conditions	2.206177198	79.12370608	78.09448551	257.5386676
3.5001	0.08333	No, Check Other Conditions	Yes	1	2.164933607	No, Check Other Conditions	2.164933607	78.98730555	77.60477277	257.3905931
3.5102	0.08227	No, Check Other Conditions	Yes	1	2.123756668	No, Check Other Conditions	2.123756668	78.85033759	77.10960694	257.241731
3.52	0.081185	No, Check Other Conditions	Yes	1	2.081882439	No, Check Other Conditions	2.081882439	78.71022135	76.59944769	257.0892686
3.5302	0.080094	No, Check Other Conditions	Yes	1	2.040057858	No, Check Other Conditions	2.040057858	78.56941408	76.08301816	256.9358272
3.54	0.079309	No, Check Other Conditions	Yes	1	2.010139605	No, Check Other Conditions	2.010139605	78.46815192	75.70925588	256.8254428
3.55	0.078421	No, Check Other Conditions	Yes	1	1.976473853	No, Check Other Conditions	1.976473853	78.35365564	75.28421542	256.700467
3.5602	0.077153	No, Check Other Conditions	Yes	1	1.928731334	No, Check Other Conditions	1.928731334	78.19025984	74.67309458	256.521905
3.5702	0.075911	No, Check Other Conditions	Yes	1	1.882346532	No, Check Other Conditions	1.882346532	78.03032469	74.06961666	256.3468837
3.5802	0.075045	No, Check Other Conditions	Yes	1	1.850227588	No, Check Other Conditions	1.850227588	77.91887253	73.6459081	256.2247772
3.5902	0.073971	No, Check Other Conditions	Yes	1	1.810650981	No, Check Other Conditions	1.810650981	77.78072503	73.11702049	256.0732617
3.6001	0.072805	No, Check Other Conditions	Yes	1	1.768008378	No, Check Other Conditions	1.768008378	77.63083621	72.5384621	255.9086656
3.6102	0.071645	No, Check Other Conditions	Yes	1	1.725322697	No, Check Other Conditions	1.725322697	77.48184186	71.95826213	255.744815
3.6202	0.071122	No, Check Other Conditions	Yes	1	1.707058682	No, Check Other Conditions	1.707058682	77.43456728	71.69514066	255.6709015
3.6302	0.069801	No, Check Other Conditions	Yes	1	1.659720569	No, Check Other Conditions	1.659720569	77.24511754	71.02619723	255.4841235
3.6402	0.068676	No, Check Other Conditions	Yes	1	1.619757492	No, Check Other Conditions	1.619757492	77.10083055	70.45149878	255.3249505
3.6501	0.067455	No, Check Other Conditions	Yes	1	1.57675323	No, Check Other Conditions	1.57675323	76.94433287	69.82240664	255.1520824
3.6602	0.066214	No, Check Other Conditions	Yes	1	1.533441619	No, Check Other Conditions	1.533441619	76.7853804	69.17714797	254.9762626
3.6701	0.064922	No, Check Other Conditions	Yes	1	1.48877938	No, Check Other Conditions	1.48877938	76.62001209	68.48913396	254.7930884
3.68	0.063599	No, Check Other Conditions	Yes	1	1.443503828	No, Check Other Conditions	1.443503828	76.45079916	67.79737581	254.6053826
3.6901	0.062029	No, Check Other Conditions	Yes	1	1.390383736	No, Check Other Conditions	1.390383736	76.25015658	66.9532626	254.3824253
3.7002	0.060628	No, Check Other Conditions	Yes	1	1.350199104	No, Check Other Conditions	1.350199104	76.09679008	66.30396641	254.2111787
3.71	0.059433	No, Check Other Conditions	Yes	1	1.304019208	No, Check Other Conditions	1.304019208	75.91877924	65.53926507	254.013409
3.7202	0.058056	No, Check Other Conditions</								

3.7801	0.050096 No, Check Other Conditions	Yes	1	1.009129925	No, Check Other Conditions	1.009129925	74.73090345	60.17128217	252.6816176
3.7902	0.048902 No, Check Other Conditions	Yes	1	0.973267993	No, Check Other Conditions	0.973267993	74.57945068	59.44988945	252.5108038
3.8002	0.047725 No, Check Other Conditions	Yes	1	0.93834256	No, Check Other Conditions	0.93834256	74.43025456	58.7300958	252.3423088
3.81	0.046505 No, Check Other Conditions	Yes	1	0.902593045	No, Check Other Conditions	0.902593045	74.27571261	57.97457386	252.1675393
3.8201	0.045312 No, Check Other Conditions	Yes	1	0.86808521	No, Check Other Conditions	0.86808521	74.1248503	57.23612729	251.9965204
3.8302	0.043896 No, Check Other Conditions	Yes	1	0.827713293	No, Check Other Conditions	0.827713293	73.94558134	56.32487211	251.7933833
3.8401	0.042607 No, Check Other Conditions	Yes	1	0.791523737	No, Check Other Conditions	0.791523737	73.78265787	55.49172416	251.6083228
3.8502	0.041214 No, Check Other Conditions	Yes	1	0.753025459	No, Check Other Conditions	0.753025459	73.60672403	54.57705837	251.408178
3.8602	0.039906 No, Check Other Conditions	Yes	1	0.717463492	No, Check Other Conditions	0.717463492	73.44165305	53.70402543	251.2201007
3.8701	0.038593 No, Check Other Conditions	Yes	1	0.682347051	No, Check Other Conditions	0.682347051	73.27607536	52.81314258	251.0311628
3.8801	0.037179 No, Check Other Conditions	Yes	1	0.645192137	No, Check Other Conditions	0.645192137	73.0979003	51.83661012	250.827532
3.89	0.035723 No, Check Other Conditions	Yes	1	0.607665241	No, Check Other Conditions	0.607665241	72.91484007	50.81146334	250.6176799
3.9002	0.034289 No, Check Other Conditions	Yes	1	0.571445397	No, Check Other Conditions	0.571445397	72.73418776	49.78117584	250.4108267
3.9101	0.032776 No, Check Other Conditions	Yes	1	0.534043257	No, Check Other Conditions	0.534043257	72.54401486	48.67048973	250.1923924
3.9201	0.031306 No, Check Other Conditions	Yes	1	0.498521486	No, Check Other Conditions	0.498521486	72.35904577	47.56653663	249.9799833
3.9301	0.029763 No, Check Other Conditions	Yes	1	0.462122981	No, Check Other Conditions	0.462122981	72.16579775	46.37950326	249.7568317
3.94	0.028253 No, Check Other Conditions	Yes	1	0.427404769	No, Check Other Conditions	0.427404769	71.97649789	45.18767801	249.5382594
3.9501	0.02666 No, Check Other Conditions	Yes	1	0.391771399	No, Check Other Conditions	0.391771399	71.77697253	43.89527895	249.3074652
3.9601	0.025039 No, Check Other Conditions	Yes	1	0.356589031	No, Check Other Conditions	0.356589031	71.57412975	42.53987709	249.0723947
3.9702	0.023563 No, Check Other Conditions	Yes	1	0.321392267	No, Check Other Conditions	0.321392267	71.36460587	41.09150475	248.8291149
3.9801	0.021721 No, Check Other Conditions	Yes	1	0.288112588	No, Check Other Conditions	0.288112588	71.15953113	39.62120216	248.5905395
3.9902	0.020071 No, Check Other Conditions	Yes	1	0.255915167	No, Check Other Conditions	0.255915167	70.95365551	38.08660363	248.3505709
4	0.01842 No, Check Other Conditions	Yes	1	0.224997114	No, Check Other Conditions	0.224997114	70.74785421	36.48652927	248.1102245
4.01	0.016765 No, Check Other Conditions	Yes	1	0.195365488	No, Check Other Conditions	0.195365488	70.5417544	34.80883751	247.8690619
4.0202	0.015176 No, Check Other Conditions	Yes	1	0.168259071	No, Check Other Conditions	0.168259071	70.34406235	33.11817523	247.6372957
4.03	0.0138 No, Check Other Conditions	Yes	1	0.145901964	No, Check Other Conditions	0.145901964	70.17301973	31.58110226	247.4364215
4.0402	0.012566 No, Check Other Conditions	Yes	1	0.126776306	No, Check Other Conditions	0.126776306	70.0197464	30.13604588	247.2561383
4.0503	0.011717 No, Check Other Conditions	Yes	1	0.114147697	No, Check Other Conditions	0.114147697	69.91435824	29.10019878	247.1320259
4.0604	0.011687 No, Check Other Conditions	Yes	1	0.113709585	No, Check Other Conditions	0.113709585	69.91063525	29.06292109	247.1276392
4.0701	0.010783 No, Check Other Conditions	Yes	1	0.100774794	No, Check Other Conditions	0.100774794	69.79848	27.91627885	246.9954156
4.0802	0.010739 No, Check Other Conditions	Yes	1	0.100158606	No, Check Other Conditions	0.100158606	69.79302265	27.85926548	246.9889782
4.0902	0.010695 No, Check Other Conditions	Yes	1	0.09954368	No, Check Other Conditions	0.09954368	69.78756544	27.80213419	246.9825405
4.1	0.010655 No, Check Other Conditions	Yes	1	0.098985753	No, Check Other Conditions	0.098985753	69.78260447	27.75009459	246.976688
4.1102	0.010617 No, Check Other Conditions	Yes	1	0.098456691	No, Check Other Conditions	0.098456691	69.77789165	27.70056641	246.971128
4.1203	0.010661 No, Check Other Conditions	Yes	1	0.099069375	No, Check Other Conditions	0.099069375	69.7833486	27.75790675	246.9775659
4.1302	0.010718 No, Check Other Conditions	Yes	1	0.099864961	No, Check Other Conditions	0.099864961	69.79041806	27.83202129	246.9859057
4.1403	0.010734 No, Check Other Conditions	Yes	1	0.100088665	No, Check Other Conditions	0.100088665	69.79240251	27.85277919	246.9882466
4.1501	0.010606 No, Check Other Conditions	Yes	1	0.098303718	No, Check Other Conditions	0.098303718	69.76527413	27.68621277	246.9695185
4.16	0.010593 No, Check Other Conditions	Yes	1	0.098123034	No, Check Other Conditions	0.098123034	69.77491518	27.66923977	246.9676163
4.1702	0.010567 No, Check Other Conditions	Yes	1	0.097761998	No, Check Other Conditions	0.097761998	69.77169073	27.63526252	246.9638119
4.1801	0.010502 No, Check Other Conditions	Yes	1	0.096861353	No, Check Other Conditions	0.096861353	69.76362982	27.55013604	246.9543008
4.1902	0.010447 No, Check Other Conditions	Yes	1	0.096101441	No, Check Other Conditions	0.096101441	69.75680928	27.47789996	246.9462526
4.2002	0.010239 No, Check Other Conditions	Yes	1	0.093245702	No, Check Other Conditions	0.093245702	69.73101728	27.20298188	246.9158134
4.2101	0.010228 No, Check Other Conditions	Yes	1	0.093095478	No, Check Other Conditions	0.093095478	69.72965337	27.18836555	246.9142035
4.22	0.010224 No, Check Other Conditions	Yes	1	0.093040872	No, Check Other Conditions	0.093040872	69.72915741	27.18304857	246.9136181
4.2301	0.010219 No, Check Other Conditions	Yes	1	0.092737628	No, Check Other Conditions	0.092737628	69.72853745	27.17640089	246.9128863
4.2402	0.010215 No, Check Other Conditions	Yes	1	0.092918045	No, Check Other Conditions	0.092918045	69.72804149	27.17081549	246.9123009
4.2501	0.010209 No, Check Other Conditions	Yes	1	0.092836191	No, Check Other Conditions	0.092836191	69.72729755	27.16310063	246.9114228
4.2601	0.010235 No, Check Other Conditions	Yes	1	0.093191066	No, Check Other Conditions	0.093191066	69.73052132	27.19766776	246.915228
4.2701	0.010261 No, Check Other Conditions	Yes	1	0.093546392	No, Check Other Conditions	0.093546392	69.73374513	27.232191	246.9190331
4.2803	0.010275 No, Check Other Conditions	Yes	1	0.093737908	No, Check Other Conditions	0.093737908	69.73548106	27.25076233	246.921082
4.2901	0.01028 No, Check Other Conditions	Yes	1	0.093806338	No, Check Other Conditions	0.093806338	69.73610103	27.25739188	246.9218137
4.3001	0.010282 No, Check Other Conditions	Yes	1	0.093833715	No, Check Other Conditions	0.093833715	69.73634902	27.26004325	246.9221064
4.3101	0.010152 No, Check Other Conditions	Yes	1	0.090702912	No, Check Other Conditions	0.090702912	69.7077832	26.9532633	246.8884472
4.3202	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.3301	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.3402	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.3502	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.3602	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.3703	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.3803	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.3904	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4002	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4102	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4202	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.43	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4401	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4501	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4603	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4703	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4801	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.4902	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.5001	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.5102	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.52	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.5302	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.54	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.5502	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.5602	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.5701	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.5801	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.5901	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.6002	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.6104	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.6202	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.6302	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.64	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.6501	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.6603	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.67	0.0092502 No, Check Other Conditions	Yes	1	0.080069883	No, Check Other Conditions	0.080069883	69.60844957	25.85611687	246.7710588
4.6801	0.0092502 No, Check Other Conditions	Yes	1						



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## **Attachment 12a – Test Case 4b SWMM Output Files**

## EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

\*\*\*\*\*  
 NOTE: The summary statistics displayed in this report are  
 based on results found at every computational time step,  
 not just on results from each reporting time step.  
 \*\*\*\*\*

\*\*\*\*\*  
Analysis Options

\*\*\*\*\*

Flow Units ..... CFS

## Process Models:

Rainfall/Runoff ..... NO

Snowmelt ..... NO

Groundwater ..... NO

Flow Routing ..... YES

Ponding Allowed ..... NO

Water Quality ..... NO

Flow Routing Method ..... DYNWAVE

Starting Date ..... MAY-20-2020 00:00:00

Ending Date ..... MAY-20-2020 06:00:00

Antecedent Dry Days ..... 0.0

Report Time Step ..... 00:15:00

Routing Time Step ..... 30.00 sec

	Volume acre-feet	Volume 10 <sup>6</sup> gal
Flow Routing Continuity	-----	-----
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	0.000	0.000
Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000
External Inflow .....	3.971	1.294
External Outflow .....	3.941	1.284
Internal Outflow .....	0.000	0.000
Storage Losses .....	0.000	0.000
Initial Stored Volume ....	0.000	0.000
Final Stored Volume .....	0.057	0.019
Continuity Error (%) .....	-0.675	

\*\*\*\*\*  
Time-Step Critical Elements

\*\*\*\*\*

None

\*\*\*\*\*  
Highest Flow Instability Indexes

\*\*\*\*\*

All links are stable.

\*\*\*\*\*  
Routing Time Step Summary

\*\*\*\*\*

Minimum Time Step : 22.64 sec

Average Time Step : 29.95 sec

Maximum Time Step : 30.00 sec

Percent in Steady State : 0.00

Average Iterations per Step : 2.02

\*\*\*\*\*  
Node Depth Summary

\*\*\*\*\*

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
2	JUNCTION	1.26	1.26	106.26	0 00:55
3	OUTFALL	1.26	1.26	101.26	0 00:55

\*\*\*\*\*  
Node Inflow Summary  
\*\*\*\*\*

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal
2	JUNCTION	8.00	8.00	0 00:00	1.294	1.294
3	OUTFALL	0.00	8.00	0 00:55	0.000	1.284

\*\*\*\*\*  
Node Surcharge Summary  
\*\*\*\*\*

No nodes were surcharged.

\*\*\*\*\*  
Node Flooding Summary  
\*\*\*\*\*

No nodes were flooded.

\*\*\*\*\*  
Outfall Loading Summary  
\*\*\*\*\*

Outfall Node	Flow Freq. Pcnt.	Avg. Flow CFS	Max. Flow CFS	Total Volume 10^6 gal
3	100.00	7.93	8.00	1.284
System	100.00	7.93	8.00	1.284

\*\*\*\*\*  
Link Flow Summary  
\*\*\*\*\*

Link	Type	Maximum  Flow  CFS	Time of Max Occurrence days hr:min	Maximum  Veloc  ft/sec	Max/ Full Flow	Max/ Full Depth
1	CONDUIT	8.00	0 00:55	3.21	0.51	0.51

\*\*\*\*\*  
Flow Classification Summary  
\*\*\*\*\*

Adjusted /Actual	--- Up	Fraction of Time Down	in Flow Class Sub	Flow Class Sup	--- Up	Down	Avg. Froude	Avg. Flow
---------------------	-----------	--------------------------	----------------------	-------------------	-----------	------	----------------	--------------

Conduit	Length	Dry	Dry	Dry	Crit	Crit	Crit	Crit	Number	Change
1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.57	0.0007

\*\*\*\*\*  
Conduit Surcharge Summary  
\*\*\*\*\*

No conduits were surcharged.

Analysis begun on: Sat May 30 20:11:02 2020  
Analysis ended on: Sat May 30 20:11:02 2020  
Total elapsed time: < 1 sec

## EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

\*\*\*\*\*  
 NOTE: The summary statistics displayed in this report are  
 based on results found at every computational time step,  
 not just on results from each reporting time step.  
 \*\*\*\*\*

\*\*\*\*\*  
Analysis Options

\*\*\*\*\*

Flow Units ..... CFS

## Process Models:

Rainfall/Runoff ..... NO

Snowmelt ..... NO

Groundwater ..... NO

Flow Routing ..... YES

Ponding Allowed ..... NO

Water Quality ..... NO

Flow Routing Method ..... DYNWAVE

Starting Date ..... MAY-20-2020 00:00:00

Ending Date ..... MAY-20-2020 06:00:00

Antecedent Dry Days ..... 0.0

Report Time Step ..... 00:15:00

Routing Time Step ..... 30.00 sec

	Volume acre-feet	Volume 10 <sup>6</sup> gal
Flow Routing Continuity	-----	-----
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	0.000	0.000
Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000
External Inflow .....	24.815	8.086
External Outflow .....	24.755	8.067
Internal Outflow .....	0.000	0.000
Storage Losses .....	0.000	0.000
Initial Stored Volume ....	0.000	0.000
Final Stored Volume .....	0.113	0.037
Continuity Error (%) .....	-0.211	

\*\*\*\*\*  
Time-Step Critical Elements

\*\*\*\*\*

None

\*\*\*\*\*  
Highest Flow Instability Indexes

\*\*\*\*\*

All links are stable.

\*\*\*\*\*  
Routing Time Step Summary

\*\*\*\*\*

Minimum Time Step : 7.81 sec

Average Time Step : 29.86 sec

Maximum Time Step : 30.00 sec

Percent in Steady State : 0.00

Average Iterations per Step : 2.05

\*\*\*\*\*  
Node Depth Summary

\*\*\*\*\*

```

-----
Node              Type              Average Depth Feet    Maximum Depth Feet    Maximum HGL Feet    Time of Max Occurrence days hr:min
-----
2                JUNCTION              8.01                9.75                119.75                0 00:01
3                OUTFALL               2.49                2.50                102.50                0 00:01

```

```

*****
Node Inflow Summary
*****

```

```

-----
Node              Type              Maximum Lateral Inflow CFS    Maximum Total Inflow CFS    Time of Max Occurrence days hr:min    Lateral Inflow Volume 10^6 gal    Total Inflow Volume 10^6 gal
-----
2                JUNCTION              50.00                50.00                0 00:00                8.086                8.086
3                OUTFALL               0.00                50.01                0 00:02                0.000                8.066

```

```

*****
Node Surge Summary
*****

```

Surcharging occurs when water rises above the top of the highest conduit.

```

-----
Node              Type              Hours Surcharged    Max. Height Above Crown Feet    Min. Depth Below Rim Feet
-----
2                JUNCTION              5.99                7.252                0.248

```

```

*****
Node Flooding Summary
*****

```

No nodes were flooded.

```

*****
Outfall Loading Summary
*****

```

```

-----
Outfall Node      Flow Freq. Pcnt.    Avg. Flow CFS    Max. Flow CFS    Total Volume 10^6 gal
-----
3                100.00        49.71          50.01          8.066
System           100.00        49.71          50.01          8.066

```

```

*****
Link Flow Summary
*****

```

```

-----
Link              Type              Maximum |Flow| CFS    Time of Max Occurrence days hr:min    Maximum |Veloc| ft/sec    Max/Full Flow    Max/Full Depth
-----
1                CONDUIT          50.01                0 00:02                10.19                1.22                1.00

```

```

*****

```

Flow Classification Summary  
 \*\*\*\*\*

Conduit	Adjusted /Actual Length	--- Dry	Fraction of Up Dry	Time in Down Dry	Flow Class Sub Crit	Sup Crit	Up Crit	Down Crit	Avg. Froude Number	Avg. Flow Change
1	1.00	0.00	0.00	0.00	0.99	0.01	0.00	0.00	0.01	0.0017

\*\*\*\*\*  
 Conduit Surcharge Summary  
 \*\*\*\*\*

Conduit	----- Both Ends	Hours Full Upstream	----- Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited
1	5.98	5.98	5.98	5.99	5.98

Analysis begun on: Sat May 30 17:57:14 2020  
 Analysis ended on: Sat May 30 17:57:14 2020  
 Total elapsed time: < 1 sec



S U M M A R Y   S T A T I S T I C S  
=====

Object ..... Node 2  
Variable ..... Head (ft)  
Event Period ..... Variable  
Event Statistic ..... Mean (ft)  
Event Threshold ..... Head > 0.0000 (ft)  
Event Threshold ..... Separation Time >= 6.0 (hr)  
Period of Record ..... 05/20/2020 to 05/20/2020

Number of Events ..... 1  
Event Frequency\*..... 1.000  
Minimum Value ..... 118.058  
Maximum Value ..... 118.058  
Mean Value ..... 118.058  
Std. Deviation ..... 0.000  
Skewness Coeff. .... 0.000

\*Fraction of all reporting periods belonging to an event.

## **Attachment 12b – Test Cases 4b Hand Calculations**

**Hand Calculation, Test 4b – Partial-Pipe Flow**

Manning's equation (Reference 12) is utilized to solve flow through a partially-full pipe

$$Q = AV$$

$$V = \frac{1.49}{n} R^{2/3} S^{0.5}$$

Where:

V- Velocity (ft/sec)

R- Hydraulic Radius (ft) = A (area) / P (wetted perimeter)

n – Manning's Roughness Coefficient, n = 0.024

S – Pipe Slope, S = 0.0050 ft/ft (0.5%)

D – Pipe Diameter, D = 30 in (2.5 ft)

Q – Discharge Flow, Q = 8 cfs

Q<sub>full</sub> – full-pipe normal flow (cfs)

A – Flow Area (ft<sup>2</sup>)

d – flow depth (ft)

Hydraulic radius is defined as the cross-sectional area of pipe divided by wetted perimeter. For the pipe running full, R= D/4.

For the given example:

$$R = D/4 = 2.5 \text{ ft} / 4 = 0.625 \text{ ft}$$

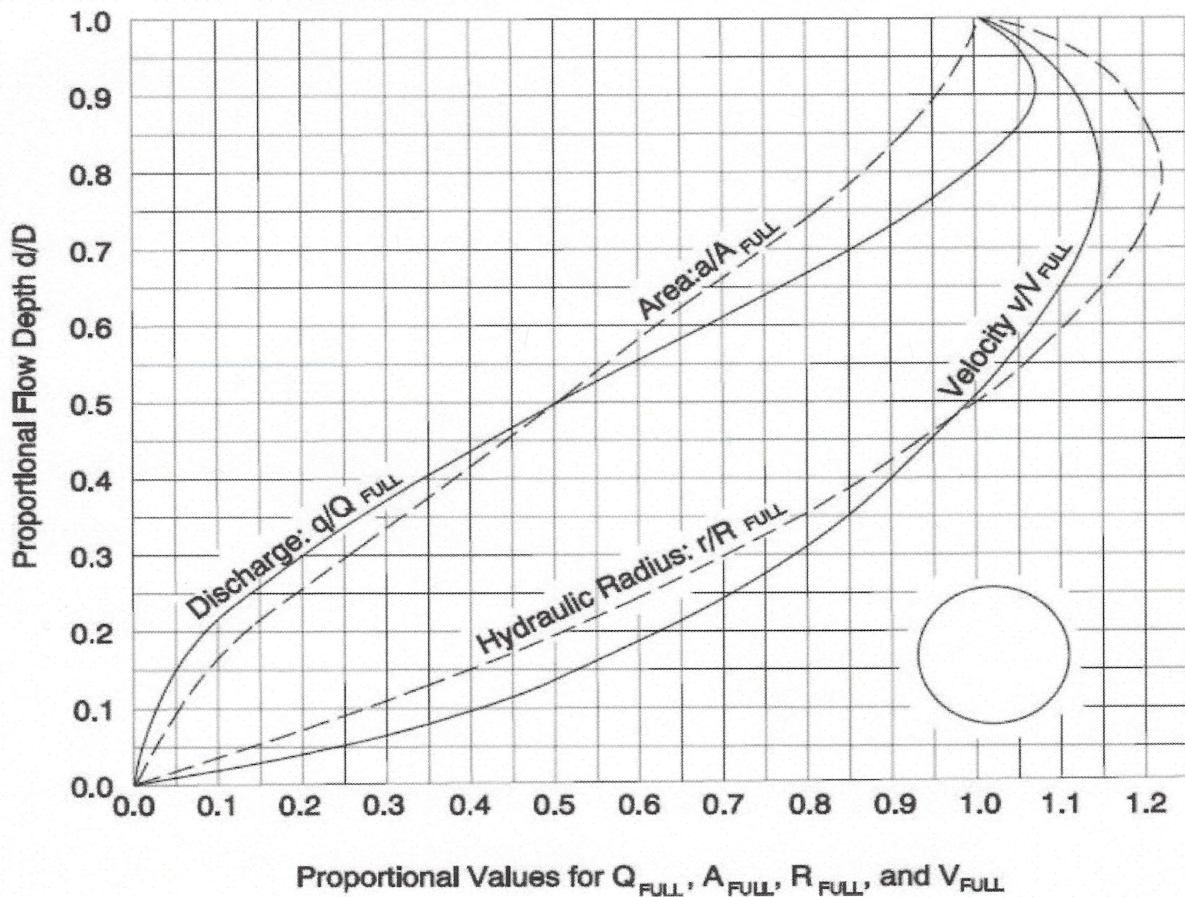
$$V_{full} = \frac{1.49}{0.024} 0.625^{2/3} 0.005^{0.5} = 3.21 \text{ ft/sec}$$

$$Q_{full} = AV_{full} = \pi \frac{D^2}{4} * 3.21 = 15.7 \text{ cfs}$$

The pipe flow to maximum full-pipe flow ratio is then:

$$Q/Q_{full} = 8 / 15.7 = 0.51$$

The hydraulic radius for the partial-flow depth can be calculated using chart below (Reference 12):



For the given  $Q/Q_{full}$  ratio = 0.51, ratio  $d/D$  is estimated from the chart:

$$d/D \approx 0.51$$

For the given  $d/D$  ratio, ratio  $V/V_{full}$  is estimated from the chart:

$$V/V_{full} \approx 1.0$$

Therefore, pipe flow velocity is

$$V = 1.0 \times 3.21 = 3.21 \text{ ft/sec}$$

### Hand Calculation, Test 4b- Full-Pipe flow under surcharge

A Darcy-Weisbach equation is utilized for the pipe flow under surcharge (Reference 11). The standard form of the Darcy-Weisbach head loss equation is presented as Equation 1 below:

$$S_f = \frac{fU^2}{2gD} \quad \text{Equation 1 (Reference 11, Equation 7-29)}$$

Where:

$S_f$  – Friction Slope (head loss per unit length) (ft/ft)

$U$  – Flow Velocity (ft/sec)

$g$  – Acceleration due to gravity (32.2 ft/sec<sup>2</sup>)

$D$  – Pipe Diameter (ft),  $D = 2.5$  ft

Friction factor can be calculated utilizing Equation 2 below:

$$f = \frac{0.25}{\left[\log\left(\frac{\epsilon}{3.7D}\right)\right]^2} \quad \text{Equation 2 (Reference 11, Equation 7-37)}$$

Where:

$f$  - Friction Factor

$\epsilon$  – Darcy-Weisbach Surface Roughness Height (ft) = Reference 11 suggests a range of 0.012 and 0.12 for a concrete pipe. An average value of 0.066 is used.

Using equation 2 above, the friction head is calculated:

$$\mathbf{f = 0.024 \text{ ft}}$$

The flow velocity is calculated using Equation 3 below:

$$U = Q / A$$

Where

$Q = 50 \text{ cfs}$  (used for the SWMM scenario as an input)

$$A = \pi(D^2/4) = 4.909 \text{ sq.ft.}$$

Using Equation 1 above, the pipe friction slope is calculated:

$$\mathbf{S_f = 0.01548 \text{ ft/ft}}$$

## **Attachment 13 – Test Case 5 Hand Calculations**

K (in/hr)	2.675
ei	0.350
Θs	1.000
φ (Porosity)	0.437
ΔΘ = (Θs - Θi) * φ	0.284
ψ (in)	2.150
A = (ψ * ΔΘ)	0.611
Fo = initial F (in)	0.040
Fp = Initial Ponding (in/hr)	0.025
Fp = Initial Ponding (in/min)	0.00042
Δt (hr)	0.017
K * Δt	0.045

$$f_t = K \left( \frac{\psi \Delta \theta}{F_t} + 1 \right)$$

$$F_{t+\Delta t} = F_t + K \Delta t + \psi \Delta \theta \ln \left[ \frac{F_{t+\Delta t} + \psi \Delta \theta}{F_t + \psi \Delta \theta} \right]$$

Hour	Cumulative Rainfall (in)	Fraction of Rainfall	Incremental Rainfall, R (in)	Rainfall Excess (total R- ABS)	Initial Cumulative Infiltration Ft+Δt (in)	Final Cumulative Infiltration Ft+Δt (in)	Error = Initial - Final	infiltration rate, f, (in/hr)	Actual Infiltration, fa (in)	Commulative Actual Fa (in)	Runoff (in)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
0	0.00	0.000	0.00	0.00	0.000	0.000	0.000	65.39	0.00	0.0000	0.00
1	0.62	0.075	0.62	0.62	0.264	0.264	0.000	0.15	0.15	0.1477	0.47
2	1.20	0.146	0.58	0.58	0.392	0.392	0.000	0.11	0.11	0.2618	0.47
3	1.76	0.214	0.56	0.56	0.498	0.498	0.000	0.10	0.10	0.3610	0.46
4	2.27	0.277	0.52	0.52	0.592	0.592	0.000	0.09	0.09	0.4516	0.43
5	2.77	0.338	0.50	0.50	0.680	0.680	0.000	0.08	0.08	0.5362	0.42
6	2.97	0.362	0.20	0.20	0.762	0.762	0.000	0.08	0.08	0.6165	0.12
7	3.14	0.382	0.16	0.16	0.841	0.841	0.000	0.08	0.08	0.6935	0.09
8	3.30	0.402	0.16	0.16	0.916	0.916	0.000	0.07	0.07	0.7678	0.09
9	3.46	0.421	0.16	0.16	0.990	0.990	0.000	0.07	0.07	0.8399	0.08
10	3.62	0.441	0.16	0.16	1.061	1.061	0.000	0.07	0.07	0.9101	0.09
11	3.77	0.459	0.15	0.15	1.130	1.130	0.000	0.07	0.07	0.9788	0.08
12	3.92	0.477	0.15	0.15	1.198	1.198	0.000	0.07	0.07	1.0461	0.08
13	4.06	0.494	0.14	0.14	1.265	1.265	0.000	0.07	0.07	1.1122	0.07
14	4.19	0.510	0.13	0.13	1.330	1.330	0.000	0.07	0.07	1.1773	0.07
15	4.32	0.526	0.13	0.13	1.395	1.395	0.000	0.06	0.06	1.2414	0.07
16	4.45	0.542	0.13	0.13	1.459	1.459	0.000	0.06	0.06	1.3046	0.07
17	4.57	0.557	0.12	0.12	1.521	1.521	0.000	0.06	0.06	1.3671	0.06
18	4.70	0.573	0.13	0.13	1.584	1.584	0.000	0.06	0.06	1.4289	0.07
19	4.83	0.588	0.12	0.12	1.645	1.645	0.000	0.06	0.06	1.4900	0.06
20	4.96	0.604	0.13	0.13	1.706	1.706	0.000	0.06	0.06	1.5506	0.07
21	5.08	0.619	0.12	0.12	1.766	1.766	0.000	0.06	0.06	1.6106	0.06
22	5.21	0.635	0.13	0.13	1.826	1.826	0.000	0.06	0.06	1.6701	0.07
23	5.34	0.651	0.13	0.13	1.885	1.885	0.000	0.06	0.06	1.7291	0.07
24	5.47	0.666	0.12	0.12	1.944	1.944	0.000	0.06	0.06	1.7877	0.06
25	5.60	0.682	0.13	0.13	2.002	2.002	0.000	0.06	0.06	1.8459	0.07
26	5.72	0.697	0.12	0.12	2.060	2.060	0.000	0.06	0.06	1.9037	0.07
27	5.85	0.713	0.13	0.13	2.118	2.118	0.000	0.06	0.06	1.9611	0.07
28	5.99	0.729	0.13	0.13	2.175	2.175	0.000	0.06	0.06	2.0182	0.07
29	6.11	0.744	0.12	0.12	2.232	2.232	0.000	0.06	0.06	2.0750	0.07
30	6.24	0.760	0.13	0.13	2.289	2.289	0.000	0.06	0.06	2.1315	0.07
31	6.36	0.775	0.12	0.12	2.345	2.345	0.000	0.06	0.06	2.1877	0.07
32	6.49	0.790	0.12	0.12	2.401	2.401	0.000	0.06	0.06	2.2436	0.07
33	6.61	0.805	0.12	0.12	2.457	2.457	0.000	0.06	0.06	2.2992	0.07
34	6.72	0.819	0.11	0.11	2.513	2.513	0.000	0.06	0.06	2.3547	0.06
35	6.84	0.833	0.11	0.11	2.568	2.568	0.000	0.06	0.06	2.4098	0.06
36	6.95	0.846	0.11	0.11	2.623	2.623	0.000	0.05	0.05	2.4648	0.05
37	7.04	0.858	0.10	0.10	2.678	2.678	0.000	0.05	0.05	2.5196	0.04
38	7.14	0.870	0.10	0.10	2.732	2.732	0.000	0.05	0.05	2.5741	0.04
39	7.23	0.881	0.09	0.09	2.787	2.787	0.000	0.05	0.05	2.6285	0.04
40	7.32	0.892	0.09	0.09	2.841	2.841	0.000	0.05	0.05	2.6826	0.04
41	7.41	0.902	0.08	0.08	2.895	2.895	0.000	0.05	0.05	2.7366	0.03
42	7.49	0.912	0.08	0.08	2.949	2.949	0.000	0.05	0.05	2.7904	0.03
43	7.56	0.921	0.07	0.07	3.003	3.003	0.000	0.05	0.05	2.8441	0.02
44	7.64	0.931	0.08	0.08	3.056	3.056	0.000	0.05	0.05	2.8976	0.03
45	7.71	0.939	0.07	0.07	3.110	3.110	0.000	0.05	0.05	2.9509	0.01
46	7.77	0.947	0.07	0.07	3.163	3.163	0.000	0.05	0.05	3.0041	0.01
47	7.83	0.954	0.06	0.06	3.216	3.216	0.000	0.05	0.05	3.0572	0.00
48	7.88	0.960	0.05	0.05	3.269	3.269	0.000	0.05	0.05	3.1064	0.00
49	7.93	0.966	0.05	0.05	3.322	3.322	0.000	0.05	0.05	3.1557	0.00
50	7.97	0.971	0.04	0.04	3.375	3.375	0.000	0.05	0.04	3.1967	0.00
51	8.01	0.976	0.04	0.04	3.427	3.427	0.000	0.05	0.04	3.2378	0.00
52	8.05	0.980	0.03	0.03	3.480	3.480	0.000	0.05	0.03	3.2706	0.00
53	8.08	0.984	0.03	0.03	3.532	3.532	0.000	0.05	0.03	3.3035	0.00
54	8.10	0.987	0.02	0.02	3.584	3.584	0.000	0.05	0.02	3.3281	0.00
55	8.13	0.990	0.02	0.02	3.636	3.636	0.000	0.05	0.02	3.3527	0.00
56	8.16	0.994	0.03	0.03	3.689	3.689	0.000	0.05	0.03	3.3856	0.00
57	8.18	0.996	0.02	0.02	3.740	3.740	0.000	0.05	0.02	3.4020	0.00
58	8.19	0.998	0.02	0.02	3.792	3.792	0.000	0.05	0.02	3.4184	0.00
59	8.20	0.999	0.01	0.01	3.844	3.844	0.000	0.05	0.01	3.4266	0.00
60	8.21	1.000	0.01	0.01	3.896	3.896	0.000	0.05	0.01	3.4348	0.00
									infiltration (ft)		0.2862
									infiltration (in)		3.4348

## **Attachment 14 – Test Case 5 FLO-2D Green-Ampt Input Files**



```
CONT.DAT
1.000 0.100 -1 0 0 Pro Model - Build No. 16.06.16
0 0 0 0 0
1 1 0 0 0 0
0 0 0
-99.000 0.00 0.000 0.000 0.000 0.000
2 0.00
1 0.10
0.10
```

	0.0250	0.000	0.00
C	0.600		
T	1.000		

TOLER.DAT

```
SUPPLEMENT.DAT
0      [Shape Files]
0      [Images]
[Modeling Boundary Polygon]=true
5
      1224297.25      480598.16
      1224300.38      480067.97
      1224817.88      480077.50
      1224946.75      480080.69
      1224937.25      480604.53
[Street Polylines]=false
[Channel Polylines]=false
[Levee Polylines]=false
```

				FPLAIN.DAT			
1	2	5	0	0	0.040	743.00	
2	3	6	1	0	0.040	743.00	
3	4	7	2	0	0.040	745.50	
4	0	8	3	0	0.040	745.50	
5	6	9	0	1	0.040	743.00	
6	7	10	5	2	0.040	745.50	
7	8	11	6	3	0.040	748.00	
8	0	12	7	4	0.040	745.50	
9	10	13	0	5	0.040	743.00	
10	11	14	9	6	0.040	745.50	
11	12	15	10	7	0.040	748.00	
12	0	16	11	8	0.040	745.50	
13	14	17	0	9	0.040	743.00	
14	15	18	13	10	0.040	745.50	
15	16	19	14	11	0.040	748.00	
16	0	20	15	12	0.040	745.50	
17	18	0	0	13	0.040	743.00	
18	19	0	17	14	0.040	743.00	
19	20	0	18	15	0.040	745.50	
20	0	0	19	16	0.040	745.50	

## CADPTS.DAT

1	1224416.000	480193.313
2	1224416.000	480293.313
3	1224416.000	480393.313
4	1224416.000	480493.313
5	1224516.000	480193.313
6	1224516.000	480293.313
7	1224516.000	480393.313
8	1224516.000	480493.313
9	1224616.000	480193.313
10	1224616.000	480293.313
11	1224616.000	480393.313
12	1224616.000	480493.313
13	1224716.000	480193.313
14	1224716.000	480293.313
15	1224716.000	480393.313
16	1224716.000	480493.313
17	1224816.000	480193.313
18	1224816.000	480293.313
19	1224816.000	480393.313
20	1224816.000	480493.313

## TOPO.DAT

1224416.00	480193.31	743.00
1224416.00	480293.31	743.00
1224416.00	480393.31	745.50
1224416.00	480493.31	745.50
1224516.00	480193.31	743.00
1224516.00	480293.31	745.50
1224516.00	480393.31	748.00
1224516.00	480493.31	745.50
1224616.00	480193.31	743.00
1224616.00	480293.31	745.50
1224616.00	480393.31	748.00
1224616.00	480493.31	745.50
1224716.00	480193.31	743.00
1224716.00	480293.31	745.50
1224716.00	480393.31	748.00
1224716.00	480493.31	745.50
1224816.00	480193.31	743.00
1224816.00	480293.31	743.00
1224816.00	480393.31	745.50
1224816.00	480493.31	745.50

## MANNINGS\_N.DAT

1	0.040
2	0.040
3	0.040
4	0.040
5	0.040
6	0.040
7	0.040
8	0.040
9	0.040
10	0.040
11	0.040
12	0.040
13	0.040
14	0.040
15	0.040
16	0.040
17	0.040
18	0.040
19	0.040
20	0.040

## OUTFLOW.DAT

0	1
0	2
0	3
0	4
0	5
0	8
0	9
0	12
0	13
0	16
0	17
0	18
0	19
0	20



## RAIN.DAT

0	1		
8.21	0	0	0
R	0	0	
R	0.02	0.075	
R	0.03	0.146	
R	0.05	0.214	
R	0.07	0.277	
R	0.08	0.338	
R	0.1	0.362	
R	0.12	0.382	
R	0.13	0.402	
R	0.15	0.421	
R	0.17	0.441	
R	0.18	0.459	
R	0.2	0.477	
R	0.22	0.494	
R	0.23	0.51	
R	0.25	0.526	
R	0.27	0.542	
R	0.28	0.557	
R	0.3	0.573	
R	0.32	0.588	
R	0.33	0.604	
R	0.35	0.619	
R	0.37	0.635	
R	0.38	0.651	
R	0.4	0.666	
R	0.42	0.682	
R	0.43	0.697	
R	0.45	0.713	
R	0.47	0.729	
R	0.48	0.744	
R	0.5	0.76	
R	0.52	0.775	
R	0.53	0.79	
R	0.55	0.805	
R	0.57	0.819	
R	0.58	0.833	
R	0.6	0.846	
R	0.62	0.858	
R	0.63	0.87	
R	0.65	0.881	
R	0.67	0.892	
R	0.68	0.902	
R	0.7	0.912	
R	0.72	0.921	
R	0.73	0.931	
R	0.75	0.939	
R	0.77	0.947	
R	0.78	0.954	
R	0.8	0.96	
R	0.82	0.966	
R	0.83	0.971	
R	0.85	0.976	
R	0.87	0.98	
R	0.88	0.984	
R	0.9	0.987	
R	0.92	0.99	
R	0.93	0.994	
R	0.95	0.996	
R	0.97	0.998	
R	0.98	0.999	
R	1	1	

INFIL.DAT

1						
.025	.35	1	.437	0	0	
2.675	2.15	0				

## **Attachment 15 – Test Case 5 FLO-2D Pro Green-Ampt Output Files**

		FPINFILTRATION.OUT	
1	1224416.00	480193.31	0.0000
2	1224416.00	480293.31	0.0000
3	1224416.00	480393.31	0.0000
4	1224416.00	480493.31	0.0000
5	1224516.00	480193.31	0.0000
6	1224516.00	480293.31	0.2941
7	1224516.00	480393.31	0.2430
8	1224516.00	480493.31	0.0000
9	1224616.00	480193.31	0.0000
10	1224616.00	480293.31	0.3042
11	1224616.00	480393.31	0.2496
12	1224616.00	480493.31	0.0000
13	1224716.00	480193.31	0.0000
14	1224716.00	480293.31	0.2941
15	1224716.00	480393.31	0.2430
16	1224716.00	480493.31	0.0000
17	1224816.00	480193.31	0.0000
18	1224816.00	480293.31	0.0000
19	1224816.00	480393.31	0.0000
20	1224816.00	480493.31	0.0000

SUMMARY.OUT  
 NEGATIVE VOLUME CONSERVATION (ACRE FEET)  
 INDICATES EXCESS VOLUME (OUTFLOW + STORAGE > INFLOW)

SIMULATION TIME (HOURS)	AVERAGE TIMESTEP (SECONDS)	VOLUME CONSERVATION (ACRE FEET)	PERCENT OF INFLOW
----------------------------	-------------------------------	------------------------------------	-------------------

SUMMARY.OUT FILE  
 Pro Model - Build No. 16.06.16

0.000	1.000	-0.000000	0.000005
0.100	1.803	-0.000000	0.000000
0.200	2.969	0.000000	0.000002
0.300	3.678	-0.000000	0.000003
0.400	4.228	-0.000000	0.000000
0.500	4.687	0.000000	0.000001
0.601	5.086	0.000000	0.000000
0.700	5.439	-0.000000	0.000001
0.801	5.758	0.000000	0.000002
0.900	6.050	-0.000000	0.000001
1.000	6.318	-0.000000	0.000001

=====

MASS BALANCE      INFLOW - OUTFLOW VOLUME

=====

\*\*\* INFLOW (ACRE-FEET) \*\*\*

TOTAL POINT RAINFALL: 8.2094 INCHES

	WATER
RAINFALL VOLUME	0.942
SURFACE WATER INFLOW HYDROGRAPH	0.000
	-----
INFLOW HYDROGRAPHS + RAINFALL	0.942

=====

\*\*\* SURFACE OUTFLOW (ACRE-FT) \*\*\*

OVERLAND INFILTRATED AND INTERCEPTED WATER 3.281 INCHES

	WATER
OVERLAND FLOW	
WATER LOST TO INFILTRATION & INTERCEPTION	0.377
FLOODPLAIN STORAGE	0.034
FLOODPLAIN OUTFLOW HYDROGRAPH	0.531
	-----
FLOODPLAIN OUTFLOW, INFILTRATION & STORAGE	0.942
TOL FLOODPLAIN STORAGE	0.034
TOTAL SURFACE OUTFLOW AND STORAGE	0.942

## SUMMARY.OUT

## \*\*\* TOTALS \*\*\*

TOTAL OUTFLOW FROM GRID SYSTEM 0.531

TOTAL VOLUME OF OUTFLOW AND STORAGE 0.942

SURFACE AREA OF INUNDATION REGARDLESS OF THE TIME OF OCCURRENCE:  
(FOR FLOW DEPTHS GREATER THAN THE "TOL" VALUE TYPICALLY 0.1 FT OR 0.03 M)

THE MAXIMUM INUNDATED AREA IS: 4.591 ACRES

THE MAXIMUM INUNDATED AREA (DEPTH > 0.5 FT) IS: 0.000 ACRES

## AVERAGE GRID ELEMENT FLOW DIRECTION FLOODPLAIN HYDRAULICS:

DISCHARGE (CFS OR CMS): 0.635  
VELOCITY (FPS OR CMS): 0.444  
FLOW AREA (FT<sup>2</sup> OR M<sup>2</sup>): 1.350  
FLOW DEPTH (FT OR M): 0.033  
FLOW WIDTH (FT OR M): 41.421

TOTAL COMPUTATIONS: 13733.

COMPUTER RUN TIME IS : 0.00049 HRS

THIS OUTPUT FILE WAS TERMINATED ON: 11/28/2016 AT: 17:15: 6

## **Attachment 16 – Test Case 6 FLO-2D Pro Rain Feature Input and Output Files**

## ARF.DAT

S 0

T 39

T 40

T 49

T 48

47	0	1	0	0	0	0	0	0	1
38	0	1	0	0	0	1	0	0	0
29	0	0	0	0	0	1	0	0	0
30	0	0	1	0	0	1	0	0	0
31	0	0	1	0	0	0	1	0	0
41	0	0	0	1	0	0	1	0	0
50	0	0	0	1	0	0	0	1	0
32	0	0	0	0	0	0	1	0	0
25	0	1	1	1	0	1	1	1	1
33	0	0	0	0	0	0	0	0	1
24	0	1	0	0	0	0	0	0	0
15	0	0	0	0	0	1	0	0	0
35	0	0	0	0	0	0	0	1	0
34	0	0	0	0	1	0	0	0	0
17	0	0	0	0	0	0	1	0	0
26	0	0	0	1	0	0	0	0	0



## CADPTS.DAT

1	250.000	1300.000
2	250.000	1350.000
3	250.000	1400.000
4	250.000	1450.000
5	250.000	1500.000
6	250.000	1550.000
7	250.000	1600.000
8	250.000	1650.000
9	250.000	1700.000
10	300.000	1300.000
11	300.000	1350.000
12	300.000	1400.000
13	300.000	1450.000
14	300.000	1500.000
15	300.000	1550.000
16	300.000	1600.000
17	300.000	1650.000
18	300.000	1700.000
19	350.000	1300.000
20	350.000	1350.000
21	350.000	1400.000
22	350.000	1450.000
23	350.000	1500.000
24	350.000	1550.000
25	350.000	1600.000
26	350.000	1650.000
27	350.000	1700.000
28	400.000	1300.000
29	400.000	1350.000
30	400.000	1400.000
31	400.000	1450.000
32	400.000	1500.000
33	400.000	1550.000
34	400.000	1600.000
35	400.000	1650.000
36	400.000	1700.000
37	450.000	1300.000
38	450.000	1350.000
39	450.000	1400.000
40	450.000	1450.000
41	450.000	1500.000
42	450.000	1550.000
43	450.000	1600.000
44	450.000	1650.000
45	450.000	1700.000
46	500.000	1300.000
47	500.000	1350.000
48	500.000	1400.000
49	500.000	1450.000

## CADPTS.DAT

50	500.000	1500.000
51	500.000	1550.000
52	500.000	1600.000
53	500.000	1650.000
54	500.000	1700.000

			CONT.DAT		
3	0.1	2	0	0	Professional
Model - Build No. 14-08-09					
0	0	0	1	0	
0	0	0	0	0	0
0					
0	0	0			
0	0	0	0	0	0.2
2	0				
1	0.1				
0.1					

FPLAIN.DAT						
1	2	10	0	0	0.050	108.00
2	3	11	1	0	0.050	107.00
3	4	12	2	0	0.050	106.00
4	5	13	3	0	0.050	105.00
5	6	14	4	0	0.050	104.00
6	7	15	5	0	0.050	103.00
7	8	16	6	0	0.050	102.00
8	9	17	7	0	0.050	101.00
9	0	18	8	0	0.050	100.00
10	11	19	0	1	0.050	108.00
11	12	20	10	2	0.050	107.00
12	13	21	11	3	0.050	106.00
13	14	22	12	4	0.050	105.00
14	15	23	13	5	0.050	104.00
15	16	24	14	6	0.050	103.00
16	17	25	15	7	0.050	102.00
17	18	26	16	8	0.050	101.00
18	0	27	17	9	0.050	100.00
19	20	28	0	10	0.050	108.00
20	21	29	19	11	0.050	107.00
21	22	30	20	12	0.050	106.00
22	23	31	21	13	0.050	105.00
23	24	32	22	14	0.050	104.00
24	25	33	23	15	0.050	103.00
25	26	34	24	16	0.050	102.00
26	27	35	25	17	0.050	101.00
27	0	36	26	18	0.050	100.00
28	29	37	0	19	0.050	108.00
29	30	38	28	20	0.050	107.00
30	31	39	29	21	0.050	106.00
31	32	40	30	22	0.050	105.00
32	33	41	31	23	0.050	104.00
33	34	42	32	24	0.050	103.00
34	35	43	33	25	0.050	102.00
35	36	44	34	26	0.050	101.00
36	0	45	35	27	0.050	100.00
37	38	46	0	28	0.050	108.00
38	39	47	37	29	0.050	107.00
39	40	48	38	30	0.050	106.00
40	41	49	39	31	0.050	105.00
41	42	50	40	32	0.050	104.00
42	43	51	41	33	0.050	103.00
43	44	52	42	34	0.050	102.00
44	45	53	43	35	0.050	101.00
45	0	54	44	36	0.050	100.00
46	47	0	0	37	0.050	108.00
47	48	0	46	38	0.050	107.00
48	49	0	47	39	0.050	106.00
49	50	0	48	40	0.050	105.00

FPLAIN.DAT						
50	51	0	49	41	0.050	104.00
51	52	0	50	42	0.050	103.00
52	53	0	51	43	0.050	102.00
53	54	0	52	44	0.050	101.00
54	0	0	53	45	0.050	100.00

## INFLOW.DAT

0	19	
F	0	19
H	0.0	0.0
H	0.5	2000.0
H	2.0	2000.0

## MANNINGS\_N.DAT

1	0.050
2	0.050
3	0.050
4	0.050
5	0.050
6	0.050
7	0.050
8	0.050
9	0.050
10	0.050
11	0.050
12	0.050
13	0.050
14	0.050
15	0.050
16	0.050
17	0.050
18	0.050
19	0.050
20	0.050
21	0.050
22	0.050
23	0.050
24	0.050
25	0.050
26	0.050
27	0.050
28	0.050
29	0.050
30	0.050
31	0.050
32	0.050
33	0.050
34	0.050
35	0.050
36	0.050
37	0.050
38	0.050
39	0.050
40	0.050
41	0.050
42	0.050
43	0.050
44	0.050
45	0.050
46	0.050
47	0.050
48	0.050
49	0.050

## MANNINGS\_N.DAT

50	0.050
51	0.050
52	0.050
53	0.050
54	0.050



## RAIN.DAT

0	0		
3	0	0	0
R	0	0	
R	0.02	0.008	
R	0.04	0.0162	
R	0.06	0.0246	
R	0.08	0.0333	
R	0.1	0.0425	
R	0.12	0.0524	
R	0.14	0.063	
R	0.16	0.0743	
R	0.18	0.0863	
R	0.2	0.099	
R	0.22	0.1124	
R	0.24	0.1265	
R	0.26	0.142	
R	0.28	0.1595	
R	0.3	0.18	
R	0.32	0.205	
R	0.34	0.255	
R	0.36	0.345	
R	0.38	0.437	
R	0.4	0.53	
R	0.42	0.603	
R	0.44	0.633	
R	0.46	0.66	
R	0.48	0.684	
R	0.5	0.705	
R	0.52	0.724	
R	0.54	0.742	
R	0.56	0.759	
R	0.58	0.775	
R	0.6	0.79	
R	0.62	0.8043	
R	0.64	0.818	
R	0.66	0.8312	
R	0.68	0.8439	
R	0.7	0.8561	
R	0.72	0.8678	
R	0.74	0.879	
R	0.76	0.8898	
R	0.78	0.9002	
R	0.8	0.9103	
R	0.82	0.9201	
R	0.84	0.9297	
R	0.86	0.9391	
R	0.88	0.9483	
R	0.9	0.9573	
R	0.92	0.9661	

## RAIN.DAT

R	0.94	0.9747
R	0.96	0.9832
R	0.98	0.9916
R	1	1

## SUPPLEMENT.DAT

```
0          [Shape Files]
0          [Images]
[Modeling Boundary Polygon]=true
5
          201.95          1246.48
          556.45          1246.48
          555.37          1758.89
          192.29          1755.66
          190.14          1753.52
[Street Polylines]=false
[Channel Polylines]=false
[Levee Polylines]=false
```

			TOLER.DAT
0.1	0	0	
C	0.6		
T	0.1		

## TOPO.DAT

250.00	1300.00	108.00
250.00	1350.00	107.00
250.00	1400.00	106.00
250.00	1450.00	105.00
250.00	1500.00	104.00
250.00	1550.00	103.00
250.00	1600.00	102.00
250.00	1650.00	101.00
250.00	1700.00	100.00
300.00	1300.00	108.00
300.00	1350.00	107.00
300.00	1400.00	106.00
300.00	1450.00	105.00
300.00	1500.00	104.00
300.00	1550.00	103.00
300.00	1600.00	102.00
300.00	1650.00	101.00
300.00	1700.00	100.00
350.00	1300.00	108.00
350.00	1350.00	107.00
350.00	1400.00	106.00
350.00	1450.00	105.00
350.00	1500.00	104.00
350.00	1550.00	103.00
350.00	1600.00	102.00
350.00	1650.00	101.00
350.00	1700.00	100.00
400.00	1300.00	108.00
400.00	1350.00	107.00
400.00	1400.00	106.00
400.00	1450.00	105.00
400.00	1500.00	104.00
400.00	1550.00	103.00
400.00	1600.00	102.00
400.00	1650.00	101.00
400.00	1700.00	100.00
450.00	1300.00	108.00
450.00	1350.00	107.00
450.00	1400.00	106.00
450.00	1450.00	105.00
450.00	1500.00	104.00
450.00	1550.00	103.00
450.00	1600.00	102.00
450.00	1650.00	101.00
450.00	1700.00	100.00
500.00	1300.00	108.00
500.00	1350.00	107.00
500.00	1400.00	106.00
500.00	1450.00	105.00

## TOPO.DAT

500.00	1500.00	104.00
500.00	1550.00	103.00
500.00	1600.00	102.00
500.00	1650.00	101.00
500.00	1700.00	100.00

SUMMARY.OUT  
 NEGATIVE VOLUME CONSERVATION (ACRE FEET)  
 INDICATES EXCESS VOLUME (OUTFLOW + STORAGE > INFLOW)

SIMULATION TIME (HOURS)	AVERAGE TIMESTEP (SECONDS)	VOLUME CONSERVATION (ACRE FEET)	PERCENT OF INFLOW
----------------------------	-------------------------------	------------------------------------	-------------------

SUMMARY.OUT FILE  
 Pro Model - Build No. 16.06.16

0.000	1.000	-0.000002	2.083333
0.100	1.803	-0.000550	1.871135
0.200	2.969	-0.002044	2.993802
0.300	3.678	-0.003640	2.928996
0.400	4.228	-0.008166	2.234412
0.500	4.687	-0.008759	1.802827
0.601	5.086	-0.009098	1.671157
0.700	5.439	-0.009400	1.593745
0.801	5.758	-0.009750	1.554127
0.900	6.050	-0.009987	1.514493
1.000	6.318	-0.010460	1.519672
1.101	6.569	-0.010460	1.519671
1.201	6.804	-0.010460	1.519671
1.300	7.024	-0.010460	1.519671
1.401	7.233	-0.010460	1.519671
1.502	7.433	-0.010460	1.519671
1.602	7.622	-0.010460	1.519671
1.701	7.802	-0.010460	1.519671
1.801	7.974	-0.010460	1.519671
1.900	8.139	-0.010460	1.519671
2.002	8.299	-0.010460	1.519671
2.100	8.453	-0.010460	1.519671
2.201	8.600	-0.010460	1.519671
2.300	8.743	-0.010460	1.519671
2.402	8.882	-0.010460	1.519671
2.502	9.017	-0.010460	1.519671
2.601	9.147	-0.010460	1.519671
2.701	9.273	-0.010460	1.519671
2.800	9.396	-0.010460	1.519671
2.901	9.516	-0.010460	1.519671
3.003	9.634	-0.010460	1.519671

=====

=====

MASS BALANCE    INFLOW - OUTFLOW VOLUME

=====

=====

\*\*\* INFLOW (ACRE-FEET) \*\*\*

TOTAL POINT RAINFALL:

2.9982 INCHES

## SUMMARY.OUT

	WATER
RAINFALL VOLUME	0.688
SURFACE WATER INFLOW HYDROGRAPH	0.000
	-----
INFLOW HYDROGRAPHS + RAINFALL	0.688

=====

=====

\*\*\* SURFACE OUTFLOW (ACRE-FT) \*\*\*

RAINFALL INTERCEPTION	0.000 INCHES
-----------------------	--------------

OVERLAND FLOW	WATER
WATER LOST TO INTERCEPTION	0.000
FLOODPLAIN STORAGE	0.272
FLOODPLAIN OUTFLOW HYDROGRAPH	0.427
	-----
FLOODPLAIN OUTFLOW, INTERCEPTION & STORAGE	0.699
TOL FLOODPLAIN STORAGE	0.272
TOTAL SURFACE OUTFLOW AND STORAGE	0.699

=====

=====

\*\*\* TOTALS \*\*\*

TOTAL OUTFLOW FROM GRID SYSTEM	0.427
TOTAL VOLUME OF OUTFLOW AND STORAGE	0.699

SURFACE AREA OF INUNDATION REGARDLESS OF THE TIME OF OCCURRENCE:



## SUMMARY.OUT

(FOR FLOW DEPTHS GREATER THAN THE "TOL" VALUE TYPICALLY 0.1 FT OR 0.03 M)

THE MAXIMUM INUNDATED AREA IS: 3.099 ACRES

THE MAXIMUM INUNDATED AREA (DEPTH > 0.5 FT) IS: 0.000 ACRES

=====

## AVERAGE GRID ELEMENT FLOW DIRECTION FLOODPLAIN HYDRAULICS:

DISCHARGE (CFS OR CMS):	0.621
VELOCITY (FPS OR CMS):	0.205
FLOW AREA (FT^2 OR M^2):	2.846
FLOW DEPTH (FT OR M):	0.118
FLOW WIDTH (FT OR M):	24.131

TOTAL COMPUTATIONS: 16428.

COMPUTER RUN TIME IS : 0.00317 HRS

THIS OUTPUT FILE WAS TERMINATED ON: 4/30/2020 AT: 15:10: 2

## **Attachment 17 – Test Case 6 FLO-2D Pro ARF and WRF Feature Input and Output Files**

## ARF.DAT

S 0

T 39

T 40

T 49

T 48

47	0	1	0	0	0	0	0	0	1
38	0	1	0	0	0	1	0	0	0
29	0	0	0	0	0	1	0	0	0
30	0	0	1	0	0	1	0	0	0
31	0	0	1	0	0	0	1	0	0
41	0	0	0	1	0	0	1	0	0
50	0	0	0	1	0	0	0	1	0
32	0	0	0	0	0	0	1	0	0
25	0	1	1	1	0	1	1	1	1
33	0	0	0	0	0	0	0	0	1
24	0	1	0	0	0	0	0	0	0
15	0	0	0	0	0	1	0	0	0
35	0	0	0	0	0	0	0	1	0
34	0	0	0	0	1	0	0	0	0
17	0	0	0	0	0	0	1	0	0
26	0	0	0	1	0	0	0	0	0

## CADPTS.DAT

1	250.000	1300.000
2	250.000	1350.000
3	250.000	1400.000
4	250.000	1450.000
5	250.000	1500.000
6	250.000	1550.000
7	250.000	1600.000
8	250.000	1650.000
9	250.000	1700.000
10	300.000	1300.000
11	300.000	1350.000
12	300.000	1400.000
13	300.000	1450.000
14	300.000	1500.000
15	300.000	1550.000
16	300.000	1600.000
17	300.000	1650.000
18	300.000	1700.000
19	350.000	1300.000
20	350.000	1350.000
21	350.000	1400.000
22	350.000	1450.000
23	350.000	1500.000
24	350.000	1550.000
25	350.000	1600.000
26	350.000	1650.000
27	350.000	1700.000
28	400.000	1300.000
29	400.000	1350.000
30	400.000	1400.000
31	400.000	1450.000
32	400.000	1500.000
33	400.000	1550.000
34	400.000	1600.000
35	400.000	1650.000
36	400.000	1700.000
37	450.000	1300.000
38	450.000	1350.000
39	450.000	1400.000
40	450.000	1450.000
41	450.000	1500.000
42	450.000	1550.000
43	450.000	1600.000
44	450.000	1650.000
45	450.000	1700.000
46	500.000	1300.000
47	500.000	1350.000
48	500.000	1400.000
49	500.000	1450.000

## CADPTS.DAT

50	500.000	1500.000
51	500.000	1550.000
52	500.000	1600.000
53	500.000	1650.000
54	500.000	1700.000

```
CONT.DAT
3.000  0.100  2  0  0  Pro Model - Build No. 16.06.16
0  0  0  1  0
0  0  0  0  0  0  0
0  0  0
0.000  0.00  0.000  0.000  0.000  0.200
      2      0.00
      1      0.10
0.10
```

## FPLAIN.DAT

1	2	10	0	0	0.050	108.00
2	3	11	1	0	0.050	107.00
3	4	12	2	0	0.050	106.00
4	5	13	3	0	0.050	105.00
5	6	14	4	0	0.050	104.00
6	7	15	5	0	0.050	103.00
7	8	16	6	0	0.050	102.00
8	9	17	7	0	0.050	101.00
9	0	18	8	0	0.050	100.00
10	11	19	0	1	0.050	108.00
11	12	20	10	2	0.050	107.00
12	13	21	11	3	0.050	106.00
13	14	22	12	4	0.050	105.00
14	15	23	13	5	0.050	104.00
15	16	24	14	6	0.050	103.00
16	17	25	15	7	0.050	102.00
17	18	26	16	8	0.050	101.00
18	0	27	17	9	0.050	100.00
19	20	28	0	10	0.050	108.00
20	21	29	19	11	0.050	107.00
21	22	30	20	12	0.050	106.00
22	23	31	21	13	0.050	105.00
23	24	32	22	14	0.050	104.00
24	25	33	23	15	0.050	103.00
25	26	34	24	16	0.050	102.00
26	27	35	25	17	0.050	101.00
27	0	36	26	18	0.050	100.00
28	29	37	0	19	0.050	108.00
29	30	38	28	20	0.050	107.00
30	31	39	29	21	0.050	106.00
31	32	40	30	22	0.050	105.00
32	33	41	31	23	0.050	104.00
33	34	42	32	24	0.050	103.00
34	35	43	33	25	0.050	102.00
35	36	44	34	26	0.050	101.00
36	0	45	35	27	0.050	100.00
37	38	46	0	28	0.050	108.00
38	39	47	37	29	0.050	107.00
39	40	48	38	30	0.050	106.00
40	41	49	39	31	0.050	105.00
41	42	50	40	32	0.050	104.00
42	43	51	41	33	0.050	103.00
43	44	52	42	34	0.050	102.00
44	45	53	43	35	0.050	101.00
45	0	54	44	36	0.050	100.00
46	47	0	0	37	0.050	108.00
47	48	0	46	38	0.050	107.00
48	49	0	47	39	0.050	106.00
49	50	0	48	40	0.050	105.00

FPLAIN.DAT						
50	51	0	49	41	0.050	104.00
51	52	0	50	42	0.050	103.00
52	53	0	51	43	0.050	102.00
53	54	0	52	44	0.050	101.00
54	0	0	53	45	0.050	100.00



## INFLOW.DAT

0	19	
F	0	19
H	0.0	0.0
H	0.5	2000.0
H	2.0	2000.0

## MANNINGS\_N.DAT

1	0.050
2	0.050
3	0.050
4	0.050
5	0.050
6	0.050
7	0.050
8	0.050
9	0.050
10	0.050
11	0.050
12	0.050
13	0.050
14	0.050
15	0.050
16	0.050
17	0.050
18	0.050
19	0.050
20	0.050
21	0.050
22	0.050
23	0.050
24	0.050
25	0.050
26	0.050
27	0.050
28	0.050
29	0.050
30	0.050
31	0.050
32	0.050
33	0.050
34	0.050
35	0.050
36	0.050
37	0.050
38	0.050
39	0.050
40	0.050
41	0.050
42	0.050
43	0.050
44	0.050
45	0.050
46	0.050
47	0.050
48	0.050
49	0.050

## MANNINGS\_N.DAT

50	0.050
51	0.050
52	0.050
53	0.050
54	0.050

## OUTFLOW.DAT

0	9
0	18
0	27
0	36
0	45
0	54

## RAIN.DAT

0	0		
3	0	0	0
R	0	0	
R	0.02	0.008	
R	0.04	0.0162	
R	0.06	0.0246	
R	0.08	0.0333	
R	0.1	0.0425	
R	0.12	0.0524	
R	0.14	0.063	
R	0.16	0.0743	
R	0.18	0.0863	
R	0.2	0.099	
R	0.22	0.1124	
R	0.24	0.1265	
R	0.26	0.142	
R	0.28	0.1595	
R	0.3	0.18	
R	0.32	0.205	
R	0.34	0.255	
R	0.36	0.345	
R	0.38	0.437	
R	0.4	0.53	
R	0.42	0.603	
R	0.44	0.633	
R	0.46	0.66	
R	0.48	0.684	
R	0.5	0.705	
R	0.52	0.724	
R	0.54	0.742	
R	0.56	0.759	
R	0.58	0.775	
R	0.6	0.79	
R	0.62	0.8043	
R	0.64	0.818	
R	0.66	0.8312	
R	0.68	0.8439	
R	0.7	0.8561	
R	0.72	0.8678	
R	0.74	0.879	
R	0.76	0.8898	
R	0.78	0.9002	
R	0.8	0.9103	
R	0.82	0.9201	
R	0.84	0.9297	
R	0.86	0.9391	
R	0.88	0.9483	
R	0.9	0.9573	
R	0.92	0.9661	

## RAIN.DAT

R	0.94	0.9747
R	0.96	0.9832
R	0.98	0.9916
R	1	1

## SUPPLEMENT.DAT

```
0          [Shape Files]
0          [Images]
[Modeling Boundary Polygon]=true
5
          201.95          1246.48
          556.45          1246.48
          555.37          1758.89
          192.29          1755.66
          190.14          1753.52
[Street Polylines]=false
[Channel Polylines]=false
[Levee Polylines]=false
```

TOLER.DAT

0.1000 0.000 0.00  
C 0.600  
T 1.000



## TOPO.DAT

250.00	1300.00	108.00
250.00	1350.00	107.00
250.00	1400.00	106.00
250.00	1450.00	105.00
250.00	1500.00	104.00
250.00	1550.00	103.00
250.00	1600.00	102.00
250.00	1650.00	101.00
250.00	1700.00	100.00
300.00	1300.00	108.00
300.00	1350.00	107.00
300.00	1400.00	106.00
300.00	1450.00	105.00
300.00	1500.00	104.00
300.00	1550.00	103.00
300.00	1600.00	102.00
300.00	1650.00	101.00
300.00	1700.00	100.00
350.00	1300.00	108.00
350.00	1350.00	107.00
350.00	1400.00	106.00
350.00	1450.00	105.00
350.00	1500.00	104.00
350.00	1550.00	103.00
350.00	1600.00	102.00
350.00	1650.00	101.00
350.00	1700.00	100.00
400.00	1300.00	108.00
400.00	1350.00	107.00
400.00	1400.00	106.00
400.00	1450.00	105.00
400.00	1500.00	104.00
400.00	1550.00	103.00
400.00	1600.00	102.00
400.00	1650.00	101.00
400.00	1700.00	100.00
450.00	1300.00	108.00
450.00	1350.00	107.00
450.00	1400.00	106.00
450.00	1450.00	105.00
450.00	1500.00	104.00
450.00	1550.00	103.00
450.00	1600.00	102.00
450.00	1650.00	101.00
450.00	1700.00	100.00
500.00	1300.00	108.00
500.00	1350.00	107.00
500.00	1400.00	106.00
500.00	1450.00	105.00

## TOPO.DAT

500.00	1500.00	104.00
500.00	1550.00	103.00
500.00	1600.00	102.00
500.00	1650.00	101.00
500.00	1700.00	100.00

		DEFPF.OUT	
1	250.00	1300.00	1.1445
2	250.00	1350.00	1.5621
3	250.00	1400.00	1.7706
4	250.00	1450.00	1.8513
5	250.00	1500.00	1.8853
6	250.00	1550.00	1.9711
7	250.00	1600.00	2.0077
8	250.00	1650.00	1.8310
9	250.00	1700.00	1.7463
10	300.00	1300.00	1.6280
11	300.00	1350.00	1.8483
12	300.00	1400.00	1.8581
13	300.00	1450.00	1.8688
14	300.00	1500.00	1.8747
15	300.00	1550.00	2.0325
16	300.00	1600.00	2.0258
17	300.00	1650.00	1.6639
18	300.00	1700.00	1.6401
19	350.00	1300.00	2.6872
20	350.00	1350.00	2.0436
21	350.00	1400.00	2.0245
22	350.00	1450.00	1.8903
23	350.00	1500.00	1.8422
24	350.00	1550.00	2.0173
25	350.00	1600.00	2.0211
26	350.00	1650.00	1.4313
27	350.00	1700.00	1.4808
28	400.00	1300.00	1.7041
29	400.00	1350.00	2.1079
30	400.00	1400.00	2.2048
31	400.00	1450.00	1.8654
32	400.00	1500.00	1.6445
33	400.00	1550.00	1.8180
34	400.00	1600.00	1.5866
35	400.00	1650.00	1.3504
36	400.00	1700.00	1.3763
37	450.00	1300.00	1.2932
38	450.00	1350.00	2.1219
39	450.00	1400.00	0.0000
40	450.00	1450.00	0.0000
41	450.00	1500.00	1.1587
42	450.00	1550.00	1.3346
43	450.00	1600.00	1.4025
44	450.00	1650.00	1.3497
45	450.00	1700.00	1.3426
46	500.00	1300.00	1.2052
47	500.00	1350.00	2.1675
48	500.00	1400.00	0.0000
49	500.00	1450.00	0.0000

		DEFPF.OUT	
50	500.00	1500.00	0.5851
51	500.00	1550.00	1.0204
52	500.00	1600.00	1.2498
53	500.00	1650.00	1.3296
54	500.00	1700.00	1.3395

DEPTH.OUT			
1	250.00	1300.00	1.1445
2	250.00	1350.00	1.5621
3	250.00	1400.00	1.7706
4	250.00	1450.00	1.8513
5	250.00	1500.00	1.8853
6	250.00	1550.00	1.9711
7	250.00	1600.00	2.0077
8	250.00	1650.00	1.8310
9	250.00	1700.00	1.7463
10	300.00	1300.00	1.6280
11	300.00	1350.00	1.8483
12	300.00	1400.00	1.8581
13	300.00	1450.00	1.8688
14	300.00	1500.00	1.8747
15	300.00	1550.00	2.0325
16	300.00	1600.00	2.0258
17	300.00	1650.00	1.6639
18	300.00	1700.00	1.6401
19	350.00	1300.00	2.6872
20	350.00	1350.00	2.0436
21	350.00	1400.00	2.0245
22	350.00	1450.00	1.8903
23	350.00	1500.00	1.8422
24	350.00	1550.00	2.0173
25	350.00	1600.00	2.0211
26	350.00	1650.00	1.4313
27	350.00	1700.00	1.4808
28	400.00	1300.00	1.7041
29	400.00	1350.00	2.1079
30	400.00	1400.00	2.2048
31	400.00	1450.00	1.8654
32	400.00	1500.00	1.6445
33	400.00	1550.00	1.8180
34	400.00	1600.00	1.5866
35	400.00	1650.00	1.3504
36	400.00	1700.00	1.3763
37	450.00	1300.00	1.2932
38	450.00	1350.00	2.1219
39	450.00	1400.00	0.0000
40	450.00	1450.00	0.0000
41	450.00	1500.00	1.1587
42	450.00	1550.00	1.3346
43	450.00	1600.00	1.4025
44	450.00	1650.00	1.3497
45	450.00	1700.00	1.3426
46	500.00	1300.00	1.2052
47	500.00	1350.00	2.1675
48	500.00	1400.00	0.0000
49	500.00	1450.00	0.0000

		DEPTH.OUT	
50	500.00	1500.00	0.5851
51	500.00	1550.00	1.0204
52	500.00	1600.00	1.2498
53	500.00	1650.00	1.3296
54	500.00	1700.00	1.3395

VELFP.OUT			
1	250.00	1300.00	2.7286
2	250.00	1350.00	4.1382
3	250.00	1400.00	4.9231
4	250.00	1450.00	5.2358
5	250.00	1500.00	5.2420
6	250.00	1550.00	5.5583
7	250.00	1600.00	5.9462
8	250.00	1650.00	5.5975
9	250.00	1700.00	0.0000
10	300.00	1300.00	4.2752
11	300.00	1350.00	5.3353
12	300.00	1400.00	5.3865
13	300.00	1450.00	5.4498
14	300.00	1500.00	5.1735
15	300.00	1550.00	5.8470
16	300.00	1600.00	6.1601
17	300.00	1650.00	5.0651
18	300.00	1700.00	0.0000
19	350.00	1300.00	8.7361
20	350.00	1350.00	5.9519
21	350.00	1400.00	6.0481
22	350.00	1450.00	5.7218
23	350.00	1500.00	5.0515
24	350.00	1550.00	4.3863
25	350.00	1600.00	0.0862
26	350.00	1650.00	4.1970
27	350.00	1700.00	0.0000
28	400.00	1300.00	3.8861
29	400.00	1350.00	5.8039
30	400.00	1400.00	6.7774
31	400.00	1450.00	5.8416
32	400.00	1500.00	4.5551
33	400.00	1550.00	5.5174
34	400.00	1600.00	5.0212
35	400.00	1650.00	4.1480
36	400.00	1700.00	0.0000
37	450.00	1300.00	1.6420
38	450.00	1350.00	4.1635
39	450.00	1400.00	0.0000
40	450.00	1450.00	0.0000
41	450.00	1500.00	3.2762
42	450.00	1550.00	3.8562
43	450.00	1600.00	4.1814
44	450.00	1650.00	4.1007
45	450.00	1700.00	0.0000
46	500.00	1300.00	0.7665
47	500.00	1350.00	1.3116
48	500.00	1400.00	0.0000
49	500.00	1450.00	0.0000

		VELFP.OUT	
50	500.00	1500.00	1.4947
51	500.00	1550.00	2.8542
52	500.00	1600.00	3.6380
53	500.00	1650.00	3.9535
54	500.00	1700.00	0.0000



## **Attachment 18a – Test Cases 7 Hand Calculations**

Scenario 1 - No WRF Applied

Flow over lower portion of levee is analyzed utilizing a broad crested weir formula.

Q = Discharge over weir (cfs)

C = Discharge Coefficient = 3.09

Discharge through levee opening into three directions:

L = Length of weir =  $50 \text{ ft} * 0.4142 * 3 = 62.13 \text{ ft}$

H = Depth of flow over weir (ft)

From FLO-2D, maximum flow depth at grid 158 = 7.3952 ft

Levee crest elevation = 6 ft

Therefore,  $H = 7.3952 \text{ ft} - 6 \text{ ft} = 1.3952 \text{ ft}$

$Q = CLH^{3/2}$

$Q = 3.09 * 62.13 * (1.3978)^{3/2}$

**Q = 316.38 cfs**

Scenario 2 - WRF=1.0 in two directions and WRF = 0.5 in one direction

Discharge through levee opening into two directions is completely blocked and in one direction is 50% blocked:

L = Length of weir =  $50 * 0.4142 * 0.5 = 10.355 \text{ ft}$

From FLO-2D, maximum flow depth at grid 158 = 9.7242 ft

Levee crest elevation = 6 ft

Therefore,  $H = 9.7242 \text{ ft} - 6 \text{ ft} = 3.7242 \text{ ft}$

**Q = 229.96 cfs**

Scenario 3 - WRF=1.0 in two directions and no WRF in one direction

Discharge through levee opening into two directions is completely blocked and in one direction is unobstructed:

L = Length of weir =  $50 * 0.4142 = 20.71 \text{ ft}$

From FLO-2D, maximum flow depth at grid 158 = 8.7327 ft

Levee crest elevation = 6 ft

Therefore,  $H = 8.7327 \text{ ft} - 6 \text{ ft} = 2.7327 \text{ ft}$

**Q = 289.09 cfs**

## **Attachment 18b – Test Case 6 FLO-2D Pro Levee Feature Input and Output Files**

## **Scenario 1 - No WRF**

			CONT.DAT_No	WRF	
2.5	0.1	2	0	0	Professional
Model - Build No. 14-08-09					
0	0	1	0	0	
0	0	0	0	0	0
0					
0	0	0			
0	0	0	0	0.4	0.1
0	0				
1	0.1				
0.1					

			FPLAIN.DAT_No	WRF		
1	5	2	0	0	0.100	8.85
2	6	3	0	1	0.100	8.85
3	7	4	0	2	0.100	8.85
4	8	0	0	3	0.100	8.85
5	9	6	1	0	0.100	8.70
6	10	7	2	5	0.100	8.70
7	11	8	3	6	0.100	8.70
8	12	0	4	7	0.100	8.70
9	13	10	5	0	0.100	8.55
10	14	11	6	9	0.100	8.55
11	15	12	7	10	0.100	8.55
12	16	0	8	11	0.100	8.55
13	17	14	9	0	0.100	8.40
14	18	15	10	13	0.100	8.40
15	19	16	11	14	0.100	8.40
16	20	0	12	15	0.100	8.40
17	21	18	13	0	0.100	8.25
18	22	19	14	17	0.100	8.25
19	23	20	15	18	0.100	8.25
20	24	0	16	19	0.100	8.25
21	25	22	17	0	0.100	8.10
22	26	23	18	21	0.100	8.10
23	27	24	19	22	0.100	8.10
24	28	0	20	23	0.100	8.10
25	29	26	21	0	0.100	7.95
26	30	27	22	25	0.100	7.95
27	31	28	23	26	0.100	7.95
28	32	0	24	27	0.100	7.95
29	33	30	25	0	0.100	7.80
30	34	31	26	29	0.100	7.80
31	35	32	27	30	0.100	7.80
32	36	0	28	31	0.100	7.80
33	37	34	29	0	0.100	7.65
34	38	35	30	33	0.100	7.65
35	39	36	31	34	0.100	7.65
36	40	0	32	35	0.100	7.65
37	41	38	33	0	0.100	7.50
38	42	39	34	37	0.100	7.50
39	43	40	35	38	0.100	7.50
40	44	0	36	39	0.100	7.50
41	45	42	37	0	0.100	7.35
42	46	43	38	41	0.100	7.35
43	47	44	39	42	0.100	7.35
44	48	0	40	43	0.100	7.35
45	49	46	41	0	0.100	7.20
46	50	47	42	45	0.100	7.20
47	51	48	43	46	0.100	7.20
48	52	0	44	47	0.100	7.20
49	53	50	45	0	0.100	7.05

			FPLAIN.DAT_No	WRF		
50	54	51	46	49	0.100	7.05
51	55	52	47	50	0.100	7.05
52	56	0	48	51	0.100	7.05
53	57	54	49	0	0.100	6.90
54	58	55	50	53	0.100	6.90
55	59	56	51	54	0.100	6.90
56	60	0	52	55	0.100	6.90
57	61	58	53	0	0.100	6.75
58	62	59	54	57	0.100	6.75
59	63	60	55	58	0.100	6.75
60	64	0	56	59	0.100	6.75
61	65	62	57	0	0.100	6.60
62	66	63	58	61	0.100	6.60
63	67	64	59	62	0.100	6.60
64	68	0	60	63	0.100	6.60
65	69	66	61	0	0.100	6.45
66	70	67	62	65	0.100	6.45
67	71	68	63	66	0.100	6.45
68	72	0	64	67	0.100	6.45
69	73	70	65	0	0.100	6.30
70	74	71	66	69	0.100	6.30
71	75	72	67	70	0.100	6.30
72	76	0	68	71	0.100	6.30
73	77	74	69	0	0.100	6.15
74	78	75	70	73	0.100	6.15
75	79	76	71	74	0.100	6.15
76	80	0	72	75	0.100	6.15
77	81	78	73	0	0.100	6.00
78	82	79	74	77	0.100	6.00
79	83	80	75	78	0.100	6.00
80	84	0	76	79	0.100	6.00
81	85	82	77	0	0.100	5.85
82	86	83	78	81	0.100	5.85
83	87	84	79	82	0.100	5.85
84	88	0	80	83	0.100	5.85
85	89	86	81	0	0.100	5.70
86	90	87	82	85	0.100	5.70
87	91	88	83	86	0.100	5.70
88	92	0	84	87	0.100	5.70
89	93	90	85	0	0.100	5.55
90	94	91	86	89	0.100	5.55
91	95	92	87	90	0.100	5.55
92	96	0	88	91	0.100	5.55
93	97	94	89	0	0.100	5.40
94	98	95	90	93	0.100	5.40
95	99	96	91	94	0.100	5.40
96	100	0	92	95	0.100	5.40
97	101	98	93	0	0.100	5.25
98	102	99	94	97	0.100	5.25

			FPLAIN.DAT_No	WRF		
99	103	100	95	98	0.100	5.25
100	104	0	96	99	0.100	5.25
101	105	102	97	0	0.100	5.10
102	106	103	98	101	0.100	5.10
103	107	104	99	102	0.100	5.10
104	108	0	100	103	0.100	5.10
105	109	106	101	0	0.100	4.95
106	110	107	102	105	0.100	4.95
107	111	108	103	106	0.100	4.95
108	112	0	104	107	0.100	4.95
109	113	110	105	0	0.100	4.80
110	114	111	106	109	0.100	4.80
111	115	112	107	110	0.100	4.80
112	116	0	108	111	0.100	4.80
113	117	114	109	0	0.100	4.65
114	118	115	110	113	0.100	4.65
115	119	116	111	114	0.100	4.65
116	120	0	112	115	0.100	4.65
117	121	118	113	0	0.100	4.50
118	122	119	114	117	0.100	4.50
119	123	120	115	118	0.100	4.50
120	124	0	116	119	0.100	4.50
121	125	122	117	0	0.100	4.35
122	126	123	118	121	0.100	4.35
123	127	124	119	122	0.100	4.35
124	128	0	120	123	0.100	4.35
125	129	126	121	0	0.100	4.20
126	130	127	122	125	0.100	4.20
127	131	128	123	126	0.100	4.20
128	132	0	124	127	0.100	4.20
129	133	130	125	0	0.100	4.05
130	134	131	126	129	0.100	4.05
131	135	132	127	130	0.100	4.05
132	136	0	128	131	0.100	4.05
133	137	134	129	0	0.100	3.90
134	138	135	130	133	0.100	3.90
135	139	136	131	134	0.100	3.90
136	140	0	132	135	0.100	3.90
137	141	138	133	0	0.100	3.75
138	142	139	134	137	0.100	3.75
139	143	140	135	138	0.100	3.75
140	144	0	136	139	0.100	3.75
141	145	142	137	0	0.100	3.60
142	146	143	138	141	0.100	3.60
143	147	144	139	142	0.100	3.60
144	148	0	140	143	0.100	3.60
145	149	146	141	0	0.100	3.45
146	150	147	142	145	0.100	3.45
147	151	148	143	146	0.100	3.45



			FPLAIN.DAT_No	WRF		
148	152	0	144	147	0.100	3.45
149	153	150	145	0	0.100	3.30
150	154	151	146	149	0.100	3.30
151	155	152	147	150	0.100	3.30
152	156	0	148	151	0.100	3.30
153	157	154	149	0	0.100	3.15
154	158	155	150	153	0.100	3.15
155	159	156	151	154	0.100	3.15
156	160	0	152	155	0.100	3.15
157	161	158	153	0	0.100	3.00
158	162	159	154	157	0.100	3.00
159	163	160	155	158	0.100	3.00
160	164	0	156	159	0.100	3.00
161	165	162	157	0	0.100	2.85
162	166	163	158	161	0.100	2.85
163	167	164	159	162	0.100	2.85
164	168	0	160	163	0.100	2.85
165	169	166	161	0	0.100	2.70
166	170	167	162	165	0.100	2.70
167	171	168	163	166	0.100	2.70
168	172	0	164	167	0.100	2.70
169	173	170	165	0	0.100	2.55
170	174	171	166	169	0.100	2.55
171	175	172	167	170	0.100	2.55
172	176	0	168	171	0.100	2.55
173	177	174	169	0	0.100	2.40
174	178	175	170	173	0.100	2.40
175	179	176	171	174	0.100	2.40
176	180	0	172	175	0.100	2.40
177	181	178	173	0	0.100	2.25
178	182	179	174	177	0.100	2.25
179	183	180	175	178	0.100	2.25
180	184	0	176	179	0.100	2.25
181	185	182	177	0	0.100	2.10
182	186	183	178	181	0.100	2.10
183	187	184	179	182	0.100	2.10
184	188	0	180	183	0.100	2.10
185	189	186	181	0	0.100	1.95
186	190	187	182	185	0.100	1.95
187	191	188	183	186	0.100	1.95
188	192	0	184	187	0.100	1.95
189	193	190	185	0	0.100	1.80
190	194	191	186	189	0.100	1.80
191	195	192	187	190	0.100	1.80
192	196	0	188	191	0.100	1.80
193	197	194	189	0	0.100	1.65
194	198	195	190	193	0.100	1.65
195	199	196	191	194	0.100	1.65
196	200	0	192	195	0.100	1.65

			FPLAIN.DAT_No	WRF		
197	201	198	193	0	0.100	1.50
198	202	199	194	197	0.100	1.50
199	203	200	195	198	0.100	1.50
200	204	0	196	199	0.100	1.50
201	205	202	197	0	0.100	1.35
202	206	203	198	201	0.100	1.35
203	207	204	199	202	0.100	1.35
204	208	0	200	203	0.100	1.35
205	209	206	201	0	0.100	1.20
206	210	207	202	205	0.100	1.20
207	211	208	203	206	0.100	1.20
208	212	0	204	207	0.100	1.20
209	213	210	205	0	0.100	1.05
210	214	211	206	209	0.100	1.05
211	215	212	207	210	0.100	1.05
212	216	0	208	211	0.100	1.05
213	217	214	209	0	0.100	0.90
214	218	215	210	213	0.100	0.90
215	219	216	211	214	0.100	0.90
216	220	0	212	215	0.100	0.90
217	221	218	213	0	0.100	0.75
218	222	219	214	217	0.100	0.75
219	223	220	215	218	0.100	0.75
220	224	0	216	219	0.100	0.75
221	225	222	217	0	0.100	0.60
222	226	223	218	221	0.100	0.60
223	227	224	219	222	0.100	0.60
224	228	0	220	223	0.100	0.60
225	229	226	221	0	0.100	0.45
226	230	227	222	225	0.100	0.45
227	231	228	223	226	0.100	0.45
228	232	0	224	227	0.100	0.45
229	233	230	225	0	0.100	0.30
230	234	231	226	229	0.100	0.30
231	235	232	227	230	0.100	0.30
232	236	0	228	231	0.100	0.30
233	237	234	229	0	0.100	0.15
234	238	235	230	233	0.100	0.15
235	239	236	231	234	0.100	0.15
236	240	0	232	235	0.100	0.15
237	0	238	233	0	0.100	0.00
238	0	239	234	237	0.100	0.00
239	0	240	235	238	0.100	0.00
240	0	0	236	239	0.100	0.00

		INFLOW.DAT_No	WRF
0	2		
F	0	2	
H	0.0	0.0	
H	0.5	300.0	
H	2.0	300.0	

		LEVEE.DAT_ No WRF
0	0	
L	161	
D	3	13.0
D	4	6.0
D	6	13.0
D	7	13.0
L	162	
D	3	6.0
D	6	6.0
D	7	6.0
L	163	
D	3	13.0
D	6	13.0
D	7	13.0
L	164	
D	2	13.0
D	3	13.0
D	6	13.0
D	7	13.0

## MANNINGS\_N.DAT\_No WRF

1	0.100
2	0.100
3	0.100
4	0.100
5	0.100
6	0.100
7	0.100
8	0.100
9	0.100
10	0.100
11	0.100
12	0.100
13	0.100
14	0.100
15	0.100
16	0.100
17	0.100
18	0.100
19	0.100
20	0.100
21	0.100
22	0.100
23	0.100
24	0.100
25	0.100
26	0.100
27	0.100
28	0.100
29	0.100
30	0.100
31	0.100
32	0.100
33	0.100
34	0.100
35	0.100
36	0.100
37	0.100
38	0.100
39	0.100
40	0.100
41	0.100
42	0.100
43	0.100
44	0.100
45	0.100
46	0.100
47	0.100
48	0.100
49	0.100

## MANNINGS.DAT\_No WRF

50	0.100
51	0.100
52	0.100
53	0.100
54	0.100
55	0.100
56	0.100
57	0.100
58	0.100
59	0.100
60	0.100
61	0.100
62	0.100
63	0.100
64	0.100
65	0.100
66	0.100
67	0.100
68	0.100
69	0.100
70	0.100
71	0.100
72	0.100
73	0.100
74	0.100
75	0.100
76	0.100
77	0.100
78	0.100
79	0.100
80	0.100
81	0.100
82	0.100
83	0.100
84	0.100
85	0.100
86	0.100
87	0.100
88	0.100
89	0.100
90	0.100
91	0.100
92	0.100
93	0.100
94	0.100
95	0.100
96	0.100
97	0.100
98	0.100

## MANNINGS.DAT\_No WRF

99	0.100
100	0.100
101	0.100
102	0.100
103	0.100
104	0.100
105	0.100
106	0.100
107	0.100
108	0.100
109	0.100
110	0.100
111	0.100
112	0.100
113	0.100
114	0.100
115	0.100
116	0.100
117	0.100
118	0.100
119	0.100
120	0.100
121	0.100
122	0.100
123	0.100
124	0.100
125	0.100
126	0.100
127	0.100
128	0.100
129	0.100
130	0.100
131	0.100
132	0.100
133	0.100
134	0.100
135	0.100
136	0.100
137	0.100
138	0.100
139	0.100
140	0.100
141	0.100
142	0.100
143	0.100
144	0.100
145	0.100
146	0.100
147	0.100

## MANNINGS.DAT\_No WRF

148	0.100
149	0.100
150	0.100
151	0.100
152	0.100
153	0.100
154	0.100
155	0.100
156	0.100
157	0.100
158	0.100
159	0.100
160	0.100
161	0.100
162	0.100
163	0.100
164	0.100
165	0.100
166	0.100
167	0.100
168	0.100
169	0.100
170	0.100
171	0.100
172	0.100
173	0.100
174	0.100
175	0.100
176	0.100
177	0.100
178	0.100
179	0.100
180	0.100
181	0.100
182	0.100
183	0.100
184	0.100
185	0.100
186	0.100
187	0.100
188	0.100
189	0.100
190	0.100
191	0.100
192	0.100
193	0.100
194	0.100
195	0.100
196	0.100



## MANNINGS.DAT\_No WRF

197	0.100
198	0.100
199	0.100
200	0.100
201	0.100
202	0.100
203	0.100
204	0.100
205	0.100
206	0.100
207	0.100
208	0.100
209	0.100
210	0.100
211	0.100
212	0.100
213	0.100
214	0.100
215	0.100
216	0.100
217	0.100
218	0.100
219	0.100
220	0.100
221	0.100
222	0.100
223	0.100
224	0.100
225	0.100
226	0.100
227	0.100
228	0.100
229	0.100
230	0.100
231	0.100
232	0.100
233	0.100
234	0.100
235	0.100
236	0.100
237	0.100
238	0.100
239	0.100
240	0.100

OUFLOW.DAT\_ No WRF

0	237
0	238
0	239
0	240

## SUPPLEMENT.DAT\_No WRF

```
0          [Shape Files]
0          [Images]
[Modeling Boundary Polygon]=false
[Street Polylines]=false
[Channel Polylines]=false
[Levee Polylines]=true
1
2
          -21.45          2000.19
          173.44          2000.19
```

		TOLER.DAT_No	WRF
0.1	0.1	0	
C	0.6		
T	0.1		

## TOPO.DAT\_No WRF

0.00	0.00	8.85
50.00	0.00	8.85
100.00	0.00	8.85
150.00	0.00	8.85
0.00	50.00	8.70
50.00	50.00	8.70
100.00	50.00	8.70
150.00	50.00	8.70
0.00	100.00	8.55
50.00	100.00	8.55
100.00	100.00	8.55
150.00	100.00	8.55
0.00	150.00	8.40
50.00	150.00	8.40
100.00	150.00	8.40
150.00	150.00	8.40
0.00	200.00	8.25
50.00	200.00	8.25
100.00	200.00	8.25
150.00	200.00	8.25
0.00	250.00	8.10
50.00	250.00	8.10
100.00	250.00	8.10
150.00	250.00	8.10
0.00	300.00	7.95
50.00	300.00	7.95
100.00	300.00	7.95
150.00	300.00	7.95
0.00	350.00	7.80
50.00	350.00	7.80
100.00	350.00	7.80
150.00	350.00	7.80
0.00	400.00	7.65
50.00	400.00	7.65
100.00	400.00	7.65
150.00	400.00	7.65
0.00	450.00	7.50
50.00	450.00	7.50
100.00	450.00	7.50
150.00	450.00	7.50
0.00	500.00	7.35
50.00	500.00	7.35
100.00	500.00	7.35
150.00	500.00	7.35
0.00	550.00	7.20
50.00	550.00	7.20
100.00	550.00	7.20
150.00	550.00	7.20
0.00	600.00	7.05

## TOPO.DAT\_No WRF

50.00	600.00	7.05
100.00	600.00	7.05
150.00	600.00	7.05
0.00	650.00	6.90
50.00	650.00	6.90
100.00	650.00	6.90
150.00	650.00	6.90
0.00	700.00	6.75
50.00	700.00	6.75
100.00	700.00	6.75
150.00	700.00	6.75
0.00	750.00	6.60
50.00	750.00	6.60
100.00	750.00	6.60
150.00	750.00	6.60
0.00	800.00	6.45
50.00	800.00	6.45
100.00	800.00	6.45
150.00	800.00	6.45
0.00	850.00	6.30
50.00	850.00	6.30
100.00	850.00	6.30
150.00	850.00	6.30
0.00	900.00	6.15
50.00	900.00	6.15
100.00	900.00	6.15
150.00	900.00	6.15
0.00	950.00	6.00
50.00	950.00	6.00
100.00	950.00	6.00
150.00	950.00	6.00
0.00	1000.00	5.85
50.00	1000.00	5.85
100.00	1000.00	5.85
150.00	1000.00	5.85
0.00	1050.00	5.70
50.00	1050.00	5.70
100.00	1050.00	5.70
150.00	1050.00	5.70
0.00	1100.00	5.55
50.00	1100.00	5.55
100.00	1100.00	5.55
150.00	1100.00	5.55
0.00	1150.00	5.40
50.00	1150.00	5.40
100.00	1150.00	5.40
150.00	1150.00	5.40
0.00	1200.00	5.25
50.00	1200.00	5.25

## TOPO.DAT\_No WRF

100.00	1200.00	5.25
150.00	1200.00	5.25
0.00	1250.00	5.10
50.00	1250.00	5.10
100.00	1250.00	5.10
150.00	1250.00	5.10
0.00	1300.00	4.95
50.00	1300.00	4.95
100.00	1300.00	4.95
150.00	1300.00	4.95
0.00	1350.00	4.80
50.00	1350.00	4.80
100.00	1350.00	4.80
150.00	1350.00	4.80
0.00	1400.00	4.65
50.00	1400.00	4.65
100.00	1400.00	4.65
150.00	1400.00	4.65
0.00	1450.00	4.50
50.00	1450.00	4.50
100.00	1450.00	4.50
150.00	1450.00	4.50
0.00	1500.00	4.35
50.00	1500.00	4.35
100.00	1500.00	4.35
150.00	1500.00	4.35
0.00	1550.00	4.20
50.00	1550.00	4.20
100.00	1550.00	4.20
150.00	1550.00	4.20
0.00	1600.00	4.05
50.00	1600.00	4.05
100.00	1600.00	4.05
150.00	1600.00	4.05
0.00	1650.00	3.90
50.00	1650.00	3.90
100.00	1650.00	3.90
150.00	1650.00	3.90
0.00	1700.00	3.75
50.00	1700.00	3.75
100.00	1700.00	3.75
150.00	1700.00	3.75
0.00	1750.00	3.60
50.00	1750.00	3.60
100.00	1750.00	3.60
150.00	1750.00	3.60
0.00	1800.00	3.45
50.00	1800.00	3.45
100.00	1800.00	3.45

## TOPO.DAT\_No WRF

150.00	1800.00	3.45
0.00	1850.00	3.30
50.00	1850.00	3.30
100.00	1850.00	3.30
150.00	1850.00	3.30
0.00	1900.00	3.15
50.00	1900.00	3.15
100.00	1900.00	3.15
150.00	1900.00	3.15
0.00	1950.00	3.00
50.00	1950.00	3.00
100.00	1950.00	3.00
150.00	1950.00	3.00
0.00	2000.00	2.85
50.00	2000.00	2.85
100.00	2000.00	2.85
150.00	2000.00	2.85
0.00	2050.00	2.70
50.00	2050.00	2.70
100.00	2050.00	2.70
150.00	2050.00	2.70
0.00	2100.00	2.55
50.00	2100.00	2.55
100.00	2100.00	2.55
150.00	2100.00	2.55
0.00	2150.00	2.40
50.00	2150.00	2.40
100.00	2150.00	2.40
150.00	2150.00	2.40
0.00	2200.00	2.25
50.00	2200.00	2.25
100.00	2200.00	2.25
150.00	2200.00	2.25
0.00	2250.00	2.10
50.00	2250.00	2.10
100.00	2250.00	2.10
150.00	2250.00	2.10
0.00	2300.00	1.95
50.00	2300.00	1.95
100.00	2300.00	1.95
150.00	2300.00	1.95
0.00	2350.00	1.80
50.00	2350.00	1.80
100.00	2350.00	1.80
150.00	2350.00	1.80
0.00	2400.00	1.65
50.00	2400.00	1.65
100.00	2400.00	1.65
150.00	2400.00	1.65



## TOPO.DAT\_No WRF

0.00	2450.00	1.50
50.00	2450.00	1.50
100.00	2450.00	1.50
150.00	2450.00	1.50
0.00	2500.00	1.35
50.00	2500.00	1.35
100.00	2500.00	1.35
150.00	2500.00	1.35
0.00	2550.00	1.20
50.00	2550.00	1.20
100.00	2550.00	1.20
150.00	2550.00	1.20
0.00	2600.00	1.05
50.00	2600.00	1.05
100.00	2600.00	1.05
150.00	2600.00	1.05
0.00	2650.00	0.90
50.00	2650.00	0.90
100.00	2650.00	0.90
150.00	2650.00	0.90
0.00	2700.00	0.75
50.00	2700.00	0.75
100.00	2700.00	0.75
150.00	2700.00	0.75
0.00	2750.00	0.60
50.00	2750.00	0.60
100.00	2750.00	0.60
150.00	2750.00	0.60
0.00	2800.00	0.45
50.00	2800.00	0.45
100.00	2800.00	0.45
150.00	2800.00	0.45
0.00	2850.00	0.30
50.00	2850.00	0.30
100.00	2850.00	0.30
150.00	2850.00	0.30
0.00	2900.00	0.15
50.00	2900.00	0.15
100.00	2900.00	0.15
150.00	2900.00	0.15
0.00	2950.00	0.00
50.00	2950.00	0.00
100.00	2950.00	0.00
150.00	2950.00	0.00

LEVOVERTOP.OUT\_No WRF  
MAXIMUM LEVEE OVERTOPPING DISCHARGE BY GRID ELEMENT, DISCHARGE (CFS OR CMS) AND  
TIME (HRS):

162	2.389	311.41
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		MAXWSELEV.OUT_No	WRF
1	0.00	0.00	10.4975
2	50.00	0.00	10.7204
3	100.00	0.00	10.3996
4	150.00	0.00	10.3255
5	0.00	50.00	10.3593
6	50.00	50.00	10.3501
7	100.00	50.00	10.3079
8	150.00	50.00	10.2720
9	0.00	100.00	10.1824
10	50.00	100.00	10.1775
11	100.00	100.00	10.1660
12	150.00	100.00	10.1596
13	0.00	150.00	10.0292
14	50.00	150.00	10.0305
15	100.00	150.00	10.0254
16	150.00	150.00	10.0210
17	0.00	200.00	9.8757
18	50.00	200.00	9.8748
19	100.00	200.00	9.8739
20	150.00	200.00	9.8729
21	0.00	250.00	9.7258
22	50.00	250.00	9.7251
23	100.00	250.00	9.7244
24	150.00	250.00	9.7240
25	0.00	300.00	9.5777
26	50.00	300.00	9.5772
27	100.00	300.00	9.5768
28	150.00	300.00	9.5766
29	0.00	350.00	9.4307
30	50.00	350.00	9.4305
31	100.00	350.00	9.4302
32	150.00	350.00	9.4301
33	0.00	400.00	9.2851
34	50.00	400.00	9.2850
35	100.00	400.00	9.2848
36	150.00	400.00	9.2847
37	0.00	450.00	9.1411
38	50.00	450.00	9.1410
39	100.00	450.00	9.1409
40	150.00	450.00	9.1409
41	0.00	500.00	8.9991
42	50.00	500.00	8.9991
43	100.00	500.00	8.9991
44	150.00	500.00	8.9990
45	0.00	550.00	8.8598
46	50.00	550.00	8.8598
47	100.00	550.00	8.8598
48	150.00	550.00	8.8597
49	0.00	600.00	8.7239

		MAXWSELEV.OUT_No	WRF
50	50.00	600.00	8.7239
51	100.00	600.00	8.7239
52	150.00	600.00	8.7238
53	0.00	650.00	8.5923
54	50.00	650.00	8.5923
55	100.00	650.00	8.5923
56	150.00	650.00	8.5923
57	0.00	700.00	8.4661
58	50.00	700.00	8.4661
59	100.00	700.00	8.4661
60	150.00	700.00	8.4660
61	0.00	750.00	8.3465
62	50.00	750.00	8.3465
63	100.00	750.00	8.3464
64	150.00	750.00	8.3464
65	0.00	800.00	8.2348
66	50.00	800.00	8.2348
67	100.00	800.00	8.2347
68	150.00	800.00	8.2347
69	0.00	850.00	8.1322
70	50.00	850.00	8.1321
71	100.00	850.00	8.1321
72	150.00	850.00	8.1322
73	0.00	900.00	8.0399
74	50.00	900.00	8.0398
75	100.00	900.00	8.0399
76	150.00	900.00	8.0400
77	0.00	950.00	7.9586
78	50.00	950.00	7.9583
79	100.00	950.00	7.9586
80	150.00	950.00	7.9587
81	0.00	1000.00	7.8887
82	50.00	1000.00	7.8880
83	100.00	1000.00	7.8888
84	150.00	1000.00	7.8884
85	0.00	1050.00	7.8305
86	50.00	1050.00	7.8295
87	100.00	1050.00	7.8286
88	150.00	1050.00	7.8289
89	0.00	1100.00	7.7858
90	50.00	1100.00	7.7834
91	100.00	1100.00	7.7785
92	150.00	1100.00	7.7816
93	0.00	1150.00	7.7526
94	50.00	1150.00	7.7559
95	100.00	1150.00	7.7448
96	150.00	1150.00	7.7507
97	0.00	1200.00	7.7266
98	50.00	1200.00	7.7157

		MAXWSELEV.OUT_No	WRF
99	100.00	1200.00	7.7147
100	150.00	1200.00	7.7344
101	0.00	1250.00	7.7044
102	50.00	1250.00	7.6810
103	100.00	1250.00	7.6923
104	150.00	1250.00	7.7025
105	0.00	1300.00	7.6812
106	50.00	1300.00	7.6636
107	100.00	1300.00	7.6589
108	150.00	1300.00	7.6785
109	0.00	1350.00	7.6714
110	50.00	1350.00	7.6396
111	100.00	1350.00	7.6348
112	150.00	1350.00	7.6433
113	0.00	1400.00	7.6266
114	50.00	1400.00	7.6114
115	100.00	1400.00	7.6143
116	150.00	1400.00	7.6157
117	0.00	1450.00	7.6141
118	50.00	1450.00	7.5904
119	100.00	1450.00	7.5864
120	150.00	1450.00	7.5954
121	0.00	1500.00	7.5814
122	50.00	1500.00	7.5798
123	100.00	1500.00	7.5713
124	150.00	1500.00	7.5791
125	0.00	1550.00	7.5561
126	50.00	1550.00	7.5434
127	100.00	1550.00	7.5458
128	150.00	1550.00	7.5674
129	0.00	1600.00	7.5496
130	50.00	1600.00	7.5259
131	100.00	1600.00	7.5285
132	150.00	1600.00	7.5422
133	0.00	1650.00	7.5256
134	50.00	1650.00	7.4995
135	100.00	1650.00	7.5084
136	150.00	1650.00	7.5191
137	0.00	1700.00	7.4928
138	50.00	1700.00	7.4892
139	100.00	1700.00	7.5039
140	150.00	1700.00	7.5091
141	0.00	1750.00	7.5027
142	50.00	1750.00	7.4870
143	100.00	1750.00	7.4699
144	150.00	1750.00	7.4900
145	0.00	1800.00	7.4667
146	50.00	1800.00	7.4530
147	100.00	1800.00	7.4621

		MAXWSELEV.OUT_No	WRF
148	150.00	1800.00	7.4671
149	0.00	1850.00	7.4585
150	50.00	1850.00	7.4399
151	100.00	1850.00	7.4451
152	150.00	1850.00	7.4514
153	0.00	1900.00	7.4533
154	50.00	1900.00	7.4204
155	100.00	1900.00	7.4243
156	150.00	1900.00	7.4336
157	0.00	1950.00	7.4029
158	50.00	1950.00	7.3952
159	100.00	1950.00	7.4032
160	150.00	1950.00	7.4199
161	0.00	2000.00	4.4756
162	50.00	2000.00	4.8731
163	100.00	2000.00	4.3883
164	150.00	2000.00	4.3054
165	0.00	2050.00	4.3740
166	50.00	2050.00	4.3669
167	100.00	2050.00	4.3099
168	150.00	2050.00	4.2632
169	0.00	2100.00	4.1895
170	50.00	2100.00	4.1838
171	100.00	2100.00	4.1681
172	150.00	2100.00	4.1586
173	0.00	2150.00	4.0256
174	50.00	2150.00	4.0244
175	100.00	2150.00	4.0220
176	150.00	2150.00	4.0206
177	0.00	2200.00	3.8736
178	50.00	2200.00	3.8727
179	100.00	2200.00	3.8720
180	150.00	2200.00	3.8712
181	0.00	2250.00	3.7222
182	50.00	2250.00	3.7218
183	100.00	2250.00	3.7213
184	150.00	2250.00	3.7209
185	0.00	2300.00	3.5715
186	50.00	2300.00	3.5713
187	100.00	2300.00	3.5710
188	150.00	2300.00	3.5707
189	0.00	2350.00	3.4210
190	50.00	2350.00	3.4208
191	100.00	2350.00	3.4206
192	150.00	2350.00	3.4205
193	0.00	2400.00	3.2705
194	50.00	2400.00	3.2704
195	100.00	2400.00	3.2702
196	150.00	2400.00	3.2701

		MAXWSELEV.OUT_No	WRF
197	0.00	2450.00	3.1200
198	50.00	2450.00	3.1200
199	100.00	2450.00	3.1199
200	150.00	2450.00	3.1198
201	0.00	2500.00	2.9696
202	50.00	2500.00	2.9696
203	100.00	2500.00	2.9695
204	150.00	2500.00	2.9695
205	0.00	2550.00	2.8193
206	50.00	2550.00	2.8192
207	100.00	2550.00	2.8192
208	150.00	2550.00	2.8192
209	0.00	2600.00	2.6690
210	50.00	2600.00	2.6689
211	100.00	2600.00	2.6689
212	150.00	2600.00	2.6689
213	0.00	2650.00	2.5187
214	50.00	2650.00	2.5187
215	100.00	2650.00	2.5187
216	150.00	2650.00	2.5187
217	0.00	2700.00	2.3685
218	50.00	2700.00	2.3685
219	100.00	2700.00	2.3685
220	150.00	2700.00	2.3684
221	0.00	2750.00	2.2183
222	50.00	2750.00	2.2183
223	100.00	2750.00	2.2183
224	150.00	2750.00	2.2183
225	0.00	2800.00	2.0682
226	50.00	2800.00	2.0682
227	100.00	2800.00	2.0682
228	150.00	2800.00	2.0682
229	0.00	2850.00	1.9182
230	50.00	2850.00	1.9182
231	100.00	2850.00	1.9182
232	150.00	2850.00	1.9182
233	0.00	2900.00	1.7682
234	50.00	2900.00	1.7682
235	100.00	2900.00	1.7682
236	150.00	2900.00	1.7682
237	0.00	2950.00	1.6182
238	50.00	2950.00	1.6182
239	100.00	2950.00	1.6182
240	150.00	2950.00	1.6182

**Scenario 2 - WRF = 1.0 on 2 sides and WRF = 0.5 on 1 side**



ARF.DAT\_WRF (1.0, 0.5, 1.0)

S 0

162	0	0	0	.5	0	0	1	1	0
159	0	0	0	0	0	0	0	0	1
158	0	.5	0	0	0	0	0	0	0
157	0	0	0	0	0	1	0	0	0

		CONT.DAT_WRF (1.0, 0.5, 1.0)			
2.5	0.1	2	0	0	Professional
Model - Build No. 14-08-09					
0	0	1	1	0	
0	0	0	0	0	0
0					
0	0	0			
0	0	0	0	0.4	0.1
0	0				
1	0.1				
0.1					

## FPLAIN.DAT\_WRF (1.0, 0.5, 1.0)

1	5	2	0	0	0.100	8.85
2	6	3	0	1	0.100	8.85
3	7	4	0	2	0.100	8.85
4	8	0	0	3	0.100	8.85
5	9	6	1	0	0.100	8.70
6	10	7	2	5	0.100	8.70
7	11	8	3	6	0.100	8.70
8	12	0	4	7	0.100	8.70
9	13	10	5	0	0.100	8.55
10	14	11	6	9	0.100	8.55
11	15	12	7	10	0.100	8.55
12	16	0	8	11	0.100	8.55
13	17	14	9	0	0.100	8.40
14	18	15	10	13	0.100	8.40
15	19	16	11	14	0.100	8.40
16	20	0	12	15	0.100	8.40
17	21	18	13	0	0.100	8.25
18	22	19	14	17	0.100	8.25
19	23	20	15	18	0.100	8.25
20	24	0	16	19	0.100	8.25
21	25	22	17	0	0.100	8.10
22	26	23	18	21	0.100	8.10
23	27	24	19	22	0.100	8.10
24	28	0	20	23	0.100	8.10
25	29	26	21	0	0.100	7.95
26	30	27	22	25	0.100	7.95
27	31	28	23	26	0.100	7.95
28	32	0	24	27	0.100	7.95
29	33	30	25	0	0.100	7.80
30	34	31	26	29	0.100	7.80
31	35	32	27	30	0.100	7.80
32	36	0	28	31	0.100	7.80
33	37	34	29	0	0.100	7.65
34	38	35	30	33	0.100	7.65
35	39	36	31	34	0.100	7.65
36	40	0	32	35	0.100	7.65
37	41	38	33	0	0.100	7.50
38	42	39	34	37	0.100	7.50
39	43	40	35	38	0.100	7.50
40	44	0	36	39	0.100	7.50
41	45	42	37	0	0.100	7.35
42	46	43	38	41	0.100	7.35
43	47	44	39	42	0.100	7.35
44	48	0	40	43	0.100	7.35
45	49	46	41	0	0.100	7.20
46	50	47	42	45	0.100	7.20
47	51	48	43	46	0.100	7.20
48	52	0	44	47	0.100	7.20
49	53	50	45	0	0.100	7.05

FPLAIN.DAT_WRF (1.0, 0.5, 1.0)						
50	54	51	46	49	0.100	7.05
51	55	52	47	50	0.100	7.05
52	56	0	48	51	0.100	7.05
53	57	54	49	0	0.100	6.90
54	58	55	50	53	0.100	6.90
55	59	56	51	54	0.100	6.90
56	60	0	52	55	0.100	6.90
57	61	58	53	0	0.100	6.75
58	62	59	54	57	0.100	6.75
59	63	60	55	58	0.100	6.75
60	64	0	56	59	0.100	6.75
61	65	62	57	0	0.100	6.60
62	66	63	58	61	0.100	6.60
63	67	64	59	62	0.100	6.60
64	68	0	60	63	0.100	6.60
65	69	66	61	0	0.100	6.45
66	70	67	62	65	0.100	6.45
67	71	68	63	66	0.100	6.45
68	72	0	64	67	0.100	6.45
69	73	70	65	0	0.100	6.30
70	74	71	66	69	0.100	6.30
71	75	72	67	70	0.100	6.30
72	76	0	68	71	0.100	6.30
73	77	74	69	0	0.100	6.15
74	78	75	70	73	0.100	6.15
75	79	76	71	74	0.100	6.15
76	80	0	72	75	0.100	6.15
77	81	78	73	0	0.100	6.00
78	82	79	74	77	0.100	6.00
79	83	80	75	78	0.100	6.00
80	84	0	76	79	0.100	6.00
81	85	82	77	0	0.100	5.85
82	86	83	78	81	0.100	5.85
83	87	84	79	82	0.100	5.85
84	88	0	80	83	0.100	5.85
85	89	86	81	0	0.100	5.70
86	90	87	82	85	0.100	5.70
87	91	88	83	86	0.100	5.70
88	92	0	84	87	0.100	5.70
89	93	90	85	0	0.100	5.55
90	94	91	86	89	0.100	5.55
91	95	92	87	90	0.100	5.55
92	96	0	88	91	0.100	5.55
93	97	94	89	0	0.100	5.40
94	98	95	90	93	0.100	5.40
95	99	96	91	94	0.100	5.40
96	100	0	92	95	0.100	5.40
97	101	98	93	0	0.100	5.25
98	102	99	94	97	0.100	5.25

## FPLAIN.DAT\_WRF (1.0, 0.5, 1.0)

99	103	100	95	98	0.100	5.25
100	104	0	96	99	0.100	5.25
101	105	102	97	0	0.100	5.10
102	106	103	98	101	0.100	5.10
103	107	104	99	102	0.100	5.10
104	108	0	100	103	0.100	5.10
105	109	106	101	0	0.100	4.95
106	110	107	102	105	0.100	4.95
107	111	108	103	106	0.100	4.95
108	112	0	104	107	0.100	4.95
109	113	110	105	0	0.100	4.80
110	114	111	106	109	0.100	4.80
111	115	112	107	110	0.100	4.80
112	116	0	108	111	0.100	4.80
113	117	114	109	0	0.100	4.65
114	118	115	110	113	0.100	4.65
115	119	116	111	114	0.100	4.65
116	120	0	112	115	0.100	4.65
117	121	118	113	0	0.100	4.50
118	122	119	114	117	0.100	4.50
119	123	120	115	118	0.100	4.50
120	124	0	116	119	0.100	4.50
121	125	122	117	0	0.100	4.35
122	126	123	118	121	0.100	4.35
123	127	124	119	122	0.100	4.35
124	128	0	120	123	0.100	4.35
125	129	126	121	0	0.100	4.20
126	130	127	122	125	0.100	4.20
127	131	128	123	126	0.100	4.20
128	132	0	124	127	0.100	4.20
129	133	130	125	0	0.100	4.05
130	134	131	126	129	0.100	4.05
131	135	132	127	130	0.100	4.05
132	136	0	128	131	0.100	4.05
133	137	134	129	0	0.100	3.90
134	138	135	130	133	0.100	3.90
135	139	136	131	134	0.100	3.90
136	140	0	132	135	0.100	3.90
137	141	138	133	0	0.100	3.75
138	142	139	134	137	0.100	3.75
139	143	140	135	138	0.100	3.75
140	144	0	136	139	0.100	3.75
141	145	142	137	0	0.100	3.60
142	146	143	138	141	0.100	3.60
143	147	144	139	142	0.100	3.60
144	148	0	140	143	0.100	3.60
145	149	146	141	0	0.100	3.45
146	150	147	142	145	0.100	3.45
147	151	148	143	146	0.100	3.45

FPLAIN.DAT_WRF (1.0, 0.5, 1.0)						
148	152	0	144	147	0.100	3.45
149	153	150	145	0	0.100	3.30
150	154	151	146	149	0.100	3.30
151	155	152	147	150	0.100	3.30
152	156	0	148	151	0.100	3.30
153	157	154	149	0	0.100	3.15
154	158	155	150	153	0.100	3.15
155	159	156	151	154	0.100	3.15
156	160	0	152	155	0.100	3.15
157	161	158	153	0	0.100	3.00
158	162	159	154	157	0.100	3.00
159	163	160	155	158	0.100	3.00
160	164	0	156	159	0.100	3.00
161	165	162	157	0	0.100	2.85
162	166	163	158	161	0.100	2.85
163	167	164	159	162	0.100	2.85
164	168	0	160	163	0.100	2.85
165	169	166	161	0	0.100	2.70
166	170	167	162	165	0.100	2.70
167	171	168	163	166	0.100	2.70
168	172	0	164	167	0.100	2.70
169	173	170	165	0	0.100	2.55
170	174	171	166	169	0.100	2.55
171	175	172	167	170	0.100	2.55
172	176	0	168	171	0.100	2.55
173	177	174	169	0	0.100	2.40
174	178	175	170	173	0.100	2.40
175	179	176	171	174	0.100	2.40
176	180	0	172	175	0.100	2.40
177	181	178	173	0	0.100	2.25
178	182	179	174	177	0.100	2.25
179	183	180	175	178	0.100	2.25
180	184	0	176	179	0.100	2.25
181	185	182	177	0	0.100	2.10
182	186	183	178	181	0.100	2.10
183	187	184	179	182	0.100	2.10
184	188	0	180	183	0.100	2.10
185	189	186	181	0	0.100	1.95
186	190	187	182	185	0.100	1.95
187	191	188	183	186	0.100	1.95
188	192	0	184	187	0.100	1.95
189	193	190	185	0	0.100	1.80
190	194	191	186	189	0.100	1.80
191	195	192	187	190	0.100	1.80
192	196	0	188	191	0.100	1.80
193	197	194	189	0	0.100	1.65
194	198	195	190	193	0.100	1.65
195	199	196	191	194	0.100	1.65
196	200	0	192	195	0.100	1.65

## FPLAIN.DAT\_WRF (1.0, 0.5, 1.0)

197	201	198	193	0	0.100	1.50
198	202	199	194	197	0.100	1.50
199	203	200	195	198	0.100	1.50
200	204	0	196	199	0.100	1.50
201	205	202	197	0	0.100	1.35
202	206	203	198	201	0.100	1.35
203	207	204	199	202	0.100	1.35
204	208	0	200	203	0.100	1.35
205	209	206	201	0	0.100	1.20
206	210	207	202	205	0.100	1.20
207	211	208	203	206	0.100	1.20
208	212	0	204	207	0.100	1.20
209	213	210	205	0	0.100	1.05
210	214	211	206	209	0.100	1.05
211	215	212	207	210	0.100	1.05
212	216	0	208	211	0.100	1.05
213	217	214	209	0	0.100	0.90
214	218	215	210	213	0.100	0.90
215	219	216	211	214	0.100	0.90
216	220	0	212	215	0.100	0.90
217	221	218	213	0	0.100	0.75
218	222	219	214	217	0.100	0.75
219	223	220	215	218	0.100	0.75
220	224	0	216	219	0.100	0.75
221	225	222	217	0	0.100	0.60
222	226	223	218	221	0.100	0.60
223	227	224	219	222	0.100	0.60
224	228	0	220	223	0.100	0.60
225	229	226	221	0	0.100	0.45
226	230	227	222	225	0.100	0.45
227	231	228	223	226	0.100	0.45
228	232	0	224	227	0.100	0.45
229	233	230	225	0	0.100	0.30
230	234	231	226	229	0.100	0.30
231	235	232	227	230	0.100	0.30
232	236	0	228	231	0.100	0.30
233	237	234	229	0	0.100	0.15
234	238	235	230	233	0.100	0.15
235	239	236	231	234	0.100	0.15
236	240	0	232	235	0.100	0.15
237	0	238	233	0	0.100	0.00
238	0	239	234	237	0.100	0.00
239	0	240	235	238	0.100	0.00
240	0	0	236	239	0.100	0.00

		INFLOW.DAT_WRF (1.0, 0.5, 1.0)
0	2	
F	0	2
H	0.0	0.0
H	0.5	300.0
H	2.0	300.0



LEVEE.DAT\_ WRF (1.0, 0.5, 1.0)

0	0	
L	161	
D	3	13.0
D	4	6.0
D	6	13.0
D	7	13.0
L	162	
D	3	6.0
D	6	6.0
D	7	6.0
L	163	
D	3	13.0
D	6	13.0
D	7	13.0
L	164	
D	2	13.0
D	3	13.0
D	6	13.0
D	7	13.0

## MANNINGS\_N.DAT\_WRF (1.0, 0.5, 1.0)

1	0.100
2	0.100
3	0.100
4	0.100
5	0.100
6	0.100
7	0.100
8	0.100
9	0.100
10	0.100
11	0.100
12	0.100
13	0.100
14	0.100
15	0.100
16	0.100
17	0.100
18	0.100
19	0.100
20	0.100
21	0.100
22	0.100
23	0.100
24	0.100
25	0.100
26	0.100
27	0.100
28	0.100
29	0.100
30	0.100
31	0.100
32	0.100
33	0.100
34	0.100
35	0.100
36	0.100
37	0.100
38	0.100
39	0.100
40	0.100
41	0.100
42	0.100
43	0.100
44	0.100
45	0.100
46	0.100
47	0.100
48	0.100
49	0.100

## MANNINGS\_N.DAT\_WRF (1.0, 0.5, 1.0)

50	0.100
51	0.100
52	0.100
53	0.100
54	0.100
55	0.100
56	0.100
57	0.100
58	0.100
59	0.100
60	0.100
61	0.100
62	0.100
63	0.100
64	0.100
65	0.100
66	0.100
67	0.100
68	0.100
69	0.100
70	0.100
71	0.100
72	0.100
73	0.100
74	0.100
75	0.100
76	0.100
77	0.100
78	0.100
79	0.100
80	0.100
81	0.100
82	0.100
83	0.100
84	0.100
85	0.100
86	0.100
87	0.100
88	0.100
89	0.100
90	0.100
91	0.100
92	0.100
93	0.100
94	0.100
95	0.100
96	0.100
97	0.100
98	0.100

## MANNINGS\_N.DAT\_WRF (1.0, 0.5, 1.0)

99	0.100
100	0.100
101	0.100
102	0.100
103	0.100
104	0.100
105	0.100
106	0.100
107	0.100
108	0.100
109	0.100
110	0.100
111	0.100
112	0.100
113	0.100
114	0.100
115	0.100
116	0.100
117	0.100
118	0.100
119	0.100
120	0.100
121	0.100
122	0.100
123	0.100
124	0.100
125	0.100
126	0.100
127	0.100
128	0.100
129	0.100
130	0.100
131	0.100
132	0.100
133	0.100
134	0.100
135	0.100
136	0.100
137	0.100
138	0.100
139	0.100
140	0.100
141	0.100
142	0.100
143	0.100
144	0.100
145	0.100
146	0.100
147	0.100

## MANNINGS\_N.DAT\_WRF (1.0, 0.5, 1.0)

148	0.100
149	0.100
150	0.100
151	0.100
152	0.100
153	0.100
154	0.100
155	0.100
156	0.100
157	0.100
158	0.100
159	0.100
160	0.100
161	0.100
162	0.100
163	0.100
164	0.100
165	0.100
166	0.100
167	0.100
168	0.100
169	0.100
170	0.100
171	0.100
172	0.100
173	0.100
174	0.100
175	0.100
176	0.100
177	0.100
178	0.100
179	0.100
180	0.100
181	0.100
182	0.100
183	0.100
184	0.100
185	0.100
186	0.100
187	0.100
188	0.100
189	0.100
190	0.100
191	0.100
192	0.100
193	0.100
194	0.100
195	0.100
196	0.100

## MANNINGS\_N.DAT\_WRF (1.0, 0.5, 1.0)

197	0.100
198	0.100
199	0.100
200	0.100
201	0.100
202	0.100
203	0.100
204	0.100
205	0.100
206	0.100
207	0.100
208	0.100
209	0.100
210	0.100
211	0.100
212	0.100
213	0.100
214	0.100
215	0.100
216	0.100
217	0.100
218	0.100
219	0.100
220	0.100
221	0.100
222	0.100
223	0.100
224	0.100
225	0.100
226	0.100
227	0.100
228	0.100
229	0.100
230	0.100
231	0.100
232	0.100
233	0.100
234	0.100
235	0.100
236	0.100
237	0.100
238	0.100
239	0.100
240	0.100

OUFLOW.DAT\_ WRF (1.0, 0.5, 1.0)

0	237
0	238
0	239
0	240

```
SUPPLEMENT.DAT_WRF (1.0, 0.5, 1.0)
0          [Shape Files]
0          [Images]
[Modeling Boundary Polygon]=false
[Street Polylines]=false
[Channel Polylines]=false
[Levee Polylines]=true
1
2
          -21.45          2000.19
          173.44          2000.19
```



0.1	0.1	TOLER.DAT_WRF (1.0, 0.5, 1.0)
C	0.6	0
T	0.1	

TOPO.DAT\_WRF (1.0, 0.5, 1.0)

0.00	0.00	8.85
50.00	0.00	8.85
100.00	0.00	8.85
150.00	0.00	8.85
0.00	50.00	8.70
50.00	50.00	8.70
100.00	50.00	8.70
150.00	50.00	8.70
0.00	100.00	8.55
50.00	100.00	8.55
100.00	100.00	8.55
150.00	100.00	8.55
0.00	150.00	8.40
50.00	150.00	8.40
100.00	150.00	8.40
150.00	150.00	8.40
0.00	200.00	8.25
50.00	200.00	8.25
100.00	200.00	8.25
150.00	200.00	8.25
0.00	250.00	8.10
50.00	250.00	8.10
100.00	250.00	8.10
150.00	250.00	8.10
0.00	300.00	7.95
50.00	300.00	7.95
100.00	300.00	7.95
150.00	300.00	7.95
0.00	350.00	7.80
50.00	350.00	7.80
100.00	350.00	7.80
150.00	350.00	7.80
0.00	400.00	7.65
50.00	400.00	7.65
100.00	400.00	7.65
150.00	400.00	7.65
0.00	450.00	7.50
50.00	450.00	7.50
100.00	450.00	7.50
150.00	450.00	7.50
0.00	500.00	7.35
50.00	500.00	7.35
100.00	500.00	7.35
150.00	500.00	7.35
0.00	550.00	7.20
50.00	550.00	7.20
100.00	550.00	7.20
150.00	550.00	7.20
0.00	600.00	7.05

TOPO.DAT\_WRF (1.0, 0.5, 1.0)

50.00	600.00	7.05
100.00	600.00	7.05
150.00	600.00	7.05
0.00	650.00	6.90
50.00	650.00	6.90
100.00	650.00	6.90
150.00	650.00	6.90
0.00	700.00	6.75
50.00	700.00	6.75
100.00	700.00	6.75
150.00	700.00	6.75
0.00	750.00	6.60
50.00	750.00	6.60
100.00	750.00	6.60
150.00	750.00	6.60
0.00	800.00	6.45
50.00	800.00	6.45
100.00	800.00	6.45
150.00	800.00	6.45
0.00	850.00	6.30
50.00	850.00	6.30
100.00	850.00	6.30
150.00	850.00	6.30
0.00	900.00	6.15
50.00	900.00	6.15
100.00	900.00	6.15
150.00	900.00	6.15
0.00	950.00	6.00
50.00	950.00	6.00
100.00	950.00	6.00
150.00	950.00	6.00
0.00	1000.00	5.85
50.00	1000.00	5.85
100.00	1000.00	5.85
150.00	1000.00	5.85
0.00	1050.00	5.70
50.00	1050.00	5.70
100.00	1050.00	5.70
150.00	1050.00	5.70
0.00	1100.00	5.55
50.00	1100.00	5.55
100.00	1100.00	5.55
150.00	1100.00	5.55
0.00	1150.00	5.40
50.00	1150.00	5.40
100.00	1150.00	5.40
150.00	1150.00	5.40
0.00	1200.00	5.25
50.00	1200.00	5.25

TOPO.DAT\_WRF (1.0, 0.5, 1.0)

100.00	1200.00	5.25
150.00	1200.00	5.25
0.00	1250.00	5.10
50.00	1250.00	5.10
100.00	1250.00	5.10
150.00	1250.00	5.10
0.00	1300.00	4.95
50.00	1300.00	4.95
100.00	1300.00	4.95
150.00	1300.00	4.95
0.00	1350.00	4.80
50.00	1350.00	4.80
100.00	1350.00	4.80
150.00	1350.00	4.80
0.00	1400.00	4.65
50.00	1400.00	4.65
100.00	1400.00	4.65
150.00	1400.00	4.65
0.00	1450.00	4.50
50.00	1450.00	4.50
100.00	1450.00	4.50
150.00	1450.00	4.50
0.00	1500.00	4.35
50.00	1500.00	4.35
100.00	1500.00	4.35
150.00	1500.00	4.35
0.00	1550.00	4.20
50.00	1550.00	4.20
100.00	1550.00	4.20
150.00	1550.00	4.20
0.00	1600.00	4.05
50.00	1600.00	4.05
100.00	1600.00	4.05
150.00	1600.00	4.05
0.00	1650.00	3.90
50.00	1650.00	3.90
100.00	1650.00	3.90
150.00	1650.00	3.90
0.00	1700.00	3.75
50.00	1700.00	3.75
100.00	1700.00	3.75
150.00	1700.00	3.75
0.00	1750.00	3.60
50.00	1750.00	3.60
100.00	1750.00	3.60
150.00	1750.00	3.60
0.00	1800.00	3.45
50.00	1800.00	3.45
100.00	1800.00	3.45

TOPO.DAT\_WRF (1.0, 0.5, 1.0)

150.00	1800.00	3.45
0.00	1850.00	3.30
50.00	1850.00	3.30
100.00	1850.00	3.30
150.00	1850.00	3.30
0.00	1900.00	3.15
50.00	1900.00	3.15
100.00	1900.00	3.15
150.00	1900.00	3.15
0.00	1950.00	3.00
50.00	1950.00	3.00
100.00	1950.00	3.00
150.00	1950.00	3.00
0.00	2000.00	2.85
50.00	2000.00	2.85
100.00	2000.00	2.85
150.00	2000.00	2.85
0.00	2050.00	2.70
50.00	2050.00	2.70
100.00	2050.00	2.70
150.00	2050.00	2.70
0.00	2100.00	2.55
50.00	2100.00	2.55
100.00	2100.00	2.55
150.00	2100.00	2.55
0.00	2150.00	2.40
50.00	2150.00	2.40
100.00	2150.00	2.40
150.00	2150.00	2.40
0.00	2200.00	2.25
50.00	2200.00	2.25
100.00	2200.00	2.25
150.00	2200.00	2.25
0.00	2250.00	2.10
50.00	2250.00	2.10
100.00	2250.00	2.10
150.00	2250.00	2.10
0.00	2300.00	1.95
50.00	2300.00	1.95
100.00	2300.00	1.95
150.00	2300.00	1.95
0.00	2350.00	1.80
50.00	2350.00	1.80
100.00	2350.00	1.80
150.00	2350.00	1.80
0.00	2400.00	1.65
50.00	2400.00	1.65
100.00	2400.00	1.65
150.00	2400.00	1.65

0.00	2450.00	1.50
50.00	2450.00	1.50
100.00	2450.00	1.50
150.00	2450.00	1.50
0.00	2500.00	1.35
50.00	2500.00	1.35
100.00	2500.00	1.35
150.00	2500.00	1.35
0.00	2550.00	1.20
50.00	2550.00	1.20
100.00	2550.00	1.20
150.00	2550.00	1.20
0.00	2600.00	1.05
50.00	2600.00	1.05
100.00	2600.00	1.05
150.00	2600.00	1.05
0.00	2650.00	0.90
50.00	2650.00	0.90
100.00	2650.00	0.90
150.00	2650.00	0.90
0.00	2700.00	0.75
50.00	2700.00	0.75
100.00	2700.00	0.75
150.00	2700.00	0.75
0.00	2750.00	0.60
50.00	2750.00	0.60
100.00	2750.00	0.60
150.00	2750.00	0.60
0.00	2800.00	0.45
50.00	2800.00	0.45
100.00	2800.00	0.45
150.00	2800.00	0.45
0.00	2850.00	0.30
50.00	2850.00	0.30
100.00	2850.00	0.30
150.00	2850.00	0.30
0.00	2900.00	0.15
50.00	2900.00	0.15
100.00	2900.00	0.15
150.00	2900.00	0.15
0.00	2950.00	0.00
50.00	2950.00	0.00
100.00	2950.00	0.00
150.00	2950.00	0.00

LEVOVERTOP.OUT\_WRF (1.0, 0.5, 1.0)

MAXIMUM LEVEE OVERTOPPING DISCHARGE BY GRID ELEMENT, DISCHARGE (CFS OR CMS) AND  
TIME (HRS):

162	2.497	229.97
-----	-------	--------

MAXWSELEV.OUT_WRF (1.0, 0.5, 1.0)			
1	0.00	0.00	10.6902
2	50.00	0.00	10.8466
3	100.00	0.00	10.6247
4	150.00	0.00	10.5809
5	0.00	50.00	10.5999
6	50.00	50.00	10.5945
7	100.00	50.00	10.5705
8	150.00	50.00	10.5491
9	0.00	100.00	10.4990
10	50.00	100.00	10.4969
11	100.00	100.00	10.4914
12	150.00	100.00	10.4880
13	0.00	150.00	10.4228
14	50.00	150.00	10.4212
15	100.00	150.00	10.4202
16	150.00	150.00	10.4195
17	0.00	200.00	10.3599
18	50.00	200.00	10.3595
19	100.00	200.00	10.3591
20	150.00	200.00	10.3603
21	0.00	250.00	10.3096
22	50.00	250.00	10.3096
23	100.00	250.00	10.3111
24	150.00	250.00	10.3156
25	0.00	300.00	10.2748
26	50.00	300.00	10.2700
27	100.00	300.00	10.2715
28	150.00	300.00	10.2876
29	0.00	350.00	10.2480
30	50.00	350.00	10.2360
31	100.00	350.00	10.2358
32	150.00	350.00	10.2686
33	0.00	400.00	10.2112
34	50.00	400.00	10.2080
35	100.00	400.00	10.2117
36	150.00	400.00	10.2115
37	0.00	450.00	10.1900
38	50.00	450.00	10.1907
39	100.00	450.00	10.2056
40	150.00	450.00	10.1985
41	0.00	500.00	10.1842
42	50.00	500.00	10.1703
43	100.00	500.00	10.1853
44	150.00	500.00	10.1873
45	0.00	550.00	10.1501
46	50.00	550.00	10.1650
47	100.00	550.00	10.1592
48	150.00	550.00	10.1509
49	0.00	600.00	10.1333



	MAXWSELEV.OUT_WRF (1.0, 0.5, 1.0)		
50	50.00	600.00	10.1339
51	100.00	600.00	10.1268
52	150.00	600.00	10.1246
53	0.00	650.00	10.1187
54	50.00	650.00	10.1143
55	100.00	650.00	10.0979
56	150.00	650.00	10.1155
57	0.00	700.00	10.0877
58	50.00	700.00	10.0782
59	100.00	700.00	10.0846
60	150.00	700.00	10.1056
61	0.00	750.00	10.0703
62	50.00	750.00	10.0766
63	100.00	750.00	10.0666
64	150.00	750.00	10.0688
65	0.00	800.00	10.0624
66	50.00	800.00	10.0521
67	100.00	800.00	10.0482
68	150.00	800.00	10.0649
69	0.00	850.00	10.0512
70	50.00	850.00	10.0527
71	100.00	850.00	10.0305
72	150.00	850.00	10.0546
73	0.00	900.00	10.0486
74	50.00	900.00	10.0290
75	100.00	900.00	10.0251
76	150.00	900.00	10.0388
77	0.00	950.00	10.0044
78	50.00	950.00	9.9989
79	100.00	950.00	10.0085
80	150.00	950.00	10.0045
81	0.00	1000.00	9.9905
82	50.00	1000.00	9.9745
83	100.00	1000.00	9.9898
84	150.00	1000.00	9.9854
85	0.00	1050.00	9.9971
86	50.00	1050.00	9.9697
87	100.00	1050.00	9.9730
88	150.00	1050.00	9.9808
89	0.00	1100.00	9.9693
90	50.00	1100.00	9.9886
91	100.00	1100.00	9.9632
92	150.00	1100.00	9.9636
93	0.00	1150.00	9.9518
94	50.00	1150.00	9.9512
95	100.00	1150.00	9.9464
96	150.00	1150.00	9.9587
97	0.00	1200.00	9.9503
98	50.00	1200.00	9.9476

	MAXWSELEV.OUT_WRF (1.0, 0.5, 1.0)		
99	100.00	1200.00	9.9200
100	150.00	1200.00	9.9350
101	0.00	1250.00	9.9322
102	50.00	1250.00	9.9141
103	100.00	1250.00	9.9230
104	150.00	1250.00	9.9412
105	0.00	1300.00	9.9202
106	50.00	1300.00	9.9096
107	100.00	1300.00	9.9019
108	150.00	1300.00	9.9088
109	0.00	1350.00	9.8924
110	50.00	1350.00	9.8985
111	100.00	1350.00	9.8830
112	150.00	1350.00	9.9102
113	0.00	1400.00	9.9046
114	50.00	1400.00	9.8834
115	100.00	1400.00	9.8797
116	150.00	1400.00	9.9140
117	0.00	1450.00	9.8745
118	50.00	1450.00	9.8707
119	100.00	1450.00	9.8595
120	150.00	1450.00	9.8838
121	0.00	1500.00	9.8575
122	50.00	1500.00	9.8587
123	100.00	1500.00	9.8532
124	150.00	1500.00	9.8741
125	0.00	1550.00	9.8772
126	50.00	1550.00	9.8636
127	100.00	1550.00	9.8380
128	150.00	1550.00	9.8600
129	0.00	1600.00	9.8485
130	50.00	1600.00	9.8339
131	100.00	1600.00	9.8236
132	150.00	1600.00	9.8288
133	0.00	1650.00	9.8319
134	50.00	1650.00	9.8059
135	100.00	1650.00	9.8337
136	150.00	1650.00	9.8481
137	0.00	1700.00	9.8324
138	50.00	1700.00	9.8105
139	100.00	1700.00	9.8124
140	150.00	1700.00	9.8270
141	0.00	1750.00	9.8292
142	50.00	1750.00	9.8069
143	100.00	1750.00	9.7901
144	150.00	1750.00	9.8164
145	0.00	1800.00	9.7962
146	50.00	1800.00	9.7976
147	100.00	1800.00	9.7945

	MAXWSELEV.OUT_WRF (1.0, 0.5, 1.0)		
148	150.00	1800.00	9.8176
149	0.00	1850.00	9.7997
150	50.00	1850.00	9.7685
151	100.00	1850.00	9.7730
152	150.00	1850.00	9.7953
153	0.00	1900.00	9.7932
154	50.00	1900.00	9.7568
155	100.00	1900.00	9.7765
156	150.00	1900.00	9.7681
157	0.00	1950.00	9.7380
158	50.00	1950.00	9.7242
159	100.00	1950.00	9.7589
160	150.00	1950.00	9.7717
161	0.00	2000.00	4.2334
162	50.00	2000.00	4.6108
163	100.00	2000.00	4.1489
164	150.00	2000.00	4.0661
165	0.00	2050.00	4.1328
166	50.00	2050.00	4.1256
167	100.00	2050.00	4.0707
168	150.00	2050.00	4.0226
169	0.00	2100.00	3.9489
170	50.00	2100.00	3.9428
171	100.00	2100.00	3.9274
172	150.00	2100.00	3.9173
173	0.00	2150.00	3.7841
174	50.00	2150.00	3.7828
175	100.00	2150.00	3.7800
176	150.00	2150.00	3.7785
177	0.00	2200.00	3.6303
178	50.00	2200.00	3.6297
179	100.00	2200.00	3.6285
180	150.00	2200.00	3.6277
181	0.00	2250.00	3.4774
182	50.00	2250.00	3.4769
183	100.00	2250.00	3.4763
184	150.00	2250.00	3.4758
185	0.00	2300.00	3.3247
186	50.00	2300.00	3.3244
187	100.00	2300.00	3.3240
188	150.00	2300.00	3.3237
189	0.00	2350.00	3.1722
190	50.00	2350.00	3.1720
191	100.00	2350.00	3.1717
192	150.00	2350.00	3.1716
193	0.00	2400.00	3.0197
194	50.00	2400.00	3.0196
195	100.00	2400.00	3.0194
196	150.00	2400.00	3.0193

	MAXWSELEV.OUT_WRF (1.0, 0.5, 1.0)		
197	0.00	2450.00	2.8673
198	50.00	2450.00	2.8672
199	100.00	2450.00	2.8671
200	150.00	2450.00	2.8670
201	0.00	2500.00	2.7149
202	50.00	2500.00	2.7149
203	100.00	2500.00	2.7148
204	150.00	2500.00	2.7148
205	0.00	2550.00	2.5626
206	50.00	2550.00	2.5626
207	100.00	2550.00	2.5626
208	150.00	2550.00	2.5625
209	0.00	2600.00	2.4104
210	50.00	2600.00	2.4103
211	100.00	2600.00	2.4103
212	150.00	2600.00	2.4103
213	0.00	2650.00	2.2582
214	50.00	2650.00	2.2581
215	100.00	2650.00	2.2581
216	150.00	2650.00	2.2581
217	0.00	2700.00	2.1060
218	50.00	2700.00	2.1060
219	100.00	2700.00	2.1060
220	150.00	2700.00	2.1060
221	0.00	2750.00	1.9540
222	50.00	2750.00	1.9540
223	100.00	2750.00	1.9540
224	150.00	2750.00	1.9540
225	0.00	2800.00	1.8023
226	50.00	2800.00	1.8023
227	100.00	2800.00	1.8023
228	150.00	2800.00	1.8023
229	0.00	2850.00	1.6509
230	50.00	2850.00	1.6509
231	100.00	2850.00	1.6509
232	150.00	2850.00	1.6509
233	0.00	2900.00	1.5000
234	50.00	2900.00	1.5000
235	100.00	2900.00	1.5000
236	150.00	2900.00	1.5000
237	0.00	2950.00	1.3500
238	50.00	2950.00	1.3500
239	100.00	2950.00	1.3500
240	150.00	2950.00	1.3500

**Scenario 3 - WRF = 1.0 on 2 sides and WRF = 0.0 on 1 side**

ARF.DAT\_ WRF (1.0, 0.0, 1.0)

S 0

159	0	0	0	0	0	0	0	0	1
162	0	0	0	0	0	0	1	1	0
157	0	0	0	0	0	1	0	0	0

		INFLOW.DAT_ WRF (1.0, 0.0, 1.0)			
2.5	0.1	2	0	0	Professional
Model - Build No. 14-08-09					
0	0	1	1	0	
0	0	0	0	0	0
0					
0	0	0			
0	0	0	0	0.4	0.1
0	0				
1	0.1				
0.1					

FPLAIN.DAT_ WRF (1.0, 0.0, 1.0)						
1	5	2	0	0	0.100	8.85
2	6	3	0	1	0.100	8.85
3	7	4	0	2	0.100	8.85
4	8	0	0	3	0.100	8.85
5	9	6	1	0	0.100	8.70
6	10	7	2	5	0.100	8.70
7	11	8	3	6	0.100	8.70
8	12	0	4	7	0.100	8.70
9	13	10	5	0	0.100	8.55
10	14	11	6	9	0.100	8.55
11	15	12	7	10	0.100	8.55
12	16	0	8	11	0.100	8.55
13	17	14	9	0	0.100	8.40
14	18	15	10	13	0.100	8.40
15	19	16	11	14	0.100	8.40
16	20	0	12	15	0.100	8.40
17	21	18	13	0	0.100	8.25
18	22	19	14	17	0.100	8.25
19	23	20	15	18	0.100	8.25
20	24	0	16	19	0.100	8.25
21	25	22	17	0	0.100	8.10
22	26	23	18	21	0.100	8.10
23	27	24	19	22	0.100	8.10
24	28	0	20	23	0.100	8.10
25	29	26	21	0	0.100	7.95
26	30	27	22	25	0.100	7.95
27	31	28	23	26	0.100	7.95
28	32	0	24	27	0.100	7.95
29	33	30	25	0	0.100	7.80
30	34	31	26	29	0.100	7.80
31	35	32	27	30	0.100	7.80
32	36	0	28	31	0.100	7.80
33	37	34	29	0	0.100	7.65
34	38	35	30	33	0.100	7.65
35	39	36	31	34	0.100	7.65
36	40	0	32	35	0.100	7.65
37	41	38	33	0	0.100	7.50
38	42	39	34	37	0.100	7.50
39	43	40	35	38	0.100	7.50
40	44	0	36	39	0.100	7.50
41	45	42	37	0	0.100	7.35
42	46	43	38	41	0.100	7.35
43	47	44	39	42	0.100	7.35
44	48	0	40	43	0.100	7.35
45	49	46	41	0	0.100	7.20
46	50	47	42	45	0.100	7.20
47	51	48	43	46	0.100	7.20
48	52	0	44	47	0.100	7.20
49	53	50	45	0	0.100	7.05



FPLAIN.DAT_ WRF (1.0, 0.0, 1.0)						
50	54	51	46	49	0.100	7.05
51	55	52	47	50	0.100	7.05
52	56	0	48	51	0.100	7.05
53	57	54	49	0	0.100	6.90
54	58	55	50	53	0.100	6.90
55	59	56	51	54	0.100	6.90
56	60	0	52	55	0.100	6.90
57	61	58	53	0	0.100	6.75
58	62	59	54	57	0.100	6.75
59	63	60	55	58	0.100	6.75
60	64	0	56	59	0.100	6.75
61	65	62	57	0	0.100	6.60
62	66	63	58	61	0.100	6.60
63	67	64	59	62	0.100	6.60
64	68	0	60	63	0.100	6.60
65	69	66	61	0	0.100	6.45
66	70	67	62	65	0.100	6.45
67	71	68	63	66	0.100	6.45
68	72	0	64	67	0.100	6.45
69	73	70	65	0	0.100	6.30
70	74	71	66	69	0.100	6.30
71	75	72	67	70	0.100	6.30
72	76	0	68	71	0.100	6.30
73	77	74	69	0	0.100	6.15
74	78	75	70	73	0.100	6.15
75	79	76	71	74	0.100	6.15
76	80	0	72	75	0.100	6.15
77	81	78	73	0	0.100	6.00
78	82	79	74	77	0.100	6.00
79	83	80	75	78	0.100	6.00
80	84	0	76	79	0.100	6.00
81	85	82	77	0	0.100	5.85
82	86	83	78	81	0.100	5.85
83	87	84	79	82	0.100	5.85
84	88	0	80	83	0.100	5.85
85	89	86	81	0	0.100	5.70
86	90	87	82	85	0.100	5.70
87	91	88	83	86	0.100	5.70
88	92	0	84	87	0.100	5.70
89	93	90	85	0	0.100	5.55
90	94	91	86	89	0.100	5.55
91	95	92	87	90	0.100	5.55
92	96	0	88	91	0.100	5.55
93	97	94	89	0	0.100	5.40
94	98	95	90	93	0.100	5.40
95	99	96	91	94	0.100	5.40
96	100	0	92	95	0.100	5.40
97	101	98	93	0	0.100	5.25
98	102	99	94	97	0.100	5.25

FPLAIN.DAT\_ WRF (1.0, 0.0, 1.0)

99	103	100	95	98	0.100	5.25
100	104	0	96	99	0.100	5.25
101	105	102	97	0	0.100	5.10
102	106	103	98	101	0.100	5.10
103	107	104	99	102	0.100	5.10
104	108	0	100	103	0.100	5.10
105	109	106	101	0	0.100	4.95
106	110	107	102	105	0.100	4.95
107	111	108	103	106	0.100	4.95
108	112	0	104	107	0.100	4.95
109	113	110	105	0	0.100	4.80
110	114	111	106	109	0.100	4.80
111	115	112	107	110	0.100	4.80
112	116	0	108	111	0.100	4.80
113	117	114	109	0	0.100	4.65
114	118	115	110	113	0.100	4.65
115	119	116	111	114	0.100	4.65
116	120	0	112	115	0.100	4.65
117	121	118	113	0	0.100	4.50
118	122	119	114	117	0.100	4.50
119	123	120	115	118	0.100	4.50
120	124	0	116	119	0.100	4.50
121	125	122	117	0	0.100	4.35
122	126	123	118	121	0.100	4.35
123	127	124	119	122	0.100	4.35
124	128	0	120	123	0.100	4.35
125	129	126	121	0	0.100	4.20
126	130	127	122	125	0.100	4.20
127	131	128	123	126	0.100	4.20
128	132	0	124	127	0.100	4.20
129	133	130	125	0	0.100	4.05
130	134	131	126	129	0.100	4.05
131	135	132	127	130	0.100	4.05
132	136	0	128	131	0.100	4.05
133	137	134	129	0	0.100	3.90
134	138	135	130	133	0.100	3.90
135	139	136	131	134	0.100	3.90
136	140	0	132	135	0.100	3.90
137	141	138	133	0	0.100	3.75
138	142	139	134	137	0.100	3.75
139	143	140	135	138	0.100	3.75
140	144	0	136	139	0.100	3.75
141	145	142	137	0	0.100	3.60
142	146	143	138	141	0.100	3.60
143	147	144	139	142	0.100	3.60
144	148	0	140	143	0.100	3.60
145	149	146	141	0	0.100	3.45
146	150	147	142	145	0.100	3.45
147	151	148	143	146	0.100	3.45

FPLAIN.DAT_ WRF (1.0, 0.0, 1.0)						
148	152	0	144	147	0.100	3.45
149	153	150	145	0	0.100	3.30
150	154	151	146	149	0.100	3.30
151	155	152	147	150	0.100	3.30
152	156	0	148	151	0.100	3.30
153	157	154	149	0	0.100	3.15
154	158	155	150	153	0.100	3.15
155	159	156	151	154	0.100	3.15
156	160	0	152	155	0.100	3.15
157	161	158	153	0	0.100	3.00
158	162	159	154	157	0.100	3.00
159	163	160	155	158	0.100	3.00
160	164	0	156	159	0.100	3.00
161	165	162	157	0	0.100	2.85
162	166	163	158	161	0.100	2.85
163	167	164	159	162	0.100	2.85
164	168	0	160	163	0.100	2.85
165	169	166	161	0	0.100	2.70
166	170	167	162	165	0.100	2.70
167	171	168	163	166	0.100	2.70
168	172	0	164	167	0.100	2.70
169	173	170	165	0	0.100	2.55
170	174	171	166	169	0.100	2.55
171	175	172	167	170	0.100	2.55
172	176	0	168	171	0.100	2.55
173	177	174	169	0	0.100	2.40
174	178	175	170	173	0.100	2.40
175	179	176	171	174	0.100	2.40
176	180	0	172	175	0.100	2.40
177	181	178	173	0	0.100	2.25
178	182	179	174	177	0.100	2.25
179	183	180	175	178	0.100	2.25
180	184	0	176	179	0.100	2.25
181	185	182	177	0	0.100	2.10
182	186	183	178	181	0.100	2.10
183	187	184	179	182	0.100	2.10
184	188	0	180	183	0.100	2.10
185	189	186	181	0	0.100	1.95
186	190	187	182	185	0.100	1.95
187	191	188	183	186	0.100	1.95
188	192	0	184	187	0.100	1.95
189	193	190	185	0	0.100	1.80
190	194	191	186	189	0.100	1.80
191	195	192	187	190	0.100	1.80
192	196	0	188	191	0.100	1.80
193	197	194	189	0	0.100	1.65
194	198	195	190	193	0.100	1.65
195	199	196	191	194	0.100	1.65
196	200	0	192	195	0.100	1.65

FPLAIN.DAT\_ WRF (1.0, 0.0, 1.0)

197	201	198	193	0	0.100	1.50
198	202	199	194	197	0.100	1.50
199	203	200	195	198	0.100	1.50
200	204	0	196	199	0.100	1.50
201	205	202	197	0	0.100	1.35
202	206	203	198	201	0.100	1.35
203	207	204	199	202	0.100	1.35
204	208	0	200	203	0.100	1.35
205	209	206	201	0	0.100	1.20
206	210	207	202	205	0.100	1.20
207	211	208	203	206	0.100	1.20
208	212	0	204	207	0.100	1.20
209	213	210	205	0	0.100	1.05
210	214	211	206	209	0.100	1.05
211	215	212	207	210	0.100	1.05
212	216	0	208	211	0.100	1.05
213	217	214	209	0	0.100	0.90
214	218	215	210	213	0.100	0.90
215	219	216	211	214	0.100	0.90
216	220	0	212	215	0.100	0.90
217	221	218	213	0	0.100	0.75
218	222	219	214	217	0.100	0.75
219	223	220	215	218	0.100	0.75
220	224	0	216	219	0.100	0.75
221	225	222	217	0	0.100	0.60
222	226	223	218	221	0.100	0.60
223	227	224	219	222	0.100	0.60
224	228	0	220	223	0.100	0.60
225	229	226	221	0	0.100	0.45
226	230	227	222	225	0.100	0.45
227	231	228	223	226	0.100	0.45
228	232	0	224	227	0.100	0.45
229	233	230	225	0	0.100	0.30
230	234	231	226	229	0.100	0.30
231	235	232	227	230	0.100	0.30
232	236	0	228	231	0.100	0.30
233	237	234	229	0	0.100	0.15
234	238	235	230	233	0.100	0.15
235	239	236	231	234	0.100	0.15
236	240	0	232	235	0.100	0.15
237	0	238	233	0	0.100	0.00
238	0	239	234	237	0.100	0.00
239	0	240	235	238	0.100	0.00
240	0	0	236	239	0.100	0.00

```
                                INFLOW.DAT_ WRF (1.0, 0.0, 1.0)
0                                2
F                                0
H                                2
H                                0.0
H                                0.5
H                                300.0
H                                300.0
```

LEVEE.DAT\_ WRF (1.0, 0.0, 1.0)

0	0	
L	161	
D	3	13.0
D	4	6.0
D	6	13.0
D	7	13.0
L	162	
D	3	6.0
D	6	6.0
D	7	6.0
L	163	
D	3	13.0
D	6	13.0
D	7	13.0
L	164	
D	2	13.0
D	3	13.0
D	6	13.0
D	7	13.0

## MANNINGS\_N.DAT\_WRF (1.0, 0.0, 1.0)

1	0.100
2	0.100
3	0.100
4	0.100
5	0.100
6	0.100
7	0.100
8	0.100
9	0.100
10	0.100
11	0.100
12	0.100
13	0.100
14	0.100
15	0.100
16	0.100
17	0.100
18	0.100
19	0.100
20	0.100
21	0.100
22	0.100
23	0.100
24	0.100
25	0.100
26	0.100
27	0.100
28	0.100
29	0.100
30	0.100
31	0.100
32	0.100
33	0.100
34	0.100
35	0.100
36	0.100
37	0.100
38	0.100
39	0.100
40	0.100
41	0.100
42	0.100
43	0.100
44	0.100
45	0.100
46	0.100
47	0.100
48	0.100
49	0.100

## MANNINGS\_N.DAT\_WRF (1.0, 0.0, 1.0)

50	0.100
51	0.100
52	0.100
53	0.100
54	0.100
55	0.100
56	0.100
57	0.100
58	0.100
59	0.100
60	0.100
61	0.100
62	0.100
63	0.100
64	0.100
65	0.100
66	0.100
67	0.100
68	0.100
69	0.100
70	0.100
71	0.100
72	0.100
73	0.100
74	0.100
75	0.100
76	0.100
77	0.100
78	0.100
79	0.100
80	0.100
81	0.100
82	0.100
83	0.100
84	0.100
85	0.100
86	0.100
87	0.100
88	0.100
89	0.100
90	0.100
91	0.100
92	0.100
93	0.100
94	0.100
95	0.100
96	0.100
97	0.100
98	0.100



## MANNINGS\_N.DAT\_WRF (1.0, 0.0, 1.0)

99	0.100
100	0.100
101	0.100
102	0.100
103	0.100
104	0.100
105	0.100
106	0.100
107	0.100
108	0.100
109	0.100
110	0.100
111	0.100
112	0.100
113	0.100
114	0.100
115	0.100
116	0.100
117	0.100
118	0.100
119	0.100
120	0.100
121	0.100
122	0.100
123	0.100
124	0.100
125	0.100
126	0.100
127	0.100
128	0.100
129	0.100
130	0.100
131	0.100
132	0.100
133	0.100
134	0.100
135	0.100
136	0.100
137	0.100
138	0.100
139	0.100
140	0.100
141	0.100
142	0.100
143	0.100
144	0.100
145	0.100
146	0.100
147	0.100

## MANNINGS\_N.DAT\_WRF (1.0, 0.0, 1.0)

148	0.100
149	0.100
150	0.100
151	0.100
152	0.100
153	0.100
154	0.100
155	0.100
156	0.100
157	0.100
158	0.100
159	0.100
160	0.100
161	0.100
162	0.100
163	0.100
164	0.100
165	0.100
166	0.100
167	0.100
168	0.100
169	0.100
170	0.100
171	0.100
172	0.100
173	0.100
174	0.100
175	0.100
176	0.100
177	0.100
178	0.100
179	0.100
180	0.100
181	0.100
182	0.100
183	0.100
184	0.100
185	0.100
186	0.100
187	0.100
188	0.100
189	0.100
190	0.100
191	0.100
192	0.100
193	0.100
194	0.100
195	0.100
196	0.100

## MANNINGS\_N.DAT\_WRF (1.0, 0.0, 1.0)

197	0.100
198	0.100
199	0.100
200	0.100
201	0.100
202	0.100
203	0.100
204	0.100
205	0.100
206	0.100
207	0.100
208	0.100
209	0.100
210	0.100
211	0.100
212	0.100
213	0.100
214	0.100
215	0.100
216	0.100
217	0.100
218	0.100
219	0.100
220	0.100
221	0.100
222	0.100
223	0.100
224	0.100
225	0.100
226	0.100
227	0.100
228	0.100
229	0.100
230	0.100
231	0.100
232	0.100
233	0.100
234	0.100
235	0.100
236	0.100
237	0.100
238	0.100
239	0.100
240	0.100

OUFLOW.DAT\_ WRF (1.0, 0.0, 1.0)

0	237
0	238
0	239
0	240

```
                                SUPPLEMENT.DAT_WRF (1.0, 0.0, 1.0)
0                               [Shape Files]
0                               [Images]
[Modeling Boundary Polygon]=false
[Street Polylines]=false
[Channel Polylines]=false
[Levee Polylines]=true
1
2
    -21.45          2000.19
    173.44          2000.19
```

		TOLER.DAT_WRF (1.0, 0.0, 1.0)
0.1	0.1	0
C	0.6	
T	0.1	

TOPO.DAT\_WRF (1.0, 0.0, 1.0)

0.00	0.00	8.85
50.00	0.00	8.85
100.00	0.00	8.85
150.00	0.00	8.85
0.00	50.00	8.70
50.00	50.00	8.70
100.00	50.00	8.70
150.00	50.00	8.70
0.00	100.00	8.55
50.00	100.00	8.55
100.00	100.00	8.55
150.00	100.00	8.55
0.00	150.00	8.40
50.00	150.00	8.40
100.00	150.00	8.40
150.00	150.00	8.40
0.00	200.00	8.25
50.00	200.00	8.25
100.00	200.00	8.25
150.00	200.00	8.25
0.00	250.00	8.10
50.00	250.00	8.10
100.00	250.00	8.10
150.00	250.00	8.10
0.00	300.00	7.95
50.00	300.00	7.95
100.00	300.00	7.95
150.00	300.00	7.95
0.00	350.00	7.80
50.00	350.00	7.80
100.00	350.00	7.80
150.00	350.00	7.80
0.00	400.00	7.65
50.00	400.00	7.65
100.00	400.00	7.65
150.00	400.00	7.65
0.00	450.00	7.50
50.00	450.00	7.50
100.00	450.00	7.50
150.00	450.00	7.50
0.00	500.00	7.35
50.00	500.00	7.35
100.00	500.00	7.35
150.00	500.00	7.35
0.00	550.00	7.20
50.00	550.00	7.20
100.00	550.00	7.20
150.00	550.00	7.20
0.00	600.00	7.05

TOPO.DAT\_WRF (1.0, 0.0, 1.0)

50.00	600.00	7.05
100.00	600.00	7.05
150.00	600.00	7.05
0.00	650.00	6.90
50.00	650.00	6.90
100.00	650.00	6.90
150.00	650.00	6.90
0.00	700.00	6.75
50.00	700.00	6.75
100.00	700.00	6.75
150.00	700.00	6.75
0.00	750.00	6.60
50.00	750.00	6.60
100.00	750.00	6.60
150.00	750.00	6.60
0.00	800.00	6.45
50.00	800.00	6.45
100.00	800.00	6.45
150.00	800.00	6.45
0.00	850.00	6.30
50.00	850.00	6.30
100.00	850.00	6.30
150.00	850.00	6.30
0.00	900.00	6.15
50.00	900.00	6.15
100.00	900.00	6.15
150.00	900.00	6.15
0.00	950.00	6.00
50.00	950.00	6.00
100.00	950.00	6.00
150.00	950.00	6.00
0.00	1000.00	5.85
50.00	1000.00	5.85
100.00	1000.00	5.85
150.00	1000.00	5.85
0.00	1050.00	5.70
50.00	1050.00	5.70
100.00	1050.00	5.70
150.00	1050.00	5.70
0.00	1100.00	5.55
50.00	1100.00	5.55
100.00	1100.00	5.55
150.00	1100.00	5.55
0.00	1150.00	5.40
50.00	1150.00	5.40
100.00	1150.00	5.40
150.00	1150.00	5.40
0.00	1200.00	5.25
50.00	1200.00	5.25



TOPO.DAT\_WRF (1.0, 0.0, 1.0)

100.00	1200.00	5.25
150.00	1200.00	5.25
0.00	1250.00	5.10
50.00	1250.00	5.10
100.00	1250.00	5.10
150.00	1250.00	5.10
0.00	1300.00	4.95
50.00	1300.00	4.95
100.00	1300.00	4.95
150.00	1300.00	4.95
0.00	1350.00	4.80
50.00	1350.00	4.80
100.00	1350.00	4.80
150.00	1350.00	4.80
0.00	1400.00	4.65
50.00	1400.00	4.65
100.00	1400.00	4.65
150.00	1400.00	4.65
0.00	1450.00	4.50
50.00	1450.00	4.50
100.00	1450.00	4.50
150.00	1450.00	4.50
0.00	1500.00	4.35
50.00	1500.00	4.35
100.00	1500.00	4.35
150.00	1500.00	4.35
0.00	1550.00	4.20
50.00	1550.00	4.20
100.00	1550.00	4.20
150.00	1550.00	4.20
0.00	1600.00	4.05
50.00	1600.00	4.05
100.00	1600.00	4.05
150.00	1600.00	4.05
0.00	1650.00	3.90
50.00	1650.00	3.90
100.00	1650.00	3.90
150.00	1650.00	3.90
0.00	1700.00	3.75
50.00	1700.00	3.75
100.00	1700.00	3.75
150.00	1700.00	3.75
0.00	1750.00	3.60
50.00	1750.00	3.60
100.00	1750.00	3.60
150.00	1750.00	3.60
0.00	1800.00	3.45
50.00	1800.00	3.45
100.00	1800.00	3.45

TOPO.DAT\_WRF (1.0, 0.0, 1.0)

150.00	1800.00	3.45
0.00	1850.00	3.30
50.00	1850.00	3.30
100.00	1850.00	3.30
150.00	1850.00	3.30
0.00	1900.00	3.15
50.00	1900.00	3.15
100.00	1900.00	3.15
150.00	1900.00	3.15
0.00	1950.00	3.00
50.00	1950.00	3.00
100.00	1950.00	3.00
150.00	1950.00	3.00
0.00	2000.00	2.85
50.00	2000.00	2.85
100.00	2000.00	2.85
150.00	2000.00	2.85
0.00	2050.00	2.70
50.00	2050.00	2.70
100.00	2050.00	2.70
150.00	2050.00	2.70
0.00	2100.00	2.55
50.00	2100.00	2.55
100.00	2100.00	2.55
150.00	2100.00	2.55
0.00	2150.00	2.40
50.00	2150.00	2.40
100.00	2150.00	2.40
150.00	2150.00	2.40
0.00	2200.00	2.25
50.00	2200.00	2.25
100.00	2200.00	2.25
150.00	2200.00	2.25
0.00	2250.00	2.10
50.00	2250.00	2.10
100.00	2250.00	2.10
150.00	2250.00	2.10
0.00	2300.00	1.95
50.00	2300.00	1.95
100.00	2300.00	1.95
150.00	2300.00	1.95
0.00	2350.00	1.80
50.00	2350.00	1.80
100.00	2350.00	1.80
150.00	2350.00	1.80
0.00	2400.00	1.65
50.00	2400.00	1.65
100.00	2400.00	1.65
150.00	2400.00	1.65

TOPO.DAT\_WRF (1.0, 0.0, 1.0)

0.00	2450.00	1.50
50.00	2450.00	1.50
100.00	2450.00	1.50
150.00	2450.00	1.50
0.00	2500.00	1.35
50.00	2500.00	1.35
100.00	2500.00	1.35
150.00	2500.00	1.35
0.00	2550.00	1.20
50.00	2550.00	1.20
100.00	2550.00	1.20
150.00	2550.00	1.20
0.00	2600.00	1.05
50.00	2600.00	1.05
100.00	2600.00	1.05
150.00	2600.00	1.05
0.00	2650.00	0.90
50.00	2650.00	0.90
100.00	2650.00	0.90
150.00	2650.00	0.90
0.00	2700.00	0.75
50.00	2700.00	0.75
100.00	2700.00	0.75
150.00	2700.00	0.75
0.00	2750.00	0.60
50.00	2750.00	0.60
100.00	2750.00	0.60
150.00	2750.00	0.60
0.00	2800.00	0.45
50.00	2800.00	0.45
100.00	2800.00	0.45
150.00	2800.00	0.45
0.00	2850.00	0.30
50.00	2850.00	0.30
100.00	2850.00	0.30
150.00	2850.00	0.30
0.00	2900.00	0.15
50.00	2900.00	0.15
100.00	2900.00	0.15
150.00	2900.00	0.15
0.00	2950.00	0.00
50.00	2950.00	0.00
100.00	2950.00	0.00
150.00	2950.00	0.00

LEVOVERTOP.OUT\_WRF (1.0, 0.0, 1.0)

MAXIMUM LEVEE OVERTOPPING DISCHARGE BY GRID ELEMENT, DISCHARGE (CFS OR CMS) AND  
TIME (HRS):

162	2.488	289.09
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MAXWSELEV.OUT_WRF (1.0, 0.0, 1.0)			
1	0.00	0.00	10.5218
2	50.00	0.00	10.7340
3	100.00	0.00	10.4290
4	150.00	0.00	10.3606
5	0.00	50.00	10.3905
6	50.00	50.00	10.3819
7	100.00	50.00	10.3443
8	150.00	50.00	10.3102
9	0.00	100.00	10.2296
10	50.00	100.00	10.2253
11	100.00	100.00	10.2148
12	150.00	100.00	10.2085
13	0.00	150.00	10.0923
14	50.00	150.00	10.0893
15	100.00	150.00	10.0866
16	150.00	150.00	10.0839
17	0.00	200.00	9.9606
18	50.00	200.00	9.9592
19	100.00	200.00	9.9581
20	150.00	200.00	9.9574
21	0.00	250.00	9.8371
22	50.00	250.00	9.8365
23	100.00	250.00	9.8359
24	150.00	250.00	9.8353
25	0.00	300.00	9.7222
26	50.00	300.00	9.7218
27	100.00	300.00	9.7214
28	150.00	300.00	9.7211
29	0.00	350.00	9.6160
30	50.00	350.00	9.6158
31	100.00	350.00	9.6155
32	150.00	350.00	9.6153
33	0.00	400.00	9.5199
34	50.00	400.00	9.5197
35	100.00	400.00	9.5195
36	150.00	400.00	9.5194
37	0.00	450.00	9.4343
38	50.00	450.00	9.4342
39	100.00	450.00	9.4342
40	150.00	450.00	9.4341
41	0.00	500.00	9.3621
42	50.00	500.00	9.3617
43	100.00	500.00	9.3611
44	150.00	500.00	9.3607
45	0.00	550.00	9.2990
46	50.00	550.00	9.2981
47	100.00	550.00	9.2970
48	150.00	550.00	9.2963
49	0.00	600.00	9.2464

	MAXWSELEV.OUT_WRF (1.0, 0.0, 1.0)		
50	50.00	600.00	9.2446
51	100.00	600.00	9.2428
52	150.00	600.00	9.2426
53	0.00	650.00	9.2036
54	50.00	650.00	9.2000
55	100.00	650.00	9.1988
56	150.00	650.00	9.2043
57	0.00	700.00	9.1711
58	50.00	700.00	9.1773
59	100.00	700.00	9.1652
60	150.00	700.00	9.1816
61	0.00	750.00	9.1487
62	50.00	750.00	9.1399
63	100.00	750.00	9.1449
64	150.00	750.00	9.1412
65	0.00	800.00	9.1396
66	50.00	800.00	9.1152
67	100.00	800.00	9.1128
68	150.00	800.00	9.1305
69	0.00	850.00	9.1052
70	50.00	850.00	9.0872
71	100.00	850.00	9.0985
72	150.00	850.00	9.1252
73	0.00	900.00	9.0827
74	50.00	900.00	9.0786
75	100.00	900.00	9.0721
76	150.00	900.00	9.0882
77	0.00	950.00	9.0512
78	50.00	950.00	9.0576
79	100.00	950.00	9.0460
80	150.00	950.00	9.0679
81	0.00	1000.00	9.0349
82	50.00	1000.00	9.0472
83	100.00	1000.00	9.0309
84	150.00	1000.00	9.0486
85	0.00	1050.00	9.0172
86	50.00	1050.00	9.0142
87	100.00	1050.00	9.0238
88	150.00	1050.00	9.0519
89	0.00	1100.00	9.0012
90	50.00	1100.00	8.9970
91	100.00	1100.00	9.0019
92	150.00	1100.00	9.0032
93	0.00	1150.00	8.9845
94	50.00	1150.00	8.9727
95	100.00	1150.00	8.9730
96	150.00	1150.00	8.9971
97	0.00	1200.00	8.9645
98	50.00	1200.00	8.9672

	MAXWSELEV.OUT_WRF (1.0, 0.0, 1.0)		
99	100.00	1200.00	8.9608
100	150.00	1200.00	8.9799
101	0.00	1250.00	8.9863
102	50.00	1250.00	8.9701
103	100.00	1250.00	8.9492
104	150.00	1250.00	8.9740
105	0.00	1300.00	8.9343
106	50.00	1300.00	8.9223
107	100.00	1300.00	8.9253
108	150.00	1300.00	8.9316
109	0.00	1350.00	8.9187
110	50.00	1350.00	8.9221
111	100.00	1350.00	8.9144
112	150.00	1350.00	8.9122
113	0.00	1400.00	8.9189
114	50.00	1400.00	8.8976
115	100.00	1400.00	8.8972
116	150.00	1400.00	8.8958
117	0.00	1450.00	8.9136
118	50.00	1450.00	8.8828
119	100.00	1450.00	8.9009
120	150.00	1450.00	8.8917
121	0.00	1500.00	8.8902
122	50.00	1500.00	8.8695
123	100.00	1500.00	8.8767
124	150.00	1500.00	8.8751
125	0.00	1550.00	8.8556
126	50.00	1550.00	8.8630
127	100.00	1550.00	8.8689
128	150.00	1550.00	8.8728
129	0.00	1600.00	8.8645
130	50.00	1600.00	8.8400
131	100.00	1600.00	8.8430
132	150.00	1600.00	8.8543
133	0.00	1650.00	8.8340
134	50.00	1650.00	8.8151
135	100.00	1650.00	8.8302
136	150.00	1650.00	8.8619
137	0.00	1700.00	8.8293
138	50.00	1700.00	8.8124
139	100.00	1700.00	8.8290
140	150.00	1700.00	8.8368
141	0.00	1750.00	8.8267
142	50.00	1750.00	8.8228
143	100.00	1750.00	8.8217
144	150.00	1750.00	8.8054
145	0.00	1800.00	8.8031
146	50.00	1800.00	8.7832
147	100.00	1800.00	8.8055

	MAXWSELEV.OUT_WRF (1.0, 0.0, 1.0)		
148	150.00	1800.00	8.7996
149	0.00	1850.00	8.7832
150	50.00	1850.00	8.7865
151	100.00	1850.00	8.7828
152	150.00	1850.00	8.7821
153	0.00	1900.00	8.7510
154	50.00	1900.00	8.7750
155	100.00	1900.00	8.7633
156	150.00	1900.00	8.7782
157	0.00	1950.00	8.7435
158	50.00	1950.00	8.7327
159	100.00	1950.00	8.7609
160	150.00	1950.00	8.7573
161	0.00	2000.00	4.4127
162	50.00	2000.00	4.8050
163	100.00	2000.00	4.3245
164	150.00	2000.00	4.2417
165	0.00	2050.00	4.3100
166	50.00	2050.00	4.3023
167	100.00	2050.00	4.2461
168	150.00	2050.00	4.1994
169	0.00	2100.00	4.1254
170	50.00	2100.00	4.1196
171	100.00	2100.00	4.1045
172	150.00	2100.00	4.0948
173	0.00	2150.00	3.9616
174	50.00	2150.00	3.9604
175	100.00	2150.00	3.9580
176	150.00	2150.00	3.9566
177	0.00	2200.00	3.8094
178	50.00	2200.00	3.8086
179	100.00	2200.00	3.8078
180	150.00	2200.00	3.8072
181	0.00	2250.00	3.6576
182	50.00	2250.00	3.6571
183	100.00	2250.00	3.6565
184	150.00	2250.00	3.6560
185	0.00	2300.00	3.5057
186	50.00	2300.00	3.5054
187	100.00	2300.00	3.5051
188	150.00	2300.00	3.5049
189	0.00	2350.00	3.3541
190	50.00	2350.00	3.3540
191	100.00	2350.00	3.3538
192	150.00	2350.00	3.3536
193	0.00	2400.00	3.2028
194	50.00	2400.00	3.2027
195	100.00	2400.00	3.2025
196	150.00	2400.00	3.2024



	MAXWSELEV.OUT_WRF (1.0, 0.0, 1.0)		
197	0.00	2450.00	3.0515
198	50.00	2450.00	3.0515
199	100.00	2450.00	3.0514
200	150.00	2450.00	3.0513
201	0.00	2500.00	2.9003
202	50.00	2500.00	2.9003
203	100.00	2500.00	2.9002
204	150.00	2500.00	2.9002
205	0.00	2550.00	2.7492
206	50.00	2550.00	2.7492
207	100.00	2550.00	2.7492
208	150.00	2550.00	2.7491
209	0.00	2600.00	2.5982
210	50.00	2600.00	2.5982
211	100.00	2600.00	2.5981
212	150.00	2600.00	2.5981
213	0.00	2650.00	2.4472
214	50.00	2650.00	2.4472
215	100.00	2650.00	2.4471
216	150.00	2650.00	2.4471
217	0.00	2700.00	2.2962
218	50.00	2700.00	2.2962
219	100.00	2700.00	2.2962
220	150.00	2700.00	2.2962
221	0.00	2750.00	2.1454
222	50.00	2750.00	2.1454
223	100.00	2750.00	2.1453
224	150.00	2750.00	2.1453
225	0.00	2800.00	1.9946
226	50.00	2800.00	1.9946
227	100.00	2800.00	1.9946
228	150.00	2800.00	1.9946
229	0.00	2850.00	1.8440
230	50.00	2850.00	1.8440
231	100.00	2850.00	1.8440
232	150.00	2850.00	1.8440
233	0.00	2900.00	1.6937
234	50.00	2900.00	1.6937
235	100.00	2900.00	1.6937
236	150.00	2900.00	1.6937
237	0.00	2950.00	1.5437
238	50.00	2950.00	1.5437
239	100.00	2950.00	1.5437
240	150.00	2950.00	1.5437

## **Attachment 19 – FLO-2D Revisions, Enhancements, and Bug Fixes**

## Revisions, Enhancements and Bug Fixes to the FLO-2D Pro Model and Processor Programs Since October 1, 2012

*Updated 2/12/19 (Most recent revisions are displayed in blue below.)  
Current Build: 18-12-20*

Model revisions are tagged with a build number in the format:

YR.MM.BB

where:

YR is a two digit number of the year that major revisions were implemented (e.g. 12 for 2012);

MM is a two digit number of the month that major revisions were implemented (e.g. 10 for October);

BB is a two digit number that identifies the executable build. A change in the build number represents a significant bug fix or model revision. Build numbers are not changed for typos, minor revisions or enhancements.

For example, 12.10.02 indicates that the 2<sup>nd</sup> build (revised and recompiled) executable in October, 2012.

Build Numbers are revised when changes to the model engine code might affect flow hydraulics or results from either bug fixes or model enhancements. The most recent revisions are presented at the end of each model or processor program section with the highest item number.

### FLO-2D Pro Model

*Revisions and bug fixes in the FLO.EXE program include (most recent at the bottom):*

1. The channel cross section flow depth computation for bankfull discharge was edited from a "less than" to a "less than or equal to" to avoid a potential error when the flow depth exactly matched the bankfull condition (10/26/12). Build No. 12-10-02.
2. The outflow node array allocations code was relocated to accommodate multiple outflow hydrograph conversion to inflow hydrographs. A deallocation statement was mislocated as a result. This is a fatal error that would terminate the model if no outflow nodes were assigned (10/29/12). Build No. 12.10.02.
3. A Green-Ampt infiltration bug was fixed for the volumetric soil moisture deficiency DTHETA. The volumetric soil moisture deficient was reverse with the general soil moisture deficient by multiplying by the porosity (11/12/12). Build No. 12.11.02.
4. A more robust assignment of the infiltration limiting soil depth was implemented to allow for grid elements with no limiting soil depth. Also the hydraulic conductivity adjustment parameter assignment was revised to allow for globally decreasing the spatially variable hydraulic conductivity (11/12/12). Build No. 12.11.02.
5. An error message to check for data in the SED.DAT file for mudflow bypass the read statement and no mudflow data was read by the model resulting in a water flood event even with high concentrations (11/26/12). Build No. 12.11.02.
6. Prescribed levee failure expansion to contiguous flow directions and grid elements was corrected. Originally this expansion as the breach grows was limited to breach scour and when it was revised for prescribed levee failure with horizontal and vertical failure rates, not all of the necessary switches were triggered to identify the expansion directions. The

- levee failure reporting file (LEVEE.OUT) format was edited (11/29/12). Build No. 12.11.02.
7. Fixed a bug was associated with infiltration when the surface area was zero, there was an immediate volume conservation error (infinity) at the start of the simulation (12/6/12). Build No. 12.11.02.
  8. SWMMQIN.OUT file was created to report the storm drain inlet discharge to the storm drain system and model (12/6/12). Build No. 12.11.02.
  9. Following the implementation of the SWMMQIN.OUT file in the revision 8 above, it was noted that the wrong timestep was used to compute the discharge volume reported in SWMMQIN.OUT (12/20/12). Build No. 12.12.02.
  10. The SWMMQIN.OUT file format was incorrect and not all the inlet discharge was being reported to file (1/21/13). Build No. 13.01.03.
  11. The prescribed levee failure routine was edited to include submergence, variable weir coefficients and expansion of the levee breach opening to addition flow directions and grid elements (1/21/13). Build No. 13.01.03.
  12. The levee overtopping component was expanded to included DOT submergence criteria that eliminate numerical surging as the headwater to tailwater equilibrium was approached (1/21/13). Build No. 13.01.03.
  13. There was an error in the code for channel confluence connections from the right bank of the main channel. This resulted in a severe volume conservation error (1/21/13). Build No. 13.01.03.
  14. The hydraulic structure component was expanded to include a better transition from downstream to upstream flow for rating tables that was based on the headwater to tailwater difference (1/21/13). Build No. 13.01.03.
  15. An enhancement was made to assign outflow nodes that will generate an inflow hydrograph in the INFLOW.DAT file format to a downstream different grid system. The downstream grid system can be a different size than the upstream grid system but must have an overlapping row of grid elements (1/21/13). Build No. 13.01.03.
  16. The generalized culvert equation routine was modified to account for flow equilibration and upstream flow through the levee. The culvert equations designed for inlet and outlet control assumes that the flow is only from upstream to downstream. The range of conditions involving when tailwater equals or exceeds the headwater are not adequately address by the equations. Based on the DOT criteria for using one of the five headwater to tailwater conditions and selecting a minimum discharge did not allow for a smooth transition of the discharge in an unsteady flow routing scenario. A submergence criteria was adopted to enable a smooth transition as the tailwater approached the headwater water surface elevation (1/21/13). Build No. 13.01.03.
  17. The Pro Model did not write the CHAN.RGH and FPLAIN.RGH files because these file were replaced by TOPO.RGH and MANNINGSN.RGH. The Pro Model now writes these files, but it all four files should be replaced when using the limiting Froude numbers to adjust the n-values (1/25/13). Build No. 13.01.03.
  18. The volume of the discharge hydrograph in HYCROSS.OUT was not being reported for metric units (1/30/13). Build No. 13.01.03.

19. A levee breach element variable was missing from the breach subroutine call. This was a fatal error and would stop the model from running a breach simulation (2/5/13). Build No. 13.02.04.
20. The Horton infiltration model was added. Now the infiltration model options are Green-Ampt, SCS curve number and Horton (2-25-13). Build No. 13.02.04.
21. Channel infiltration was significantly enhanced by the following changes Build No. 13.02.04.:
  - Channel infiltration can be limited by soil depth assignment.
  - Channel hydraulic conductivity can decay exponentially from an initial to a final value triggered by the wetting front reaching the limiting soil depth.
  - Channel hydraulic conductivity (initial and final), and limiting soil depth can be assigned by segment (or reach).
22. BATCH code was included to the PRO code (3/7/13). Build No. 13.02.04:
  - If BATCHCYCLE.DAT file is on the project folder and it contains the switch 'ON', summary dialog window will be skipped and the model will terminate without any User action. Multiple projects can be run by using the batch executable.
  - If BATCHCYCLE.DAT file is on the project folder and it contains the switch 'OFF'. Summary dialog window will be shown. Multiple projects cannot be run by using the batch executable.
  - If there is not a BATCHCYCLE.DAT file on the project folder then the Summary dialog window will be shown and the model termination requires a User action. Multiple projects cannot be run by using the batch executable.
23. The BASE.OUT file format was fixed for grid systems with more than 1 million elements (3/7/13). Build No. 13.02.04.
24. Hydraulic structure arrays INFLONOD and OUTFLONOD were initialized and set equal to zero (3/7/13). Build No. 13.02.04.
25. Levee breach discharge routine was revised to allow the prescribed breach element to discharge into another levee element (3/7/13). Build No. 13.02.04.
26. For the case where the channel can fit inside one grid element, a revision was made to allow floodplain flow exchange across the diagonal when a levee is assigned to the channel element in the center of three channel elements forming a 'L' (3/16/13). Build No. 13-02-04.
27. For a project with hydraulic structures with tailwater control and multiple channels (rill and gully flow), a typo was corrected to recognize the structure inlet flow depth (3/16/13). Build No. 13-02-04.
28. A reporting error in HYCHAN.OUT of the channel discharge and velocity was corrected (3/20/13). Build No. Build No. 13-02-04.
29. Revisions were made to the hydraulic structure routine to further eliminate potential surging when the structure rating curve or table does not match the upstream discharge. Numerical surging can occur when the rating table discharge exceeds the upstream discharge. In the physical system this is possible for a concrete box culvert or bridge with an apron if the flow accelerates through the structure, but numerically it occurs when the rating curve or table is based on underestimated structure roughness or entrance

- conditions. The model will now automatically revise the rating table discharge as the headwater and tailwater surfaces equilibrate if the INOUTCONT parameter is set to 1. This is a revision as to how this parameter is used. Previously it was used for rating tables that were based on the difference between the headwater and tailwater (5/2/13). Build No. 13-07-05.
30. Modification to the hydraulic structure headwater flow depth computation was made for adverse bed slope, for velocity head to the structure, and for floodplain structure headwater to tailwater relationships. These revisions were made to reduce or eliminate the potential for numerical surging through the model when the discharge through the structure based on the rating table exceeds the upstream inflow to the structure. These revisions may result in a difference in the maximum flow depths, velocities and discharges when compared to previous models when numerical surging may have occurred (5/2/13). Build No. 13-07-05.
  31. The HYDROSTUCT.OUT file was revised to report the average discharge over the output interval instead of the instantaneous discharge at the output interval. This was done to be consistent with the rest of the model reporting (5/2/13). Build No. 13-07-05.
  32. Modified the reporting of the hydraulic structure velocities based on flow area for the current time step. These velocities are not used by the model because the discharge is computed directly from the rating curve or table (5/2/13). Build No. 13-07-05.
  33. The TIMETOPEAK, TIMETOONEFT and TIMETWOFT output files are now reported when using the multiple channel (rill and gullies) component (5/2/13). Build No. 13-07-05.
  34. A warning message for adverse bed slope through the hydraulic structure is now written to the ERROR.CHK file (5/2/13). Build No. 13-07-05.
  35. Adjustments were made to the HSUBFACTOR coefficient increment for hydraulic structures that adjusts the rating table or curve discharge when the headwater and tailwater surface approach equilibrium. This was based on a sensitivity analysis (6/25/13). Build No. 13-07-05.
  36. If adjustments are made to the hydraulic structure rating table during a simulation, the changes in the rating table pairs are written to the REVISED\_RATING\_TABLES.OUT file. This enables the rating table to be adjusted for the next simulation (6/25/13). Build No. 13-07-05.
  37. A warning message for an unreasonable rate of change in the discharge versus the rate of change in the stage (depth) for hydraulic structure rating tables is written to the ERROR.CHK file (6/25/13). Build No. 13-07-05.
  38. Multiple outflow nodes can be designated to write the outflow hydrograph to the inflow nodes of a separate downstream model with different size grid elements. Inflow hydrographs for up to nine separate downstream grid system can be generated for a single simulation. The ID character O in the OUTFLOW.DAT file must be assigned O1, O2,...O9 (6/25/13). Build No. 13-07-05.
  39. An error on the multiple outflow nodes feature was corrected. The error did not introduce any incorrect calculation but it was preventing the code from locating or assigning the upstream outflow hydrograph to the downstream grid element as an inflow for the case of a coarser upstream grid transferring outflow to downstream grid system (6/25/13). Build No. 13-07-05.

40. Modification of the ERROR.CHK file for the multiple outflow nodes feature. The upstream grid cell number is reported to the ERROR.CHK file along with a message when the upstream cell is dry during the total simulation and there is no outflow hydrograph that can be assigned to the downstream grid system (6/25/13). Build No. 13-07-05.
41. An ERROR.CHK warning message was implemented to check if the hydraulic structure discharge was greater than 1.5 times the inlet discharge. This identifies that the rating curve or table has been inappropriately assigned (6/25/13). Build No. 13-07-05.
42. Storm drain inlet discharge volume must be greater than the existing volume on the grid element (depth-TOL) x surface area to initiate inflow to the storm drain (6/25/13). Build No. 13-07-05.
43. Warning messages are written to ERROR.CHK for hydraulic structures were added to identify component conflicts with ARF values, inflow and outflow nodes, streets, and channels. Hydraulic structure inflow and outflow elements that repeated in HYSTRUC.DAT are identified in the ERROR.CHK file (6/25/13). Build No. 13-07-05.
44. The floodplain to channel hydraulic structure warning messages was fixed to identify adverse slope (6/25/13). Build No. 13-07-05.
45. The limiting discharge capacity from multiple hydraulic structure inlets to an individual outlet (D-line in HYSTRUC.DAT) was revised with an expanded array allocation (6/25/13). Build No. 13-07-05.
46. The reporting format for large grid element numbers in CROSSQ.OUT file was increased (6/25/13). Build No. 13-07-05.
47. A revision was made to assign the instantaneous levee failure width as either the grid element side or the assigned maximum failure width (6/25/13). Build No. 13-07-05.
48. Corrected an error in the reference elevation computation for hydraulic structure flow depth. The bed elevation was used instead of the water surface elevation (6/25/13). Build No. 13-07-05.
49. Corrected an error in the conversion of metric units for the SWMM component (6/25/13). Build No. 13-07-05.
50. A switch was added to activate and deactivate a SWMM node's ponding feature. The ponding variable changes from 0 to 1 depending on the comparison between the FLO-2D water surface elevation and SWMM pressure head. If the switch is activated, the node volume is changed from return flow volume into full volume and overflow is set to 0 (6/25/13). Build No. 13-07-05.
51. A revision was made to allow return flow from the storm drain to the surface water when the storm drain system capacity is exceeded or the pipe pressure exceeds the surface water elevation and the storm drain inlet overflows (6/25/13). Build No. 13-07-05.
52. SWMMQIN.OUT file was modified to report the discharge that flows into and out of a storm drain inlet. This is discharge computed by the FLO-2D to the SWMM model inlets. The SWMM.rpt file includes the pipe inflow and outflow at a junction (6/25/13). Build No. 13-07-05.
53. Mass balance on the SUMMARY.OUT file was modified to report the total volume that flows into and out of the storm drain. The volume remaining in the storm drain system is also reported (6/25/13). Build No. 13-07-05.



54. Added storm drain flapgate option to simulate outfalls with a gate that stops the flow from entering the storm drain system through the outfall. The SWMMFLO.DAT file was modified to include a new variable FLAPGATE (column 8). This variable has the value of 0 (off - default) or 1 (ON) that activate the flap gate in the outflow nodes (6/25/13). Build No. 13-07-05.
55. Added rating table options (INTYPE=4) to the SWMM storm drain method as a new type of inlet condition. SWMMFLORT.DAT is open/read when inlet type 4 are defined in the storm drain system. The file contains the rating table for all inlets type 4. (6/25/13). Build No. 13-07-05.
56. SWMM error code is now reported to the ERROR.CHK file (FLO-2D file) (6/25/13). Build No. 13-07-05.
57. A dam breach erosion variable assignment error was fixed that precluded the BREACH.OUT file from being populated (7/31/13) Build No. 13-07-05.
58. Levee breach expansion for prescribed breach failures was improved (7/31/13) Build No. 13-07-05.
59. To eliminate the numerical stability issues with grid element evacuation at shallow flows for very small TOL value, the code was revised to redistribute the discharge out of a grid element when evacuation occurs (7/31/13) Build No. 13-07-05.
60. Follow-up with revision 59 for very small TOL values, the TOL value was hardwired to 0.1 ft (0.03 m) for channel flow, bank elements, hydraulic structure and levee overtopping (8/24/13) Build No. 13-07-05.
61. When hydraulic structure inflow and outflow nodes are assigned to contiguous grid elements with a levee on the side joining the inflow and outflow elements, if the levee fails, the hydraulic structure is turned off regardless of the type of prescribed levee failure (instantaneous, with time duration, or horizontal rate of failure (8/24/13) Build No. 13-07-05.
62. An improvement was made permit instantaneous levee breach failures to revert to overland flow instead of broad crest weir flow. This revision will predict wall failure discharge more accurately and eliminate potential surging (8/24/13) Build No. 13-07-05.
63. The hydraulic structure rating table revisions are written to file. The number of revisions was reduced by changing the incremental depth variation (8/24/13) Build No. 13-07-05.
64. Error messages were added to identify levees assigned against boundary elements and in outflow nodes (9/7/13) Build No. 13-07-05.
65. Two potential array zero assignments were fixed for checking the channel interior elements (9/7/13) Build No. 13-07-05.
66. A levee instantaneous failure variable was inadvertently added to the levee overtopping routine. This cause was fatal error if no levee failure mode was on (9/7/13) Build No. 13-07-05.
67. The rainfall depth area reduction factors were incorrectly assigned to interior channel elements that were wider than two elements. This may cause a minor volume conservation error (9/7/13) Build No. 13-07-05.
68. A debug file can be generated with all the hydraulic information for a specific grid element for each computational timestep. The output data includes timestep, depth, velocity, water surface elevation, discharge in eight direction, n-value, Froude number,



- hydraulic structure discharge, and levee overtopping. To create the DEBUG.OUT file, the DEBUG.DAT must be prepared. This file is one-line with four data entries space delimited containing: grid element, start time and end time (hrs), and floodplain, channel or street switch (1,2 or 3 respectively) (9/7/13) Build No. 13-07-05.
69. A long culvert bug was fixed. The discharge variable was not initialized in the correct location (9/7/13) Build No. 13-07-05.
  70. The channel can now terminate on the alluvial fan or floodplain with flow exchange from all the channel end grid elements. If the channel bank elements at the end of the channel are separate by one or more elements, all the elements between the banks and the bank elements will discharge to the floodplain (9/7/13) Build No. 13-07-05.
  71. An error message will be generated if a time-stage element has a bed elevation that is higher than the specified stage (9/7/13) Build No. 13-07-05.
  72. To further reduce numerical instability for bridge hydraulic structures, an option was incorporated into the hydraulic structure routine to shut off the rating table for flow depths less than 1 ft (0.3 m) or when the SUBFACTOR is less than 0.02 (nearly equal tailwater and headwater surfaces). The hydraulic structure inflow and outflow nodes must be contiguous. To activate this option, set the culvert length parameter CLENGTH = 1.0 while the culvert diameter CDIAMETER = 0. (9/7/13) Build No. 13-07-05.
  73. An error was found in the assignment of the flow width for 8-direction WRF values. The Pro model WRF values in ARF.DAT were expanded from 4-directions to 8-directions. The computation of the flow width for one or more of the directions could be in error due to an error in the array index variable. This could affect some of the diagonal flow direction velocities (11/13/13). Build No. 13-11-06.
  74. The error messages were expanded in ERROR.CHK for reading the SWMMFLO.DAT file (11/13/13). Build No. 13-11-06.
  75. A channel array parameter allocation was expanded to for the side connectivity. This was a fatal error (11/13/13). Build No. 13-11-06.
  76. The hydraulic structure routine had two RETURN commands that should have been CYCLE commands. These bugs were introduced in bug fix 72 above. This caused the hydraulic structure routine to generate completely garbage data in some cases (12/17/13). Build No. 13-11-06.
  77. The channel terminating on the floodplain using all the elements between the left and right banks had a conflict with the confluences and need to be expanded for channel segments joined by hydraulic structures (12/17/13). Build No. 13-11-06.
  78. The SWMM storm drain model interface was enhanced to include: street and channel inlet exchange, outfall node discharge to channel and default grid element elevation to the rim elevation assigned in the SWMM.inp file (01/10/14). Build No. 13-11-06.
  79. New output files were created to report results during runtime. FPRIMELEV.OUT reports the floodplain elevation, the rim elevation, the comparison between them and the new floodplain elevation. (01/10/14). Build No. 13-11-06.
  80. New output files were created to report results during runtime. SWMMOUTFIN.OUT reports the outfall discharges from SWMM to FLO-2D. (01/10/14). Build No. 13-11-06.

81. New output files were created to report results during runtime. CHVOLUME.OUT reports the OUTFLOW TO SWMM and the INFLOW FROM SWMM for an outfall that discharges to a channel grid. (01/10/14). Build No. 13-11-06.
82. New Errors are written to the error.chk file: Multiple inlets to a grid. (01/10/14). ). Build No. 13-11-06.
83. First line of the SWMMFLO.dat (path) was eliminated. The model automatically searches for the swmm data files on the FLO-2D project folder. (01/10/14). ). Build No. 13-11-06.
84. Notation of coordinates in TOPO.DAT was expanded to make room for larger coordinates (01/16/14). ). Build No. 13-11-06.
85. The code was modified to read the new SWMFLO.DAT that contains the name of the junctions defined in the INP file. (02/19/14). Build No. 13-11-06.
86. The channel terminating on the floodplain using all the elements between the left and right banks were revised (02/19/14). Build No. 13-11-06
87. An incorrectly assigned index was found on the SWMM reporting subroutine output\_saveNodeResults (02/19/14). Build No. 13-11-06.
88. The error messages were expanded in ERROR.CHK for reading the SWMMFLO.DAT file with SWMM ID for Inlets (02/19/14). Build No. 13-11-06.
89. The error messages were expanded in ERROR.CHK to report a warning message for those inlets that have different datum for FLO-2D and SWMM (floodplain and invert elevations) (02/19/14). Build No. 13-11-06.
90. The error messages were expanded in ERROR.CHK to report a warning message for the invert elevation of the outfall (02/19/14). Build No. 13-11-06.
91. The error messages were expanded in ERROR.CHK to report multiple storm drain inlets to a single FLO-2D grid cell (02/19/14). Build No. 13-11-06.
92. The channel termination routine was further revised (see revision 70 above) to facilitate the flow distribution out of the internal channel elements to the floodplain at the end of a channel without a channel outflow node. The floodplain elevation in the channel end exchange elevation was reset to the channel bed elevation. A document describing the channel termination methodology is available (3/10/14). Build No. 14-03-07.
93. The prescribed dam and levee breach routine was improved to include submergence by downstream ponding. In the case where the breach discharge fills a bermed, leveed area or confined area, the breach discharge is reduced when the tailwater submerges breach from having free overfall. The breach weir discharge computation reverts to overland floodplain flow through the breach when the ratio of tailwater to headwater is 0.9 (3/10/14). Build No. 14-03-07.
94. The horizontal breach rate for the prescribed levee breach routine was assigned a decay function. When the vertical breach failure reaches the foundation beach elevation, the maximum shear stress is computed. Subsequently, the horizontal breach rate is computed as the original horizontal breach rate multiplied by the ratio of the breach shear stress to the maximum shear stress. The shear ratio is also set to zero (i.e. the horizontal breach rate is zero) if the breach velocity is less than 3 fps (1 mps) (3/10/14). Build No. 14-03-07.

95. A TIME.OUT file sorting bug was fixed and the TIME.OUT file reporting is correct (3/10/14). Build No. 14-03-07.
96. The warning message for levees assigned to the boundary was turned off. If a levee is assigned along a boundary, the model ignores it (3/10/14). Build No. 14-03-07.
97. The numerical stability was improved for street routing component for shallow flow. This will reduce the frequency of timestep decrements for shallow street flow (3/10/14). Build No. 14-03-07.
98. Rainfall runoff from buildings using the IRAINBUILDING switch in RAIN.DAT was enhanced. When IRAINBUILDING = 1, the n-values within the building for all the ARF = 1 elements are set to 0.03. The water surface elevations outside the building are ignored when computing the discharge from the building elements to the nodes outside the building. The TOL value inside the buildings is minimize to a value of 0.03 ft (0.01 m) to enhance building runoff (3/10/14). Build No. 14-03-07.
99. A revision was made to the floodplain outflow nodes elevations. When the outflow node elevation is greater than the contiguous upstream grid element elevations, the slope between the contiguous upstream element and then next upstream element is computed and the outflow node elevation is adjusted using that computed slope. If the criteria for a slope adjustment is not met, then the outflow node is assigned an elevation 0.1 ft (0.03 m) lower than the lowest contiguous upstream element (3/14/14). Build No. 14-03-07.
100. The breach output file TIMEONEFT.OUT was not reporting the channel times when the corresponding floodplain element was not inundated (4/18/14). Build No. 14.03.07.
101. The prescribed levee and dam horizontal breach rate is set to zero for a velocity less than 3 fps that is based on the breach discharge. The local side discharge was incorrectly used instead of the total breach discharge and was corrected (4/27/14). Build No. 14.03.07.
102. A warning message was implemented for the condition where the infiltration initial abstraction exceeds the TOL value for the depression storage (4/27/14). Build No. 14.03.07.
103. The channel confluence variable array assignment was expanded. The array size was limited to the number of channel segments. This was expanded by 50 for a project with numerous confluences and split flows that exceeded the number of segments. (4/27/14). Build No. 14.03.07.
104. A new output file was generated to provide additional dam breach timing data as follows:

*Node X-coord Y-coord Floodwave Arrival Time Flood Time Peak Time Deflood Time Max WS*

Where:

*Floodwave Arrival Time:* Time in hours from when the breach discharge exceeds 0.01 cfs or cms to when the floodplain grid element flow depth exceeds 0.1 ft or 0.3 m.

*Flood Time:* Time (hrs) from when the breach discharge exceeds 0.01 (cfs or cms) to when a given grid element flow depth exceeds 0.5 ft or 0.15 m on the floodplain.

*Peak Time:* Time (hrs) from when the breach discharge exceeds 0.01 (cfs or cms) to when a given grid element flow depth reaches a maximum depth.

*Deflood Time:* Time (hrs) from when the flood arrives at a grid element (flow depth exceeds 0.5 ft or 0.15m) to the time when the flood recedes to a depth lower than 0.5 ft or 0.15 m.

*Max WS:* The maximum water surface for a given floodplain grid element is reported.

105. A mathematical typo (.EQ.1 instead of .EQ.2) was discovered that caused the hydraulic structure option INOUTCONT = 2 for upstream flow through structure to be by-passed (6/12/14). Build No. 14.03.07.
106. An incorrectly assigned index was found on an array on the SWMM DISCHARGE subroutine that recalculates the total volume accumulated since the last SWMM Timestep. In those cases the flow depth was not getting correctly updated and the volume that leaves the FLO-2D grid cell and passes to SWMM was not subtracted. This behavior was observed only for large projects (06/12/14). Build No. 14-07-08.
107. Existing error messages are expanded and new messages are created in ERROR.CHK for FLO-2D SWMM Integrated model (06/12/14). Build No. 14-07-08.
108. Model stops and report a message when: (06/12/14). Build No. 14-07-08
  - More than one storm drain inlet assign to a single cell
  - Simulation times between FLO-2D and SWMM are not compatible
109. SWMM inlet flow depths for the dynamic wave are passed through FLO-2D SWMM interface for comparison with FLO-2D flow depths at inlet grid cells (06/12/14). Build No. 14-07-08
110. Surge depth assigned in the SWMMFLO.DAT file are passed through the FLO-2D SWMM interface and assigned to the corresponding inlet node in SWMM. Both models were modified to be able to calculate the time when the manhole cover is popped and then the manhole can receive inflow and outflow (return flow to the surface) (06/12/14). Build No. 14-07-08.
111. The Storm Drain Totals were updated on the SUMMARY.OUT file. The storm drain volumes were being incorrectly reported for some isolated simulations (06/12/14). Build No. 14-07-08.
112. Additional Output files are written when the "Time Lapse Output" switch is activated as follow:
  - ITIMTEP:0, No output results are written to the TIMDEP File
  - ITIMTEP:1, Only TIMDEP.OUT file is written
  - ITIMTEP:2, TIMDEP.OUT and HDF5 files are written
  - ITIMTEP:3, TIMDEP.OUT and NETCDF4 files are written
  - ITIMTEP:4, All output files are written. (06/12/14). Build No. 14-07-08
113. For levee instantaneous failure, the flow hydraulics after failure were not using the base elevation and n-value of the overland flow. The switch for instantaneous failure was not used in all subroutines (8/2/2014). Build No. 14-07-08.
114. Formatting for the SUPER.OUT file was enhanced. Only the 100 first channel elements are now written (8/2/2014). Build No. 14-07-08.
115. Simulation time is automatically pass from FLO-2D (SIMUL variable in CONT.DAT) to the storm drain engine (11/4/2014). Build No. 14-11-09.
116. Ending time and date of the storm drain simulation (End Analysis On in the \*.inp file) is being automatically calculated based on the SIMUL time from the CON.DAT file (11/4/2014). Build No. 14-11-09.
117. Outfall elevation can be set lower than the ground. If the FLO-2D model has ponded flows covering an outfall invert, the WSEL can be assigned as a ground elevation and

- will represent initial head to the outfall. This head is always present during the simulation. During the simulation water may be added to either the outfall grid element surface water or the upstream storm drain pipe and the pipe flow can go in either direction based on the head comparison (11/4/2014). Build No. 14-11-09.
118. A volume conservation error was generated for the condition when the outfall is higher the floodplain or channel bed. The outfall received water into the storm drain when the WSEL is greater than the invert. In addition, the evacuation of the grid element water volume above the invert was possible if the inflow discharge to the outfall exceeded the available volume. This error was fixed (11/4/2014). Build No. 14-11-09.
  119. A warning message was added for those culverts assigned the generalized culvert equation that had a zero culvert length in the HYSTRUC.DAT file (11/4/2014). Build No. 14-11-09.
  120. A warning message was added for those natural channel cross sections with rating tables having less than 10 stations in the cross section. If a rectangular or trapezoidal channel geometry is being simulated, use the appropriate prescribed geometry instead of the natural channel geometry to preserve accuracy (11/4/2014). Build No. 14-11-09.
  121. The option for a hydraulic structure to share discharge from a channel element to the floodplain element using a rating table or the generalized culvert equations was created. This finalizes all the possible hydraulic structure combinations of floodplain to floodplain, channel to channel, floodplain to channel and channel to floodplain (11/4/2014). Build No. 14-11-09.
  122. For rainfall on buildings, downspout discharge can be computed using a hydraulic structure rating table. The hydraulic structure will connect the roof (floodplain element) to the ground (floodplain element). Water will shared between grid elements when it exceeds the TOL value. Roof parapet walls can be assigned using the levee component on the outside of the building elements. Flow can overtop the parapet walls (11/4/2014). Build No. 14-11-09.
  123. The channel can be terminated on the floodplain without a channel outflow node. The channel interior elements and the bank elements will share discharge with the next downstream floodplain element. The interior channel element grid element elevation should be set to the thalweg elevations and the downstream floodplain elevations should be lower than the end of the channel thalweg elevation (11/4/2014). Build No. 14-11-09.
  124. The assignment of interior channel elements between the two bank elements in a very large channel with small elements was not correct. Some interior channel elements were being missed. The algorithm for selecting the interior channel elements was revised (11/4/2014). Build No. 14-11-09.
  125. For a project with many roadway, levee or other embankments, the LEVOVERTOP.OUT was getting too large and was taking hours to reformat. The levee overtopping discharge output was limited to selected levee elements in LEVEE.DAT. The selection is based on assigning a negative value to a levee element. Only those negative levee elements in LEVEE.DAT will have output data written to the LEVOVERTOP.OUT file (11/4/2014). Build No. 14-11-09.
  126. An error in the multiple channel infiltration routine was discovered. Several lines of code were duplicated thereby double accounting the multiple channel infiltration (11/4/2014). Build No. 14-11-09.



127. Fix a channel infiltration error for limiting flow depth. The infiltration was ceased for global limiting soil depth if no individual spatially variable channel limiting soils depth were not assigned (11/2/14). Build No. 14-11-09.
128. An improvement was made to the IMPACT.OUT and SPECENERGY.OUT files. The maximum impact pressure and specific energy were based on the maximum velocity and the corresponding flow depth when the maximum velocity occurred. While this is fine almost all of the time, it was noted that there are some instances during a frontal wave progression that the maximum velocity may occur with a shallow depth. The correct was to compare the maximum impact pressure and specific energy for each timestep regardless of when the maximum velocity occurred (12/09/14). Build No. 14-11-09.
129. Spatially variable tolerance was created. TOLSPATIAL.DAT file can be created from the updated GDS. (12/09/14). Build No. 14-11-09.
130. A line was fixed for the initialization of the variable that carry the discharge of hydraulic structures when the Hydraulic structure is not equal to IFPORCHAN(I) = 3. (01/08/15). Build No. 14-11-09.
131. A portion of the SCS infiltration code was left out of the most recent compilation of the model because some routines were moved around to improve the organization of the code. This resulted in a major volume conservation error at the start of the SCS model. (01/12/15). Build No. 14-11-09.
132. Several code revisions were necessary to enable the general culvert equations to correctly predict upstream flow through the culvert when the tailwater surface elevation exceeded the headwater elevation. These revisions include a check for negative numbers in the routine, revision to the variable names for upstream flow and sign direction for upstream flow through the culvert. (01/21/15). Build No. 14-11-09.
133. The '*channel extension through the levee*' error messaging statement was bypassed with a recent update. This revision re-instates the levee and channel conflict testing. (01/23/15). Build No. 14-11-09.
134. Items were updated in the Summary.out report file (2/17/15). Build No. 15.02.10.
135. New alluvial channel avulsion routine. This new component for alluvial fans predicts potential multiple channel avulsion and new path based on channel overtopping flows, steepest flow path, width and depth channel geometry relationships (02/20/15). Build No. 15.02.10.
136. Fixed spikes for the storm drain inlets where oscillations in the hydrograph were observed (2/20/15). Build No. 15.02.10.
137. Adjustments were made to the general culvert equations for outlet control criteria. The flow depth criteria was adjusted to eliminate overlap between partial submergences and full pipe flow outlet control (2/23/15). Build No. 15-02-10.
138. The error messages for the right bank extension were revised and updated (2/23/15). Build No. 15.02.10.
139. The spatially variable TOL code was (Revision 129 above) modified to make sure that the assigned TOL value matched the appropriate grid element (and its neighbor) (2/23/15). Build No. 15.02.10.
140. The overland shallow flow n-value was hardwired to 0.1 for flow depths less than 0.1 ft (0.03 m) and an n-value of 0.05 or less (2/23/15). Build No. 15.02.10.

141. A modification was made for shallow flow volume conservation. If the volume out of the grid element exceeds the storage plus inflow volumes, the grid element volume is set to zero and the outflow is redistributed to the neighbor grid elements. This computation was modified to limit the adjustment to only the outflow directions (2/23/15). Build No. 15.02.10.
142. Error.chk file was edited and errors were reviewed and simplified. (3/20/15). Build No. 15.05.11.
143. Multiple assignments of 'channel to floodplain' hydraulic structures in the same data file (HYSTRUC.DAT) caused a volume conservation error related to summation of structure volume diverted from the channel. This was corrected with an appropriate identification of the hydraulic structure in the channel. (3/27/15). Build No. 15.05.11.
144. ITIMDEP criteria was changed to (3/27/15 - Build No. 15.05.11):
  - 0 = no TIMDEP file is written.
  - 1 = timdep.out
  - 2 = hdf5 binary output
  - 3 = NetCDF binary output
  - 4 = ALL
145. The wetted perimeter for the channel natural cross section geometry overbank flow was adjusted. This was not increasing with increased flow depth over the top of banks (4/20/2015). Build No. 15.07.12.
146. A new file (EVACUATEDCHAN.OUT) to report the complete evacuation of channel volume for shallow flow during channel stability assessments was added (4/20/2015). Build No. 15.07.12.
147. The sediment distribution in the trapezoidal channel and the resultant modified channel geometry for scour/deposition was revised in the sediment transport routine (4/20/2015). Build No. 15.07.12.
148. Code was added to limit bank channel bank scour (4/20/2015). Build No. 15.07.12.
149. The reporting of the sediment transport volume conservation in SUMMARY.OUT was expanded to include final channel sediment storage (4/20/2015). Build No. 15.07.12.
150. Calculation of convective/local terms was adjusted for the main channel in confluence elements (4/27/2015). Build No. 15.07.12.
151. The project folder and path is written to the FLO-2D runtime window status bar at the bottom of the screen (4/27/2015). Build No. 15.07.12.
152. The CHVOLUME.OUT column header labels and format for metric was edited (4/27/2015). Build No. 15.07.12.
153. The SUMMARY.OUT file was modified to enable a detailed comparison of the exchange volumes between the surface water flooding and the storm drain (5/4/2015) Build No. 15.07.12. The revisions to the SUMMARY.OUT file include exchange volumes with the Storm Drain component were divided into four categories:
  - ✓ Storm Drain Inflow - inflow through inlets and outfalls.
  - ✓ Storm Drain Outflow - discharge outflow back to the surface water through outfalls and the discharge outflow off the storm drain system.

- ✓ Return Flow - Storm Drain discharge to the surface water through inlets plus the inlet ponded flow that re-enters the storm drain system when storage capacity is available.
  - ✓ The following volumes are extracted directly from the SWMM.rpt file and written to SUMMARY.OUT for comparison:
    - WET WEATHER INFLOW - The inflow to the storm drain system through inlets and outfalls.
    - EXTERNAL INFLOW – The direct inflow to the storm drain system from external sources.
    - EXTERNAL OUTFLOW - The total outflow that leaves the storm drain system.
    - Total Storm Drain Storage – Includes all the storm drain volume storage in nodes and links.
    - Continuity error – Volume conservation error internal to the storm drain engine.
154. The channel floodplain exchange routine was revised to have a minimum n-value of 0.065 for the channel bank element overland flow. This was required to avoid automated assignment of very low street n-values to the channel bank elements where the overbank velocities are typically low (5/5/2015). Build No. 15.07.12.
155. Additional criteria was added for the assignment of the floodplain elevation in comparison to the channel top of bank element elevation. Originally, if the channel top of bank elevation is different from the floodplain elevation for the bank element by more than 1.0 ft, the floodplain elevation is reset to the channel top of bank elevation. For small grid elements this can be a significant slope for overbank discharge. A slope calculation has been implemented. If the slope between the top of bank and the floodplain exceeds one percent (0.01), the model reassigns the floodplain elevation to the top of bank. This represents a 0.2 ft difference for a 20 ft grid element (5/5/2015). Build No. 15.07.12.
156. A building collapse routine was added to the model. By assigning negative ARF-values for either totally or partially blocked elements in ARF.DAT, the removal of buildings during the flood event can be simulated when velocity and depth criteria for the collapse of the buildings is exceeded (5/5/2015). Build No. 15.07.12.
157. Uniform flow in the storm drain inlet hydrograph were observed when the orifice equation was used. The discharge was reset to zero for some orifice conditions and generated spikes in the inlets. Changes were also requires in the VC2005-CON to fix this issue (5/5/2015). Build No. 15.07.12.
158. Additional Output files are written when the "Time Lapse Output" switch is activated as follow:
- ITIMTEP: 0, no output results are written to the TIMDEP File
  - ITIMTEP: 1, only TIMDEP.OUT file is written
  - ITIMTEP: 2, only the TIMDEP in HDF5 binary format is written
  - ITIMTEP: 3, only the TIMDEP file for the creation of the NETCDF4 file is written



- ITIMTEP: 4, All output files are written.
  - ITIMTEP: 5, TIMDEPCELL.OUT (ASCII FILE) is created for only those cells list in TIMDEPCELL.DAT file (05/20/15). Build No. 15.07.12
159. New error messages have been added or enhanced for the FLO-2D Storm Drain component (05/25/15). Build No. 15.07.12:
- THERE IS AN OUTFLOW NODE AND A STORM DRAIN INLET ASSIGNED TO GRID CELL.
  - THERE IS AN OUTFLOW NODE AND A STORM DRAIN OUTFALL ASSIGNED TO GRID CELL.
  - THERE IS AN INFLOW NODE AND A STORM DRAIN INLET ASSIGNED TO GRID CELL.
  - THERE IS AN INFLOW NODE AND A STORM DRAIN OUTFALL ASSIGNED TO GRID CELL.
  - THERE IS A LEVEE AND A STORM DRAIN INLET ASSIGNED TO GRID CELL.
  - THERE IS A LEVEE AND A STORM DRAIN OUTFALL ASSIGNED TO GRID CELL.
  - THERE IS A STORM DRAIN INLET OR OUTFALL ASSIGNED TO COMPLETELY BLOCKED GRID CELL.
  - THERE IS A HYDRAULIC STRUCTURE AND A STORM DRAIN INLET ASSIGNED TO GRID CELL.
  - THERE IS A HYDRAULIC STRUCTURE AND A STORM DRAIN OUTFALL ASSIGNED TO GRID CELL.
  - MULTIPLE INLETS ASSIGNED TO ONE GRID CELL.
  - CELLS ASSIGNED TO ONE INLET.
  - THE GRID ELEMENT FLOODPLAIN OR STREET ELEVATIONS WERE REVISED DURING THE SIMULATION TO THE STORM DRAIN INLET RIM ELEVATIONS FOR THE FOLLOWING GRID ELEMENTS (PLEASE REVIEW AND REVISE FPRIMELEV.OUT FILE IF NECESSARY).
  - THE TYPE 4 STORM DRAIN INLET ELEVATIONS ARE DIFFERENT THAN THE GRID ELEMENT FLOODPLAIN ELEVATIONS. NO ACTION WAS TAKEN DURING THE SIMULATION. PLEASE REVIEW AND REVISE IF NECESSARY.
  - NOTE: THE STORM DRAIN OUTFALL INVERT ELEVATION SHOULD BE EQUAL TO OR GREATER THAN THE FLOODPLAIN/CHANNEL/STREET ELEVATION. NO ACTION IS TAKEN. PLEASE REVIEW AND REVISE IF NECESSARY. THE MODEL WILL NOT TERMINATE DUE TO THIS WARNING.
  - THERE ARE A MISSING OR INAPPROPRIATE STORM DRAIN INLET GEOMETRY IN FILE.
  - REVIEW STORM DRAIN INLET: 'A25,' DRAIN TYPE: 'i5,' ON GRID CELL: 'I10,' ERROR.
  - THERE ARE STORM DRAIN INLETS ON CHANNEL GRID ELEMENTS, THE CHANNEL BED ELEVATION IS DIFFERENT THAN THE INVERT ELEVATION. NO ACTION WAS TAKEN DURING THE SIMULATION. PLEASE REVIEW AND REVISE IF NECESSARY.
  - GRID ELEMENT (FLOODPLAIN SWALES) WERE REVISED DURING THE SIMULATION TO THE STORM DRAIN INLET INVERT ELEVATIONS FOR THE FOLLOWING GRIDS (PLEASE REVIEW AND REVISE FPRIMELEV.OUT FILE IF NECESSARY).
  - THE TYPE 5 (MANHOLE) STORM DRAIN INLET ELEVATIONS ARE DIFFERENT THAN THE GRID ELEMENT FLOODPLAIN ELEVATIONS. NO ACTION WAS TAKEN DURING THE SIMULATION. PLEASE REVIEW AND REVISE IF NECESSARY.
  - VERTICAL INLET OPENING ON A 1D CHANNEL WITH STORM DRAIN INLET INVERT ELEVATION DIFFERENT THAN THE GRID ELEMENT FLOODPLAIN ELEVATIONS. NO ACTION WAS TAKEN DURING THE SIMULATION. PLEASE REVIEW AND REVISE IF NECESSARY.
  - NOTE: Inlet on a 1-D channel end of segment where the channel flow is discharging to the storm drain pipe, the invert elevation should be channel bed elevation.
  - NOTE: Floodplain swale where the flow is discharging to a storm drain pipe or culvert, the invert elevation should be equal to the grid element floodplain elevation.
  - THE FOLLOWING STORM DRAIN OUTFALL NODES ARE IN CHANNEL INTERIOR ELEMENTS, RE-ASSIGN TO THE CHANNEL ELEMENTS IN CHAN.DAT.
160. Build versions are now being compared between FLO-2D engine and VC2005-CON engine for version discrepancies. (06/05/15). Build No. 15-07-12.

161. Channel (CHAN.DAT) data input subroutine has been updated to fix an issue when bank elevation was less than 1 ft. (06/12/15). Build No. 15.07.12.
162. Storm Drain data (SWMMFLO.DAT) data input subroutine was updated to use a less demanding algorithm and includes all previous versions of the files. (06/12/15). Build No. 15.07.12.
163. An inconsistency in the transfer of parameters between the FLO-2D surface layer and the storm drain component was identified. This produces zero flow been routed in the storm drain system for some conditions in metrics. (06/05/15). Build No. 15-07-12.
164. Free outfalls and underground free outfalls in the storm drain system were reviewed to hold the FLO-2D boundary condition (WSE) for all cases. (06/05/15). Build No. 15-07-12.
165. Channel flow area reporting to the HYCHAN.OUT was corrected for trapezoidal and rectangular channels when various channel geometries were mixed together in the same channel segment (06/07/15). Build No. 15-07-12.
166. Channel routing solution algorithm was revised to improve the following:
  - ✓ Confluence momentum terms.
  - ✓ Velocity prediction if the solution algorithm does converge.
  - ✓ Seed velocity estimate (smoothed out difference between the predictor and diffusive wave estimate.
  - ✓ A new output file (CHANNEL\_CONVERGENCE.OUT) was created to list the channel element, simulation, and various computed velocities used when the solution did not convergence. This is an indicator of potential channel surging elements that can be reviewed.

These changes resulting in the ability to increase the Courant number and maintain numerical stability (06/07/15). Build No. 15-07-12.

167. In SUMMARY.OUT an extra line of output was added to report the area of inundation for depths greater than 0.5 ft (0.15 m) (06/07/15). Build No. 15-07-12.
168. The levee breach expansion into other grid elements was corrected for the case of multiple prescribed breaches. The reporting in LEVEE.OUT had to be corrected also (06/07/15). Build No. 15-07-12.
169. The simplified storm drain routine for the hydraulic structures where multiple inflow nodes can outlet to the same outflow node was modified to allow the outflow collector node to discharge to a channel. This is unrelated to the FLO-2D storm drain component (10/22/15). Build No. 15-10-13.
170. A new output file, CHAN\_INTERIOR\_NODES.OUT (file number 263) was created to identify those floodplain elements that are internal to the channel to be identified for mapping purposes (10/22/15). Build No. 15-10-13.
171. Reading the channel data for the variable geometry power regression relationships was fixed. The read code with channel bank elevations was distorted with the INTEL compiler (10/22/15). Build No. 15-10-13.
172. The calculation that accumulates the inflow volume, than then is passed through the Storm Drain inlets, was review to make sure volumes match exactly between surface and storm drain layers. (10/22/15). Build No. 15-10-13.

173. Storm Drain Inflow was dampened and three different dampen calculations were imposed to reduce inflow oscillations at inlets. (10/22/15). Build No. 15-10-13.
174. The California Office of Emergency Service Dam Breach reporting times was revised for the Flood Time definition. The criteria was increased from 0.5 ft (0.15 m) to 2.0 (0.61 m). The Flood Time definition actually only applied to channel flow and some criteria was selected for floodplain flooding. This corresponds to time to two ft criteria that is typical for dam breach mapping. (11/19/15). Build No. 15-10-13.
175. Reporting to OVERBANK.OUT file was altered to reflect only the overbank volume and surface area in the grid element (11/19/15). Build No. 15-10-13.
176. The channel bank elevations were initialized to zero for CHAN.DAT files without bank elevations. This eliminates the potential for assigning random numbers to the bank elevation arrays if the data is not read but assigned automatically (11/19/15). Build No. 15-10-13.
177. The channel termination on floodplain (without outflow nodes) routine was revised to eliminate errors introduced when setting the internal channel elements at the end of the channels for more than one channel segment. The routine was simplified to better identify the channel elements sharing with the floodplain at the end of a channel segment (1/11/16). Build No. 15-10-13.
178. Reporting the multiple channel maximum water surface elevations was corrected. The maximum water surface elevation in MAXWSELEV.OUT and TIMDEP.OUT was in error because the multiple channel depth was subtracted twice from the water surface elevation for these two files (1/11/16). Build No. 15-10-13.
179. Channel termination on floodplain routine (see 177 above) still had problems. One problem was that the channel segments that terminated with a hydraulic structure or a confluence were not correctly addressed when the improvements were added in early January (1/27/16). Build No. 15-10-13.
180. The floodplain overland flow in 8-directions timestep incrementing/decrementing routine was improved. When the Courant number is exceeded, the model now resets the timestep to the computed Courant number timestep. In addition, the rate of change in the timestep increment was adjusted (2/22/16). Build No. 16-02-14.
181. Supercritical flow reporting in SUPER.OUT was revised. The file now reports a summary of all the channel and floodplain supercritical flow in the model at the end of the simulation and resorts the data based on the Froude number in descending order. This file can be used in conjunction with VELTIMEFP.OUT and TIME.OUT to adjust unreasonable velocities and n-values in the model (2/22/16). Build No. 16-02-14.
182. The dam breach erosion expansion routine was adjusted to report the expansion discharge based on the ratio of breach width within a given grid element to the total breach width. This is now similar to the prescribed breach width expansion routine (2/22/16). Build No. 16-02-14.
183. The floodplain cross section reporting was improved. The reported average cross section velocity was based on the discharge divided by the average flow depth and grid element width. The width was the grid element size. This method of reporting enables the user to evaluate the discharge by multiplying the average velocity, flow depth and width in the HYCROSS.OUT file. For one grid element and potential flow direction, however, the flow width should be the flow direction width not the grid element width. For the case of

- a single grid element in the cross section, the average cross section velocity was being under-reported (2/22/16). Build No. 16-02-14.
184. The natural cross section routine was revised to vertically extend the lowest bank elevation to the higher bank elevation at runtime. This eliminated the potential for having an exceedingly low bank with a very small flow area. This will be similar to the HEC-RAS assessment of channel cross sections. It will not significantly change the potential for overbank discharge exchange with the floodplain. It will only increase the flow area for channel hydraulic computations (3/28/16). Build No. 16-02-14.
185. Two new output files are generated (3/28/16):
- DEPRESSED\_ELEMENTS.OUT - This file is generated at the end of the data input at runtime. Every grid element elevation is checked with its neighbors' elevations to see if it is depressed based on a minimum difference of the DEPRESSDEPTH variable which replaces the ISUPER switch in CONT.DAT. A value of DEPRESSDEPTH = 3.0 ft is suggested. This depth will ignore minor small depression elements which can fill and overview.
- LOW\_LEVEE\_CREST\_ELEVATIONS.OUT - . Having a levee represent a wall that is only 0.1 ft above the ground is pointless. This condition could occur because of shape file elevation assignments or the grid element interpolation. The same variable DEPRESSDEPTH in the ISUPER variable position in CONT.DAT is used to evaluate the minimum difference in the levee crest elevations compared to the ground elevation on both sides of the levee. If used with DEPRESSED\_ELEMENTS.OUT, the DEPRESSDEPTH variable either has to be the same value or two separate independent simulations are required for different values (use SIMUL = 0.1 or 0.01 hrs for each). If you used the DEPRESSDEPTH = 3.0 ft (or higher) to generate the depressed elements, the DEPRESSED\_ELEMENTS.OUT file could be renamed and DEPRESSDEPTH reassigned to 1.0 ft (or lower) to generate LOW\_LEVEE\_CREST\_ELEVATIONS.OUT file. Build No. 16-02-14.
186. An error in the box culvert switch for the generalized culvert equations was fixed. A full culvert flow inlet condition was being ignored with this error (3/28/16). Build No. 16-02-14.
187. The generalized culvert equation routine was not reporting upstream flow if the hydraulic structure connecting two channel segments was separated by more than one channel element. The code was modified to identify the correct upstream flow condition when the tailwater exceeded the headwater for separated channel elements. The same modification also enable the tributary confluence upstream flow to be reported in the HYCHAN.OUT file (3/28/16). Build No. 16-02-14.
188. The hydraulic structure floodplain to channel criteria to have the flow moving upstream in the channel to reverse flow with higher tailwater than headwater was considered unnecessary and removed. The flow through the hydraulic structure from downstream to upstream will depend solely on water surface elevation not momentum for the floodplain to channel option (3/30/16). Build No. 16-02-14.
189. StormDrain\_ERROR.CHK file was created to report storm drain errors and warning messages. The storm drain error and warning messages were removed from the ERROR.CHK file (3/30/16). Build No. 16-02-14.

190. Existing errors and warnings for the storm drain system were reviewed and some warnings/errors were expanded. Modifications were implemented in those error/warnings related to conflicts between storm drain features and surface components as well as the outfall elevations checks (3/30/16). Build No. 16-02-14.
191. AVVELRES array for the subroutine that calculates the cross sectional analysis was initialized and set equal to zero (3/30/16). Build No. 16-02-14.
192. A new data file was implemented to enable the building collapse routine to be initiated. Building collapse is now based on three structure vulnerability curves (4/6/16). Build No. 16-02-14.
193. Calculation of mudflow velocities were ignored when recent improvements were made to the overland routing model. It was necessary to revise the mudflow velocity computation to include recent advancements to speed up the model (4/22/16). Build No. 16-02-14.
194. An error reading trapezoidal channel data at the end of a segment when the initial depth for next channel segment was non-zero was fixed (5/21/16). Build No. 16-02-14.
195. The TIMDEP.OUT file was revised to include a zero time output interval with all zeros for all reported values, so that the various plots made this file have an initial zero starting point. Previously, the first set of reported data was the first nonzero output interval (5/21/16). Build No. 16-02-14.
196. The FLO-2D surface water engine runtime speed has been enhanced with OpenMP code for sharing the computation workload between multiple processors. This is an on-going effort to reduce the model runtimes. The first expansion has focused on the overland flow loops since it is the most computation expensive loop in the model. The model runtime has been reduced by about 50% over the previous build (6/27/16). Build No. 16-06-15.
197. Prior to the implementation of the OpenMP code, the computation algorithm and timestep incrementing/decrementing scheme was improved. Computational algorithm enhancements involved adjustments to initial solution velocity estimate and changes to the default solution when the full momentum equation solution did not converge. The solution to the floodplain and channel routing algorithms was revised to improve the following:
  - ✓ The timestep decrement was reduced to the Courant criteria timestep when the stability criteria was not met. This reduced the number of timestep decrements and sped up the model.
  - ✓ The timestep accelerator function and default value was modified (see below).
  - ✓ Seed velocity estimate was adjusted and the difference between the predictor and diffusive wave estimate was smoothed out.
  - ✓ The predicted velocity was modified if the solution algorithm did not converge.
  - ✓ Two new output files were created (CHANNEL\_CONVERGENCE.OUT and FLOODPLAIN\_CONVERGENCE.OUT) that list the channel or floodplain element, simulation time, and the various computed intermediate velocities used when the solution did not convergence. This is an indicator of potential surging elements that can be reviewed.



The incremental rate of change in the timestep parameter (TIME\_ACCEL) was adjusted and the default value was changed from 0.1 to 1.0. A higher TIME\_ACCEL parameter will result in larger timestep increments. When the computational timestep is less than 1.0 second and a simulation timestep loop was successfully completed without exceeding the stability criteria, the timestep is incremented by the TIME\_ACCEL (default 1.0) x 0.001. So if the timestep was 0.5, then next timestep would be increased to 0.501 seconds. If the timestep is greater than 1 second, then the timestep increment is:

$$\text{DSEC} = \text{DSEC} + \text{TIME\_ACCEL} * 0.0085 / \text{XFAST}$$

where:

DSEC = computational timestep in seconds

TIME\_ACCEL = user defined accelerator parameter ranging from 0.1 to 10.0 with a default of 1.0

XFAST = XFAST + 0.001 for each successfully completed timestep loop when DSEC > 1.0 second. XFAST resets to 1.0 each time the DSEC timestep is decremented.

198. This algorithm increases the timestep uniformly until the timestep DSEC is greater than 1 second. When DSEC > 1.0, successive increases in DSEC result in a larger values of XFAST which begins to slow down the timestep rate of change. The maximum timestep is limited to 30 seconds (6/27/16). Build No. 16-06-15.

**NOTE: It is necessary to reset TIME\_ACCEL = 1. in the TOLER.DAT file for most existing models. This is accomplished automatically at runtime if TIME\_ACCEL = 0.1 when a new simulation is initiated.**

199. Following a recent change in the channel bank surface area computation, the floodplain surface area in the channel bank elements was being over estimated for trapezoidal channel on diagonal flow directions when the channel extension was 2 grid elements or more (6/29/16). Build No. 16-06-15.
200. A recent bug was fixed. The conversion to Open MP code included a number of revisions from a REAL number to a DOUBLE PRECISION number for the routing parameters. In a few code locations, other variables that computed with the new double precision numbers must also be converted from real to double precisions. Data transfer across subroutines will be in error when mixing the two formats causing the model to blow up (6/29/16). Build No. 16-06-15.
201. The channel wetted perimeter computation for overbank flow was incorrect for the revised natural cross section vertical extension of the lowest bank elevation to the higher bank elevation at runtime (7/13/16). Build No. 16-06-15.
202. The dam breach reporting criteria was revised to better conform with the California Office of Emergency Services requirements that the deflood time is the time elapsed from the initial failure of the dam until the measured location returns to its preflood water elevation prior to failure (7/13/16). Build No. 16-06-15.
203. New volumes are reported in the SUMMARY.OUT file (7/15/16). Build No. 16-06-15.

STORM DRAIN SYSTEM STORAGE: Storage volume in the pipe system at the end of the simulation.

STORM DRAIN MASS BALANCE: Mass balance volume conservation calculated as:  

$$\text{Total Inflow} - \text{Total Outflow} + \text{System Storage}$$

204. Depth area reduction factors RAINARF can now be applied to the spatially and temporally variable rainfall component for NEXRAD data. To accomplish this, simply add the RAINARF data to the RAIN.DAT file with the IRAINREAL switch on as follows (8/8/16) Build No. 16-06-15:
  - In RAIN.DAT line 1, set IRAINREAL = 1, and IRAINBUILDING = 0 or 1
  - Line 2: RTT = 0, RAINABS = 0, IRAINARF = 1, MOVINGSTORM = 0
  - Line 3 to the end: IRGRID(IJ), RAINARF(IRGRID(IJ))
205. Several dam breach erosion bugs were corrected. The most important error was some of the subroutine transfer parameters were out of order. This error was imposed with the new OpenMP code. It resulted in no breach discharge being computed. A couple of minor bugs included the sediment gradation for fines in a small breach was over-estimated and the pipe roughness term was being reset to zero (7/13/16). Build No. 16-06-15.
206. The floodplain element between separated right bank elements when the channel consisted of two elements (just left and right bank elements) was not properly identified with the channel interior elements and sharing discharge across the channel from the left bank element to this floodplain element occurred. This problem was resolved by designating this floodplain element as an interior channel element (8/14/16). Build No. 16-06-15.
207. Several output files text format was revised including EVACUATEDCHAN.OUT, CHANNEL\_CONVERGENCE.OUT, and DEPRESSED\_ELEMENTS.OUT (8/23/16). Build No. 16-06-15.
208. Two new output files were created. The EVACUATEDFP.OUT reports floodplain elements that have the volume completed removed for one timestep because the outflow to the element exceeds the inflow resulting in a redistribution of the 8-direction discharge to eliminate the potential for any negative volumes being reported. The second file DAMBREACH\_VOLUME.OUT reports the volume associated with dam breach discharge as function of output interval (8/23/16). Build No. 16-06-15.
209. HYDRAULIC\_STRUCTURE\_RUNTIME\_WARNINGS.OUT file was expanded to include messages that were originally in the ERROR.CHK file (8/23/16). Build No. 16-06-15.
210. An error message was implemented to identify that the user is not in a folder with a CONT.DAT file (8/23/16). Build No. 16-06-15.

211. For channels that terminate on the floodplain without a channel outflow node, a code revision was made to avoid completely evacuating the channel volume in the last channel element when only rainfall is the inflow to the channel resulting in very shallow depths. This will eliminate potential minor volume conservation errors that result from more water being shared to the floodplain than is in the channel (8/28/16). Build No. 16-06-15.
212. The hydraulic structure routing option for upstream flow was revised for when water becomes ponded around the outlet node and there is no inflow velocity to the outflow node. Without inflow velocity, there was no upstream flow through the hydraulic structure even though the outflow node water surface elevation exceeded the upstream water surface elevation. The code was revised to allow upstream flow for the tailwater control condition (INOUTCONT=2) when the water surface is higher in outflow nodes neighbor elements with a lower bed elevation (8/28/16). Build No. 16-06-16.
213. For the various flood reporting files such as time to peak, time to one foot, time to two foot, time to flooding and deflood time, there are two cases that have been separated: no level or dam breach, and breaching. If there is a levee or dam breach, the start time for the flooding parameters will be based on time of breach. If there is only typical flooding with no dam or levee breach, then the start will be the start of the model at hour 0.0. If there are flood inflows to the model with a dam breach, the areas flooded outside of the dam breach area of inundation will be reported in the time to flooding files if they exceed the maximum depth after the breach. There is no way to separate normal flooding from the breach flooding. For reservoirs with a starting water surface the initial depth elements are excluded from the time to flooding files (9/15/16). Build No. 16-06-16.
214. Two automated Manning's n-value adjustments are now turned off if AMANN = -99 (CONT.DAT) that is the switch for turning off the floodplain depth variable n-values. These included flood routing algorithm non-convergence n-values increases and n-value adjustments for overbank flow exchange Froude numbers that exceed 0.5 (9/15/16). Build No. 16-06-16.
215. The Horton infiltration method when combined with multiple channels generated a Fortran error for a non-initialized array associated with Green-Ampt impervious areas. This was corrected by identifying the infiltration method with the multiple channel option activated (9/19/16). Build No. 16-06-16.
216. A distinction has been made for the start times of the Time to 1 ft and Time to 2 ft for levee and dam breach models. Some parties wanted the start time to be the model time start time of 0.0 hrs, others wanted the levee or dam breach initiation time to be the start time. This is complicated if there is multiple levee or dam breaches or if there are inflow hydrographs or rainfall not associated with a dam breach. There can only be one start time for a time to one ft or two ft of depth and the distinction between flows mixing from multiple breaches or from an inflow flood hydrograph with a breach hydrograph as to which flow contributes to the one ft or two ft is impossible. If you want the time to one ft or two to be based on the model start time, there are no data file changes. If you want the start time to one ft or two ft to be based on the levee or dam breach time, then it



necessary to revise one variable depending on prescribed breach or breach erosion as follows:

For prescribed breach if  $FAILTIM < 0.0$  (e.g -1.0 or -25.4) , the start time will be based on the dam breach. If  $FAILTIM = 0$ . (fails immediately) and the start time is to be based on the dam or levee breach time, assign  $FAILTIM = -99.0$  and  $FAILTIM$  is reset to 0. Otherwise, the  $FAILTIM$  is greater than or equal to 0.0 hr, the start time to 1 ft or 2 ft is the start time of the model (0.0 hr).

For breach erosion: The same approach...if  $GBREACHTIME = 0$  or a positive time, the start time is the model start time (0.0 hr). If  $GBREACHTIME$  is less than 0.0, then the start time is the first dam or levee breach time. If  $GBREACHTIME = -99.0$ , the start time is the dam or levee breach time but  $GBREACHTIME$  reverts to 0.0. (9/19/16). Build No. 16-06-16.

217. Several 1-D street routing/floodplain flow exchange errors were introduced with the channel termination code that were fatal and caused volume conservation. These were fixed by further separating the channel and street code. (10/2/16). Build No. 16-06-16.
218. A sort routine bug was introduced in the output reporting code. This was a fatal error that failed to exit a do loop and stopped the model from completing writing the output data to file (10/7/16). Build No. 16-06-16.
219. A flag error in the building rainfall runoff routine was identified that stopped the roof rainfall from routing. This error was the result of array indexing and resulting in no roof runoff when the `IRAINBUILDING` switch was activated (10/7/16). Build No. 16-06-16.
220. The building collapse routine was modified by using a different collapse equation for higher velocities and depths as suggested by the research team (10/15/16). Build No. 16-06-16.
221. The breach erosion routine had an error for the breach topwidth calculation. When the breach bottom width exceeded the maximum bottom width, the equation computed only the incremental value not the total topwidth plus the incremental increase (10/15/16). Build No. 16-06-16.
222. The Time for One Foot Depth and the Time for Two Feet Depth had a writing issue when the breach routine is activated in the code. The calculated time was reported on a range between 0 and 0.10 hrs independently of the time of simulation (10/16/16). Build No. 16-06-16.
223. A revision to the temporal output was made. The `TIMDEP.OUT` ASCII file is created for all `ITIMTEP` options from 1 to 4. See Data Input Manual page 34 for more details. The option `ITIMTEP= 3` now writes two files: `TIMEDEP.OUT` and `NETCDF4` files (10/26/16). Build No. 16-06-16.
224. The outflow nodes list in `OUTFLOW.DAT` are no longer written in the `DEPRESSED_ELEMENTS.OUT` file (10/26/16). Build No. 16-06-16.

225. An reporting error in ROUGH.OUT was corrected involving the initialization of the maximum Manning's n-value array (10/26/16). Build No. 16-06-16.
226. An error in the DAMBREACH\_VOLUME.OUT file was fixed. The FLO-2D code was writing the total breached volume to this file for every successful timestep and every breach element direction. The code was changed to write the volume only once for all breached elements and only for the output interval not the timesteps (10/26/16). Build No. 16-06-16.
227. A comment was added to the SD ManholePopUp.OUT file to clarify the Pop Off Pressure Head (PH) reported in the file and how it compares to the PH reported in the SWMM.RPT. The new comment is: Pop Off Pressure Head is an instantaneous head that removes the manhole cover. This pressure head can be different to the reported pressure head in the SWMM.RPT file (10/26/16). Build No. 16-06-16.
228. An Open MP code 'CRITICAL' statement was removed from the rainfall subroutine call in the overland flow routing algorithm. This 'CRITICAL' statement appreciably slowed down the model (3 times slower) and was implemented one month ago because of an array index conflict. The conflict was removed by renaming the INDEX parameter (10/27/16). Build No. 16-06-16.
229. The building collapse routine was revised to use the maximum velocity on the grid element contiguous to the building element instead of the directional velocity (11/13/16). Build No. 16-06-16.
230. The discharge and velocity for hydraulic structure connecting channel elements was being erroneously reported in HYCHAN.OUT as negative instead of positive (11/13/16). Build No. 16-06-16.
231. The mudflow algorithm channel variables were re-assigned to double precision numbers to match other code revisions for OpenMP (11/13/16). Build No. 16-06-16.
232. The sort routines for reporting the output in VELTIMEFP.OUT, ROUGH.OUT and SUPER.OUT in descending order was limited to only the top 100 elements to reduce the time required prepare the output files (11/21/16). Build No. 16-06-16.
233. Similar to the channel termination on the floodplain, inflow to the channel can now be exchanged from the floodplain to the channel interior elements. Overland flow will enter the upstream end of the channel. The floodplain elements connected to the channel should have an elevation that reflects the channel thalweg (11/27/16). Build No. 16-06-16.
234. For levee failure the time to peak was not being written to the output file (11/28/16). Build No. 16-06-16.
235. The BASE.OUT file is no longer generated unless the summary output parameter NOPRTFP is not equal to 2 in the CONT.DAT file. The BASE.OUT file can be huge and most of the information is extraneous and is not used graphically. Similarly levee overtopping flow reporting to the LEVOVERTOP.OUT now requires that the levee grid element number in line L of the LEVEE.DAT file be assigned as negative number. Each

levee element to be reported in the LEVOVERTOP.OUT must be assigned as a negative number. The breach levee elements in LEVEE.OUT are now reported individually as a hydrograph in XXXX\_LEVEE.OUT where XXXX is the failed levee element (12/27/16). Build No. 16-06-16.

236. Three reporting errors were fixed. 1. There was no data output in HYCROSS.OUT due to recent change to optional output to BASE.OUT. 2. HYCHAN.OUT was reporting a -1000.0 maximum stage when the levee failure component was assigned due to the recent change in dam failure start time. 3. The recently added DAMBREACH\_VOLUME.OUT was reporting cubic feet instead of acre-ft (12/2/16). Build No. 16-06-16.
237. Rainfall depth area reduction values (RAINARF values) can now be applied to the spatially varied rainfall component for NEXRAD rainfall data (IRAINREAL option). Line 2 in RAIN.DAT is required for this to assign the IRAINARF = 1. If no rainfall depth area reduction is being simulated then line 2 is optional (12/8/16). Build No. 16-06-16.
238. There were multiple errors in the coding of the Toffaleti sediment transport equation that were fixed. This was primarily due to the errors in the reference. Multiple references were consulted to re-derive and check the coding (12/16/16). Build No. 16-06-16.
239. The TIMETOPEAK was not being reported with levee prescribed breach failure for any grid elements because a trigger was being reset to initiate the start time for tracking the time to peak (12/16/16). Build No. 16-06-16.
240. A compilation error was resolved that created severe volume conservation errors at the outset of a realtime (NEXRAD) rainfall simulation (12/27/16). Build No. 16-06-16.
241. The sediment transport code was re-organized for the Open MP code and several errors in the Toffaleti equations were corrected (12/27/16). Build No. 16-06-16.
242. The levee failure code was reviewed and a minor bug in the index of IXLABEL array was fixed in the numerical routine. This bug can produce a crash in the FORTRAN routine for some specific levee failure cases (1/15/16). Build No. 16-06-16.
243. The initialization of the RAINARF arrays was fixed (1/9/17). Build No. 16.06.16.
244. An error message was added for turning of the channel ICHANNEL = 0 and leaving channel inflow hydrographs (C-lines) in the INFLOW.DAT file (1/10/17). Build No. 16.06.16.
245. The start time for dam and levee breaches reporting for time to 1 ft was adjusted (1/13/17). Build No. 16.06.16.
246. Individual levee or dam breach discharge hydrographs are reported to output files with the name GRID ELEMENT NO\_LEVEE.OUT (e.g. 2345\_LEVEE.OUT) to facilitate review of the breach discharge originally reported in LEVEE.OUT for all grid elements (1/13/17). Build No. 16.06.16.

247. A new binary LEVEE.HDF5 output file is written for levee failure. The following variables are written for each grid direction (1 to 8) and for the output failure time (01/15/17, Build No. 16.06.16):
- Grid Element
  - Breach Elevation
  - Water Surface Elevation
  - Discharge
  - Failure Width
  - Total Q
248. A revision to the temporal output was made, the TIMDEP NETCDF4 file and TIMDEPCELL.OUT were reviewed, the variables were reorganized. The Output files that are written when the "Time Lapse Output" switch is activated are:
- ITIMTEP: 0, no output results are written to the TIMDEP File
  - ITIMTEP: 1, only TIMDEP.OUT file is written
  - ITIMTEP: 2, only the TIMDEP in HDF5 binary format is written
  - ITIMTEP: 3, only the TIMDEP file for the creation of the NETCDF4 file is written
  - ITIMTEP: 4, All output files are written.
  - ITIMTEP: 5, TIMDEPCELL.OUT (ASCII FILE) is created for only those cells listed in TIMDEPCELL.DAT file (01/20/17). Build No. 16.06.16
249. The sort routine for the ROUGH.OUT, SUPER.OUT and VELTIME.OUT files was revised to speed up the reporting (1/23/17). Build No. 16.06.16.
250. Sediment routing by size fractions was improved with several bug fixes, automated scour depth limitation around inflow and outflow nodes (1/23/17). Build No. 16.06.16.
251. Fixed a bug in the levee discharge file name for item 245 above (2/3/17). Build No. 16.06.16.
252. Revisions were made to the levee overtopping weir flow including weir coefficient adjustments, bugs in the OpenMP code parameter assignment, and a modification to headwater to tailwater assessment for submergence (2/24/17). Build No. 16.06.16.
253. A new starting computational timestep of 5 seconds instead of 1 second was assigned except for a model with a starting reservoir water surface elevation (2/24/17). Build No. 16.06.16.
254. Reporting for dam or levee breach overtopping output file initialization was modified. A missing parameter in the call statement for the pipe breach subroutine was added (2/24/17). Build No. 16.06.16.
255. A significant redesign of read code for the channel geometry power regression relationship was implemented. Bank elevations cannot be assigned in the range of -0.5 ft to 0.5 ft above sea level. (2/24/17). Build No. 16.06.16.
256. Some OpenMP code was implement for parameter initialization, array assignment and file plotting (2/24/17). Build No. 16.06.16.

257. Channel flow assessment depth for the Courant number stability parameter was revised and a modification was added to channel limiting Froude number Manning's n-value increment (2/24/17). Build No. 16.06.16.
258. FLO-2D compares the rim elevation with the grid element elevation and reports the differences in the FPRIMELEV.OUT. If the rim elevation and floodplain elevations are different, the model reassigns the floodplain elevation to the rim elevation based on the assumption that the rim elevation was surveyed and the grid element elevation was interpolated. The model uses the rim elevation as the reference to determine the water surface elevation and inlet flow depth. The revised bed or floodplain elevations are not reported in the FPLAIN.DAT file. These are only modified at runtime and reported to FPRIMELEV.OUT file. For the floodplain revisions, the user must review the FPRIMELEV.OUT and adjust the elevations in FPLAIN.DAT to match the modifications in the FPRIMELEV.OUT. Two new files are written FPLAIN\_SDElev.RGH and TOPO\_SDElev.RGH, these files contains the elevation changes from the FPRIMELEV.OUT file. They should replace the FPLAIN.DAT and TOPO.DAT files when using a Storm Drain system to adjust the surface elevation. RIM elevations for the inlets located in channel or street cells are not checked and must be verified by the user (1/25/16). Build No. 16-06-16.
259. The total inflow volume summation was edited for the rainfall on buildings (4/27/17). Build No. 16-06-16.
260. A new output file PRESCRIBED\_BREACH Q.OUT reports the prescribed levee and dam breach failure discharge by output interval (5/2/17). Build No. 16-06-16.
261. The sediment transport incipient motion criteria using the Shield's diagram was updated to include the revisions made by Gessler in the Simons and Senturk (1976) book Sediment Transport Technology. The minimum Shields parameter was set to 0.03. The critical shear stress parameter in MPM Smart sediment transport equation and in the dam breach piping erosion was also adjusted. (5/9/17). Build No. 16-06-16.
262. Channel interior nodes (grid elements inside the 1-D channel bank elements that do not exchange flow with the floodplain elements) can be read and edited from the CHAN\_INTERIOR\_NODES.DAT file. If this file exists the model will read it first before identifying any additional interior nodes that may be missed. This file can be created by renaming the CHAN\_INTERIOR\_NODES.OUT file that is created with the initial simulation. The purpose of this file is to add any missing interior elements that the model may miss at runtime because the channel is very wide and the size of the grid elements is small resulting in numerous interior elements. In this situation, sharp bends and numerous extensions into a single right bank element may result in some interior elements being missed along the right bank. The missing elements can be added to the CHAN\_INTERIOR\_NODES.DAT file (6/8/17). Build No. 16-06-16.
263. The hydraulic structure submergence criteria was adjusted for tailwater to headwater ratio greater than 0.8 to limit the submergence factor to 1 percent (6/21/17). Build No. 16-06-16.

264. For dam breach erosion, one foot (0.3 m) had been added to the dam foundation as the lower limit of the vertical scour. This was an arbitrary observation that most dams do not scour uniformly to bedrock but leave an irregular surface with some core material. The 1 ft increment was removed to provide the user with ultimate control over the bed erosion limit (7/7/17). Build No. 17-08-17.
265. An error was corrected for the building collapse component the width was initially reset to the WRF value after building collapse and this was revised to the side width of the grid element (7/11/17). Build No. 17-08-17.
266. Several changes were made to the reservoir routing for dam breach. The first revision was to assign an n-value of 0.25 to all reservoir elements assigned by using a reservoir water surface elevation in INFLOW.DAT. If the starting reservoir surface elevation is assigned as a negative value, a deadpool is identified that includes all the reservoir grid elements with bed elevations below the dam breach foundation (limiting scour elevation) assigned by the base elevation in the dam breach element. The deadpool is then eliminated from the reservoir routing. The reservoir flow depths are based on the deadpool elevation and the reservoir will not drain lower than the breach foundation elevation. This reduces the reservoir flow depths for the routing algorithm.

Two additional files are created: TOPO\_RES.BAC and MANNING\_N\_RES.BAC. These files have the new reservoir n-values and deadpool topography and the revisions can be made permanent by renaming these files to TOPO.DAT and MANNINGS\_N.DAT and by deleting the FPLAIN.DAT file which will be recreated with the next simulation automatically.

Finally, the reservoir routing algorithm was revised. Instead of using Manning's equation in its original form, the equation was revised so that the depth or hydraulic radius exponent is computed as a function of the flow depth and slope:

$$V = 1.486/n \text{ depth}^{\text{exp}} S^{1/2}$$

where:  $\text{exp} = 0.5 - 0.0004 * \text{depth} - 30.0 * \text{water surface slope}$

This results in a depth average velocity on the order of 0.1 to 1.0 fps (0.03 to 0.3 mps) for depths over 20 ft (6.7 m). This equation is based on observations of reservoir surveys and from personal experience (7/13/17). Build No. 17-08-17.

267. The shallow n-value roughness can be spatially variable by simply creating a SHALLOW\_SPATIAL.DAT file with grid element number a shallow n for those grid elements with a shallow n-value that is different from the global SHALLOW value assigned in the CONT.DAT file. Spatially variable SHALLOW values will be useful when assigning flow over streets and parking lots.

For the 1-D channel component, the shallow n-values are assigned by channel segment using the ROUGHADJ variable. The channel segment SHALLOW value is the global SHALLOW assigned in CONT.DAT unless the ROUGHADJ is assigned as the fourth variable in line 1 of the CHAN.DAT file for each segment. If ROUGHADJ is assigned then  $\text{SHALLOW} = \text{ROUGHADJ}/2.0$ . (7/13/17). Build No. 17-08-17.



- 268. A file DAMBREACH\_VOLUME.OUT was created to report the total volume of the breach discharge for the dam breach erosion component (7/13/17). Build No. 17-08-17.
- 269. Adjustments were made to the dam breach channel slope computation through the dam to account for the size of the core. The dam breach submergence criteria was also modified to limit the submergence factor to 0.01. Finally, the distribution of the sediment scour in the breach was edited to allow the user to control the removal of the sediment to the breach channel bed or sides of the trapezoidal channel by adjusting the BRATIO parameter. The higher the BRATIO variable, the faster the breach width expands and the slower the vertical rate of erosion. A typical value of BRATIO is 1.5 and general range for this parameter is 0.5 to 4.0 (7/13/17). Build No. 17-08-17.
- 270. An error was found in the Mudflow routing component related to the model OpenMP code implementation. Several variables were did not have a correct array assignment and viscous flows behaved like water. The parameters in question were initially globally assigned but to enable parallel processing, they had to be locally assigned to be distributed to the processors simultaneously and couple associated with the viscosity and yield stress were missed (10/13/17). Build No. 17-08-17.
- 271. The roof runoff was based on an artificial head of at least 0.5 ft above the exterior building ground elevation. This head criteria was changed to 0.5 ft above the exterior building water surface elevation in case water is ponded against the building. With this revision 0.5 ft (0.167 m) is added to the water surface elevation (if any) on the grid elements contiguous to the building to ensure rainfall runoff from the roof when the IRAINBUILDING switch in 'on' (11/15/17). Build No. 17-08-17.
- 272. The building collapse routine did not reset the flow width correctly and the flow wasn't going through the building after the collapse (1/24/18). Build No. 18-01-18.
- 273. A new street gutter flow option was implemented that enables the flow to be routed in a cross section defined by the curb height and a 2% street cross slope. This option is only available for floodplain elements that represent the street. It is not an option for the 1-D street routing component. To activate this option it is only necessary to create the GUTTER.DAT file in the project folder. There is a street gutter white paper that describes the option and the required data file (1/26/18). Build No. 18-01-18.
- 274. The obsolete numerical stability parameter WAVEMAX in TOLER.DAT was removed (1/26/18). Build No. 18-01-18.
- 275. A minimum n-value of 0.065 is automatically assigned to reservoir elements (1/26/18). Build No. 18-01-18.
- 276. The LEVEE.OUT file format was edited (1/26/18). Build No. 18-01-18.
- 277. A number of subroutines were separated from the main program and OpenMP was implemented for some new loops. This will speed up the model for most large projects (1/26/18). Build No. 18-01-18.
- 278. A sediment concentration output variable was added to the outflow node discharge output file OUTNQ.OUT (1/26/18). Build No. 18.01.18.

279. A warning message was added for the condition when a hydraulic structure headwater depth exceeds the maximum assigned rating table stage. This results in a constant discharge for the duration that the maximum stage value is exceeded (2/13/18). Build No. 18.01.18.
280. A recently implemented error in a channel termination variable was discovered because no discharge was leaving the channel interior elements. All the channel flow was exchanged with the floodplain through the two channel bank elements (2/25/18). Build No. 18.01.18.
281. Zeros are no longer required in the RAINCELL.DAT file for NEXRAD real storm event simulations. The GDS and QGIS pre-processor programs will not write zeros to this file when interpolating the NEXRAD pixels or ASCII format real rainfall data to the FLO-2D grid elements. This will make the file significantly smaller (3/5/18). Build No. 18.01.18.
282. The NOEXCHANGE channel floodplain option was eliminated. NOEXCHANGE elements in CHAN.DAT disabled the channel floodplain discharge sharing for those elements. The routine became obsolete when the culvert component was developed. Previously it was used to model channel reaches that went underground (3/5/18). Build No. 18.01.18.
283. A minor reporting error in HYCROSS.F90 related to double precision numbers was fixed so that the maximum discharge correctly reflects the output interval discharge (3/5/18). Build No. 18.01.18.
284. The starting computation timestep was reset from 5 seconds to 1 second after initially increasing it to 5 seconds last year. It was discovered on some projects with very steep frontal wave flood that the 5 seconds timestep was too large and caused initial volume conservation errors (3/5/18). Build No. 18.01.18.
285. For the case where a hydraulic structure diverts water from one channel to another separate channel (not part of the same channel), a switch was needed to identify that the flow in each channel continues downstream of the hydraulic structure. The hydraulic structure switch for joining two channel segments is to assign (IFPORCHAN = 1) as a negative value (-1) in the S-Line of HYSTRUC.DAT (3/19/18). Build No. 18.01.18.
286. Edits to the OMP code removed some conflicts that caused racing or minor variation in some variables. This eliminated differences in the results for multiple simulations using the same data files and executable (3/19/18). Build No. 18.01.18.
287. A bug was fixed for hydraulic structures that joined channel elements separated by more than one grid element in the 6 to 8 flow directions. The local direction was defaulted to the 8 direction because there was no connection direction. If the channel was joined by a hydraulic structure, but the upstream channel direction happened to be direction 8 (NW), then a conflict occurred that caused a major volume conservation error. The local direction was reassigned to the opposite of the upstream channel element direction (3/20/18). Build No. 18.01.18.



288. A recent code revision resulted in a major channel volume conservation error because channel outflow elements were excluded from reporting by identifying only floodplain elements for outflow volume. The code was moved to a new subroutine and the channel identifying parameter was inadvertently left out (4/9/18). Build No. 18.01.18.
289. The new gutter routine had a couple of variables that were assigned the wrong array size associated with the number of grid elements instead of the number of sides (4/9/18). Build No. 18.01.18.
290. Some warning messages for hydraulic structures were not getting reported to ERROR.CHK because of a reporting format issue that was resolved (4/9/18). Build No. 18.01.18.
291. A missing array index was fixed for reporting the maximum mudflow hydraulics. This error that was introduced in January 2018 and had the effect of slowing down the model by almost 10 times (4/26/18). Build No. 18.01.18.
292. A number of revisions were made to help speed up the model with the review of the 291 bug fix above. These included revisions to the OMP code, separation of the code into more subroutines, and elimination of extraneous tests of the stability criteria (4/26/18). Build No. 18.01.18.
293. Some changes were made to the floodplain cross section reporting. The resolved velocity was eliminated from the HYCROSS.OUT file. This variable did not appropriately represent any velocities for the cross section. The average flow width computation was revised to correctly represent the straight line distance of the wetted top width. The average velocity reporting was adjusted for shallow depths and no flow width to avoid infinite values. The average velocity is computed by dividing the floodplain discharge by average flow area and flow area is slightly different with the change in flow width (5/7/18). Build No. 18.01.18.
294. The length of the hydraulic structures name was extended from 15 characters to 30 characters. A warning message was added for the length of the hydraulic structure exceeding 30 characters (4/30/18). Build No. 18.01.18.
295. Multiple outflow nodes can be designated to write the outflow hydrograph to the inflow nodes, the sediment concentration by volume is now calculated. Sediment concentration by volume up to nine separate downstream grid system is generated and write to the INFLOW.DAT file. The ID character O in the OUTFLOW.DAT file must be assigned O1, O2,...O9 (5/4/2018). Build No. 18-01-18.
296. The dam breach reporting criteria was revised to conform with the California Office of Emergency Services regulatory actions effective on 4-18-2018 (Water code sections 6160 and 6161, sections 11346.1 and 11349.6) that deflood time is the time elapsed from the initial failure of the dam until the measured location returns to within 1 ft of its preflood water (6/03/18). Build No. 18-01-18.
297. The sediment transport routing was removed from floodplain routing subroutine and placed in the update subroutine after the computation timestep loop. This reflects the uncoupled nature of the sediment transport and flow hydraulics because FLO-2D

timestep is so small. For sediment transport analyses, this eliminates extra computations during the flow routing algorithm (7/26/18). Build No. 18.07.18.

298. A number of codes revisions were made to simplify and automate the model response to evacuated elements including:

- The separate computational loop for evaluating the evacuated cells was eliminated.
- The limitation on the number of times (1,000) that evacuated elements were encountered was eliminated. The number of times each floodplain or channel element is now evacuated is listed in the EVACUATEDxx.OUT files.
- Evacuated element n-values are increased by 0.001 to a limit of 0.250 for both the floodplain and channel.
- The model terminates the current timestep loop and reduces the timestep by 1 percent.
- The evacuated channel element TOL value is increased to 0.2 ft (0.067) if TOL is less than 0.2 ft (0.067 m) and increases the TOL by 0.02 ft (0.006 m) if greater than 0.2 ft up to a maximum value of 0.4 ft (0.122 m).
- The floodplain evacuated element TOL value is increased to 0.1 ft (0.03) if TOL is less than 0.1 ft (0.03 m) and increases the TOL to 0.25 ft (0.076 m) if greater than 0.1 ft (0.03 m).

The focus is to adjust the flood hydraulics and the depression storage rather than the timestep for evacuated elements at shallow flows (8/30/18). Build No. 18.07.18.

299. Multiple initialization and allocation of arrays were reviewed and revised to avoid conflicts in parallel processing (8/30/19). Build No. 18-09-19.

300. An OpenMP Loop was turned off in the Overland Subroutine. (9/15/18) Build No. 18-09-19.

301. An internal trigger was set to distinguish between n-value revisions with the limiting Froude number and those associated with Courant number stability conditions. This was for reporting purposes in ROUGH.OUT so that only the n-value revisions associated with the limiting Froude were reported in this file (9/15/18). Build No. 18-09-19.

302. The reporting of the average water surface elevation in HYCROSS.OUT was changed to reflect the average bed elevation plus the average flow depth instead of the average of the water surface elevation. The computation was distorted if there was no flood depth (9/15/18). Build No. 18-09-19.

303. A mudflow sediment volume parameter was initialized to zero when sediment loading volumes instead of sediment concentration by volume is input into the INFLOW.DAT file (9/15/18). Build No. 18-09-19.

304. New and revised error/warning messages were established for storm drain projects without subcatchments/rain gages and projects with inconsistencies in the features table order for the SWMM.INP, SWMMFLO.DAT and SWMMOUTF.DAT (9/15/18). Build No. 18-09-19.

305. The no flood graphics warning message for the variable IDEPLT in INFLOW.DAT was improved for clarity (9/15/18). Build No. 18-09-19.
306. The TIME-STAGE array data in OUTPUT.DAT was expanded to 2,500 pairs of time intervals to enable longer tidal simulations (9/15/18). Build No. 18-09-19.
307. A new file ARF\_ADJUSTMENT.CHK and warning message was created to write the ARF values greater than 0.95 that were revised to 1.0 because the ERROR.CHK file was too cumbersome for this reporting (9/15/18). Build No. 18-09-19.
308. The ROUGH.OUT descending order sorting function was revised to allow for a greater number of reported n-value revisions (9/15/18). Build No. 18-09-19.
309. For mudflows, a flow depth update loop was repositioned for parallel processing code to avoid an error of missing the flow depth update for some grid elements because of array index conflicts (9/15/18). Build No. 18-09-19.
310. The SIMULATION SUMMARY dialog box was edited to provide the directory folder name on the dialog title so that multiple simulation summaries could be correctly identified (9/15/18). Build No. 18-09-19.
311. Early model cessation at the end of a simulation before the completion of the SUMMARY dialog box was eliminated by completely re-importing all the source files and recompiling the entire project (9/30/18). Build No. 18-09-19.
312. If there are more than one hydraulic structure, some of the structure results being reported to HYDROSTRUCT.OUT were excluded because of the timestep results in a simulation time greater than the last output interval and the number of output intervals are miscounted. The fix was to put the read end of file line number reference in the loop, not outside the loop (10/29/18). Build No. 18-09-19.
313. An error message was created for WRF values greater than one. The QGIS interpolation resulted a few WRF values greater than one. This will be rectified in the QGIS also (10/29/18). Build No. 18-09-19.
314. A line of code was added to make sure that if the ARF value was initial set to 1.0 or was reset to 1.0 at runtime because of a small surface area percentage, all the WRF values for 8-directions are all set to 1.0 (blocked) (11/27/18). Build No. 18-09-19.
315. The following information was added to the end of the SUMMARY.OUT file: Grid size, total number of grid elements, and project domain area (11/1/18). Build No. 18-09-19.
316. In anticipation of eliminating the FPLAIN.DAT and CADPTS.DAT, the TOPO.DAT file is initially identified and read. A new binary file, NEIGHBORS.DAT, is generated with the contiguous grid elements in each of the 8-directions is generated, if it is missing, and this file is then read in subsequent simulations for that project. This eliminates the need to generate the contiguous cell neighbors for each simulation (12/12/18). Build No. 18-12-20.
317. A review of the mudflow component applied to large fire impact projects revealed that the mudflow routing routine velocity computation was being superseded in the full dynamic wave computation during multiple sweeps of the OMP code. This had the effect of simulating portions of the mudflow as water resulting in higher velocities and

shallower depths than the mudflow component would compute. It is unclear when this occurred, but it may be necessary to rerun some simulations from this year to determine if the mudflow results are different. It should be relatively obvious if the mudflow simulation was behaving like water and was too fluid. This won't occur or be apparent on smaller projects (12/12/18). Build No. 18-12-20.

318. The multiple channel (rill and gully flow) routine was improved for mudflow simulations. A volume conservation issue was encountered when the mudflow and multiple channel routines were combined in the same simulation. This combination of components has not been previously attempted to our knowledge (12/12/18). Build No. 18-12-20.
319. The evacuated elements reported in the EVACUATFP.OUT file were not properly adjusted for multiple channels. This slowed the model down and results in volume conservation error (12/12/18). Build No. 18-12-20.
320. When a time to failure for prescribed levee or dam breach greater than zero was assigned, the breach volume was still being written to the DAMBREACH\_VOLUME.OUT file as an instantaneous failure. This reporting bug was to this new file was fixed (1/1/19). Build No. 18-12-20.
321. The DEPRESSED\_ELEMENTS.OUT file listing the elements that are lower in elevation than all of their contiguous neighbor elements by a specified elevation (typically 3 ft or 1 m) was revised to include x- and y-coordinates so the elements can be easily located in QGIS (1/4/19). Build No. 18-12-20.
322. The implementation of the new binary file NEIGHBORS.DAT (item 316) required the relocation of some of the Gutter routine variables and several had to be relocated again to the location in the code where the Gutter data was input. A fatal Fortran was encountered when reading the data (1/18/19). Build No. 18-12-20.
323. For flow entering the upstream end of the channel from the floodplain, an interior channel element was misidentified as a bank element. The flow entered the channel but was not uniformly distributed (2/6/19). Build No. 18-12-20.
324. In accordance with item 322 above, a variable that was no longer used was discovered with the relocation of the allocation subroutine. This variable was being assigned a zero initialization but had no array size resulting in Fortran error (2/12/19). Build No. 18-12-20.

***Revisions and bug fixes in the Processor Programs include (most recent at the bottom):***

1. GDS – Froude.TMP deleted from project folder when project is saved (5/7/12).
2. GDS – Supplement.DAT variables limited to real number with 2 decimals (5/7/12).
3. GDS – General culvert equation dialog box activates when selected (5/7/12).
4. GDS - Right bank check error message changed to “Check Error.chk file for potential bank errors.” (5/7/12).

5. GDS – Change WRF values to write the values as ARF WRF(1,2,3,4,5,6,7,8) in the correct order (5/7/12).
6. GDS – Changes made to the writing, reading and porting of the hystruc.dat file (5/7/12).
7. GDS – SWMM display of outflow nodes fixed (5/10/12).
8. GDS – Allow ibackup = 2 to be written to the control variable dialog box (5/11/12).
9. GDS – Shallow n-value range validation changed to 0.01 to 1.0 (5/17/12).
10. GDS - Add D line for storm drain in HYSTRUCT.DAT to limit outlet discharge with multiple inlets (5/17/12).
11. GDS - Hydrograph import error for HEC-1 output files. The 1 hour discharge import error fixed. (7/10/12)
12. GDS – Channel tools moved to channel drop down on tools menu (7/19/12).
13. GDS – Add File Create Grid – Shape file of the computational domain (7/19/2012).
14. GDS - Zoom function with images was refined to avoid zooming out to full view when importing images in a zoom configuration. Infiltration display was turned off when initializing the GDS to eliminate the infiltration the color coverage (10/25/12).
15. GDS - The rain data editor was updated to include the IRAINBUILDING switch on Line 1 of the RAIN.DAT file (10/25/12).
16. GDS - Activated view of any component when created (10/25/12).
17. GDS - Outflow for multiple grid system (10/25/12).
18. GDS - Deleted C F line at LEVEE.DAT when there are no fragility curves (10/27/12).
19. GDS - Pit tool: watershed directions for selected watersheds (10/29/12).
20. GDS - Floating variables editor (Reduction Factors): add “Completely Blocked Grid Element” for and Optional ARF value (10/30/12).
21. GDS - Channels from HEC-RAS: filter stations outside left and right banks (11/28/12).
22. GDS - XSEC.DAT from HEC-RAS is now written with river mile name (12/07/12).
23. GDS - TOLER 2nd line (1,2 or 3 Courant values for floodplain, channel, and street (12/18/12).
24. MAXPLOT - Simplified the do loops for reading the TOPO.DAT file to create the array of contiguous grid elements. This enables the program to load significantly faster (12/18/12).
25. PROFILES - When the water surface profile is plotted, a new file is written WSURF\_DIFF.OUT that contains the channel grid element number, cross section name from XSEC.DAT, measured (surveyed) or reported water surface elevation from WSURF.DAT (e.g. HEC-RAS predicted water surface elevation), the FLO-2D predicted water surface, and the difference between them (measured - FLO-2D predicted) (12/18/12).
26. PROFILES - Reading and writing NOFLOCs were added back to PROFILES so that the program can be used for either Version 2009 or the PRO model (1/8/13).
27. GDS - Green-Ampt: new dialog with infiltration calculations for range of cells (01/16/13).



28. GDS - Created cross sections from HEC-RAS file excluding the stations that are outside the left and right banks (01/18/13).
29. GDS - Can now accept Manning value of -99 (01/20/13).
30. GDS - Prints PIT.DAT after applying pit tool: write new elevation, old elevation, and difference (02/16/13).
31. GDS - Pit tool: color rendering of elevation differences (02/17/13).
32. GDS - Pit tool colors for selected watersheds (02/20/13).
33. PROFILES - A new tool was added to the PROFILES to interpolate n-values to flow area. A new icon command on the tool bar activates a dialog box that will display minimum, maximum and average flow areas to the lowest top of bank. The user enters flow area range for interpolation and minimum, maximum and average n-values and the program will assign an n-value to every channel element based on the flow area interpolation. Automated adjustments for adverse slope can also be made (2/25/13).
34. GDS - New infiltration dialog with Horton infiltration. New dialog for channel infiltration with initial and final hydraulic conductivity, and max. soil depth (02/28/13).
35. GDS - Changes in SWMM module to read all lines in [CONDUIT] group in .INP file (03/12/13).
36. GDS - Express editor now includes Horton infiltration (03/20/13).
37. GDS - SWMM module reads connections and draws them with text id (05/21/13).
38. GDS - SWMM module: energy grade lines (06/21/13).
39. GDS - SWMM dialog was revised to add the flapgate option (6/25/13).
40. GDS - Changes were introduced to the SWMM dialog to add the inlet type 4 (rating table condition) (6/25/13).
41. GDS - SWMMFLORT.DAT is created to contain the rating table for all inlets type 4 (6/25/13).
42. GDS - FLO-2D Graphical User Interface has been expanded to plot the inflow and return flow hydrographs as well as the hydraulic and energy grade lines of the drain system (6/25/13).
43. GDS PRO: SWMM dialog with inlet type dropdown list with values 1 to 5. (7/20/2013).
44. GDS PRO writes "Professional Model - Build No. 13-07-05" instead of the previous "Professional Model - Build No. 12.01.01" at the end of the first line of CONT.DAT. (7/31/2013).
45. EPA SWMM GUI - Recompiled to activate the option to review the FLO-2D – EPA SWMM storm drain results in the EPA SWMM GUI once a run has been successfully completed (6/25/13).
46. GDS PRO: stage-time channel and floodplain. Reads/write OUTFLOW.DAT with these changes: the first lines are "K" or/and "O" with stage-time (only the cell number). The corresponding "N" (followed by ""S") lines are written later. At the end of the file, "O" lines without hydrograph are written. (8/14/2013).

47. GDS PRO: drop down list in the dialog to set tail water effect with values 0, 1, or 2. It also reads/writes that variable in HYSTRUCT.DAT file. (9/23/2013).
48. GDS PRO: improved levee interpolation for polyline with few points. (9/26/2013).
49. GDS PRO: SWMM omit BR U and BR D lines in .g01 and .g0? files. (10/2/2013).
50. GDS PRO: reads XSEC.DAT with tabs between values. (10/8/2013).
51. GDS PRO: Channel segment identified with a number in Channel Segment dialog, according with order in CHAN.DAT. (10/13/2013).
52. GDS PRO: Infiltration is off when project loaded. If component is off, it is turned on when created. (10/13/2013).
53. GDS PRO: optional adjustment to the levee interpolation when reading a file of points. After applying the first algorithm GDS shows a dialog with the points and intersected cells, and asking if user want to apply the second adjustment. (10/30/2013).
54. GDS PRO: improvements to levee interpolation. (10/30/2013)
55. GDS – Channel connection feature - Add a Pair button removed (10/30/213)
56. GDS – XSEC.DAT file is written completely when Save As is used (10/30/13).
57. GDS – Help Menu linked to GDS PDF file (10/30/13).
58. GDS – EPA SWMM Inlet Dialogs : flat gate text changed to "flapgate" (10/30/13).
59. GDS - Increased size of coordinates in TOPO.DAT to make room for larger coordinates (10/30/13).
60. GDS – Turn infiltration view of when project loaded (10/30/13).
61. GDS – Outflow conditions were fixed in the IN/OUT dialog (10/30/13).
62. GDS PRO: assigns sediment size fractions to cells in 2 ways: from the Mud and Sediment Transport dialog and with a new command "Grid. Assign Parameters to Selection. Variable Sediment Size Fraction". The cells assigned a sediment group are written as "G" lines in SED.DAT. (11/9/2013).
63. PROFILES - The program will now read any order of cross section number in CHAN.DAT and XSEC.DAT. The only requirements are for XSEC.DAT to have an equal number or more cross sections than CHAN.DAT and the CHAN.DAT must have a corresponding cross section number in XSEC.DAT. The cross sections in CHAN.DAT and XSEC.DAT can initially be in any order (11/15/13).
64. GDS PR: highlights channel cells when user clicks a row in the table inside the Channel Dialog. (12/17/2013).
65. GDS PRO: SWMM doesn't need to read/write project path in first line of SWMMFLO.DAT. (12/17/2013).
66. PROFILES – A revision was made to renumber the natural cross section numbers in CHAN.DAT correctly when a channel element is deleted (12/18/13).

67. GDS –Outfall Nodes Dialog was created to read the outfall nodes from SWMM.inp file and write the data on the SWMMOUTF.dat file. This file contains the switch that turn ON or OFF the discharge of an outfall from SWMM to FLO-2D. (01/10/14)
68. GDS PRO: SWMM message when more than one inlet is in same cell. (1/22/2014).
69. GDS PRO: clear Green-Ampt dialog tables when loading new project. (2/5/2014).
70. Mapper++: reads elevations below sea level. (2/11/2014).
71. GDS PRO: fix problem when reading FPLAIN.DAT with name in lower cases. (2/11/2014).
72. Mapper++: fix problem with long project long path and name. (2/12/2014).
73. GDS Basic: interpolation from multiple elevation files changed from .DLL in Fortran to VB6. (2/12/2014).
74. GDS PRO: Manning interpolation from shapefile improved. (2/17/2014)
75. GDS – Recognize the channel confluences for those channel segments with DEPINITIAL equal to -1. (03/17/14)
76. Mapper++: fix displacement of values in cells. (3/19/2014).
77. GDS PRO: Solves the problem when creating a levee with polyline that disappeared after reading it. (4/15/2014).
78. GDS PRO: Interpolation issue between 2 values when creating levees with polyline was solved. (4/16/2014).
79. Mapper VB6: reads TIMDEP.OUT with 6 columns. Reads DEPTH.OUT to produce the Max Combined Channel and Floodplain Flow Depths. (4/17/2014).
80. GDS PRO: changes to confluences dialog. Add confluence pair. (4/18/2014).
81. Mapper++: Reads TIMDEP.OUT with 6 columns. (4/30/2014).
82. GDS PRO: Reads .INP files and gives a message indicating that there are conduits with length less than 20 feet. Writes a file SMALL\_CONDUITS.CHK and opens Notepad with the contents of the file. (5/2/2014).
83. GDS PRO: compares [OUTFALLS] in .INP files with SWMMOUTF.DAT to see if they are in the same order. If not, gives a message. (5/3/2014).
84. GDS PRO: SMALL\_CONDUITS.DAT file name changed to SHORT\_CONDUITS.DAT with header: "Name            Inlet Node    Outlet Node    Length". (5/4/2014).
85. GDS PRO: SWMM new curb height column. (5/6/2014).
86. GDS PRO: enhancements for SWMM interface can be summarize as follow:
  - Message for inlets in the same cell now only shows the ones that are not junctions.
  - Sixth column in SWMM inlets dialog has the title "Height(1) Area(2) Surcharge(5)".
  - In "Notes" a line was added: "v. For Drain Type 5: Range 0 to 5 (see guidelines)". In "Notes" line "ii. For Drain Type 3 and 5" changed to "ii. For Drain Type 3:". (5/18/2014).



87. GDS PRO: problem solved in Infiltration dialog. Grid Element Infiltration are now saved. (5/20/2014).
88. GDS – Storm Drain Inlet New Data was added to the SWMMFLO.DAT. A feature option and a Curb Height were added to last columns in the dialog (06/12/14). Build No. 14-07-08.
89. GDS – Type 5 Inlet was added to the SWMMFLO Dialog for manholes with surcharge condition (06/12/14). Build No. 14-07-08.
90. GDS - Error messages are reported now by GDS and new reported files are created (06/12/14). Build No. 14-07-08.
91. Mapper PRO and Mapper++: fix to max. flow plot when value is zero. (6/12/2014).
92. GDS PRO: Writes LEVEE.DAT lines with negative cell number like F -56732, when the Global checkbox is checked in the levee dialog for prescribed failure. (6/19/2014).
93. GDS PRO: caption "Global – Apply this failure data to all model levee directions" in the levees dialog. (6/26/2014).
94. GDS gives a message when SWMM.INP has a [RAINGAGES] group with TIMESERIES (it should be FILE). (6/22/2014).
95. GDS PRO: ITIMTEP in the FLO-2D variables dialog is a dropdown list with 0,1,2,3, and 4. A value of TIMTEP is needed for 1 to 4 but not for 0. (6/22/2014).
96. GDS PRO: has a checkbox in the inflow/outflow dialog to assign the hydrograph interval (IHOURLY). (7/4/2014).
97. GDS PRO and Basic: reads Courant coefficient correctly from TOLER.DAT. (7/21/2014).
98. GDS PRO: Street Elevation Adjustment. Dialog with these capabilities: (from March 2014):
  - See selected street element elevations and its neighbor's elevations, elevation differences, distance between its centers, slope between them, and Manning coefficients.
  - Elevations and Manning values can be changed to all or selected street elements.
  - Adjust Curb Height by assigning a minimum value to particular street elements or raising its value by an amount, or lowering the adjacent gutter elements.
  - Adjust Cross Slope from crown street elements to its left and right elements giving a slope percentage.
  - From the selected street elements, the cells with the maximum and minimum elevations can be modified.
99. Any two cells can be selected to observe a plot of the slope between them, and the elements that intersect the line that joins them. In the plot, the elevations of the cells between the two selected cells can be smoothed to make continuous leveled elevations
100. GDS PRO: a bug was solved for the confluences assignment. The confluences grid cells were incorrectly assigned for non-adjacent cells (8/01/2014)

101. GDS PRO: Hydraulic structure dialog was revisited to correctly read and write the F lines for Culvert Equations (8/01/2014)
102. GDS PRO: Project with only one confluence is correctly loaded. (8/02/2014).
103. GDS PRO: When a cell of a confluence pair is clicked, the pair is highlighted. (8/02/2014).
104. GDS PRO: CONT.DAT has the text “Professional Model - Build No. 14-08-09” at the end of first line. (8/04/2014).
105. GDS PRO: infiltration dialog checks that Global Soil Porosity is either 0.0 or within range 0.28 to 0.50. (8/10/2014).
106. GDS PRO: infiltration dialog gives a correct warning message associated with the Hydraulic Conductivity value, and gives a new range warning message for the Adjustment field. (8/10/2104).
107. GDS PRO: changes to texts in the Street Elevations Adjustment Tool: now it is called “Cell Elevation Adjustment” to make it more general and not only for street cells. All “Street” texts in the dialog and messages changed to “Cell”. (8/11/2014).
108. GDS PRO: imports street elevations polylines and intersects them to cells. 3 street elevation types are imported: street proper, curb, and crown. (9/20/2014).
109. GDS PRO: improvements to the street polyline import and interpolation to cells according to type of polyline (street proper, curb or crown). (10/13/2013).
110. GDS PRO: All texts in SWMM dialogs and messages change from “EPA SWMM” to “Storm Drain” (10/21/2014).
111. GDS PRO: street polyline import and interpolation: After assigning cell elevations from the polylines, GDS draws the interpolated cells in color: curbs-blue, crown-yellow, and street-green. (11/12/2014).
112. GDS PRO: Hydraulic structures dialog: new checkbox in Flood Structure frame: “Channel to Floodplain”. (11/13/2014).
113. GDS PRO: new TOLSPATIAL.DAT file for individual cell tolerances. New dialog for the assignment of cell tolerances (individual or selection of cells). (01/10/2015).
114. GDS PRO: TOLSPATIAL.DAT written with cells in ascending order (01/10/2015).
115. GDS PRO: Tolerance value in Properties Dialog can be made zero (0) to exclude it (them) from individual tolerance assignment (01/12/2015).
116. GDS PRO: Multiple channels file, MULT.DAT, reads last possible empty lines (01/14/2015).
117. GDS PRO: FLO-2D control variables dialog: "EPA SWMM" text changed to "Storm Drain" (01/20/2015).
118. GDS PRO: Import Horton shapefile and assign Horton value to cells according to polygon intersections (02/05/2015).
119. GDS PRO: Multiple channel's new parameter Surface Sediment Size AVULD50 (02/28/2015).

120. GDS PRO: Import Manning shapefile: division by zero bug fix (03/03/2015).
121. GDS PRO: Turn components view on/off (03/26/2015).
122. GDS PRO: The Storm Drain FLO-2D Inlets dialog was changed for inlets type 2 and 3. The height of the inlet has to be entered for inlet type 2 instead of the area. Sag Height can be now entered for inlet type 3. (03/26/2015)
123. GDS PRO: Inflow/outflow .HYD files saved/read from .../InOutFlow subdirectory of project (03/26/2015).
124. GDS PRO: Import shapefile to define domain with polygon (04/03/2015).
125. GDS PRO: Initial Coordinates dialog: new adjust coordinates sub-dialog (04/15/2015).
126. GDS PRO: virtual memory increase message (04/17/2015).
127. GDS PRO and Mapper Classic: pgup, pgdn, home, end arrows movement (04/23/2015).
128. GDS PRO: The Reductions Factors dialog window has a new check box to assign building collapse elements as Potential Collapsed Cells. It saves/reads ARF.DAT, writing/reading T lines with negative cell values for totally collapsed cells or for individually selected cells (05/18/2015).
129. Mapper PRO: Fix combined floodplain and channel max flow depth plot due to change in FLO-2D version (05/23/2015).
130. GDS PRO: Enhanced Storm Drain error and warning messages (05/25/2015).
131. Mapper PRO: Plots the range values for all depth and velocity variables between selected minimum and maximum values. A new dialog box was implemented for this option (06/08/2015).
132. GDS PRO: Now reads the SWMMOUTF.DAT with potential empty lines at the end of the file without causing errors (06/09/2015).
133. GDS PRO: Calls Activator.EXE from Help command to activate the update license to simplify the activation process and avoid having to download the activator program. The command is: "Help. Activate..." (06/21/2015).
134. GDS PRO: Fixes an error in the street width assignment. It is now possible to assign 0 (zero) value for street width directions in Street Realignment Tool (06/22/2015).
135. GDS PRO: Alignment of streets: assign 0 (zero) value to new width directions (06/22/2015).
136. GDS PRO: better response to "Cancel" button in several dialogs (06/29/2015).
137. GDS PRO: new dialog to select components before saving project (07/02/2015).
138. GDS PRO: improvements of error messages when reading data with errors (07/02/2015).
139. GDS PRO and Mapper PRO: improvements to calls to external programs and modules (07/04/2015).
140. GDS PRO: Inflow/Outflow conditions: error capturing when opening command with data errors (07/13/2015).

141. GDS PRO: new command: “View. Components. Storm Drain”, turns on/off plot of inlets, outlets, and connections (07/18/2015).
142. GDS PRO: new checkbox “Storm Drain” in Save Dialog (07/20/2015).
143. Mapper PRO: right click on variable plot to select range of values to plot (min to max) (08/27/2015).
144. Mapper PRO: creation of shapefile of selected range of variables to plot (08/27/2015).
145. Mapper PRO: better response and messages to data input errors (09/03/2015).
146. GDS PRO: SWMM: improved readings of .INP files where there are comment lines (09/26/2015).
147. GDS PRO: activate “View. Components. Levees” when importing levees (09/30/2015).
148. GDS PRO: activate “View. Components. Hydraulic Structures” when creating them (09/30/2015).
149. GDS PRO: activate “View. Components. Channel Confluences” when creating them (09/30/2015).
150. GDS PRO: select cells by intersecting a polygon shapefile (10/26/2015).
151. GDS PRO: SWMM. Recalculation of Max. Depths in [JUNCTIONS] group and saving of .INP file (11/30/2015).
152. GDS PRO: SWMM. New dialog for the recalculation of Max. Depth in [JUNCTIONS] group (11/30/2015).
153. GDS PRO: selection of elements and interpolation of elevations from DTM points (12/30/2015).
154. GDS PRO: improvements to redrawing of DTM points (12/30/2015).
155. GDS PRO: improvements to several file dialogs (12/30/2015).
156. GDS PRO: SWMM: skip comments in [OUTFALLS] group in .INP files (01/04/2016).
157. GDS PRO: new grid element outflow condition with depth discharge. Dialog changes, save and load of OUTFLOW.DAT file (01/27/2016).
158. GDS PRO: LIDAR elevations interpolation: error messages given in one final dialog and not when individual errors are found (01/30/2016).
159. GDS PRO: elevations profile plot along a polyline (03/28/2016).
160. PROFILES: Fixed a read error for natural cross section data bases that was introduced with the previous update (11/04/15). Also added left and right elevations to bed profile and water surface profile plots (11/19/15). Revised the array allocation for rectangular channels with the same bank elevations (1/21/16).
161. PROFILES: Revised to include corresponding low bank vertical extension modification the PRO model. The water surface elevation is now displayed on both sides of an island (3/28/16).

162. HYDROG: The HYCROSS.OUT file format for floodplain cross sections was revised with an addition column of resolved velocities. The HYDROG program was updated to correctly read and plot the discharge data (4/13/16).
163. PROFILES: Fixed the cross section water surface display when the cross section is raised or lower by eliminating the water surface line which no longer is appropriate (4/22/16).
164. GDS PRO: FLO-2D Control variables, Global Data: Shallow Flow n-value valid range was change to [0.0, 1.0] or -99 (04/12/2016).
165. GDS PRO: Command “Highlight Grid Element Number...” Zooms-In to cell with 20 or so surrounding boundary cells. New dialog allows zoom-in or out to 10% to 80%. (04/25/2016).
166. PROFILES: Added a new output file FLOW\_AREA\_VARIATION.OUT to report dramatic changes in flow area between contiguous channel elements and suggested new n-values to accommodate the flow area variation. Also corrected the bank elevations profiles plots when toggling upstream and downstream and fixed the plotting of the cross section water surface elevation lines which were intersecting the origin (5/19/16).
167. MAXPLOT, HYDROG, PROFILES: These programs were compiled for 64-bit computers (5/19/16).
168. GDS PRO: looks in “C:\Program Files (x86) \EPA SWMM5” for EPASWMM5.EXE" when using command "Tools | Storm Drain | Run Storm Drain GUI...". (06/02/2016).
169. PROFILES: Rectangular and trapezoidal cross sections can now be plotted and viewed in the PROFILES program. They cannot be edited according to the station-elevation displayed, however, because the input data representing these cross sections is depth, bottom width and side slopes (trapezoidal cross sections) which can be edited graphically in the GDS. The purpose of this revision is to be able to display the cross section shape for all channel segments and review flow area, wetted perimeter and top width (5/24/16).
170. GDS PRO: The cell elevation can be now interpolated along a polyline using the elevations profile tool. (6/27/16).
171. GDS PRO: The inflow and returning hydrograph plots can be now drawn and save to a folder, this can be done for a single inlet or for all of the inlets in the storm drain simulation. Go to Tools | Storm Drain | Storm Drain Discharge Display. (6/27/16).
172. GDS PRO: The clogging factor data file can be created in the SWMMFLO.DAT data dialog for all types of inlets. (6/27/16).
173. PROFILES: Two water surface plotting errors were fixed for islands. (7/13/16).
174. PROFILES: Revisions were made to enable the program to renumber the channel cross sections upon saving when some channel elements and corresponding cross sections were cut out (8/9/16).
175. GDS PRO: InOutFlow subdirectory to store .HYD files, created when project loaded (08/27/2016).
176. GDS PRO: import levees from polyline when many points are in same cell: assign only one cell number (08/31/2016).



177. GDS PRO: reading polylines to create levees (XYZ files). Those polylines that extend to only a single cell can be excluded, the GDS displays a message asking about which option to take. (09/03/2016).
178. GDS PRO: when reading polylines to create levees, polylines outside the domain are excluded. (09/05/2016).
179. GDS PRO: messages and error detection when reading polylines for levees have been enhanced. (09/11/2016).
180. GDS PRO: The sediment specific gravity range have been changed in the Mud and Sediment Transport dialog [0.0, 3.0]. (09/29/2016)
181. GDS PRO: the writing function of the Storm Drain component was enhanced. The SDCLOGGING.DAT is not written if there is no Clogging Factor for any inlet. (10/05/2016)
182. GDS PRO: FLO-2D compares the rim elevation with the grid element elevation and reports the differences in the FPRIMELEV.OUT. The GDS was enhanced to show a table containing the current inlet depth as well as the new max depth based in the PRIMELEV.OUT changes. The user can reset the elevations in the inp by using the “View .INP Max. Depths...” button in the Storm Drain FLO-2D Inlets dialog, go to Tools|Storm Drain|View Storm Drain Inlets Dialog. (10/20/16). Build No. 16-06-16.
183. GDS PRO: TOLSPATIAL.DAT: values with zero tolerance are skipped (11/10/2016).
184. GDS PRO: Storm Drain: .INP file invert elevations and Max. Depth recalculated and written (11/11/2017).
185. GDS PRO: Storm Drain: new dialog for the recalculation of Max.Depth in .INP file (11/18/2016).
186. GDS PRO: Storm Drain: reading [CONDUITS] block with comments (12/13/2016).
187. GDS PRO: calls to FLO-2D models, FLOPRO.EXE or FLOPRO BASIC.EXE depending on user license (01/18/2017)
188. GDS PRO: call to execute SWMM 5.0 GUI from C:\Program Files (x86)\FLO-2D PROEPASWMM5.EXE (01/21/2017).
189. GDS PRO: license date checks from especial file (22/02/2017).
190. GDS PRO: creation of FPLAIN.DAT and CADPTS.DAT from TOPO.DAT and MANNINGS\_N.DAT (03/09/2017).
191. GDS PRO: changes to value ranges of FLO-2D variables: laminar flow resistance and time lapse output (03/14/2017).
192. GDS PRO: INFIL.DAT read: message when INFMETHOD=1 (Green-Ampt) and 4<sup>th</sup>. Line missing (03/17/2017).
193. GDS PRO: new splash window with license checks and messages (03/31/2017).
194. PROFILES: the computation of the natural channel cross section flow area was modified to be consistent with the revised top of bank delineation to the highest top of bank in the FLO-2D model. This modification was made to be consistent with the HEC-RAS

- method of channel flow area. It only affects a small area on the side of the lowest top of bank and includes that volume in the channel instead of on the floodplain (01/23/2018).
195. GDS PRO: Cell's Manning's n-value calculation from shapefile: polygon algorithm improvement. (04/17/2017).
  196. GDS PRO: CONT.DAT reading 4th. and 5th. lines when IFLOODWAY is zero. (04/17/2017).
  197. GDS PRO: infiltration from shapefile: checks that selected shapefile variable has a valid range of values. (04/29/2017).
  198. GDS PRO: new error capture during loading a faulty project. (04/29/2017).
  199. GDS PRO: splash window: issue solved when loading it in some computers. (05/01/2017).
  200. GDS PRO: reading elevation points from. PTS file: recovers when there are format errors in the input file. (05/19/2017).
  201. GDS PRO: splash window: new texts clarifying model use. GDS PRO will always run model FLO2D.EXE, but with the limitations indicated in the splash window. (06/22/2017).
  202. GDS PRO: will not create BREACH.DAT if there are no G-lines (global data). (07/10/2017).
  203. GDS PRO: doesn't write or read the first line with column titles in SDCLOGGINGS.DAT. Column titles are omitted. (07/17/2017).
  204. GDS PRO: new file SHALLOW\_SPATIAL.DAT with cells with shallow n-value different to global shallow n-value. (08/09/2017).
  205. GDS PRO: cell attributes dialog includes field for Spatial Shallow n-value. (08/09/2017).
  206. GDS PRO: new command "Grid. Assign Parameters to Selection. Cell Shallow n-value. (08/10/2017).
  207. GDS PRO: creation/editing of MODFLOW data. Writes files .dis, .lst, .ba6, .pcg, and .de4 for that model. (09/02/2017).
  208. GDS PRO: new FLO-2D MODFLO-2D Manual. (09/24/2017).
  209. GDS PRO: reads \*.PTS files with enhanced error checks. (10/06/2017).
  210. Mapper PRO: fix potential calculating error in the Hazard Map for the mud and debris flow. (19/10/2017).
  211. GDS PRO: reads \*.INP files skipping the SUBCATCHMENT block and identifies inlets as junctions starting with the letter "I". (11/01/2017).
  212. GDS PRO: license dialog show message when there are less than 30 days for its expiration. (11/21/2017).
  213. GDS PRO: writes GUTTER.DAT with a character G at the beginning of each line 2 and displays the individual gutter cells in brown color. (11/23/2017).

214. GDS PRO: A gutter cell can have zero individual width and height, meaning that the global values will apply to them. To make a cell a 'gutter cell', the direction has to be positive (1 to 8). There is also a "No Gutter" direction in the dialog to remove it from the gutters list. (11/29/2017).
215. GDS PRO: Creation of the SWMMFLO.DAT file and SWMMOUTF.DAT file was reviewed for those projects without sub catchments. (8/1/2018).
216. GDS PRO: revision of the Storm Drain Inflow Hydrograph creation for a simulation time that exceeds the 24 hr, previous versions were not generating correctly the inflow hydrograph plots from the SWMM.RPT results. (10/5/2018)

### **Storm Drain Engine (VC2005-CON.dll)**

**Revisions and bug fixes in the FLO-2D storm drain engine include (most recent at the bottom):**

1. Outfall Discharge is transferred from SWMM to FLO-2D (11/10/13)
2. FLO-2D WSE modify the water elevation of Outfall nodes for those cases that apply (11/10/13)
3. A variable that was initialized twice in SWMM Model was corrected (12/01/13)
4. An incorrectly assigned index was found on the SWMM reporting subroutine output\_saveNodeResults (01/31/14)
5. The routing method was hardcoded to Dynamic Wave to account for backwater effects, entrance/exit losses, flow reversal and pressurized flow. The integrated model is directly comparing the FLO-2D WSE versus the SWMM Pressure Head that get from the dynamic wave subroutine in SWMM 5. On the previous versions of the FLO-2D SWMM code the integrated model ran using: Steady State, Kinematic Wave or Dynamic Wave. For that reason, the SWMM head was calculated using the FLO-2D area and the volume coming out from SWMM. In SWMM 5 and only for the dynamic wave, the routing is influenced by the water depths maintained at nodes, the excess volume is assumed to pond over the node with a constant water surface. (06/12/14). Build No. 14-07-08.
6. The inertial terms are hardcoded to Dampen option. The inertial terms are reduced when the flow comes closer to being critical and ignore for supercritical flows (06/12/14). Build No. 14-07-08.
7. The subcatchment area was hardcoded equal to the FLO-2D grid element area (06/12/14). Build No. 14-07-08.
8. The subcatchment width was hardcoded equal to the FLO-2D grid element side (06/12/14). Build No. 14-07-08.
9. The wet timestep was hardcoded equal to 1 min (06/12/14). Build No. 14-07-08.
10. The dry timestep was hardcoded equal to 1 min (06/12/14). Build No. 14-07-08.
11. The lengthening timestep is hardcoded as Routing Timestep divided by six (06/12/14). Build No. 14-07-08.
12. Control an input reported flags are hardcoded. The control data and input data are always reported to the \*.rpt file (06/12/14). Build No. 14-07-08.



13. The Pondered Area array and Allow Pondering switch were hardcoded. The Allow Pondering switch is on and the Pondered Area is equal to the FLO-2D grid cell size. The pressure head at a node can be above the invert elevation + maximum depth and it is calculated by SWMM 5. In this case either flooding or pondering will only occur when the water depth computed at the node in question exceeds some maximum level. This level equals the sum of the Maximum Depth plus any Surge Depth when the node can't pond but just the Maximum Depth when the node can pond. The node cannot pond when it has zero Pondered Area or the Allow Pondering option was turned off (06/12/14). Build No. 14-07-08.
14. An -1#IO expression was found at the \*.rpt output file on one inlet on a large project. This expression means undetermined division and it is a division by zero. The problem was identified on the expression that calculates the change in the node depth (dy) in the dynamic wave routing. The surface area on the node was being reset to 0 and a division by zero was triggering the issue. The problem was solved by setting to zero the change in the nodal depth when the surface area is equal to zero (06/12/14). Build No. 14-07-08.
15. FLO-2D WSE at outfall nodes were revised following the criteria discuss in the FLO-2D SWMM Guidelines (06/12/14). Build No. 14-07-08.
16. Simulation options: Start Analysis (time and date) and End Analysis (time and date) are automatically set based on the simulation time SIMUL in CONT.DAT file (11/4/2014). Build No. 14-11-08.
17. FLO-2D storm drain model crashed when the kinematic wave option was specified. This was fixed (11/4/2014). Build No. 14-11-08.
18. FLO-2D storm drain model was not holding the tailwater BC (outfall) on a specific case where the head in the upstream node of the conduit was higher than the head at the outfall node (12/1/14). Build No. 14-11-09.
19. A volume conservation issue was fixed on the channel component. The flow flowing backwards on the pipeline system through an outfall was incorrectly added to the CHVOLUME.OUT files (12/1/14). Build No. 14-11-09.
20. An -1.#QO expression was found at the \*.rpt output file on one inlet on a large project. The problem was identified on the expression that initializes the nodal surface area in the dynamic wave routing. (01/23/15). Build No. 14-11-09.
21. An -1.#QO expression was found at the \*.rpt output file on one inlet on a large project. The problem was identified on the expression that initializes the nodal surface area in the dynamic wave routing. (01/23/15). Build No. 14-11-09.
22. The SWMM.RPT file was modified to report all Highest Continuity Errors and Highest Flow Instability Indexes instead of just the first 10 errors (5/4/2015) Build No. 15.07.12.
23. The transfer of the outfall hydrographs from the storm drain system to the surface water system was inconsistent. The problem arose from multiple reporting conditions for outfalls nodes versus inlet nodes (5/5/2015). Build No. 15.07.12.
24. Oscillation flow in the storm drain inlet hydrograph was observed when the orifice equation was used. The discharge was reset to zero for some orifice conditions and generated spikes in the inlets (5/5/2015). Build No. 15.07.12.

25. Uniform flow in the storm drain inlet hydrograph was observed when the orifice equation was used. The discharge was hold after the peak for some orifice conditions and generated uniform flow in the inlets (5/10/2015). Build No. 15.07.12.
26. New storm drain returning approach has been implemented (06/10/15). Build No. 15-07-12.
27. Manhole subroutine was revised and modifies to correctly work with the new storm drain returning approach (06/10/15). Build No. 15-07-12.
28. An inconsistency in the transfer of parameters between the FLO-2D surface layer and the storm drain component was identified. This produces zero flow been routed in the storm drain system for some conditions in metrics (06/05/15). Build No. 15-07-12.
29. FLO-2D WSE at inflow and outfall nodes were revised following the criteria discuss in the FLO-2D SWMM Guidelines (06/05/15). Build No. 15-07-12.
30. Surge depth is assigned equal to 500 ft for junctions in the storm drain system. They are connections between pipes that should not flood. Inlet surge is equal to zero unless users set up something different in the SWMMFLO.DAT or in the SWMM.INP (06/05/15). Build No. 15-07-12.
31. Dampen Conditions for the Storm Drain Inflow was imposed to reduce inflow oscillations at inlets (10/22/15). Build No. 15-10-13.
32. Flooding results were averaged over the report timestep (10/22/15). Build No. 15-10-13.
33. Revisions for the inlet discharge and the flooding were made for those inlets under pressure conditions (10/22/15). Build No. 15-10-13.
34. The Storm Drain model was modified to write results to the SWMM.rpt and to the SWMM.out file when the user terminates the FLO-2D simulation early and before the total simulation time is reached (6/27/16). Build No. 16-06-15.
35. The timesteps between the surface water and storm drain engines were synchronized. The two systems now communicate on FLO-2D computational timestep basis. The storm drain system uses the smaller FLO-2D computational timestep for the water volume exchange as well as for the flow routing through the pipe system. With the more frequent water volume exchange at each FLO-2D computational timestep, the inconsistencies with the exchange volumes between the surface water and storm drain systems were eliminated. The storm drain routing timestep is defined using the following criteria:
  - If the user set up a fixed storm drain timestep instead of a variable timestep in the \*.inp file for the storm drain system, then the FLO-2D timestep is used as the routing storm drain timestep.
  - If the user set up the switch for a variable timestep with an adjustment factor in the \*.inp file, an internal variable time step is calculated using the selected adjustment factor that functions as a courant number. In the model enhancement, a variable timestep is calculated using the adjustment criteria. FLO-2D surface timestep is compared with the storm drain variable timestep, and the minimum timestep between them is imposed. If the storm drain minimum timestep is not multiple of the FLO-2D timestep, then a new minimum storm drain timestep is calculated with the condition that it has to be less than the variable timestep calculated by the Courant criteria in the dynamic wave routine, but it must be a multiple of the FLO-2D timestep.

In most of the simulations, the FLO-2D timesteps are small enough for the storm drain solution to converge. If the user observes numerical instabilities in the storm drain results, it is recommended to use the variable timestep with an adjustment factor. The variable time step is calculated using the Courant condition for each conduit (6/27/16). Build No. 16-06-15.

36. When the storm drain flow reaches the soffit of a drop box, the pressure head dampening method is applied for a distance above the invert of 1.25 times the conduit pipe diameter. The surface area is exponentially reduced to the drop box diameter as the flow fills the drop box over this prescribed distance. To more effectively represent the physical system, the pressure head dampening algorithm was to allow the pressure head variation up to be exponentially reduced over to entire drop box to the RIM elevation (6/27/16). Build No. 16-06-15.
37. A new file SDManholePopUp.OUT was created when at least one manhole pops under pressure in the storm drain system (6/27/16). Build No. 16-06-15. This file contains the following information:
  - Manhole ID.
  - Time of occurrence
  - Pressure head
  - Rim elevation + Surge Elevation
  - FLO-2D WSE.
38. A storm drain blockage method was implemented using a clogging factor to simulate the reduction of the inlet capacity (6/27/16). Build No. 16-06-15. A new data input file (SDCLOGGING.DAT) was created with the following format:

ID	Grid Cell	Inlet ID	Clogging Factor - $C_f$ (%)	Time for clogging - $T_c$ (hr)
D	2694	I1	25	0.50
D	2409	I2	50	3.25

The inlet discharge calculated using the orifice or weir equations is subject to a reduction at the time for clogging specified by the user. The inlet discharge is calculated and then reduced using the clogging factor using the following equation:

$$Q_R = (1 - C_f) Q_c$$

where:

$Q_R$  = reduced inflow discharge

$C_f$  = clogging factor

$Q_c$  = calculated discharge using the orifice/weir equations.

39. The StormDrain\_ERROR.CHK file contains all the Storm Drain errors and warnings. They were removed from the ERROR.chk (6/27/16). Build No. 16-06-15.
40. Revision of error and warning messages: Existing errors and warnings for the storm drain system were reviewed and some warnings/errors were expanded. Those error/warnings related to conflicts between storm drain features and surface components as well as the outfall elevations checks were revised. (6/27/16). Build No. 16-06-15.

41. Additional error/warning messages: Additional error checking includes pipe and junction connection elevations. Potential errors are reported to the StormDrain\_ERROR.CHK file. Conduit elevations are also checked to avoid errors in the inlet and outlet offset data. (6/27/16). Build No. 16-06-15. The following message is written for a pipe and junction connection elevations error:

THERE ARE CONDUIT ELEVATIONS WITH POTENTIAL ERRORS THAT CAN GENERATE CONNECTION ELEVATIONS ISSUES WITH NODES. PLEASE CHECK OFFSET ELEVATIONS FOR CONDUITS AND INVERT ELEVATIONS AND MAX DEPTHS FOR NODES.”

42. Revisions were implemented to surface water and storm drain codes to improve the storm drain volume conservation reporting. The storm drain engine volume conservation typically ranges from 0.01 percent to 10 percent, although the goal is to achieve a volume conservation error of 0.1 percent or less. An improvement in the volume conservation reporting was achieved since the system capacity and inflow discharge are known exactly. Some volume conservation losses in the storage assessment were identified and fixed with verification test cases (6/27/16). Build No. 16-06-15. Some of the revisions that were implemented to the FLO-2D surface and storm drain codes are highlighted:

- For real number arrays, the data accuracy was increased from single precision (8 digits) to double precision (16 digits) to calculate the inflow discharge, returning flow, elevations, pressure head, and others.
- The return flow from the storm drain to the surface water was improved. The excess volume, remaining piping volume, pressure head and depth calculations were enhanced for the following two conditions:

RIM < PH > FLO-2D WSE

RIM < PH < FLO-2D WSE

- Some reported volumes were removed from the SUMMARY.OUT file because the recent code modifications.
43. New volumes are reported in the SUMMARY.OUT file (6/27/16). Build No. 16-06-15.
- a. STORM DRAIN SYSTEM STORAGE: storage volume in the pipe system at the end of the simulation.
  - b. STORM DRAIN MASS BALANCE: mass balance volume conservation calculated as:

Total Inflow - Total Outflow - Total Storm Drain Return Flow - Storm Drain System Storage

44. Pathname of the FLO-2D Storm Drain Projects was increased up to 254 characters. There is an intrinsic limitation (256 characters) in one of the functions that is used in C++ to open the inp/rpt files (3/20/16). Build No. 16-06-16.
45. The check for consistency between the SWMM.INP and the SWMMFLO.DAT files were extended for projects with and without subcatchments. The model will stop running if the number of features is different between the INP file and the SWMMFLO.DAT files and an error message will be written in the STORMDRAIN\_ERROR.CHK (1/30/18). Build No. 18-01-18.

46. The manhole flooding calculation was modified when  $PH > FLO-2D\ WSE > RIM$ . The return flow to the surface water is equal to the flow volume in the timestep minus the volume in the vertical pipe (catchment basin or drop box). This volume fills the vertical pipe to the RIM elevation and originally did not include the volume in the pipe from the previous timestep. The revision ensures that all available return volume is transferred to the surface. The reported results now indicate an increase in the manhole return flow manhole node to the surface water for some verification cases as it was expected. (1/30/18). Build No. 18-01-18.
47. The calculation sequence for the two return flow cases:  $PH > FLO-2D\ WSE > RIM$  and  $FLO-2D\ WSE > PH > RIM$  was modified so that the return volume that leaves the storm drain system and enters the surface water is now deleted in the same computational loop where the PH and flooding is calculated for each node and timestep, volume stays in the vertical pipe until it is routed through the SD system or the PH rises above the FLO-2D WSE and then it is exchanged to the surface water. For the case where the  $FLO-2D\ WSE > PH > RIM$ , and the downstream pipe on the inlet has negative velocity (backwater effects in the pipe), the inlet inflow from surface is set up equal to zero regardless the FLO-2D WSE, this was done to avoid fluctuations in the system. (1/30/18). Build No. 18-01-18.
48. The FLO-2D Storm Drain inflow and return flow reported in the SWMM.RPT, SWMMOUTFIN.OUT and SWMMQIN.OUT were modified so that they do not represent instantaneous results but rather are average results over the output interval (1/30/18). Build No. 18-01-18.
49. Revisions were made to the SUMMARY.OUT to make sure it correctly reports the total return flow to the surface (1/30/18). Build No. 18-01-18.
50. Revisions were made to the STORMDRAIN\_ERROR.CHK and ERROR.CHK files and specifically to the warning and error messages for conflict between components (1/30/18). Build No. 18-01-18.
51. The calculation of volume in the vertical and horizontal pipes (drop-box) were reviewed, improvements in the final volume conservation of the FLO-2D Storm Drain model can be expected with this version (1/30/18). Build No. 18-01-18.
52. The following warning error was added to the STORMDRAIN\_ERROR.CHK file: 'INLETS IN SWMMFLO.NEW FILE HAS BEEN ORDERED ACCORDING TO THE JUNCTION TABLE IN THE SWMM.INP, REVIEW SWMMFLO.NEW FILE AND RENAME IT AS SWMMFLO.DAT FILE.'. Those projects with no subcatchments where the inlet order is different between the SWMM.INP [JUNCTION] table and the SWMMFLO.DAT file will show this message. The user needs to review the SWMMFLO.NEW file and renamed as SWMMFLO.DAT file. (8/30/18). Build No. 18-09-19.